

Product Description

The DRP-240-48 & SDR-240-48 series are power supply units for use with the KBC PoE series industrial Ethernet edge switches. They are designed for use in a wide range of operating temperatures in non-environmentally conditioned, industrial applications. Both the DRP-240-48 and SDR-240-48 units provide 240W at 48Vdc.

The series is available in DIN rail configurations.

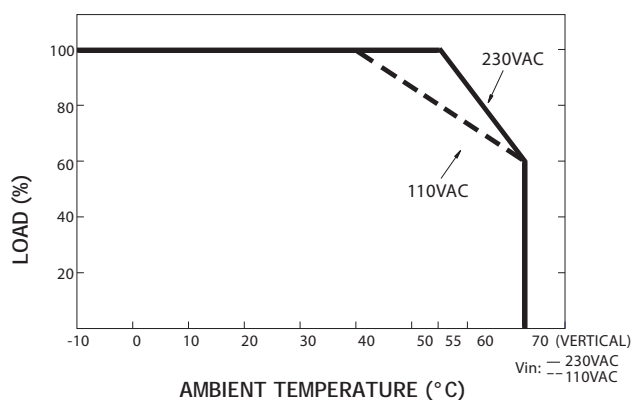
Product Features

- Protections: short circuit, overload, overvoltage & over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- 100% full load burn-in test
- 3 year warranty

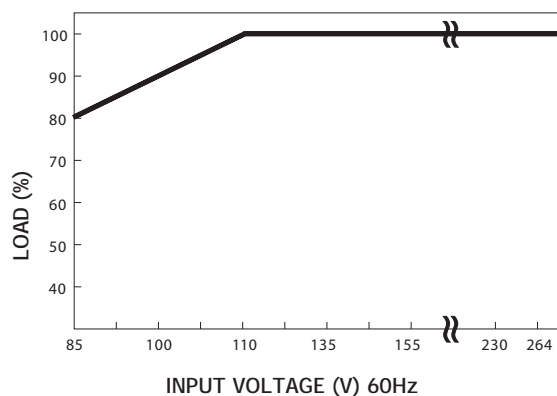


De-rating Curve

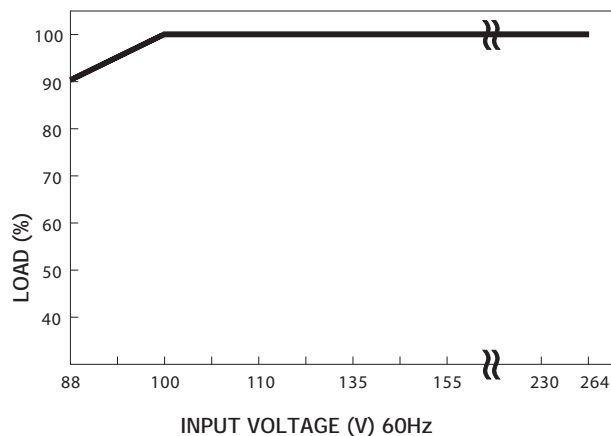
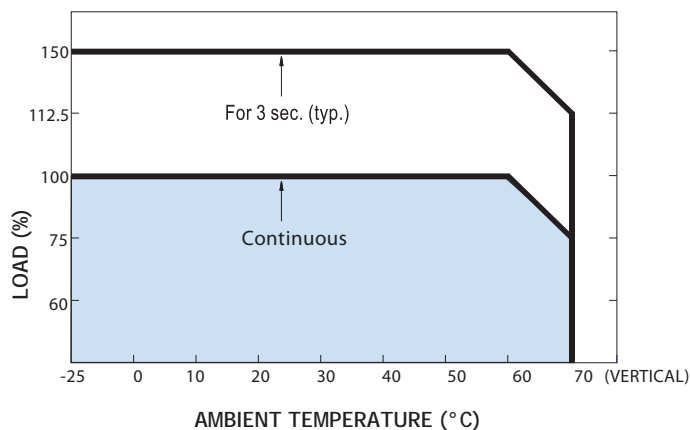
DRP-240-48



Output De-rating vs Input Voltage



SDR-240-48



Specifications

Output

DC Voltage	48Vdc
Rated Current	5A
Current Range	0-5A
Rated Power	240W
Peak Current	
Peak Power	
Ripple & Noise (max) ⁽¹⁾	150mVp-p
Voltage Adj. Range	48-53Vdc
Voltage Tolerance ⁽²⁾	±1.0%
Line Regulation	±0.5%
Load Regulation	±1.0%
Setup, Rise Time	800ms, 40ms/230Vac
	800ms, 40ms/115Vac at full load
Hold Up Time	24ms/230Vac
	24ms/115Vac at full load

