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Tomorrow's Technology Today

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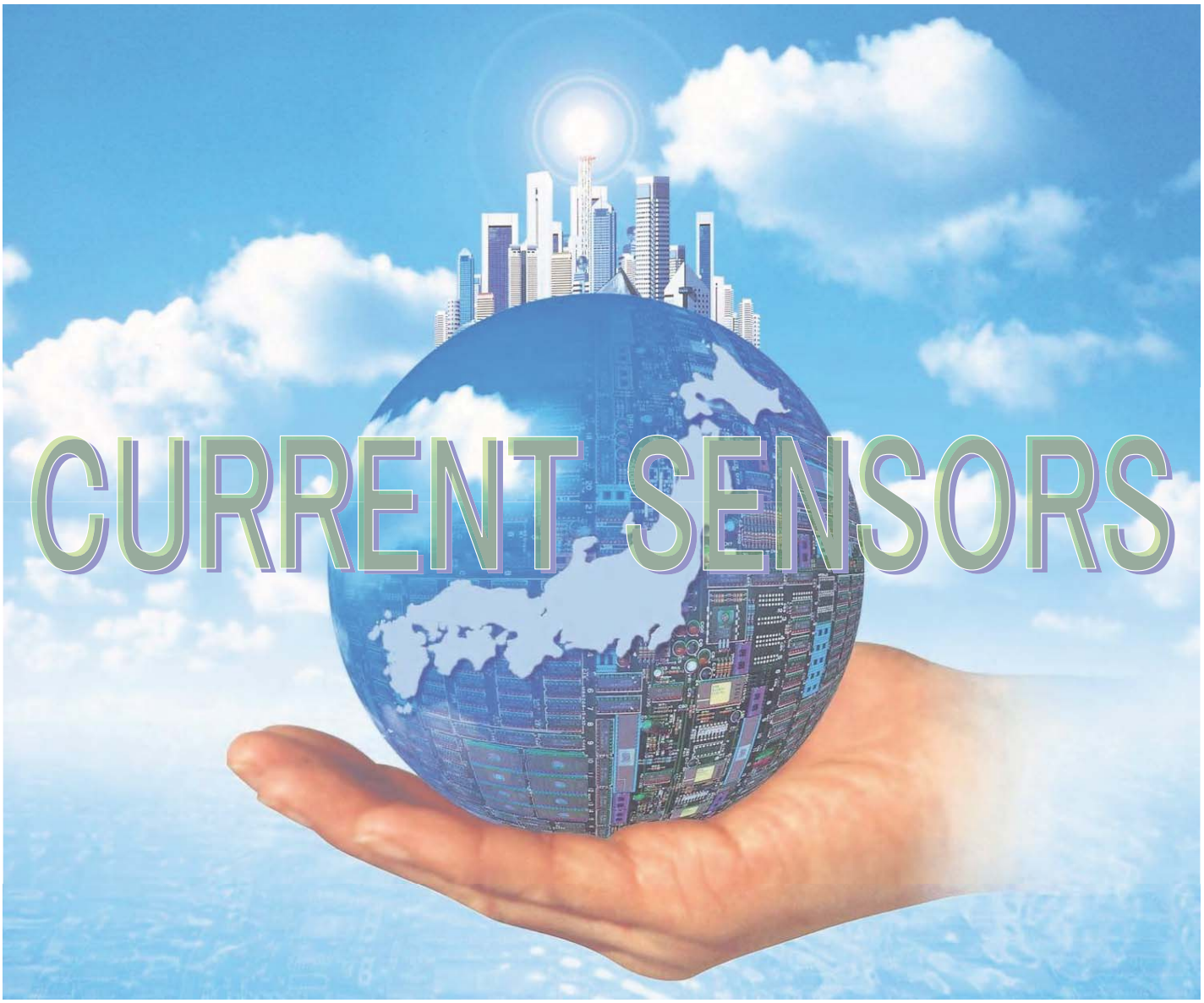

KOHSHIN ELECTRIC CORPORATION

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Contents

Instruction for use

■ HC series and HD series current sensors

1) When the frequency of the input current is high, the core generates an unusual amount of heat due to core loss, and this heat may damage the internal circuits. The amount of heat generated is influenced by the frequency and amount of the input current and differs depending on the type of sensor, so check the performance on the actual machine.
We are able to produce heat generation countermeasure products which use different core materials. Please

2) Since the output varies depending on the size of the load resistance, use with the specified resistance. (The size of the load resistance can be specified by the user.)

3) The signal output driver of the HD Series uses a C-MOS IC. Be careful when handling and avoid direct contact.

4) Output terminal pins 9 and 10 of the HD Series are analog output terminals for small signal input.
Do not connect them to the lead wire or they will be affected by the data and clocking signal.

■ HS series and HM series current sensors

1) Use a resistance which has good accuracy and temperature characteristics for the load resistance which is connected to current output type sensors.

2) Prepare a control power supply the capacity of which is at least twice the rated output current.

3) If the connector is inserted or removed while the control power is being applied, residual magnetism may occur in the core due to the terminal contact timing becoming out of sequence, and the residual voltage may be affected. In addition to turning the power supply on and off while the connector is connected, ensure that the + side and - side of the power supply are matched.

4) In inputting current above rating, note that some models specify energization time.
If the product is used in excess of this time, internal circuit may fail.

5) When current exceeding saturation current is input, magnet compensation will not work, and residual output will cause displacement, therefore, use the product always at current below saturation current.

6) Demagnetize the sensors without applying electric power.

■ Common instruction for all series

1) Erroneous connection of the control terminals will cause the internal circuits to be instantaneously destroyed. Pay sufficient attention to the connection.

2) If static electricity or surge voltage is applied, the residual voltage may be increased.

3) In addition to making the control wiring as short as possible to protect it from outside noise, use twisted wire or shielding wire.

4) Connect a capacitor of approximately 0.1μF between the control power supply and GND.

5) Attach PCB mounting type current sensors firmly to the installation board so that they are not separated from it by more than 0.5mm.
Furthermore, perform the soldering under the following conditions.

Flow solder: Solder temperature approx. 250 degrees C, within 5 seconds
Hand solder: Solder temperature approx. 280～300 degrees C, within 3 seconds
<Pb-free> Flow solder: Solder temperature approx. 260 degrees C, within 5 seconds
Hand solder: Solder temperature approx. 340 degrees C, within 4 seconds

6) The current sensor may be corroded under corrosive gas atmosphere. Make sufficient confirmation under actual service environmental conditions before use.

7) Do not store the sensors in hot or humid environments.

■ Usage limitations for current sensors

The products listed in our catalog are intended for use in general equipments (business machines, measuring equipments, industrial equipments, and home appliances, etc.), not for use under circumstances which may involve human life. They are not intended for use in special applications wherein high quality and reliability are required and the failure or malfunction of the product may cause danger to human body, such as nuclear power stations, transportation apparatuses (automobile, trains, ships, etc.), medical equipments for life support, or safety systems. If you need to use any of our products in one of the above mentioned special applications, please notify us or our agent beforehand for assistance.

■ Export limitations for Foreign Exchange and Foreign Trade Law

A product designated as 'strategic item' is controlled under the Foreign Exchange and Foreign Trade Law and WMD catchall and requires permission from the Japanese Government prior to export. If you are unsure whether a product is controlled, please contact us or our agent for assistance.

■ Concern for safety

While we constantly strive to improve quality and reliability and use materials compliant with safety guidelines, even though unlikely, current sensors can sometimes fail or malfunction. We caution the designer to respect all aspects of safety in order to protect life, prevent injury and prevent property damage should our product accidentally fail or malfunction.

Characteristic

The main characteristics and their details are described below.
Each characteristic is specified at an ambient temperature of 25 degrees C and with the stipulated control voltage (± 1% or less error) applied. (Only the control voltage is specified for the temperature characteristics.)

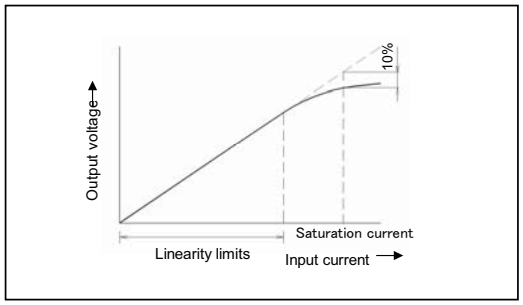
1) Rated output
Denotes the output when the rated current is input to the primary side.

2) Residual output
Denotes the output when the primary side input is zero. This measurement is performed after the core is demagnetized (an AC current equivalent to the rated current is input to the primary side and slowly made zero).

3) Linearity
Denotes the error in the actually measured output value and the estimate output voltage calculated by the least mean squares method from the output and residual output when the rated current and 1/2 rated current are

4) Saturation current
Denotes the input current value for which the output deviates from the estimate output voltage by more than

(fig.4)

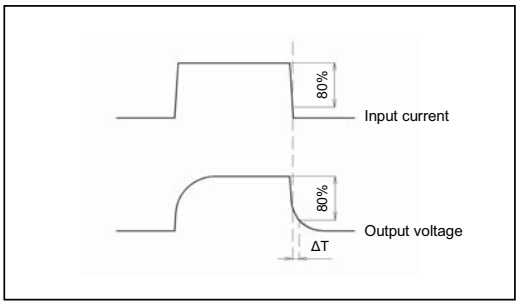


5) Linearity limits
Denotes the range of the input current value for which the output is within 1% of the estimate output voltage.

6) Output temperature characteristic
Denotes the rate of temperature change of the output (value after the residual output is subtracted) when the rated current in input within the working temperature range. (The rate of change is shown per 1 degrees C with the output at 25 degrees C as the reference.)

7) Residual output temperature characteristic
Denotes the temperature change of the residual output within the working temperature range. (The change per 1 degrees C is shown.)

(fig.5)

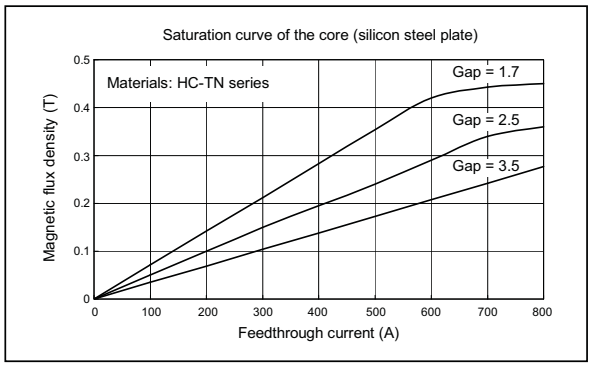


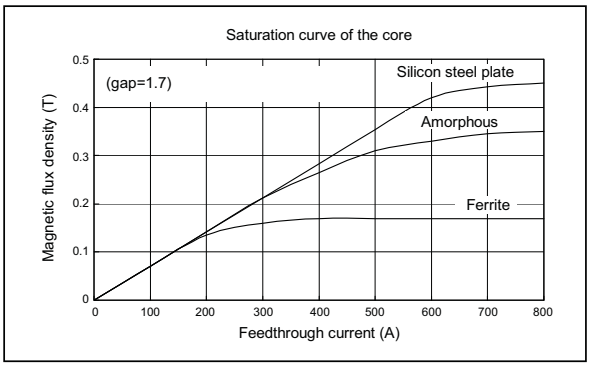
8) Response time
Denotes the output response time (ΔT) when a pulse current is input as the input current. ΔT is shown as the time difference of when the input and output waveforms drop to 80% of their initial levels.
However, set the smaller one on either input pulse current (di/dt)=100A/μs or If/μs.

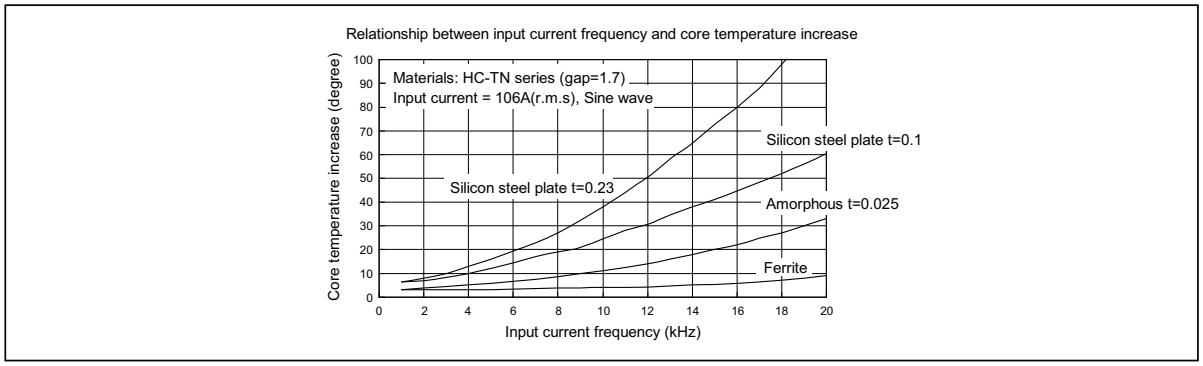
9) DC currents continuously flowing through board mount models (with a primary winding).
The DC currents continuously flowing through board mount models (with a primary winding) are limited by the wire diameter of the winding used in them. With some exceptions, our current sensors (with a primary winding) normally have $1/\sqrt{2}$ of the rated DC current set as a continuously flowing current. The relationships between the wire diameters of primary windings and the continuously flowing DC currents are summarized in the table below. Continuously flowing DC currents should be equal to the r.m.s. values of AC currents.

Wire diameter	Continuously flowing DC current (A)
Φ0.4	2.2
Φ0.5	3.5
Φ0.6	5
Φ0.8	8.8
Φ1.0	13.8
Φ1.1	16.7
Φ1.2	19.9
Φ1.3	23.3
□ 1 x 2	35
Φ1.6	35.4
□ 1.2 x 2	36.8
Φ1.1 x 2	33.4
Φ1.4 x 2	54.1

10) Characteristics of core





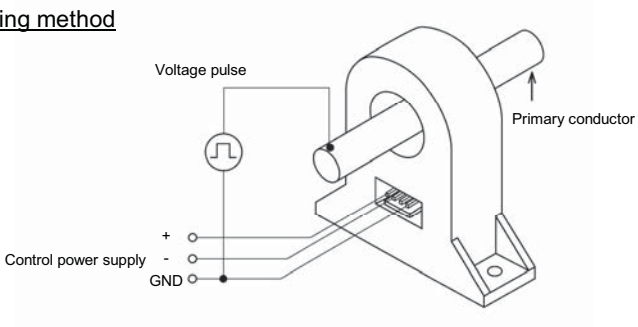


11) Noise testing method

(1) Effects of dv/dt

Waveform of the output voltage when the voltage pulse of dv/dt=300V/μs is applied.

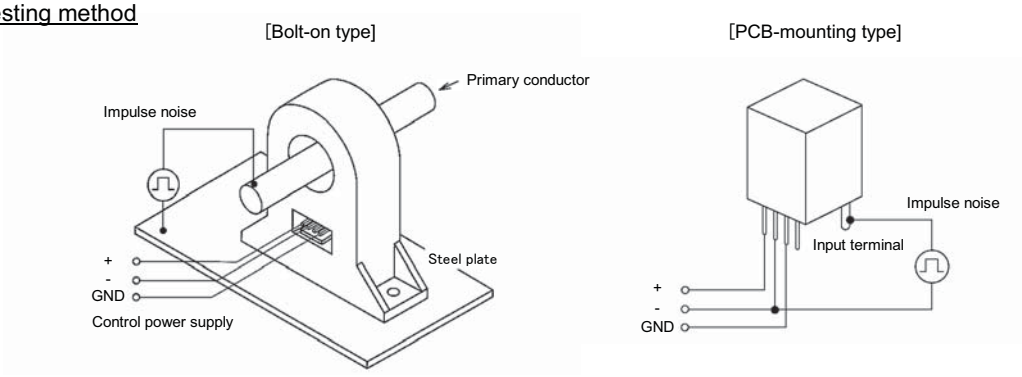
Testing method



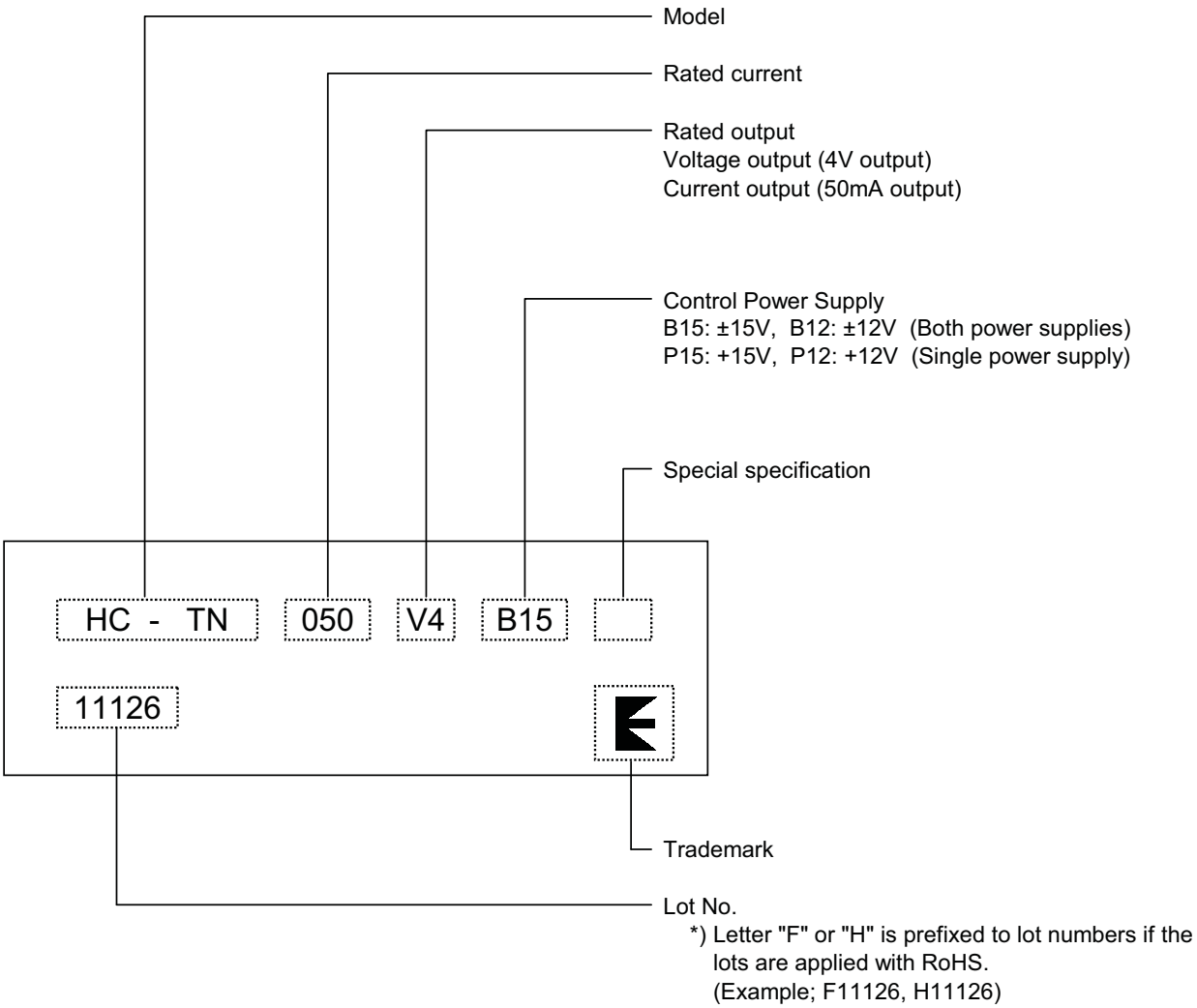
(2) Effects of impulse noise

Waveform of the output voltage when the impulse noise of rise time 1ns, pulse with 1μs, and voltage 2,000V is applied.

Testing method



Product marking



Standard max. rating	Input display	Example of display
Series of 70A or less	To the first decimal place	5A･･･05 37.5A･･･375 70A･･･70
Series of over 70A	000 ~ 999	70A･･･070 100A･･･100
1000A or more	E and first two digits	1000A･･･E10 3500A･･･E35 5000A･･･E50

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Type	Rated current (A)																							
	1	5	10	15	20	30	50	60	70	100	200	250	300	400	500	800	1000	2000	3000	4000
■ Open loop system																				
◎ Bolt on type																				
HC-MJ																	■	■	■	■
HC-L																■	■	■	■	■
HC-ML												■	■	■	■	■	■	■	■	■
HC-MN												■	■	■	■	■	■	■	■	■
HC-MSL												■	■	■	■	■	■	■	■	■
HC-MSN												■	■	■	■	■	■	■	■	■
HC-TF							■	■	■	■	■	■	■	■	■	■	■	■		
HC-TTA													■	■	■	■	■			
HC-TTB													■	■	■	■	■			
HC-SL							■	■	■	■	■	■	■	■	■	■				
HC-SN							■	■	■	■	■	■	■	■	■	■				
HC-TN							■	■	■	■	■	■	■	■	■	■				
HC-TS							■	■	■	■	■	■	■	■	■	■				
HC-U							■	■	■	■	■	■	■							
HC-W							■	■	■	■	■	■	■							
HC-WT							■	■	■	■	■	■	■							
HC-VT							■	■	■	■	■	■	■							
◎ PCB mounting type																				
HC-TTC													■	■	■	■	■			
HC-PZ							■	■	■	■	■	■	■	■	■	■				
HC-PT							■	■	■	■	■	■	■							
HC-PTW							■	■	■	■	■	■	■							
HC-PG							■	■	■	■	■	■	■							
HC-PJ							■	■	■	■	■	■								
HC-PVT			■	■	■	■	■													
HC-PSG	■	■	■	■	■	■	■													
HC-PSE			■	■	■	■	■													
HC-PD			■	■	■	■	■													
HC-PDN			■	■	■	■	■													
HC-PDA			■	■	■	■	■													
HC-PAE			■	■	■	■	■													
HC-PL			■	■	■	■	■	■												
HC-PFG		■	■	■	■	■	■	■												
HC-PRZ		■	■	■	■	■	■													
HC-PRX						■	■	■	■											
■ Closed loop system																				
HS-PHA			■	■	■	■	■	■	■											
HS-PHB						■	■	■												
HS-P							■	■	■	■	■	■								
HS-PKD							■	■	■	■	■	■								
HS-PTF							■	■	■	■	■	■								
HS-U							■	■	■	■	■	■	■	■	■	■				
HS-UF										■	■	■	■	■	■	■				
HS-UD													■	■	■	■	■			
HS-K													■	■	■	■	■			
■ Digital sensor																				
HD-TS										■	■	■	■	■	■	■				
■ Magnetic coil type																				
HM-B													■	■	■	■	■			
■ Clamp type AC-CT																				
HA-A		■	■																	
HA-B, C							■	■	■	■	■	■								
HA-BV, CV							■	■	■	■	■	■								
HA-BR							■	■	■	■										

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HC-MJ series

Medium-sized, high-capacity type
Bolt on type

HC-MJ

- Rated current 1000A ~ 4000A
- Protection network internalized for superior surge withstand capability
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

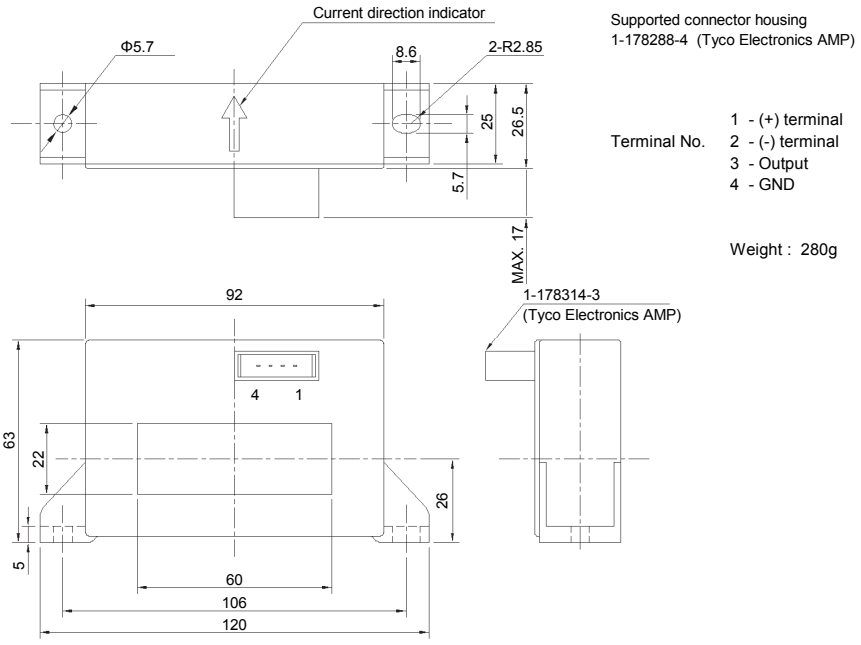
±15V Spec ±12V Spec

Applications

High-capacity inverters (for power plants), High-capacity power supply equipment

Dimensions

(mm)



Supported connector housing
1-178288-4 (Tyco Electronics AMP)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 280g

General tolerance: ±0.5

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Specification

Ta=25°C

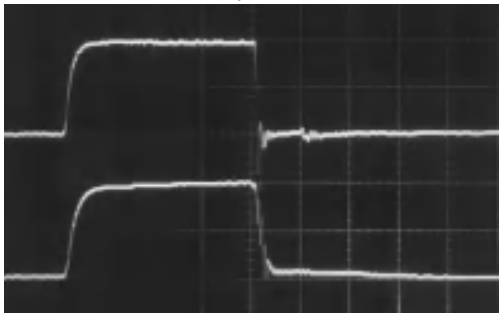
Type		HC-MJE10V4B15	HC-MJE20V4B15	HC-MJE30V4B15	HC-MJE40V4B15
Rated current	[If]	±1000A	±2000A	±3000A	±4000A
Saturation current	[Is]	±2400A	±2400A	±4800A	±4800A
Linearity limits		0~±2000A	0~±2000A	0~±4000A	0~±4000A
Rated output	[Vh]	±4V±1.5%			
Residual output	[Vo]	Within ±30mV			
Output linearity		Within ±1%			
Response time		Within 10μs (at di/dt=100A/μs)			
Response performance		Within 10%			
Hysteresis voltage range		Within 30mV			
Output Temp. Coef.		Within ±0.1%/°C			
Residual output Temp. Coef.		Within ±1.5mV/°C			
Control power supply		±15V±5%			
Consumption current		Within 50mA			
Operating Temp.		-40°C~+80°C			
Storage Temp.		-40°C~+85°C			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

Note1） The indicated rated output is the one when no load is applied.
Note2） The indicated residual voltage is the one after the core hysteresis is removed.

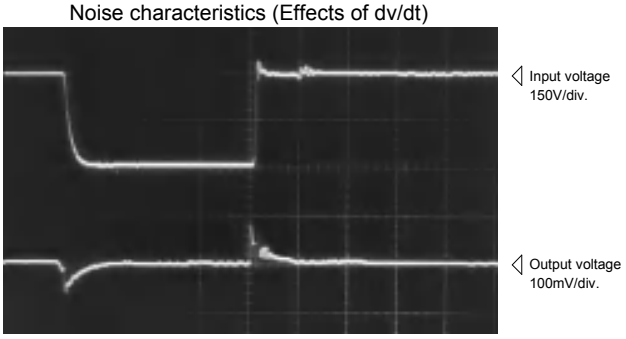
Characteristics chart

HC-MJE10V4B15 5μs/div. Time base

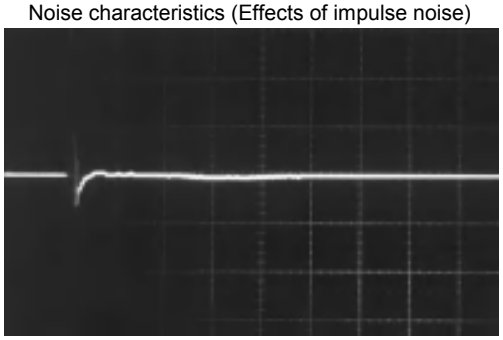
Pulse current response characteristic



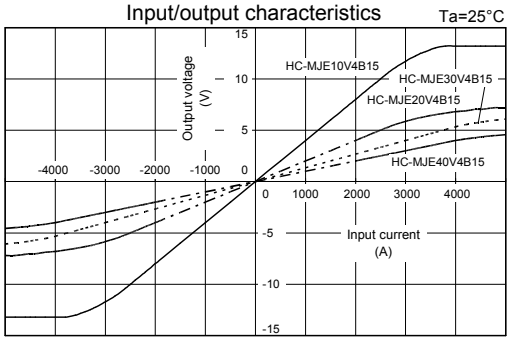
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-L series

Medium-sized, high-capacity type
Bolt on type

HC-L

- Rated current 800A ~ 3000A
- Superior noise-resistance
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

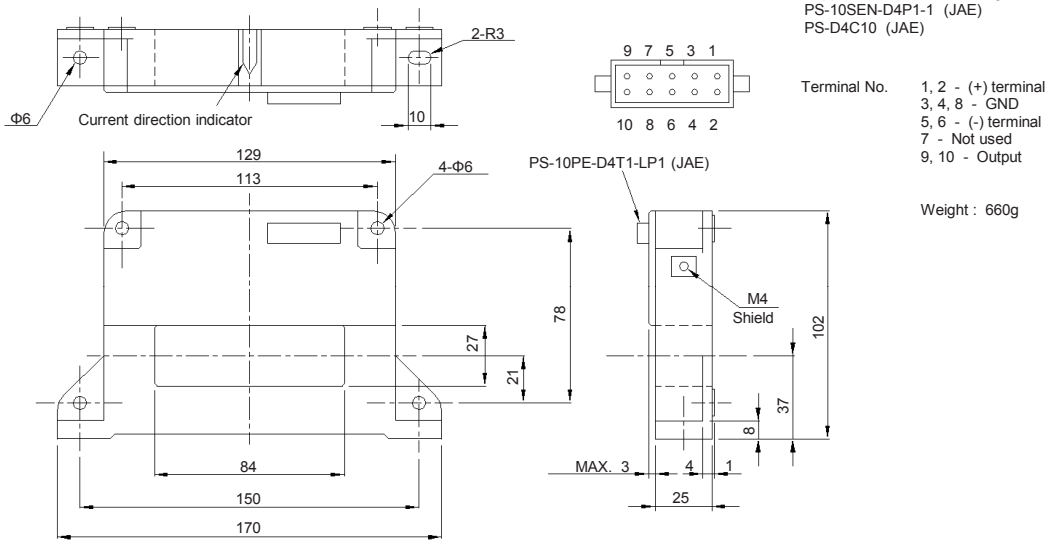
±15V Spec ±12V Spec

Applications

High-capacity inverters (for power plants), High-capacity power supply equipment

Dimensions

(mm)



Supported connector housing
PS-10SEN-D4P1-1 (JAE)
PS-D4C10 (JAE)

Terminal No.
1, 2 - (+) terminal
3, 4, 8 - GND
5, 6 - (-) terminal
7 - Not used
9, 10 - Output

Weight : 660g

General tolerance: ±0.5

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Specification

Ta=25℃

Type		HC-L800V4B15	HC-LE10V4B15	HC-LE20V4B15	HC-LE30V4B15
Rated current	[If]	±800A	±1000A	±2000A	±3000A
Saturation current	[Is]	±1200A	±2500A	±4000A	±5000A
Linearity limits		0~±1000A	0~±2000A	0~±3500A	0~±4000A
Rated output	[Vh]	±4V±1%			
Residual output	[Vo]	Within ±30mV			
Output linearity		Within ±1%			
Response time		Within 10μs (at di/dt=100A/μs)			
Response performance		Within 10%			
Hysteresis voltage range		Within 30mV			
Output Temp. Coef.		Within ±0.05%/℃			
Residual output Temp. Coef.		Within ±2mV/℃			
Control power supply		±15V±5%			
Consumption current		Within 50mA			
Operating Temp.		-10℃~+80℃			
Storage Temp.		-15℃~+85℃			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

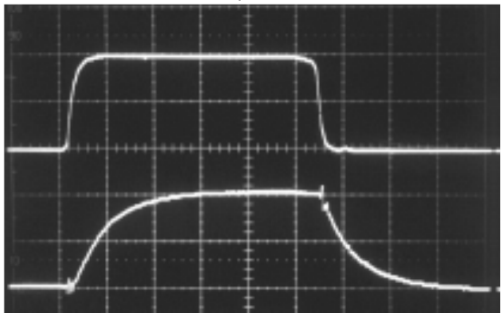
Note1）The indicated rated output is the one when no load is applied.

Note2）The indicated residual output is the one after the core hysteresis is removed.

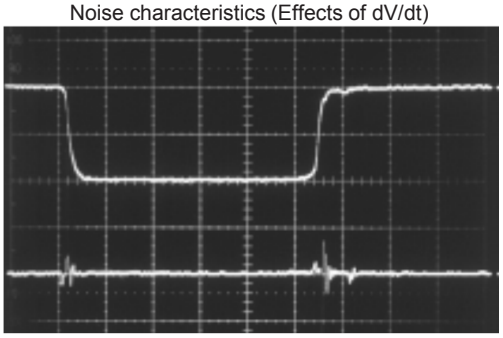
Characteristics chart

HC-LE20V4B15 Time base: 5μs/div.

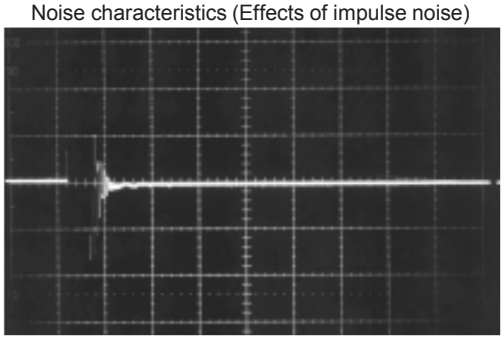
Pulse current response characteristic



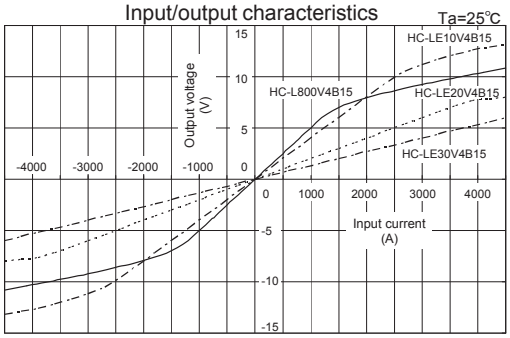
Noise characteristics (Effects of dV/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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HC-ML series

Medium-sized, high-capacity type
Bolt on type

HC-ML

- Rated current 300A ~ 3000A
- Screw type control terminals also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

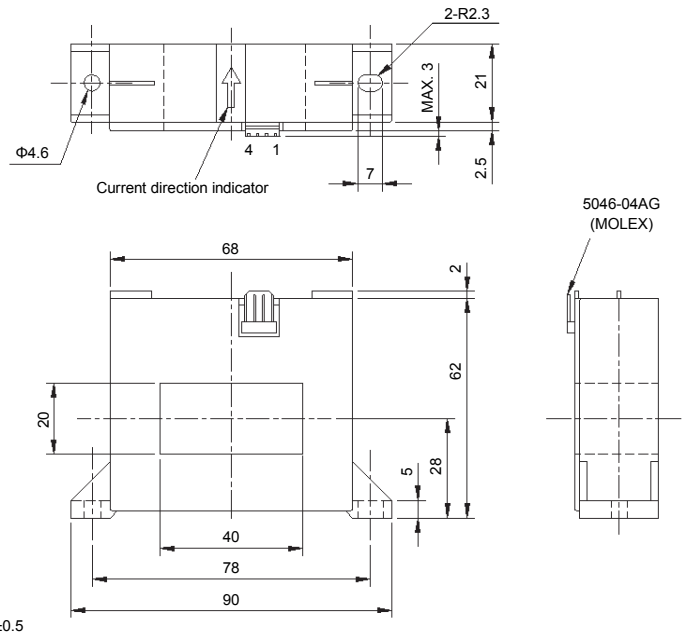
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 200g

General tolerance: ±0.5

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Specification

Ta=25°C

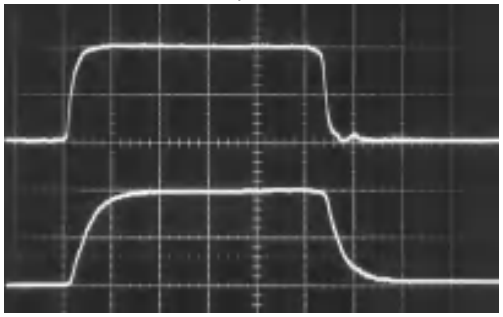
Type		HC-ML300V4B15	HC-ML600V4B15	HC-MLE10V4B15	HC-MLE15V4B15	HC-MLE30V4B15
Rated current	[If]	±300A	±600A	±1000A	±1500A	±3000A
Saturation current	[Is]	±900A	±1200A	±2400A	±2400A	±5000A
Linearity limits		0~±900A	0~±1000A	0~±2100A	0~±2100A	0~±4500A
Rated output	[Vh]	±4V±1%				±4V±2%
Residual output	[Vo]	Within ±30mV				
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=100A/μs)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±1mV/°C				
Control power supply		±15V±5%				
Consumption current		Within 30mA		Within 50mA		
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

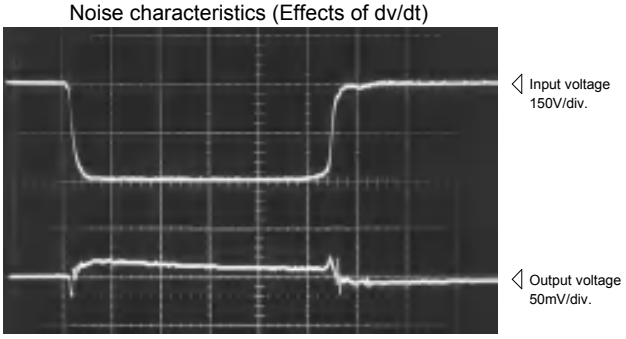
Characteristics chart

HC-MLE10V4B15 5μs/div. Time base

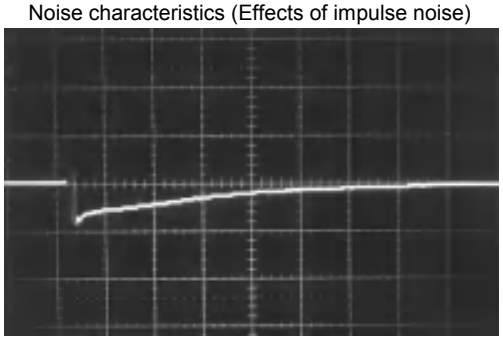
Pulse current response characteristic



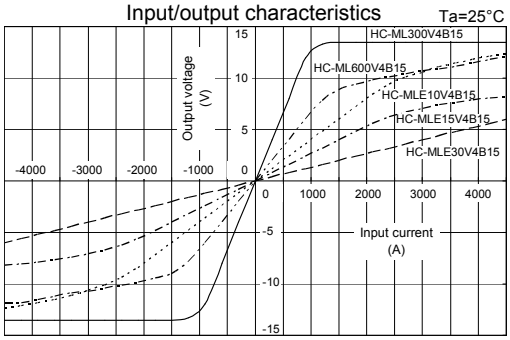
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-MN series

Medium-sized, high-capacity type
Bolt on type

HC-MN

- Rated current 300A ~ 3000A
- Superior noise-resistance
- Screw type control terminals also available
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

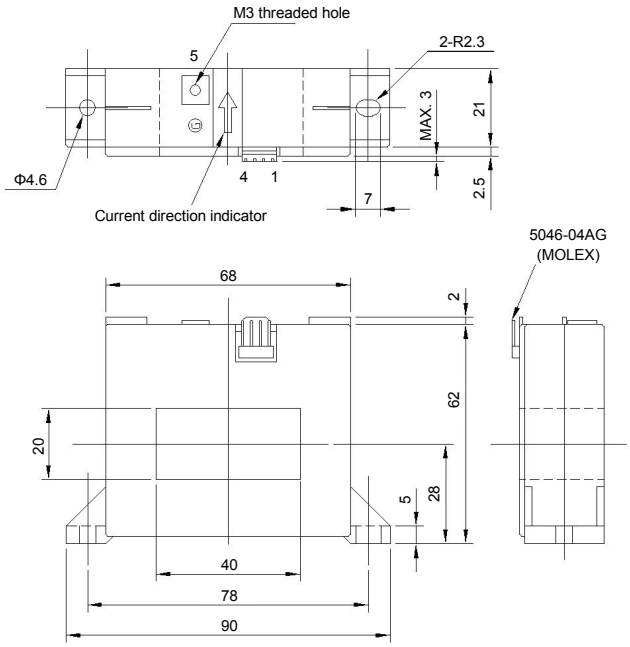
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND
5 - Shield

Weight : 200g

General tolerance: ±0.5

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Specification

Ta=25°C

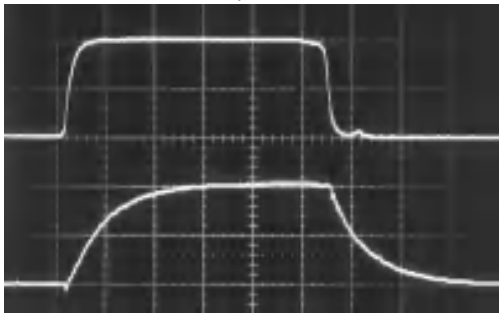
Type		HC-MN300V4B15	HC-MN600V4B15	HC-MNE10V4B15	HC-MNE15V4B15	HC-MNE30V4B15
Rated current	[If]	±300A	±600A	±1000A	±1500A	±3000A
Saturation current	[Is]	±900A	±1200A	±2400A	±2400A	±5000A
Linearity limits		0~±900A	0~±1000A	0~±2100A	0~±2100A	0~±4500A
Rated output	[Vh]	±4V±1%				±4V±2%
Residual output	[Vo]	Within ±30mV				
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=100A/μs)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±1mV/°C				
Control power supply		±15V±5%				
Consumption current		Within 30mA		Within 50mA		
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

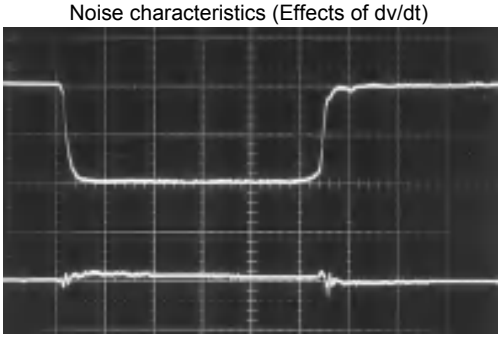
Characteristics chart

HC-MNE10V4B15 5μs/div. Time base

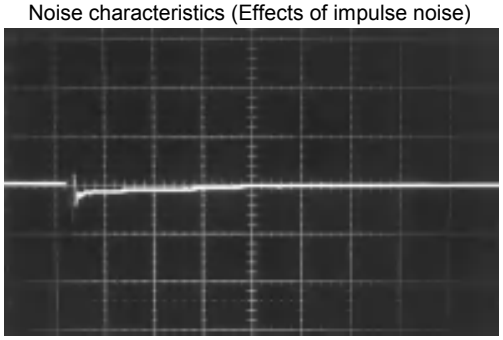
Pulse current response characteristic



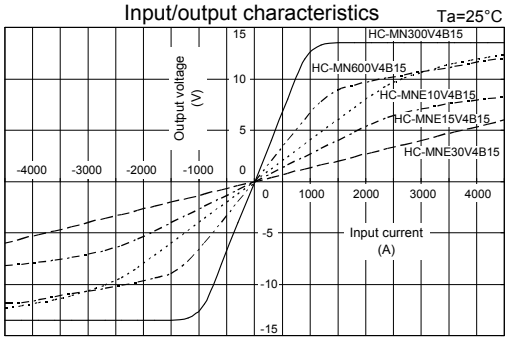
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-MSL series

Medium-sized, high-capacity type
Bolt on type

HC-MSL

- Rated current 300A ~ 3000A
- Screw type control terminals also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

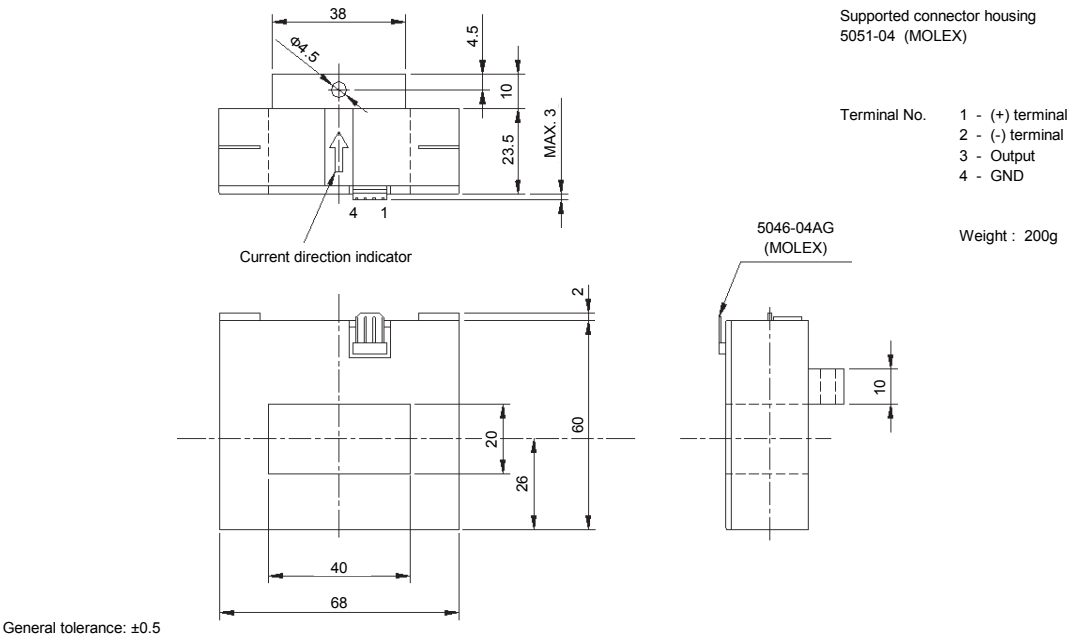
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 200g

General tolerance: ±0.5

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Specification

Ta=25°C

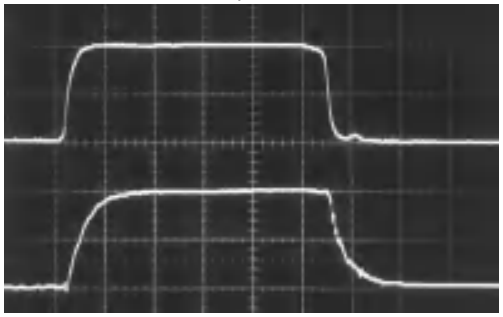
Type		HC-MSL300V4B15	HC-MSL600V4B15	HC-MSLE10V4B15	HC-MSLE15V4B15	HC-MSLE30V4B15
Rated current	[If]	±300A	±600A	±1000A	±1500A	±3000A
Saturation current	[Is]	±900A	±1200A	±2400A	±2400A	±5000A
Linearity limits		0~±900A	0~±1000A	0~±2100A	0~±2100A	0~±4500A
Rated output	[Vh]	±4V±1%				±4V±2%
Residual output	[Vo]	Within ±30mV				
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=100A/μs)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±1mV/°C				
Control power supply		±15V±5%				
Consumption current		Within 30mA		Within 50mA		
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

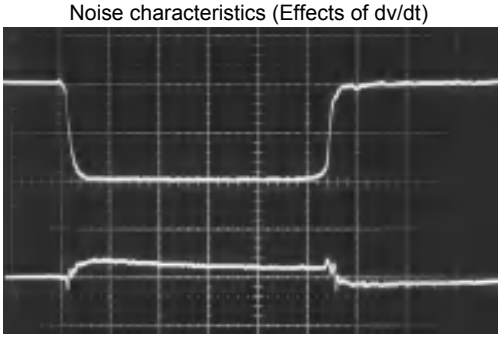
Characteristics chart

HC-MSLE10V4B15 5μs/div. Time base

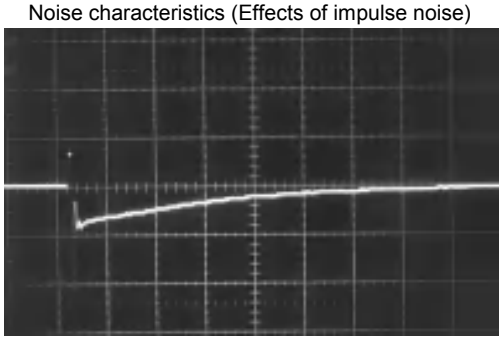
Pulse current response characteristic



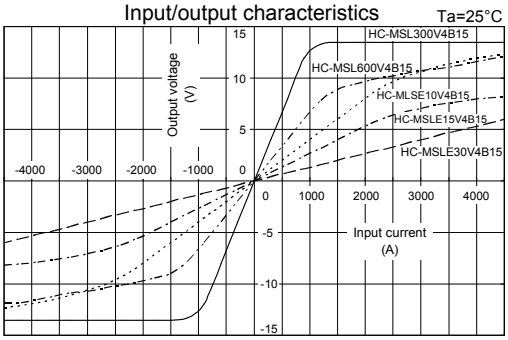
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-MSN series

Medium-sized, high-capacity type
Bolt on type

HC-MSN

- Rated current 300A ~ 3000A
- Superior noise-resistance
- Screw type control terminals also available
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

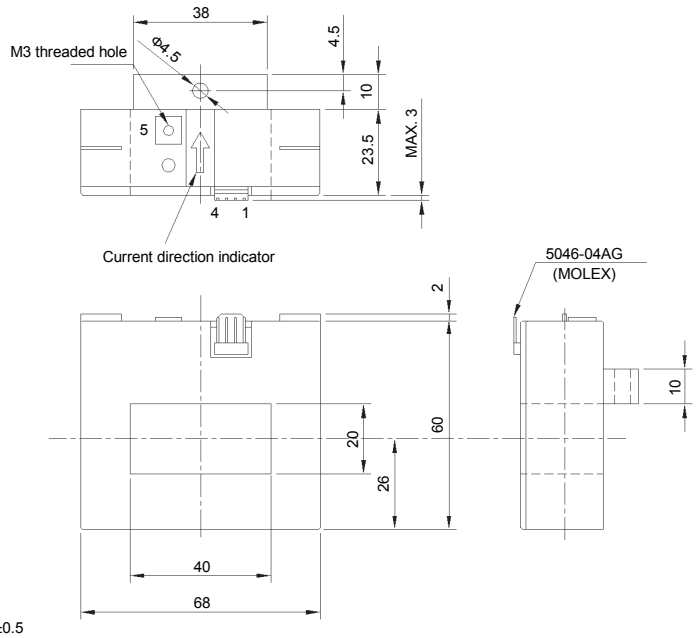
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND
5 - Shield

Weight : 200g

General tolerance: ±0.5

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Specification

Ta=25°C

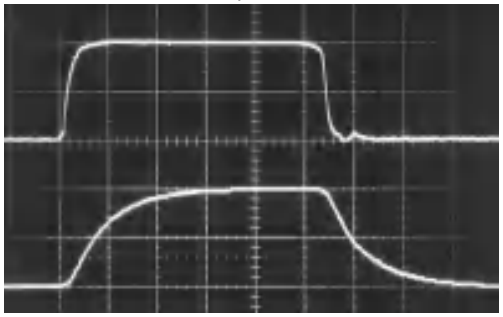
Type		HC-MSN300V4B15	HC-MSN600V4B15	HC-MSNE10V4B15	HC-MSNE15V4B15	HC-MSNE30V4B15
Rated current	[If]	±300A	±600A	±1000A	±1500A	±3000A
Saturation current	[Is]	±900A	±1200A	±2400A	±2400A	±5000A
Linearity limits		0~±900A	0~±1000A	0~±2100A	0~±2100A	0~±4500A
Rated output	[Vh]	±4V±1%				±4V±2%
Residual output	[Vo]	Within ±30mV				
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=100A/μs)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±1mV/°C				
Control power supply		±15V±5%				
Consumption current		Within 30mA		Within 50mA		
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

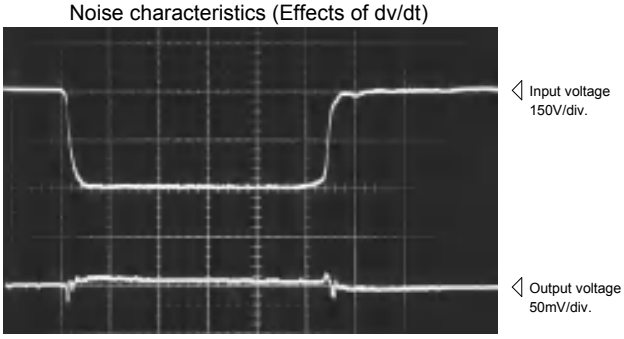
Characteristics chart

HC-MSNE10V4B15 5μs/div. Time base

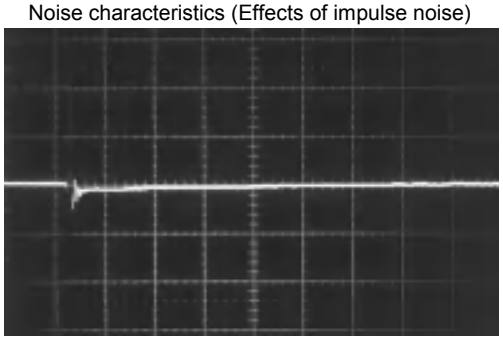
Pulse current response characteristic



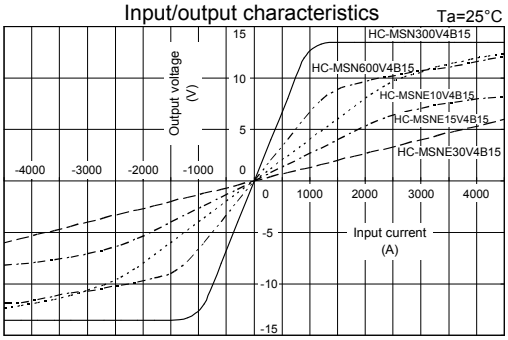
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-TF series

Medium-sized, high-capacity type
Bolt on type

HC-TF

- Rated current 50A ~ 1600A
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

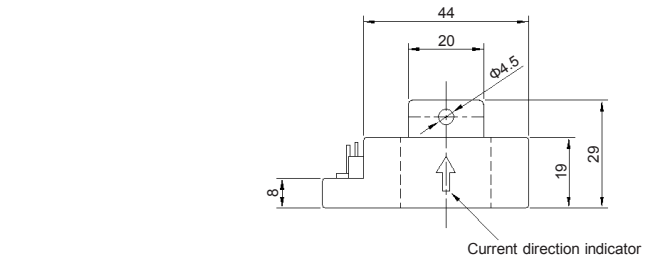
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

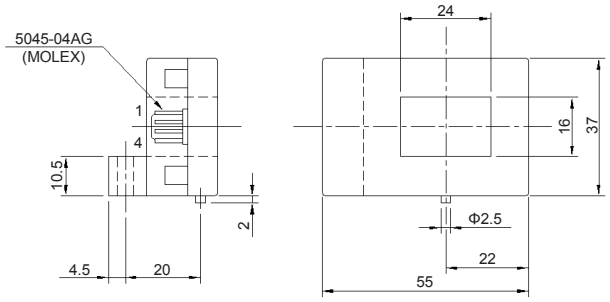
(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 66g



General tolerance: ±0.5

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Specification

Ta=25℃

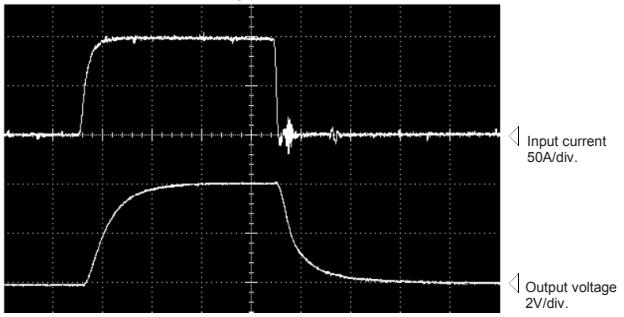
Type		HC-TF050V4B15	HC-TF100V4B15	HC-TF400V4B15	HC-TFE10V4B15H	HC-TFE16V4B15H
Rated current [If]		±50A	±100A	±400A	±1000A	±1600A
Saturation current [Is]		±150A	±300A	±900A	±1800A	±1800A
Linearity limits		0~±112.5A	0~±225A	0~±650A	0~±1600A	0~±1600A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)			V0+4V±2% (RL=10kΩ)	
	-If	V0-4V±1% (RL=10kΩ)			V0-4V±2% (RL=10kΩ)	
Residual output [Vo]		Within ±70mV	Within ±50mV			
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100 A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/℃				
Residual output Temp. Coef.		Within ±3mV/℃	Within ±1.5mV/℃	Within ±1mV/℃		
Control power supply		±15V±5%				
Consumption current		Within 30mA				
Operating Temp.		-10℃~+80℃				
Storage Temp.		-15℃~+85℃				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual output is the one after the core hysteresis is removed.

