

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

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 / Vcc = 5V; Other specification on request



Please always use the latest updated datasheets and 3D models published on our website.

Disclaimer:

The product information in this catalog is for reference purposes. Please consult for the most up to date and accurate design information. Piher Sensors & Controls S.A., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Piher"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product described herein. Piher disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Piher's terms and conditions of sale, including but not limited to the warranty expressed therein, which apply to these products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Piher. The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Piher products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Piher for any damages arising or resulting from such use or sale. Please contact authorized Piher personnel to obtain written terms and conditions regarding products designed for such applications. Product names and markings noted herein may be trademarks of their respective owners. Information contained in and/or attached to this catalogue may be subject to export control regulations of the European Community, USA, or other countries. Each recipient of this document is responsible to ensure that usage and/or transfer of any information contained in this document complies with all relevant export control regulations. If you are in any doubt about the export control restrictions that apply to this information, please contact the sender immediately. For any Piher Exports, Note: All products / technologies are EAR99 Classified commodities. Exports from the United States are in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited.

CONTACT

Piher Sensing Systems
 Polígono Industrial Municipal
 Vial T2, Nº22
 31500 Tudela
 Spain

sales@piher.net

Europe: +34 948 820 450
 Americas: +1 636 251 0855
 Asia Pacific: +65 9641 8886
 India: +91 9538 686 586

Rev:04/04/2023 © 2023 Piher Sensors & Controls S.A.