Input

Voltage Range ⁽³⁾	88 ~ 264Vac 120 ~ 370Vdc
Frequency Range	47 ~ 63Hz
Efficiency (typ) ⁽⁴⁾	85%
AC Current (typ)	2.8A/115Vac 1.4A/230Vac
Inrush Current (typ)	cold start 27A/115Vac 45A/230Vac
Leakage Current	<3.5mA/240Vac

Protection

Overload	105 ~ 150% rated output power Protection type: constant current limiting, auto-recovery after fault condition removed	Normally works within 110 ~ 150% rated output power for more than 3 secs & then shut down output voltage with auto-recovery. >150% rated power, constant current limiting with auto-recovery within 2 secs & may shut down after 2 secs.
Over Voltage	54 ~ 60V Protection type: shut down output voltage, repower on to recover	56 ~ 65V Protection type: shut down output voltage, with auto-recovery
Over Temperature	100°C±5°C (TSW1) detect on power transistor heat-sink. Protection type: shut down output voltage, auto-recovery after temp goes down.	95°C ±5°C (TSW: detect on power switch heatsink). Protection type: shut down output voltage, auto-recovery after temp goes down.

Mechanical

Dimensions	126mm x 126mm x 100mm (4.96" x 4.96" x 3.94")	63mm x 126mm x 114mm 2.48" x 4.96" x 4.49"
Weight	1.2kg (2lb 11oz)	1.03kg (2lb 5oz)

Environmental

Operating Temperature ⁽⁵⁾	-10° ~ +70°C / 14° ~ 158°F	-25° ~ +70°C / -13° ~ 158°F
Operating Humidity	20 to 90% RH non-condensing	20 to 95% RH non-condensing
Storage Temperature	-20° ~ +85°C / 4° ~ 185°F	-40° ~ +85°C / -40° ~ 185°F
Temp Coefficient	±0.03%/°C(0 ~ 50°C) 10 ~ 500Hz, 2G 10 min/1 cycle 60 min each along X, Y, Z axis Mounting: IEC60068-2-6	±0.03%/°C(0 ~ 50°C) Component: 10 ~ 500Hz, 2G 10min/1cycle 60 min each along X, Y Z axes Mounting: IEC60068-2-6
Mean Time Between Failure (MTBF)	289.9khrs min MIL-HDBK-217F (25°C)	169.3khrs min MIL-HDBK-217F (25°C)

Approvals

UL508	UL508
UL60950-1	TUV EN60950-1
TUV EN60950-1	EN55022 (CISPR22) Class B
EN55011	EN61000-3-2,3
EN55022 (CISPR22) Class B	EN61000-4-2,3,4,5,6,8,11
EN61000-3-2,3	EN55024
EN61000-4-2,3,4,5,6,8,11	EN61000-6-2
EN55024	EN61204-3
EN61000-6-2	SEMI F47, GL

Part Numbers

DRP-240-48
SDR-240-48

Standard power supply unit

Extended temperature range power supply unit

For use with the ESUL8P-PC2, ESML8P-PC2 & ESUG4P-PG2 PoE switches - see separate specification sheets for further information

All parameters not specifically mentioned are measured at 230Vac input rated load and 25°C ambient temperature.
The power supply is considered a component which will be installed with the final equipment. The final equipment must be re-confirmed so that it still meets the EMC directives.

1. Ripple & noise are measured at 20MHz of bandwidth by using 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor
 2. Tolerance: includes set up tolerance, line regulation and load regulation
 3. De-rating may be needed under low input voltages. Please check the de-rating curve for more details
 4. SDR-240-48: after 30 mins of burn-in
 5. SDR-240-48: installation clearances: 40mm above, 20mm below, 5mm either side are recommended when loaded permanently with full power. If the adjacent device is a heat source then 15mm clearance is recommended.
- Due to ongoing technological improvements, product specifications are subject to change without notice. KBC is not liable for any errors, omissions or changes of any description of the goods contained herein. This information is for the sole purpose of identifying the products, and KBC makes no warranty that the products conform to any description contained herein. Do not rely solely on any representations, statements, or assertions concerning these Products contained herein.