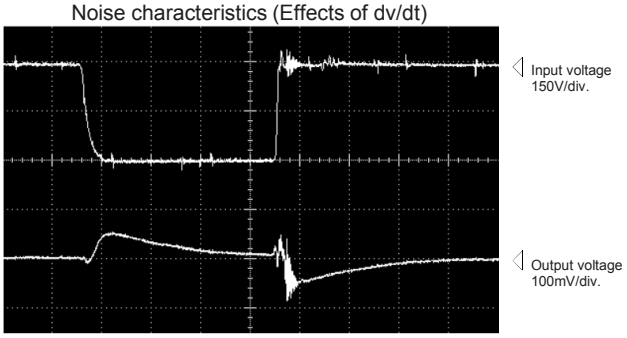
Characteristics chart

HC-TF100V4B15 Time base: 5μs/div.

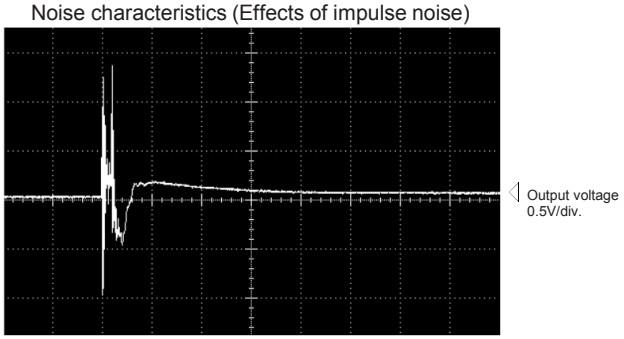
Pulse current response characteristic



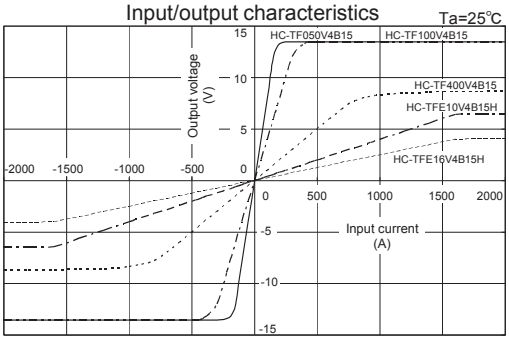
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

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HC-TTA series

Small-sized, medium-capacity type
Bolt on type

HC-TTA

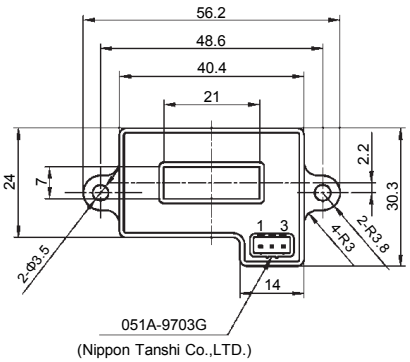
- Rated current 300A ~ 900A
- Potted products
- Superior noise-resistance
- Built-in wire break detector enables detection of broken GND connection

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

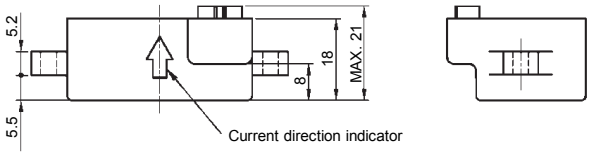
(mm)



Conformable housing and pin
0520-9103 and 17528-M5 (Nippon Tanshi Co.,LTD.)

Terminal No. 1 - (+) terminal
2 - Output
3 - GND

Weight : 45g



General tolerance: ±0.5

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Specification

Ta=25℃

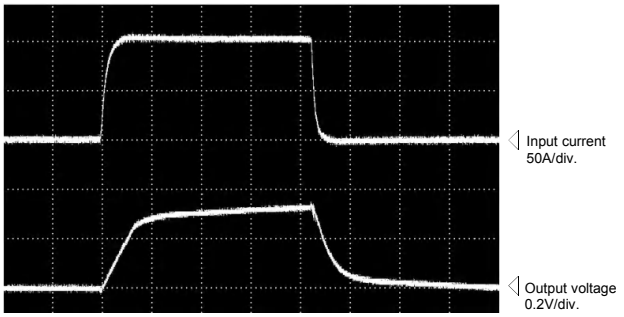
Type		HC-TTA300V2PP5	HC-TTA600V2PP5	HC-TTA900V2PP5
Rated current	[If]	±300A	±600A	±900A
Saturation current	[Is]	±330A	±660A	±990A
Linearity limits		0~±300A	0~±600A	0~±900A
Rated output	[Vh]	V0±2V±50mV (RL=10kΩ)		
Residual output	[V0]	Within Vcc/2±50mV		
Output linearity		Within ±1%		
Response time		Within 10μs (at di/dt=100A/μs)		
Response performance		Within 10%		
Hysteresis voltage range		Within 30mV		
Output Temp. Coef.		Within ±0.1%/℃		
Residual output Temp. Coef.		Within ±1mV/℃		
Control power supply	[Vcc]	+5V±5%		
Consumption current		Within 30mA		
Operating Temp.		-10℃~+80℃		
Storage Temp.		-15℃~+85℃		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Output specifications include 100-Ω output resistance and 0.7-mA maximum output current.
Note3) Since residual output is ratiometric output, it varies according to the control power supply value.
Note4) Output is +4.8 V or greater when GND line is disconnected.

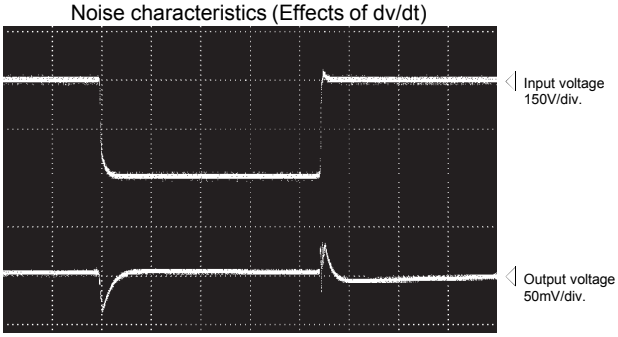
Characteristics chart

HC-TTA600V2PP5 5μs/div. Time base

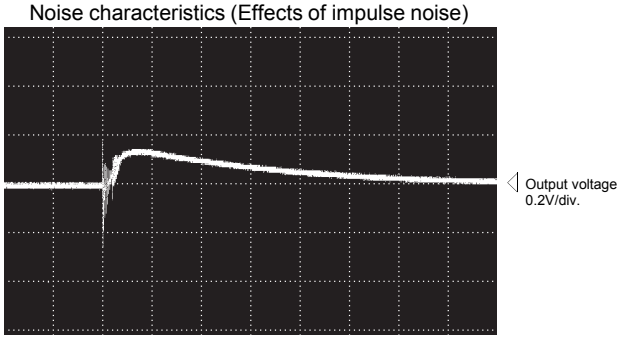
Pulse current response characteristic



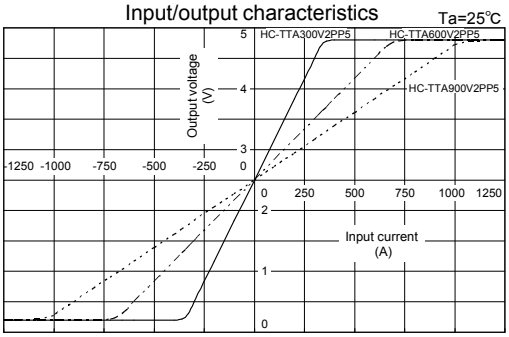
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

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HC-TTB series

Small-sized, medium-capacity type
Bolt on type

HC-TTB

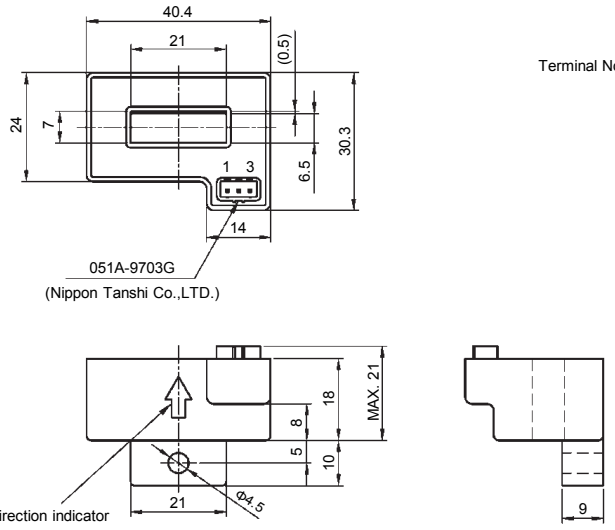
- Rated current 300A ~ 900A
- Potted products
- Superior noise-resistance
- Built-in wire break detector enables detection of broken GND connection

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Conformable housing and pin
0520-9103 and 17528-M5 (Nippon Tanshi Co.,LTD.)

Terminal No. 1 - (+) terminal
2 - Output
3 - GND

Weight : 47g

General tolerance: ±0.5

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Specification

Ta=25℃

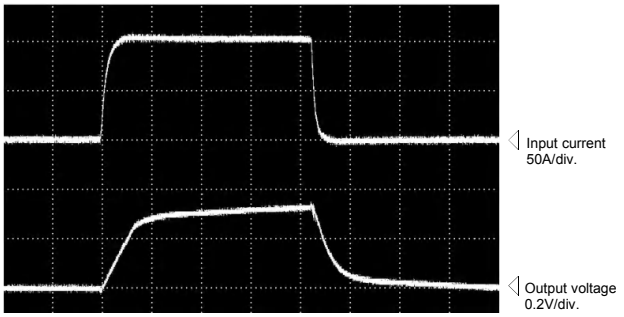
Type	HC-TTB300V2PP5	HC-TTB600V2PP5	HC-TTB900V2PP5
Rated current [If]	±300A	±600A	±900A
Saturation current [Is]	±330A	±660A	±990A
Linearity limits	0~±300A	0~±600A	0~±900A
Rated output [Vh]	V0±2V±50mV (RL=10kΩ)		
Residual output [V0]	Within Vcc/2±50mV		
Output linearity	Within ±1%		
Response time	Within 10μs (at di/dt=100A/μs)		
Response performance	Within 10%		
Hysteresis voltage range	Within 30mV		
Output Temp. Coef.	Within ±0.1%/℃		
Residual output Temp. Coef.	Within ±1mV/℃		
Control power supply [Vcc]	+5V±5%		
Consumption current	Within 30mA		
Operating Temp.	-10℃~+80℃		
Storage Temp.	-15℃~+85℃		
Dielectric withstand voltage	2500V AC 50/60Hz 1minute		
Insulation resistance	Not less than 500MΩ 500V DC		

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Output specifications include 100-Ω output resistance and 0.7-mA maximum output current.
Note3) Since residual output is ratiometric output, it varies according to the control power supply value.
Note4) Output is +4.8 V or greater when GND line is disconnected.

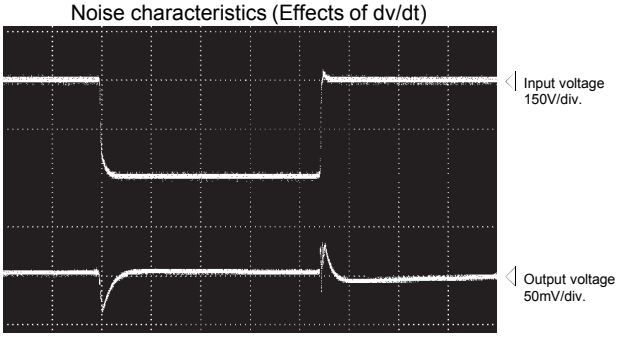
Characteristics chart

HC-TTB600V2PP5 5μs/div. Time base

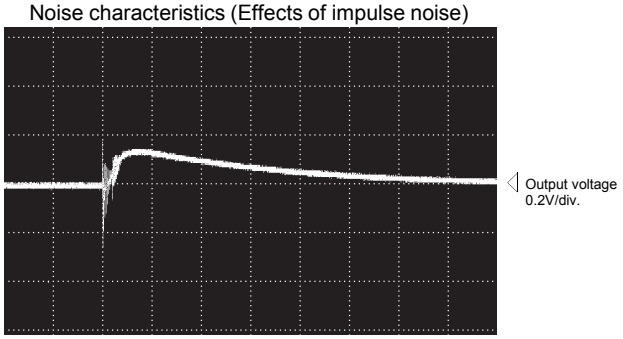
Pulse current response characteristic



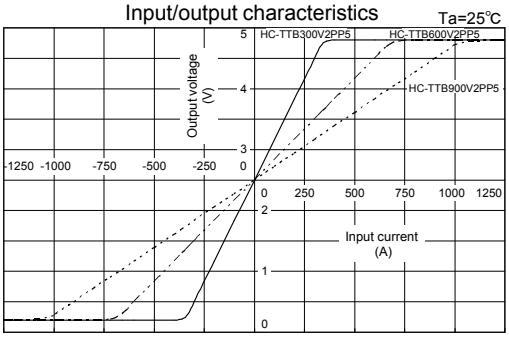
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

HC-SL

- Rated current 50A ~ 800A
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

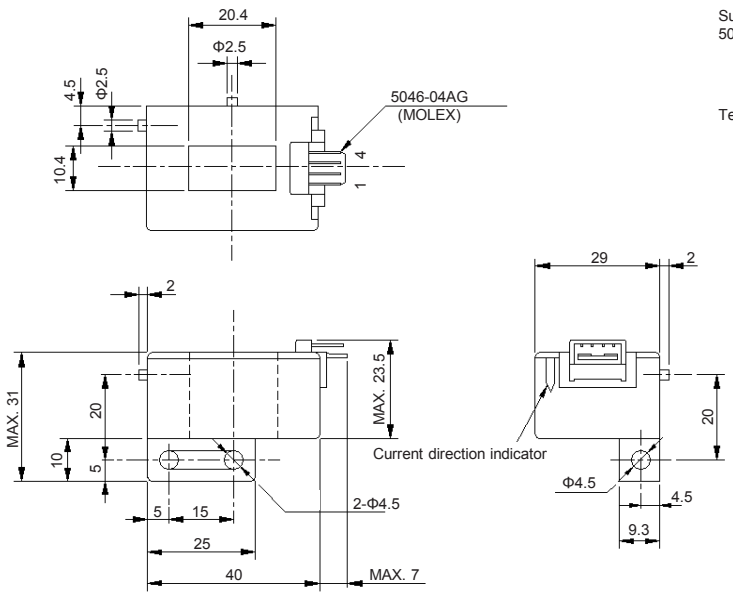
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 46g

General tolerance: ±0.5

Specification

Ta=25℃

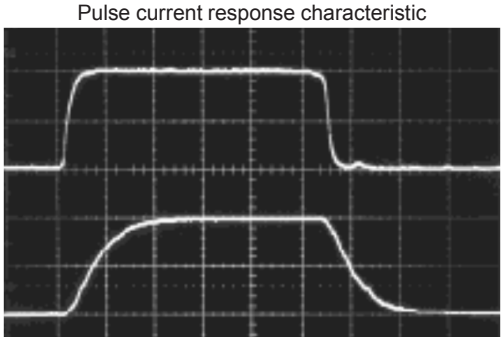
Type		HC-SL050V4B15	HC-SL100V4B15	HC-SL300V4B15	HC-SL600V4B15	HC-SL800V4B15
Rated current	[If]	±50A	±100A	±300A	±600A	±800A
Saturation current	[Is]	±150A	±300A	±900A	±1000A	±1000A
Linearity limits		0~±150A	0~±300A	0~±700A	0~±900A	0~±900A
Rated output	[Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)			
Residual output	[Vo]	Within ±50mV	Within ±30mV			
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/℃				
Residual output Temp. Coef.		Within ±3mV/℃	Within ±1.5mV/℃	Within ±1mV/℃		
Control power supply		±15V±5%				
Consumption current		Within 30mA				
Operating Temp.		-10℃~+80℃				
Storage Temp.		-15℃~+85℃				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual output is the one after the core hysteresis is removed.

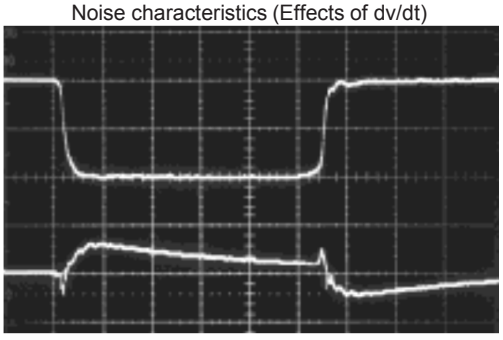
Characteristics chart

HC-SL100V4B15 Time base: 5μs/div.

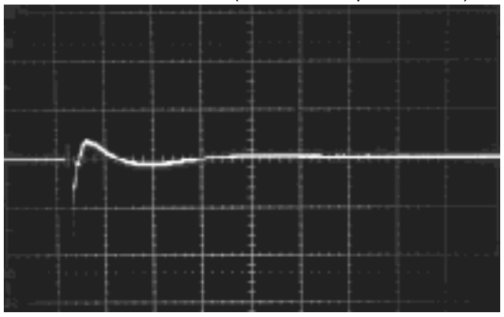
Pulse current response characteristic



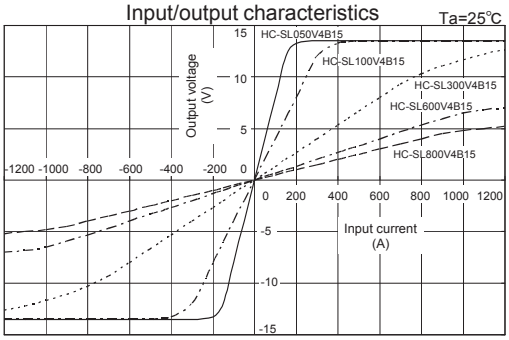
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

HC-SN

- Rated current 50A ~ 800A
- Superior noise-resistance
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

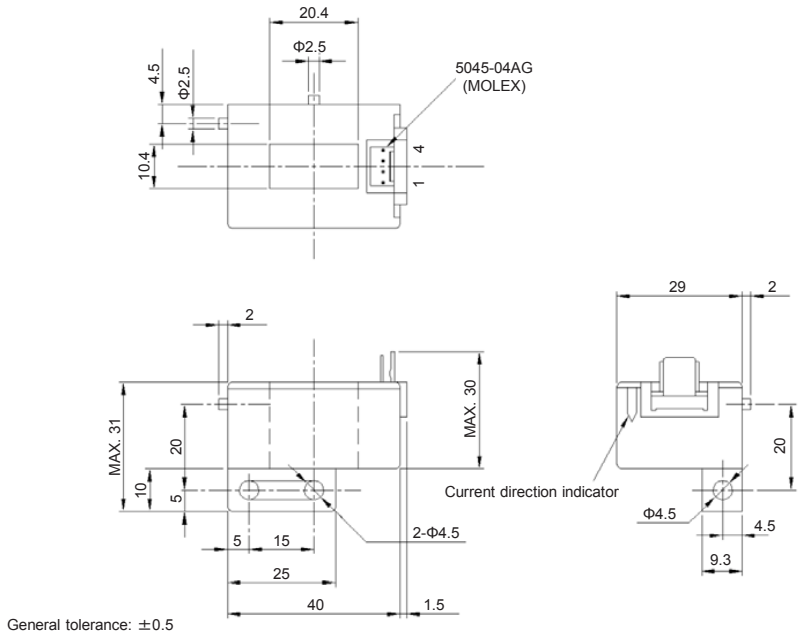
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 46g

General tolerance: ±0.5

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Specification

Ta=25℃

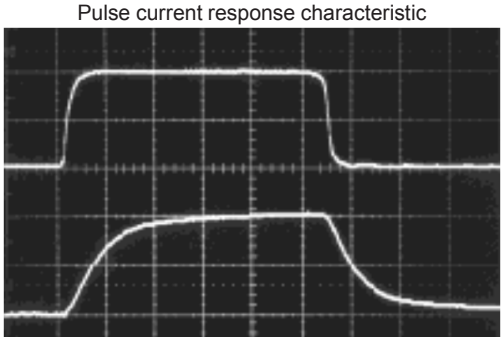
		HC-SN050V4B15	HC-SN100V4B15	HC-SN300V4B15	HC-SN600V4B15	HC-SN800V4B15
Rated current	[If]	±50A	±100A	±300A	±600A	±800A
Saturation current	[Is]	±150A	±300A	±700A	±1000A	±1000A
Linearity limits		0~±150A	0~±300A	0~±450A	0~±900A	0~±900A
Rated output	[Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)			
Residual output	[Vo]	Within ±50mV	Within ±30mV			
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/℃				
Residual output Temp. Coef.		Within ±3mV/℃	Within ±1.5mV/℃	Within ±1mV/℃		
Control power supply		±15V±5%				
Consumption current		Within 30mA				
Operating Temp.		-10℃~+80℃				
Storage Temp.		-15℃~+85℃				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual output is the one after the core hysteresis is removed.

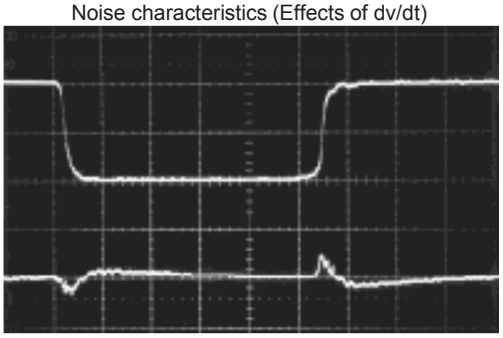
Characteristics chart

HC-SN100V4B15 Time base: 5μs/div.

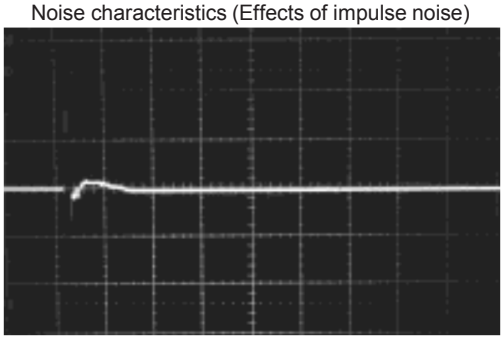
Pulse current response characteristic



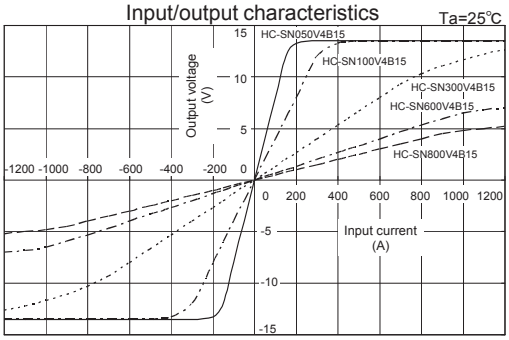
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

HC-TN

- Rated current 50A ~ 800A
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

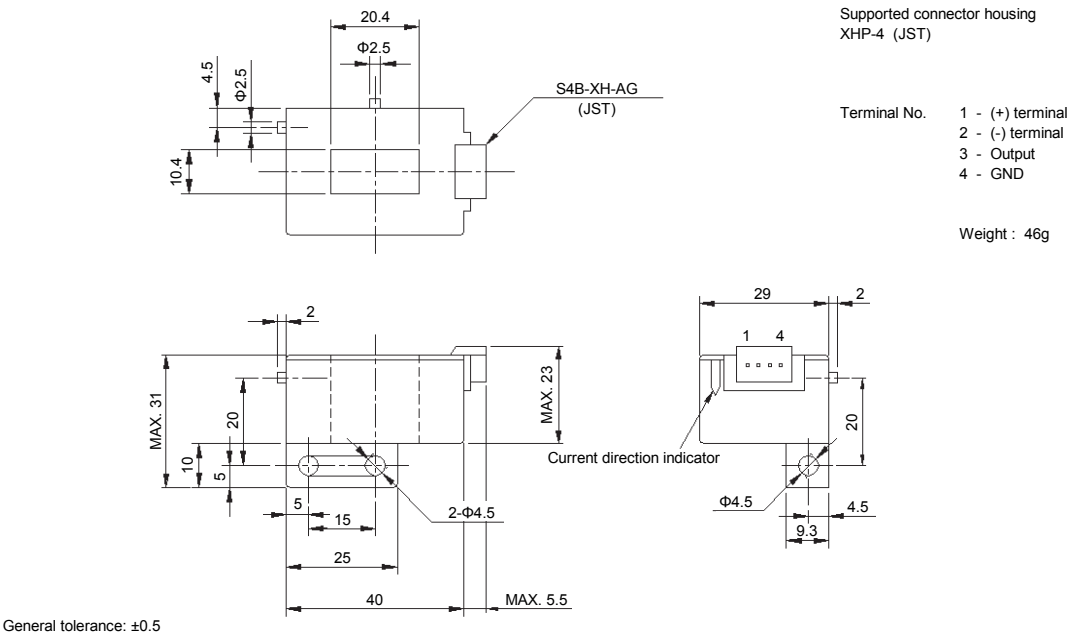
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
XHP-4 (JST)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 46g

General tolerance: ±0.5

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Specification

Ta=25°C

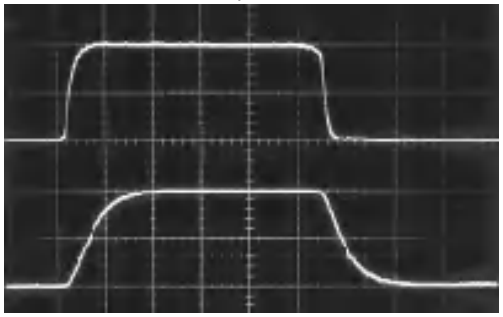
Type		HC-TN050V4B15	HC-TN100V4B15	HC-TN300V4B15	HC-TN600V4B15	HC-TN800V4B15
Rated current	[If]	±50A	±100A	±300A	±600A	±800A
Saturation current	[Is]	±150A	±300A	±900A	±1000A	±1000A
Linearity limits		0~±150A	0~±300A	0~±700A	0~±900A	0~±900A
Rated output	[Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)			
Residual output	[Vo]	Within ±50mV	Within ±30mV			
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±3mV/°C	Within ±1.5mV/°C	Within ±1mV/°C		
Control power supply		±15V±5%				
Consumption current		Within 30mA				
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

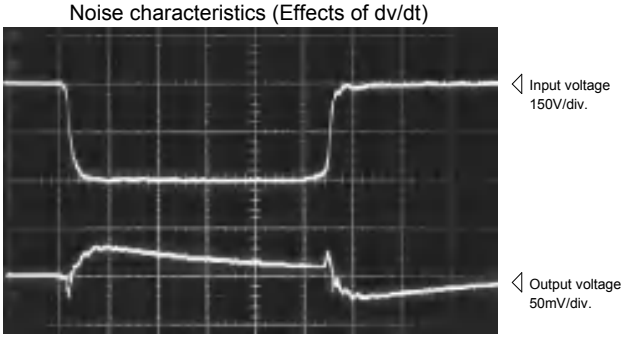
Characteristics chart

HC-TN100V4B15 5μs/div. Time base

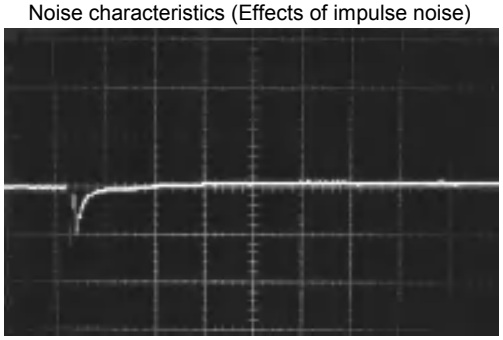
Pulse current response characteristic



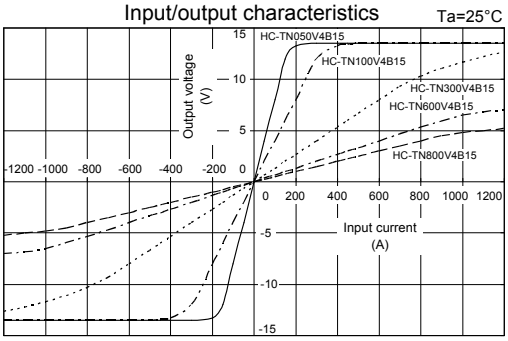
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

HC-TS

- Rated current 50A ~ 800A
- Superior noise-resistance
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

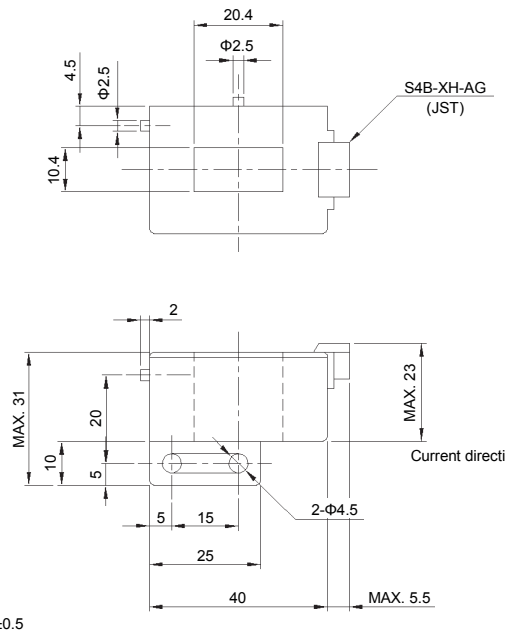
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
XHP-4 (JST)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 46g

General tolerance: ±0.5

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Specification

Ta=25°C

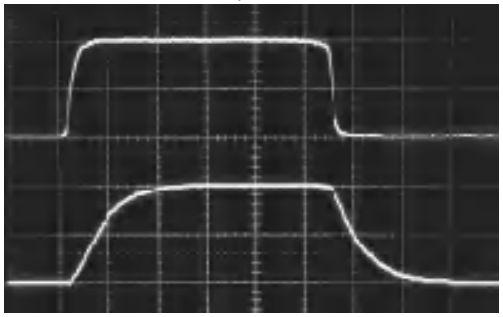
Type		HC-TS050V4B15	HC-TS100V4B15	HC-TS300V4B15	HC-TS600V4B15	HC-TS800V4B15
Rated current	[If]	±50A	±100A	±300A	±600A	±800A
Saturation current	[Is]	±150A	±300A	±900A	±1000A	±1000A
Linearity limits		0~±150A	0~±300A	0~±700A	0~±900A	0~±900A
Rated output	[Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)			
Residual output	[Vo]	Within ±50mV	Within ±30mV			
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 30mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±3mV/°C	Within ±1.5mV/°C	Within ±1mV/°C		
Control power supply		±15V±5%				
Consumption current		Within 30mA				
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

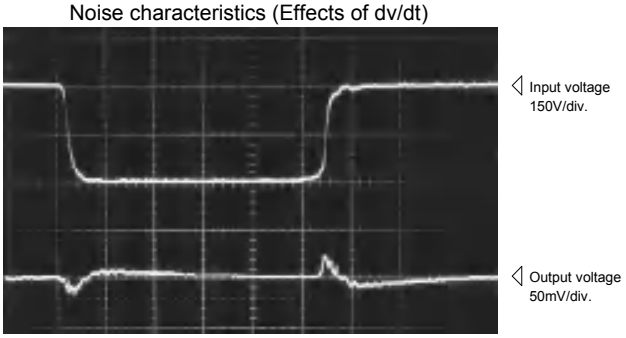
Characteristics chart

HC-TS100V4B15 5μs/div. Time base

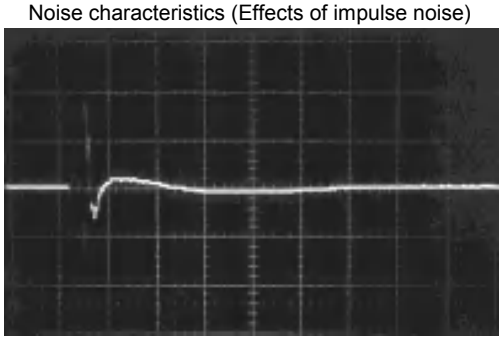
Pulse current response characteristic



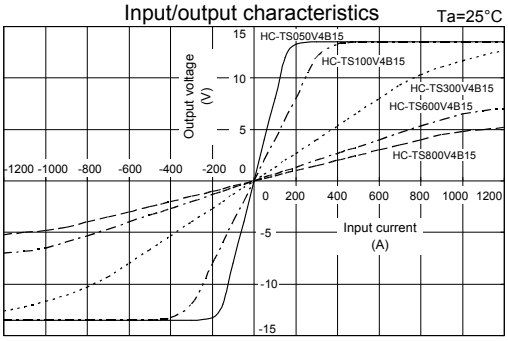
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-U

- Rated current 50A ~ 300A
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

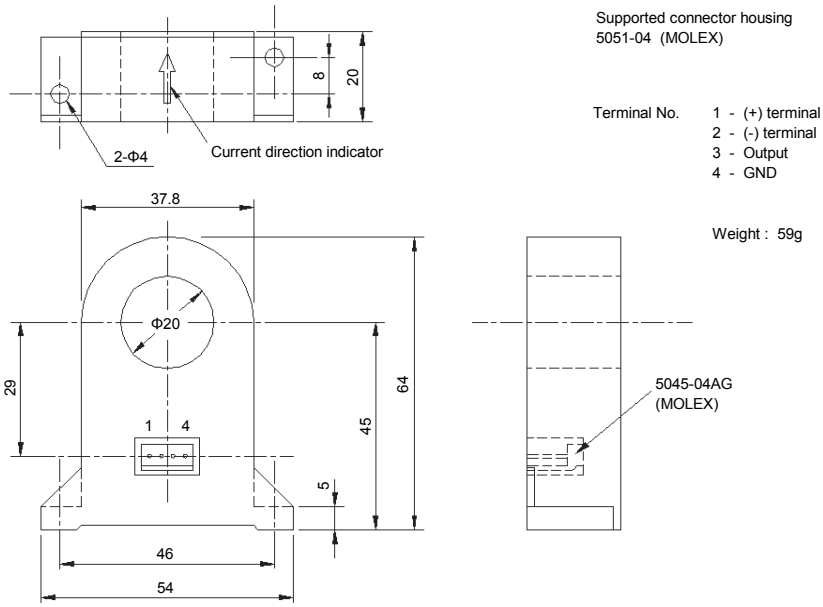
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools, Welders

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 59g

General tolerance: ±0.5

Specification

Ta=25°C

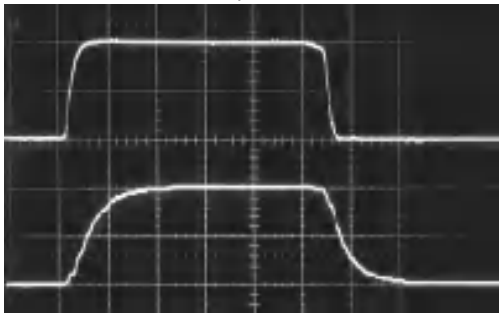
Type		HC-U050V4B15	HC-U100V4B15	HC-U300V4B15
Rated current	[If]	±50A	±100A	±300A
Saturation current	[Is]	±150A	±300A	±700A
Linearity limits		0~±150A	0~±300A	0~±600A
Rated output	[Vh]	±4V±1.5%	±4V±1%	
Residual output	[Vo]	Within ±50mV	Within ±30mV	
Output linearity		Within ±1%		
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance		Within 10%		
Hysteresis voltage range		Within 30mV		
Output Temp. Coef.		Within ±0.08%/°C		
Residual output Temp. Coef.		Within ±2.5mV/°C	Within ±1.5mV/°C	
Control power supply		±15V±5%		
Consumption current		Within 30mA		
Operating Temp.		-10°C~+80°C		
Storage Temp.		-15°C~+85°C		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

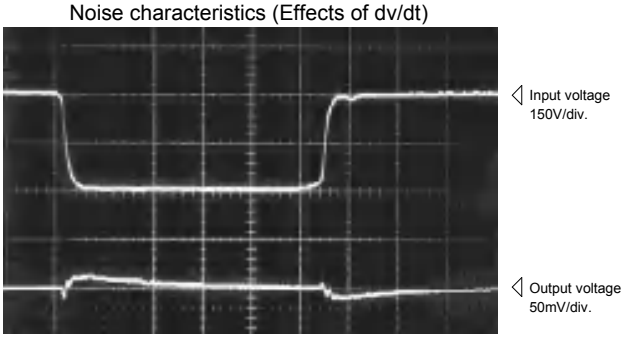
Characteristics chart

HC-U100V4B15 5μs/div. Time base

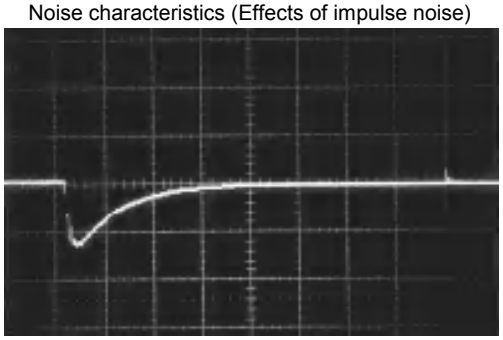
Pulse current response characteristic



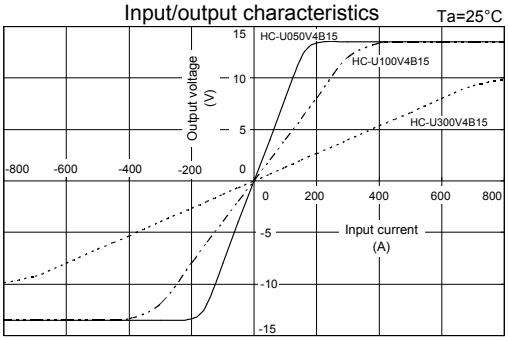
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-W

- Rated current 50A ~ 300A
- Two circuits can be measured at the same time
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

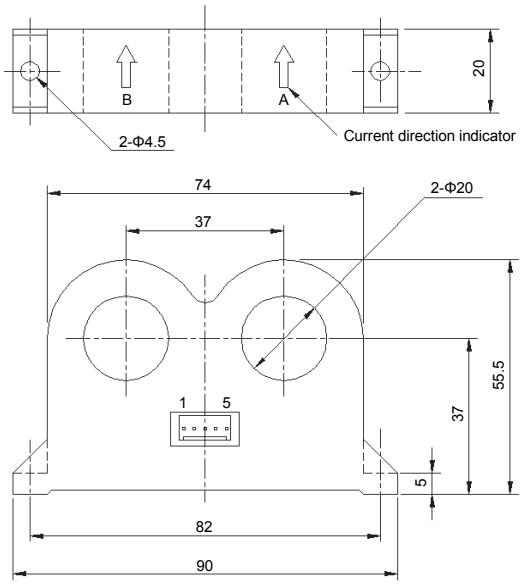
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools

Dimensions

(mm)



Supported connector housing
5051-05 (MOLEX)

Terminal No.
1 - GND
2 - B-phase output
3 - A-phase output
4 - (-) terminal
5 - (+) terminal

Weight : 106g

General tolerance: ±0.5

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Specification

Ta=25°C

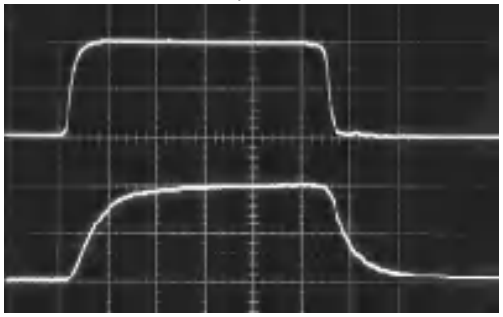
Type		HC-W050V4B15	HC-W100V4B15	HC-W300V4B15
Rated current	[If]	±50A	±100A	±300A
Saturation current	[Is]	±150A	±300A	±700A
Linearity limits		0~±150A	0~±300A	0~±600A
Rated output	[Vh]	±4V±1.5%	±4V±1%	
Residual output	[Vo]	Within ±50mV	Within ±30mV	
Output linearity		Within ±1%		
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance		Within 10%		
Hysteresis voltage range		Within 30mV		
Output Temp. Coef.		Within ±0.08%/°C		
Residual output Temp. Coef.		Within ±2.5mV/°C	Within ±1.5mV/°C	
Control power supply		±15V±5%		
Consumption current		Within 60mA		
Operating Temp.		-10°C~+80°C		
Storage Temp.		-15°C~+85°C		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

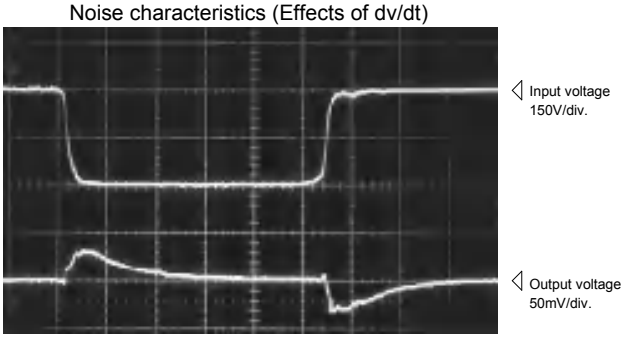
Characteristics chart

HC-W100V4B15 5μs/div. Time base

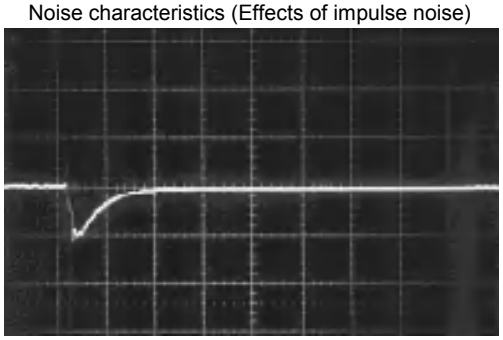
Pulse current response characteristic



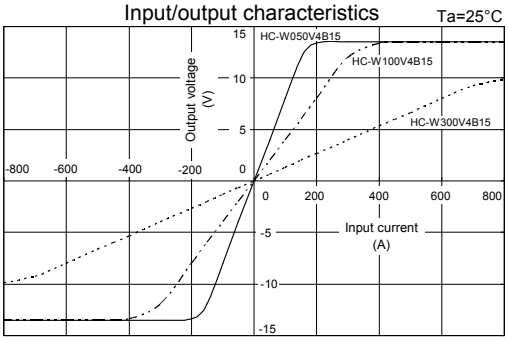
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-WT series

Small-sized, medium-capacity type
Bolt on type

HC-WT

- Rated current 50A ~ 300A
- Two circuits can be measured at the same time
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

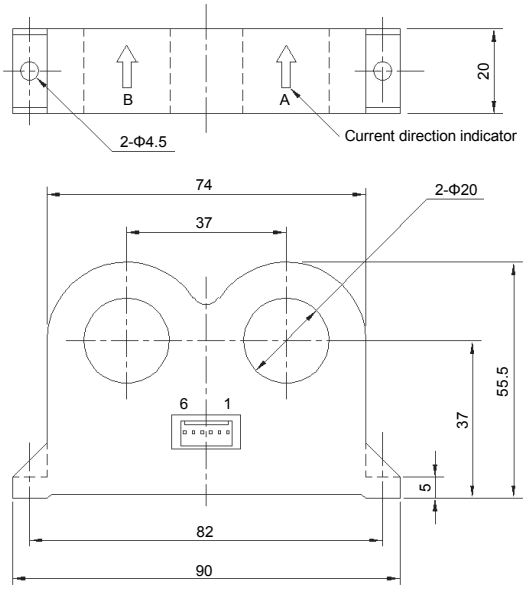
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools

Dimensions

(mm)



Supported connector housing
5051-06 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - A-phase output
4 - GND
5 - B-phase output
6 - GND

Weight : 106g

General tolerance: ±0.5

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Specification

Ta=25°C

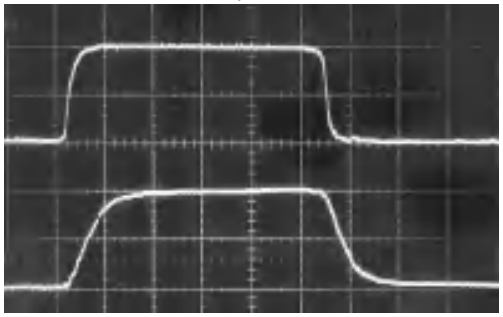
Type		HC-WT050V4B15	HC-WT100V4B15	HC-WT300V4B15
Rated current	[If]	±50A	±100A	±300A
Saturation current	[Is]	±150A	±300A	±700A
Linearity limits		0~±150A	0~±300A	0~±600A
Rated output	[Vh]	±4V±1.5%	±4V±1%	
Residual output	[Vo]	Within ±50mV	Within ±30mV	
Output linearity		Within ±1%		
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance		Within 10%		
Hysteresis voltage range		Within 30mV		
Output Temp. Coef.		Within ±0.08%/°C		
Residual output Temp. Coef.		Within ±2.5mV/°C	Within ±1.5mV/°C	
Control power supply		±15V±5%		
Consumption current		Within 60mA		
Operating Temp.		-10°C~+80°C		
Storage Temp.		-15°C~+85°C		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

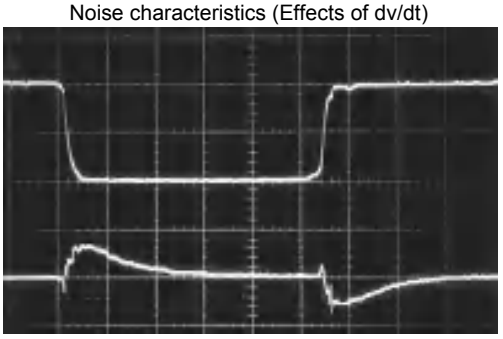
Characteristics chart

HC-WT100V4B15 5μs/div. Time base

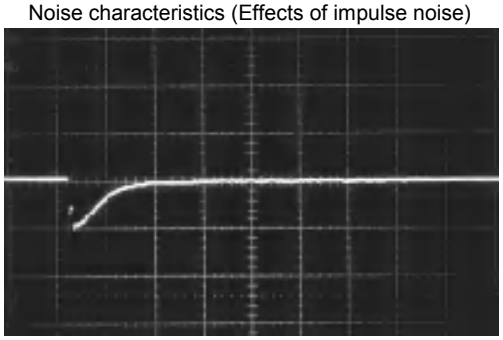
Pulse current response characteristic



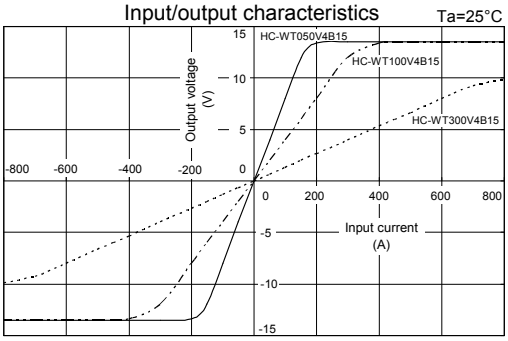
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

HC-VT

- Rated current 50A ~ 300A
- Superior noise-resistance
- Three circuits can be measured at the same time
- Ferrite core specification also available (Rated current 50A ~ 100A)
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

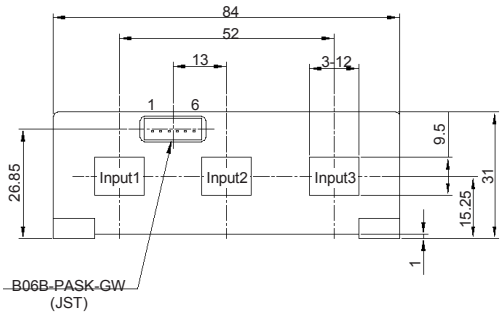
±15V Spec ±12V Spec

Applications

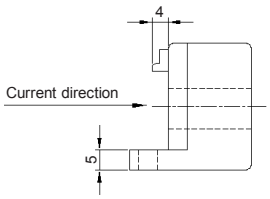
Inverters, Power supply equipment, NC machine tools

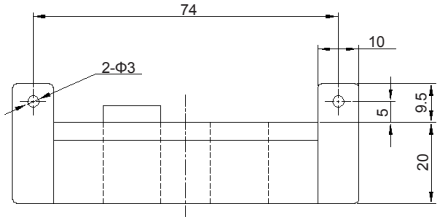
Dimensions

(mm)



Supported connector housing
PAP-06V-S (JST)
PARP-06V (JST)





Terminal No.
1 - (+) terminal
2 - GND
3 - (-) terminal
4 - Output1
5 - Output2
6 - Output3

Weight : 78g

General tolerance: ±0.5

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Specification

Ta=25℃

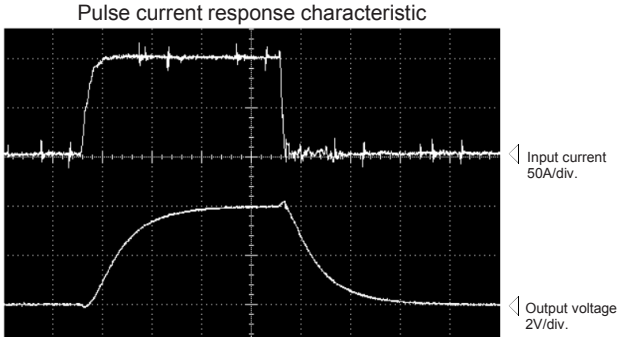
Type		HC-VT050V4B15	HC-VT100V4B15	HC-VT150V4B15	HC-VT200V4B15	HC-VT300V4B15
Rated current	[If]	±50A	±100A	±150A	±200A	±300A
Saturation current	[Is]	±150A	±300A	±450A	±600A	±600A
Linearity limits		0~±150A	0~±300A	0~±400A	0~±400A	0~±400A
Rated output	+If	V0+4V±1% (RL=10kΩ)				
	-If	V0-4V±1% (RL=10kΩ)				
Residual output	[Vo]	Within ±70mV	Within ±50mV			
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 200mV				
Output Temp. Coef.		Within ±0.1%/℃				
Residual output Temp. Coef.		Within	Within ±3mV/℃		Within ±2mV/℃	
Control power supply		±15V±5%				
Consumption current		Within 60mA				
Operating Temp.		-10℃~+80℃				
Storage Temp.		-15℃~+85℃				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual output is the one after the core hysteresis is removed.

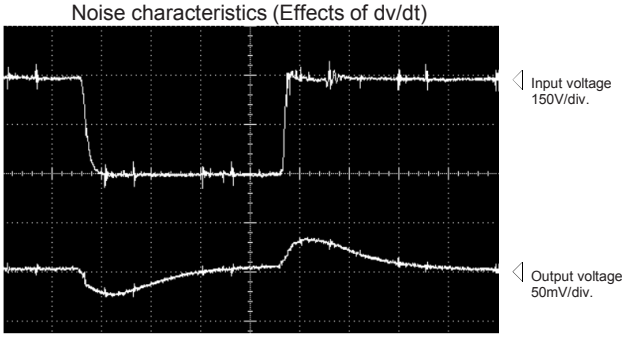
Characteristics chart

HC-VT100V4B15 Time base: 5μs/div.

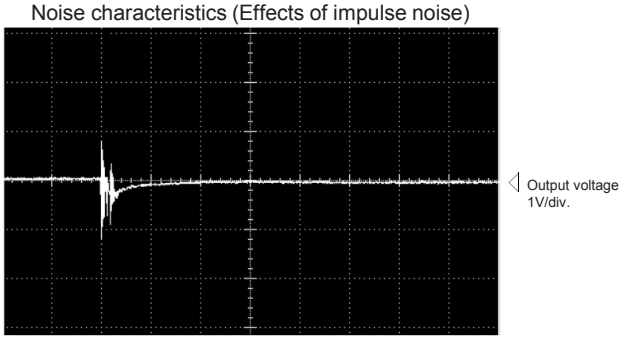
Pulse current response characteristic



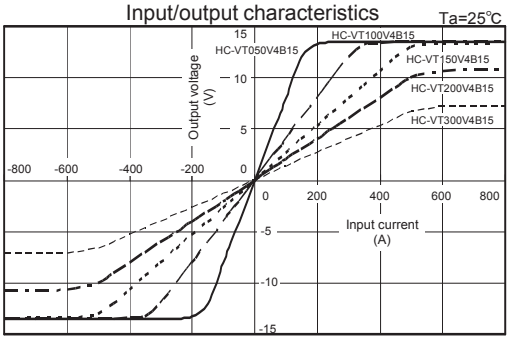
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

HC-ASA

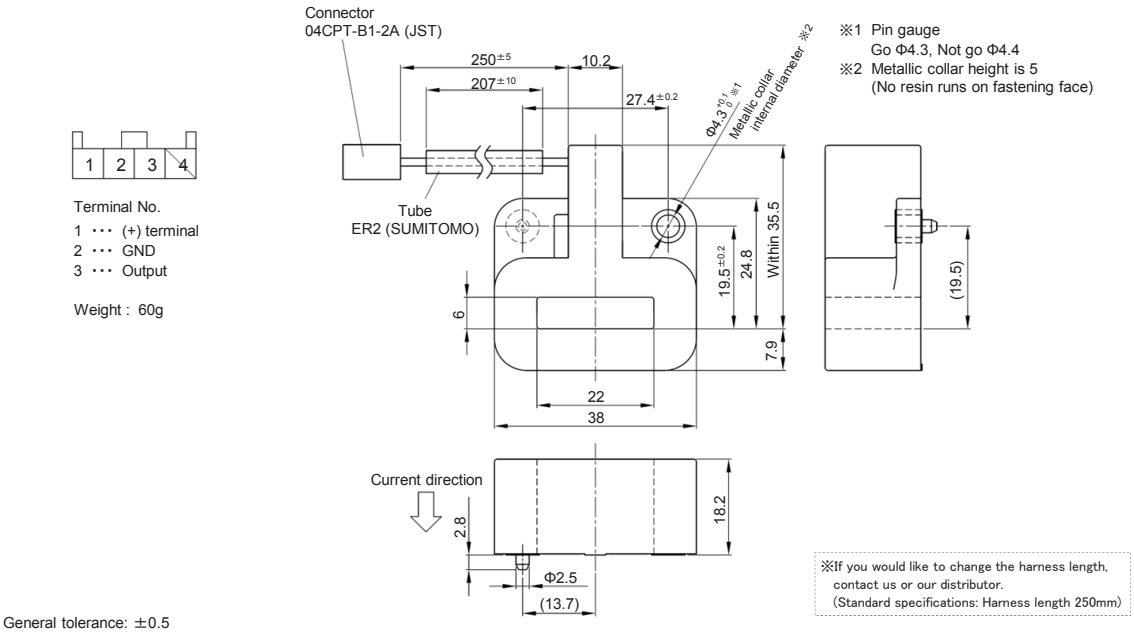
- Rated current 200A ~ 800A
- Small size handles large current (MAX 800A)
- Ensures broad operating temperature range (-40°C ~ +125°C)
- 5V single power supply ratio metric specifications
- Attached to chassis, cable output specifications

Applications

HEV inverters, EV inverters, Current detection in on-board devices

Dimensions

(mm)



Specification

Ta=25℃

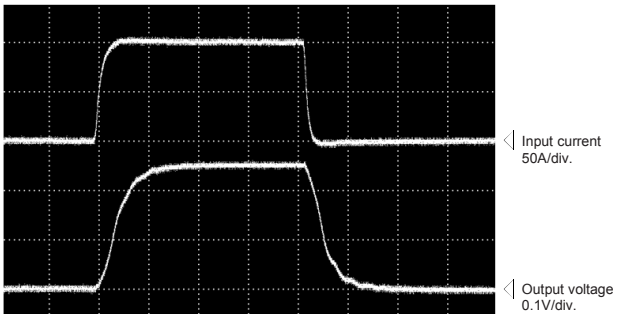
Type		HC-ASA200V2PP5-16	HC-ASA400V2PP5-16	HC-ASA600V2PP5-16	HC-ASA800V2PP5-16
Rated current [If]		±200A	±400A	±600A	±800A
Saturation current [Is]		±220A	±440A	±660A	±880A
Linearity limits		0~±200A	0~±400A	0~±600A	0~±800A
Rated output [Vh]	I=+If	Within V0+2V × (Vcc/5)±1.5% (RL=10kΩ)			
	I=-If	Within V0-2V × (Vcc/5)±1.5% (RL=10kΩ)			
Residual output [V0]		Within Vcc/2±30mV			
Output linearity		Within ±1%			
Response time		Within 10μs (at di/dt=100A/μs)			
Response performance		Within 10%			
Hysteresis voltage range		Within 30mV	Within 22mV	Within 16mV	Within 13mV
Output Temp. Coef.		Within ±0.04%/℃			
Residual output Temp. Coef.		Within ±1mV/℃	Within ±0.6mV/℃	Within ±0.5mV/℃	Within ±0.4mV/℃
Control power supply [Vcc]		+5V±4%			
Power variation characteristics change [+5V±4%]	I=±If	3.5~4.5%			
	I=0	3.2~4.8%	3.5~4.5%		
Consumption current		Within 30mA			
Operating Temp.		-40℃~+125℃			
Storage Temp.		-40℃~+125℃			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Output specifications include 100-Ω output resistance and 1-mA maximum output current.
Note3) Since residual output is ratiometric output, it varies according to the control power supply value.
Note4) Code at the end of the model name represents harness specifications.

