



**480 Watt  
AC/DC Modules, DIN Rail  
Series DVM480-DR**



**Features**

- Input Voltage 85 – 264VAC & 120 – 370VDC
- Active PFC, PF > 0,95%
- Operating Temperature Range -30°C to +70°C
- Ultra Slim Design with 48mm width
- DIN Rail TS-35/7.5 or 15 mountable
- Meet Safety UL62368, IEC62368, EN62368
- High Efficiency to 94%
- DC OK Function
- Output Short Circuit Protection
- Over-Temperature Protection
- Over-Voltage-, Over-Current-Protection
- Meet UL61010

MODEL NUMBER	OUTPUT VOLTAGE [ VDC ]	OUTPUT CURRENT MAX. [ A ]	OUTPUT VOLTAGE ADJUSTABLE RANGE [ V ]	EFF. TYP. [ % ] (NOTE 1)	OUTPUT POWER [ W ]	MAX. CAPACITIVE LOAD [ $\mu$ F ]
DVM480-S24-DR	24	20	24-28	94	480	20000
DVM480-S48-DR	48	10	48-55	94	480	10000

Note:

1. At 230VAC

## INPUT SPECIFICATIONS:

Input Voltage Range.....	AC Input.....	85 to 264VAC
	DC Input.....	120 to 370VDC
Input Frequency .....		47 to 63Hz
Power Factor.....	115 VAC.....	0,99 min.
	230 VAC.....	0,95 min.
Input Current .....		115VAC 5,0A / 230VAC 2,5A max.
Inrush Current .....	Cold start.....	115VAC 15A / 230VAC 15A typ.
Leakage Current.....	240 VAC.....	<0,8mA

## OUTPUT SPECIFICATIONS:

Voltage Accuracy .....	Full Load Range.....	±1,0% typ.
Minimum Load.....		0% min.
Line Regulation .....	Rated Load.....	±0,5% typ.
Load Regulation .....	0% - 100% Load.....	±1,0% typ.
Ripple & Noise (Note 1) (20MHz Bandwidth) .....	Vo 24V.....	100mVp-p max.
	Vo 48V.....	120mVp-p max.
Temperature Coefficient .....		±0.03 %/°C typ.
DC OK Signal.....		30VDC/1A max.
Short Circuit Protection..	Recovery time<10s after short circuit disappear.....	Constant Current Hiccup Mode, continuous, self-recovery
Over Current Protection.....	Normal & High temperature .....	110%-250% Io, self-recovery
	Low temperature.....	≥105% Io, automatic recover after fault condition is removed
Over Voltage Protection .....	Vo 24V.....	29-35V, (Output voltage turn off, re-power on for recover or automatic recover)
	Vo 48V.....	56-60V, (Output voltage turn off, re-power on for recover or automatic recover)
Over Temperature Protection 230VAC 100% Io .....	start.....	90 °C max.
	release.....	60 °C min.
Hold-up Time.....		22ms typ.

## GENERAL SPECIFICATIONS:

Isolation Voltage (Test for 1min., leakage current<10mA)....	Input/Output.....	3000Vac min.
	Input / PE.....	2000Vac min.
	Output / PE.....	500Vac min.
Insulation Resistance (at 500VDC)....	Input/Output, Input/PE, Output/PE.....	100MΩ min.
Operating Temperature Range .....		-30°C to +70°C
Derating .....		see Derating Curve
Input Voltage Derating.....		see Derating Curve
Storage Temperature Range .....		-40°C to +85°C
Cooling.....		Free Air Convection
Storage Humidity (non condensing).....		95%RH max.
Operating Humidity (non condensing).....		90%RH max.
Switching Frequency .....		kHz typ.
Efficiency.....		see table
MTBF (MIL-HDBK-217@25°C).....		>300.000h

## SAFETY:

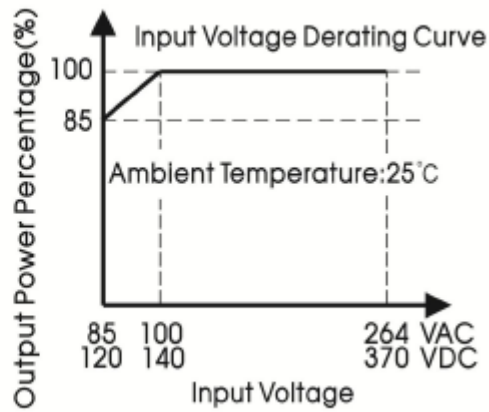
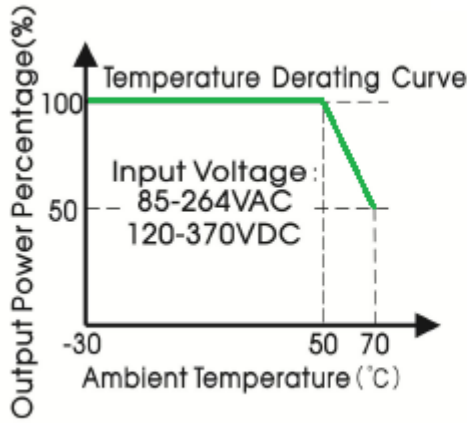
EMI .....	CE/RE .....	CISPR32/EN55032 Class B
	Harmonic current .....	IEC/EN61000-3-2 Class A
Immunity .....	IEC/EN61000-4-2, IEC/EN61000-4-3, IEC/EN61000-4-4, IEC/EN61000-4-5, IEC/EN61000-4-6, IEC/EN61000-4-11	
Safety Standards meet.....		IEC/EN/UL62368, UL61010-1,
Safety Class .....		CLASS I

