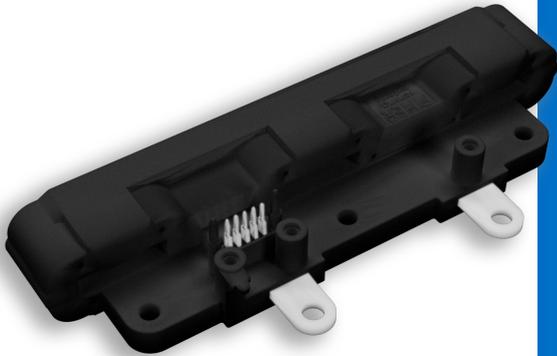


HCSP-3BS

Three-phase Open Loop Current Sensor - Busbar Mounting



KEY FEATURES

- ▶ Open loop current transducer based on Hall effect
- ▶ Measured current values up to ± 1.200 A
- ▶ 3-phase busbar mounting
- ▶ 3 simple analog ratiometric outputs
- ▶ Non-intrusive technology
- ▶ Galvanic separation between power and control
- ▶ Full compatibility with Infineon HybridPack
- ▶ Press fit contacts to eliminate soldering
- ▶ Operating temperature from -40°C to $+125^{\circ}\text{C}$

DESCRIPTION

The HCSP-3BS is a three-phase, open-loop current sensor designed for accurate AC/DC current measurement, outputting a ratiometric analog voltage proportional to the current. Capable of handling up to 1200A, this automotive-grade sensor is ideal for EV/HEV and industrial applications. Utilizing a compact, Hall effect design, it delivers high accuracy across a wide temperature range (-40°C to $+125^{\circ}\text{C}$). The sensor's ratiometric output ensures stable readings despite supply voltage fluctuations, and its robust, space-efficient construction guarantees reliable performance in harsh environments.

APPLICATIONS

- ▶ Motor control
- ▶ EV motor inverters
- ▶ DC/DC converters

SPECIFICATIONS

Parameter	Unit	Min.	Typ.	Max.
Supply voltage	V	4,5	5	5,5
Supply current	mA	33	42	48
Output voltage	V	0,5		4,5
Offset voltage	V		2,5	
Frequency bandwidth	kHz	70		250
Operating temperature	$^{\circ}\text{C}$	-40		+125
Typical error (at 25°C ; $V_{cc} = 5\text{V}$)	%	0,65		2,5
Max. error (at -40°C to $+125^{\circ}\text{C}$; $V_{cc} = 5\text{V}$)	%	1		3,5

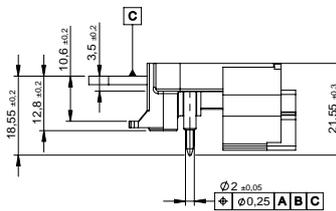
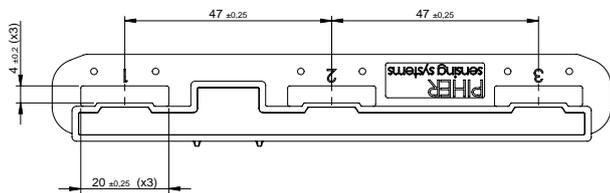
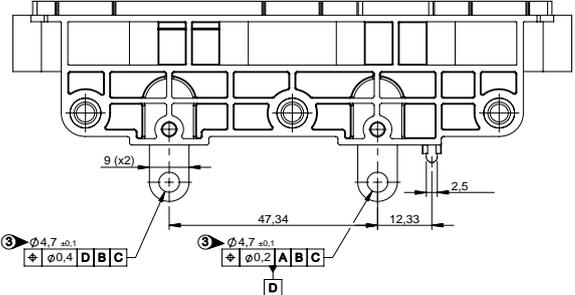
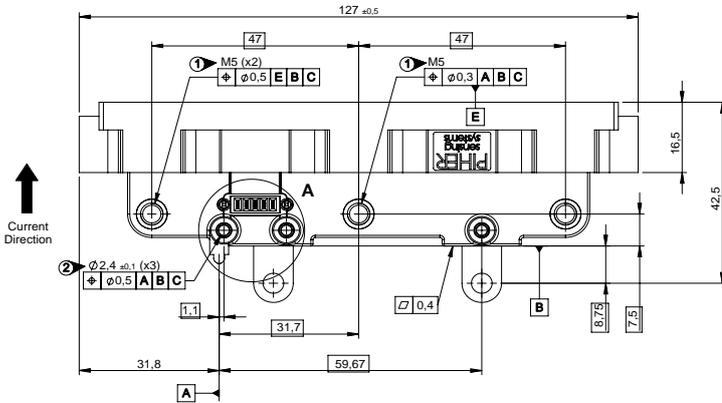
Other specification on request

HCSP-3BS

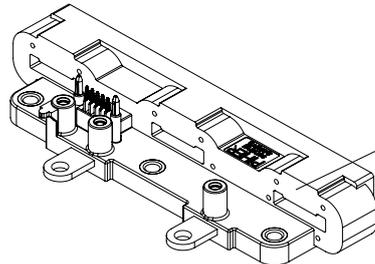
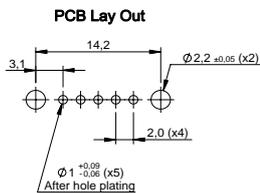
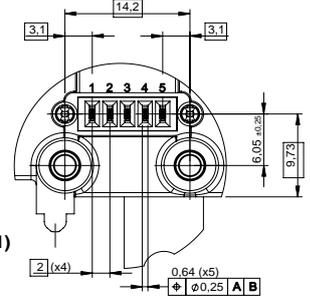
Three-phase Open Loop Current Sensor - Busbar Mounting

DIMENSIONS (IN MM)

- ① (x3) M5 screws (not included)
- ② (x3) Recommended screws for 3 fixing holes: DELTA PT[®] $\varnothing 3$
- ③ (x2) M4 screws (not included)



PCB Connection
5 pressfit pins for pads
dimension refer to IEC
60352-5 standard



Laser mark surface
Example:
HCSP-3BS-0800
0800: Current Variant from 800-1200
040 xxxxx
0: Year (0=2024 / P=2025 / ...)
40: Week number
xxxxx: Universal Correlative part number for all current sensor

A
(2:1)

CONNECTION PIN OUT	
Pin 1	Supply Voltage
Pin 2	GND
Pin 3	Output 1 (Phase 1)
Pin 4	Output 3 (Phase 3)
Pin 5	Output 2 (Phase 2)

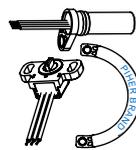
ORDER CODE

HCSP-3BS-_____	0800	0900	1000	1100	1200
Current measuring range	±800 A	±900 A	±1000 A	±1100 A	±1200 A
Sensitivity*	2,5 mV/A	2,22 mV/A	2 mV/A	1,81 mV/A	1,67 mV/A
Sensitivity error*	± 0,6 %				
Electrical offset voltage*	± 3 mV				

* at 25°C / V_{cc} = 5V; Other specification on request

Please always use the latest updated datasheets published on our website.

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