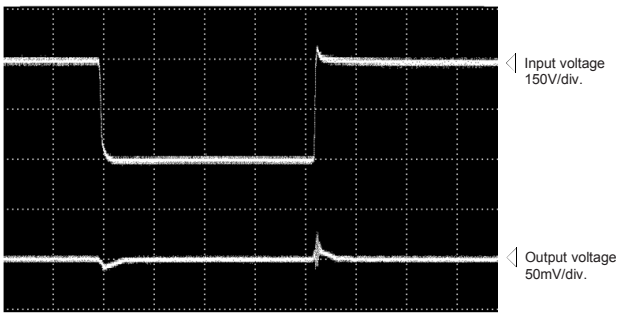
Characteristics chart

HC-ASA800V2PP5-16 Time base: 5μs/div.

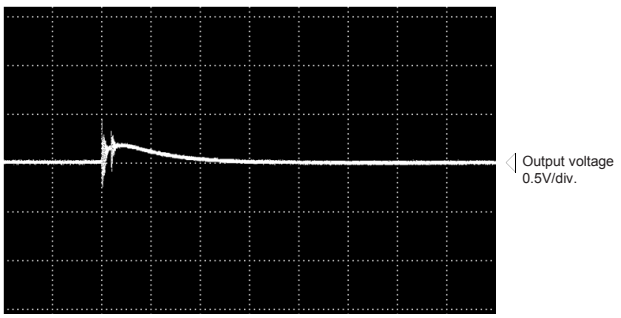
Pulse current response characteristic



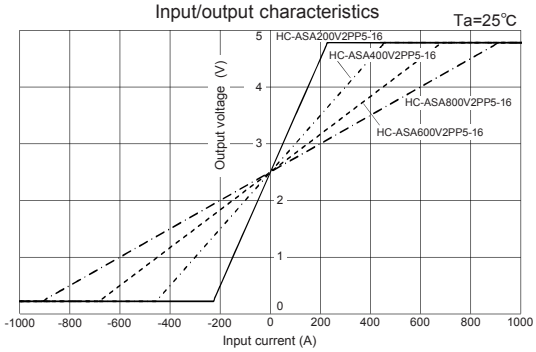
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

HC-ASB

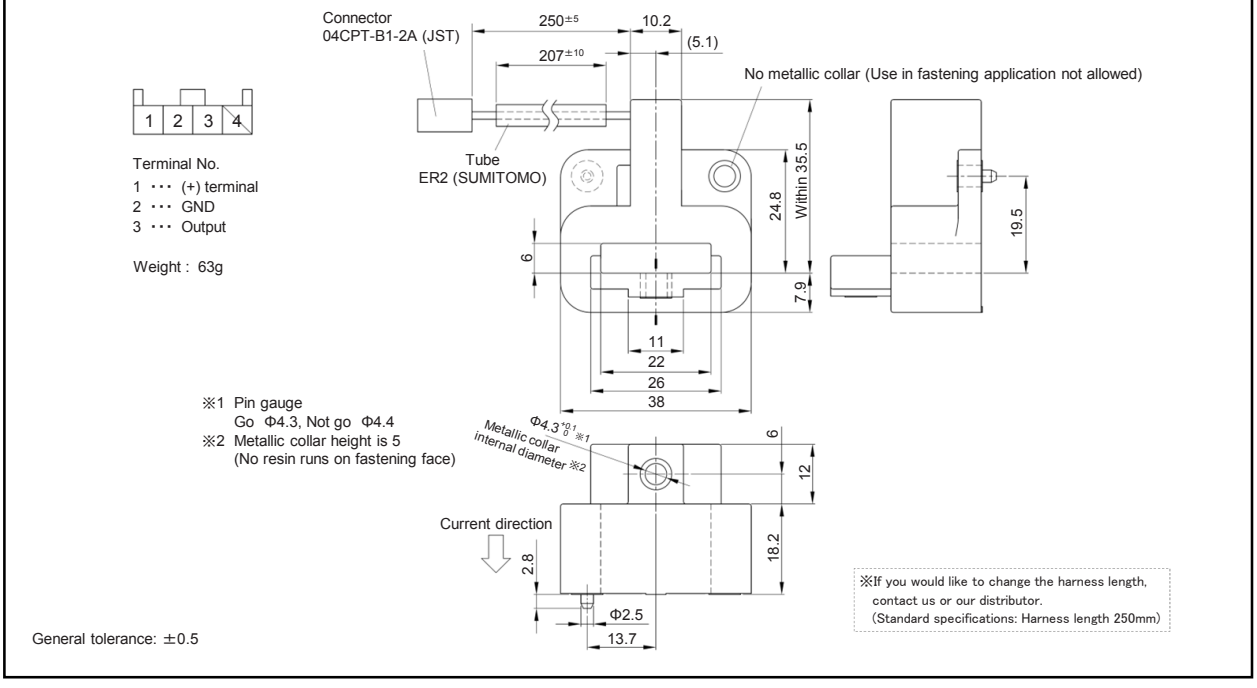
- Rated current 200A ~ 800A
- Small size handles large current (MAX 800A)
- Ensures broad operating temperature range (-40°C ~ +125°C)
- 5V single power supply ratio metric specifications
- Attached to bus-bar, cable output specifications

Applications

HEV inverters, EV inverters, Current detection in on-board devices

Dimensions

(mm)



Specification

Ta=25℃

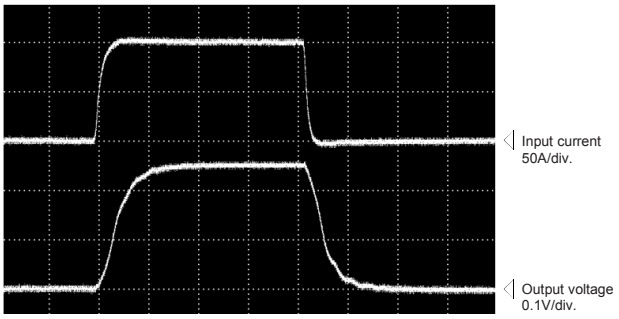
Type		HC-ASB200V2PP5-16	HC-ASB400V2PP5-16	HC-ASB600V2PP5-16	HC-ASB800V2PP5-16
Rated current [If]		±200A	±400A	±600A	±800A
Saturation current [Is]		±220A	±440A	±660A	±880A
Linearity limits		0~±200A	0~±400A	0~±600A	0~±800A
Rated output [Vh]	I=+If	Within V0+2V × (Vcc/5)±1.5% (RL=10kΩ)			
	I=-If	Within V0-2V × (Vcc/5)±1.5% (RL=10kΩ)			
Residual output [V0]		Within Vcc/2±30mV			
Output linearity		Within ±1%			
Response time		Within 10μs (at di/dt=100A/μs)			
Response performance		Within 10%			
Hysteresis voltage range		Within 30mV	Within 22mV	Within 16mV	Within 13mV
Output Temp. Coef.		Within ±0.04%/℃			
Residual output Temp. Coef.		Within ±1mV/℃	Within ±0.6mV/℃	Within ±0.5mV/℃	Within ±0.4mV/℃
Control power supply [Vcc]		+5V±4%			
Power variation characteristics change [+5V±4%]	I=±If	3.5~4.5%			
	I=0	3.2~4.8%	3.5~4.5%		
Consumption current		Within 30mA			
Operating Temp.		-40℃~+125℃			
Storage Temp.		-40℃~+125℃			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Output specifications include 100-Ω output resistance and 1-mA maximum output current.
Note3) Since residual output is ratiometric output, it varies according to the control power supply value.
Note4) Code at the end of the model name represents harness specifications.

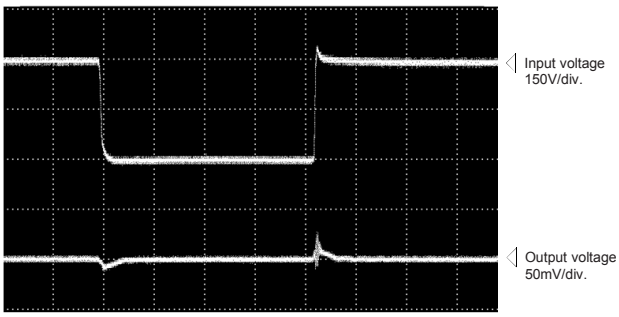
Characteristics chart

HC-ASB800V2PP5-16 Time base: 5μs/div.

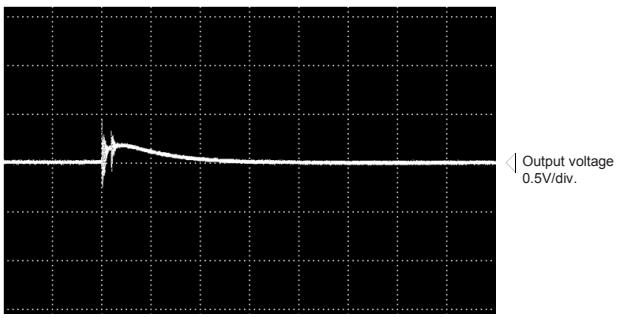
Pulse current response characteristic



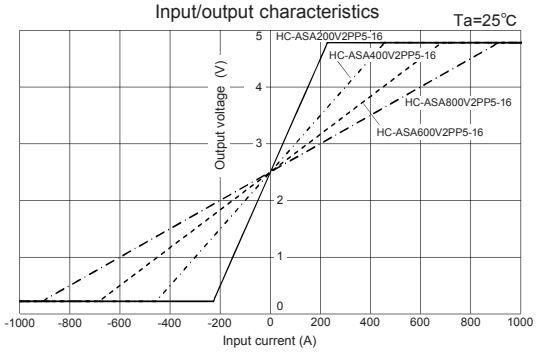
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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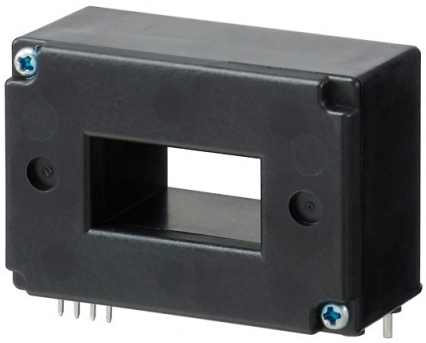
HC-PZ series

Small-sized, medium-capacity type
PCB-mounting type

HC-PZ



- Rated current 50A ~ 800A
- Models available from low-to medium-capacity
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

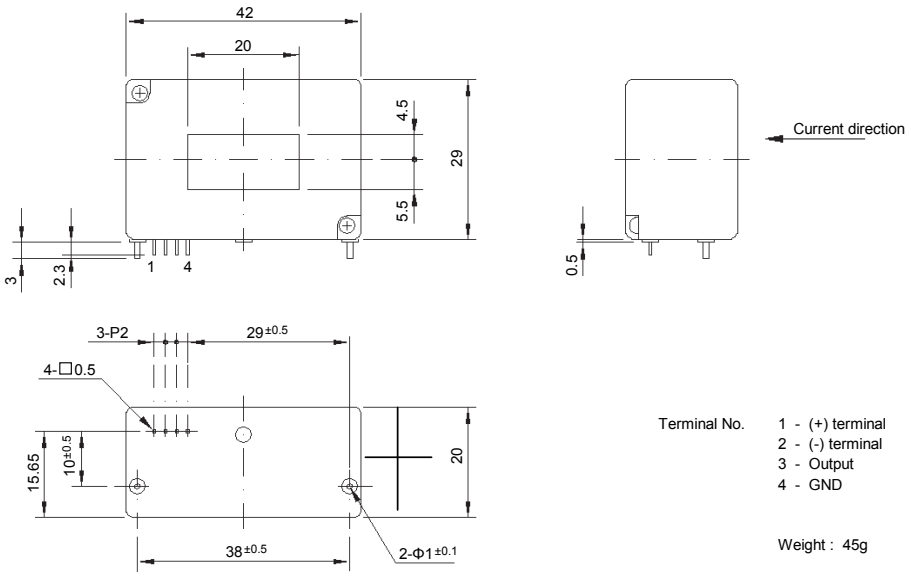
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools

Dimensions

(mm)



Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 45g

General tolerance: ±0.5

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Specification

Ta=25°C

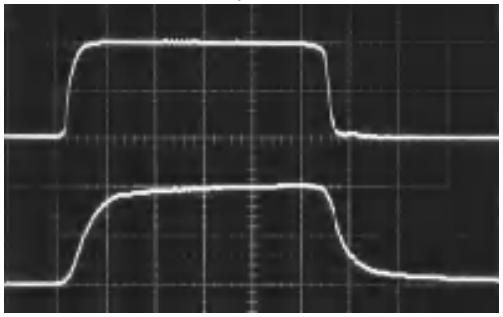
Type		HC-PZ050V4B15	HC-PZ100V4B15	HC-PZ300V4B15	HC-PZ600V4B15	HC-PZ800V4B15
Rated current	[If]	±50A	±100A	±300A	±600A	±800A
Saturation current	[Is]	±150A	±300A	±900A	±1000A	±1000A
Linearity limits		0~±150A	0~±300A	0~±700A	0~±800A	0~±800A
Rated output	[Vh]	±4V±1%				
Residual output	[Vo]	Within ±50mV				
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 200mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±4mV/°C	Within ±2mV/°C	Within ±1mV/°C		
Control power supply		±15V±5%				
Consumption current		Within 30mA				
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

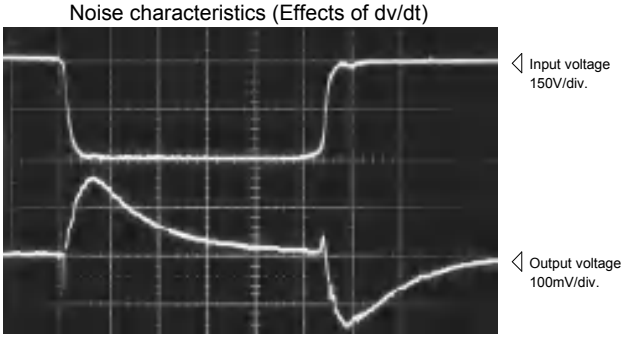
Characteristics chart

HC-PZ100V4B15 5μs/div. Time base

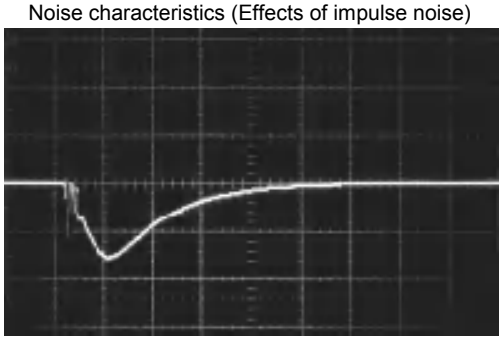
Pulse current response characteristic



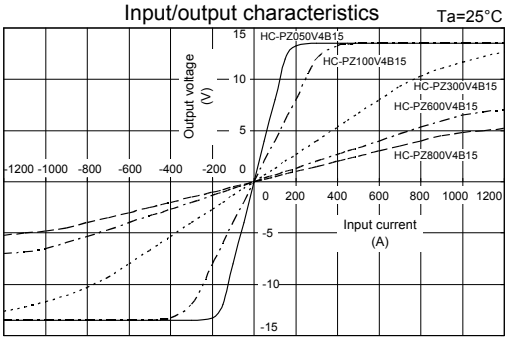
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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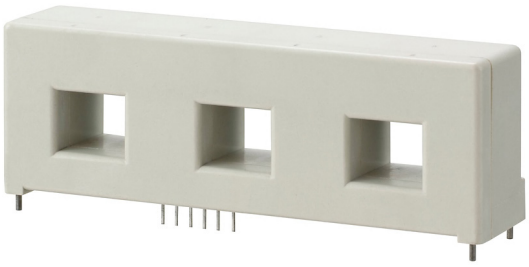
HC-PT series

Small-sized, medium-capacity type
PCB-mounting type

HC-PT



- Rated current 50A ~ 300A
- Three circuits can be measured at the same time
- Ferrite core specification also available (Rated current 50A ~ 100A)
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

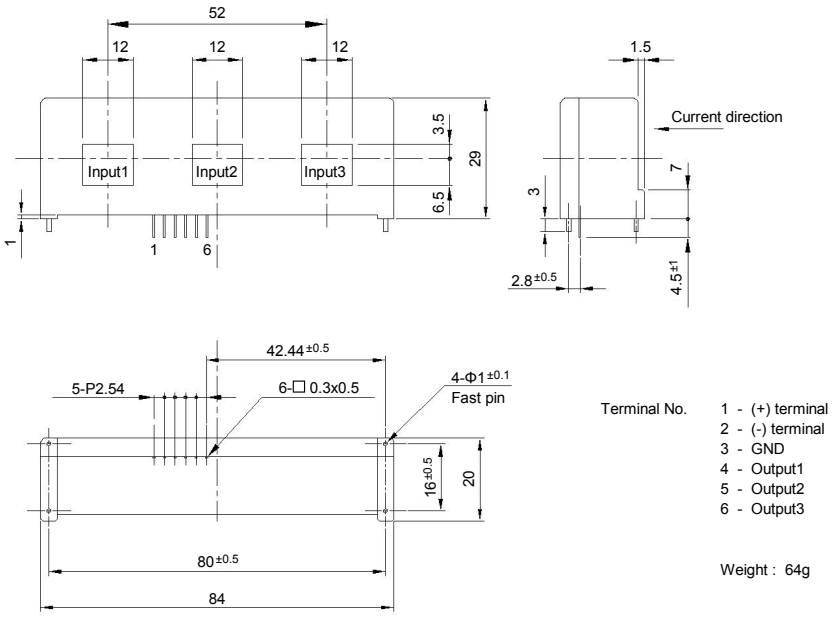
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools

Dimensions

(mm)



Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - GND
4 - Output1
5 - Output2
6 - Output3

Weight : 64g

General tolerance: ±0.5

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Specification

Ta=25°C

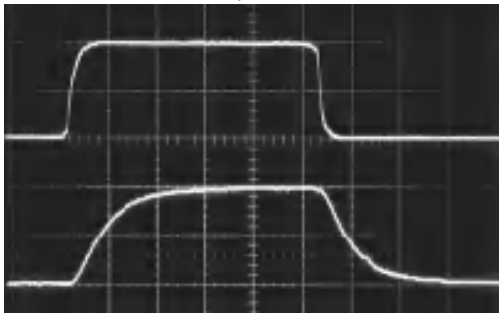
Type		HC-PT050V4B15	HC-PT100V4B15	HC-PT150V4B15	HC-PT200V4B15	HC-PT300V4B15
Rated current	[If]	±50A	±100A	±150A	±200A	±300A
Saturation current	[Is]	±150A	±300A	±450A	±600A	±600A
Linearity limits		0~±150A	0~±300A	0~±400A	0~±400A	0~±400A
Rated output	[Vh]	±4V±1%				
Residual output	[Vo]	Within ±50mV				
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 200mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±4mV/°C	Within ±3mV/°C		Within ±2mV/°C	
Control power supply		±15V±5%				
Consumption current		Within 60mA				
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

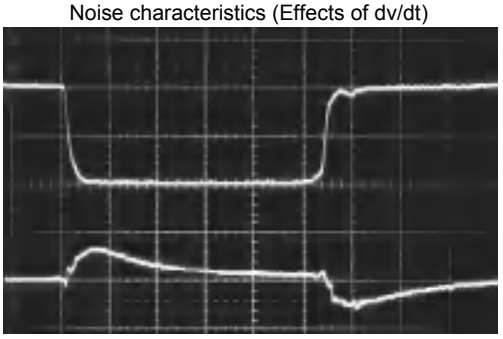
Characteristics chart

HC-PT100V4B15 5μs/div. Time base

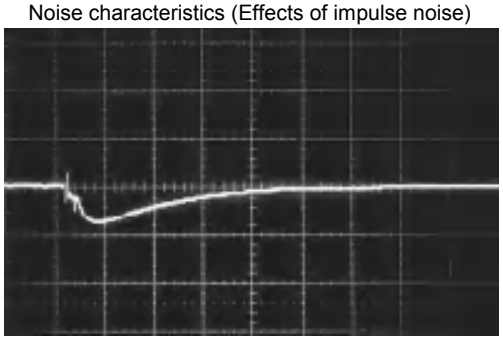
Pulse current response characteristic



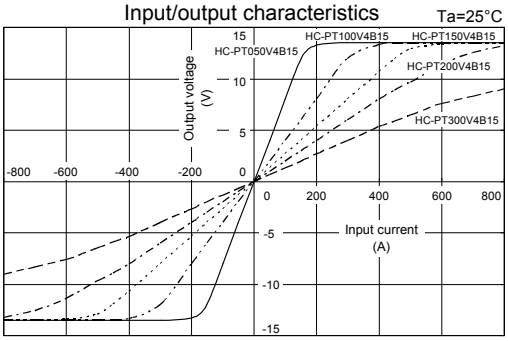
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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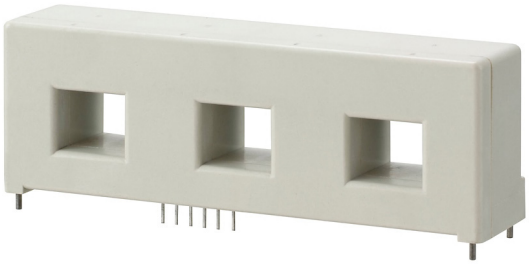
HC-PTW series

Small-sized, medium-capacity type
PCB-mounting type

HC-PTW



- Rated current 50A ~ 300A
- Two circuits can be measured at the same time
- Ferrite core specification also available (Rated current 50A ~ 100A)
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

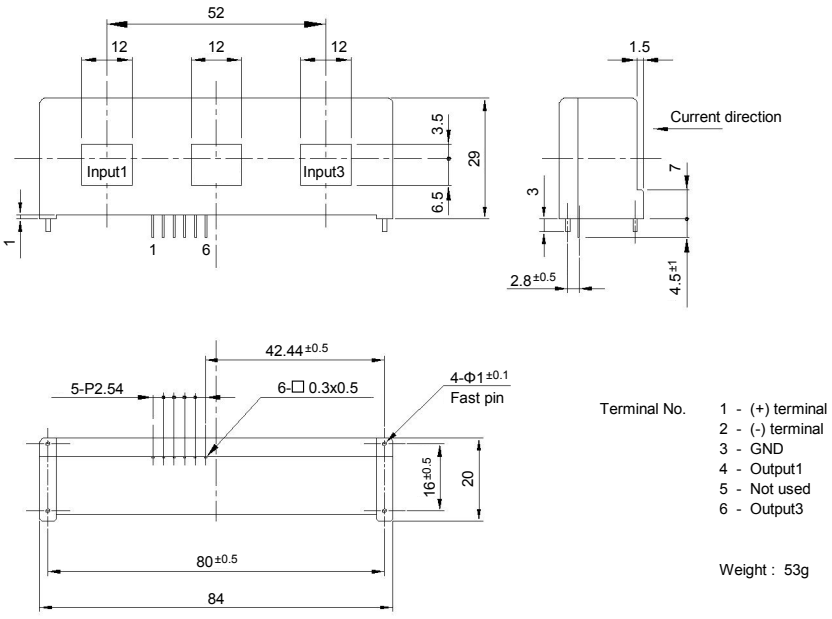
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools

Dimensions

(mm)



Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - GND
4 - Output1
5 - Not used
6 - Output3

Weight : 53g

General tolerance: ±0.5

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Specification

Ta=25°C

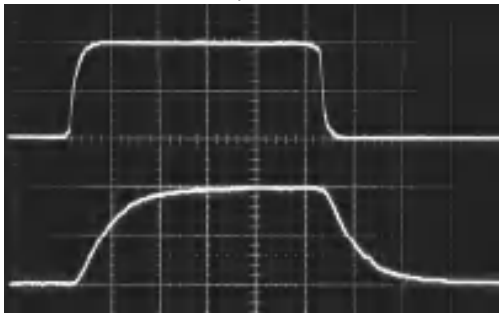
Type		HC-PTW050V4B15	HC-PTW100V4B15	HC-PTW150V4B15	HC-PTW200V4B15	HC-PTW300V4B15
Rated current	[If]	±50A	±100A	±150A	±200A	±300A
Saturation current	[Is]	±150A	±300A	±450A	±600A	±600A
Linearity limits		0~±150A	0~±300A	0~±400A	0~±400A	0~±400A
Rated output	[Vh]	±4V±1%				
Residual output	[Vo]	Within ±50mV				
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 200mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±4mV/°C	Within ±3mV/°C		Within ±2mV/°C	
Control power supply		±15V±5%				
Consumption current		Within 40mA				
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

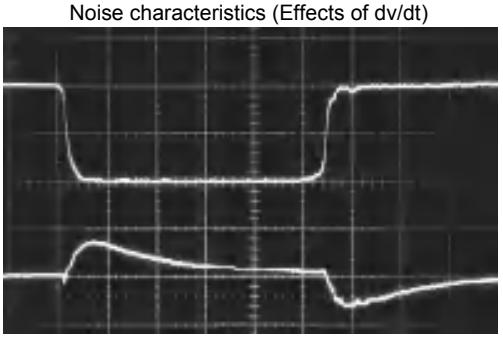
Characteristics chart

HC-PTW100V4B15 5μs/div. Time base

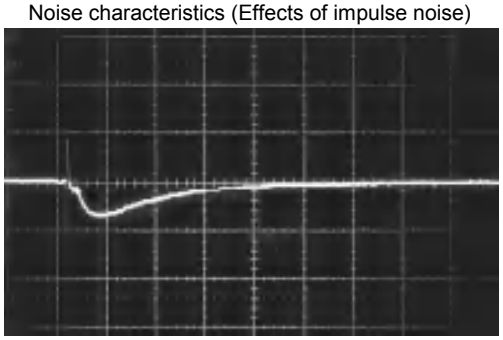
Pulse current response characteristic



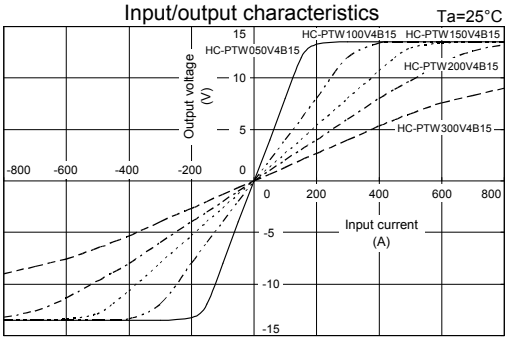
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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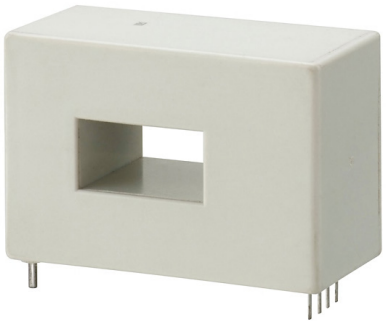
HC-PG series

Small-sized, medium-capacity type
PCB-mounting type

HC-PG



- Rated current 50A ~ 300A
- Superior noise-resistance
- Ferrite core specification also available
  (Rated current 50A ~ 100A)
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

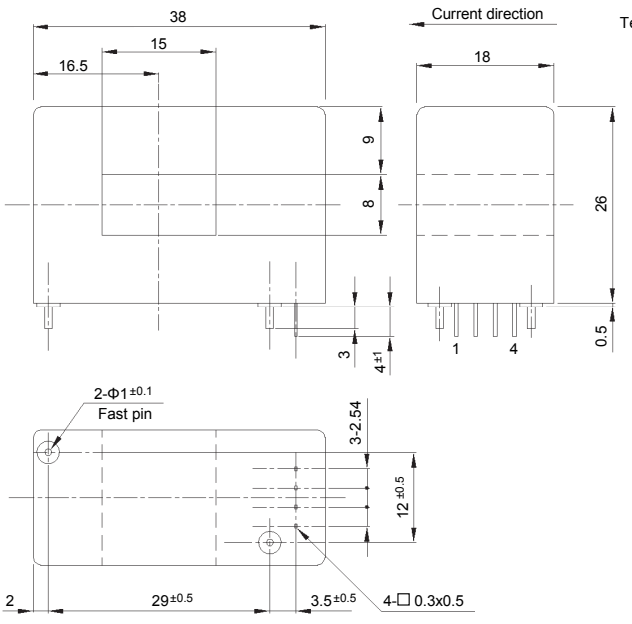
±15V Spec ±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools

Dimensions

(mm)



Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output

Weight : 38g

General tolerance: ±0.5

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Specification

Ta=25°C

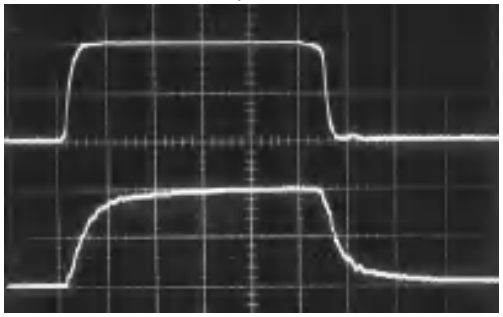
Type		HC-PG050V4B15	HC-PG100V4B15	HC-PG150V4B15	HC-PG200V4B15	HC-PG300V4B15
Rated current	[If]	±50A	±100A	±150A	±200A	±300A
Saturation current	[Is]	±150A	±300A	±450A	±600A	±900A
Linearity limits		0~±150A	0~±300A	0~±450A	0~±500A	0~±700A
Rated output	[Vh]	±4V±1%				
Residual output	[Vo]	Within ±50mV				
Output linearity		Within ±1%				
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 100mV				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±4mV/°C	Within ±3mV/°C		Within ±2mV/°C	
Control power supply		±15V±5%				
Consumption current		Within 30mA				
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

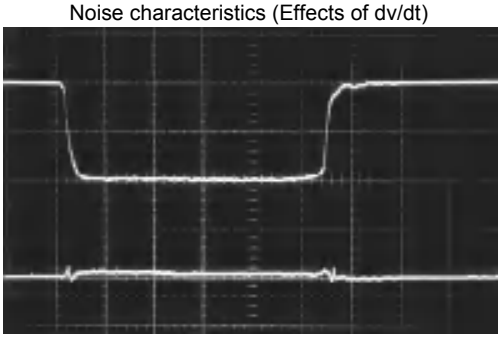
Characteristics chart

HC-PG100V4B15 5μs/div. Time base

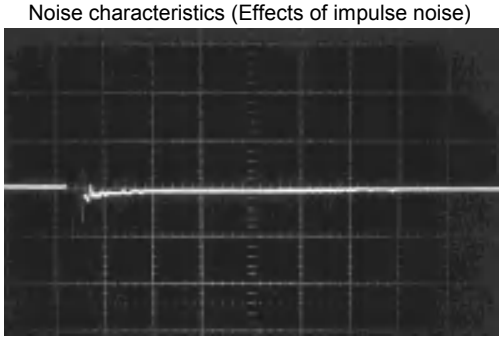
Pulse current response characteristic



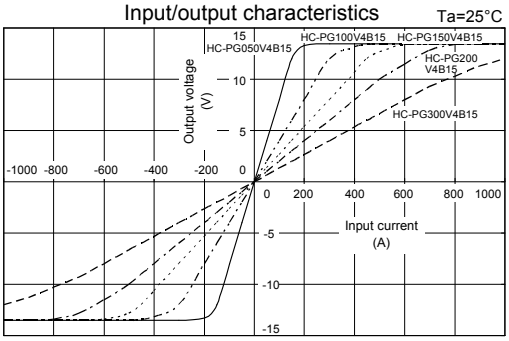
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-PJ series

Small-sized, low-capacity type
PCB-mounting type

HC-PJ

- Rated current 50A ~ 200A
- Superior noise-resistance
- Ferrite core specification also available (Rated current 50A ~ 100A)
- Single-power supplies also available
- For additional ±12V products, contact sales@dgseals.com or click below

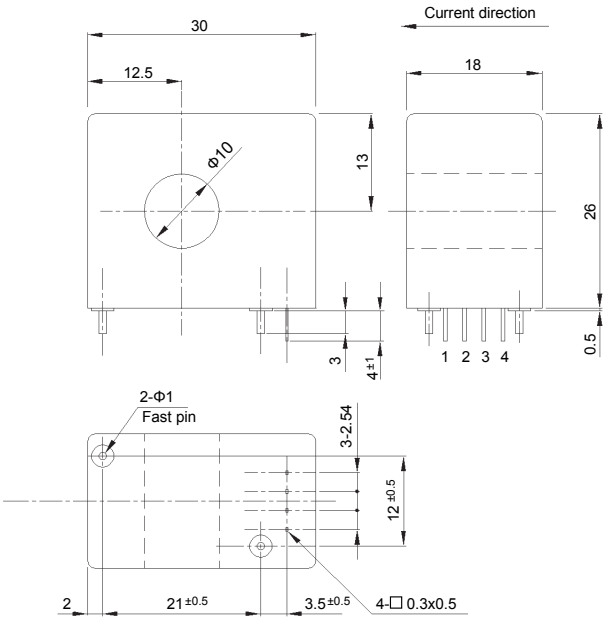
±12V Spec

Applications

Inverters, Power supply equipment, NC machine tools

Dimensions

(mm)



Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output

Weight : 21g

General tolerance: ±0.5

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Specification

Ta=25°C

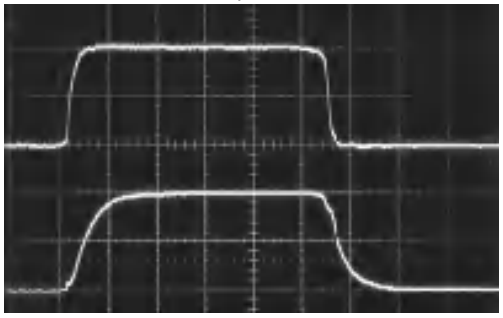
Type		HC-PJ050V4B15	HC-PJ100V4B15	HC-PJ150V4B15	HC-PJ200V4B15
Rated current	[If]	±50A	±100A	±150A	±200A
Saturation current	[Is]	±150A	±300A	±450A	±600A
Linearity limits		0~±150A	0~±300A	0~±450A	0~±500A
Rated output	[Vh]	±4V±1%			
Residual output	[Vo]	Within ±50mV			
Output linearity		Within ±1%			
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)			
Response performance		Within 10%			
Hysteresis voltage range		Within 100mV			
Output Temp. Coef.		Within ±0.1%/°C			
Residual output Temp. Coef.		Within ±4mV/°C	Within ±3mV/°C		Within ±2mV/°C
Control power supply		±15V±5%			
Consumption current		Within 30mA			
Operating Temp.		-10°C~+80°C			
Storage Temp.		-15°C~+85°C			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

Note1) The indicated rated output is the one when no load is applied.
Note2) The indicated residual voltage is the one after the core hysteresis is removed.

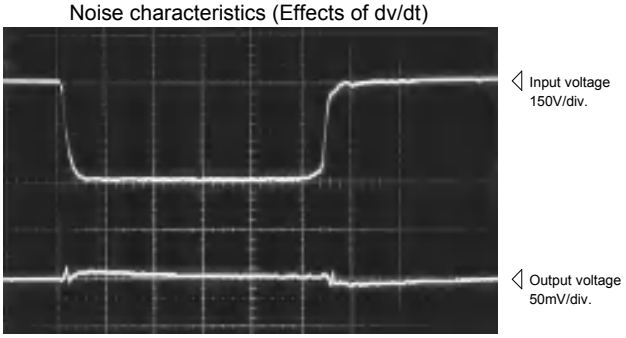
Characteristics chart

HC-PJ100V4B15 5μs/div. Time base

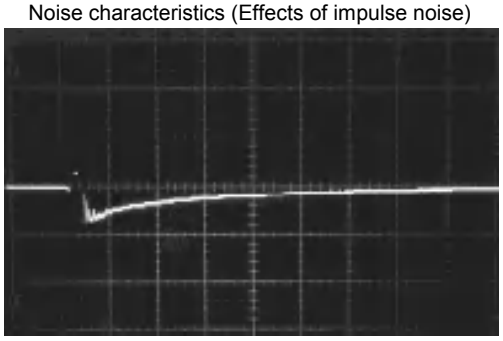
Pulse current response characteristic



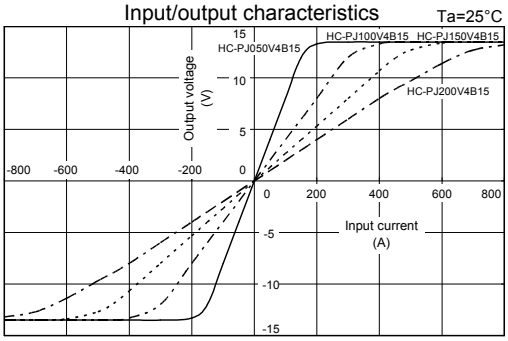
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HC-PVT series

Small-sized, low-capacity type
PCB-mounting type

HC-PVT

- Rated current 10A ~ 50A
- Well isolated for European Standards
- Three circuits can be measured at the same time
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

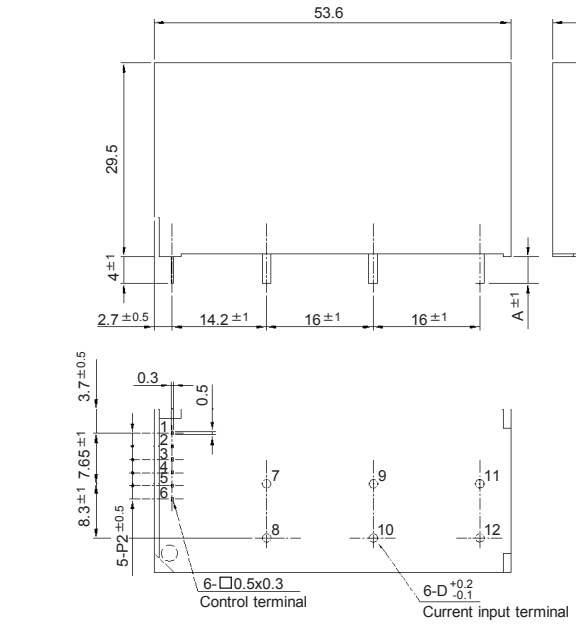
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS)

Dimensions

(mm)



General tolerance: ±0.5

Dimensions of Current Input Terminals

Size of primary winding	Width D	Width A
Φ0.8	Φ0.8	4
Φ1.0	Φ1.0	4
Φ1.3	Φ1.3	4
Φ1.6	Φ1.6	4

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - GND
4 - Output1
5 - Output2
6 - Output3
7 - (+) input1
8 - (-) input1
9 - (+) input2
10 - (-) input2
11 - (+) input3
12 - (-) input3

Weight : 50g

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Specification

Ta=25℃

Type	HC-PVT10V4B15	HC-PVT20V4B15	HC-PVT30V4B15	HC-PVT50V4B15
Rated current [If]	±10A	±20A	±30A	±50A
Continuously flowing DC current	±13.8A	±13.8A	±23.3A	±35.4A
Saturation current [Is]	±27.6A	±46A	±69A	±138A
Linearity limits	0~±20A	0~±33.3A	0~±50A	0~±100A
Size of primary winding	Φ1.0	Φ1.0	Φ1.3	Φ1.6
Turns	5	3	2	1
Rated output [Vh]	V0±4V±2% (RL=10kΩ)			
Residual output [Vo]	Within ±100mV			
Output linearity	Within ±1%			
Response time	Within 10μs (at di/dt=If/μs)			
Response performance	Within 10%			
Hysteresis voltage range	Within 100mV			
Output Temp. Coef.	Within ±0.1%/℃			
Residual output Temp. Coef.	Within ±3mV/℃			
Control power supply	±15V±5%			
Consumption current	Within 60mA			
Operating Temp.	-10℃~+80℃			
Storage Temp.	-15℃~+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

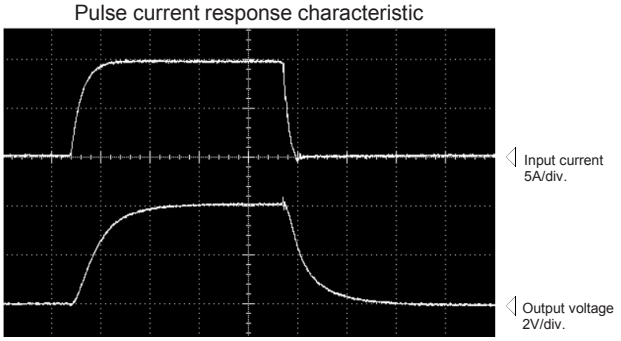
Note1) The indicated residual output is the one after the core hysteresis is removed.

Characteristics chart

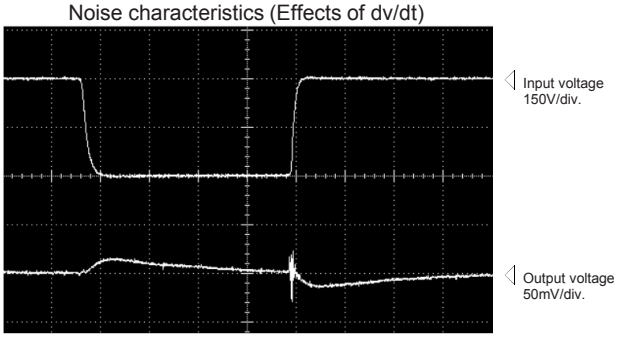
HC-PVT10V4B15

Time base: 5μs/div.

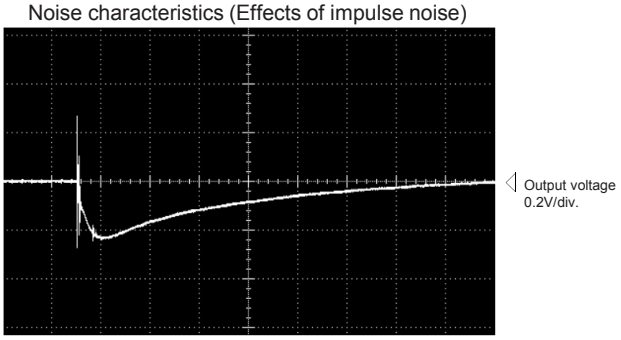
Pulse current response characteristic



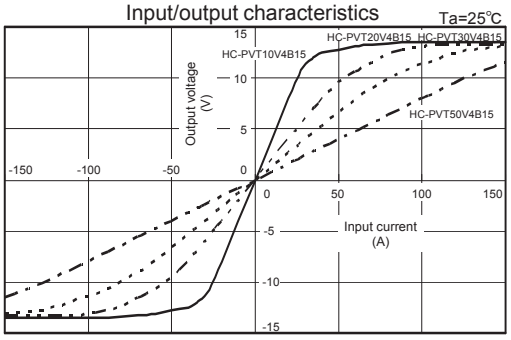
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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HC-PSG series

Small-sized, low-capacity type
PCB-mounting type

HC-PSG

- Rated current 1A ~ 50A
- Superior noise-resistance
- Models available from 1A
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

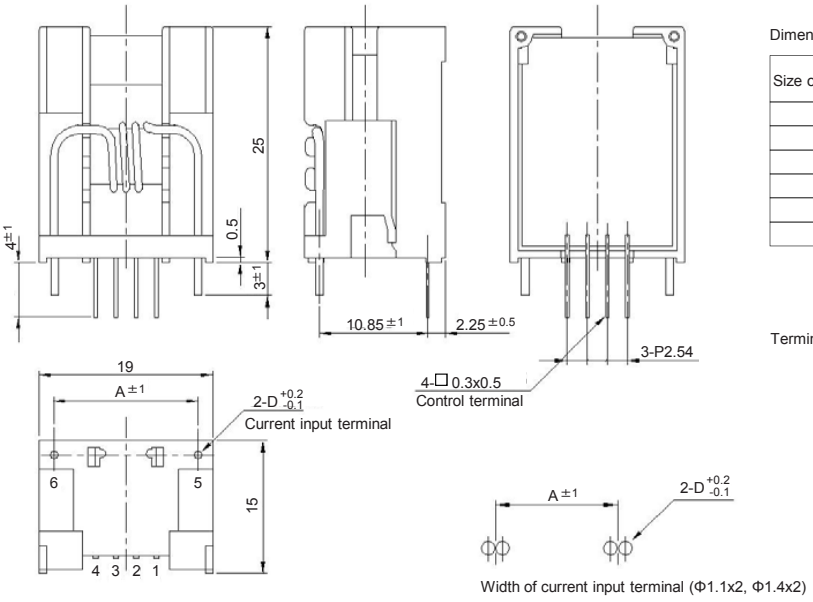
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS)

Dimensions

(mm)



Width of current input terminal (Φ1.1x2, Φ1.4x2)

Dimensions of Current Input Terminals

Size of primary winding	Width D	Width A
Φ0.4	Φ1.3	15.7
Φ0.8	Φ0.8	15.7
Φ1.0	Φ1.0	15.7
Φ1.3	Φ1.3	15.7
Φ1.1 x 2	Φ1.1 x 2	14.3
Φ1.4 x 2	Φ1.4 x 2	14.3

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 8g

General tolerance: ±0.5

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Specification

Ta=25℃

Type	HC-	HC-	HC-	HC-	HC-	HC-
Rated current [If]	±1A	±5A	±10A	±20A	±30A	±50A
Continuously flowing DC current	±2.2A	±8.8A	±13.8A	±23.3A	±33.4A	±54.1A
Saturation current [Is]	±3A	±15A	±30A	±45A	±90A	±90A
Linearity limits	0~±2.5A	0~±12.5A	0~±25A	0~±37.5A	0~±75A	0~±75A
Size of primary winding	Φ0.4	Φ0.8	Φ1.0	Φ1.3	Φ1.1 x 2	Φ1.4 x 2
Turns	30	6	3	2	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [Vo]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃~+80℃					
Storage Temp.	-15℃~+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

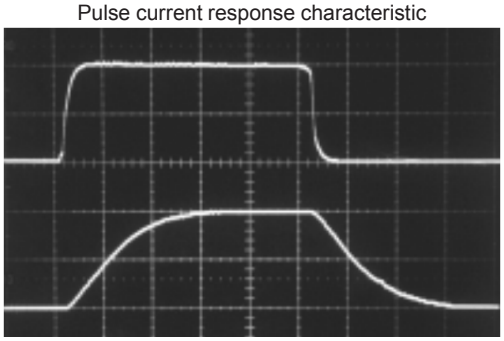
Note1) The indicated residual output is the one after the core hysteresis is removed.

Characteristics chart

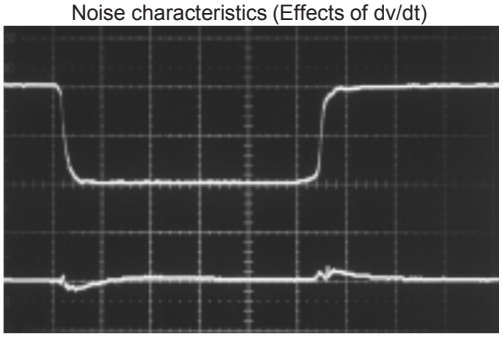
HC-PSG05V4B15

Time base: 5μs/div.

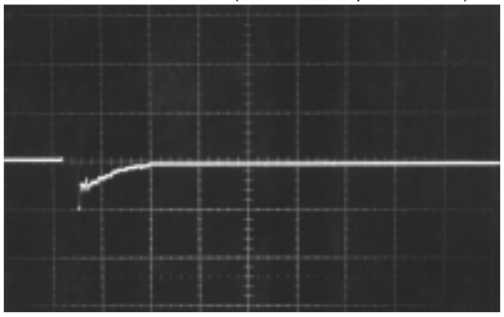
Pulse current response characteristic



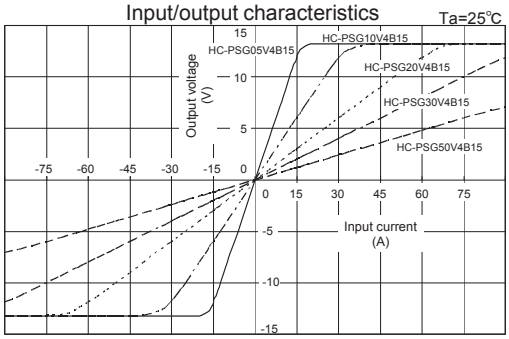
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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HC-PSE series

Small-sized, low-capacity type
PCB-mounting type

HC-PSE

- Rated current 5A ~ 50A
- Well isolated for European Standards
- Superior noise-resistance
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

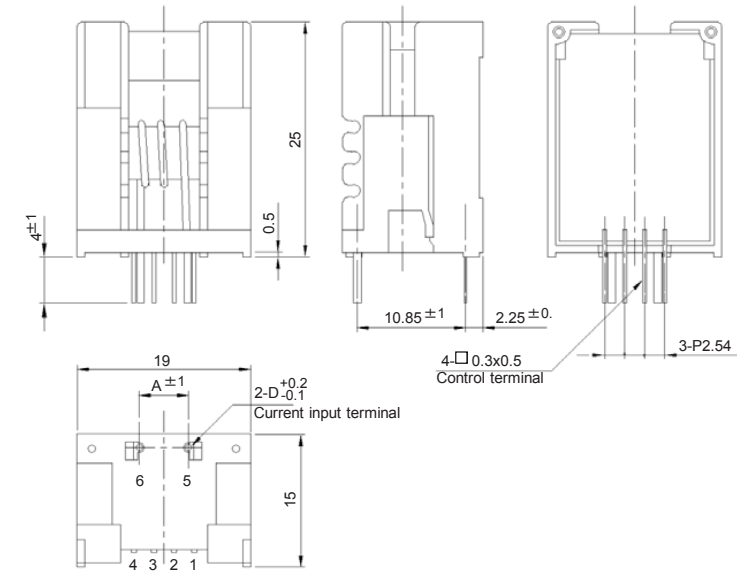
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS)

Dimensions

(mm)



Dimensions of Current Input Terminals

Size of primary winding	Width D	Width A
Φ0.8	Φ0.8	5.7
Φ1.0	Φ1.0	5.7
Φ1.3	Φ1.3	5.7
Φ1.6	Φ1.6	5.2

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 8g

General tolerance: ±0.5

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Specification

Ta=25℃

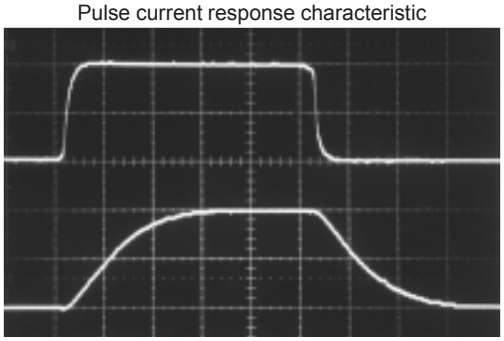
Type	HC-PSE05V4B15	HC-PSE10V4B15	HC-PSE20V4B15	HC-PSE30V4B15	HC-PSE50V4B15
Rated current [If]	±5A	±10A	±20A	±30A	±50A
Continuously flowing DC current	±8.8A	±13.8A	±23.3A	±23.3A	±35.4A
Saturation current [Is]	±15A	±30A	±45A	±90A	±90A
Linearity limits	0~±12.5A	0~±25A	0~±37.5A	0~±75A	0~±75A
Size of primary winding	Φ0.8	Φ1.0	Φ1.3	Φ1.3	Φ1.6
Turns	6	3	2	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [Vo]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±6mV/℃				
Control power supply	±15V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10℃~+80℃				
Storage Temp.	-15℃~+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

Note1) The indicated residual output is the one after the core hysteresis is removed.

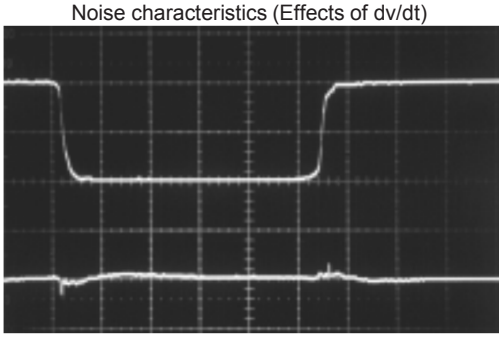
Characteristics chart

HC-PSE05V4B15 Time base: 5μs/div.

