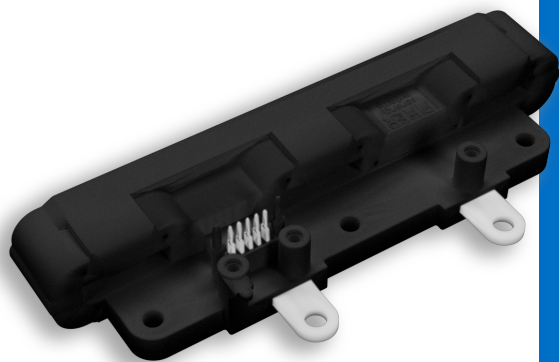


HCSP-3BS

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

