

## Variable Frequency Pressure Pump





#### IWG P/N 9-30011-01

The Potable Water System Variable Frequency Pressure Pump is a centrifugal pump that is driven by an electric motor. The pump motor is powered by 3-Phase 115/200 VAC, variable frequency power.

The motor is a 6-pole design operating at 7,600 rpm. It consists of a single-speed "wet-running" design. The bearings are made of carbon, and able to operate for extended periods of time without the presence of water. An expansion chamber provides protection against freezing. Overheat protection automatically resets.

The Variable Frequency Pressure Pump is ideal for providing supplemental pressurization for VIP and Corporate Aircraft with high water use.



### WGPUMP SPECIFICATIONS

- > 3 Phase, 115/200VAC > 325-540 Hz > Stainless steel construction > Light weight
- > 100,000 hour MTBF > Capable of providing uniform water system pressure at all operational altitudes

#### MECHANICAL

Overall Dimensions: 4.50" (114 mm) high x 4.44"

(113 mm) wide x 6.06" (154 mm) deep Net Weight (Dry): 6.75 lbs (3.1kgs)

#### ELECTRICAL

Input Voltage: 3-Phase, 115 VAC, 325-540 Hz Nominal Current Draw: 1.5 A per phase Electrical Interface: MIL-C-38999 Series II

(27499E-T12-8P)

#### ENVIRONMENTAL

#### **ALL TESTS TO DO-160D**

**Ground Survival & Operating Low Temp** 

4.0, Cat A2, Similarity

**Ground Survival & Operating High Temp** 

4.0, Cat A2, Test

Altitude: 4.0, Cat A2, Similarity Overpressure: 4.0, Cat A2, Similarity

Humidity: 6.0, Cat A, Test

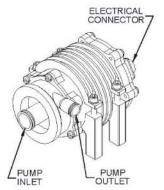
Operational Shock: 7.0, Cat B, Similarity Vibration: 8.0, Cat S, Curve C, Similarity

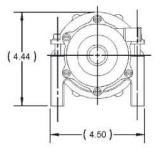
Power Input: 16.0, Cat Z, Test Voltage Spike: 17.0, Cat A, Similarity

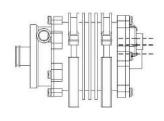
Emission of Radio Frequency Energy: 21.0, Cat L, Analysis

Similarity Tests conducted on Pressure Pump (400Hz) P/N 9-30001-02

# (6.06)







scale: inches

#### PRESSURE/FLOW

Maximum Pressure: 41.9 PSID @ 0 GPM and 540 Hz Minimum Pressure: 10.9 PSID @ 4 GPM and 325 Hz Nominal Pressure: 19.4 PSID @ 4 GPM and 400 Hz

#### **OVERHEAT PROTECTION**

The electrical windings are protected to prevent overheating

Meets MIL-M-7969C and MIL-S-404 standards

Thermal Switch: Resettable; requires external control

Thermal Fuse: Non-resettable

#### MAINTAINABILITY

MTBF: Predicted 185,873 operating hours

Service Free Operation: 15,000 operating hours