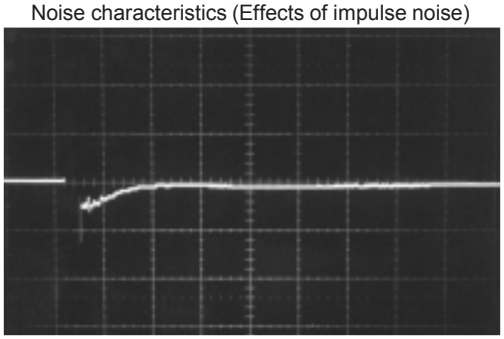
Pulse current response characteristic



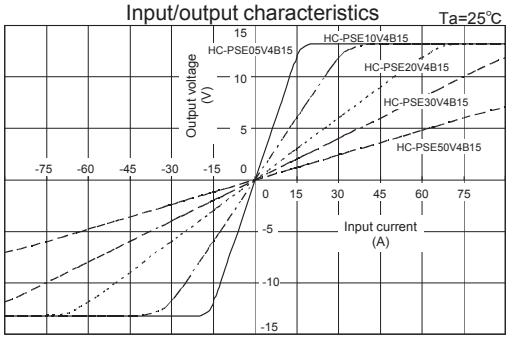
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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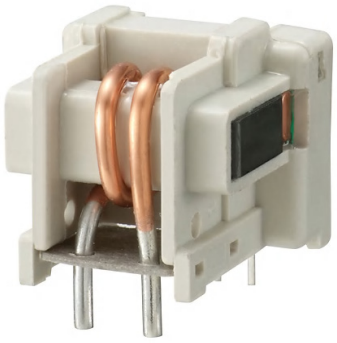
HC-PD series

Very small-sized, low-capacity type
PCB-mounting type

HC-PD



- Rated current 5A ~ 50A
- Reduced height compact design
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

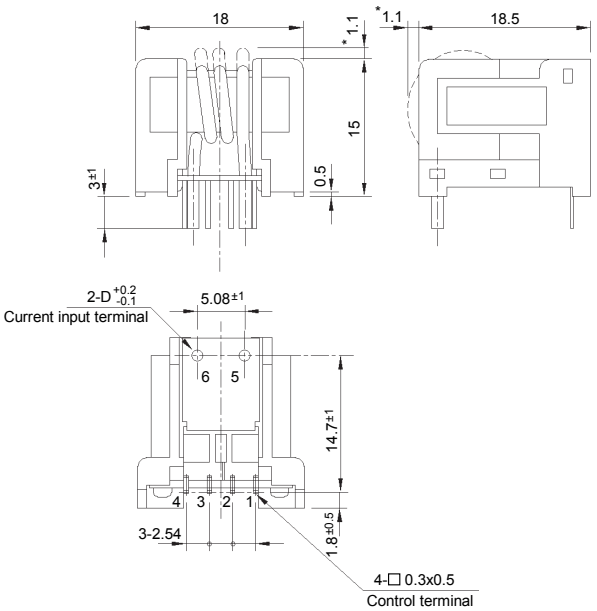
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, NC machine tools

Dimensions

(mm)



General tolerance: ±0.5

Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ0.8	Φ0.8
Φ1.3	Φ1.3
Φ1.6	Φ1.6

Note) The dimensions marked with * are protruded areas of the primary winding

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 6g

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Specification

Ta=25°C

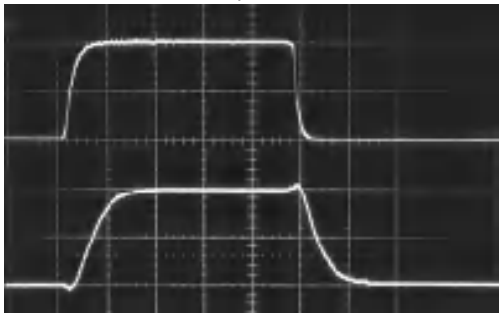
Type	HC-PD05V4B15	HC-PD10V4B15	HC-PD20V4B15	HC-PD30V4B15	HC-PD50V4B15
Rated current [If]	±5A	±10A	±20A	±30A	±50A
Continuously flowing DC current	±8.8A	±23.3A	±23.3A	±35.4A	±35.4A
Saturation current [Is]	±15A	±30A	±45A	±90A	±90A
Linearity limits	0~±12.5A	0~±25A	0~±37.5A	0~±75A	0~±75A
Size of primary winding	Φ0.8	Φ1.3	Φ1.3	Φ1.6	Φ1.6
Turns	6	3	2	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [Vo]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/°C				
Residual output Temp. Coef.	Within ±6mV/°C				
Control power supply	±15V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10°C~+80°C				
Storage Temp.	-15°C~+85°C				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

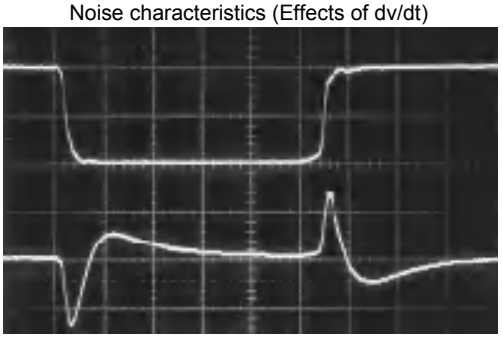
Characteristics chart

HC-PD05V4B15 5μs/div. Time base

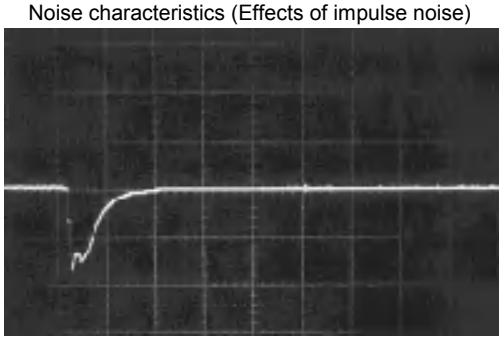
Pulse current response characteristic



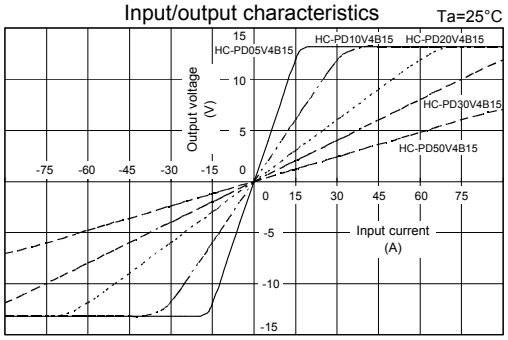
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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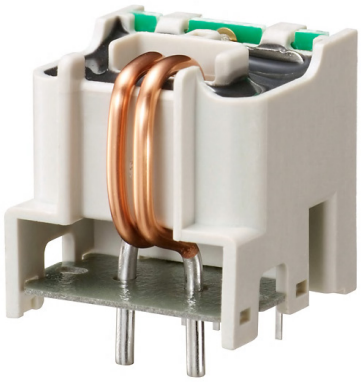
HC-PDG series

Very small-sized, low-capacity type
PCB-mounting type

HC-PDG



- Rated current 5A ~ 50A
- Superior noise-resistance
- Superior saturation characteristics
- Reduced height compact design
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

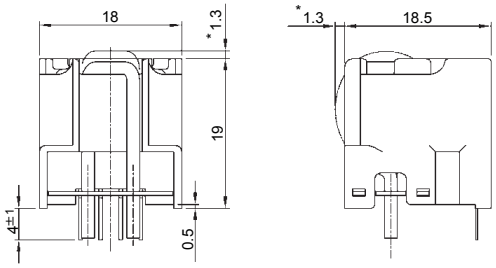
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

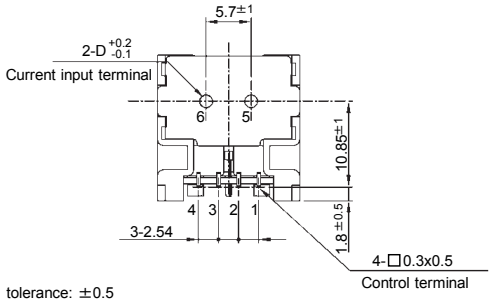
(mm)



Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ0.8	Φ0.8
Φ1.0	Φ1.0
Φ1.1	Φ1.1
Φ1.3	Φ1.3
Φ1.6	Φ1.6

Note) Marking * mean maximum dimensions of primary winding protuberant.



General tolerance: ±0.5

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 9g

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Specification

Ta=25° C

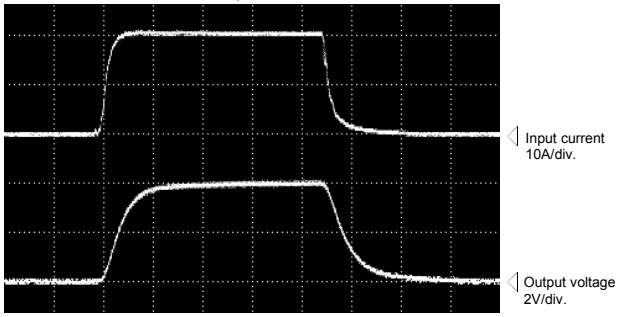
Type	HC-PDG05V4B15	HC-PDG10V4B15	HC-PDG20V4B15	HC-PDG30V4B15	HC-PDG50V4B15
Rated current [If]	±5A	±10A	±20A	±30A	±50A
Continuously flowing DC current	±8.8A	±13.8A	±23.3A	±23.3A	±35.4A
Saturation current [Is]	±15A	±25A	±50A	±75A	±150A
Linearity limits	0~±13.5A	0~±22.5A	0~±45A	0~±67.5A	0~±135A
Size of primary winding	Φ0.8	Φ1.0	Φ1.3	Φ1.3	Φ1.6
Turns	10	6	3	2	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)				
Residual output [Vo]	Within ±50mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis voltage range	Within 60mV				
Output Temp. Coef.	Within ±0.1%/° C				
Residual output Temp. Coef.	Within ±2mV/° C				
Control power supply	±15V±5%				
Consumption current	Within 20mA				
Operating Temp.	-10° C~+80° C				
Storage Temp.	-15° C~+85° C				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

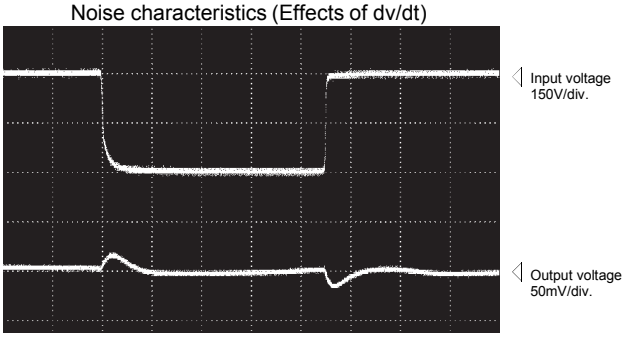
Characteristics chart

HC-PDG20V4B15 5μs/div. Time base

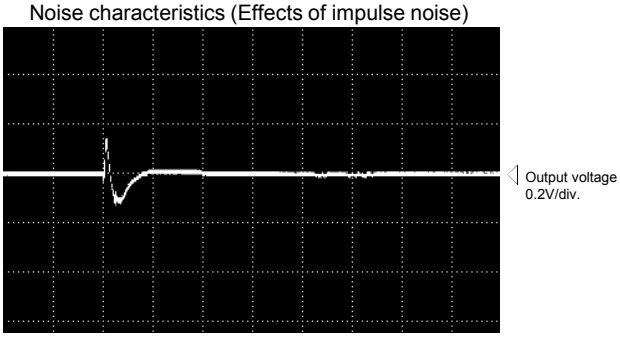
Pulse current response characteristic



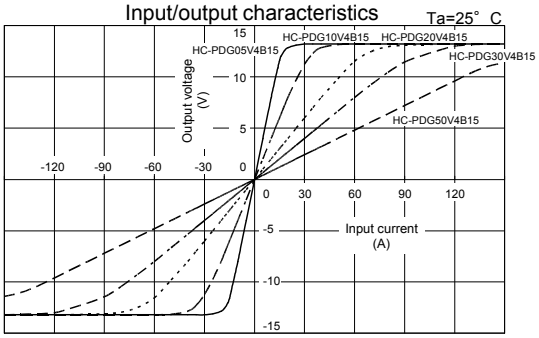
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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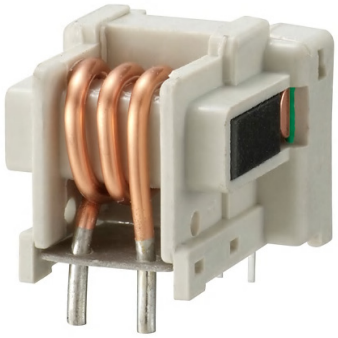
HC-PDN series

Very small-sized, low-capacity type
PCB-mounting type

HC-PDN



- Rated current 5A ~ 50A
- Well isolated for European Standards
- Superior noise-resistance
- Reduced height compact design
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

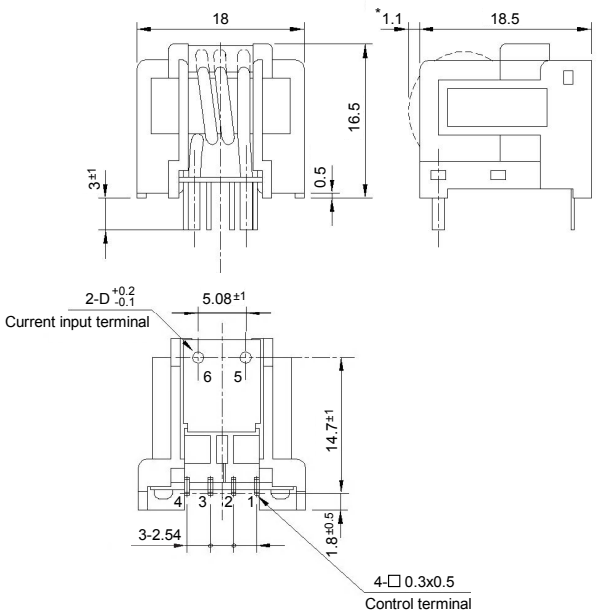
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, NC machine tools

Dimensions

(mm)



General tolerance: ±0.5

Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ0.8	Φ0.8
Φ1.3	Φ1.3
Φ1.6	Φ1.6

Note) The dimensions marked with * are protruded areas of the primary winding

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 6g

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Specification

Ta=25°C

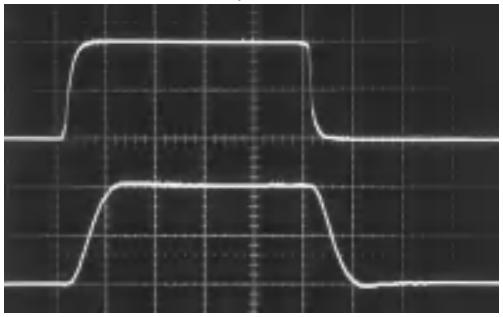
Type	HC-PDN05V4B15	HC-PDN10V4B15	HC-PDN20V4B15	HC-PDN30V4B15	HC-PDN50V4B15
Rated current [If]	±5A	±10A	±20A	±30A	±50A
Continuously flowing DC current	±8.8A	±23.3A	±23.3A	±35.4A	±35.4A
Saturation current [Is]	±15A	±30A	±45A	±90A	±90A
Linearity limits	0~±12.5A	0~±25A	0~±37.5A	0~±75A	0~±75A
Size of primary winding	Φ0.8	Φ1.3	Φ1.3	Φ1.6	Φ1.6
Turns	6	3	2	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [Vo]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/°C				
Residual output Temp. Coef.	Within ±6mV/°C				
Control power supply	±15V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10°C~+80°C				
Storage Temp.	-15°C~+85°C				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

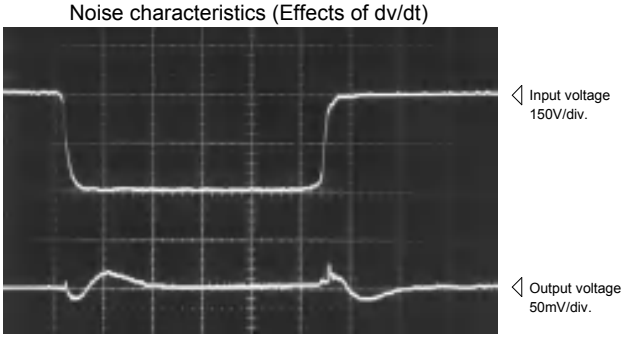
Characteristics chart

HC-PDN05V4B15 5μs/div. Time base

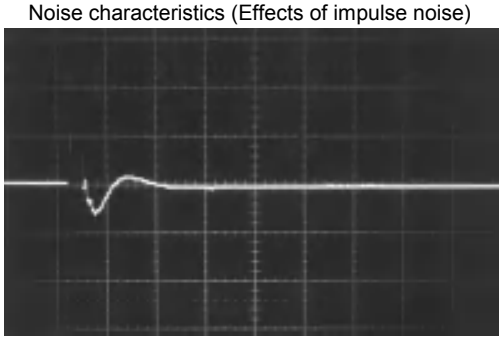
Pulse current response characteristic



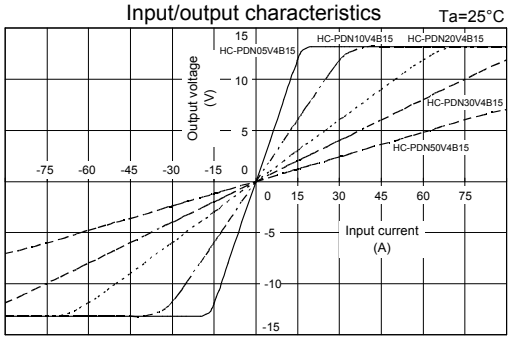
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note : The mark " ◁ " means 0V or 0A.

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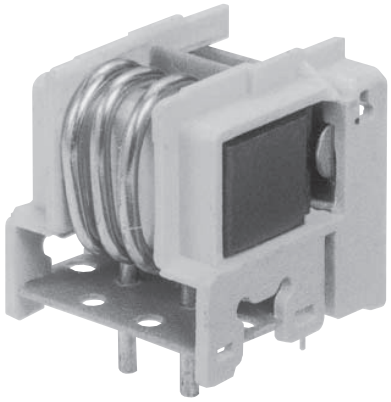
HC–PDA series

Very small-sized, low-capacity type
PCB-mounting type

HC–PDA



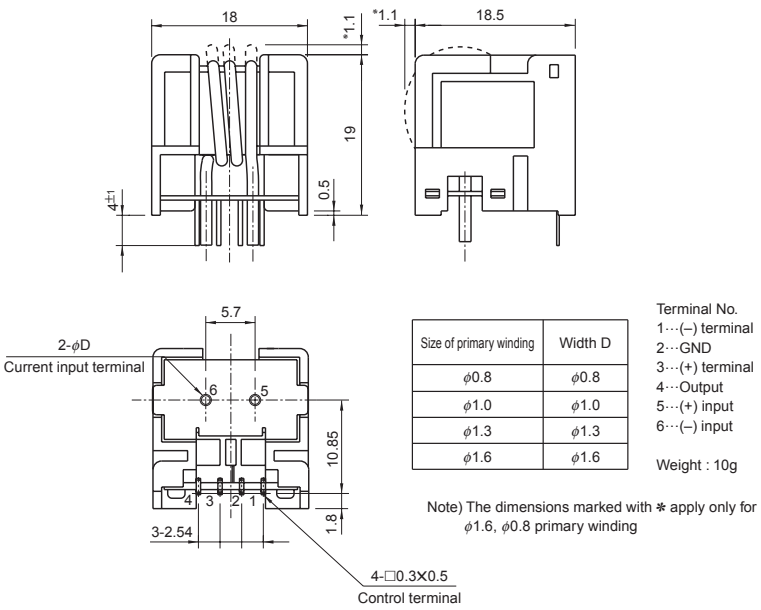
- Rated current ……5A~50A
- Superior noise-resistance
- Superior saturation characteristics
- Reduced height compact design

Applications

Inverters, servo drivers, NC machine tools

Dimensions

(mm)



Size of primary winding	Width D
ϕ0.8	ϕ0.8
ϕ1.0	ϕ1.0
ϕ1.3	ϕ1.3
ϕ1.6	ϕ1.6

Terminal No.
1…(–) terminal
2…GND
3…(+) terminal
4…Output
5…(+) input
6…(–) input

Weight : 10g

Note) The dimensions marked with * apply only for ϕ1.6, ϕ0.8 primary winding

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Specification

Ta=25°C

Type	HC-PDA05V4B15	HC-PDA10V4B15	HC-PDA20V4B15	HC-PDA30V4B15	HC-PDA50V4B15
Rated current [If]	±5A	±10A	±20A	±30A	±50A
Saturation current [Is]	±15A	±25A	±50A	±75A	±150A
Linearity limits	0~±13.5A	0~±22.5A	0~±45A	0~±67.5A	0~±135A
Size of primary winding	ϕ0.8	ϕ1.0	ϕ1.3	ϕ1.3	ϕ1.6
Rated output [Vh]	±4V±1.5% (RL=10kΩ)				
Residual output [Vo]	Within ±50mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Output Temp. Coef.	Within ±0.1%/°C				
Residual output Temp. Coef.	Within ±3mV/°C				
Control power supply	±15V±5%				
Operating Temp.	–10°C~+75°C				
Storage Temp.	–15°C~+85°C				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

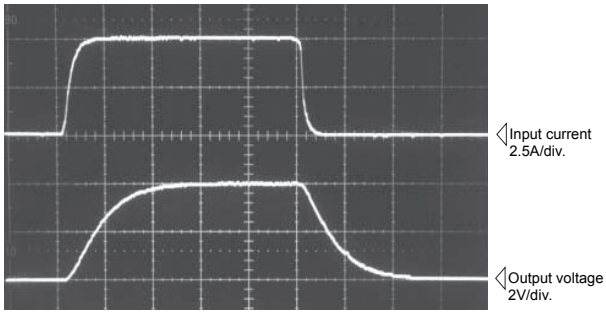
Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) For continuously flowing DC currents, see the principal characteristics marked by an asterisk (※) on page 1-5.

Characteristics chart

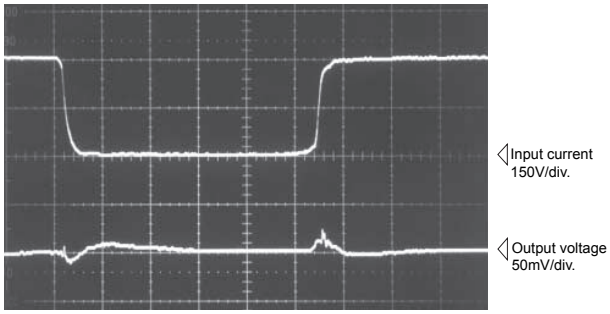
HC-PDA05V4B15

Time base : 5μs/div.

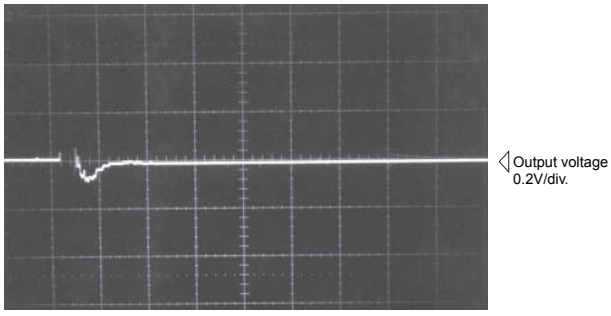
Pulse current response characteristic



Noise characteristics (Effects of dv/dt)

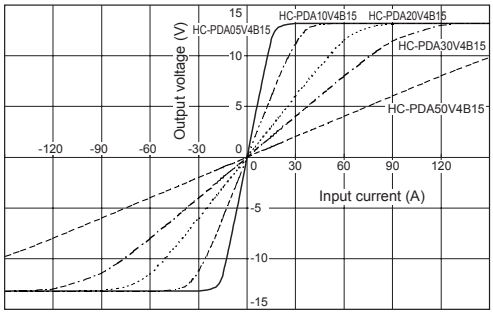


Noise characteristics (Effects of impulse noise)



Input/output characteristics

Ta=25°C



Note : The mark "◁" means 0V or 0A.

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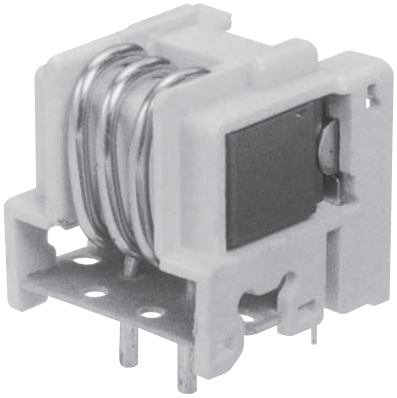
HC-PAE series

Very small-sized, low-capacity type
PCB-mounting type

HC–PAE



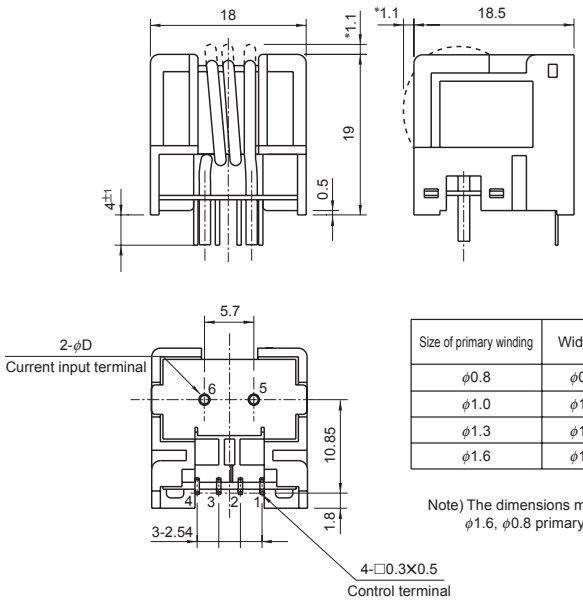
- Well isolated for European Standards
- Rated current ……5A~50A
- Superior noise-resistance
- Superior saturation characteristics
- Reduced height compact design

Applications

Inverters, servo drivers, NC machine tools

Dimensions

(mm)



Size of primary winding	Width D
ϕ0.8	ϕ0.8
ϕ1.0	ϕ1.0
ϕ1.3	ϕ1.3
ϕ1.6	ϕ1.6

Terminal No.
1···(–) terminal
2···GND
3···(+) terminal
4···Output
5···(+) input
6···(–) input

Weight : 10g

Note) The dimensions marked with * apply only for ϕ1.6, ϕ0.8 primary winding

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Specification

Ta=25°C

Type		HC-PAE05V4B15	HC-PAE10V4B15	HC-PAE20V4B15	HC-PAE30V4B15	HC-PAE50V4B15
Rated current	[If]	±5A	±10A	±20A	±30A	±50A
Saturation current	[Is]	±15A	±25A	±50A	±75A	±150A
Linearity limits		0~±13.5A	0~±22.5A	0~±45A	0~±67.5A	0~±135A
Size of primary winding		ϕ0.8	ϕ1.0	ϕ1.3	ϕ1.3	ϕ1.6
Rated output	[Vh]	±4V±1.5% (RL=10kΩ)				
Residual output	[Vo]	Within ±50mV				
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=If/μs)				
Output Temp. Coef.		Within ±0.1%/°C				
Residual output Temp. Coef.		Within ±3mV/°C				
Control power supply		±15V±5%				
Operating Temp.		–10°C~+75°C				
Storage Temp.		–15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

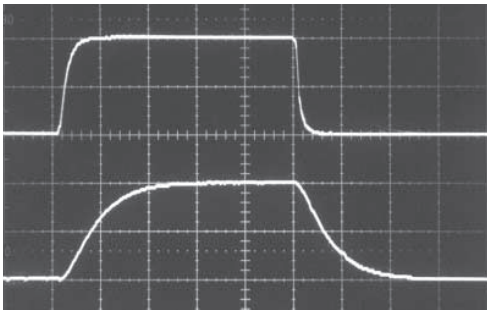
Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) For continuously flowing DC currents, see the principal characteristics marked by an asterisk (※) on page 1-5.

Characteristics chart

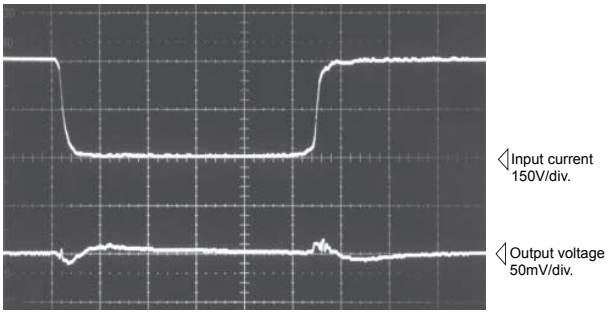
HC-PAE05V4B15

Time base : 5μs/div.

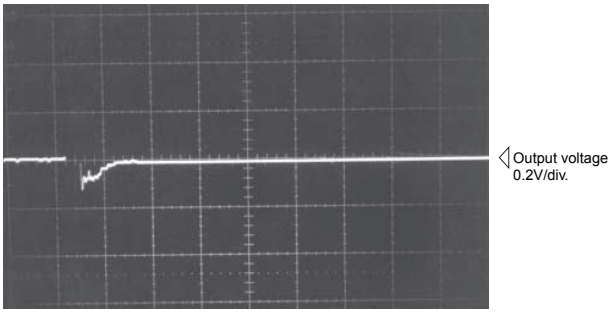
Pulse current response characteristic



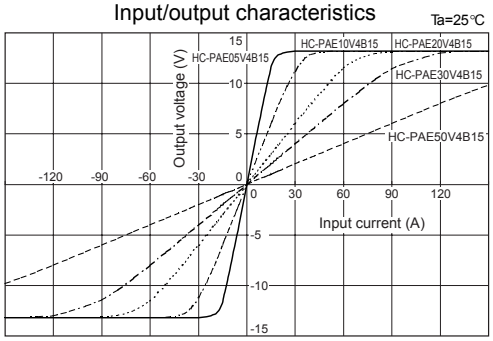
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note : The mark "◁" means 0V or 0A.

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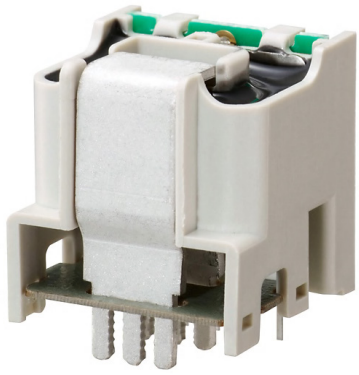
HC-PDK series

Very small-sized, low-capacity type
PCB-mounting type

HC-PDK



- Rated current 50A ~ 100A
- Superior noise-resistance
- Superior saturation characteristics
- Reduced height compact design
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

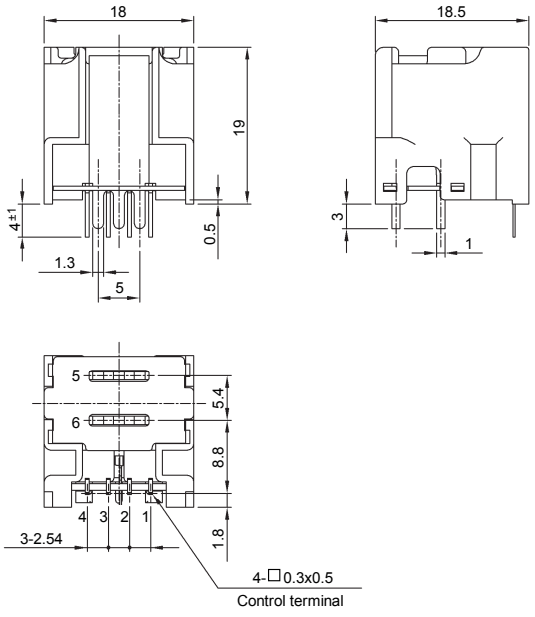
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 10g

General tolerance: ±0.5

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Specification

Ta=25°C

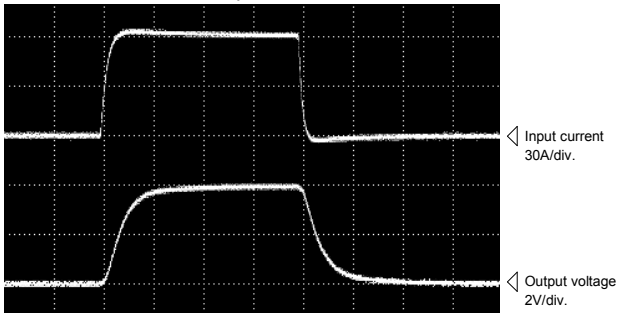
Type	HC-PDK50V4B15	HC-PDK60V4B15	HC-PDK100V4B15
Rated current [If]	±50A	±60A	±100A
Continuously flowing DC current	±100A		
Saturation current [Is]	±150A		
Linearity limits	0~±135A		
Size of primary busbar	Busbar 1 x 7.8		
Turns	1		
Rated output [Vh]	±4V±1.5% (RL=10kΩ)		
Residual output [Vo]	Within ±50mV		
Output linearity	Within ±1%		
Response time	Within 10μs (at di/dt=If/μs)		
Response performance	Within 10%		
Hysteresis voltage range	Within 60mV		
Output Temp. Coef.	Within ±0.1%/°C		
Residual output Temp. Coef.	Within ±2mV/°C		
Control power supply	±15V±5%		
Consumption current	Within 20mA		
Operating Temp.	-10°C~+80°C		
Storage Temp.	-15°C~+85°C		
Dielectric withstand voltage	2500V AC 50/60Hz 1minute		
Insulation resistance	Not less than 500MΩ 500V DC		

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

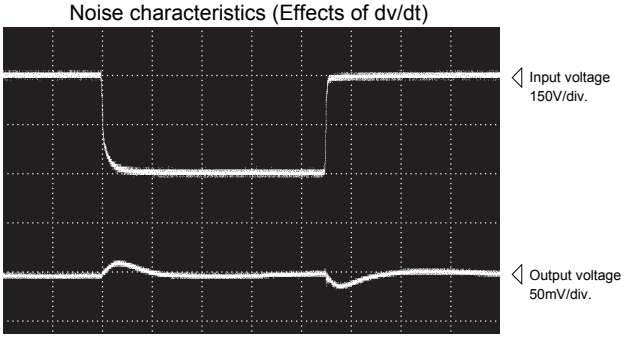
Characteristics chart

HC-PDK60V4B15 5μs/div. Time base

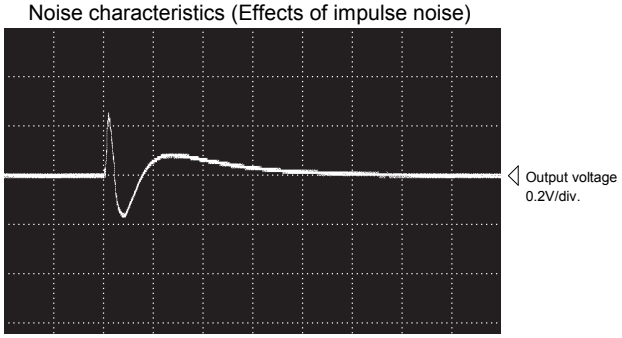
Pulse current response characteristic



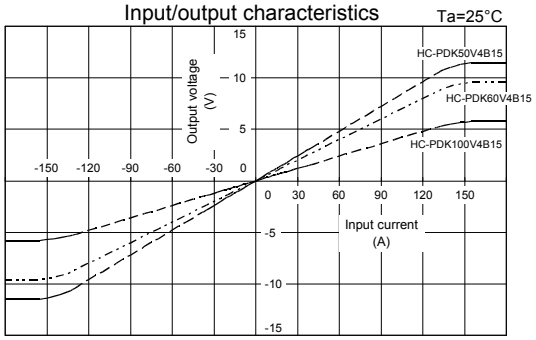
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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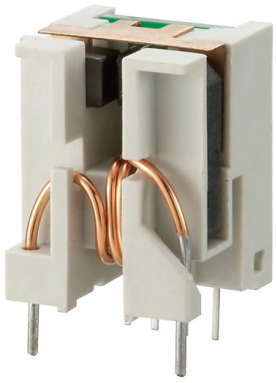
HC-PL series

Very small-sized, low-capacity type
PCB-mounting type

HC-PL



- Rated current 5A ~ 30A
- Requires little space on the PCB
- Single-power supllies also avaiable
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

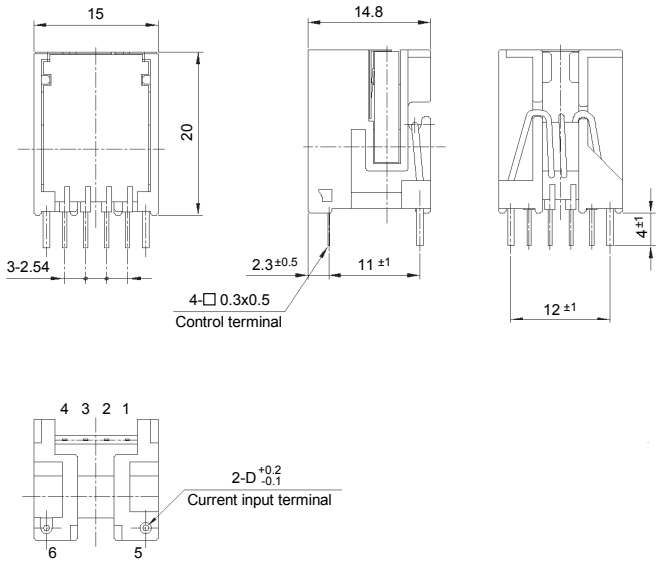
±15V Spec ±12V Spec

Applications

Inverters, Srevo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ0.6	Φ0.6
Φ0.8	Φ0.8
Φ1.0	Φ1.0
Φ1.3	Φ1.3

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND
5 - (+) input
6 - (-) input

Weight : 6g

General tolerance: ±0.5

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Specification

Ta=25°C

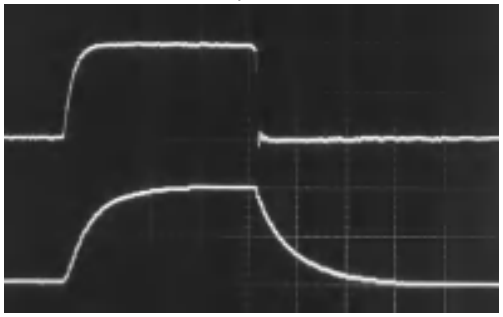
Type	HC-PL05V4B15	HC-PL10V4B15	HC-PL20V4B15	HC-PL30V4B15
Rated current [If]	±5A	±10A	±20A	±30A
Continuously flowing DC current	±8.8A	±8.8A	±13.8A	±23.3A
Saturation current [Is]	±12.5A	±25A	±37.5A	±75A
Linearity limits	0~±10A	0~±20A	0~±30A	0~±60A
Size of primary winding	Φ0.8	Φ0.8	Φ1.0	Φ1.3
Turns	6	3	2	1
Rated output [Vh]	±4V±2% (RL=10kΩ)			
Residual output [Vo]	Within ±100mV			
Output linearity	Within ±1%			
Response time	Within 10μs (at di/dt=If/μs)			
Response performance	Within 10%			
Hysteresis voltage range	Within 100mV			
Output Temp. Coef.	Within ±0.1%/°C			
Residual output Temp. Coef.	Within ±2mV/°C			
Control power supply	±15V±5%			
Consumption current	Within 30mA			
Operating Temp.	-10°C~+80°C			
Storage Temp.	-15°C~+85°C			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

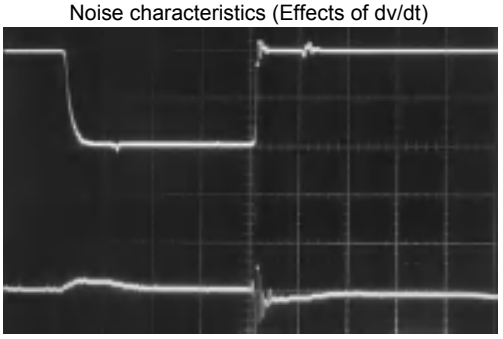
Characteristics chart

HC-PL10V4B15 5μs/div. Time base

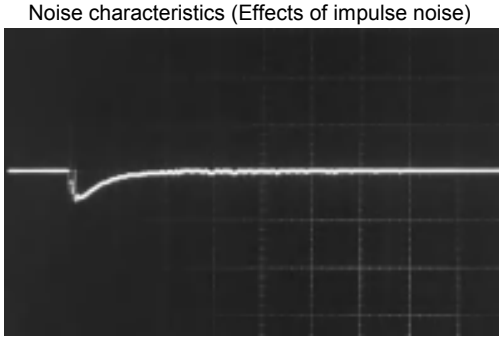
Pulse current response characteristic



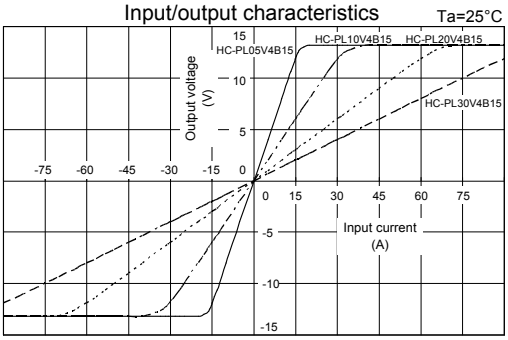
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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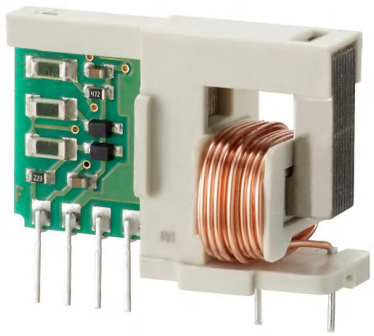
HC-PFG series

Thin-sized, low-capacity type
PCB-mounting type

HC-PFG



- Rated current 3A ~ 30A
- Well isolated for European Standards
- Superior noise-resistance
- Small mounting surface (SIP type)
- Single-power supplies also available
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

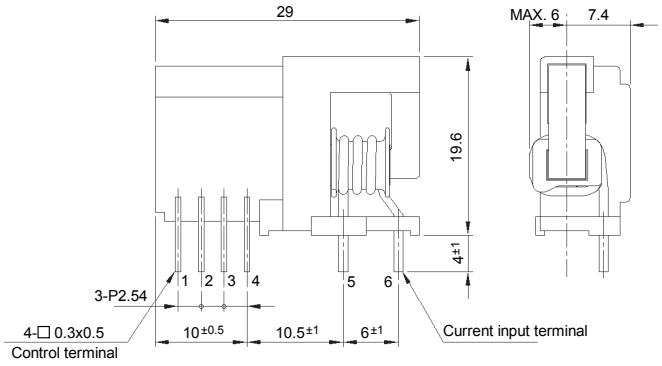
±15V Spec ±12V Spec

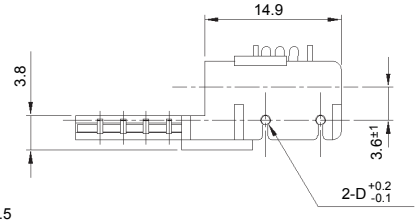
Applications

Inverters, Servo drivers, NC machine tools

Dimensions

(mm)





General tolerance: ±0.5

Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ0.5	Φ0.5
Φ0.6	Φ0.6
Φ0.8	Φ0.8
Φ1.0	Φ1.0
Φ1.1	Φ1.1
Φ1.3	Φ1.3

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (-) input
6 - (+) input

Weight : 6g

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Specification

Ta=25°C

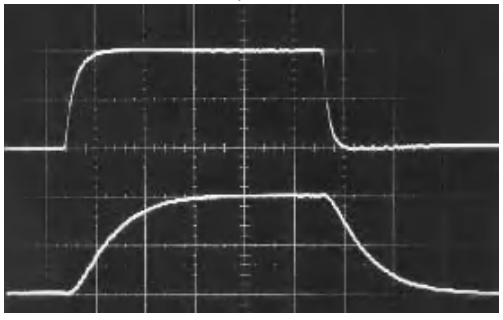
Type	HC-PFG03V4B15	HC-PFG05V4B15	HC-PFG10V4B15	HC-PFG20V4B15	HC-PFG30V4B15
Rated current [If]	±3A	±5A	±10A	±20A	±30A
Continuously flowing DC current	±5A	±8.8A	±8.8A	±23.3A	±23.3A
Saturation current [Is]	±9A	±15A	±30A	±60A	±75A
Linearity limits	0~±7.5A	0~±12.5A	0~±25A	0~±60A	0~±62.5A
Size of primary winding	Φ0.6	Φ0.8	Φ0.8	Φ1.3	Φ1.3
Turns	16	10	5	2	2
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [Vo]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/°C				
Residual output Temp. Coef.	Within ±3mV/°C				
Control power supply	±15V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10°C~+80°C				
Storage Temp.	-15°C~+85°C				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

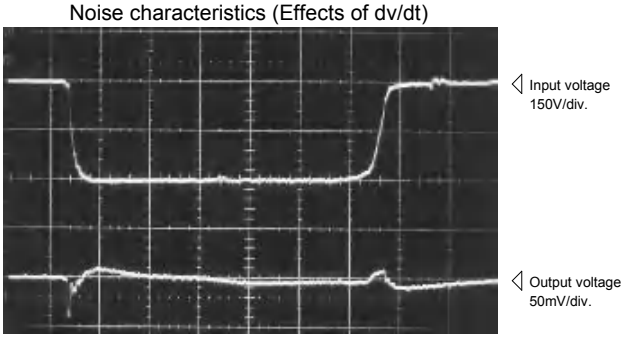
Characteristics chart

HC-PFG10V4B15 5μs/div. Time base

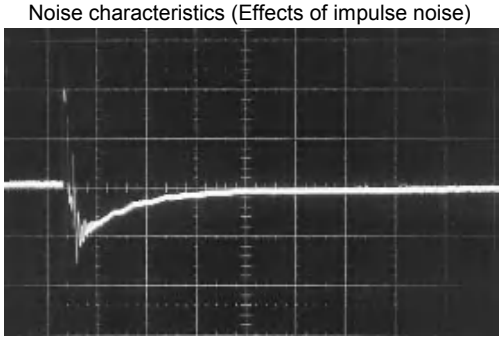
Pulse current response characteristic



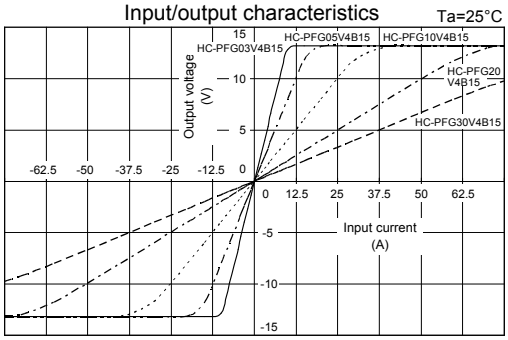
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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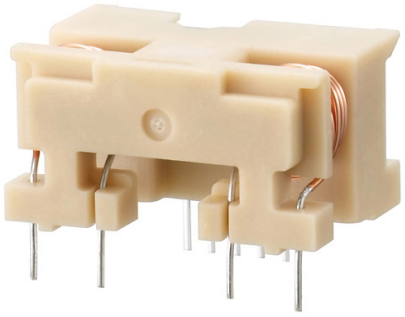
HC-PRC series

Small-sized, low-capacity type
PCB-mounting type

HC-PRC



- Rated current 3A ~ 20A
- Well isolated for European Standards
- Compact design: height has been kept down to 12.0 mm
- Single-power supplies also available
- Two circuits can be measured at the same time
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

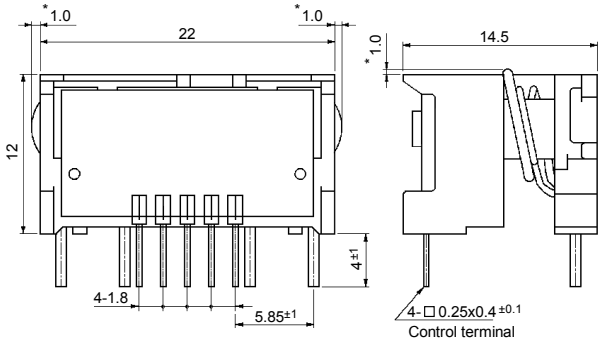
±15V Spec ±12V Spec

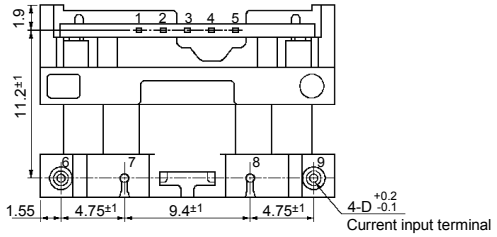
Applications

Inverters, Servo drivers, NC machine tools

Dimensions

(mm)





General tolerance: ±0.5

Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ0.45	Φ0.45
Φ0.6	Φ0.6
Φ0.9	Φ0.9

Note) The dimensions marked with * are protruded areas of the primary winding

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output1
4 - Output2
5 - GND
6 - (+) input
7 - (-) input
8 - (+) input
9 - (-) input

Weight : 5g

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Specification

Ta=25°C

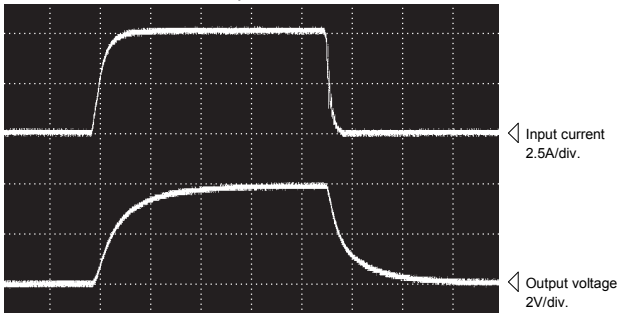
Type		HC-PRC03V4B15	HC-PRC05V4B15	HC-PRC10V4B15	HC-PRC20V4B15
Rated current [If]		±3A	±5A	±10A	±20A
Continuously flowing DC current		±3.5A	±3.5A	±8.8A	±8.8A
Saturation current [Is]		±9A	±15A	±30A	±45A
Linearity limits		0~±7.5A	0~±12.5A	0~±25A	0~±37.5A
Size of primary winding		Φ0.45	Φ0.45	Φ0.9	Φ0.9
Turns		10	6	3	2
Rated output [Vh]	+If	V0+4V±1.5% (RL=10kΩ)			
	-If	V0-4V±1.5% (RL=10kΩ)			
Residual output [Vo]		Within ±100mV			
Output linearity		Within ±1%			
Response time		Within 10μs (at di/dt=If/μs)			
Response performance		Within 10%			
Hysteresis voltage range		Within 120mV			
Output Temp. Coef.		Within ±0.1%/°C			
Residual output Temp. Coef.		Within ±3mV/°C			
Control power supply		±15V±5%			
Consumption current		Within 40mA			
Operating Temp.		-10°C~+80°C			
Storage Temp.		-15°C~+85°C			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

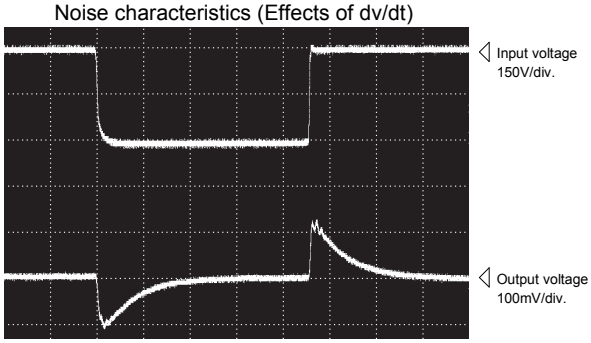
Characteristics chart

HC-PRC05V4B15 5μs/div. Time base

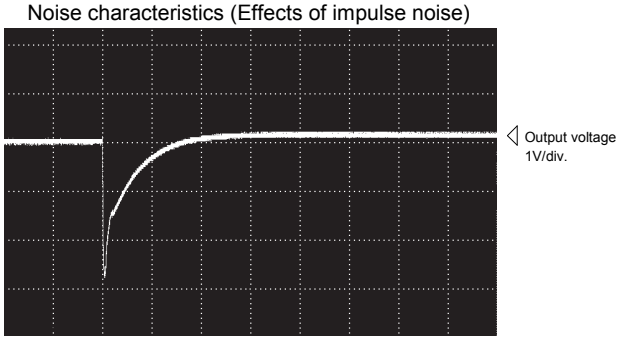
Pulse current response characteristic



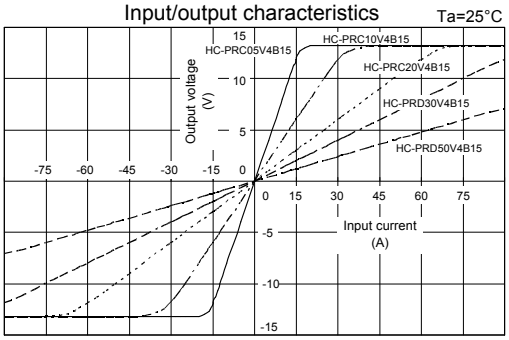
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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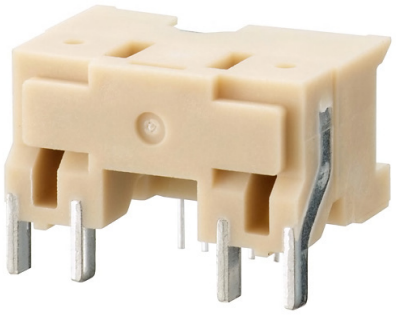
HC-PRD series

Small-sized, low-capacity type
PCB-mounting type

HC-PRD



- Rated current 25A ~ 50A
- Well isolated for European Standards
- Compact design: height has been kept down to 12.0 mm
- Single-power supplies also available
- Two circuits can be measured at the same time
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

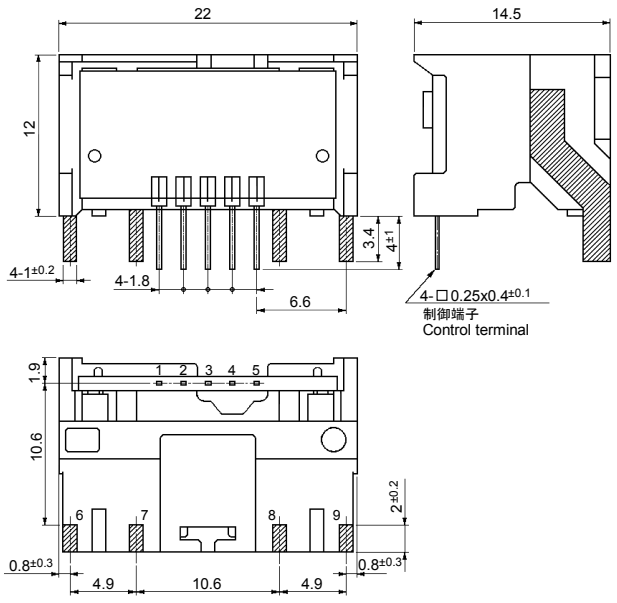
Applications

Inverters, Servo drivers, NC machine tools

±15V Spec ±12V Spec

Dimensions

(mm)



Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output1
4 - Output2
5 - GND
6 - (+) input
7 - (-) input
8 - (+) input
9 - (-) input

Weight : 6g

General tolerance: ±0.5

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Specification

Ta=25°C

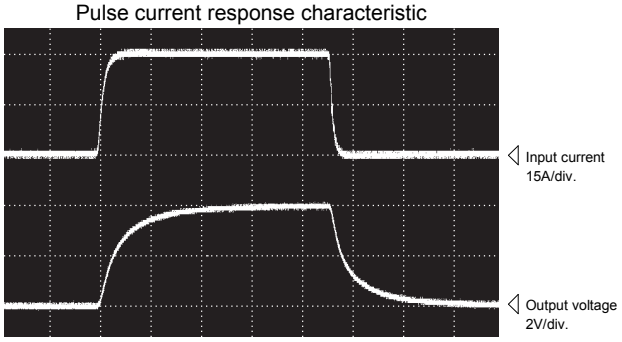
Type		HC-PRD25V4B15	HC-PRD30V4B15	HC-PRD40V4B15	HC-PRD50V4B15
Rated current [If]		±25A	±30A	±40A	±50A
Continuously flowing DC current		±35A	±35A	±35A	±35A
Saturation current [Is]		±75A	±90A	±90A	±90A
Linearity limits		0~±75A	0~±75A	0~±75A	0~±75A
Size of primary busbar		□1 x 2	□1 x 2	□1 x 2	□1 x 2
Turns		1	1	1	1
Rated output [Vh]	+If	V0+4V±1.5% (RL=10kΩ)			
	-If	V0-4V±1.5% (RL=10kΩ)			
Residual output [Vo]		Within ±100mV			
Output linearity		Within ±1%			
Response time		Within 10μs (at di/dt=If/μs)			
Response performance		Within 10%			
Hysteresis voltage range		Within 120mV			
Output Temp. Coef.		Within ±0.1%/°C			
Residual output Temp. Coef.		Within ±3mV/°C			
Control power supply		±15V±5%			
Consumption current		Within 40mA			
Operating Temp.		-10°C~+80°C			
Storage Temp.		-15°C~+85°C			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

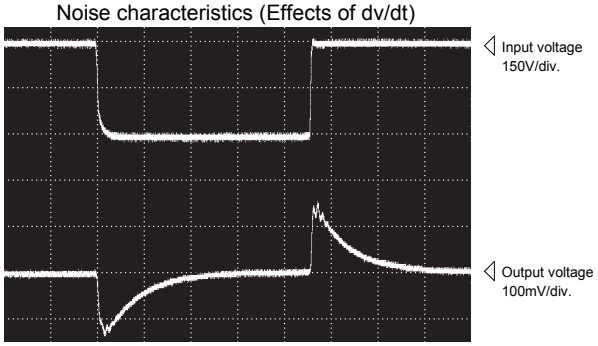
Characteristics chart

HC-PRD30V4B15 5μs/div. Time base

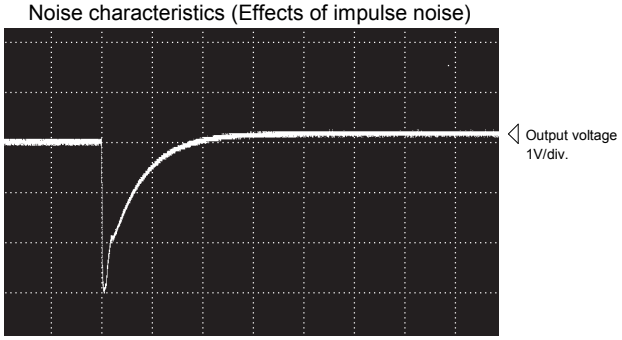
Pulse current response characteristic



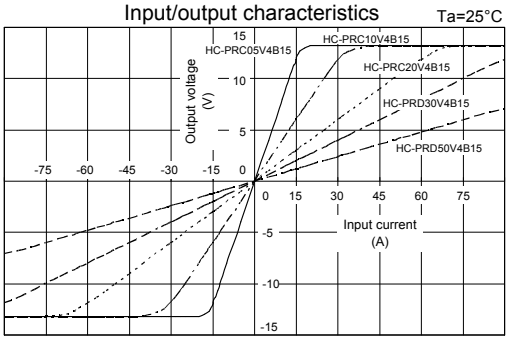
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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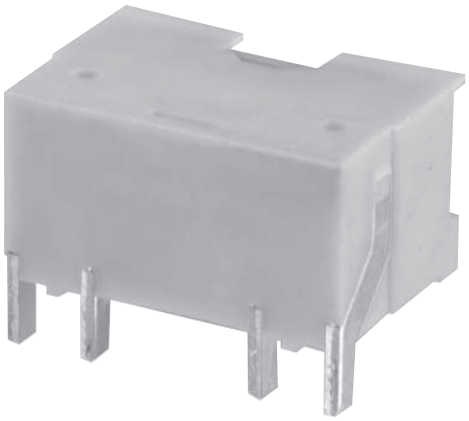
HC-PRX series

Small-sized, low-capacity type
PCB-mounting type

HC–PRX



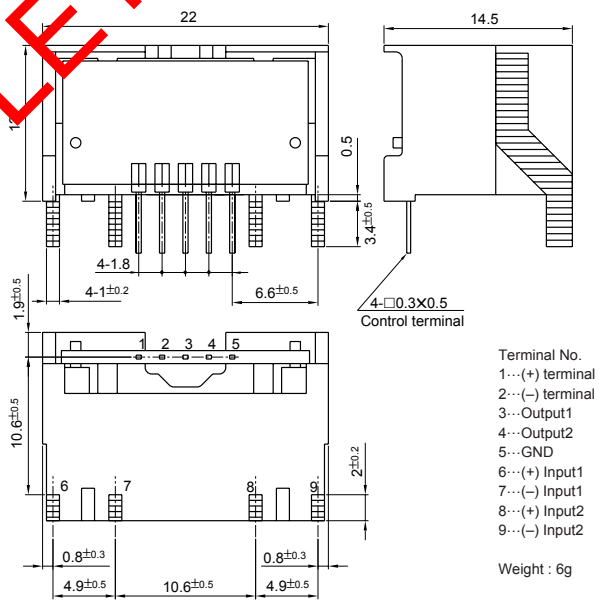
- Well isolated for European Standards
- Rated current ····· 25A ~ 50A
- Compact design : height has been kept down to 12.0mm
- Single-power supplies also available
- Two circuits can be measured at the same time.

