



**240 Watt  
AC/DC Modules, DIN Rail  
Series DVM240-DR**



**Features**

- Input Voltage 85 – 264VAC & 120 – 370VDC
- Built-in Active PFC Function
- Power on LED Indicator
- Operating Temperature Range -40°C to +70°C
- 150% Peak Load Output for 3 Seconds
- 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 ]
DVM240-S12-DR	12	16	12-14	92	192	160000
DVM240-S24-DR	24	10	24-28	94	240	40000
DVM240-S48-DR	48	5	48-53	94	240	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 .....	0,98
	230 VAC .....	0,94
Input Current.....		115VAC 3,0A / 230VAC 1,5A max.
Inrush Current.....	Cold start .....	115VAC 15A / 230VAC 30A typ.
Leakage Current.....	240 VAC .....	<0,5mA

## OUTPUT SPECIFICATIONS:

Voltage Accuracy.....	Vo 12V .....	±2,0% typ.
	Vo 24V & 48V .....	±1,0% typ.
Line Regulation.....	Rated Load .....	±0,5% typ.
Load Regulation .....	0% - 100% Load .....	±1,0% typ.
Ripple & Noise (Note 1) (20MHz Bandwidth).....	Vo 12V .....	100mVp-p max.
	Vo 24V .....	120mVp-p max.
	Vo 48V .....	150mVp-p max.
Stand-by Power Consumption .....		4 W typ.
Short Circuit Protection . Recovery time<10s after short circuit disappear .....	Constant current, continuous, self-recovery	
Over Current Protection .....	Normal & High temperature .....	110%-200% Io, self-recovery
	Low temperature .....	≥105% Io, self-recovery
Over Voltage Protection .....	Vo 12V .....	≤18Vdc, (Output voltage turn off, re-power on for recover)
	Vo 24V .....	≤35Vdc, (Output voltage turn off, re-power on for recover)
	Vo 48V .....	≤60Vdc, (Output voltage turn off, re-power on for recover)
Over Temperature Protection .....	230VAC Rated Load .....	80 °C typ.
Hold-up Time .....		20ms 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 .....	50MΩ min.
Operating Temperature Range .....		-40°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 .....		100kHz typ.
Efficiency .....		see table
MTBF (MIL-HDBK-217@25°C).....		>300.000h

## SAFETY:

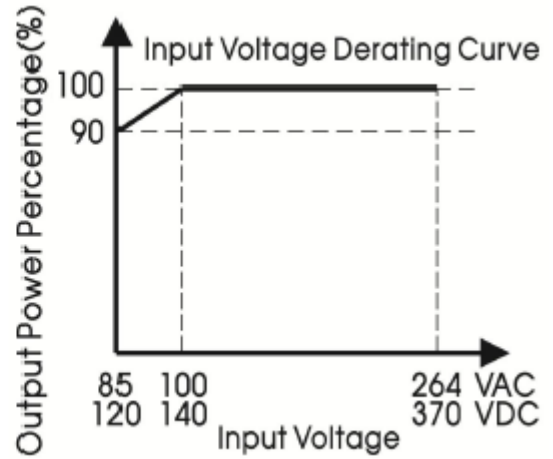
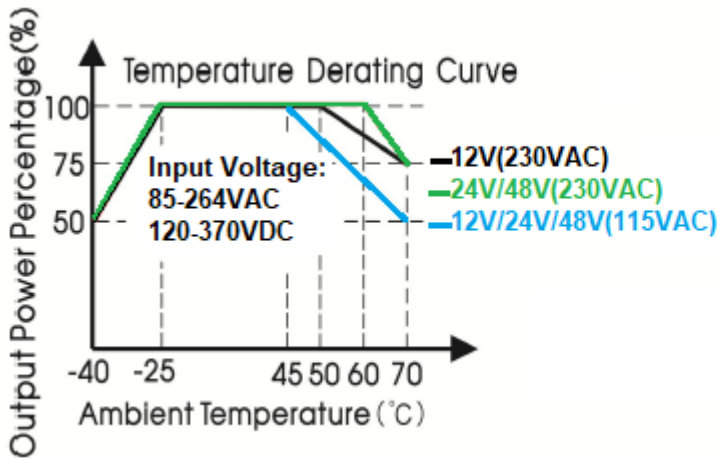
EMI.....	CE/RE .....	CISPR32/EN55032 Class B
	Harmonic current .....	IEC/EN61000-3-2 Class A
Immunity .....	IEC/EN61000-4-2, IEC/EN61000-4-3, IEC/EN61000-4-4, IEC/EN61000-4-5, IEC/EN61000-4-6, IEC/EN61000-4-11	
Safety Standards meet.....		IEC/EN/UL62368, UL61010
Safety Class.....		CLASS I

## MECHANICAL SPECIFICATIONS:

Mounting .....		Rail TS35
Case Material .....		Metal and Plastic
Dimension.....		41 x 124 x 110 (mm)
Weight.....		650 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.
- DC OK Signal: When the output voltage is normal, the relay is connected. When the output voltage is abnormal (<90%Vo), the relay is disconnected.
- 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

Note:

Unit: mm [inch]

ADJ: Adjustable resistance to change output voltage

Wire range: 26-10 AWG

Tightening torque: Max. 0.4 Nm

Mounting Rail: TS35, Rail needs to connect safety ground

General tolerances: ±1.00mm [±0.039]

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

