Source Control Document. **Preliminary**

Model: MIW50-U/48D0G-U8983
COSD: XXXX
Summary description: 50W Industrial Quality Power Supply
Universal AC to 48Vdc/1A, IP66 Enclosure
Customer Name: Onrion/New Jersey
Customer Part Number: Same as above



Product description:
This rugged, industrial quality AC/DC converter uses the field proven MIW 80 topology in IP66 enclosure. Cooling is via baseplate to a heatsinking surface and by natural convection. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control.
Special Features: IP66 enclosure

SPECIFICATIONS

Input Voltage
Universal AC, 47-63Hz
90-264Vac operating range
Input current: 1Arms max.

Input Protection
Inrush current limiting
Varistor
Internal safety fuse link
Lower voltage than the specified minimum input will not damage the unit

Isolation
2250Vdc input to chassis
4300Vdc input to output
8mm spacing
570Vdc output to chassis

Standards
Designed to meet EN62368-1 and related standards

EMI
EN55032 Class A with margins

Switching Frequency
47kHz ± 3kHz

Output Voltage/Current
48Vdc ± 0.3V/1A
Output is floating, either terminal can be grounded

Redundancy Diode
None

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 80mVrms or 400mVpp (20MHz BW)

Output Overload Protection
Rectangular current limiting with hiccup-type short-circuit protection
Current Limit: 1.2A ± 0.15A

Output Overvoltage Protection
Transzorb installed across the output

Efficiency
85% typical at full load

Operating Temperature Range
-25°C to +55°C cold plate temperature for full specification

Temperature Drift
0.03% per °C over operating temperature range

Cooling
Conduction via base plate to a cold plate and natural convection

Environmental Protection
Basic ruggedizing
Conformal coating
IP66 enclosure

Shock/Vibration
IEC 61373 Cat 1 A&B

Humidity
5-100% condensing

MTBF
140,000 hours @ 45°C
Demonstrated MTBF is significantly higher

Indicators
None

Control Input
None

Alarm Output
None

Package / Dimensions (WxHxL)
D0: 7" x 3.15" x 4.25"
Including mounting flanges
Mounting holes are clear

Weight
1.2kg (2.5 lbs)

Connections
Internal 6-pole terminal block with 3/8" spacing accessible via cable glands

RoHS Compliance
Not required, but accepted

Warranty
Two years subject to application within good engineering practice

Terminal Block Pin Out (Inside the enclosure)

6	5	4	3	2	1
N ~	PH ~	GND ⏚	NOT USED	+	−
AC INPUT			48VDC OUTPUT		

Originated by TS/kv	Date June 3, 2026
Checked by TS	Drawing No./ Rev. SCD U8983A
Approved by TS	ABSOPULSE ELECTRONICS LTD.

This document is the property of Absopulse Electronics Ltd. Its contents are proprietary and may neither be copied, reproduced, nor its contents disclosed to others without prior written agreement from Absopulse Electronics Ltd.