Applications

Inverters, servo drivers, NC machine tools

Dimensions

(mm)



Terminal No.
1···(+) terminal
2···(–) terminal
3···Output1
4···Output2
5···GND
6···(+) Input1
7···(–) Input1
8···(+) Input2
9···(–) Input2

Weight : 6g

Specification

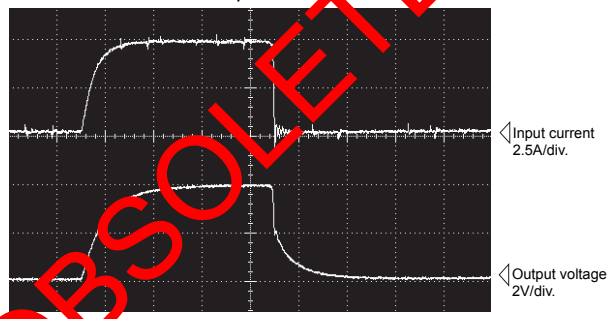
Ta=25°C

Type	HC-PRX25V4B15U	HC-PRX30V4B15U	HC-PRX40V4B15U	HC-PRX50V4B15U
Rated current [If]	±25A	±30A	±40A	±50A
Saturation current [Is]	±75A	±90A	±90A	±90A
Linearity limits	0~±75A	0~±75A	0~±75A	0~±75A
Size of primary winding	□1X2	□1X2	□1X2	□1X2
Turns	1	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)(encluding the residual output)			
Residual output [Vo]	Within ±100mV			
Output linearity	Within ±1%			
Response time	Within 10μs (at di/dt=If/			
Response performance	Within 10%			
Hysteresis voltage range	Within 12			
Output Temp. Coef.	Within			
Residual output Temp. Coef.	Withi			
Control power supply	±1			
Consumption current	W			
Operating Temp.	-10°C~+80°C			
Storage Temp.	–15°C~+85°C			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

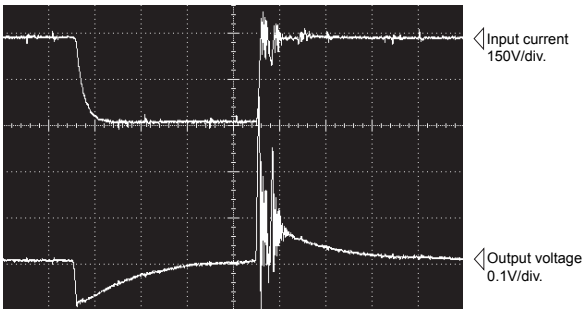
Note1) The indicated residual voltage is the one after the c e hysteresis is removed.
Note2) For continuously flowing DC currents, see the principal characteristics marked by an asterisk (※) on page 1-5.

Characteristics chart HC-PRX05V4B15U

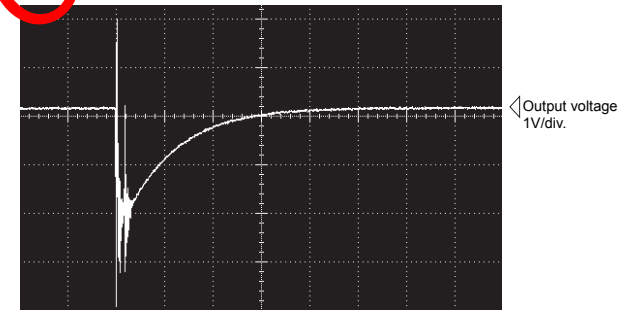
Pulse current response characteristic



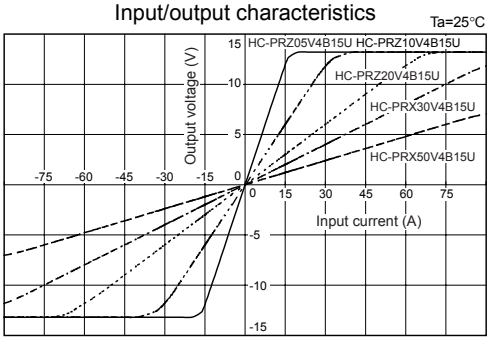
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note : The mark " ◁ " means 0V or 0A.

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HC–PRZ series

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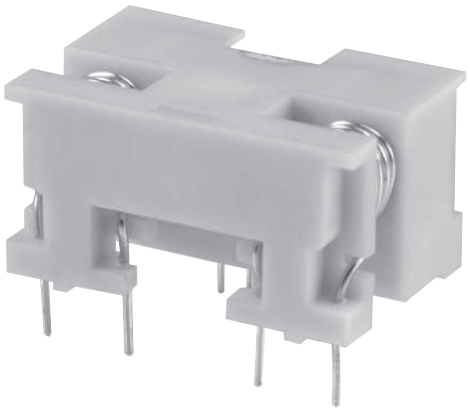
Small-sized, low-capacity type
PCB-mounting type

HC–PRZ



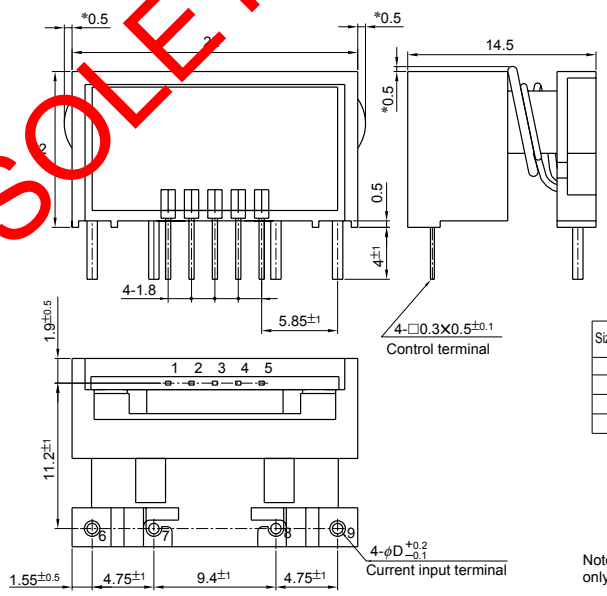
- Well isolated for European Standards
- Rated current ····· 3A ~ 20A
- Compact design : height has been kept down to 12.0mm
- Single-power supplies also available
- Two circuits can be measured at the same time.

Applications

Inverters, servo drivers, NC machine tools

Dimensions

(mm)



Size of primary winding	(Width D)
φ0.5	φ0.5
φ0.6	φ0.6
φ0.8	φ0.8
φ0.9	φ0.9

Terminal No.
1···(+) terminal
2···(–) terminal
3···Output1
4···Output2
5···GND
6···(+) Input1
7···(–) Input1
8···(+) Input2
9···(–) Input2

Weight : 5g

Note) The dimensions marked with ✻ apply only for the φ0.9, φ0.5 (10T, 12T) primary winding

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Specification

Ta=25°C

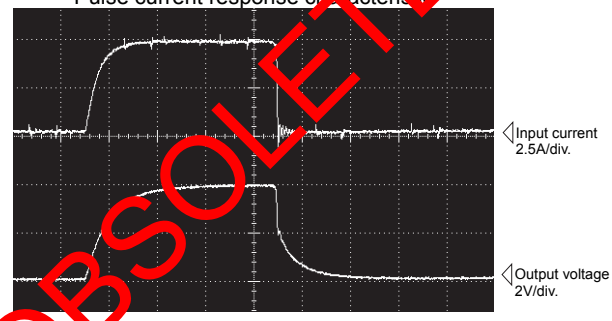
Type	HC-PRZ03V4B15U	HC-PRZ05V4B15U	HC-PRZ10V4B15U	HC-PRZ20V4B15U
Rated current [If]	±3A	±5A	±10A	±20A
Saturation current [Is]	±9A	±15A	±30A	±45A
Linearity limits	0~±7.5A	0~±12.5A	0~±25A	0~±37.5A
Size of primary winding	ϕ0.5	ϕ0.5	ϕ0.8	ϕ0.8
Turns	10	6	3	2
Rated output [Vh]	±4V±1.5% (RL=10kΩ)(encluding the residual output)			
Residual output [Vo]	Within ±100mV			
Output linearity	Within ±1%			
Response time	Within 10μs (at di/dt=If/μs)			
Response performance	Within 10%			
Hysteresis voltage range	Within 120mV			
Output Temp. Coef.	Within ±0.1%/°C			
Residual output Temp. Coef.	Within ±1mV/°C			
Control power supply	±15V±5%			
Consumption current	Within 40mA			
Operating Temp.	–10°C~+80°C			
Storage Temp.	–15°C~+85°C			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) For continuously flowing DC currents, see the principal characteristics marked by an asterisk (※) on page 1-5.

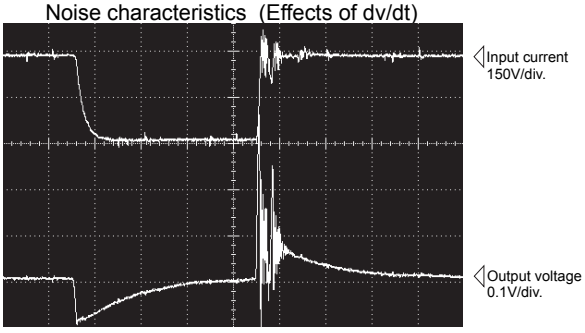
Characteristics chart

HC-PRZ05V4B15U

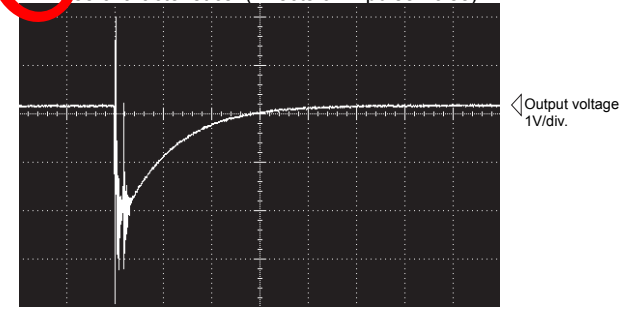
Pulse current response characteristic



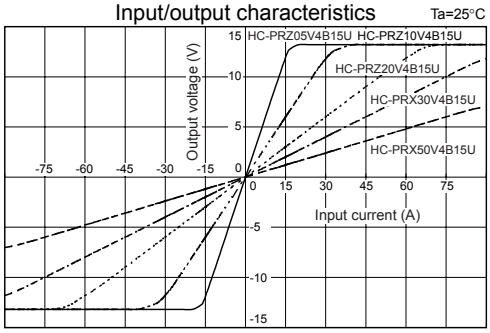
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note : The mark "◁" means 0V or 0A.

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HC-PRA series

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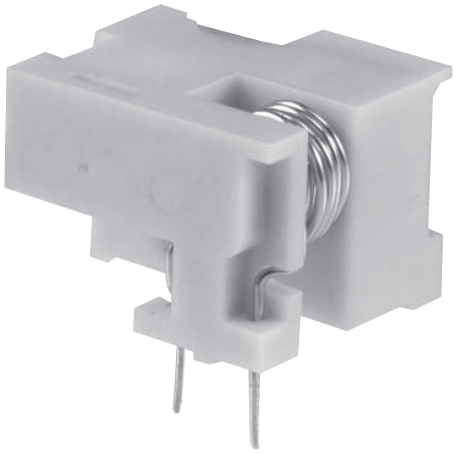
Small-sized, low-capacity type
PCB-mounting type

HC–PRA



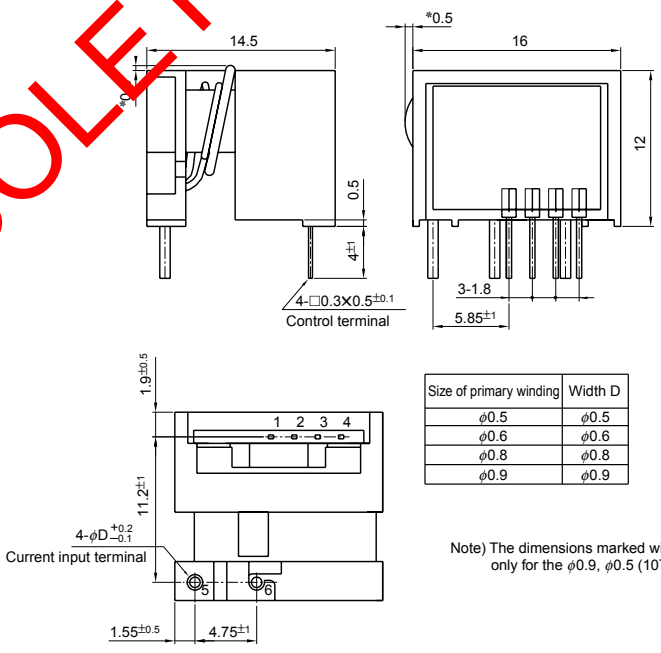
- Well isolated for European Standards
- Rated current ····· 3A ~ 20A
- Compact design : height has been kept down to 12.0mm
- Single-power supplies also available

Applications

Inverters, servo drivers, NC machine tools

Dimensions

(mm)



Size of primary winding	Width D
φ0.5	φ0.5
φ0.6	φ0.6
φ0.8	φ0.8
φ0.9	φ0.9

Terminal No.
1···(+) terminal
2···(–) terminal
3···Output
4···GND
5···(+) Input
6···(–) Input

Weight : 4g

Note) The dimensions marked with * apply only for the φ0.9, φ0.5 (10T, 12T) primary winding

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Specification

Ta=25°C

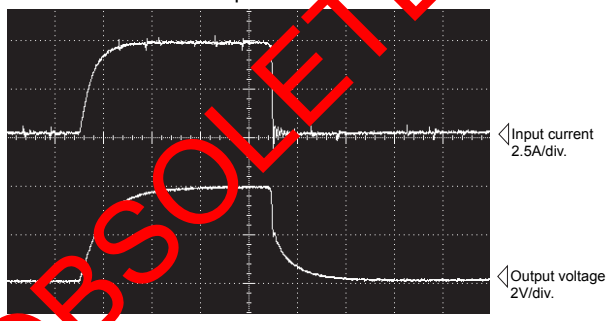
Type	HC-PRA03V4B15U	HC-PRA05V4B15U	HC-PRA10V4B15U	HC-PRA20V4B15U
Rated current [If]	±3A	±5A	±10A	±20A
Saturation current [Is]	±9A	±15A	±30A	±45A
Linearity limits	0~±7.5A	0~±12.5A	0~±25A	0~±37.5A
Size of primary winding	ϕ0.5	ϕ0.5	ϕ0.8	ϕ0.8
Turns	10	6	3	2
Rated output [Vh]	±4V±1.5% (RL=10kΩ)(encluding the residual output)			
Residual output [Vo]	Within ±100mV			
Output linearity	Within ±1%			
Response time	Within 10μs (at di/dt=If/μs)			
Response performance	Within 10%			
Hysteresis voltage range	Within 120mV			
Output Temp. Coef.	Within ±0.1%/°C			
Residual output Temp. Coef.	Within ±1mV/°C			
Control power supply	±15V±5%			
Consumption current	Within 20mA			
Operating Temp.	-10°C~+80°C			
Storage Temp.	–15°C~+85°C			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) For continuously flowing DC currents, see the principal characteristics marked by an asterisk (※) on page 1-5.

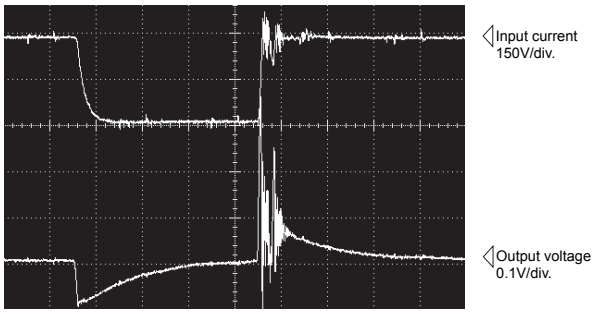
Characteristics chart

HC-PRA05V4B15U

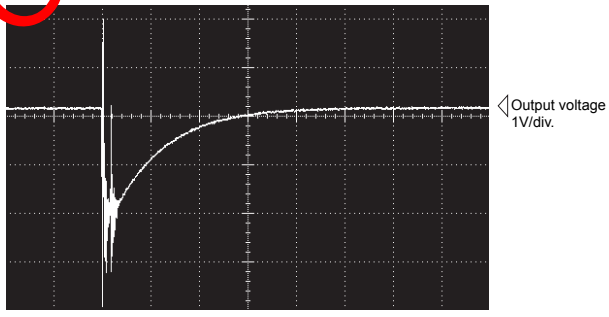
Pulse current response characteristic



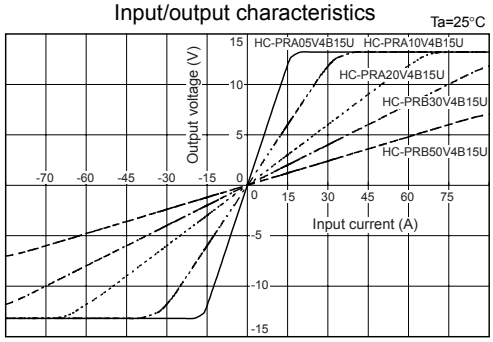
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note : The mark " ◁ " means 0V or 0A.

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HC-PRB series

Small-sized, low-capacity type
PCB-mounting type

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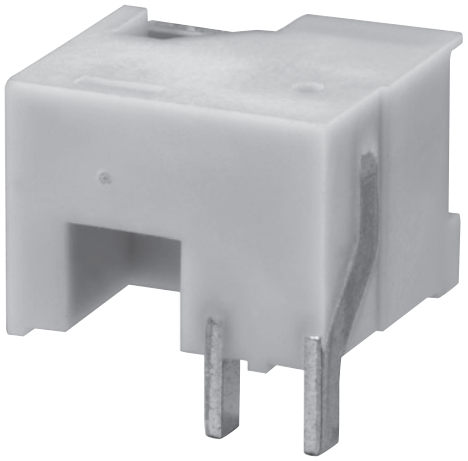
HC–PRB



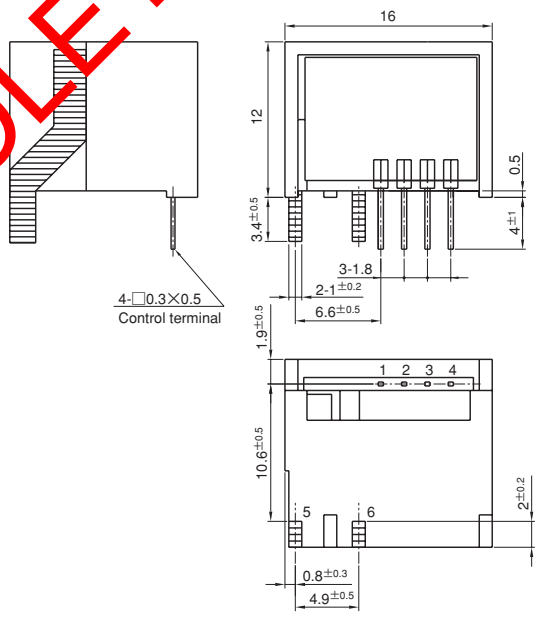
- Well isolated for European Standards
- Rated current ……25A ～ 50A
- Compact design : height has been kept down to 12.0mm
- Single-power supplies also available

Applications

Inverters, servo drivers, NC machine tools

Dimensions

(mm)



Terminal No.
1…(+) terminal
2…NC
3…Output
4…GND
5…(+) input
6…(–) input

Weight : 4g

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Specification

Ta=25°C

Type	HC-PRB25V4B15U	HC-PRB30V4B15U	HC-PRB40V4B15U	HC-PRB50V4B15U
Rated current [If]	±25A	±30A	±40A	±50A
Saturation current [Is]	±75A	±90A	±90A	±90A
Linearity limits	0~±75A	0~±75A	0~±75A	0~±75A
Size of primary winding	□1×2	□1×2	□1×2	□1×2
Turns	1	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)(excluding the residual output)			
Residual output [Vo]	Within ±100mV			
Output linearity	Within ±1%			
Response time	Within 10μs (at di/dt=If/μs)			
Response performance	Within 10%			
Hysteresis voltage range	Within 120mV			
Output Temp. Coef.	Within ±0.1%/°C			
Residual output Temp. Coef.	Within ±3mV/°C			
Control power supply	±15V±5%			
Consumption current	Within 20mA			
Operating Temp.	–10°C~+80°C			
Storage Temp.	–15°C~+85°C			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

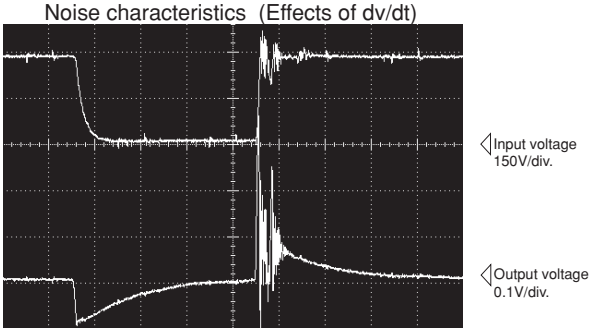
Note1) The indicated residual voltage is the one after the degaussing hysteresis is removed.
Note2) For continuously flowing DC currents, see the principal characteristics marked by an asterisk (※) on page 1-5.

Characteristics chart

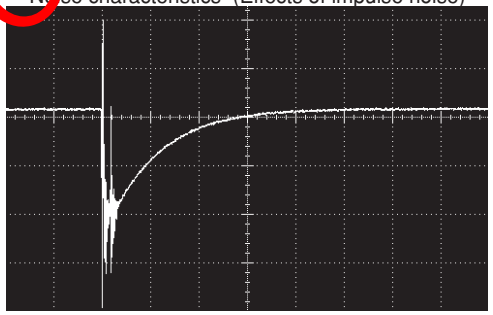
HC-PRB30V4B15U

Pulse current response characteristic

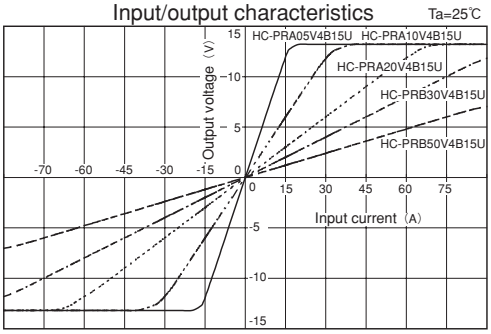
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics Ta=25°C



Note : The mark "◁" means 0V or 0A.

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HS-PHA series

Very small-sized, low-capacity type
PCB-mounting type

HS-PHA

- Rated current 5A ~ 30A
- Realized high precision and compact size
- Superior in response, linearity and temperature characteristics
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

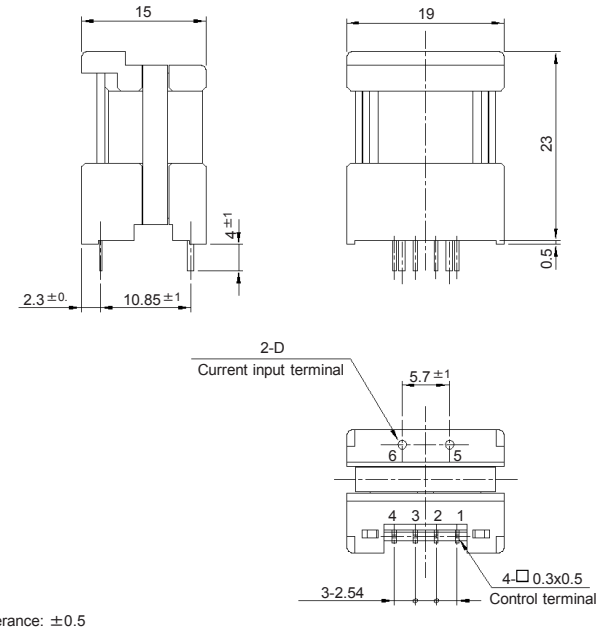
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



General tolerance: ±0.5

Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ0.8	Φ0.8
Φ1.0	Φ1.0
Φ1.3	Φ1.3

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 12g

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Specification

Ta=25℃

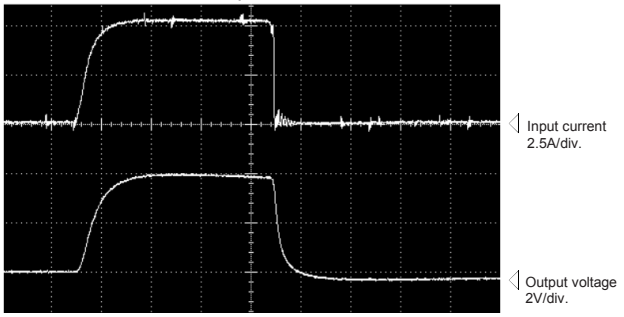
	Voltage output type			
Type	HS-PHA05V4B15	HS-PHA10V4B15	HS-PHA20V4B15	HS-PHA30V4B15
Rated current [If]	±5A	±10A	±20A	±30A
Continuously flowing DC current	±3.6A	±7.2A	±14.4A	±21.6A
Saturation current [Is]	±12.5A	±25A	±50A	±75A
Linearity limits	0~±10A	0~±20A	0~±40A	0~±60A
Size of primary winding	Φ0.8	Φ1.0	Φ1.3	Φ1.3
Turns	6	3	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)			
Residual output [Vo]	Within ±30mV			
Output linearity	Within ±0.5%			
Response time	Within 3μs (at di/dt=If/μs)			
Response performance	Within 20%			
Hysteresis voltage range	Within 50mV			
Output Temp. Coef.	Within ±0.04%/℃			
Residual output Temp. Coef.	Within ±1mV/℃			
Control power supply	±15V±5%			
Consumption current	20mA+(Input current x N)/1270			
Operating Temp.	-10℃~+80℃			
Storage Temp.	-15℃~+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

Note1) The indicated residual output is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

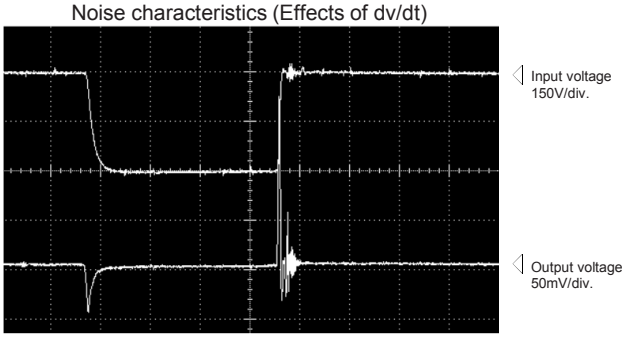
Characteristics chart

HS-PHA05V4B15 (RL=10kΩ) Time base: 5μs/div.

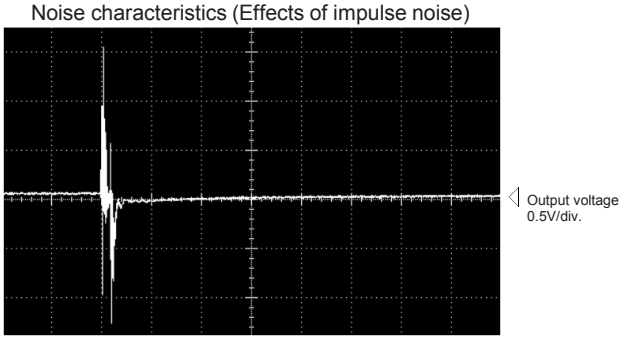
Pulse current response characteristic



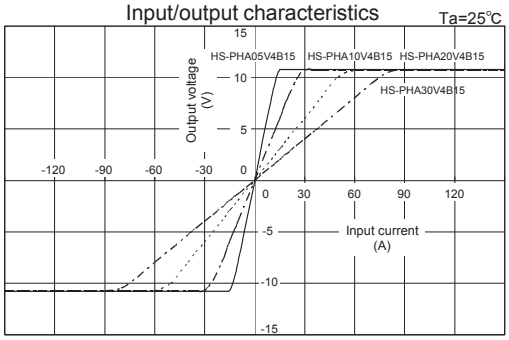
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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HS-PHB series

Very small-sized, low-capacity type
PCB-mounting type

HS-PHB

- Rated current 35A ~ 50A
- Realized high precision and compact size
- Superior in response, linearity and temperature characteristics
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

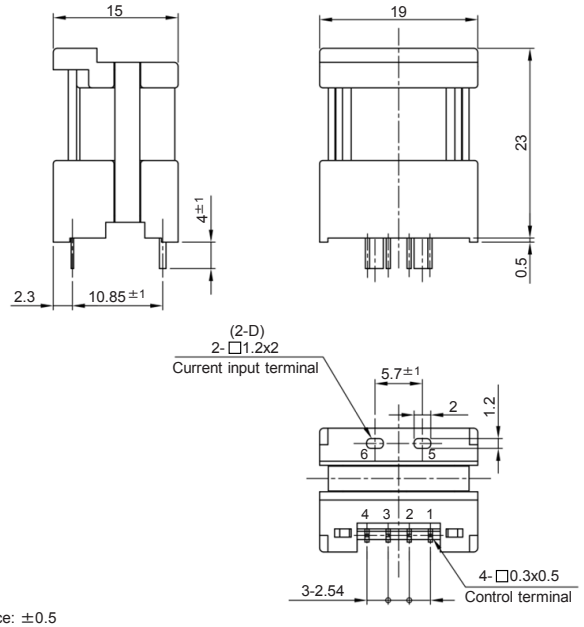
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



General tolerance: ±0.5

Dimensions of Current Input Terminals

Size of primary winding	Width D
Φ1.3	Φ1.3
□1.2 x 2	□1.2 x 2

Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output
5 - (+) input
6 - (-) input

Weight : 12g

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Specification

Ta=25℃

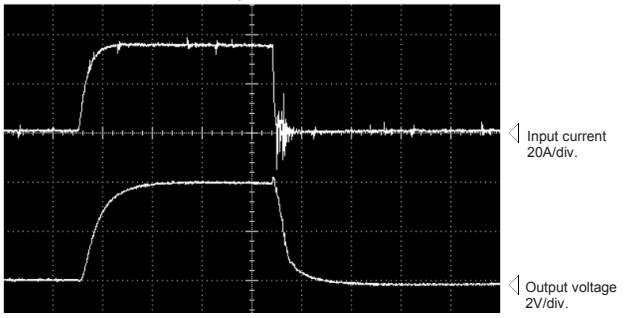
	Voltage output type		
Type	HS-PHB35V4B15	HS-PHB40V4B15	HS-PHB50V4B15
Rated current [If]	±35A	±40A	±50A
Continuously flowing DC current	±25.2A	±28.8A	±36A
Saturation current [Is]	±87.5A	±100A	±125A
Linearity limits	0~±70A	0~±80A	0~±100A
Size of primary winding	Φ1.3	□1.2 x 2	□1.2 x 2
Turns	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)		
Residual output [Vo]	Within ±30mV		
Output linearity	Within ±0.5%		
Response time	Within 3μs (at di/dt=If/μs)		
Response performance	Within 20%		
Hysteresis voltage range	Within 50mV		
Output Temp. Coef.	Within ±0.04%/℃		
Residual output Temp. Coef.	Within ±1mV/℃		
Control power supply	±15V±5%		
Consumption current	20mA+(Input current x N)/1270		
Operating Temp.	-10℃~+80℃		
Storage Temp.	-15℃~+85℃		
Dielectric withstand voltage	2500V AC 50/60Hz 1minute		
Insulation resistance	Not less than 500MΩ 500V DC		

Note1) The indicated residual output is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

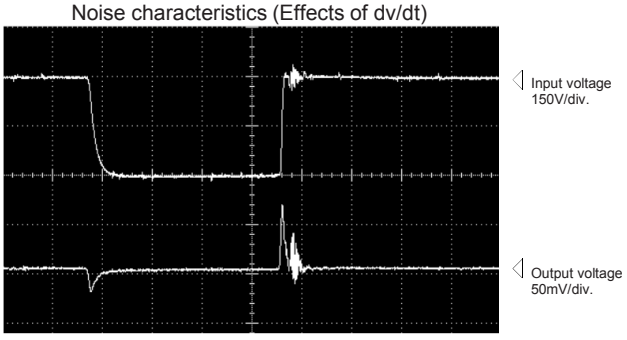
Characteristics chart

HS-PHB35V4B15 (RL=10kΩ) Time base: 5μs/div.

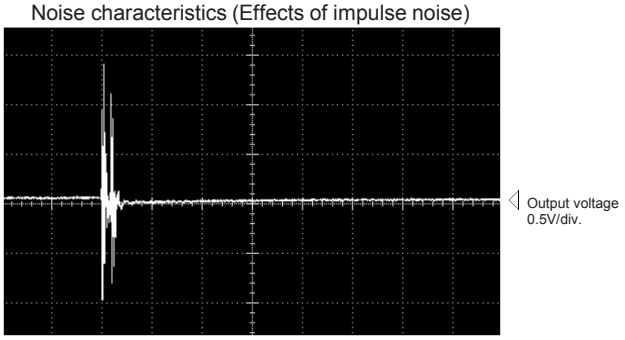
Pulse current response characteristic



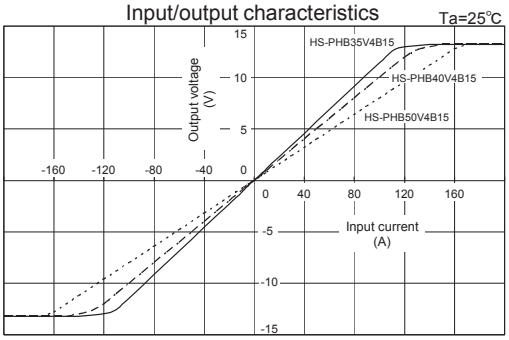
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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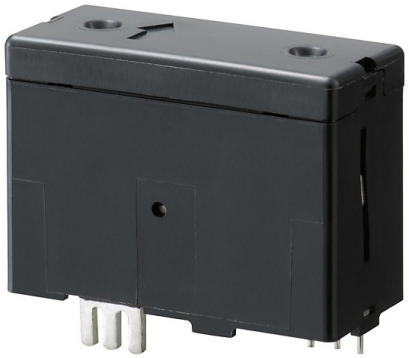
HS-PKF series

Small-sized, low-capacity type
PCB-mounting type

HS-PKF



- Rated current 50A ~ 100A
- Realized high precision and compact size
- Superior in response, linearity and temperature characteristics
- For additional ±12V products, contact sales@dgseals.com or click below

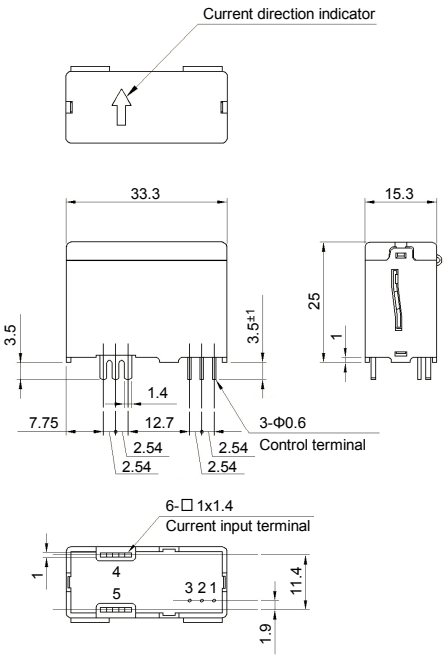
±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



General tolerance: ±0.5

Terminal No.
1 - Output
2 - Supply voltage (+)
3 - Supply voltage (-)
4 - Input current (+)
5 - Input current (-)

Weight : 16g

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Specification

Ta=25°C

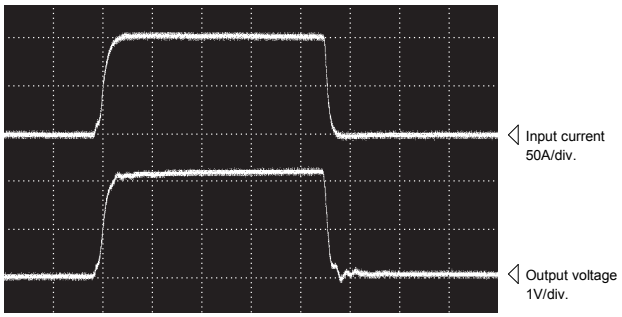
		Voltage output type	
Type		HS-PKF050A0025B15	HS-PKF100A005B15
Rated current [If]		±50A	±100A
Continuously flowing DC current		±50A	±71A
Saturation current [Is]		±100A	±160A
Linearity limits		0~±100A (RL=45Ω)	0~±160A (RL=45Ω)
Rated output	+If	I0+25mA±0.5%	I0+50mA±0.5%
	-If	I0-25mA±0.5%	I0-50mA±0.5%
Residual output [I0]		Within ±0.2mA	
Output linearity		Within ±0.15% at If	
Second coil resistance		Approx. 82Ω	
Response time		Within 0.5μs (at di/dt=If/μs)	
Response performance		Within 10% (at di/dt=If/μs)	
Hysteresis voltage range		Within 0.15mA	
Output Temp. Coef.		Within ±0.01%/°C	
Residual output Temp. Coef.		Within ±0.005mA/°C	
Control power supply		±15V±5%	
Consumption current		20mA+(Input current/2000)	
Operating Temp.		-25°C~+85°C	
Storage Temp.		-40°C~+90°C	
Dielectric withstand voltage		2500V AC 50/60Hz 1minute	
Insulation resistance		Not less than 500MΩ 500V DC	

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

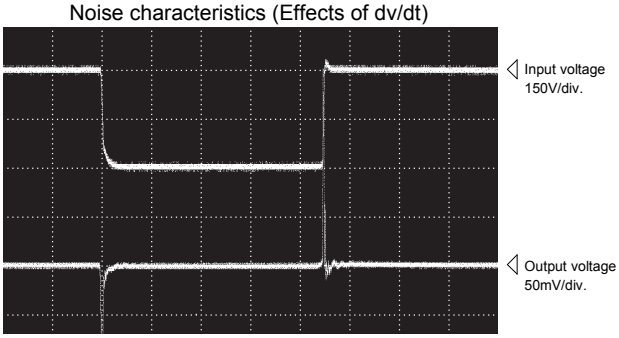
Characteristics chart

HS-PKF100A005B15 (RL=45Ω) 5μs/div. Time base

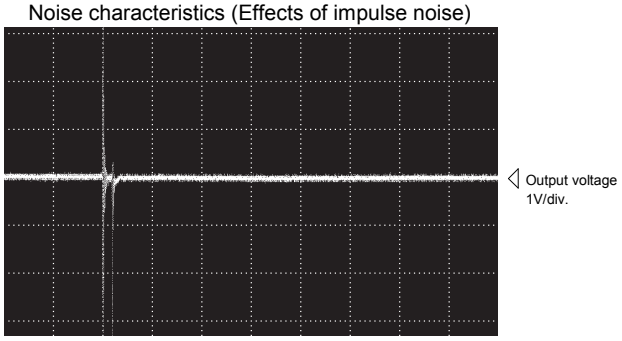
Pulse current response characteristic



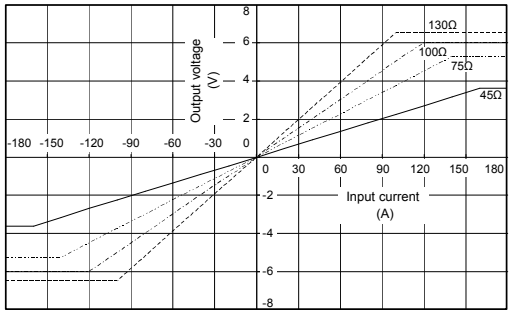
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HS-P series

Small-sized, low-capacity type
PCB-mounting type

HS-P

- Rated current 50A ~ 100A
- Superior in response, linearity and temperature characteristics
- Both the voltage output and the current output were prepared
- For additional ±12V products, contact sales@dgseals.com or click below

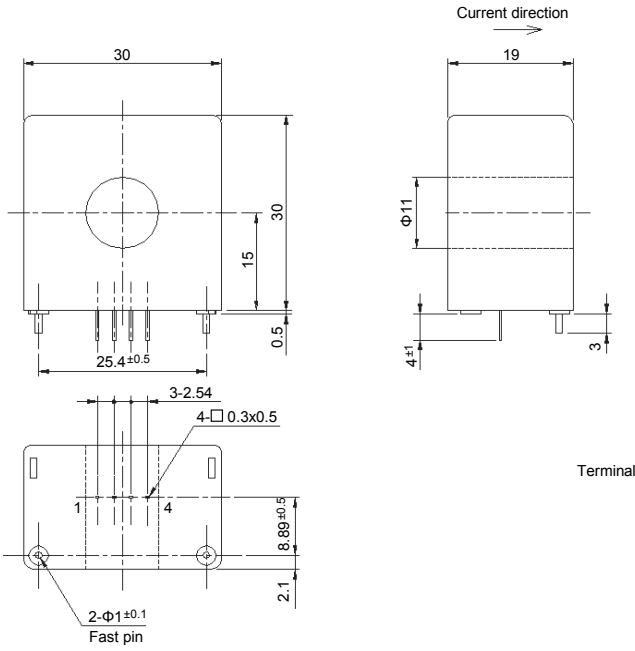
±12V Spec

Applications

Inverters, Srevo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



Terminal No.
1 - (-) terminal
2 - GND
3 - (+) terminal
4 - Output

Weight : 20g

General tolerance: ±0.5

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Specification

Ta=25°C

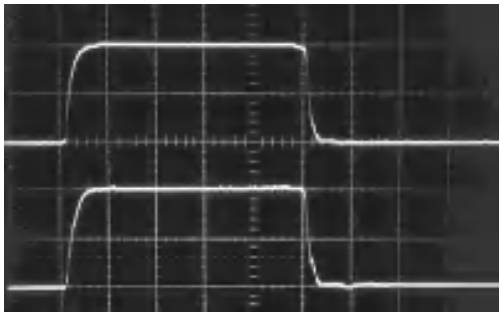
	Voltage output type		Current output type	
Type	HS-P050V4B15	HS-P100V4B15	HS-P050A005B15	HS-P100A005B15
Rated current [If]	±50A	±100A	±50A	±100A
Continuously flowing DC current	±50A	±100A	±50A	±100A
Saturation current [Is]	±100A	±150A	±80A	±150A
Linearity limits	0~±100A	0~±150A	0~±80A (RL=50Ω)	0~±150A (RL=40Ω)
Rated output [Vh]	±4V±1% (RL=10kΩ)		±50mA±1%	
Residual output [Vo]	Within ±20mV		Within ±0.2mA	
Output linearity	Within ±0.5%			
Second coil resistance	Approx. 100Ω		Approx. 51Ω	Approx. 100Ω
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)			
Response performance	Within 10%			
Hysteresis voltage range	Within 30mV		Within 0.2mA	
Output Temp. Coef.	Within ±0.02%/°C			
Residual output Temp. Coef.	Within ±1mV/°C		Within ±0.01mA/°C	
Control power supply	±15V±5%			
Consumption current	20mA+(Input current/2000)		20mA+(Input current/1000)	20mA+(Input current/2000)
Operating Temp.	-10°C~+80°C			
Storage Temp.	-15°C~+85°C			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

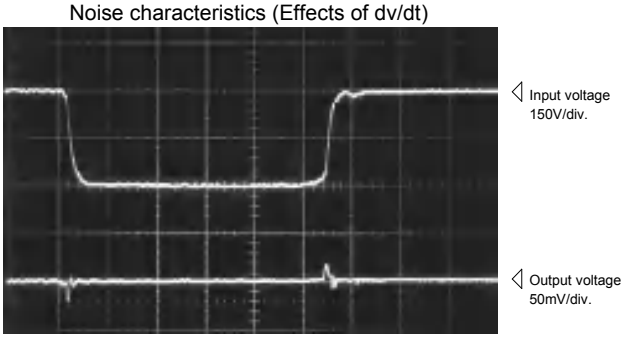
Characteristics chart

HS-P100A005B15 (RL=20Ω) 5μs/div. Time base

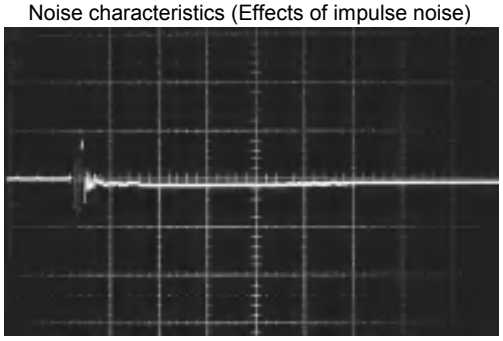
Pulse current response characteristic



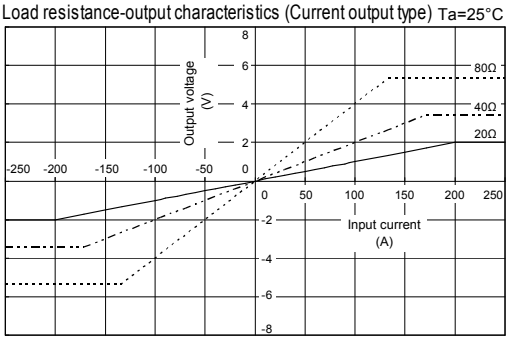
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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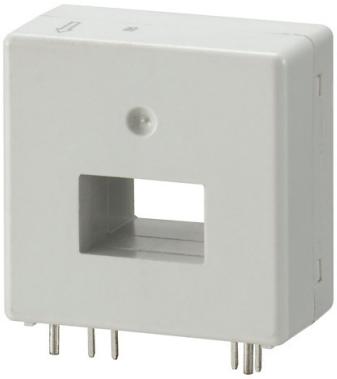
HS-PKD series

Small-sized, low-capacity type
PCB-mounting type

HS-PKD



- Rated current 50A ~ 150A
- Realized high precision and compact size
- Superior in response, linearity and temperature characteristics
- Both the voltage output and the current output were prepared
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

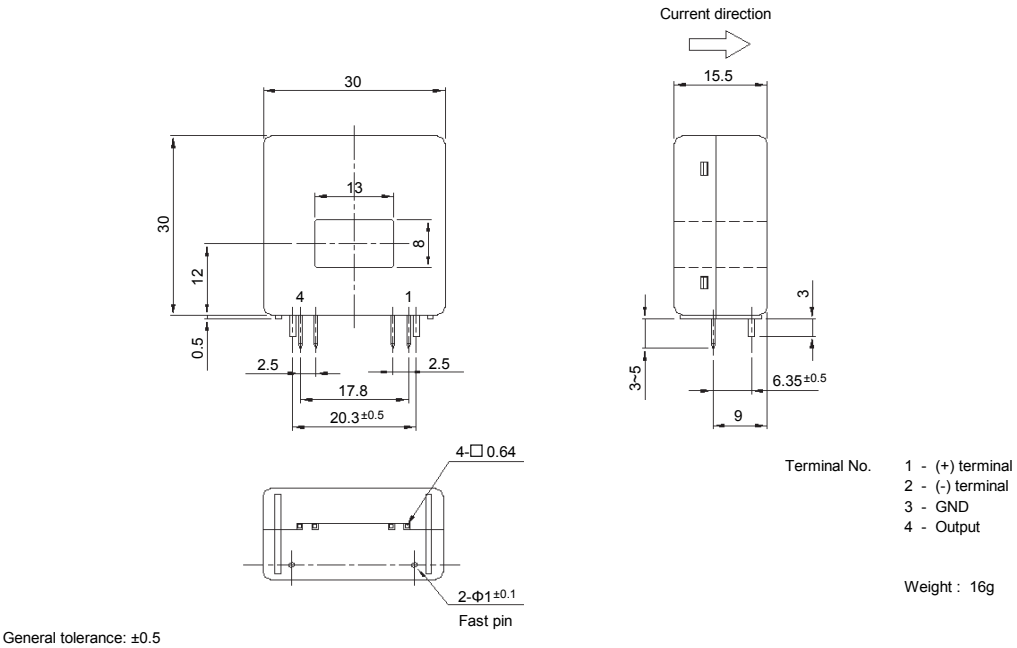
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - GND
4 - Output

Weight : 16g

General tolerance: ±0.5

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Specification

Ta=25°C

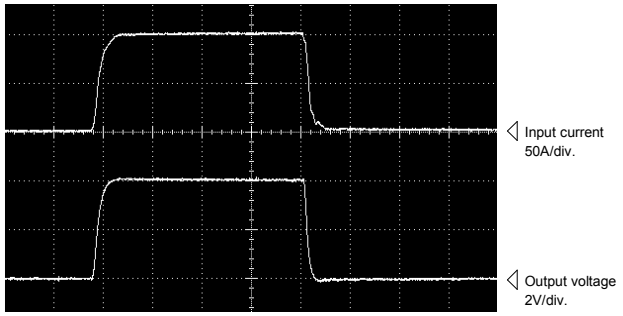
		Voltage output type			Current output type	
Type		HS-PKD050V4B15	HS-PKD100V4B15S	HS-PKD150V4B15S	HS-PKD050A0025B15	HS-PKD100A005B15
Rated current [If]		±50A	±100A	±150A	±50A	±100A
Continuously flowing DC current		±50A	±72A	±108A	±50A	±72A
Saturation current [Is]		±125A	±250A	±375A	±100A	±150A
Linearity limits		0~±100A	0~±200A	0~±300A	0~±100A (RL=100~180Ω)	0~±150A (RL=120Ω)
Rated output	+If	V0+4V±1% (RL=10kΩ)			I0+25mA±1%	I0+50mA±1%
	-If	V0-4V±1% (RL=10kΩ)			I0-25mA±1%	I0-50mA±1%
Residual output [V0, I0]		Within ±20mV			Within ±0.2mA	
Output linearity		Within ±0.5%				
Second coil resistance		Approx. 47Ω		Approx. 63Ω	Approx. 38Ω	
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)				
Response performance		Within 10%				
Hysteresis voltage range		Within 20mV			Within 0.2mA	
Output Temp. Coef.		Within ±0.01%/°C				
Residual output Temp. Coef.		Within ±0.8mV/°C			Within ±0.01mA/°C	
Control power supply		±15V±5%				
Consumption current		20mA+(Input current/2500)		20mA+(Input current/3200)	20mA+(Input current/2000)	
Operating Temp.		-10°C~+80°C				
Storage Temp.		-15°C~+85°C				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

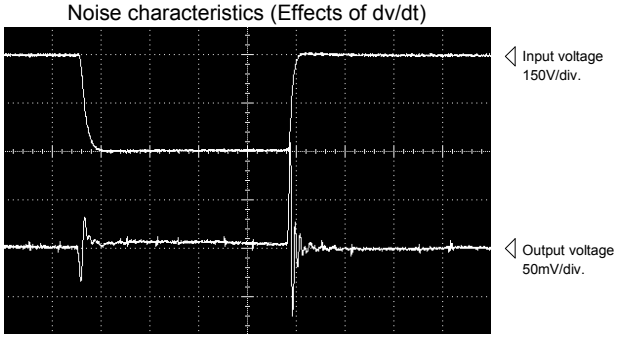
Characteristics chart

HS-PKD100V4B15S 5μs/div. Time base

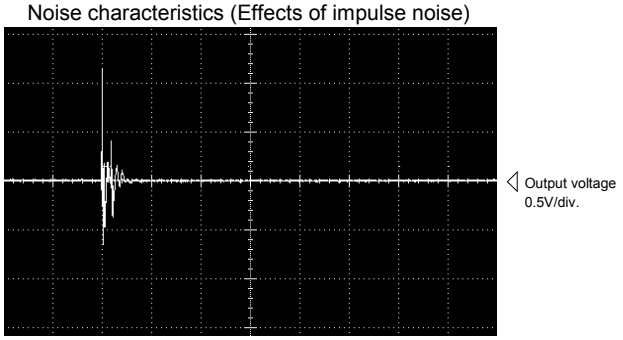
Pulse current response characteristic



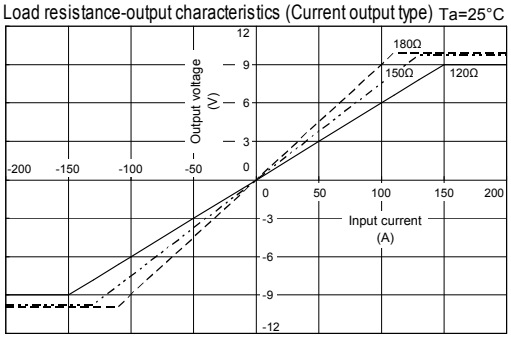
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HS-PTF series

Medium-sized, low-capacity type
Bolt on type

HS-PTF

- Rated current 50A ~ 100A
- Three circuits can be measured at the same time
- Realized high precision and compact size
- Superior in response, linearity and temperature characteristics
- Both the voltage output and the current output were prepared
- For additional ±12V products, contact sales@dgseals.com or click below

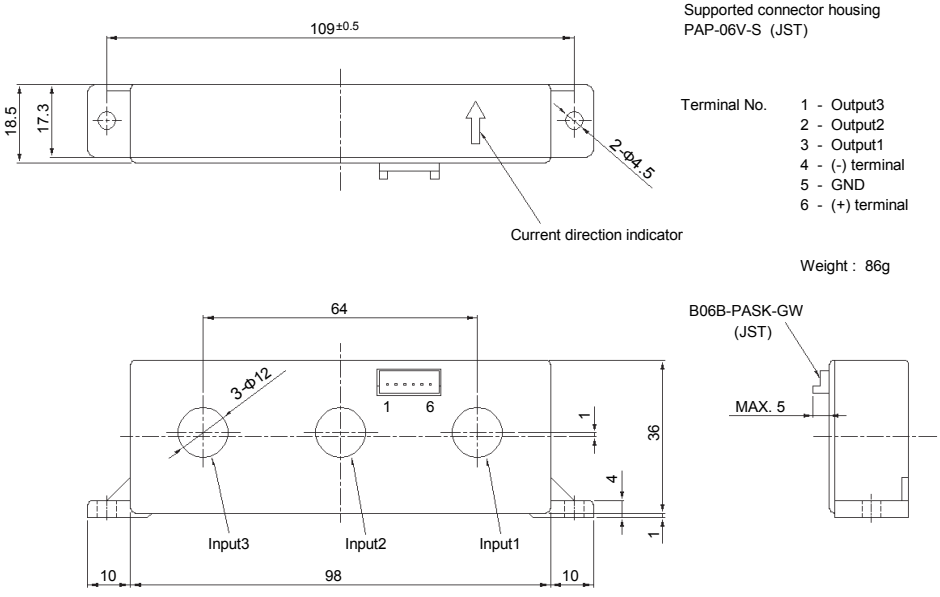
±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



