

HC-AK



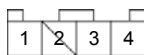
- Rated current 200A ~ 500A
- Small and thin design
- Bolt-on fixing, Wire harness connection
- 5V single power supply ratio metric specifications
- Attached to chassis, cable output specifications

Applications

xEV inverters (HEV, EV, PHEV, etc)

Dimensions

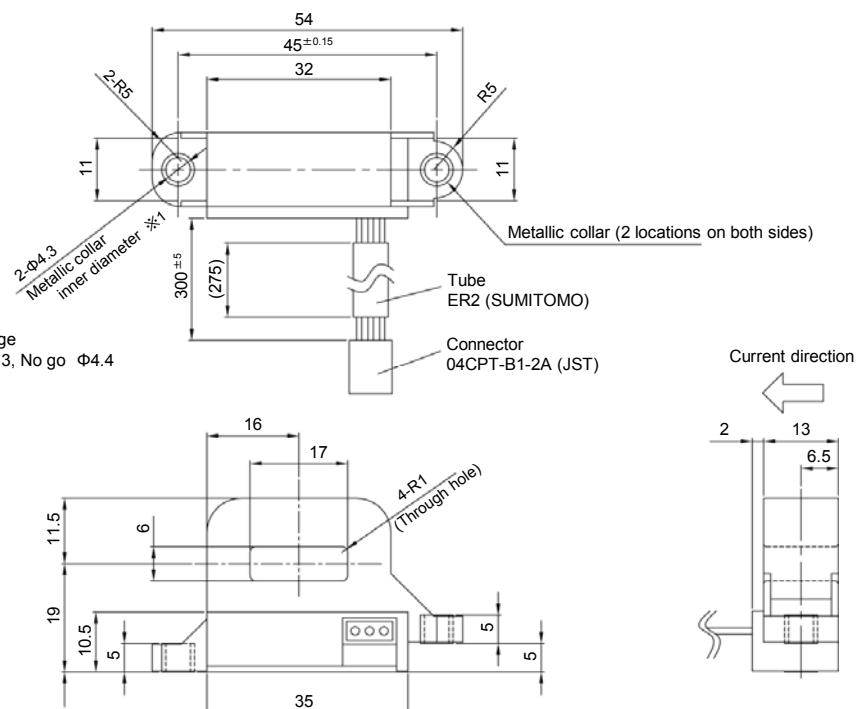
(mm)



Terminal No.
1 ... Vcc
3 ... Output
4 ... GND

Weight : 40g

※1 Pin gauge
Go $\Phi 4.3$, No go $\Phi 4.4$



General tolerance: ± 0.5

Specification

Ta=25°C

Type	HC-AK200V2PP5-1	HC-AK300V2PP5-1	HC-AK400V2PP5-1	HC-AK500V2PP5-1
Rated current [If]	±200A	±300A	±400A	±500A
Saturation current [Is]	±220A	±330A	±440A	±550A
Linearity limits	0~±200A	0~±300A	0~±400A	0~±500A
Rated output [Vh]	Within $V_0+2V \times (V_{cc}/5) \pm 1.5\%$ (RL=10kΩ)			
	Within $V_0-2V \times (V_{cc}/5) \pm 1.5\%$ (RL=10kΩ)			
Residual output [V0]	Within $V_{cc}/2 \pm 30mV$			
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%/°C			
Residual output Temp. Coef.	Within ±2mV/°C	Within ±1.7mV/°C	Within ±1.3mV/°C	Within ±0.9mV/°C
Control power supply [Vcc]	+5V±4%			
Power variation characteristics change [+5V±4%]	I=±If	3.5~4.5%		
	I=0	3~5%	3.1~4.9%	3.2~4.8%
Consumption current	Within 30mA			
Operating Temp.	-40°C~+105°C			
Storage Temp.	-40°C~+105°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) 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.

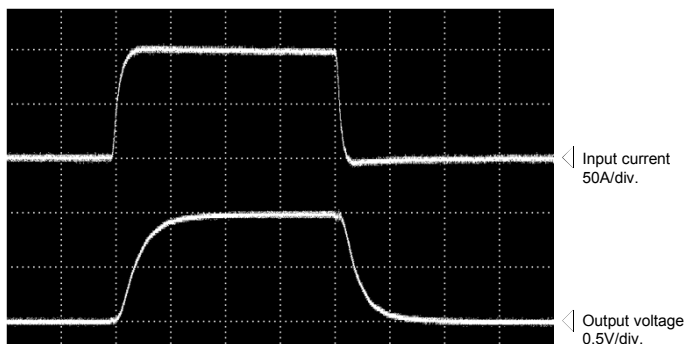
Note4) Code at the end of the model name represents harness specifications.

Characteristics chart

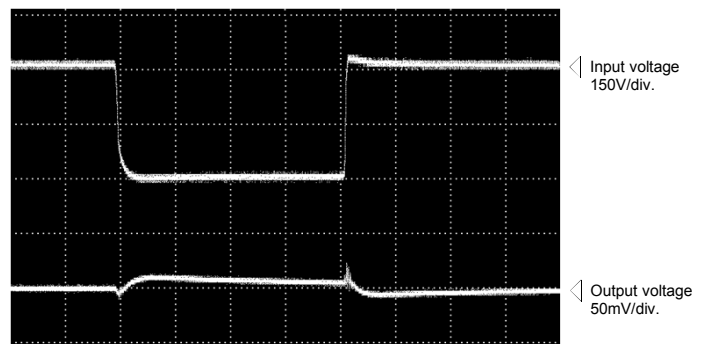
HC-AK200V2PP5-1

Time base: 5μs/div.

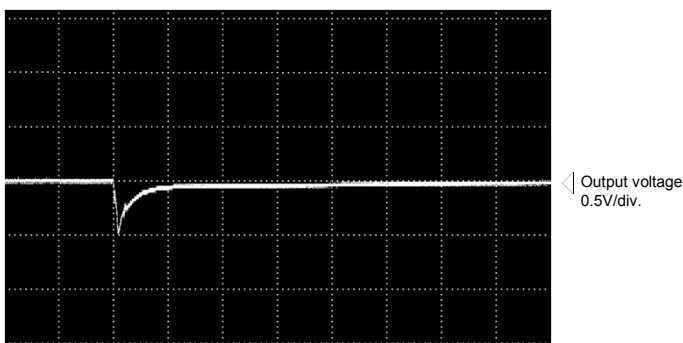
Pulse current response characteristic



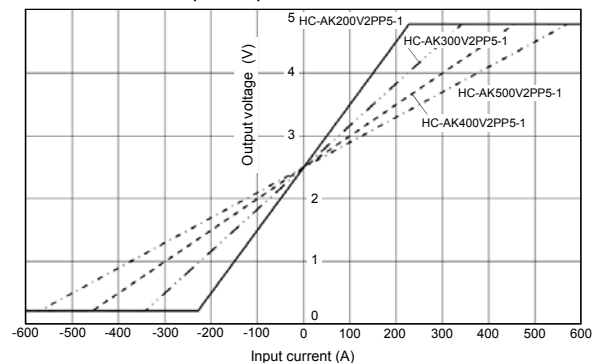
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks "◁" means 0V or 0A.