Dual Cooling Fan Controller

The dual cooling fan controller, part number 717900-1, comprises two independent 3 phase Inverters that can deliver 65kW / 87hp to two Permanent Magnet machines. High frequency and high temperature operation are enabled by GE Silicon Carbide Power Modules; greatly improving SWaP-C over traditional silicon-based Inverters/Controllers. GE SiC combined with advanced digital controls enables 50kHz operation which improves the output power quality thereby improving the efficiency of the driven machine. The dual cooling fan controller can power a variety of PM machines used in fans, pumps and compressors.

Features:

♦ High Efficiency > 98%
♦ Input: +/-300VDC per MIL-PRF-GCS600A
♦ Output: Three-phase, Variable Frequency
♦ Operational to 105°C coolant
♦ Over Current, Over Voltage and Short Circuit Protection
♦ Total Harmonic Distortion (THD): < 5%
♦ High Voltage Interlock (HVIL) for input and output
♦ Complete Isolation between Inverters
♦ Programmable Machine parameters
♦ Accepts resolver input signals
♦ Available Graphical User Interface

Physical: (see 717900-1 ICD)

Dimensions: 52.07 cm (20.5”) x 30.98 cm (12.2”) x 15.5 cm x (7.75”)
Weight: < 29.5 kg (< 65 lbs)
Mounting: ½” Guide Pin Receivers at rear; Front Edge Clamped
Connector Description
J1 (GTC030-36-3P(LC)): Inverter #1 AC Output Power
J5 (GTC030-36-3P(LC)): Inverter #2 AC Output Power
J2 (D38999/20WD19PN): Inverter #1 Resolver / Temp
J6 (D38999/20WD19PN): Inverter #2 Resolver / Temp
J3 (D38999/20WD35PN): Inv #1 CAN BUS, Discrete Sensors
J7 (D38999/20WD35PN): Inv #2 CAN BUS, Discrete Sensors
J4 (GTC030R32-1S): Inverter #1 Input Power
J8 (GTC030R32-1S): Inverter #2 Input Power

Environmental:

Coolant: EGW 50/50 or 60/40; 5GPM at <12 psid
Coolant Temp.: -40 °C to +105°C
Ambient Operating Temp.: -40 °C to +100°C
Environmental Requirements: ATPD-2404
Electromagnetic Interference & Compatibility: MIL-STD-461 CE 102, CS101, CS114, CS115, CS116, RE102, RS103
Explosive Conditions: DO-160
Ingress Protection: Extended Duration IP-68 per ATPD-2404