Supported connector housing
PAP-06V-S (JST)

Terminal No.
1 - Output3
2 - Output2
3 - Output1
4 - (-) terminal
5 - GND
6 - (+) terminal

Weight : 86g

General tolerance: ±0.5

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Specification

Ta=25°C

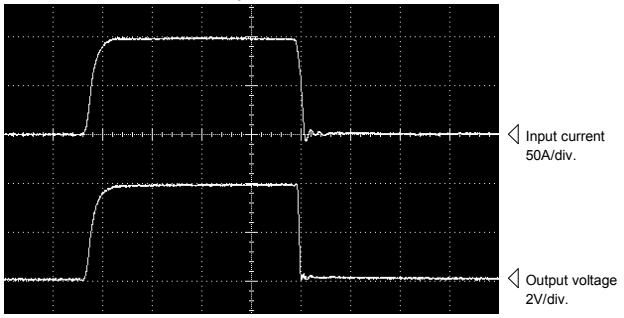
		Voltage output type		Current output type	
Type		HS-PTF050V4B15	HS-PTF100V4B15	HS-PTF050A00125B15	HS-PTF100A0025B15
Rated current [If]		±50A	±100A	±50A	±100A
Continuously flowing DC current		±50A	±100A	±50A	±100A
Saturation current [Is]		±150A	±200A	±150A	±200A
Linearity limits		0~±125A	0~±200A	0~±150A (RL=50~150Ω)	0~±200A (RL=50~100Ω)
Rated output	+If	V0+4V±1% (RL=10kΩ)		I0+12.5mA±1%	I0+25mA±1%
	-If	V0-4V±1% (RL=10kΩ)		I0-12.5mA±1%	I0-25mA±1%
Residual output [V0, I0]		Within ±20mV		Within ±0.2mA	
Output linearity		Within ±0.5%			
Second coil resistance		Approx. 120Ω			
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)			
Response performance		Within 10%			
Hysteresis voltage range		Within 20mV		Within 0.2mA	
Output Temp. Coef.		Within ±0.02%/°C			
Residual output Temp. Coef.		Within ±1mV/°C		Within ±0.01mA/°C	
Control power supply		±15V±5%			
Consumption current		60mA+(Input current/4000)			
Operating Temp.		-10°C~+80°C			
Storage Temp.		-15°C~+85°C			
Dielectric withstand voltage		2500V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

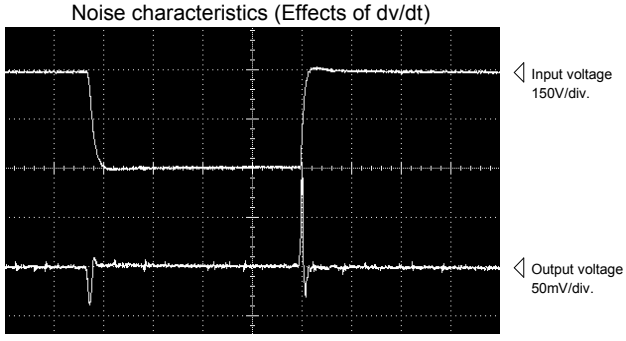
Characteristics chart

HS-PTF100V4B15 5μs/div. Time base

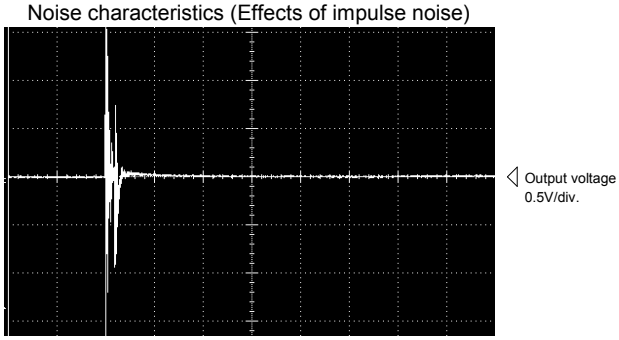
Pulse current response characteristic



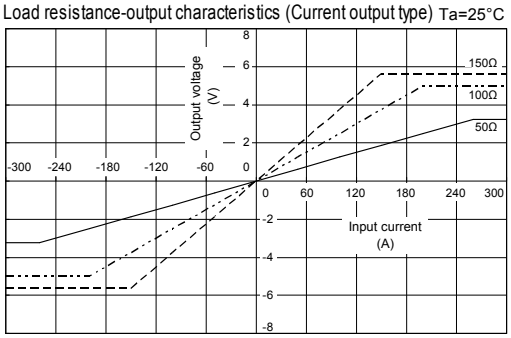
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HS-U series

Medium-sized, medium-capacity type
Bolt on type

HS-U

- Rated current 50A ~ 300A
- Superior in response, linearity and temperature characteristics
- Both the voltage output and the current output were prepared
- For additional ±15V and ±12V products, contact sales@dgseals.com or click below

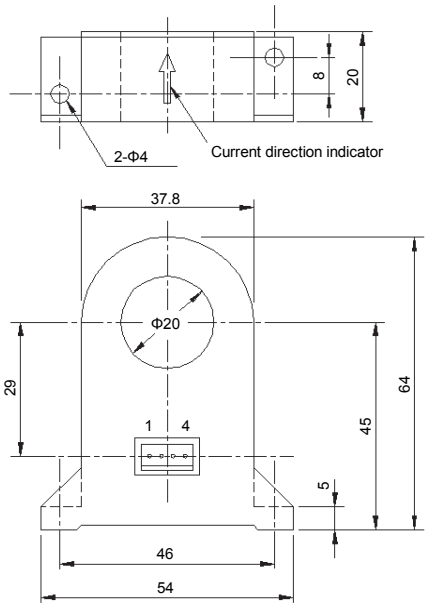
±15V Spec ±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

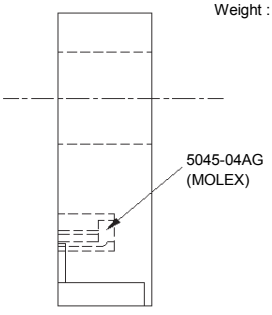
(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 43g



General tolerance: ±0.5

Specification

Ta=25°C

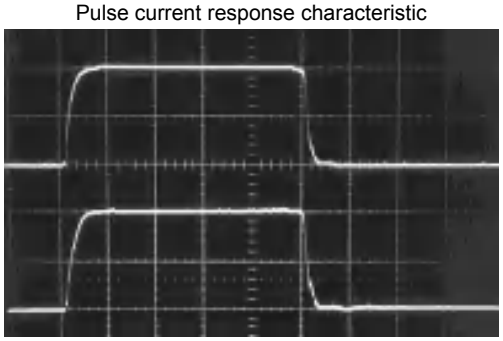
	Voltage output type			Current output type		
Type	HS-U050V4B15	HS-U100V4B15	HS-U300V4B15	HS-U050A005B15	HS-U100A005B15	HS-U300A015B15
Rated current [If]	±50A	±100A	±300A	±50A	±100A	±300A
Continuously flowing DC current	±50A	±100A	±150A	±50A	±100A	±300A
Saturation current [Is]	±150A	±300A	±390A	±150A	±300A	±300A
Linearity limits	0~±150A	0~±300A	0~±360A	0~±150A (RL=50Ω)	0~±300A (RL=20Ω)	0~±300A (RL=20Ω)
Rated output [Vh]	±4V±1% (RL=10kΩ)			±50mA±1%		±150mA±1%
Residual output [Vo]	Within ±20mV			Within ±0.2mA		
Output linearity	Within ±0.5%					
Second coil resistance	Approx. 25Ω	Approx. 50Ω		Approx. 25Ω	Approx. 50Ω	
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis voltage range	Within 20mV			Within 0.2mA		
Output Temp. Coef.	Within ±0.02%/°C					
Residual output Temp. Coef.	Within ±1mV/°C			Within ±0.01mA/°C		
Control power supply	±15V±5%					
Consumption current	20mA+(Input current/1000)	20mA+(Input current/2000)		20mA+(Input current/1000)	20mA+(Input current/2000)	
Operating Temp.	-10°C~+80°C					
Storage Temp.	-15°C~+85°C					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

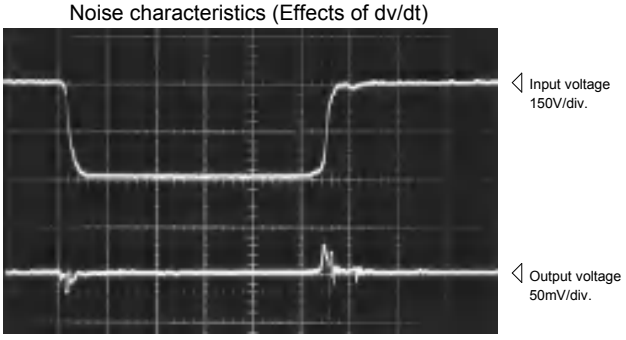
Characteristics chart

HS-U100A005B15 (RL=20Ω) 5μs/div. Time base

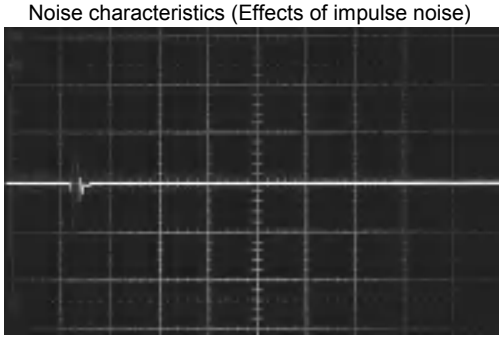
Pulse current response characteristic



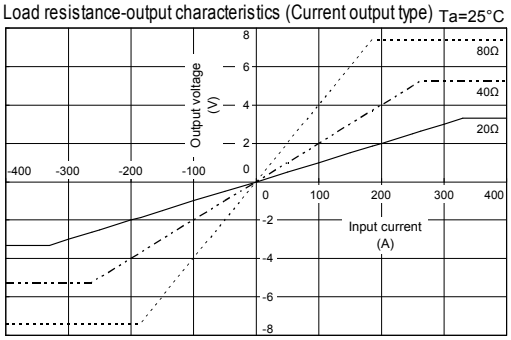
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

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HS-UF series

Medium-sized, medium-capacity type
Bolt on type

HS-UF

- Rated current 100A ~ 300A
- Superior in response, linearity and temperature characteristics
- Both the voltage output and the current output were prepared
- Optional attachment to enable bolt-on attachment is available
- For additional ±12V products, contact sales@dgseals.com or click below

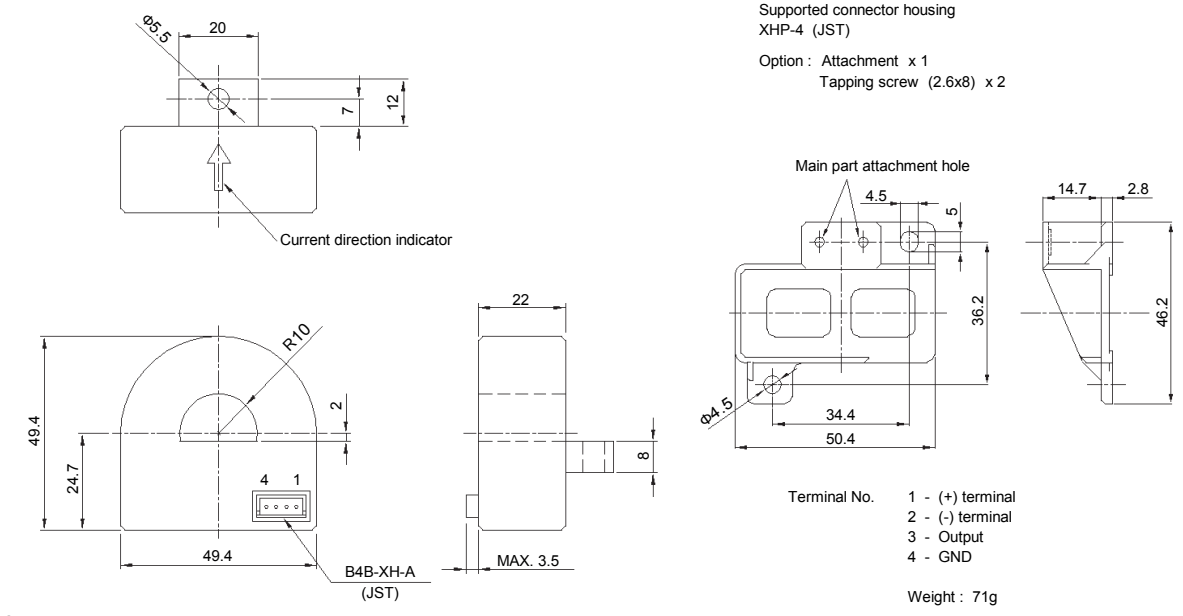
±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



General tolerance: ±0.5

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Specification

Ta=25°C

		Voltage output type			Current output type		
Type		HS-UF100V4B15	HS-UF200V4B15	HS-UF300V4B15	HS-UF100A0025B15	HS-UF200A005B15	HS-UF300A0075B15
Rated current [If]		±100A	±200A	±300A	±100A	±200A	±300A
Continuously flowing DC current		±100A	±200A	±230A	±100A	±200A	±230A
Saturation current [Is]		±300A	±600A	±750A	±300A	±600A	±750A
Linearity limits		0~±250A	0~±500A	0~±700A	0~±250A (RL=10~100Ω)	0~±500A (RL=10~25Ω)	0~±700A (RL=10Ω)
Rated output	+If	V0+4V±1% (RL=10kΩ)			I0+25mA±1%	I0+50mA±1%	I0+75mA±1%
	-If	V0-4V±1% (RL=10kΩ)			I0-25mA±1%	I0-50mA±1%	I0-75mA±1%
Residual output [V0, I0]		Within ±20mV			Within ±0.2mA		
Output linearity		Within ±0.5%					
Second coil resistance		Approx. 48Ω					
Response time		Within 1μs (at di/dt=100A/μs)					
Response performance		Within 10%					
Hysteresis voltage range		Within 20mV			Within 0.2mA		
Output Temp. Coef.		Within ±0.02%/°C					
Residual output Temp. Coef.		Within ±1mV/°C			Within ±0.01mA/°C		
Control power supply		±15V±5%					
Consumption current		20mA+(Input current/4000)					
Operating Temp.		-10°C~+80°C					
Storage Temp.		-15°C~+85°C					
Dielectric withstand voltage		2500V AC 50/60Hz 1minute					
Insulation resistance		Not less than 500MΩ 500V DC					

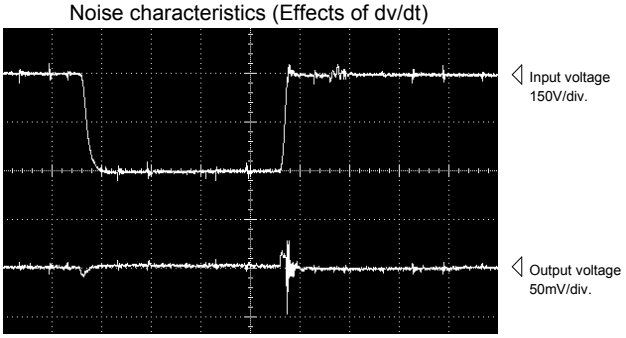
Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

Characteristics chart

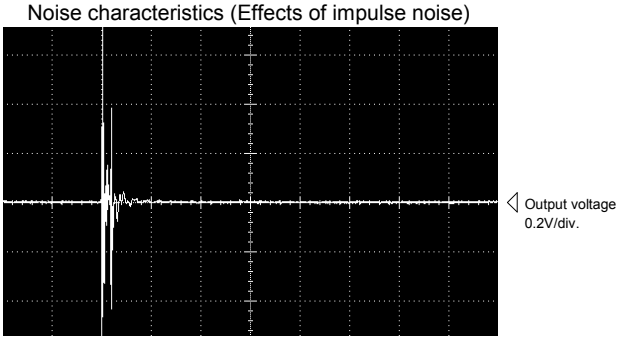
HS-UF200A005B15 (RL=20Ω) 5μs/div. Time base

Pulse current response characteristic

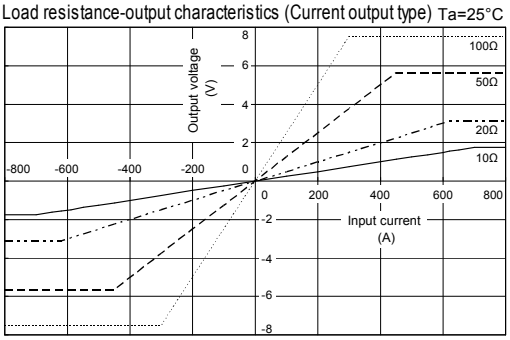
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

HS-UD

- Rated current 300A ~ 500A
- Superior in response, linearity and temperature characteristics
- Both the voltage output and the current output were prepared
- For additional ±12V products, contact sales@dgseals.com or click below

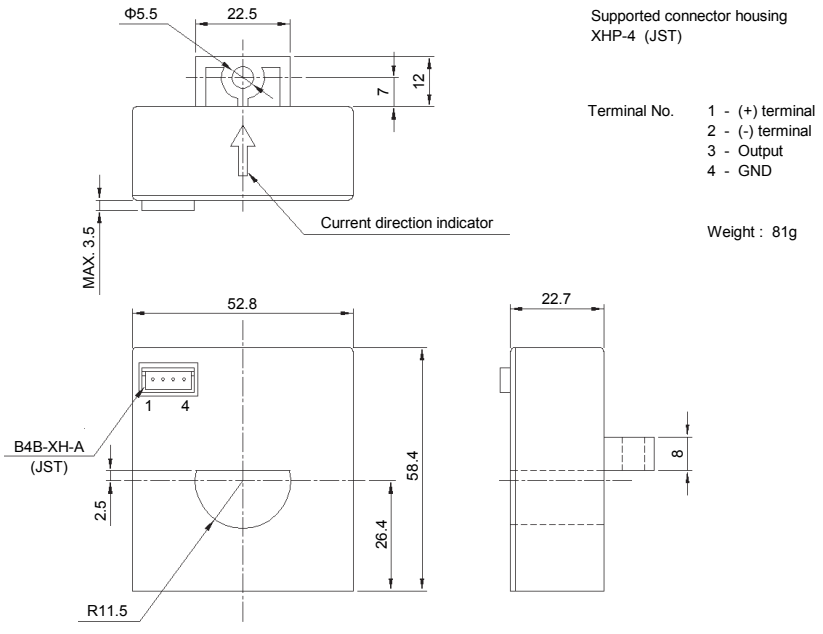
±12V Spec

Applications

Inverters, Servo drivers, Power supply equipment, NC machine tools

Dimensions

(mm)



Supported connector housing
XHP-4 (JST)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 81g

General tolerance: ±0.5

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Specification

Ta=25°C

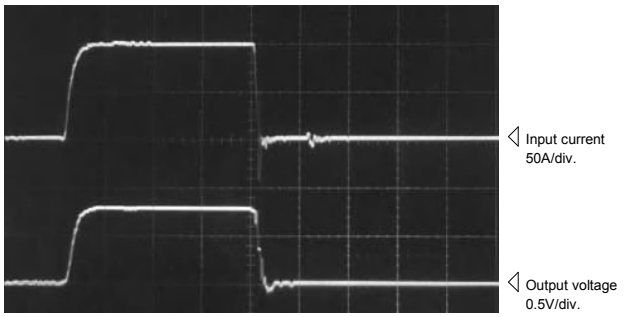
		Voltage output type			Current output type		
Type		HS-UD300V4B15	HS-UD400V4B15	HS-UD500V4B15	HS-UD300A015B15	HS-UD400A020B15	HS-UD500A025B15
Rated current	[If]	±300A	±400A	±500A	±300A	±400A	±500A
Continuously flowing DC current		±450A	±450A	±450A	±450A	±450A	±450A
Saturation current	[Is]	±900A	±1200A	±1200A	±800A	±1000A	±1200A
Linearity limits		0~±900A	0~±1200A	0~±1200A	0~±800A (RL=10Ω)	0~±1000A (RL=5Ω)	0~±1200A (RL=1Ω)
Rated output	[Vh]	±4V±1% (RL=10kΩ)			±150mA±1%	±200mA±1%	±250mA±1%
Residual output	[Vo]	Within ±20mV			Within ±0.2mA		
Output linearity		Within ±0.5%					
Second coil resistance		Approx. 16.8Ω					
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)					
Response performance		Within 10%					
Hysteresis voltage range		Within 20mV			Within 0.2mA		
Output Temp. Coef.		Within ±0.02%/°C					
Residual output Temp. Coef.		Within ±1mV/°C			Within ±0.01mA/°C		
Control power supply		±15V±5%					
Consumption current		20mA+(Input current/2000)					
Operating Temp.		-10°C~+80°C					
Storage Temp.		-15°C~+85°C					
Dielectric withstand voltage		2500V AC 50/60Hz 1minute					
Insulation resistance		Not less than 500MΩ 500V DC					

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.

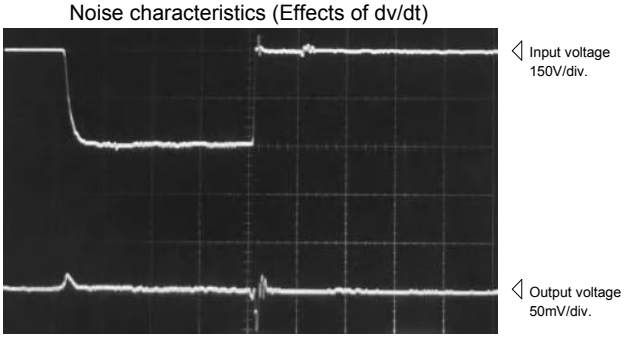
Characteristics chart

HS-UD500V4B15 5μs/div. Time base

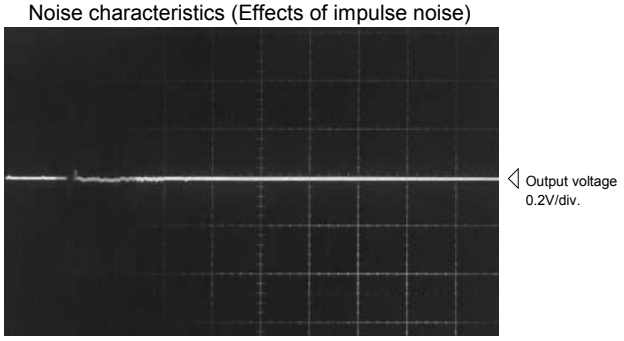
Pulse current response characteristic



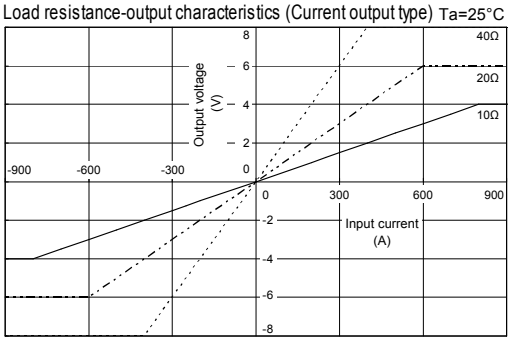
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks " ◁ " means 0V or 0A.

HS-K

- Rated current 300A ~ 500A
- Superior in response, linearity and temperature characteristics
- Both the voltage output and the current output were prepared
- For additional ±12V products, contact sales@dgseals.com or click below

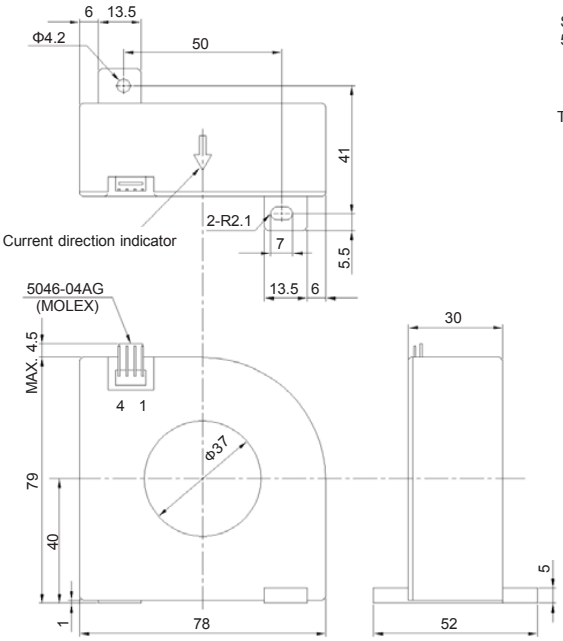
±12V Spec

Applications

Inverters, Power supply equipment

Dimensions

(mm)



Supported connector housing
5051-04 (MOLEX)

Terminal No.
1 - (+) terminal
2 - (-) terminal
3 - Output
4 - GND

Weight : 226g

General tolerance: ±0.5

Specification

Ta=25℃

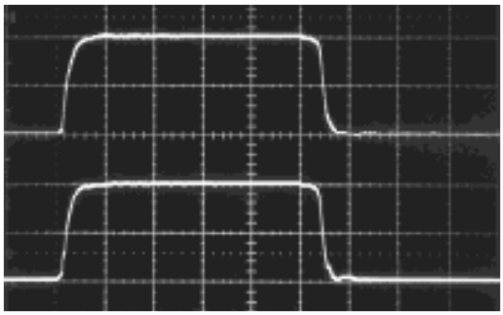
	Voltage output type			Current output type		
Type	HS-K300V4B15	HS-K400V4B15	HS-K500V4B15	HS-K300A0075B15	HS-K400A010B15	HS-K500A010B15
Rated current [If]	±300A	±400A	±500A	±300A	±400A	±500A
Continuously flowing DC current	±600A	±800A	±1000A	±600A	±800A	±1000A
Saturation current [Is]	±600A	±800A	±1000A	±600A	±800A	±1000A
Linearity limits	0~±600A	0~±800A	0~±1000A	0~±600A (RL=30Ω)	0~±800A (RL=10Ω)	0~±1000A (RL=1Ω)
Rated output [Vh, Ih]	±4V±1% (RL=10kΩ)			±75mA±1%	±100mA±1%	
Residual output [V0, I0]	Within ±20mV			Within ±0.2mA		
Output linearity	Within ±0.5%					
Second coil resistance	Approx. 31Ω		Approx. 42Ω	Approx. 31Ω		Approx. 42Ω
Response time	Within 1μs (at di/dt=100A/μs)					
Response performance	Within 20%					
Hysteresis voltage range	Within 20mV			Within 0.2mA		
Output Temp. Coef.	Within ±0.02%/℃					
Residual output Temp. Coef.	Within ±1mV/℃			Within ±0.01mA/℃		
Control power supply	±15V±5%					
Consumption current	20mA+(Input current/4000)		20mA+(Input current/5000)	20mA+(Input current/4000)		20mA+(Input current/5000)
Operating Temp.	-10℃~+80℃					
Storage Temp.	-15℃~+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

Note1) The indicated residual voltage is the one after the core hysteresis is removed.

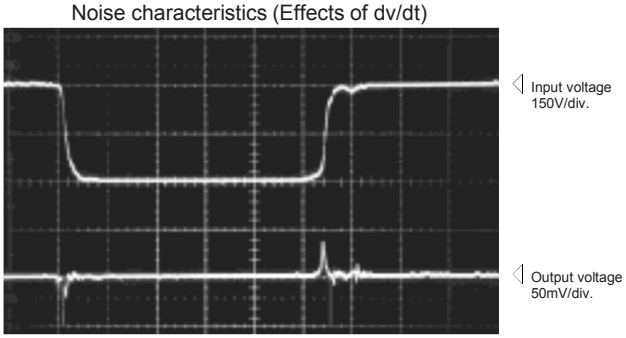
Characteristics chart

HS-K500A010B15 (RL=10Ω) Time base: 5μs/div.

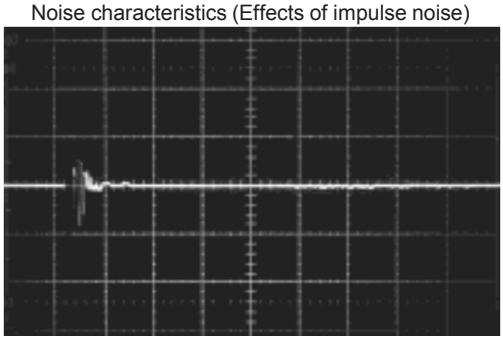
Pulse current response characteristic



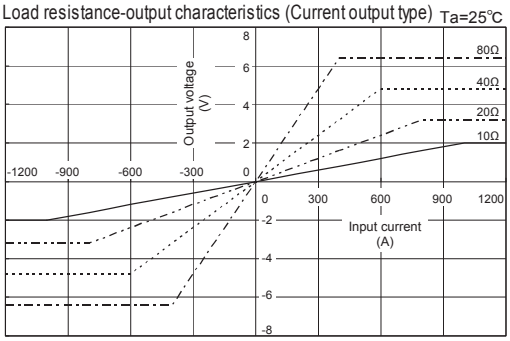
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

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HD-TS series

Small-sized, medium-capacity type
Bolt on type

HD-TS

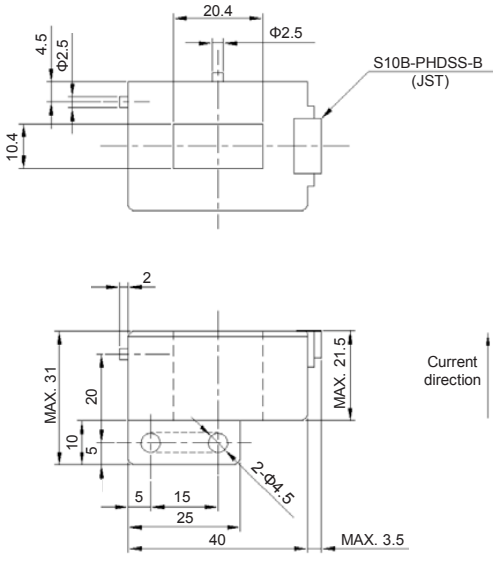
- Rated current 100A ~ 600A
- Δ-Σ(delta-sigma) modulation digital output sensors excelling in the anti-noise characteristic
- It is possible to simplify the circuits on the input side as the input side requires no A/D conversion

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Supported Connector Housing
PHDR-10VS (JST)

Terminal No.
1 - GND
2 - (+) terminal
3 - GND
4 - (+) terminal
5 - +MDAT
6 - -MDAT
7 - +MCLK
8 - -MCLK
9 - Analog output
10 - Analog output GND

Weight : 44g

General tolerance: ±0.5

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Specification

Ta=25℃

Type		HD-TS100V027P5	HD-TS200V027P5	HD-TS300V027P5	HD-TS400V027P5	HD-TS500V027P5	HD-TS600V027P5
Rated current	[If]	±100A	±200A	±300A	±400A	±500A	±600A
Saturation current	[Is]	±119A	±237A	±356A	±474A	±593A	±711A
Linearity limits		0~±119A	0~±237A	0~±356A	0~±474A	0~±593A	0~±711A
Base data		±16384[data] (at Is)					
Rated output data	[Dh]	±13824[data] Within ±491[data] (at If)					
Residual output data	[D0]	Within ±164[data]					
Output linearity		Within ±1% (Within ±164[data])					
Response time		Within 20μs (at di/dt=100A/μs)					
Hysteresis voltage range		Within ±164[data]					
Output Temp. Coef.		Within ±0.1%/℃					
Residual output Temp. Coef.		Within ±51[data]/℃					
Control power supply		+5V±5%					
Consumption current		Within 50mA					
Operating Temp.		-10℃~+80℃					
Storage Temp.		-15℃~+85℃					
Dielectric withstand voltage		2500V AC 50/60Hz 1minute					
Insulation resistance		Not less than 500MΩ 500V DC					
Output specifications		TIA/EIA-422-B[RS422] standard serial output (data and clock output)					
Output clock frequency		10MHz±2MHz					
Others		Δ-Σ A/D converter Built-in Type *)All the data number shall be the values at 14bit(16384[data]) in resolution					

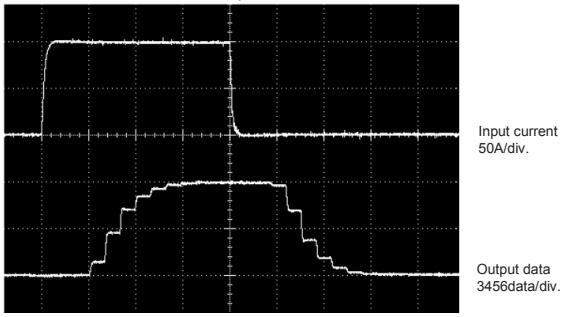
Note1) The indicated residual voltage is the one after the core hysteresis is removed.

Characteristics chart

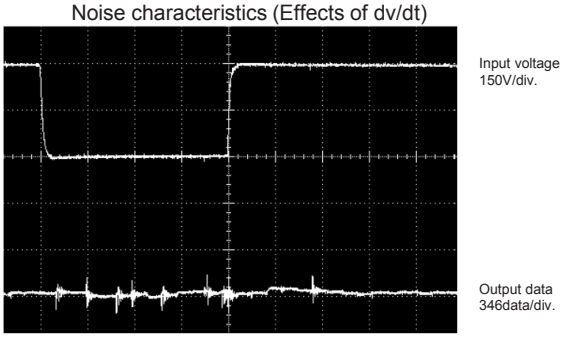
HD-TS200V027P5

Time base: 10μs/div.

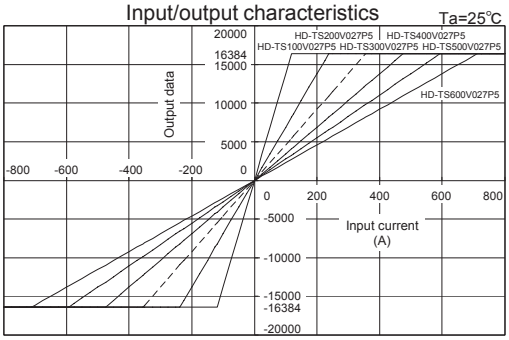
Pulse current response characteristic



Noise characteristics (Effects of dv/dt)



Input/output characteristics



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HP-PU series

CE

Small-sized, low-capacity type
PCB-mounting type

HP-PU

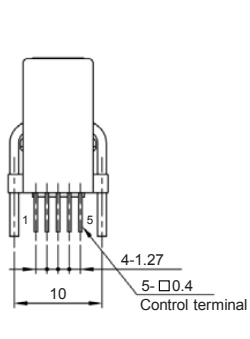
- Rated current 5A ~ 100A
- Compact and small mounting area by application of Hall IC
- Excellent in temperature characteristics by incorporating temperature compensation circuit
- Superior noise-resistance

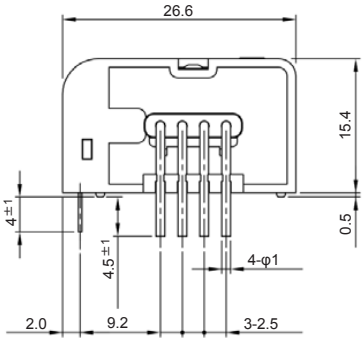
Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)

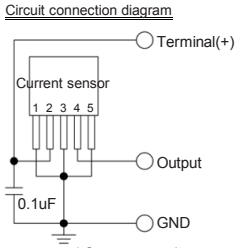


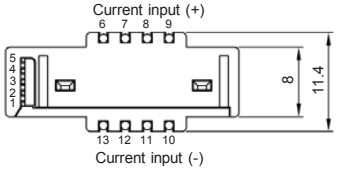


How to connect current input terminal

Number of turns	How to connect PCB side
1T specification	(+ side) 6 7 8 9 / (- side) 13 12 11 10
2T specification	(+ side) 6 7 8 9 / (- side) 13 12 11 10
4T specification	(+ side) 6 7 8 9 / (- side) 13 12 11 10

Circuit connection diagram





Terminal No.

1 ··· GND
2 ··· (+) terminal
3 ··· GND
4 ··· Output
5 ··· GND
6 ··· (+) input
7 ··· (+) input
8 ··· (+) input
9 ··· (+) input
10 ··· (-) input
11 ··· (-) input
12 ··· (-) input
13 ··· (-) input

Weight : 8g

General tolerance: ±0.5

* Connect capacitors around the current sensor terminal.

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Specification

Ta=25℃

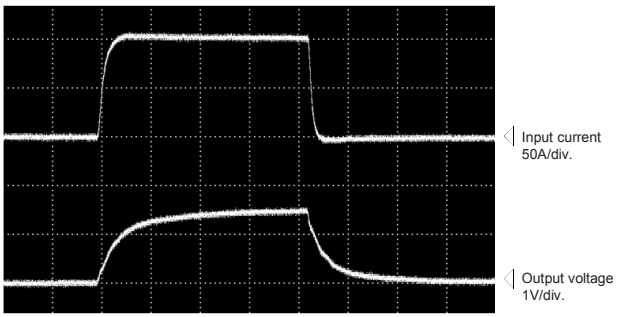
Type		HP-PU005V15PP5	HP-PU010V15PP5	HP-PU025V15PP5	HP-PU050V15PP5	HP-PU100V15PP5
Rated current	[If]	±5A	±10A	±25A	±50A	±100A
Continuously flowing DC current		±5A	±10A	±25A	±50A	±55A
Saturation current	[Is]	±7.3A	±14.6A	±36.5A	±73A	±146A
Linearity limits		0~±6.5A	0~±13A	0~±32.5A	0~±65A	0~±130A
Number of current input terminal turns		4	4	2	1	1
Rated output	[Vh]	V0±1.5V×(Vcc/5)±3.5%				V0±1.5V×(Vcc/5) ±2.5%
Residual output	[Vo]	Within (Vcc/2)±40mV	Within (Vcc/2)±35mV			Within (Vcc/2)±30mV
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=If/μs)				
Response performance		Within 10%				
Hysteresis voltage range		Within 80mV	Within 75mV	Within 70mV		Within 50mV
Output Temp. Coef.		Within ±0.05%/℃				
Residual output Temp. Coef.		Within ±0.75mV/℃	Within ±0.65mV/℃	Within ±0.6mV/℃		Within ±0.3mV/℃
Control power supply		+5V±5%				
Consumption current		Within 15mA				
Operating Temp.		-40℃~+85℃				
Storage Temp.		-40℃~+85℃				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

Note1) The indicated residual output is the one after the core hysteresis is removed.
Note2) The output specification is the maximum output current 0.5mA or less, load capacity 100pF or less.
Note3) The rated output and residual output vary with the value of the control power because they are ratiometric outputs.
Note4) Connect to the board at the specified number of turns. A different number of turns will result in an output error.

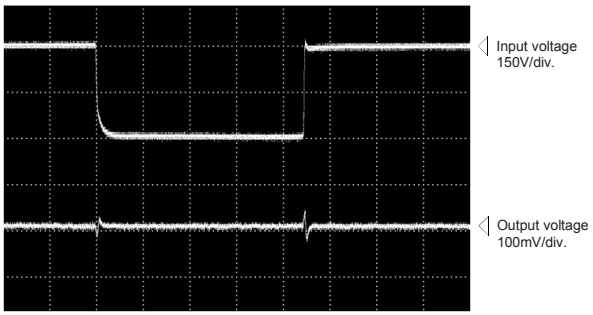
Characteristics chart

HP-PU100V15PP5 Time base: 5μs/div.

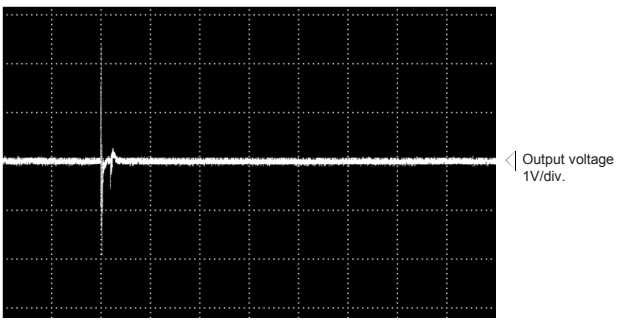
Pulse current response characteristic



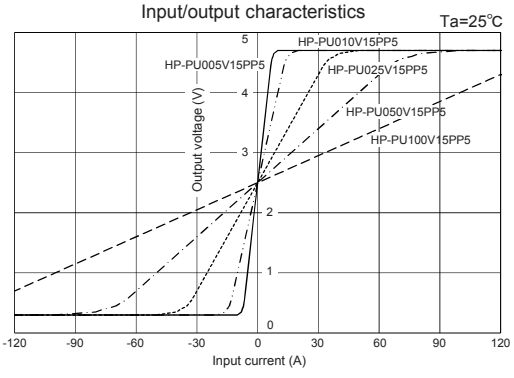
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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HM-A series

Large-sized, medium-capacity type
Bolt on type

HM-A

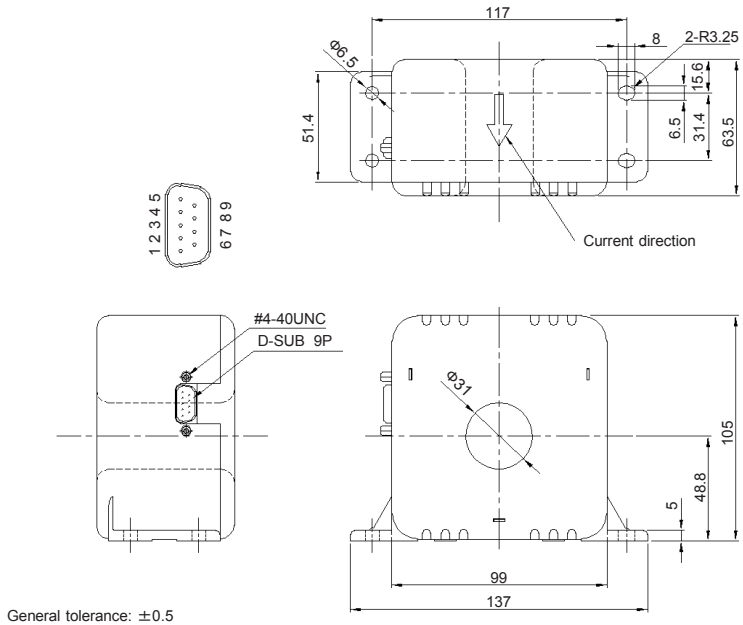
- Rated current 300A ~ 600A
- High accuracy current sensor using fluxgate technology
- Very low output noise

Applications

High precision power supply, Medical equipment, High precision inverter, Test equipment

Dimensions

(mm)



Terminal No.
1 - N.C.
2 - N.C.
3 - Status output -
4 - GND
5 - -15 supply voltage
6 - Current output
7 - N.C.
8 - Status output +
9 - +15 supply voltage

Weight : 1000g

General tolerance: ±0.5

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Specification

Ta=25℃

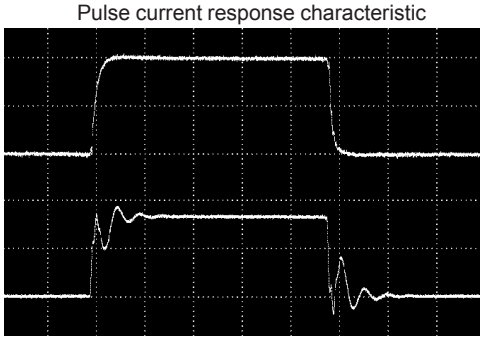
		Current output type	
Type		HM-A300A02B15B	HM-A600A04B15B
Rated current [If]		±300A	±600A
Continuously flowing DC current		±600A	±600A
Min.overload trip current [Is] (Note3)		≧±750A (RL≦5Ω) ≧±850A (RL≦2.5Ω)	
Linearity limits (Note4)		0~±650A(RL≦5Ω) 0~±750A(RL≦2.5Ω)	
Rated output [Ih]	+If	I0+200mA±300ppm	I0+400mA±300ppm
	-If	I0-200mA±300ppm	I0-400mA±300ppm
Residual output [I0]		Within ±10μA	
Output linearity		Within ±10ppm	
Second coil resistance		Approx. 16Ω	
Response time		Within 1μs (at di/dt=100A/μs)	
Response performance		Within 35%	
Hysteresis voltage range		Within 15μA	
Output Temp. Coef.		Within ±5ppm/℃	
Residual output Temp. Coef.		Within ±0.2μA/℃	
Control power supply		±15V±5%	
Consumption current		250mA+(Input current/1500)	
Operating Temp.		+10℃~+50℃	
Storage Temp.		0℃~+60℃	
Operation status(Photocupuler output) (Note5)		Open collector (Imax=6mA Vmax=+15V), Active low (Normal operation)	
Dielectric withstand voltage		2500V AC 50/60Hz 1minute	
Insulation resistance		Not less than 500MΩ 500V DC	

Note1) The indicated residual output is the one after the core hysteresis is removed.
Note2) Energization time of continuous live DC current x110% shall be within 1 minute.
Note3) If the current is higher than this, the inside circuit will shut down and the output will be almost zero.
Note4) Denotes the range of the input current value for which the output is within 0.1% of the estimate output voltage.
Note5) It is a signal that indicates the inside circuit operation; it indicates Lo level under normal operation, and Hi level when the inner circuit is shut down because of an over current.

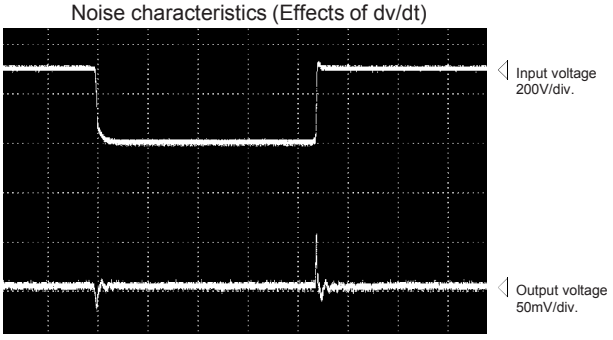
Characteristics chart

HM-A600A04B15B (RL=5Ω) Time base: 5μs/div.

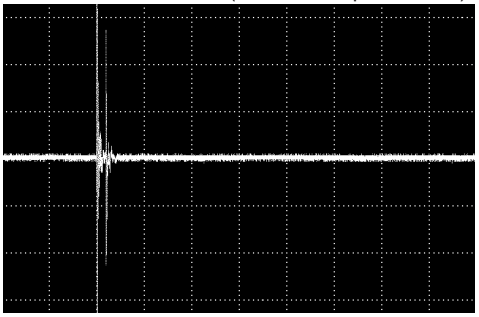
Pulse current response characteristic



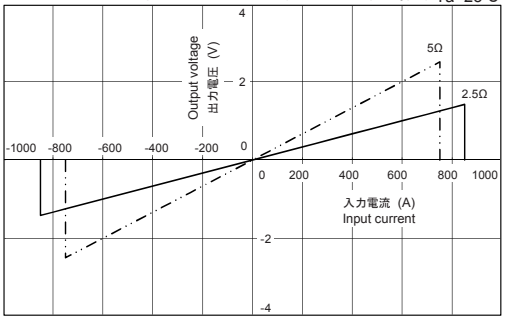
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

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HM-B series

Large-sized, medium-capacity type
Bolt on type

HM-B

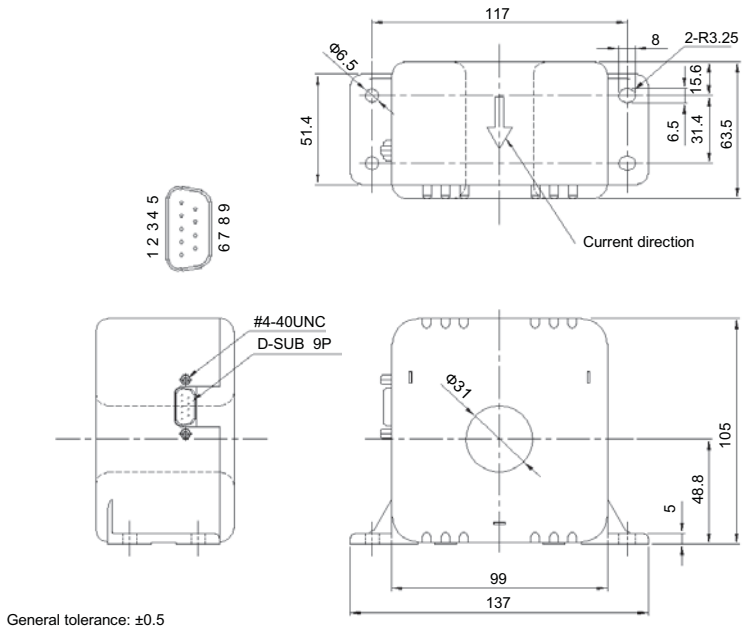
- Rated current 300A ~ 600A
- High accuracy current sensor using flux-gate technology
- Very low output noise

Applications

High precision power supply, Medical equipment, High precision inverter, Test equipment

Dimensions

(mm)



Terminal No.
1 - N.C.
2 - N.C.
3 - Status output -
4 - GND
5 - -15 supply voltage
6 - Current output
7 - N.C.
8 - Status output +
9 - +15 supply voltage

Weight : 1000g

General tolerance: ±0.5

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Specification

Ta=25°C

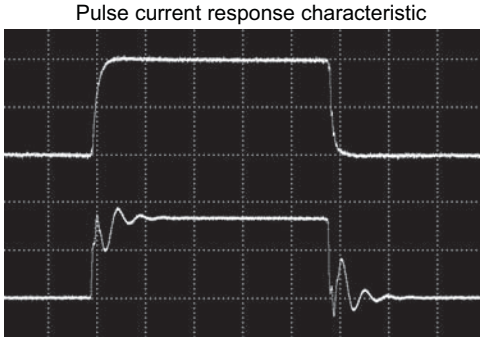
		Current output type	
Type		HM-B300A02B15	HM-B600A04B15
Rated current	[If]	±300A	±600A
Continuously flowing DC current		±300A	±600A
Min.overload trip current	[Is]	≧±850A (RL ≦ 5Ω) ≧±950A (RL ≦2.5Ω)	
Linearity limits		0~±700A(RL ≦ 5Ω) 0~±800A(RL ≦ 2.5Ω)	
Rated output	+If	I0+200mA±300ppm	I0+400mA±300ppm
	-If	I0-200mA±300ppm	I0-400mA±300ppm
Residual output	[Io]	Within ±10μA	
Output linearity		Within ±10ppm	
Second coil resistance		Approx. 14Ω	
Response time		Within 1μs (at di/dt=100A/μs)	
Response performance		Within 35%	
Hysteresis voltage range		Within 15μA	
Output Temp. Coef.		Within ±5ppm/°C	
Residual output Temp. Coef.		Within ±0.2μA/°C	
Control power supply		±15V±5%	
Consumption current		250mA+(Input current/1500)	
Operating Temp.		+10°C~+50°C	
Storage Temp.		0°C~+60°C	
Operation status(Photocupuler output)		Open collector (Imax=6mA Vmax=+15V), Active low (Normal operation)	
Dielectric withstand voltage		2500V AC 50/60Hz 1minute	
Insulation resistance		Not less than 500MΩ 500V DC	

Note1) The indicated residual voltage is the one after the core hysteresis is removed.
Note2) Energization time of continuous live DC current x110% shall be within 1 minute.
Note3) If the current is higher than this, the inside circuit will shut down and the output will be almost zero.
Note4) Denotes the range of the input current value for which the output is within 0.1% of the estimate output voltage.
Note5) It is a signal that indicates the inside circuit operation; it indicates Lo level under normal operation, and Hi level when the inner circuit is shut down because of an over current.

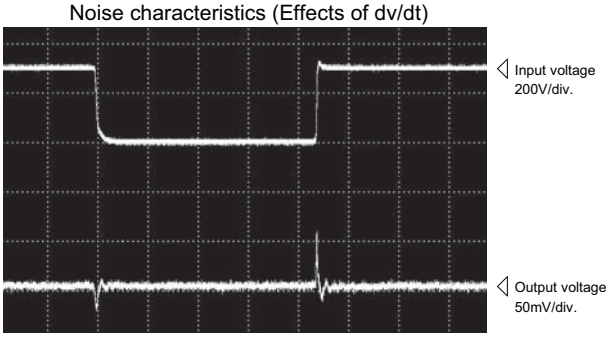
Characteristics chart

HM-B600A04B15 (RL=5Ω) 5μs/div. Time base

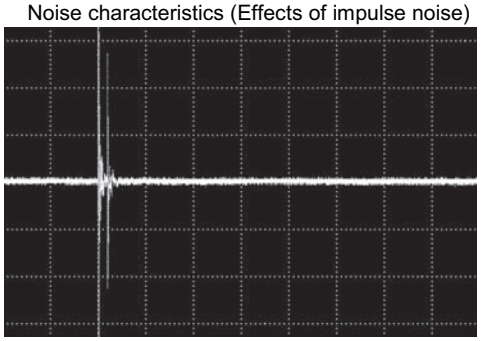
Pulse current response characteristic



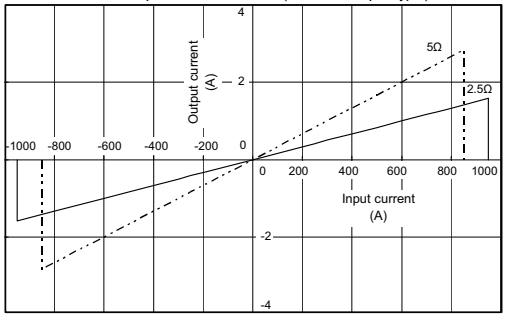
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Load resistance-output characteristics (Current output type) Ta=25°C



Note: The marks "◁" means 0V or 0A.

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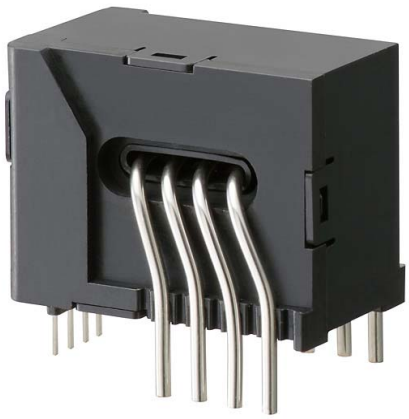
HF-A series

Small-sized, low-capacity type
PCB-mounting type

HF-A



- Rated current 6A ~ 50A
- High accuracy current sensor using fluxgate technology
- Handles 5V single power supply and reference voltage (Vref)
- Excellent temperature characteristics
- High speed response
- Over-current protection circuit built-in

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

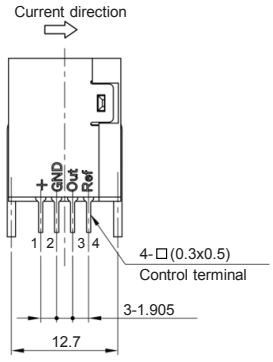
(mm)

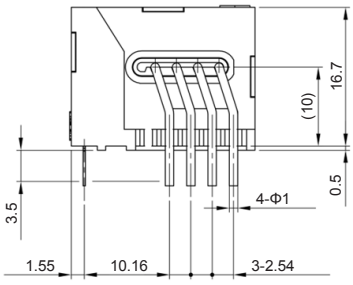
General tolerance: ±0.5

Terminal No.

