



# 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