

Model: BAP65-30W/48F3TD-U4125
COSD: XXXX
Summary description: 240W, Industrial Quality DC/DC Converter
 30Vdc to 48Vdc/5A
Customer Name: Amptron/Singapore
Customer Part Number: Same as above



Product description:

This rugged, industrial quality power converter utilizes field-proven DCW162 technology to generate the required output power. 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, low component count, large design headrooms and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

Special Features: 21-36Vdc input range. Conformal coating, DIN railmount

SPECIFICATIONS

Input Voltage

30Vdc nominal
 21-36Vdc operating range
 Input Current: A max.

Input Protection

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

Isolation

00Vdc input to chassis
 1500Vdc input to output
 500Vdc output to chassis

Standards

Designed to meet EN62368-1 and corresponding standards

EMI

EN 55032 Class A with margins

Switching Frequency

47kHz ± 2kHz

Output Voltages/Currents

48Vdc ± 0.3V/5A(240W)
 Output is floating, either terminal can be grounded

Redundancy diode

Not installed

Terminal Block Pin-out

DC OUTPUT						DC INPUT						
NOT USED	NOT USED	+	+	-	-	NOT USED	NOT USED	NOT USED	GND	+	-	+
4	3	3	4	5	6	7	8	9	10	11	12	

Line/Load Regulation

± 1% combined from no load to full load

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple/Noise

Better than 60mVrms or 300mVpp (@ 20MHz BW)

Output Overload Protection

Rectangular current limiting with hiccup-type short circuit protection. Current Limit set to: 5.4A ± 0.3A

Output Overvoltage Protection

Double regulator loop. Second loop is completely stable and independent of main regulator loop
 OVP setting: 54V ± 3V

Efficiency

80% at full load

Operating Temperature Range

0°C to +50°C base plate temperature

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction via baseplate and natural air convection

Environmental Protection

Basic ruggedizing
 Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5-95% non-condensing

MTBF

150,000 hours @ 45 °C

Indicators

Green OUTPUT ON LED visible through the cooling slots

Control Input

None

Alarm Output

None

Package/ Dimensions (WxHxL)

F3: 132 x 62 x 200mm
 (5.2" x 2.4" x 11.8")
 DIN Railmount

Weight

2.2 kg (4.4 lbs)

Connections

12-pole barrier-type terminal block with 3/8" spacing

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

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Approved by TS	

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