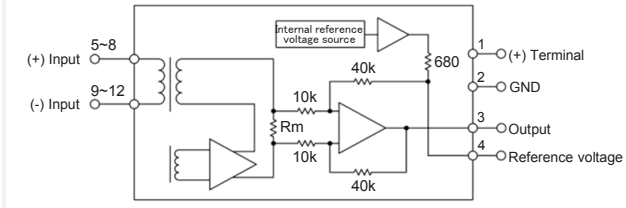
1 ··· (+) terminal
2 ··· GND
3 ··· Output
4 ··· Reference voltage
5 ··· (+) input
6 ··· (+) input
7 ··· (+) input
8 ··· (+) input
9 ··· (-) input
10 ··· (-) input
11 ··· (-) input
12 ··· (-) input

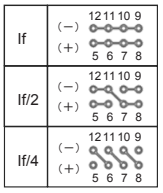
Weight : 9g

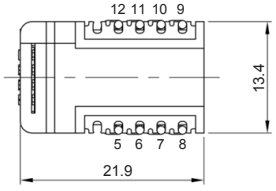




Circuit connection diagram







Specification

Ta=25℃

Type		HF-A06V0625PP5D	HF-A15V0625PP5D	HF-A25V0625PP5D	HF-A50V0625PP5D
Rated current	[If]	±6A	±15A	±25A	±50A
Continuously flowing DC current		±20A	±51A	±55A	±55A
Saturation current	[Is]	±20A	±51A	±85A	±150A
Linearity limits		0~±18A	0~±45A	0~±75A	0~±100A
Internal reference voltage	[Vref] (I=0)	+2.5±5mV			
External reference voltage	[Vref]	0~4V			
Rated output	[Vh] (I=If, output-Vref)	±0.625V±0.7%			
Residual output	[Vo] (I=0, output-Vref)	±5.3mV	±2.2mV	±1.35mV	±0.725mV
Output linearity		Within ±0.1%			
Response time		Within 0.3μs (at di/dt=If/μs)			
Response performance		Within 10%			
Hysteresis voltage range		Within 1mV			
Output Temp. Coef.		Within ±0.004%/℃			
Residual output Temp. Coef.		Within ±0.035mV/℃	Within ±0.015mV/℃	Within ±0.01mV/℃	Within ±0.0075mV/℃
Internal reference voltage Temp. Coef.		Within ±0.125mV/℃			
Control power supply		+5V±5%			
Consumption current		20mA+(Input current/1760)			20mA+(Input current/1768)
Operating Temp.		-40℃~+85℃			
Storage Temp.		-40℃~+105℃			
Dielectric withstand voltage		4000V AC 50/60Hz 1minute			
Insulation resistance		Not less than 500MΩ 500V DC			

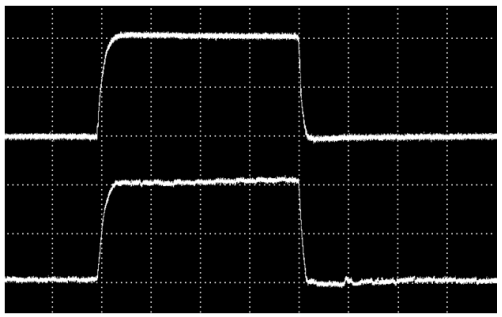
Note1) The indicated residual output is the one after the core hysteresis is removed.
Note2) Energization time of saturation current shall be within 1 second.
Note3) Energization time of continuous live DC current x150% shall be within 1 minute.
Note4) In this specification, accuracy was determined with reference to the reference voltage (Vref).
Note5) For the reference voltage, there are 2 types of modes of internal reference output and external reference input.

Characteristics chart

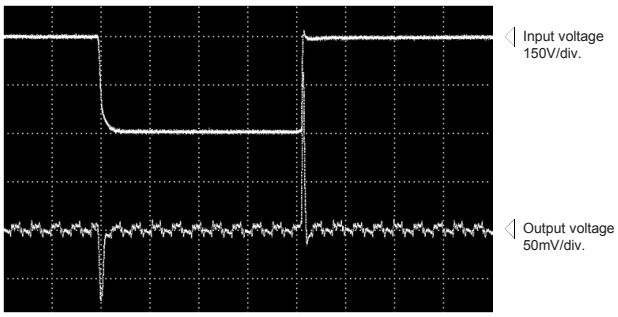
HF-A25V0625PP5D

Time base: 5μs/div.

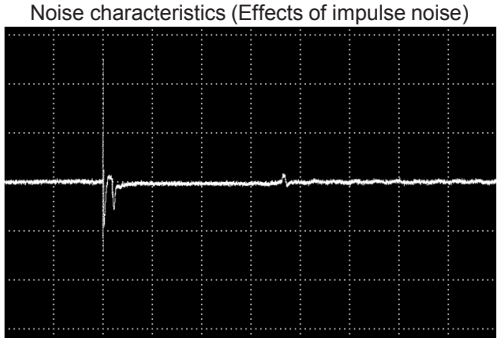
Pulse current response characteristic



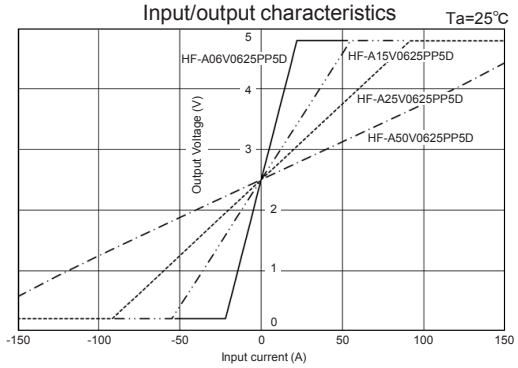
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks " ◁ " means 0V or 0A.

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HR-PA series

Small-sized, low-capacity type
PCB-mounting type

HR-PA

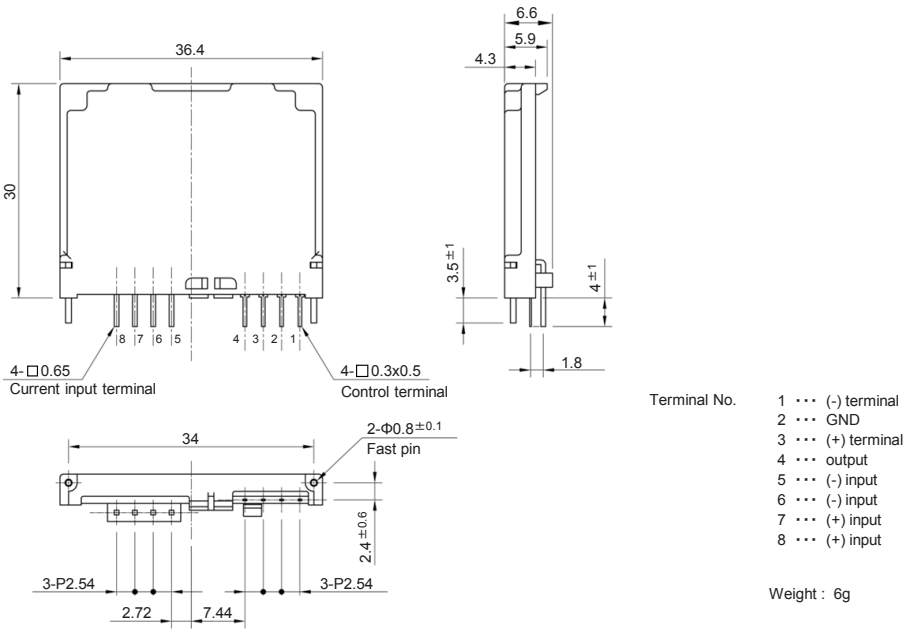
- Rated current 5A ~ 10A
- High accuracy current sensor using the MR element
- For coreless structure, realized low-profile, light-weight and small mounting surface
- Very little hysteresis characteristics
- Superior in response, linearity and temperature characteristics

Applications

Inverters, Servo drivers, Power supply equipment, Uninterruptible power supply (UPS), NC machine tools, Welders

Dimensions

(mm)



Terminal No.

1 ··· (-) terminal
2 ··· GND
3 ··· (+) terminal
4 ··· output
5 ··· (-) input
6 ··· (-) input
7 ··· (+) input
8 ··· (+) input

Weight : 6g

General tolerance: ±0.5

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Specification

Ta=25℃

Type		HR-PA05V1B15H	HR-PA10V1B15H
Rated current [If]		±5A	±10A
Continuously flowing DC current		±4A	±4A
Saturation current [Is]		±10A	±20A
Linearity limits		0~±7.5A	0~±15A
Rated output [Vh]	+If	V0+1V±1% (RL=10kΩ)	
	-If	V0-1V±1% (RL=10kΩ)	
Residual output [V0]		Within ±20mV	
Output linearity		Within ±0.5%	
Response time		Within 10μs (at di/dt=If/μs.)	
Response performance		Within 10%	
Output Temp. Coef.		Within ±0.05%/℃	
Residual output Temp. Coef.		Within ±0.3mV/℃	
Control power supply		±15V±5%	
Consumption current		Within 15mA+(Input current/Approx.300)	
Operating Temp.		-25℃~+85℃	
Storage Temp.		-40℃~+90℃	
Dielectric withstand voltage		2000V AC 50/60Hz 1minute	
Insulation resistance		Not less than 500MΩ 500V DC	

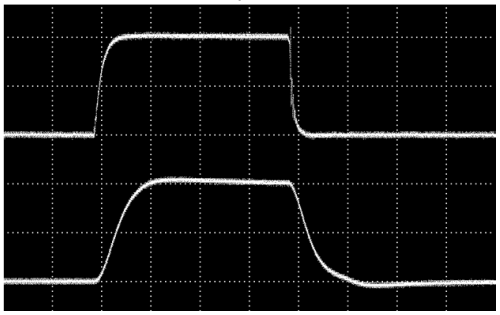
Note1) Energization time of rated current shall be within 1 minute.
Note2) Energization time of over rated current shall be within 1 second.

Characteristics chart

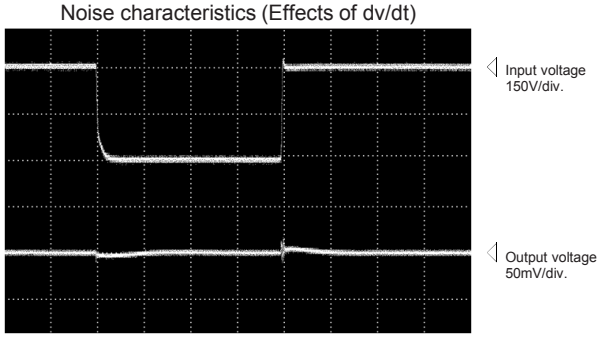
HR-PA05V1B15H

Time base: 5μs/div.

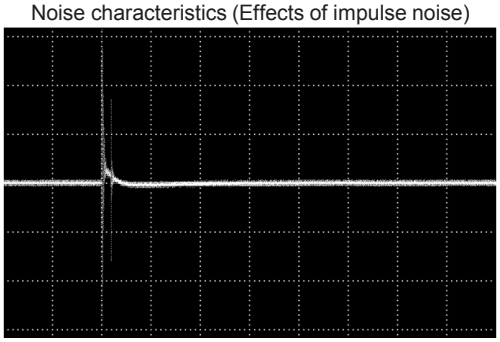
Pulse current response characteristic



Noise characteristics (Effects of dv/dt)

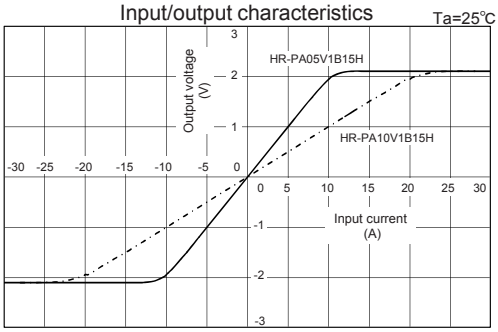


Noise characteristics (Effects of impulse noise)



Input/output characteristics

Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

HA-A

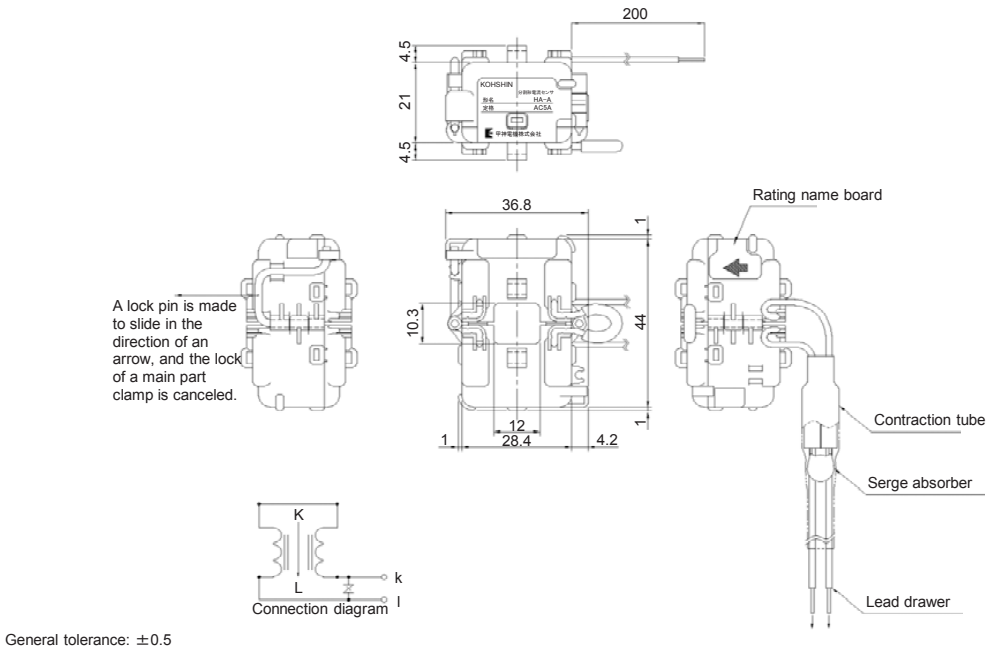
- Rated primary current 5A
- Most suitable for energy measurement which is more less dispersion in ratio error and phase displacement
- Symmetrical divided core prevents influence of external magnetic field
- Excellent frequency characteristics enabling pulse current measurement
- Simple mounting for exiting panel which is clamp type
- Internal output protection circuit

Applications

Energy measurement unit, Transmit detection of apparatus, Signal detection

Dimensions

(mm)



Weight : 61g

General tolerance: ±0.5

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Specification

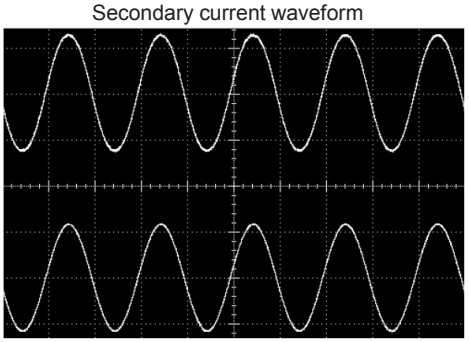
Ta=25℃

Type	HA-A005-016
Rated primary current [If]	5A
Measuring bound	0.25~5Arms
Frequency	45~65Hz
Saturation current [Is]	25A
Rated secondary current	1.67mArms
Ratio error	±1% (RL=200Ω)
Dispersion in phase displacement	±45minute (0.1If~If RL=200Ω) ±60minute (0.05If RL=200Ω)
Operating Temp.	-10℃~+55℃
Storage Temp.	-20℃~+60℃
Dielectric withstand voltage	1000V AC 1minute
Insulation resistance	Not less than 10MΩ 500V DC
Others	Internal output protection circuit

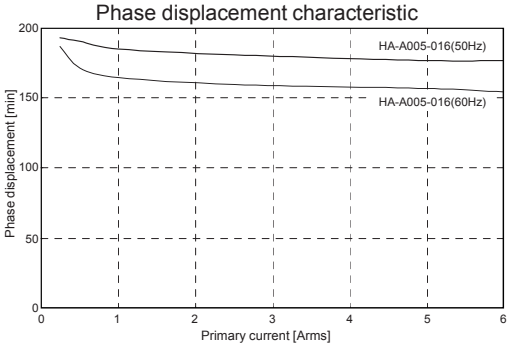
Characteristics chart

HA-A005-016 Time base: 10ms/div.

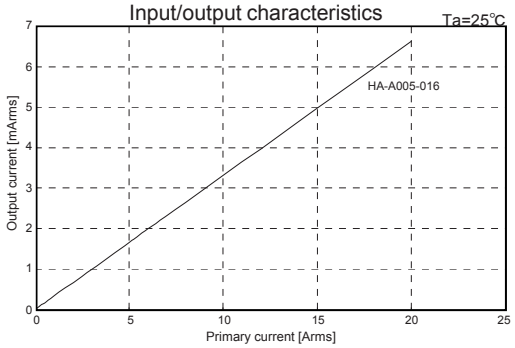
Secondary current waveform



Phase displacement characteristic



Input/output characteristics Ta=25℃



Note: The marks " ◁ " means 0V or 0A.

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HA-B, HA-C

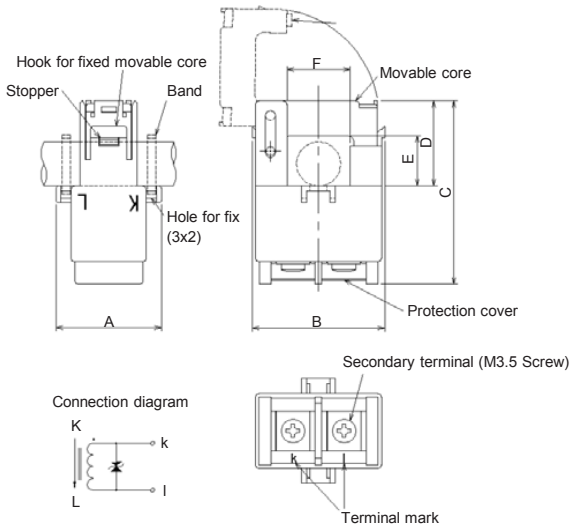
- Rated primary current 50A ~ 250A
- Most suitable for energy measurement which is more less dispersion in ratio error and phase displacement
- Simple mounting for exiting panel which is clamp type
- Internal output protection circuit

Applications

Energy measurement unit

Dimensions

(mm)



Type	A	B	C	D	E	F	Weight (g)
HA-B050-16 HA-B100-33	31.5	39.6	55.2	25.7	15.2	18.8	65
HA-C250-66	36.5	44	66	32.5	22	24	104

General tolerance: ±0.5

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Specification

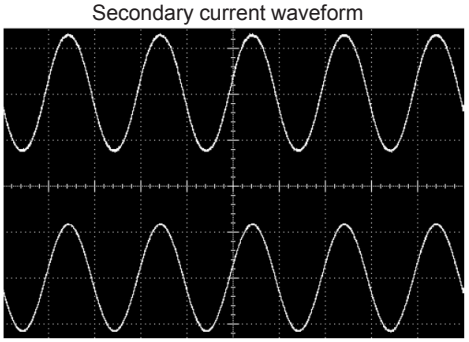
Ta=25℃

Type	HA-B050-16	HA-B100-33	HA-C250-66
Rated primary current [If]	50Arms	100Arms	250Arms
Measuring bound	2.5~50Arms	5~100Arms	12.5~250Arms
Frequency	45~65Hz		
Saturation current [Is]	140Arms		350Arms
Rated secondary current	16.67mArms	33.33mArms	66.67mArms
Ratio error	±1.2% (RL≦10Ω)		
Dispersion in phase displacement	±40minute (RL≦10Ω)		
Operating Temp.	-10℃~+55℃		
Storage Temp.	-20℃~+60℃		
Dielectric withstand voltage	2500V AC 1minute		
Insulation resistance	Not less than 10MΩ 500V DC		
Insulation distance	Not less than 8mm		
Others	Internal output protection circuit		

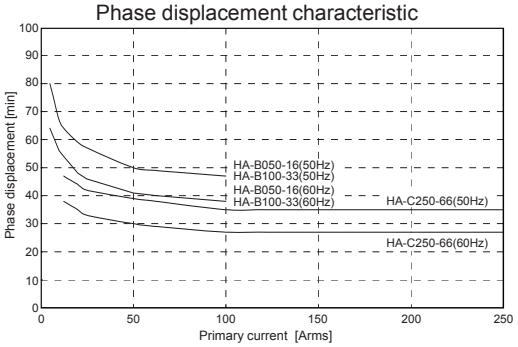
Characteristics chart

HA-B100-33 Time base: 10ms/div.

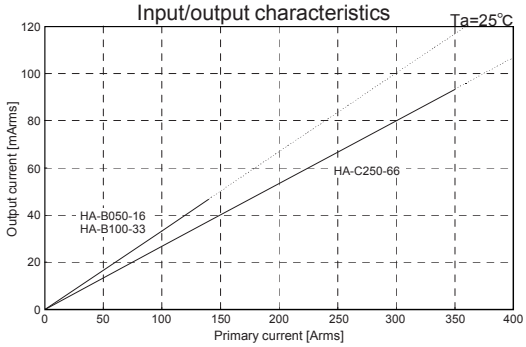
Secondary current waveform



Phase displacement characteristic



Input/output characteristics



Note: The solid lines indicate the possible range of a continuous flow of electricity.

Note: The marks " ◁ " means 0V or 0A.

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HA-BV, HA-CV

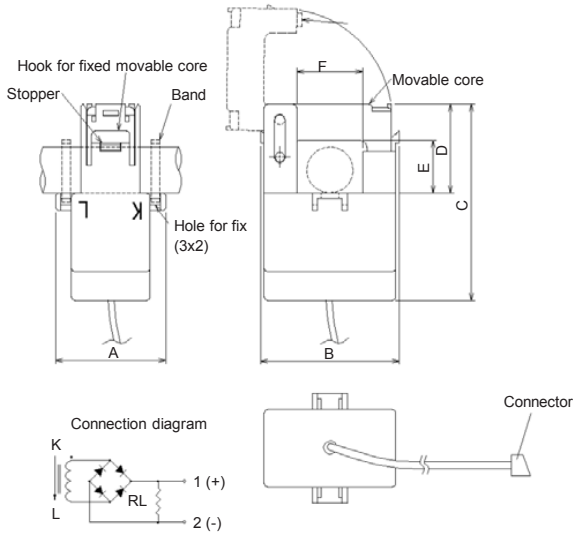
- Rated current 50A ~ 250A
- Simple mounting for exiting panel which is clamp type
- Internal rectification circuit DC-V output type

Applications

Energy measurement unit

Dimensions

(mm)



Type	A	B	C	D	E	F	Weight (g)
HA-B050-V5 HA-B100-V5	31.5	39.6	56.7	25.7	15.2	18.8	88
HA-C250-V5	36.5	44	67.4	32.5	22	24	124

General tolerance: ±0.5

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Specification

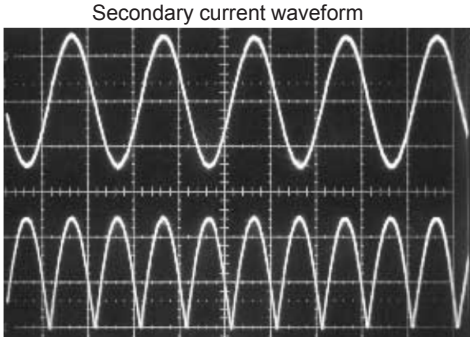
Ta=25℃

Type	HA-B050-V5	HA-B100-V5	HA-C250-V5
Rated current [If]	50Arms	100Arms	250Arms
Measuring bound	10~50Arms	10~100Arms	12.5~250Arms
Frequency	45~65Hz		
Rated output voltage	DC+5V (Peak) DC+3.21V (Average)		
Ratio error	±3%		
Operating Temp.	-10℃~+55℃		
Storage Temp.	-20℃~+60℃		
Dielectric withstand voltage	2500V AC 1minute		
Insulation resistance	Not less than 10MΩ 500V DC		
Insulation distance	Not less than 8mm		
Others	Output cable: VCTF wire 0.3mm^2 , L=2000mm Output connector: RISE housing 1-178128-2 (AMP) RISE contact 175195-2		

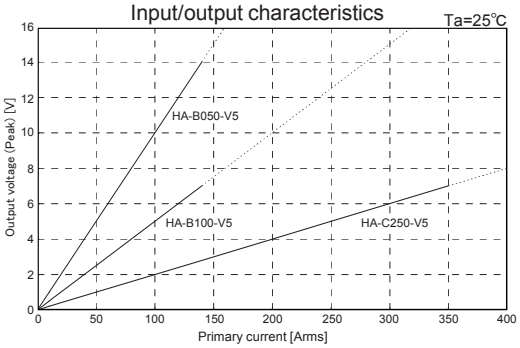
Characteristics chart

HA-B100-V5 Time base: 10ms/div.

Secondary current waveform



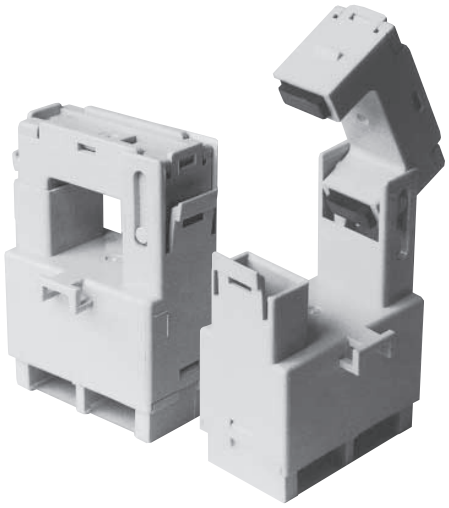
Input/output characteristics



Note: The solid lines indicate the possible range of a continuous flow of electricity.

Note: The marks " ◁ " means 0V or 0A.

HA–BR



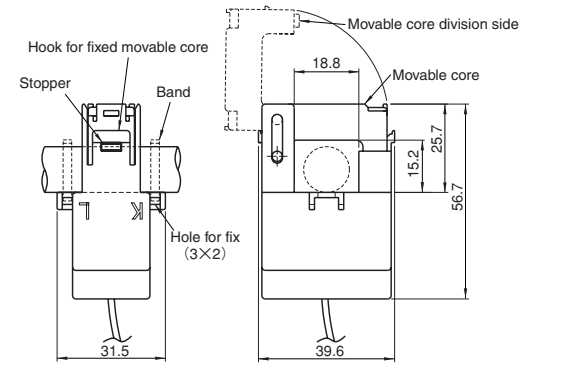
- Rated primary current ·····50A～100A
- Simple mounting for exiting panel which is clamp type
- Internal output protection circuit
- True actual effective value output circuit built in realizing highly precise measurement with wide input waveform
- Conventional CT + transducer may be replaced by one unit of this product.

Applications

Energy measurement unit, Exchange current measurement system

Dimensions

(mm)



A1		
A2	Black	Output (GND)
A3	Green	Output
B1		
B2	White	(–) terminal
B3	Red	(+) terminal

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Specification

Ta=25°C

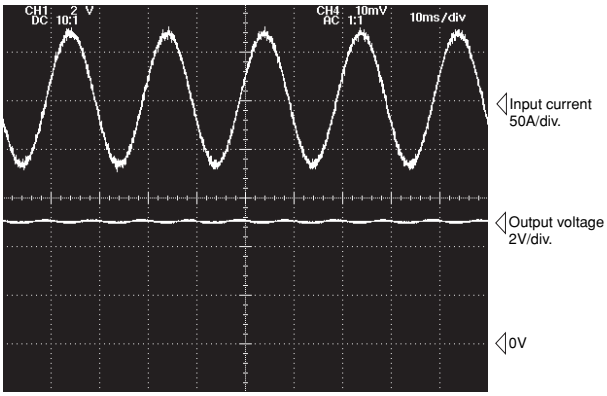
	Specification
Type	HA-B050-R5
Rated current [If]	50Arms
Frequency	45~65Hz
Rated output voltage	DC+5V at 50/60Hz
Output voltage ratio error	Within ±3%（10~50A at input）at 50/60Hz Within –50%（1A at input）at 50/60Hz
Response time	Within 500ms（Input 0~If Sine wave，Output until 90% point）
Load resistance	RL ≧ 5kΩ
Control power supply	±15V±5%
Consumption current	Within 5mA
Operating Temp.	–10°C~+55°C
Storage Temp.	–20°C~+60°C
Dielectric withstand voltage	2500V AC 1minute
Insulation resistance	Not less than 10MΩ 500V DC
Insulation distance	Not less than 8mm
Others	Cable：VCTF wire 0.2mm² 4-core L=3000mm Connector：RISE housing 1-13818119-3 （AMP） RISE contact 1318106-1

Characteristics chart

HA-B050-R5

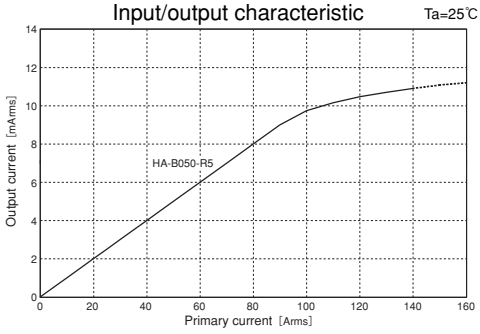
Time base: 10ms/div.

Output voltage waveform



Input/output characteristic

Ta=25℃



Note：The mark "◁" means 0V or 0A.

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HC-L series

*Control power supply specification: ±12V

Type	HC-L800V4B12	HC-LE10V4B12	HC-LE12V4B12	HC-LE15V4B12	HC-LE18V4B12	HC-LE20V4B12	HC-LE25V4B12	HC-LE30V4B12
Rated current [If]	±800A	±1000A	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±1200A	±2250A	±2700A	±3375A	±4000A	±4000A	±4000A	±5000A
Linearity limits	0～±1000A	0～±2000A	0～±2500A	0～±3125A	0～±3500A	0～±3500A	0～±3500A	0～±4000A
Rated output [Vh]	±4V±1%							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs(at di/dt=100A/μs)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.05%/℃							
Residual output Temp. Coef.	Within ±2mV/℃							
Control power supply	±12V±5%							
Consumption current	Within 50mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-L series

*Control power supply specification: ±15V

Type	HC-L800V4B15	HC-LE10V4B15	HC-LE12V4B15	HC-LE15V4B15	HC-LE18V4B15	HC-LE20V4B15	HC-LE25V4B15	HC-LE30V4B15
Rated current [If]	±800A	±1000A	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±1200A	±2500A	±3000A	±4000A	±4000A	±4000A	±4000A	±5000A
Linearity limits	0～±1000A	0～±2000A	0～±2500A	0～±3500A	0～±3500A	0～±3500A	0～±3500A	0～±4000A
Rated output [Vh]	±4V±1%							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs(at di/dt=100A/μs)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.05%/℃							
Residual output Temp. Coef.	Within ±2mV/℃							
Control power supply	±15V±5%							
Consumption current	Within 50mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-MJ series

*Control power supply specification: ±12V

Type	HC-MJE10V4B12	HC-MJE15V4B12	HC-MJE20V4B12	HC-MJE25V4B12	HC-MJE30V4B12	HC-MJE35V4B12	HC-MJE40V4B12
Rated current [If]	±1000A	±1500A	±2000A	±2500A	±3000A	±3500A	±4000A
Saturation current [Is]	±2250A	±2400A	±2400A	±4800A	±4800A	±4800A	±4800A
Linearity limits	0～±2000A	0～±2000A	0～±2000A	0～±4000A	0～±4000A	0～±4000A	0～±4000A
Rated output [Vh]	±4V±1.5%						
Residual output [V0]	Within ±30mV						
Output linearity	Within ±1%						
Response time	Within 10μs(at di/dt=100A/μs)						
Response performance	Within 10%						
Hysteresis Voltage range	Within 30mV						
Output Temp. Coef.	Within ±0.1%/℃						
Residual output Temp. Coef.	Within ±1.5mV/℃						
Control power supply	±12V±5%						
Consumption current	Within 50mA						
Operating Temp.	-40℃～+80℃						
Strage Temp.	-40℃～+85℃						
Dielectric withstand voltage	2500V AC 50/60Hz 1minute						
Insulation resistance	Not less than 500MΩ 500V DC						

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HC-MJ series

*Control power supply specification: ±15V

Type	HC-MJE10V4B15	HC-MJE15V4B15	HC-MJE20V4B15	HC-MJE25V4B15	HC-MJE30V4B15	HC-MJE35V4B15	HC-MJE40V4B15
Rated current [If]	±1000A	±1500A	±2000A	±2500A	±3000A	±3500A	±4000A
Saturation current [Is]	±2400A	±2400A	±2400A	±4800A	±4800A	±4800A	±4800A
Linearity limits	0～±2000A	0～±2000A	0～±2000A	0～±4000A	0～±4000A	0～±4000A	0～±4000A
Rated output [Vh]	±4V±1.5%						
Residual output [V0]	Within ±30mV						
Output linearity	Within ±1%						
Response time	Within 10μs(at di/dt=100A/μs)						
Response performance	Within 10%						
Hysteresis Voltage range	Within 30mV						
Output Temp. Coef.	Within ±0.1%/℃						
Residual output Temp. Coef.	Within ±1.5mV/℃						
Control power supply	±15V±5%						
Consumption current	Within 50mA						
Operating Temp.	-40℃～+80℃						
Strage Temp.	-40℃～+85℃						
Dielectric withstand voltage	2500V AC 50/60Hz 1minute						
Insulation resistance	Not less than 500MΩ 500V DC						

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HC-ML series

*Control power supply specification: ±12V

Type	HC-ML300V4B12	HC-ML400V4B12	HC-ML500V4B12	HC-ML600V4B12	HC-ML800V4B12	HC-MLE10V4B12
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±675A	±900A	±1125A	±1200A	±1800A	±2250A
Linearity limits	0～±675A	0～±900A	0～±1000A	0～±1000A	0～±1800A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-ML series

*Control power supply specification: ±12V

Type	HC-MLE12V4B12	HC-MLE15V4B12	HC-MLE18V4B12	HC-MLE20V4B12T	HC-MLE25V4B12	HC-MLE30V4B12
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±4500A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-ML series

*Control power supply specification: ±15V

Type	HC-ML300V4B15	HC-ML400V4B15	HC-ML500V4B15	HC-ML600V4B15	HC-ML800V4B15	HC-MLE10V4B15
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±900A	±1200A	±1200A	±1200A	±2400A	±2400A
Linearity limits	0～±900A	0～±1000A	0～±1000A	0～±1000A	0～±1900A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-ML series

*Control power supply specification: ±15V

Type	HC-MLE12V4B15	HC-MLE15V4B15	HC-MLE18V4B15	HC-MLE20V4B15T	HC-MLE25V4B15	HC-MLE30V4B15
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±5000A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MN series

*Control power supply specification: ±12V

Type	HC-MN300V4B12	HC-MN400V4B12	HC-MN500V4B12	HC-MN600V4B12	HC-MN800V4B12	HC-MNE10V4B12
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±675A	±900A	±1125A	±1200A	±1800A	±2250A
Linearity limits	0～±675A	0～±900A	0～±1000A	0～±1000A	0～±1800A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MN series

*Control power supply specification: ±12V

Type	HC-MNE12V4B12	HC-MNE15V4B12	HC-MNE18V4B12	HC-MNE20V4B12T	HC-MNE25V4B12	HC-MNE30V4B12
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±4500A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MN series

*Control power supply specification: ±15V

Type	HC-MN300V4B15	HC-MN400V4B15	HC-MN500V4B15	HC-MN600V4B15	HC-MN800V4B15	HC-MNE10V4B15
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±900A	±1200A	±1200A	±1200A	±2400A	±2400A
Linearity limits	0～±900A	0～±1000A	0～±1000A	0～±1000A	0～±1900A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MN series

*Control power supply specification: ±15V

Type	HC-MNE12V4B15	HC-MNE15V4B15	HC-MNE18V4B15	HC-MNE20V4B15T	HC-MNE25V4B15	HC-MNE30V4B15
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±5000A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSL series

*Control power supply specification: ±12V

Type	HC-MSL300V4B12	HC-MSL400V4B12	HC-MSL500V4B12	HC-MSL600V4B12	HC-MSL800V4B12	HC-MSLE10V4B12
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±675A	±900A	±1125A	±1200A	±1800A	±2250A
Linearity limits	0～±675A	0～±900A	0～±1000A	0～±1000A	0～±1800A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSL series

*Control power supply specification: ±12V

Type	HC-MSLE12V4B12	HC-MSLE15V4B12	HC-MSLE18V4B12	HC-MSLE20V4B12T	HC-MSLE25V4B12	HC-MSLE30V4B12
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±4500A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSL series

*Control power supply specification: ±15V

Type	HC-MSL300V4B15	HC-MSL400V4B15	HC-MSL500V4B15	HC-MSL600V4B15	HC-MSL800V4B15	HC-MSLE10V4B15
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±900A	±1200A	±1200A	±1200A	±2400A	±2400A
Linearity limits	0～±900A	0～±1000A	0～±1000A	0～±1000A	0～±1900A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSL series

*Control power supply specification: ±15V

Type	HC-MSLE12V4B15	HC-MSLE15V4B15	HC-MSLE18V4B15	HC-MSLE20V4B15T	HC-MSLE25V4B15	HC-MSLE30V4B15
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±5000A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSN series

*Control power supply specification: ±12V

Type	HC-MSN300V4B12	HC-MSN400V4B12	HC-MSN500V4B12	HC-MSN600V4B12	HC-MSN800V4B12	HC-MSNE10V4B12
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±675A	±900A	±1125A	±1200A	±1800A	±2250A
Linearity limits	0～±675A	0～±900A	0～±1000A	0～±1000A	0～±1800A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSN series

*Control power supply specification: ±12V

Type	HC-MSNE12V4B12	HC-MSNE15V4B12	HC-MSNE18V4B12	HC-MSNE20V4B12T	HC-MSNE25V4B12	HC-MSNE30V4B12
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±4500A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSN series

*Control power supply specification: ±15V

Type	HC-MSN300V4B15	HC-MSN400V4B15	HC-MSN500V4B15	HC-MSN600V4B15	HC-MSN800V4B15	HC-MSNE10V4B15
Rated current [If]	±300A	±400A	±500A	±600A	±800A	±1000A
Saturation current [Is]	±900A	±1200A	±1200A	±1200A	±2400A	±2400A
Linearity limits	0～±900A	0～±1000A	0～±1000A	0～±1000A	0～±1900A	0～±1900A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA				Within 50mA	
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-MSN series

*Control power supply specification: ±15V

Type	HC-MSNE12V4B15	HC-MSNE15V4B15	HC-MSNE18V4B15	HC-MSNE20V4B15T	HC-MSNE25V4B15	HC-MSNE30V4B15
Rated current [If]	±1200A	±1500A	±1800A	±2000A	±2500A	±3000A
Saturation current [Is]	±2400A	±2400A	±2400A	±5000A	±5000A	±5000A
Linearity limits	0～±1900A	0～±1900A	0～±1900A	0～±4500A	0～±4500A	0～±4500A
Rated output [Vh]	±4V±1%			±4V±2%		
Residual output [V0]	Within ±30mV					
Output linearity	Within ±1%					
Response time	Within 10μs(at di/dt=100A/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 50mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PD series

*Control power supply specification: ±12V

Type	HC-PD05V4B12	HC-PD10V4B12	HC-PD20V4B12	HC-PD30V4B12	HC-PD40V4B12	HC-PD50V4B12
Rated current [If]	±5A	±10A	±20A	±30A	±40A	±50A
Continuosly flowing DC current	±8.8A	±23.3A	±23.3A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±11.25A	±22.5A	±45A	±67.5A	±90A	±90A
Linearity limits	0～±11.25A	0～±22.5A	0～±37.5A	0～±67.5A	0～±75A	0～±75A
Size of primary winding	φ0.8	φ1.3	φ1.3	φ1.6	φ1.6	φ1.6
Turns	6	3	2	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PD series

*Control power supply specification: ±15V

Type	HC-PD05V4B15	HC-PD10V4B15	HC-PD20V4B15	HC-PD30V4B15	HC-PD40V4B15	HC-PD50V4B15
Rated current [If]	±5A	±10A	±20A	±30A	±40A	±50A
Continuosly flowing DC current	±8.8A	±23.3A	±23.3A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±15A	±30A	±45A	±90A	±90.0A	±90A
Linearity limits	0～±12.5A	0～±25A	0～±37.5A	0～±75A	0～±75A	0～±75A
Size of primary winding	φ0.8	φ1.3	φ1.3	φ1.6	φ1.6	φ1.6
Turns	6	3	2	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PDG series

*Control power supply specification: ±12V

Type	HC-PDG05V4B12	HC-PDG10V4B12	HC-PDG15V4B12	HC-PDG20V4B12	HC-PDG25V4B12
Rated current [If]	±5A	±10A	±15A	±20A	±25A
Continuosly flowing DC current	±8.8A	±13.8A	±23.3A	±23.3A	±23.3A
Saturation current [Is]	±11.25A	±22.5A	±33.75A	±45A	±56.25A
Linearity limits	0～±11.25A	0～±22.5A	0～±33.75A	0～±45A	0～±56.25A
Size of primary winding	φ0.8	φ1.0	φ1.3	φ1.3	φ1.3
Turns	10	6	4	3	2
Rated output [Vh]	±4V±1.5% (RL=10kΩ)				
Residual output [V0]	Within ±50mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 60mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±2mV/℃				
Control power supply	±12V±5%				
Consumption current	Within 20mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PDG series

*Control power supply specification: ±12V

Type	HC-PDG30V4B12	HC-PDG35V4B12	HC-PDG40V4B12	HC-PDG45V4B12	HC-PDG50V4B12
Rated current [If]	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±23.3A	±23.3A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±67.5A	±78.75A	±90A	±101.25A	±112.5A
Linearity limits	0～±67.5A	0～±67.5A	0～±90A	0～±101.25A	0～±112.5A
Size of primary winding	φ1.3	φ1.3	φ1.6	φ1.6	φ1.6
Turns	2	2	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)				
Residual output [V0]	Within ±50mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 60mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±2mV/℃				
Control power supply	±12V±5%				
Consumption current	Within 20mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PDG series

*Control power supply specification: ±15V

Type	HC-PDG05V4B15	HC-PDG10V4B15	HC-PDG15V4B15	HC-PDG20V4B15	HC-PDG25V4B15
Rated current [If]	±5A	±10A	±15A	±20A	±25A
Continuosly flowing DC current	±8.8A	±13.8A	±23.3A	±23.3A	±23.3A
Saturation current [Is]	±15A	±25A	±37.5A	±50A	±75A
Linearity limits	0～±13.5A	0～±22.5A	0～±33.75A	0～±45A	0～±67.5A
Size of primary winding	φ0.8	φ1.0	φ1.3	φ1.3	φ1.3
Turns	10	6	4	3	2
Rated output [Vh]	±4V±1.5% (RL=10kΩ)				
Residual output [V0]	Within ±50mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 60mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±2mV/℃				
Control power supply	±15V±5%				
Consumption current	Within 20mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PDG series

*Control power supply specification: ±15V

Type	HC-PDG30V4B15	HC-PDG35V4B15	HC-PDG40V4B15	HC-PDG45V4B15	HC-PDG50V4B15
Rated current [If]	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±23.3A	±23.3A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±75A	±75A	±120A	±135A	±150A
Linearity limits	0～±67.5A	0～±67.5A	0～±120A	0～±135A	0～±135A
Size of primary winding	φ1.3	φ1.3	φ1.6	φ1.6	φ1.6
Turns	2	2	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)				
Residual output [V0]	Within ±50mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 60mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±2mV/℃				
Control power supply	±15V±5%				
Consumption current	Within 20mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PDK series

*Control power supply specification: ±12V

Type	HC-PDK50V4B12	HC-PDK60V4B12	HC-PDK70V4B12	HC-PDK80V4B12	HC-PDK90V4B12	HC-PDK100V4B12
Rated current [If]	±50A	±60A	±70A	±80A	±90A	±100A
Continuosly flowing DC current	±100A					
Saturation current [Is]	±112.5A	±135A	±150A			
Linearity limits	0～±112.5A	0～±135A				
Size of busbar	Bus bar □1 x 7.8					
Turns	1					
Rated output [Vh]	±4V±1.5% (RL=10kΩ)					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 60mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±2mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 20mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PDK series

*Control power supply specification: ±15V

Type	HC-PDK50V4B15	HC-PDK60V4B15	HC-PDK70V4B15	HC-PDK80V4B15	HC-PDK90V4B15	HC-PDK100V4B15
Rated current [If]	±50A	±60A	±70A	±80A	±90A	±100A
Continuosly flowing DC current	±100A					
Saturation current [Is]	±150A					
Linearity limits	0～±135A					
Size of busbar	Bus bar □1 x 7.8					
Turns	1					
Rated output [Vh]	±4V±1.5% (RL=10kΩ)					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 60mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±2mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 20mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PDN series

*Control power supply specification: ±12V

Type	HC-PDN05V4B12	HC-PDN10V4B12	HC-PDN20V4B12	HC-PDN30V4B12	HC-PDN40V4B12	HC-PDN50V4B12
Rated current [If]	±5A	±10A	±20A	±30A	±40A	±50A
Continuosly flowing DC current	±8.8A	±23.3A	±23.3A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±11.25A	±22.5A	±45A	±67.5A	±90A	±90A
Linearity limits	0～±11.25A	0～±22.5A	0～±37.5A	0～±67.5A	0～±75A	0～±75A
Size of primary winding	φ0.8	φ1.3	φ1.3	φ1.6	φ1.6	φ1.6
Turns	6	3	2	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PDN series

*Control power supply specification: ±15V

Type	HC-PDN05V4B15	HC-PDN10V4B15	HC-PDN20V4B15	HC-PDN30V4B15	HC-PDN40V4B15	HC-PDN50V4B15
Rated current [If]	±5A	±10A	±20A	±30A	±40A	±50A
Continuosly flowing DC current	±8.8A	±23.3A	±23.3A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±15A	±30A	±45A	±90A	±90.0A	±90A
Linearity limits	0～±12.5A	0～±25A	0～±37.5A	0～±75A	0～±75A	0～±75A
Size of primary winding	φ0.8	φ1.3	φ1.3	φ1.6	φ1.6	φ1.6
Turns	6	3	2	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PFG series

*Control power supply specification: ±12V

Type	HC-PFG03V4B12	HC-PFG05V4B12	HC-PFG10V4B12	HC-PFG15V4B12	HC-PFG20V4B12	HC-PFG25V4B12	HC-PFG30V4B12
Rated current [If]	±3A	±5A	±10A	±15A	±20A	±25A	±30A
Continuosly flowing DC current	±5A	±8.8A	±8.8A	±23.3A	±23.3A	±23.3A	±23.3A
Saturation current [Is]	±6.75A	±11.25A	±22.5A	±33.75A	±45A	±56.25A	±67.5A
Linearity limits	0～±6.75A	0～±11.25A	0～±22.5A	0～±33.75A	0～±45A	0～±56.25A	0～±62.5A
Size of primary winding	φ0.6	φ0.8	φ0.8	φ1.3	φ1.3	φ1.3	φ1.3
Turns	16	10	5	3	2	2	2
Rated output [Vh]	±4V±2% (RL=10kΩ)						
Residual output [V0]	Within ±100mV						
Output linearity	Within ±1%						
Response time	Within 10μs (at di/dt=If/μs)						
Response performance	Within 10%						
Hysteresis Voltage range	Within 100mV						
Output Temp. Coef.	Within ±0.1%/℃						
Residual output Temp. Coef.	Within ±3mV/℃						
Control power supply	±12V±5%						
Consumption current	Within 30mA						
Operating Temp.	-10℃～+80℃						
Strage Temp.	-15℃～+85℃						
Dielectric withstand voltage	2500V AC 50/60Hz 1minute						
Insulation resistance	Not less than 500MΩ 500V DC						

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HC-PFG series

*Control power supply specification: ±15V

Type	HC-PFG03V4B15	HC-PFG05V4B15	HC-PFG10V4B15	HC-PFG15V4B15	HC-PFG20V4B15	HC-PFG25V4B15	HC-PFG30V4B15
Rated current [If]	±3A	±5A	±10A	±15A	±20A	±25A	±30A
Continuosly flowing DC current	±5A	±8.8A	±8.8A	±23.3A	±23.3A	±23.3A	±23.3A
Saturation current [Is]	±9A	±15A	±30A	±45A	±60A	±75A	±75A
Linearity limits	0～±7.5A	0～±12.5A	0～±25A	0～±41.5A	0～±60A	0～±62.5A	0～±62.5A
Size of primary winding	φ0.6	φ0.8	φ0.8	φ1.3	φ1.3	φ1.3	φ1.3
Turns	16	10	5	3	2	2	2
Rated output [Vh]	±4V±2% (RL=10kΩ)						
Residual output [V0]	Within ±100mV						
Output linearity	Within ±1%						
Response time	Within 10μs (at di/dt=If/μs)						
Response performance	Within 10%						
Hysteresis Voltage range	Within 100mV						
Output Temp. Coef.	Within ±0.1%/℃						
Residual output Temp. Coef.	Within ±3mV/℃						
Control power supply	±15V±5%						
Consumption current	Within 30mA						
Operating Temp.	-10℃～+80℃						
Strage Temp.	-15℃～+85℃						
Dielectric withstand voltage	2500V AC 50/60Hz 1minute						
Insulation resistance	Not less than 500MΩ 500V DC						

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HC-PG series

*Control power supply specification: ±12V

Type	HC-PG050V4B12	HC-PG100V4B12	HC-PG150V4B12	HC-PG200V4B12	HC-PG250V4B12	HC-PG300V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±500A	0～±675A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PG series

*Control power supply specification: ±15V

Type	HC-PG050V4B15	HC-PG100V4B15	HC-PG150V4B15	HC-PG200V4B15	HC-PG250V4B15	HC-PG300V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±150A	±300A	±450A	±600A	±600A	±900A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±500A	0～±500A	0～±700A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PJ series

*Control power supply specification: ±12V

Type	HC-PJ050V4B12	HC-PJ100V4B12	HC-PJ150V4B12	HC-PJ200V4B12
Rated current [If]	±50A	±100A	±150A	±200A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A
Rated output [Vh]	±4V±1%			
Residual output [V0]	Within ±50mV			
Output linearity	Within ±1%			
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)			
Response performance	Within 10%			
Hysteresis Voltage range	Within 100mV			
Output Temp. Coef.	Within ±0.1%/℃			
Residual output Temp. Coef.	Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃
Control power supply	±12V±5%			
Consumption current	Within 30mA			
Operating Temp.	-10℃～+80℃			
Strage Temp.	-15℃～+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

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HC-PL series

*Control power supply specification: ±12V

Type	HC-PL05V4B12	HC-PL10V4B12	HC-PL15V4B12	HC-PL20V4B12	HC-PL25V4B12	HC-PL30V4B12
Rated current [If]	±5A	±10A	±15A	±20A	±25A	±30A
Continuosly flowing DC current	±8.8A	±8.8A	±13.8A	±13.8A	±23.3A	±23.3A
Saturation current [Is]	±11.25A	±22.5A	±33.75A	±37.5A	±56.25A	±67.5A
Linearity limits	0～±10A	0～±20A	0～±30A	0～±30A	0～±56.25A	0～±60A
Size of primary winding	φ0.8	φ0.8	φ1.0	φ1.0	φ1.3	φ1.3
Turns	6	3	2	2	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±2mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PL series

*Control power supply specification: ±15V

Type	HC-PL05V4B15	HC-PL10V4B15	HC-PL15V4B15	HC-PL20V4B15	HC-PL25V4B15	HC-PL30V4B15
Rated current [If]	±5A	±10A	±15A	±20A	±25A	±30A
Continuosly flowing DC current	±8.8A	±8.8A	±13.8A	±13.8A	±23.3A	±23.3A
Saturation current [Is]	±12.5A	±25A	±37.5A	±37.5A	±75A	±75A
Linearity limits	0～±10A	0～±20A	0～±30A	0～±30A	0～±60A	0～±60A
Size of primary winding	φ0.8	φ0.8	φ1.0	φ1.0	φ1.3	φ1.3
Turns	6	3	2	2	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±2mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PRC series

*Control power supply specification: ±12V

Type		HC-PRC03V4B12	HC-PRC05V4B12	HC-PRC10V4B12	HC-PRC15V4B12	HC-PRC20V4B12
Rated current [If]		±3A	±5A	±10A	±15A	±20A
Continuosly flowing DC current		±3.5A	±3.5A	±8.8A	±8.8A	±8.8A
Saturation current [Is]		±6.75A	±11.25A	±22.5A	±33.75A	±45A
Linearity limits		0～±6.75A	0～±11.25A	0～±22.5A	0～±33.75A	0～±37.5A
Size of primary winding		φ0.45	φ0.45	φ0.9	φ0.9	φ0.9
Turns		10	6	3	2	2
Rated output [Vh]	+If	V0+4V±1.5% (RL=10kΩ)				
	−If	V0−4V±1.5% (RL=10kΩ)				
Residual output [V0]		Within ±100mV				
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=If/μs)				
Response performance		Within 10%				
Hysteresis Voltage range		Within 120mV				
Output Temp. Coef.		Within ±0.1%/℃				
Residual output Temp. Coef.		Within ±3mV/℃				
Control power supply		±12V±5%				
Consumption current		Within 40mA				
Operating Temp.		−10℃～+80℃				
Strage Temp.		−15℃～+85℃				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

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HC-PRC series

*Control power supply specification: ±15V

Type		HC-PRC03V4B15	HC-PRC05V4B15	HC-PRC10V4B15	HC-PRC15V4B15	HC-PRC20V4B15
Rated current [If]		±3A	±5A	±10A	±15A	±20A
Continuosly flowing DC current		±3.5A	±3.5A	±8.8A	±8.8A	±8.8A
Saturation current [Is]		±9A	±15A	±30A	±45A	±45A
Linearity limits		0～±7.5A	0～±12.5A	0～±25A	0～±37.5A	0～±37.5A
Size of primary winding		φ0.45	φ0.45	φ0.9	φ0.9	φ0.9
Turns		10	6	3	2	2
Rated output [Vh]	+If	V0+4V±1.5% (RL=10kΩ)				
	−If	V0−4V±1.5% (RL=10kΩ)				
Residual output [V0]		Within ±100mV				
Output linearity		Within ±1%				
Response time		Within 10μs (at di/dt=If/μs)				
Response performance		Within 10%				
Hysteresis Voltage range		Within 120mV				
Output Temp. Coef.		Within ±0.1%/℃				
Residual output Temp. Coef.		Within ±3mV/℃				
Control power supply		±15V±5%				
Consumption current		Within 40mA				
Operating Temp.		−10℃～+80℃				
Strage Temp.		−15℃～+85℃				
Dielectric withstand voltage		2500V AC 50/60Hz 1minute				
Insulation resistance		Not less than 500MΩ 500V DC				

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HC-PRD series

*Control power supply specification: ±12V

Type		HC-PRD25V4B12	HC-PRD30V4B12	HC-PRD35V4B12	HC-PRD40V4B12	HC-PRD45V4B12	HC-PRD50V4B12
Rated current [If]		±25A	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current		±35A	±35A	±35A	±35A	±35A	±35A
Saturation current [Is]		±56.25A	±67.5A	±78.75A	±90A	±90A	±90A
Linearity limits		0～±56.25A	0～±67.5A	0～±75A	0～±75A	0～±75A	0～±75A
Size of primary winding		□1 x 2					
Turns		1					
Rated output [Vh]	+If	V0+4V±1.5% (RL=10kΩ)					
	-If	V0-4V±1.5% (RL=10kΩ)					
Residual output [V0]		Within ±100mV					
Output linearity		Within ±1%					
Response time		Within 10μs (at di/dt=If/μs)					
Response performance		Within 10%					
Hysteresis Voltage range		Within 120mV					
Output Temp. Coef.		Within ±0.1%/℃					
Residual output Temp. Coef.		Within ±3mV/℃					
Control power supply		±12V±5%					
Consumption current		Within 40mA					
Operating Temp.		-10℃～+80℃					
Strage Temp.		-15℃～+85℃					
Dielectric withstand voltage		2500V AC 50/60Hz 1minute					
Insulation resistance		Not less than 500MΩ 500V DC					

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HC-PRD series

*Control power supply specification: ±15V

Type		HC-PRD25V4B15	HC-PRD30V4B15	HC-PRD35V4B15	HC-PRD40V4B15	HC-PRD45V4B15	HC-PRD50V4B15
Rated current [If]		±25A	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current		±35A	±35A	±35A	±35A	±35A	±35A
Saturation current [Is]		±75A	±90A	±90A	±90A	±90A	±90A
Linearity limits		0～±75A	0～±75A	0～±75A	0～±75A	0～±75A	0～±75A
Size of primary winding		□1 x 2					
Turns		1					
Rated output [Vh]	+If	V0+4V±1.5% (RL=10kΩ)					
	-If	V0-4V±1.5% (RL=10kΩ)					
Residual output [V0]		Within ±100mV					
Output linearity		Within ±1%					
Response time		Within 10μs (at di/dt=If/μs)					
Response performance		Within 10%					
Hysteresis Voltage range		Within 120mV					
Output Temp. Coef.		Within ±0.1%/℃					
Residual output Temp. Coef.		Within ±3mV/℃					
Control power supply		±15V±5%					
Consumption current		Within 40mA					
Operating Temp.		-10℃～+80℃					
Strage Temp.		-15℃～+85℃					
Dielectric withstand voltage		2500V AC 50/60Hz 1minute					
Insulation resistance		Not less than 500MΩ 500V DC					

