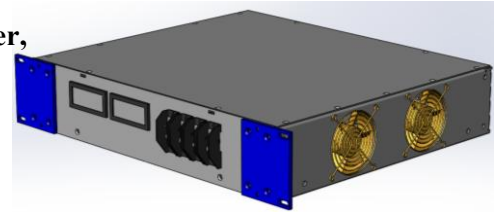


**Source Control Document.**

**Model: BAP 1K5-24W/48-2U19SA-BRDVM-S6091**  
**COSD: 80A4**

**Summary description: 1500W, Industrial Quality DC/DC Converter, 24V to -48V/31A**



**Customer Part Number: Same as above**

**Product description:**

This rugged, industrial quality DC/DC converter uses a field-proven design to generate the required output power. It is built with two BAP65F internal modules. Cooling is by built-in fans. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. It is manufactured at our plant under strict quality control.

**Special Features:** 22-30V input range, Fan cooling, Conformal coating, Output Fail alarm. Two internal modules. Redundancy diode in the negative leg. DVMs and 4 breakers on front panel

**SPECIFICATIONS**

**Input Voltage**

24Vdc nominal  
22-30Vdc operating range  
Input Current: 80A max

**Input Protection**

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

**Isolation**

500Vdc input to chassis  
1500Vdc input to output,  
700Vdc output to chassis

**Standards**

Designed to meet EN60950-1 and corresponding standards

**EMI**

EN55022 Class A with margins

**Switching Frequency**

55kHz ± 3kHz

**Output Voltage/Current**

-48Vdc ± 0.2V/31A  
Output is floating

**Redundancy Diode**

Installed internally in the negative leg

**Line/Load Regulation**

± 1.5% combined from zero load to full load including redundancy diode

**Dynamic Response**

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

**Output Ripple/Noise**

Better than 80mVrms or 400mVpp (@20MHz BW)

**Output Overload Protection**

Rectangular current limiting with short-circuit protection  
Thermal shutdown with automatic reset in case of insufficient cooling  
Current Limit: 33A ± 1.7A  
4 x 10A distribution breakers

**Output Overvoltage Protection**

Double regulator loop. Second loop completely stable and independent of main regulator loop  
OVP setting: 54V ± 4V

**Efficiency**

84 % at full load

**Operating Temperature Range**

0°C to +50°C for full specification

**Temperature Drift**

0.03% per °C over operating temperature range

**Cooling**

By two built-in high quality fans

**Environmental Protection**

Basic ruggedizing  
Conformal coating

**Shock/Vibration**

IEC 61373 Cat 1 A&B

**Humidity**

5-95% non-condensing

**MTBF**

Min 130,000 hours @ 45 °C  
Demonstrated MTBF is significantly higher (Fans excluded)

**Indicators**

Volt and Amp meter on the front panel

**Alarm Output**

Module Fail alarm  
Form C contact

**Package/Dimensions (W x H x L)**

2U X 19 X 15" enclosure  
19" rack mounted

**Weight**

7kg (15 lbs)

**Connections**

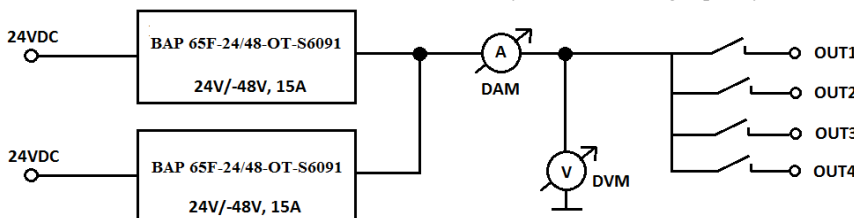
Input: Threaded studs, M6  
Output: Terminal block  
Alarm: Terminal Block

**RoHS Compliance**

Not required, but accepted

**Warranty**

Two years subject to application within good engineering practice  
Contamination related failures, and shipping costs excluded



Originated by TS/st	Date November 20, 2015
Updated by TS/st	Drawing No./ Rev. SCD 80A4 1000A
Approved by TS	