## MECHANICAL SPECIFICATIONS:

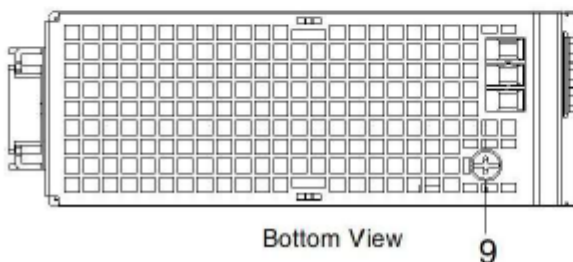
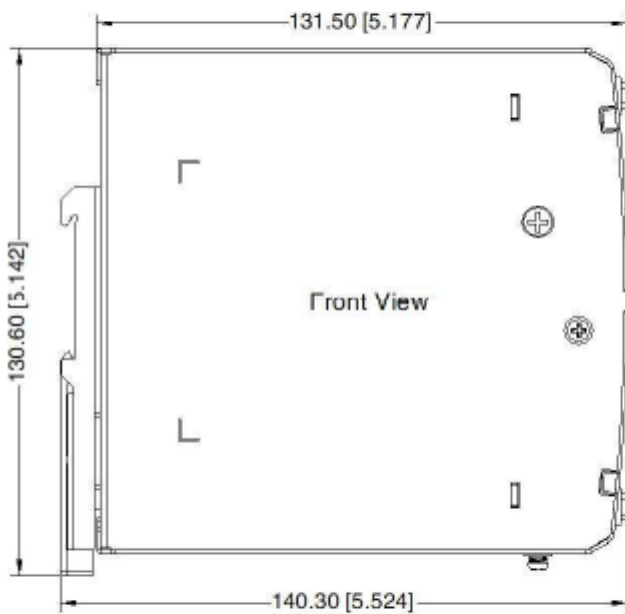
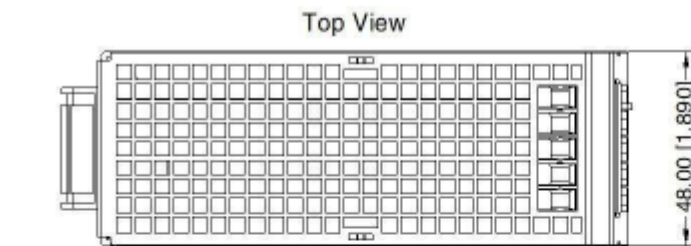
Mounting .....		Rail TS35
Case Material .....		Metal and Plastic
Dimension .....		48 x 131,50 x 125 (mm)
Weight.....		980 g typ.

## NOTE:

- The "Tip and barrel method" is used for ripple and noise test, output parallel 47uF electrolytic capacitor and 0.1uF ceramic capacitor, please refer to Enclosed Switching Power Supply Application Notes for specific information.
- The out case needs to be connected to PE (⊕) ( Safety Ground ) of system.
- Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C, humidity<75% with nominal input voltage and rated output load;

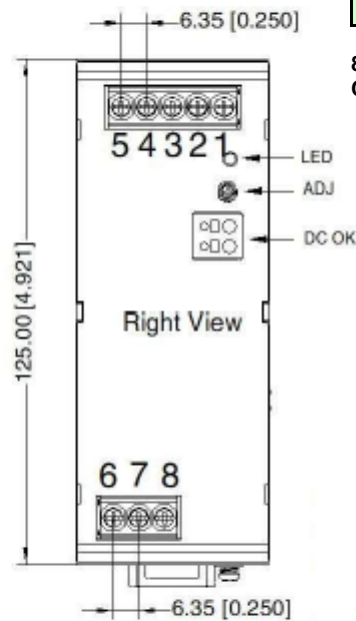


## Dimension



Pin	Single Output
1	-Vo
2	-Vo
3	-Vo
4	+Vo
5	+Vo
6	AC(N)
7	AC(L)
8	

8, 9 any position must be Connected to the earth



Note: Unit: mm [inch]

DC ON: Output status indicator LED

ADJ: Adjustable resistor to change output voltage

Wire range: Input 20-10 AWG; Output 24V 14-10 AW;

Output 48V 18-10 AWG; DC OK 24-16 AWG

Tightening torque: Max. 0.5 Nm

Mounting Rail: TS35, Rail needs to connect safety ground

General tolerances: ±1.00mm [±0.039]