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HC-PSE series

*Control power supply specification: ±12V

Type	HC-PSE05V4B12	HC-PSE10V4B12	HC-PSE15V4B12	HC-PSE20V4B12	HC-PSE25V4B12
Rated current [If]	±5A	±10A	±15A	±20A	±25A
Continuosly flowing DC current	±8.8A	±13.8A	±13.8A	±23.3A	±23.3A
Saturation current [Is]	±11.25A	±22.5A	±33.75A	±45A	±45A
Linearity limits	0～±11.25A	0～±22.5A	0～±33.75A	0～±37.5A	0～±37.5A
Size of primary winding	φ0.8	φ1.0	φ1.0	φ1.3	φ1.3
Turns	6	3	2	2	2
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [V0]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±6mV/℃				
Control power supply	±12V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PSE series

*Control power supply specification: ±12V

Type	HC-PSE30V4B12	HC-PSE35V4B12	HC-PSE40V4B12	HC-PSE45V4B12	HC-PSE50V4B12
Rated current [If]	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±23.3A	±35.4A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±67.5A	±78.75A	±90A	±90A	±90A
Linearity limits	0～±67.5A	0～±75A	0～±75A	0～±75A	0～±75A
Size of primary winding	φ1.3	φ1.6	φ1.6	φ1.6	φ1.6
Turns	1	1	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [V0]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±6mV/℃				
Control power supply	±12V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PSE series

*Control power supply specification: ±15V

Type	HC-PSE05V4B15	HC-PSE10V4B15	HC-PSE15V4B15	HC-PSE20V4B15	HC-PSE25V4B15
Rated current [If]	±5A	±10A	±15A	±20A	±25A
Continuosly flowing DC current	±8.8A	±13.8A	±13.8A	±23.3A	±23.3A
Saturation current [Is]	±15A	±30A	±45A	±45A	±45A
Linearity limits	0～±12.5A	0～±25A	0～±38A	0～±37.5A	0～±37.5A
Size of primary winding	φ0.8	φ1.0	φ1.0	φ1.3	φ1.3
Turns	6	3	2	2	2
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [V0]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±6mV/℃				
Control power supply	±15V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PSE series

*Control power supply specification: ±15V

Type	HC-PSE30V4B15	HC-PSE35V4B15	HC-PSE40V4B15	HC-PSE45V4B15	HC-PSE50V4B15
Rated current [If]	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±23.3A	±35.4A	±35.4A	±35.4A	±35.4A
Saturation current [Is]	±90A	±90.0A	±90.0A	±90.0A	±90A
Linearity limits	0～±75A	0～±75A	0～±75A	0～±75A	0～±75A
Size of primary winding	φ1.3	φ1.6	φ1.6	φ1.6	φ1.6
Turns	1	1	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)				
Residual output [V0]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±6mV/℃				
Control power supply	±15V±5%				
Consumption current	Within 30mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PSG series

*Control power supply specification: ±12V

Type	HC-PSG01V4B12	HC-PSG03V4B12	HC-PSG05V4B12	HC-PSG10V4B12	HC-PSG15V4B12	HC-PSG20V4B12
Rated current [If]	±1A	±3A	±5A	±10A	±15A	±20A
Continuosly flowing DC current	±2.2A	±8.8A	±8.8A	±13.8A	±13.8A	±23.3A
Saturation current [Is]	±2.25A	±6.75A	±11.25A	±22.5A	±33.75A	±45A
Linearity limits	0～±2.25A	0～±6.75A	0～±11.25A	0～±22.5A	0～±33.75A	0～±37.5A
Size of primary winding	φ0.4	φ0.8	φ0.8	φ1.0	φ1.0	φ1.3
Turns	30	10	6	3	2	2
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PSG series

*Control power supply specification: ±12V

Type	HC-PSG25V4B12	HC-PSG30V4B12	HC-PSG35V4B12	HC-PSG40V4B12	HC-PSG45V4B12	HC-PSG50V4B12
Rated current [If]	±25A	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±33.4A	±33.4A	±33.4A	±33.4A	±33.4A	±54.1A
Saturation current [Is]	±45A	±67.5A	±78.75A	±90A	±90A	±90A
Linearity limits	0～±37.5A	0～±67.5A	0～±75A	0～±75A	0～±75A	0～±75A
Size of primary winding	φ1.1 x 2	φ1.1 x 2	φ1.1 x 2	φ1.1 x 2	φ1.1 x 2	φ1.4 x 2
Turns	2	1	1	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PSG series

*Control power supply specification: ±15V

Type	HC-PSG01V4B15	HC-PSG03V4B15	HC-PSG05V4B15	HC-PSG10V4B15	HC-PSG15V4B15	HC-PSG20V4B15
Rated current [If]	±1A	±3A	±5A	±10A	±15A	±20A
Continuosly flowing DC current	±2.2A	±8.8A	±8.8A	±13.8A	±13.8A	±23.3A
Saturation current [Is]	±3A	±9A	±15A	±30A	±45A	±45A
Linearity limits	0～±2.5A	0～±7.5A	0～±12.5A	0～±25A	0～±37.5A	0～±37.5A
Size of primary winding	φ0.4	φ0.8	φ0.8	φ1.0	φ1.0	φ1.3
Turns	30	10	6	3	2	2
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PSG series

*Control power supply specification: ±15V

Type	HC-PSG25V4B15	HC-PSG30V4B15	HC-PSG35V4B15	HC-PSG40V4B15	HC-PSG45V4B15	HC-PSG50V4B15
Rated current [If]	±25A	±30A	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±33.4A	±33.4A	±33.4A	±33.4A	±33.4A	±54.1A
Saturation current [Is]	±45A	±90A	±90A	±90A	±90A	±90A
Linearity limits	0～±37.5A	0～±75A	0～±75A	0～±75A	0～±75A	0～±75A
Size of primary winding	φ1.1 x 2	φ1.1 x 2	φ1.1 x 2	φ1.1 x 2	φ1.1 x 2	φ1.4 x 2
Turns	2	1	1	1	1	1
Rated output [Vh]	±4V±2% (RL=10kΩ)					
Residual output [V0]	Within ±100mV					
Output linearity	Within ±1%					
Response time	Within 10μs (at di/dt=If/μs)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 100mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±6mV/℃					
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PT series

*Control power supply specification: ±12V

Type	HC-PT050V4B12	HC-PT100V4B12	HC-PT150V4B12	HC-PT200V4B12	HC-PT250V4B12	HC-PT300V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±600A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±400A	0～±400A	0～±400A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 200mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply	±12V±5%					
Consumption current	Within 60mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PT series

*Control power supply specification: ±15V

Type	HC-PT050V4B15	HC-PT100V4B15	HC-PT150V4B15	HC-PT200V4B15	HC-PT250V4B15	HC-PT300V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±150A	±300A	±450A	±600A	±600A	±600A
Linearity limits	0～±150A	0～±300A	0～±400A	0～±400A	0～±400A	0～±400A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 200mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply	±15V±5%					
Consumption current	Within 60mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PTW series

*Control power supply specification: ±12V

Type	HC-PTW050V4B12	HC-PTW100V4B12	HC-PTW150V4B12	HC-PTW200V4B12	HC-PTW250V4B12	HC-PTW300V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±600A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±400A	0～±400A	0～±400A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 200mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply	±12V±5%					
Consumption current	Within 40mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PTW series

*Control power supply specification: ±15V

Type	HC-PTW050V4B15	HC-PTW100V4B15	HC-PTW150V4B15	HC-PTW200V4B15	HC-PTW250V4B15	HC-PTW300V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±150A	±300A	±450A	±600A	±600A	±600A
Linearity limits	0～±150A	0～±300A	0～±400A	0～±400A	0～±400A	0～±400A
Rated output [Vh]	±4V±1%					
Residual output [V0]	Within ±50mV					
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 200mV					
Output Temp. Coef.	Within ±0.1%/℃					
Residual output Temp. Coef.	Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply	±15V±5%					
Consumption current	Within 40mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-PVT series

*Control power supply specification: ±12V

Type	HC-PVT010V4B12	HC-PVT20V4B12	HC-PVT30V4B12	HC-PVT40V4B12	HC-PVT50V4B12
Rated current [If]	±10A	±20A	±30A	±40A	±50A
Continuosly flowing DC current	±13.8A	±13.8A	±23.3A	±23.3A	±35.4A
Saturation current [Is]	±22.5A	±45A	±67.5A	±69A	±112.5A
Linearity limits	0～±20A	0～±33.3A	0～±50A	0～±50A	0～±100A
Size of primary winding	φ1.0	φ1.0	φ1.3	φ1.3	φ1.6
Turns	5	3	2	2	1
Rated output [Vh]	±4V±2% (RL=10kΩ) (excluding the residual output)				
Residual output [V0]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±3mV/℃				
Control power supply	±12V±5%				
Consumption current	Within 60mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PVT series

*Control power supply specification: ±15V

Type	HC-PVT010V4B15	HC-PVT20V4B15	HC-PVT30V4B15	HC-PVT40V4B15	HC-PVT50V4B15
Rated current [If]	±10A	±20A	±30A	±40A	±50A
Continuosly flowing DC current	±13.8A	±13.8A	±23.3A	±23.3A	±35.4A
Saturation current [Is]	±27.6A	±46A	±69A	±69A	±138A
Linearity limits	0～±20A	0～±33.3A	0～±50A	0～±50A	0～±100A
Size of primary winding	φ1.0	φ1.0	φ1.3	φ1.3	φ1.6
Turns	5	3	2	2	1
Rated output [Vh]	±4V±2% (RL=10kΩ) (excluding the residual output)				
Residual output [V0]	Within ±100mV				
Output linearity	Within ±1%				
Response time	Within 10μs (at di/dt=If/μs)				
Response performance	Within 10%				
Hysteresis Voltage range	Within 100mV				
Output Temp. Coef.	Within ±0.1%/℃				
Residual output Temp. Coef.	Within ±3mV/℃				
Control power supply	±15V±5%				
Consumption current	Within 60mA				
Operating Temp.	-10℃～+80℃				
Strage Temp.	-15℃～+85℃				
Dielectric withstand voltage	2500V AC 50/60Hz 1minute				
Insulation resistance	Not less than 500MΩ 500V DC				

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HC-PZ series

*Control power supply specification: ±12V

Type	HC-PZ050V4B12	HC-PZ100V4B12	HC-PZ150V4B12	HC-PZ200V4B12	HC-PZ250V4B12	HC-PZ300V4B12	HC-PZ350V4B12	HC-PZ400V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A	±787.5A	±900A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±562.5A	0～±675A	0～±787.5A	0～±800A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±50mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 200mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±4mV/℃	Within ±2mV/℃				Within ±1mV/℃		
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-PZ series

*Control power supply specification: ±12V

Type	HC-PZ450V4B12	HC-PZ500V4B12	HC-PZ550V4B12	HC-PZ600V4B12	HC-PZ650V4B12	HC-PZ700V4B12	HC-PZ750V4B12	HC-PZ800V4B12
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±50mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 200mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-PZ series

*Control power supply specification: ±15V

Type	HC-PZ050V4B15	HC-PZ100V4B15	HC-PZ150V4B15	HC-PZ200V4B15	HC-PZ250V4B15	HC-PZ300V4B15	HC-PZ350V4B15	HC-PZ400V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±150A	±300A	±450A	±600A	±750A	±900A	±1000A	±1000A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±600A	0～±700A	0～±700A	0～±800A	0～±800A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±50mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 200mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±4mV/℃	Within ±2mV/℃				Within ±1mV/℃		
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-PZ series

*Control power supply specification: ±15V

Type	HC-PZ450V4B15	HC-PZ500V4B15	HC-PZ550V4B15	HC-PZ600V4B15	HC-PZ650V4B15	HC-PZ700V4B15	HC-PZ750V4B15	HC-PZ800V4B15
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A	0～±800A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±50mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 200mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SL series

*Control power supply specification: ±12V

Type	HC-SL050V4B12	HC-SL100V4B12	HC-SL150V4B12	HC-SL200V4B12	HC-SL250V4B12	HC-SL300V4B12	HC-SL350V4B12	HC-SL400V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A	±787.5A	±900A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±562.5A	0～±675A	0～±787.5A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SL series

*Control power supply specification: ±12V

Type	HC-SL450V4B12	HC-SL500V4B12	HC-SL550V4B12	HC-SL600V4B12	HC-SL650V4B12	HC-SL700V4B12	HC-SL750V4B12	HC-SL800V4B12
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SL series

*Control power supply specification: ±15V

Type	HC-SL050V4B15	HC-SL100V4B15	HC-SL150V4B15	HC-SL200V4B15	HC-SL250V4B15	HC-SL300V4B15	HC-SL350V4B15	HC-SL400V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±150A	±300A	±450A	±600A	±750A	±900A	±1000A	±1000A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±450A	0～±700A	0～±700A	0～±900A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SL series

*Control power supply specification: ±15V

Type	HC-SL450V4B15	HC-SL500V4B15	HC-SL550V4B15	HC-SL600V4B15	HC-SL650V4B15	HC-SL700V4B15	HC-SL750V4B15	HC-SL800V4B15
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SN series

*Control power supply specification: ±12V

Type	HC-SN050V4B12	HC-SN100V4B12	HC-SN150V4B12	HC-SN200V4B12	HC-SN250V4B12	HC-SN300V4B12	HC-SN350V4B12	HC-SN400V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±113A	±225A	±338A	±450A	±563A	±675A	±788A	±900A
Linearity limits	0～±113A	0～±225A	0～±338A	0～±450A	0～±563A	0～±450A	0～±788A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SN series

*Control power supply specification: ±12V

Type	HC-SN450V4B12	HC-SN500V4B12	HC-SN550V4B12	HC-SN600V4B12	HC-SN650V4B12	HC-SN700V4B12	HC-SN750V4B12	HC-SN800V4B12
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SN series

*Control power supply specification: ±15V

Type	HC-SN050V4B15	HC-SN100V4B15	HC-SN150V4B15	HC-SN200V4B15	HC-SN250V4B15	HC-SN300V4B15	HC-SN350V4B15	HC-SN400V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±150A	±300A	±450A	±600A	±750A	±700A	±1000A	±1000A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±450A	0～±700A	0～±450A	0～±900A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-SN series

*Control power supply specification: ±15V

Type	HC-SN450V4B15	HC-SN500V4B15	HC-SN550V4B15	HC-SN600V4B15	HC-SN650V4B15	HC-SN700V4B15	HC-SN750V4B15	HC-SN800V4B15
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TF series

*Control power supply specification: ±12V

Type		HC-TF050V4B12	HC-TF100V4B12	HC-TF200V4B12	HC-TF300V4B12	HC-TF400V4B12	HC-TF500V4B12	HC-TF600V4B12H
Rated current [If]		±50A	±100A	±200A	±300A	±400A	±500A	±600A
Saturation current [Is]		±112.5A	±225A	±450A	±675A	±900A	±900A	±1350A
Linearity limits [If]		0～±100A	0～±200A	0～±400A	0～±600A	0～±650A	0～±650A	0～±1200A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)						V0+4V±2% (RL=10kΩ)
	-If	V0-4V±1% (RL=10kΩ)						V0-4V±2% (RL=10kΩ)
Residual output [V0]		Within ±70mV	Within ±50mV					
Output linearity		Within ±1%						
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)						
Response performance		Within 10%						
Hysteresis Voltage range		Within 30mV						
Output Temp. Coef.		Within ±0.1%/℃						
Residual output Temp. Coef.		Within ±3mV/℃	Within ±1.5mV/℃	Within ±1mV/℃				
Control power supply		±12V±5%						
Consumption current		Within 30mA						
Operating Temp.		-10℃～+80℃						
Strage Temp.		-15℃～+85℃						
Dielectric withstand voltage		2500V AC 50/60Hz 1minute						
Insulation resistance		Not less than 500MΩ 500V DC						

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HC-TF series

*Control power supply specification: ±12V

Type		HC-TF700V4B12H	HC-TF800V4B12H	HC-TF900V4B12H	HC-TFE10V4B12H	HC-TFE12V4B12H	HC-TFE14V4B12H	HC-TFE16V4B12H
Rated current [If]		±700A	±800A	±900A	±1000A	±1200A	±1400A	±1600A
Saturation current [Is]		±1575A	±1800A	±1800A	±1800A	±1800A	±1800A	±1800A
Linearity limits [If]		0～±1400A	0～±1600A	0～±1600A	0～±1600A	0～±1600A	0～±1600A	0～±1600A
Rated output [Vh]	+If	V0+4V±2% (RL=10kΩ)						
	-If	V0-4V±2% (RL=10kΩ)						
Residual output [V0]		Within ±50mV						
Output linearity		Within ±1%						
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)						
Response performance		Within 10%						
Hysteresis Voltage range		Within 30mV						
Output Temp. Coef.		Within ±0.1%/℃						
Residual output Temp. Coef.		Within ±1mV/℃						
Control power supply		±12V±5%						
Consumption current		Within 30mA						
Operating Temp.		-10℃～+80℃						
Strage Temp.		-15℃～+85℃						
Dielectric withstand voltage		2500V AC 50/60Hz 1minute						
Insulation resistance		Not less than 500MΩ 500V DC						

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HC-TF series

*Control power supply specification: ±15V

Type		HC-TF050V4B15	HC-TF100V4B15	HC-TF200V4B15	HC-TF300V4B15	HC-TF400V4B15	HC-TF500V4B15	HC-TF600V4B15H
Rated current [If]		±50A	±100A	±200A	±300A	±400A	±500A	±600A
Saturation current [Is]		±150A	±300A	±600A	±900A	±900A	±900A	±1800A
Linearity limits [If]		0～±112.5A	0～±225A	0～±450A	0～±650A	0～±650A	0～±650A	0～±1600A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)						V0+4V±2% (RL=10kΩ)
	-If	V0-4V±1% (RL=10kΩ)						V0-4V±2% (RL=10kΩ)
Residual output [V0]		Within ±70mV	Within ±50mV					
Output linearity		Within ±1%						
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)						
Response performance		Within 10%						
Hysteresis Voltage range		Within 30mV						
Output Temp. Coef.		Within ±0.1%/℃						
Residual output Temp. Coef.		Within ±3mV/℃	Within ±1.5mV/℃	Within ±1mV/℃				
Control power supply		±15V±5%						
Consumption current		Within 30mA						
Operating Temp.		-10℃～+80℃						
Strage Temp.		-15℃～+85℃						
Dielectric withstand voltage		2500V AC 50/60Hz 1minute						
Insulation resistance		Not less than 500MΩ 500V DC						

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HC-TF series

*Control power supply specification: ±15V

Type		HC-TF700V4B15H	HC-TF800V4B15H	HC-TF900V4B15H	HC-TFE10V4B15H	HC-TFE12V4B15H	HC-TFE14V4B15H	HC-TFE16V4B15H
Rated current [If]		±700A	±800A	±900A	±1000A	±1200A	±1400A	±1600A
Saturation current [Is]		±1800A	±1800A	±1800A	±1800A	±1800A	±1800A	±1800A
Linearity limits [If]		0～±1600A	0～±1600A	0～±1600A	0～±1600A	0～±1600A	0～±1600A	0～±1600A
Rated output [Vh]	+If	V0+4V±2% (RL=10kΩ)						
	-If	V0-4V±2% (RL=10kΩ)						
Residual output [V0]		Within ±50mV						
Output linearity		Within ±1%						
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)						
Response performance		Within 10%						
Hysteresis Voltage range		Within 30mV						
Output Temp. Coef.		Within ±0.1%/℃						
Residual output Temp. Coef.		Within ±1mV/℃						
Control power supply		±15V±5%						
Consumption current		Within 30mA						
Operating Temp.		-10℃～+80℃						
Strage Temp.		-15℃～+85℃						
Dielectric withstand voltage		2500V AC 50/60Hz 1minute						
Insulation resistance		Not less than 500MΩ 500V DC						

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HC-TN series

*Control power supply specification: ±12V

Type	HC-TN050V4B12	HC-TN100V4B12	HC-TN150V4B12	HC-TN200V4B12	HC-TN250V4B12	HC-TN300V4B12	HC-TN350V4B12	HC-TN400V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A	±787.5A	±900A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±562.5A	0～±675A	0～±787.5A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TN series

*Control power supply specification: ±12V

Type	HC-TN450V4B12	HC-TN500V4B12	HC-TN550V4B12	HC-TN600V4B12	HC-TN650V4B12	HC-TN700V4B12	HC-TN750V4B12	HC-TN800V4B12
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TN series

*Control power supply specification: ±15V

Type	HC-TN050V4B15	HC-TN100V4B15	HC-TN150V4B15	HC-TN200V4B15	HC-TN250V4B15	HC-TN300V4B15	HC-TN350V4B15	HC-TN400V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±150A	±300A	±450A	±600A	±750A	±900A	±1000A	±1000A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±450A	0～±700A	0～±700A	0～±900A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TN series

*Control power supply specification: ±15V

Type	HC-TN450V4B15	HC-TN500V4B15	HC-TN550V4B15	HC-TN600V4B15	HC-TN650V4B15	HC-TN700V4B15	HC-TN750V4B15	HC-TN800V4B15
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TS series

*Control power supply specification: ±12V

Type	HC-TS050V4B12	HC-TS100V4B12	HC-TS150V4B12	HC-TS200V4B12	HC-TS250V4B12	HC-TS300V4B12	HC-TS350V4B12	HC-TS400V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A	±787.5A	±900A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±562.5A	0～±675A	0～±787.5A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TS series

*Control power supply specification: ±12V

Type	HC-TS450V4B12	HC-TS500V4B12	HC-TS550V4B12	HC-TS600V4B12	HC-TS650V4B12	HC-TS700V4B12	HC-TS750V4B12	HC-TS800V4B12
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±12V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TS series

*Control power supply specification: ±15V

Type	HC-TS050V4B15	HC-TS100V4B15	HC-TS150V4B15	HC-TS200V4B15	HC-TS250V4B15	HC-TS300V4B15	HC-TS350V4B15	HC-TS400V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A	±350A	±400A
Saturation current [Is]	±150A	±300A	±450A	±600A	±750A	±900A	±1000A	±1000A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±450A	0～±700A	0～±700A	0～±900A	0～±900A
Rated output [Vh]	±4V±1.5% (RL=10kΩ)	±4V±1% (RL=10kΩ)						
Residual output [V0]	Within ±50mV	Within ±30mV						
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±3mV/℃	Within ±1.5mV/℃				Within ±1mV/℃		
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-TS series

*Control power supply specification: ±15V

Type	HC-TS450V4B15	HC-TS500V4B15	HC-TS550V4B15	HC-TS600V4B15	HC-TS650V4B15	HC-TS700V4B15	HC-TS750V4B15	HC-TS800V4B15
Rated current [If]	±450A	±500A	±550A	±600A	±650A	±700A	±750A	±800A
Saturation current [Is]	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A	±1000A
Linearity limits	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A	0～±900A
Rated output [Vh]	±4V±1% (RL=10kΩ)							
Residual output [V0]	Within ±30mV							
Output linearity	Within ±1%							
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)							
Response performance	Within 10%							
Hysteresis Voltage range	Within 30mV							
Output Temp. Coef.	Within ±0.1%/℃							
Residual output Temp. Coef.	Within ±1mV/℃							
Control power supply	±15V±5%							
Consumption current	Within 30mA							
Operating Temp.	-10℃～+80℃							
Strage Temp.	-15℃～+85℃							
Dielectric withstand voltage	2500V AC 50/60Hz 1minute							
Insulation resistance	Not less than 500MΩ 500V DC							

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HC-U series

*Control power supply specification: ±12V

Type	HC-U050V4B12	HC-U100V4B12	HC-U150V4B12	HC-U200V4B12	HC-U250V4B12	HC-U300V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±500A	0～±600A
Rated output [Vh]	±4V±1.5%	±4V±1%				
Residual output [V0]	Within ±50mV	Within ±30mV				
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.08%/℃					
Residual output Temp. Coef.	Within ±2.5mV/℃	Within ±1.5mV/℃				
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-U series

*Control power supply specification: ±15V

Type	HC-U050V4B15	HC-U100V4B15	HC-U150V4B15	HC-U200V4B15	HC-U250V4B15	HC-U300V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±150A	±300A	±450A	±600A	±600A	±700A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±500A	0～±500A	0～±600A
Rated output [Vh]	±4V±1.5%	±4V±1%				
Residual output [V0]	Within ±50mV	Within ±30mV				
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.08%/℃					
Residual output Temp. Coef.	Within ±2.5mV/℃	Within ±1.5mV/℃				
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-VT series

*Control power supply specification: ±12V

Type		HC-VT050V4B12	HC-VT100V4B12	HC-VT150V4B12	HC-VT200V4B12	HC-VT250V4B12	HC-VT300V4B12
Rated current [If]		±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]		±112.5A	±225A	±337.5A	±450A	±562.5A	±600A
Linearity limits [If]		0～±112.5A	0～±225A	0～±337.5A	0～±400A	0～±400A	0～±400A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)					
	-If	V0-4V±1% (RL=10kΩ)					
Residual output [V0]		Within ±70mV	Within ±50mV				
Output linearity		Within ±1%					
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)					
Response performance		Within 10%					
Hysteresis Voltage range		Within 200mV					
Output Temp. Coef.		Within ±0.1%/℃					
Residual output Temp. Coef.		Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply		±12V±5%					
Consumption current		Within 60mA					
Operating Temp.		-10℃～+80℃					
Strage Temp.		-15℃～+85℃					
Dielectric withstand voltage		2500V AC 50/60Hz 1minute					
Insulation resistance		Not less than 500MΩ 500V DC					

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HC-VT series

*Control power supply specification: ±15V

Type		HC-VT050V4B15	HC-VT100V4B15	HC-VT150V4B15	HC-VT200V4B15	HC-VT250V4B15	HC-VT300V4B15
Rated current [If]		±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]		±150A	±300A	±450A	±600A	±600A	±600A
Linearity limits [If]		0～±150A	0～±300A	0～±400A	0～±400A	0～±400A	0～±400A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)					
	-If	V0-4V±1% (RL=10kΩ)					
Residual output [V0]		Within ±70mV	Within ±50mV				
Output linearity		Within ±1%					
Response time		Within 10μs (The smaller one on either at di/dt = 100A/μs or If/μs.)					
Response performance		Within 10%					
Hysteresis Voltage range		Within 200mV					
Output Temp. Coef.		Within ±0.1%/℃					
Residual output Temp. Coef.		Within ±4mV/℃	Within ±3mV/℃		Within ±2mV/℃		
Control power supply		±15V±5%					
Consumption current		Within 60mA					
Operating Temp.		-10℃～+80℃					
Strage Temp.		-15℃～+85℃					
Dielectric withstand voltage		2500V AC 50/60Hz 1minute					
Insulation resistance		Not less than 500MΩ 500V DC					

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HC-W series

*Control power supply specification: ±12V

Type	HC-W050V4B12	HC-W100V4B12	HC-W150V4B12	HC-W200V4B12	HC-W250V4B12	HC-W300V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±500A	0～±600A
Rated output [Vh]	±4V±1.5%	±4V±1%				
Residual output [V0]	Within ±50mV	Within ±30mV				
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.08%/℃					
Residual output Temp. Coef.	Within ±2.5mV/℃	Within ±1.5mV/℃				
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-W series

*Control power supply specification: ±15V

Type	HC-W050V4B15	HC-W100V4B15	HC-W150V4B15	HC-W200V4B15	HC-W250V4B15	HC-W300V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±150A	±300A	±450A	±600A	±600A	±700A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±500A	0～±500A	0～±600A
Rated output [Vh]	±4V±1.5%	±4V±1%				
Residual output [V0]	Within ±50mV	Within ±30mV				
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.08%/℃					
Residual output Temp. Coef.	Within ±2.5mV/℃	Within ±1.5mV/℃				
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-WT series

*Control power supply specification: ±12V

Type	HC-WT050V4B12	HC-WT100V4B12	HC-WT150V4B12	HC-WT200V4B12	HC-WT250V4B12	HC-WT300V4B12
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±112.5A	±225A	±337.5A	±450A	±562.5A	±675A
Linearity limits	0～±112.5A	0～±225A	0～±337.5A	0～±450A	0～±500A	0～±600A
Rated output [Vh]	±4V±1.5%	±4V±1%				
Residual output [V0]	Within ±50mV	Within ±30mV				
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.08%/℃					
Residual output Temp. Coef.	Within ±2.5mV/℃	Within ±1.5mV/℃				
Control power supply	±12V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HC-WT series

*Control power supply specification: ±15V

Type	HC-WT050V4B15	HC-WT100V4B15	HC-WT150V4B15	HC-WT200V4B15	HC-WT250V4B15	HC-WT300V4B15
Rated current [If]	±50A	±100A	±150A	±200A	±250A	±300A
Saturation current [Is]	±150A	±300A	±450A	±600A	±600A	±700A
Linearity limits	0～±150A	0～±300A	0～±450A	0～±500A	0～±500A	0～±600A
Rated output [Vh]	±4V±1.5%	±4V±1%				
Residual output [V0]	Within ±50mV	Within ±30mV				
Output linearity	Within ±1%					
Response time	Within 10μs (The smaller one on either at di/dt=100A/μs or If/μs.)					
Response performance	Within 10%					
Hysteresis Voltage range	Within 30mV					
Output Temp. Coef.	Within ±0.08%/℃					
Residual output Temp. Coef.	Within ±2.5mV/℃	Within ±1.5mV/℃				
Control power supply	±15V±5%					
Consumption current	Within 30mA					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HS-K series

*Control power supply specification: ±12V

＜Voltage output type＞

Type	HS-K300V4B12	HS-K400V4B12	HS-K500V4B12
Rated current [If]	±300A	±400A	±500A
Continuosly flowing DC current	±600A	±800A	±1000A
Saturation current [Is]	±620A	±620A	±720A
Linearity limits	0～±600A	0～±600A	0～±700A
Rated output [Vh]	±4V±1% (RL=10kΩ)		
Residual output [V0]	Within ±20mV		
Output linearity	Within ±0.5%		
Second coil resistance	Approx. 31Ω		Approx. 42Ω
Response time	Within 1μs (at di/dt=100A/μs)		
Response performance	Within 20%		
Hysteresis Voltage range	Within 20mV		
Output Temp. Coef.	Within ±0.02%/℃		
Residual output Temp. Coef.	Within ±1mV/℃		
Control power supply	±12V±5%		
Consumption current	20mA+(Input current/4000)		20mA+(Input current/5000)
Operating Temp.	-10℃～+80℃		
Strage Temp.	-15℃～+85℃		
Dielectric withstand voltage	2500V AC 50/60Hz 1minute		
Insulation resistance	Not less than 500MΩ 500V DC		

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HS-K series

*Control power supply specification: ±12V

＜Current output type＞

Type	HS-K300A0075B12	HS-K400A010B12	HS-K500A010B12
Rated current [If]	±300A	±400A	±500A
Continuosly flowing DC current	±600A	±600A	±1000A
Saturation current [Is]	±620A	±620A	±720A
Linearity limits	0～±600A (RL=1～3Ω)	0～±600A (RL=1～3Ω)	0～±700A (RL=1Ω)
Rated output [Ih]	±75mA±1%	±100mA±1%	
Residual output [I0]	Within ±0.2mA		
Output linearity	Within ±0.5%		
Second coil resistance	Approx. 31Ω		Approx. 42Ω
Response time	Within 1μs (at di/dt=100A/μs)		
Response performance	Within 20%		
Hysteresis Voltage range	Within 0.2mA		
Output Temp. Coef.	Within ±0.02%/℃		
Residual output Temp. Coef.	Within ±0.01mA/℃		
Control power supply	±12V±5%		
Consumption current	20mA+(Input current/4000)		20mA+(Input current/5000)
Operating Temp.	-10℃～+80℃		
Strage Temp.	-15℃～+85℃		
Dielectric withstand voltage	2500V AC 50/60Hz 1minute		
Insulation resistance	Not less than 500MΩ 500V DC		

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HS-P series

*Control power supply specification: ±12V

＜Voltage output type＞

Type	HS-P050V4B12	HS-P100V4B12
Rated current [If]	±50A	±100A
Continuosly flowing DC current	±50A	±100A
Saturation current [Is]	±80A	±120A
Linearity limits	0～±80A	0～±120A
Rated output [Vh]	±4V±1% (RL=10kΩ)	
Residual output [V0]	Within ±20mV	
Output linearity	Within ±0.5%	
Second coil resistance	Approx. 100Ω	
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)	
Response performance	Within 10%	
Hysteresis Voltage range	Within 30mV	
Output Temp. Coef.	Within ±0.02%/℃	
Residual output Temp. Coef.	Within ±1mV/℃	
Control power supply	±12V±5%	
Consumption current	20mA+(Input current/2000)	
Operating Temp.	-10℃～+80℃	
Strage Temp.	-15℃～+85℃	
Dielectric withstand voltage	2500V AC 50/60Hz 1minute	
Insulation resistance	Not less than 500MΩ 500V DC	

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HS-P series

*Control power supply specification: ±12V

＜Current output type＞

Type	HS-P050A005B12	HS-P100A005B12
Rated current [If]	±50A	±100A
Continuosly flowing DC current	±50A	±100A
Saturation current [Is]	±100A	±130A
Linearity limits	0～±100A (RL=10Ω)	0～±130A (RL=1～5Ω)
Rated output [Ih]	±50mA±1%	
Residual output [I0]	Within ±0.2mA	
Output linearity	Within ±0.5%	
Second coil resistance	Approx. 51Ω	Approx. 100Ω
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)	
Response performance	Within 10%	
Hysteresis Voltage range	Within 0.2mA	
Output Temp. Coef.	Within ±0.02%/℃	
Residual output Temp. Coef.	Within ±0.01mA/℃	
Control power supply	±12V±5%	
Consumption current	20mA+(Input current/1000)	20mA+(Input current/2000)
Operating Temp.	-10℃～+80℃	
Strage Temp.	-15℃～+85℃	
Dielectric withstand voltage	2500V AC 50/60Hz 1minute	
Insulation resistance	Not less than 500MΩ 500V DC	

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HS-PHA series

*Control power supply specification: ±12V

Type	HS-PHA05V4B12	HS-PHA10V4B12	HS-PHA15V4B12	HS-PHA20V4B12	HS-PHA25V4B12	HS-PHA30V4B12
Rated current [If]	±5A	±10A	±15A	±20A	±25A	±30A
Continuosly flowing DC current	±3.6A	±7.2A	±10.8A	±14.4A	±18A	±23.3A
Saturation current [Is]	±8A	±15A	±25A	±35A	±44A	±50A
Linearity limits	0～±5A	0～±10A	0～±20A	0～±30A	0～±37.5A	0～±45A
Size of primary winding	φ0.8	φ1.0	φ1.3	φ1.3	φ1.3	φ1.3
Turns	6	3	2	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±0.5%					
Response time	Within 3μs (at di/dt=If/μs)					
Response performance	Within 20%					
Hysteresis Voltage range	Within 50mV					
Output Temp. Coef.	Within ±0.04%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±12V±5%					
Consumption current	20mA+(Input current x N)/1270					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HS-PHA series

*Control power supply specification: ±15V

Type	HS-PHA05V4B15	HS-PHA10V4B15	HS-PHA15V4B15	HS-PHA20V4B15	HS-PHA25V4B15	HS-PHA30V4B15
Rated current [If]	±5A	±10A	±15A	±20A	±25A	±30A
Continuosly flowing DC current	±3.6A	±7.2A	±10.8A	±14.4A	±18A	±23.3A
Saturation current [Is]	±12.5A	±25A	±37A	±50A	±62.5A	±75A
Linearity limits	0～±10A	0～±20A	0～±30A	0～±40A	0～±50A	0～±60A
Size of primary winding	φ0.8	φ1.0	φ1.3	φ1.3	φ1.3	φ1.3
Turns	6	3	2	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)					
Residual output [V0]	Within ±30mV					
Output linearity	Within ±0.5%					
Response time	Within 3μs (at di/dt=If/μs)					
Response performance	Within 20%					
Hysteresis Voltage range	Within 50mV					
Output Temp. Coef.	Within ±0.04%/℃					
Residual output Temp. Coef.	Within ±1mV/℃					
Control power supply	±15V±5%					
Consumption current	20mA+(Input current x N)/1270					
Operating Temp.	-10℃～+80℃					
Strage Temp.	-15℃～+85℃					
Dielectric withstand voltage	2500V AC 50/60Hz 1minute					
Insulation resistance	Not less than 500MΩ 500V DC					

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HS-PHB series

*Control power supply specification: ±12V

Type	HS-PHB35V4B12	HS-PHB40V4B12	HS-PHB45V4B12	HS-PHB50V4B12
Rated current [If]	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±25.2A	±28.8A	±32.4A	±36A
Saturation current [Is]	±80A	±90A	±100A	±110A
Linearity limits	0～±70A	0～±80A	0～±90A	0～±100A
Size of primary winding	φ1.3	□1.2 x 2	□1.2 x 2	□1.2 x 2
Turns	1	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)			
Residual output [V0]	Within ±30mV			
Output linearity	Within ±0.5%			
Response time	Within 3μs (at di/dt=If/μs)			
Response performance	Within 20%			
Hysteresis Voltage range	Within 50mV			
Output Temp. Coef.	Within ±0.04%/℃			
Residual output Temp. Coef.	Within ±1mV/℃			
Control power supply	±12V±5%			
Consumption current	20mA+(Input current x N)/1270			
Operating Temp.	-10℃～+80℃			
Strage Temp.	-15℃～+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

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HS-PHB series

*Control power supply specification: ±15V

Type	HS-PHB35V4B15	HS-PHB40V4B15	HS-PHB45V4B15	HS-PHB50V4B15
Rated current [If]	±35A	±40A	±45A	±50A
Continuosly flowing DC current	±25.2A	±28.8A	±32.4A	±36A
Saturation current [Is]	±87.5A	±100A	±112.5A	±125A
Linearity limits	0～±70A	0～±80A	0～±90A	0～±100A
Size of primary winding	φ1.3	□1.2 x 2	□1.2 x 2	□1.2 x 2
Turns	1	1	1	1
Rated output [Vh]	±4V±1.5% (RL=10kΩ)			
Residual output [V0]	Within ±30mV			
Output linearity	Within ±0.5%			
Response time	Within 3μs (at di/dt=If/μs)			
Response performance	Within 20%			
Hysteresis Voltage range	Within 50mV			
Output Temp. Coef.	Within ±0.04%/℃			
Residual output Temp. Coef.	Within ±1mV/℃			
Control power supply	±15V±5%			
Consumption current	20mA+(Input current x N)/1270			
Operating Temp.	-10℃～+80℃			
Strage Temp.	-15℃～+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

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HS-PKD series

*Control power supply specification: ±12V

＜Voltage output type＞

Type		HS-PKD050V4B12	HS-PKD100V4B12S	HS-PKD150V4B12S
Rated current [If]		±50A	±100A	±150A
Continuosly flowing DC current		±50A	±72A	±108A
Saturation current [Is]		±125A	±210A	±270A
Linearity limits		0～±100A	0～±200A	0～±250A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)		
	-If	V0-4V±1% (RL=10kΩ)		
Residual output [V0]		Within ±20mV		
Output linearity		Within ±0.5%		
Second coil resistance		Approx. 47Ω		Approx. 63Ω
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance		Within 10%		
Hysteresis Voltage range		Within 20mV		
Output Temp. Coef.		Within ±0.01%/℃		
Residual output Temp. Coef.		Within ±0.8mV/℃		
Control power supply		±12V±5%		
Consumption current		20mA+(Input current/2500)		20mA+(Input current/3200)
Operating Temp.		-10℃～+80℃		
Strage Temp.		-15℃～+85℃		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

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HS-PKD series

*Control power supply specification: ±12V

＜Current output type＞

Type		HS-PKD050A0025B12	HS-PKD100A005B12	HS-PKD150A005B12
Rated current [If]		±50A	±100A	±150A
Continuosly flowing DC current		±50A	±72A	±72A
Saturation current [Is]		±100A	±100A	±150A
Linearity limits		0～±100A (RL=90Ω～130Ω)	0～±100A (RL=90Ω～130Ω)	0～±150A (RL=60Ω～100Ω)
Rated output [Ih]	+If	I0+25mA±1%	I0+50mA±1%	I0+50mA±1%
	-If	I0-25mA±1%	I0-50mA±1%	I0-50mA±1%
Residual output [I0]		Within ±0.2mA		
Output linearity		Within ±0.5%		
Second coil resistance		Approx. 38Ω		Approx. 58Ω
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance		Within 10%		
Hysteresis Voltage range		Within 0.2mA		
Output Temp. Coef.		Within ±0.01%/℃		
Residual output Temp. Coef.		Within ±0.01mA/℃		
Control power supply		±12V±5%		
Consumption current		20mA+(Input current/2000)		20mA+(Input current/3000)
Operating Temp.		-10℃～+80℃		
Strage Temp.		-15℃～+85℃		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

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HS-PKD series

*Control power supply specification: ±15V

＜Voltage output type＞

Type		HS-PKD050V4B15	HS-PKD100V4B15S	HS-PKD150V4B15S
Rated current [If]		±50A	±100A	±150A
Continuosly flowing DC current		±50A	±72A	±108A
Saturation current [Is]		±125A	±250A	±375A
Linearity limits		0～±100A	0～±200A	0～±300A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)		
	-If	V0-4V±1% (RL=10kΩ)		
Residual output [V0]		Within ±20mV		
Output linearity		Within ±0.5%		
Second coil resistance		Approx. 47Ω		Approx. 63Ω
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance		Within 10%		
Hysteresis Voltage range		Within 20mV		
Output Temp. Coef.		Within ±0.01%/℃		
Residual output Temp. Coef.		Within ±0.8mV/℃		
Control power supply		±15V±5%		
Consumption current		20mA+(Input current/2500)		20mA+(Input current/3200)
Operating Temp.		-10℃～+80℃		
Strage Temp.		-15℃～+85℃		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

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HS-PKD series

*Control power supply specification: ±15V

＜Current output type＞

Type		HS-PKD050A0025B15	HS-PKD100A005B15	HS-PKD150A005B15
Rated current [If]		±50A	±100A	±150A
Continuosly flowing DC current		±50A	±72A	±72A
Saturation current [Is]		±100A	±150A	±150A
Linearity limits		0～±100A (RL=100Ω～180Ω)	0～±150A (RL=120Ω)	0～±200A (RL=120Ω)
Rated output [Ih]	+If	I0+25mA±1%	I0+50mA±1%	I0+50mA±1%
	-If	I0-25mA±1%	I0-50mA±1%	I0-50mA±1%
Residual output [I0]		Within ±0.2mA		
Output linearity		Within ±0.5%		
Second coil resistance		Approx. 38Ω		Approx. 58Ω
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance		Within 10%		
Hysteresis Voltage range		Within 0.2mA		
Output Temp. Coef.		Within ±0.01%/℃		
Residual output Temp. Coef.		Within ±0.01mA/℃		
Control power supply		±15V±5%		
Consumption current		20mA+(Input current/2000)		20mA+(Input current/3000)
Operating Temp.		-10℃～+80℃		
Strage Temp.		-15℃～+85℃		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

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HS-PKF series

*Control power supply specification: ±12V

Type		HS-PKF050A0025B12	HS-PKF100A005B12
Rated current [If]		±50A	±100A
Continuosly flowing DC current		±50A	±71A
Saturation current [Is]		±100A	±160A
Linearity limits		0～±100A (RL=45Ω)	0～±160A (RL=1Ω)
Rated output [Ih]	+If	I0+25mA±0.5%	I0+50mA±0.5%
	-If	I0-25mA±0.5%	I0-50mA±0.5%
Residual output [I0]		Within ±0.2mA	
Output linearity		Within ±0.15%	
Second coil resistance		Approx. 82Ω	
Response time		Within 0.5μs (at di/dt=If/μs)	
Response performance		Within 10%	
Hysteresis Voltage range		Within 0.15mA	
Output Temp. Coef.		Within ±0.01%/℃	
Residual output Temp. Coef.		Within ±0.005mA/℃	
Control power supply		±12V±5%	
Consumption current		20mA+(Input current/2000)	
Operating Temp.		-25℃～+85℃	
Strage Temp.		-40℃～+90℃	
Dielectric withstand voltage		2500V AC 50/60Hz 1minute	
Insulation resistance		Not less than 500MΩ 500V DC	

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HS-PTF series

*Control power supply specification: ±12V

＜Voltage output type＞

Type		HS-PTF050V4B12	HS-PTF100V4B12
Rated current [If]		±50A	±100A
Continuosly flowing DC current		±50A	±100A
Saturation current [Is]		±110A	±180A
Linearity limits		0～±110A	0～±180A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)	
	-If	V0-4V±1% (RL=10kΩ)	
Residual output [V0]		Within ±20mV	
Output linearity		Within ±0.5%	
Second coil resistance		Approx. 120Ω	
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)	
Response performance		Within 10%	
Hysteresis Voltage range		Within 20mV	
Output Temp. Coef.		Within ±0.02%/℃	
Residual output Temp. Coef.		Within ±1mV/℃	
Control power supply		±15V±5%	
Consumption current		60mA+(Input current/4000)	
Operating Temp.		-10℃～+80℃	
Strage Temp.		-15℃～+85℃	
Dielectric withstand voltage		2500V AC 50/60Hz 1minute	
Insulation resistance		Not less than 500MΩ 500V DC	

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HS-PTF series

*Control power supply specification: ±12V

＜Current output type＞

Type		HS-PTF050A00125B12	HS-PTF100A0025B12
Rated current [If]		±50A	±100A
Continuosly flowing DC current		±50A	±100A
Saturation current [Is]		±110A	±200A
Linearity limits		0～±110A (RL=10Ω～130Ω)	0～±200A (RL=1～20Ω)
Rated output [Ih]	+If	I0+12.5mA±1%	I0+25mA±1%
	-If	I0-12.5mA±1%	I0-25mA±1%
Residual output [I0]		Within ±0.2mA	
Output linearity		Within ±0.5%	
Second coil resistance		Approx. 120Ω	
Response time		Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)	
Response performance		Within 10%	
Hysteresis Voltage range		Within 0.2mA	
Output Temp. Coef.		Within ±0.02%/℃	
Residual output Temp. Coef.		Within ±0.01mA/℃	
Control power supply		±12V±5%	
Consumption current		60mA+(Input current/4000)	
Operating Temp.		-10℃～+80℃	
Strage Temp.		-15℃～+85℃	
Dielectric withstand voltage		2500V AC 50/60Hz 1minute	
Insulation resistance		Not less than 500MΩ 500V DC	

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HS-U series

*Control power supply specification: ±12V

＜Voltage output type＞

Type	HS-U050V4B12	HS-U100V4B12	HS-U200V4B12	HS-U250V4B12
Rated current [If]	±50A	±100A	±200A	±250A
Continuosly flowing DC current	±50A	±100A	±200A	±250A
Saturation current [Is]	±100A	±200A	±250A	±250A
Linearity limits	0～±100A	0～±200A	0～±250A	0～±250A
Rated output [Vh]	±4V±1% (RL=10kΩ)			
Residual output [V0]	Within ±20mV			
Output linearity	Within ±0.5%			
Second coil resistance	Approx. 25Ω	Approx. 50Ω		
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)			
Response performance	Within 10%			
Hysteresis Voltage range	Within 20mV			
Output Temp. Coef.	Within ±0.02%/℃			
Residual output Temp. Coef.	Within ±1mV/℃			
Control power supply	±12V±5%			
Consumption current	20mA+(Input current/1000)	20mA+(Input current/2000)		
Operating Temp.	-10℃～+80℃			
Strage Temp.	-15℃～+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

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HS-U series

*Control power supply specification: ±12V

＜Current output type＞

Type	HS-U050A005B12	HS-U100A005B12	HS-U200A010B12	HS-U250A0125B12
Rated current [If]	±50A	±100A	±200A	±250A
Continuosly flowing DC current	±50A	±100A	±200A	±250A
Saturation current [Is]	±150A	±250A	±250A	±250A
Linearity limits	0～±120A (RL=40Ω)	0～±250A (RL=10Ω)	0～±250A (RL=10Ω)	0～±250A (RL=10Ω)
Rated output [Ih]	±50mA±1%		±100mA±1%	±125mA±1%
Residual output [I0]	Within ±0.2mA			
Output linearity	Within ±0.5%			
Second coil resistance	Approx. 25Ω	Approx. 50Ω		
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)			
Response performance	Within 10%			
Hysteresis Voltage range	Within 0.2mA			
Output Temp. Coef.	Within ±0.02%/℃			
Residual output Temp. Coef.	Within ±0.01mA/℃			
Control power supply	±12V±5%			
Consumption current	20mA+(Input current/1000)	20mA+(Input current/2000)		
Operating Temp.	-10℃～+80℃			
Strage Temp.	-15℃～+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

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HS-U series

*Control power supply specification: ±15V

＜Voltage output type＞

Type	HS-U050V4B15	HS-U100V4B15	HS-U200V4B15	HS-U300V4B15
Rated current [If]	±50A	±100A	±200A	±300A
Continuosly flowing DC current	±50A	±100A	±150A	±150A
Saturation current [Is]	±150A	±300A	±360A	±370A
Linearity limits	0～±150A	0～±300A	0～±360A	0～±370A
Rated output [Vh]	±4V±1% (RL=10kΩ)			
Residual output [V0]	Within ±20mV			
Output linearity	Within ±0.5%			
Second coil resistance	Approx. 25Ω	Approx. 50Ω		
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)			
Response performance	Within 10%			
Hysteresis Voltage range	Within 20mV			
Output Temp. Coef.	Within ±0.02%/℃			
Residual output Temp. Coef.	Within ±1mV/℃			
Control power supply	±15V±5%			
Consumption current	20mA+(Input current/1000)	20mA+(Input current/2000)		
Operating Temp.	-10℃～+80℃			
Strage Temp.	-15℃～+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

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HS-U series

*Control power supply specification: ±15V

＜Current output type＞

Type	HS-U050A005B15	HS-U100A005B15	HS-U200A010B15	HS-U300A015B15
Rated current [If]	±50A	±100A	±200A	±300A
Continuosly flowing DC current	±50A	±100A	±200A	±300A
Saturation current [Is]	±150A	±300A	±300A	±300A
Linearity limits	0～±150A (RL=50Ω)	0～±300A (RL=20Ω)	0～±300A (RL=20Ω)	0～±300A (RL=20Ω)
Rated output [Ih]	±50mA±1%		±100mA±1%	±150mA±1%
Residual output [I0]	Within ±0.2mA			
Output linearity	Within ±0.5%			
Second coil resistance	Approx. 25Ω	Approx. 50Ω		
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)			
Response performance	Within 10%			
Hysteresis Voltage range	Within 0.2mA			
Output Temp. Coef.	Within ±0.02%/℃			
Residual output Temp. Coef.	Within ±0.01mA/℃			
Control power supply	±15V±5%			
Consumption current	20mA+(Input current/1000)	20mA+(Input current/2000)		
Operating Temp.	-10℃～+80℃			
Strage Temp.	-15℃～+85℃			
Dielectric withstand voltage	2500V AC 50/60Hz 1minute			
Insulation resistance	Not less than 500MΩ 500V DC			

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HS-UD series

*Control power supply specification: ±12V

＜Voltage output type＞

Type	HS-UD300V4B12	HS-UD400V4B12	HS-UD500V4B12
Rated current [If]	±300A	±400A	±500A
Continuosly flowing DC current	±450A	±450A	±450A
Saturation current [Is]	±675A	±870A	±870A
Linearity limits	0～±600A	0～±800A	0～±800A
Rated output [Vh]	±4V±1% (RL=10kΩ)		
Residual output [V0]	Within ±20mV		
Output linearity	Within ±0.5%		
Second coil resistance	Approx. 16.8Ω		
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance	Within 10%		
Hysteresis Voltage range	Within 20mV		
Output Temp. Coef.	Within ±0.02%/℃		
Residual output Temp. Coef.	Within ±1mV/℃		
Control power supply	±12V±5%		
Consumption current	20mA+(Input current/2000)		
Operating Temp.	-10℃～+80℃		
Strage Temp.	-15℃～+85℃		
Dielectric withstand voltage	2500V AC 50/60Hz 1minute		
Insulation resistance	Not less than 500MΩ 500V DC		

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HS-UD series

*Control power supply specification: ±12V

＜Current output type＞

Type	HS-UD300A015B12	HS-UD400A020B12	HS-UD500A025B12
Rated current [If]	±300A	±400A	±500A
Continuosly flowing DC current	±450A	±450A	±450A
Saturation current [Is]	±675A	±750A	±850A
Linearity limits	0～±600A (RL=1Ω～5Ω)	0～±700A (RL=1Ω～3Ω)	0～±800A (RL=1Ω)
Rated output [Ih]	±150mA±1%	±200mA±1%	±250mA±1%
Residual output [I0]	Within ±0.2mA		
Output linearity	Within ±0.5%		
Second coil resistance	Approx. 16.8Ω		
Response time	Within 1μs (The smaller one on either at di/dt = 100A/μs or If/μs.)		
Response performance	Within 10%		
Hysteresis Voltage range	Within 0.2mA		
Output Temp. Coef.	Within ±0.02%/℃		
Residual output Temp. Coef.	Within ±0.01mA/℃		
Control power supply	±12V±5%		
Consumption current	20mA+(Input current/2000)		
Operating Temp.	-10℃～+80℃		
Strage Temp.	-15℃～+85℃		
Dielectric withstand voltage	2500V AC 50/60Hz 1minute		
Insulation resistance	Not less than 500MΩ 500V DC		

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HS-UF series

*Control power supply specification: ±12V

＜Voltage output type＞

Type		HS-UF100V4B12	HS-UF200V4B12	HS-UF300V4B12
Rated current [If]		±100A	±200A	±300A
Continuosly flowing DC current		±100A	±200A	±230A
Saturation current [Is]		±225A	±450A	±520A
Linearity limits		0～±200A	0～±400A	0～±470A
Rated output [Vh]	+If	V0+4V±1% (RL=10kΩ)		
	-If	V0-4V±1% (RL=10kΩ)		
Residual output [V0]		Within ±20mV		
Output linearity		Within ±0.5%		
Second coil resistance		Approx. 48Ω		
Response time		Within 1μs (at di/dt=100A/μs)		
Response performance		Within 10%		
Hysteresis Voltage range		Within 20mV		
Output Temp. Coef.		Within ±0.02%/℃		
Residual output Temp. Coef.		Within ±1mV/℃		
Control power supply		±12V±5%		
Consumption current		20mA+(Input current/4000)		
Operating Temp.		-10℃～+80℃		
Strage Temp.		-15℃～+85℃		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		

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HS-UF series

*Control power supply specification: ±12V

＜Current output type＞

Type		HS-UF100A0025B12	HS-UF200A005B12	HS-UF300A0075B12
Rated current [If]		±100A	±200A	±300A
Continuosly flowing DC current		±100A	±200A	±230A
Saturation current [Is]		±225A	±450A	±520A
Linearity limits		0～±200A (RL=1Ω～80Ω)	0～±400A (RL=1Ω～15Ω)	0～±470A (RL=1Ω～8Ω)
Rated output [Ih]	+If	I0+25mA±1%	I0+50mA±1%	I0+75mA±1%
	-If	I0-25mA±1%	I0-50mA±1%	I0-75mA±1%
Residual output [I0]		Within ±0.2mA		
Output linearity		Within ±0.5%		
Second coil resistance		Approx. 48Ω		
Response time		Within 1μs (at di/dt=100A/μs)		
Response performance		Within 10%		
Hysteresis Voltage range		Within 0.2mA		
Output Temp. Coef.		Within ±0.02%/℃		
Residual output Temp. Coef.		Within ±0.01mA/℃		
Control power supply		±12V±5%		
Consumption current		20mA+(Input current/4000)		
Operating Temp.		-10℃～+80℃		
Strage Temp.		-15℃～+85℃		
Dielectric withstand voltage		2500V AC 50/60Hz 1minute		
Insulation resistance		Not less than 500MΩ 500V DC		