300VA, Rugged, Compact 3-Phase Industrial Quality DC-AC Sine Wave Inverter CTP-300-F7 Series

- 3-Phase sinusoidal output voltage
- Filtered input/output
- Conduction/convection cooled
- Compact construction
- Full electronic protection
- Rugged, field-proven design



This rugged industrial quality DC-AC inverter uses field-proven, microprocessor controlled high frequency PWM technology to generate the required output power with 3-phase sine wave output voltage. The use of high frequency conversion enables a compact construction, low weight and high efficiency. The input and output are filtered for low noise. Cooling is by conduction via baseplate. Additional cooling is achieved by natural convection through the cooling slots. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also provides exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, generous design headroom and the exclusive use of components with established reliability also contribute to high MTBF. The unit is manufactured at our plant under strict quality control. A railway quality version of this design, the CTP-300R-F7, is also available.

SPECIFICATIONS

Input Voltage

24V, 36V, 48V, 110V, 125Vdc are standard Consult factory for other inputs

Input Protection

Inrush current limiting
Varistors
Reverse polarity protection
Internal safety fuses
Lower voltage than the specified
minimum input will not damage
the unit

Isolation

According to input/output as minimum 700Vdc input to chassis 1500Vdc input to output 1000Vdc output to chassis Floating output Neutral can be grounded if required

Standards

Designed to meet C22.2 No. 107.1 - 01, UL458 and EN60950-1

EMI

EN55022 Class A with margins

Output Voltage

208Vrms (L-L)/3-phase continuous at 60 or 400Hz or 115Vrms phase-to-neutral voltages can also be used Consult factory for other voltages, frequencies and options

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

± 6% from no load to full load

Load Crest Factor

2 at 90% load

Output Noise

High frequency ripple is better than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit protection

Output Overvoltage Protection

By internal supply voltage limiting

Efficiency

Typically 80% at full load

Operating Temperature Range 0°C to +50°C for full specification

Extended temperature ranges available

Temperature Drift

0.05% per C over operating temperature range

Cooling

By conduction via baseplate and by natural convection

Environmental Protection

Basic ruggedizing Conformal coating Full ruggedizing available as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

Min. 110,000 hours at 45°C Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None

Remote shutdown or enable as an option

Alarm Output

None

Package/Dimensions (W x H x L)

F7: 254 x 67 x 351mm (10" x 2.6" x 13.8") Mounting holes are clear

Weight

2.2 kg (4.8 lb)

Connections

Terminal blocks

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice.

TB pin-out

3-PHASE OUTPUT												DC INPUT					
ĠND	PH 1	NOT USED		NOT USED	PH 2	NOT USED	NOT USED	NOT USED	PH 3	NOT USED	GND ÷	ĠΝD	÷В	1	-	+	+
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications are subject to change.

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, and complete rack mount systems in 19" or 23" racks. Custom or standard. ABSOPULSE is a BABT-approved Facility.



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