

Power Supply Product

48V 480W DIN rail power supply features a narrow 84mm width and long field life

October 2019

TDK Corporation (TSE 6762) announces the introduction of the TDK-Lambda brand DRB480-48-1 AC-DC DIN Rail mount power supply. With an efficiency of up to 93%, waste heat has been reduced, allowing the use of a compact enclosure size featuring a power density of 6 Watts per inch³. The power supply is suitable for a wide range of industrial applications including factory automation, process control and test and measurement, particularly where there is limited room on the DIN mounting rail.

The DRB480-48-1 has an operating input range of 90 to 264Vac and can deliver 48V at 10A. The output can be adjusted from 48 to 52.8V to offset voltage drops in cabling or where OR-ing diodes/FETs are used in a redundant configuration. A DC Okay relay and a front panel LED provides output status.

The convection cooled unit can operate in ambient temperatures of -20 to +70°C (with a cold start at -40°C), with linear derating above 50°C to 62.5% load at 70°C. The design of the product ensures that electrolytic capacitor temperature rises are minimized, providing a 7-year life when operating 24 hours a day in a 40°C ambient at 230Vac input, 75% load.

The product is housed in a robust metal case measuring just 84mm wide, 124mm deep and 125mm tall. Input to output isolation is 3kVac, input to ground 1.5kVac and output to ground 500Vac. The DRB480 is certified to IEC/UL/CSA/EN 60950-1, IEC/UL/CSA/EN 62368-1 (pending) and UL 508 with CE marking for the Low Voltage, EMC and RoHS Directives. All units meet EN55011/EN55022-B, CISPR11/CISPR22-B, and EN61204-3 (Class A) conducted and radiated emissions and comply with IEC 61000-3-2 harmonics and IEC 61000-4 immunity standards.

More information can be obtained at the following TDK-Lambda Americas website, <https://www.us.tdk-lambda.com/lp/products/drbs-series.htm>, or by calling 800-LAMBDA-4. Product availability for the DRB480-48-1 power supply can be found via the link to TDK-Lambda's distributor network (see "Check Distributor Stock") at <https://www.us.tdk-lambda.com/lp/>.

Major applications

Factory automation, process control, test and measurement equipment

Main features and benefits

- Narrow width, compact package
- Up to 93% efficiency
- Conservatively rated electrolytic capacitors
- Class B EMC

Major specifications

Model		DRB480-48-1
Input voltage range	Vac	90 – 264
Output voltage	Vdc	48
Output adjustment	Vdc	48 - 52.8
Maximum output power	W	480
Efficiency	%	Up to 93%
Output good indication	-	DC-Good relay, front panel green LED
Safety certifications	-	IEC / UL / CSA / EN 60950-1 (62368-1 pending), UL 508
Size (W x H x D)	Mm	84 x 125 x 124
Warranty	-	Three years

About TDK Corporation

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's portfolio features passive components such as ceramic, aluminium electrolytic and film capacitors, and magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in the areas of information and communication technology and automotive, industrial and consumer electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2019, TDK posted total sales of USD 12.5 billion and employed about 105,000 people worldwide.

About TDK-Lambda Corporation

TDK-Lambda Corporation, a group company of TDK Corporation, is a leading global power supply company providing highly reliable power supplies for industrial equipment worldwide. TDK-Lambda Corporation meets the various needs of customers with our entire range of activities, from research and

development through to manufacturing, sales, and service with bases in five key areas, covering Japan, Europe, America, China, and Asia.

For more details, please pay a visit to <http://www.tdk-lambda.com/>

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