

AF400W Series Solid-State GPU 400Hz Frequency Converter

Acsoon® AF400W series is one of the most popular static frequency converter. AF400W is designed to change the power at 50Hz or 60Hz to aircraft quality power at 400Hz.

It integrates IGBT made by Mitsubishi, Siemens and Infineon with PWM switching technology, and combines micro controller and digital signal processor(DSP) for quicker response and higher reliability.

Acsoon ® AF400W as a power source to develop aircraft quality 400hz Power. It is mostly used in aircraft production manufacturing, aviation R&D, military/civil hangar, maintenance plant, aerospace equipment, military airport tarmac and wells, aviation factories.

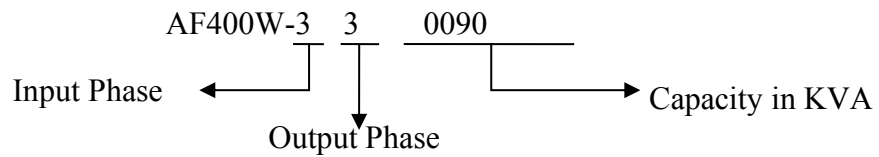
Main Features

- ✧ Automatically voltage compensation system,ideal voltage at aircraft connector
- ✧ Self diagnose system which would show error code/faulty explanation on the VFD screen
- ✧ Memory stores 10 events
- ✧ Galvanically isolated, low harmonic distortion
- ✧ Thoroughly proven advanced SPWM and IGBT technology
- ✧ Pure sine wave output
- ✧ Eco-friendly, high efficiency, low noise
- ✧ 28VDC military interlock



Models Selection

The Acsoon® AF400W series power supply model designation is shown below:



Specification

● Capacity

- ✧ 30/45/60/90/120/150/180KVA

● Input

- ✧ Voltage: 3 x127V/220V ± 15% or
3 x220V/380V ± 15%,
3 x240V/415V ± 15%
- Or as per your specific requirement
(select one individual voltage)
- ✧ Frequency: 40-70Hz
- ✧ Power Factor:
≥0.8 (Standard type)
≥0.9 (12 pulse type, optional item)
- ✧ Inrush current: None, soft start

● Output

- ✧ 3x115/200V,3x120/208V(L-N/L-L),
Or select one individual voltage
- ✧ Frequency: 400Hz (320-480Hz adjust)
- ✧ Interface: Either RS232 or RS485
- ✧ Voltage regulation: ±1% FS(full scale)
- ✧ Frequency regulation: ±0.1%
- ✧ Crest: 1.414 ± 0.1
- ✧ Distortion: THD < 3% @ linear load
- ✧ Voltage difference between each phase < 3V
- ✧ Line drop compensation: 1-10V
- ✧ Voltage recovery: ΔU < 10% and rec. time
< 50 ms at 100% load change
- ✧ Phase angle symmetry:
120° ± 2° (33% unbalance Load)
120° ± 4° (100% unbalance Load)

● **Overload**

- ◇ 125% for 10 min; 150% for 60 sec;
- ◇ 200% for 10 sec.

● **Protection**

- ◇ Input Over/under voltage, phase loss
- ◇ Over current, Over load,
- ◇ Inner over heating,Short circuit,
- ◇ Output Phase loss, wrong phase sequence
- ◇ Self diagnose and alarm

● **VFD display and control:**

- ◇ Output voltage, Current, Frequency
- ◇ Start/Stop,On/off each output
- ◇ Line drop compensation status
- ◇ Emergency Stop

● **Available options**

- ◇ 28 VDC, 300-3000 A (45-180kVA only)
- ◇ Additional output contactor
- ◇ Remote control box
- ◇ Terminal extension for 2 PCS of 7 core cable
- ◇ Parallel system
- ◇ Door Interlock
- ◇ 28V Military Interlock

● **Working condition**

- ◇ Temperature:-20 to 50°C
- ◇ Humidity:10~95% non condensing
- ◇ Noise:< 65dB within 1 meter

- ◇ IP20/IP54

● **Reliability&Efficiency**

- ◇ Mean Time Between Failure (MTBF) 50,000H
- ◇ Mean Time To Restoration (MTTR)< 30 min
- ◇ Electromagnetic compatibility:Meeting relevant requirement of IEC61000-6-2 and EC61000-6-4
- ◇ Standby power consumption:<65W
- ◇ No-load power consumption:<2.5KW
- ◇ Efficiency:
≥85% at full load for standard type
≥90% at full load for 12-pulse type(Optional)

● **Standards**

- ◇ DFS400
 - ◇ MH/T6018
 - ◇ ISO 6858
 - ◇ MIL-STD-704F
 - ◇ EN60204-1
 - ◇ GJB572
 - ◇ EN61000
 - ◇ GJB 181
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