

480ACDRN_SC series

480W - Single Output AC-DC Converter - Universal Input



AC-DC Converter

480 Watt

- DC O/P voltage adjustable
- Universal AC input 90-264V
- Protection: Short circuit, overload, over voltage and over temperature

- Free air convection design
- Installation: DIN rail TS-35/7.5 & 15
- With built-in active PFC function

The 480ACDRN_SC series metal case power family designed with slim housing and for full range AC input from 90V AC to 264V AC. The series are single phase PSU, providing adjustable DC output voltage. They have high efficiency and operate in wide temperature range. The series can widely be used for industrial automation & control systems and varied equipments etc.



Common specifications

Short circuit protection:	
Over load	105 - 130% rated output power Protection type: Constant current limiting, unit will shut down after 3 sec., re-power on to recover
Over temperture	Shut down o/p voltage, recovers automatically after temperature goes down
Over voltage	480ACDRN_24SC 29 ~ 33V 480ACDRN_48SC 56 ~ 65V Protection type: Shut down o/p voltage, re-power on to recover
Operating temperature:	-20~+70°C
Storage Temperature:	-40~+85°C
Operating humidity:	20%~95%RH, Non considering
Storage humidity:	10%~95%RH
Safety standard:	UL508, BS/EN62368-1
MTBF:	885.4K Hours min. Telcordia SR-332 (Bellcore)
Dimension:	85.5 × 125 × 129 mm
Weight	1.5Kg

Output specifications

Item	Operating condition	Min	Typ	Max	Units
Voltage tolerance			±2.0		%
Line regulation			±0.5		%
Load regulation			±1.0		%
Ripple & noise				150	mVp-p
Setup rise time	230VAC at full load 115VAC at full load	1500 3000		100 100	ms
Hold up time	230VAC at full load 115VAC at full load		16 16		ms

Isolation specifications

Item	Operating Conditions	Min	Typ	Max	Units
Withstand voltage	I/P-O/P I/P-FG O/P-FG		3 2 0.5		KVAC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG	>100M Ohms / 500VDC / 25°C / 70% RH			

EMC specifications

EMC Emissions	BS EN/EN55032, BS EN/EN61000-3-2, -3
EMC Immunity	BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2)

Note:

- All parameters NOT specially mentioned at 230VAC input, rated load and 25°C of ambient temperature.
- Ripple & noise are measured from peak to peak with bandwidth limit of 20MHz(0.1uF and 47uF/50V parallel capacitor under DC output full load, AC nominal input 25°C ambient temperature).
- Installation clearances: top with 40mm, bottom with 20mm, left and right with 5mm. Increase the space to 10-15mm when the adjacent device is heat source.
- Derating may be needed under low input voltage. Please check the derating curve for more details.
- Efficiency test after 30 minutes of burn-in.
- The ambient temperature derating of 3.5°C/1000m for operating altitude higher than 2000m(6500ft).

Example:

480ACDRN_24SC

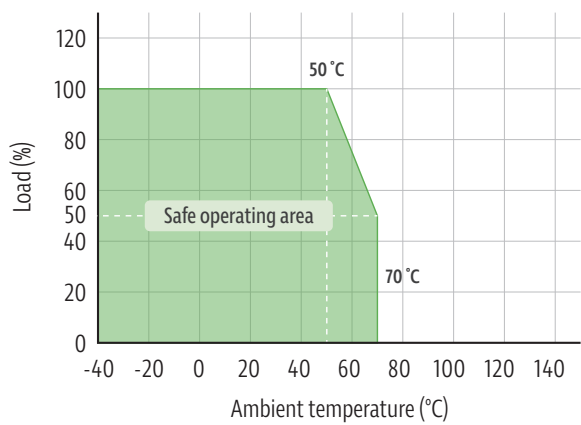
480 = 480Watt; AC = AC-DC; DRN= Din Rail; 24 = 24Vout;
S = Single output; C = PFC (Power Factor Correction);

Product Selection Guide

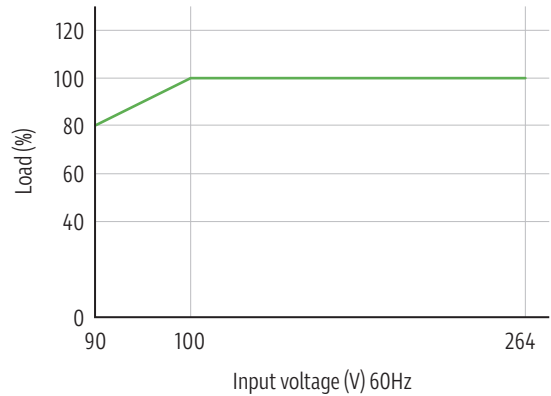
Certification	Model	DC Voltage (Vout)	Rated Current (max) A	Rated Power (W)	Voltage Adj. Range (V)	Efficiency (Typ) %
UL	480ACDRN_24SC	24	20	480	24-28	92
UL	480ACDRN_48SC	48	10	480	48-55	92

Product Characteristic Curve

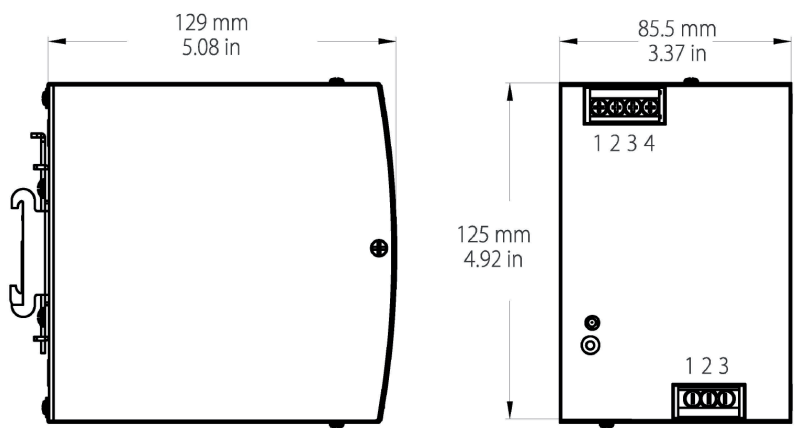
Temperature derating graph



Output and Input Voltage Curves



Dimensions and Recommended Layout



Input	
PIN	Mark
1	FG ⊕
2	AC/N or DC-
3	AC/L or DC+

Output	
PIN	Mark
1,2	DC OUTPUT -V
3,4	DC OUTPUT +V

Block Diagram

