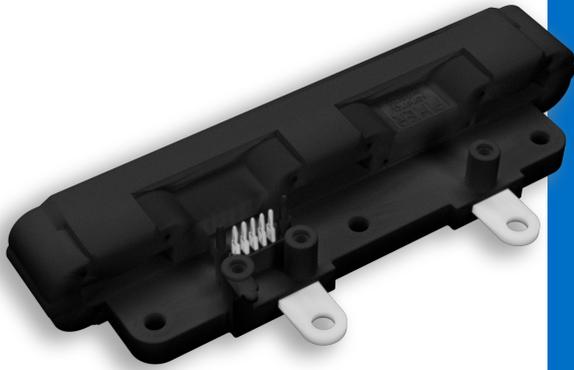


HCSP-3BS

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

Piher Sensing Systems' HCSP3BS is a three-phase open loop current sensor that generates a ratiometric analog output voltage signal proportional to the current flowing through the conductor.

Based on Hall effect technology the sensor has been designed for accurate measurement of AC and DC currents in automotive battery management and motor control applications.

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

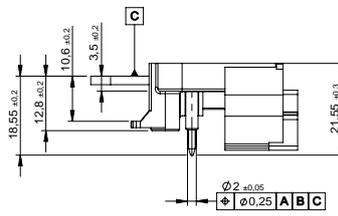
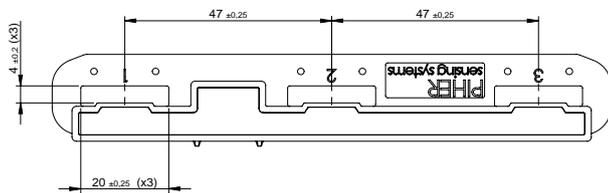
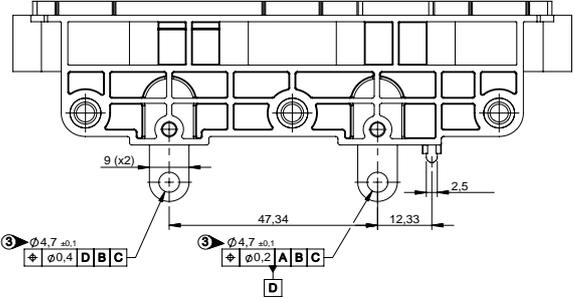
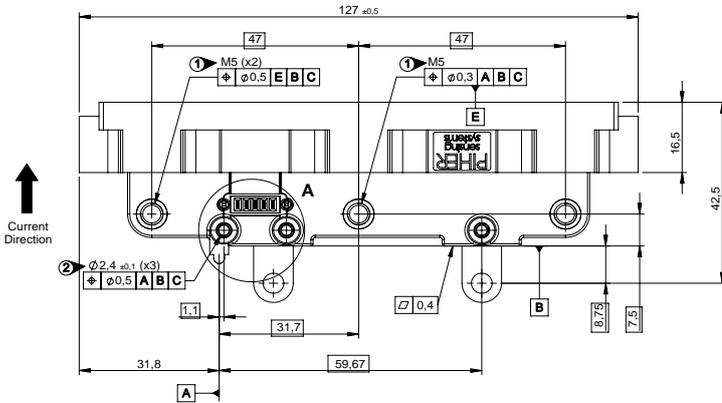
Other specification on request

HCSP-3BS

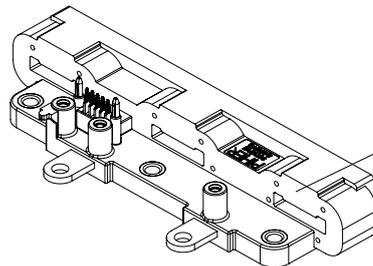
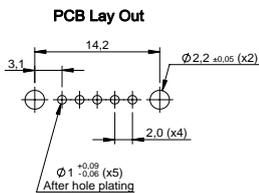
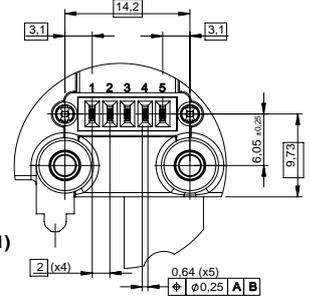
Three-phase Open Loop Current Sensor - Busbar Mounting

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 press fit pins for pads
dimension refer to IEC
60352-5 standard



Laser mark surface
Example:
HCSP-3BS-0800
0800: Current Variant
from 800-1200
Q40 xxxxx
Q: Year (Q=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

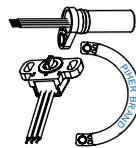
HCSP-3BS-_____	0800	0900	1000	1100	1200
Current measuring range	±800 A	±900 A	±1000 A	±1100 A	±1200 A
Sensitivity*	2,5 mV/A	2,22 mV/A	2 mV/A	1,81 mV/A	1,67 mV/A
Sensitivity error*	± 0,6 %				
Electrical offset voltage*	± 3 mV				

* 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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