

HPS60-E 2+2 & HPS90-E 2+2

Maximum Reliability at High Current Load
and High Temperatures



HIRSCHMANN
AUTOMOTIVE

THE EFFICIENT CONNECTION FOR HIGH CURRENT LOADS IN MODERN VEHICLES

The HIRSCHMANN AUTOMOTIVE PowerStar eLine products are characterized by their ergonomic handling, easy processing and completely represent the future eMobility.

The products comply with all common standards of the automotive industry and are available with several features like an additional temperature sensor or optional interlock. They also cover a wide range of cable cross sections to reach different current profiles on the same connector design.



Characteristics:

- compliant with several automotive test specifications
- watertight according to IP6K9K and IPX8
- high current load at high ambient temperatures up to 400 A
- 360° shielded connection
- high automation level
- low mating force
- different customer specific connection solutions

TECHNICAL PRODUCT INFORMATION

CURRENT CLASS	current class 3, 4 and 5 connector
APPLICATIONS	inverter, HV battery, e-motor
NUMBER OF PINS	2 (high voltage) + 2 (HVIL optional)
OPERATING CONDITIONS	1,000 VDC
VOLTAGE CLASS	class B according ISO 6469-3:2011 60 VDC < U ≤ 1,000 VDC 25 VAC < U _{eff} ≤ 707 VAC (15-150 Hz)
AMBIENT CONDITION	-40° C to +140° C
MAXIMUM ALTITUDE	4,000 m
MAXIMUM CURRENT LOAD	170 A at 80° C (35 mm ² Al, HPS60-E 2+2 light) 250 A at 80° C (50 mm ² Cu, HPS60-E 2+2) 400 A at 80° C (95 mm ² Cu, HPS90-E 2+2)
IP-DEGREE OF PROTECTION	IPXXB (unmated), IPXXD (mated)
WATERTIGHTNESS	IP6K9K, IPX8
EMC PERFORMANCE (6.0 MM ²)	until 30 MHz < 1 mΩ/m > 75 dB (10 kHz to 500 MHz) > 65 dB (500 MHz to 1,000 MHz)
SHIELDED AREA	360° circumferential
SHIELD CONTACT RESISTANCE	< 2.0 mΩ (total from sheathed cable until aggregate housing)
MATING/UNMATING FORCE	< 50 N
KOSHIRI SAFETY	yes
POLARIZATION/CODING	incorrect insertion force > 200 N
CPA SYSTEM	operating force < 30 N
HVIL SYSTEM	minimum 1.0 mm (nominal 2.0 mm), leading



CONTACT SYSTEM INFORMATION

CONTACT SYSTEM	HCT6 (6.0 mm round terminal, HPS60-E 2+2 light and HPS60-E 2+2) HCT9 (9.0 mm round terminal, HPS90-E 2+2)
MATERIAL/SURFACE	CuCrAgFeTiSi, Ag, Ni (HPS60-E 2+2 light) Cu-ETP, Ag, Ni (HPS60-E 2+2 and HPS90-E 2+2)
CONNECTION	crimped (HPS60-E 2+2 light Cu), crimped-soldered (HPS60-E 2+2 light Al) welded (HPS60-E 2+2 and HPS90-E 2+2)
MATING CYCLES	maximum 50 cycles

CUSTOMER-SPECIFIC INFORMATION

CABLE CROSS SECTION	10 mm ² to 25 mm ² Cu or 35 mm ² Al (HPS60-E 2+2 light) 35 mm ² to 50 mm ² (HPS60-E 2+2) 70 mm ² to 95 mm ² (HPS90-E 2+2)
CONTACT CARRIER CODINGS	A, B, C, D, Z

HPS60-E 2+2 / HPS90-E 2+2 PRODUCT VARIANTS

FEMALE	180° MALE
SINGLECORE CONNECTION	BUSBAR CONNECTION
	
Customer specific connection variants on request.	



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SEEKING MORE DETAILED INFORMATION?
SCAN ME AND BROWSE THROUGH THE
PRODUCT CATALOGUE.



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