

News release

London, UK, 11 September 2007

DSEi 2007 Smiths Interconnect Stand No. 355

Connectors handle up to 750A for rugged power applications

2000+ cycles with easy mating and un-mating



Hypertac's new HBB connectors combine high current handling capability with small size and exceptional environmental performance for demanding power systems applications. The HBB range is suitable for use in all types of high-power applications. This is particularly applicable to electric drives used in fighting vehicles, weapons systems, ground-based and airborne avionics systems, rail transport and the automotive and medical sectors.

Designed for easy mating and quick release, the devices use Hypertac's hyperboloid contact technology to attain standard current ratings of 300A and 500A (750A available on request) with high reliability and excellent integrity. Hyperboloid contacts produce contact resistance figures as low as $0.05 \text{m}\Omega$ which will help in reducing resistive losses. This both eases the task of thermal management and allows better power handling in a smaller space with a lower overall mass.

The HBB series features a polarised design with a variety of options that ease assembly allowing simple maintenance and speedy changeover for minimal system downtime. Offered in a choice of metal or high-strength composite shells, these single-pole circular connectors are sealed to IP67 and feature 360° EMI/RFI shielding. Configurations are available in cable or panel mount versions and with straight or right angle back shells, allowing users to choose the most appropriate variants to simplify their cable management architecture and therefore further increase reliability and reduce the likelihood of interconnection errors.

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Rated for use at up to 1000V DC, the HBB series can accept cable sizes of up to 70mm² for 300A versions and 120mm² for 500A versions. Receptacles are available with sizes conforming to MIL-DTL-5015, while metal versions can be specified with a variety of plating options including zinc/cobalt, cadmium and electroless nickel.

Flange mounting sizes for 300A & 500A connectors as per MIL-DTL-5015 shell sizes 20 & 24 respectively.

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About Hypertac

Hypertac is a leading supplier of high reliability, high performance interconnect solutions and electrical/electronic connectors. The company has particular expertise in the rapid development of innovative interconnect solutions for high reliability applications in military, aerospace, industrial, mass transit, test & measurement and medical electronics markets.

The Hypertac range includes filtered ARINC and circular connectors, modular types and printed circuit board connectors. Hypertac connectors achieve outstanding performance through the use of patented Hyperboloid contacts.

About Hyperboloid contacts

Hypertac hyperboloid contact is an advanced design that satisfies the most demanding performance requirements. The shape of the contact sleeve is formed by wires strung at an angle to the socket axis. When the pin is inserted into the sleeve, the wires stretch around it, providing a number of linear contact paths.

This ensures high reliability, a high number of mating cycles, shock and vibration immunity, low contact resistance and low insertion and extraction force.

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