SDR480 Series

480 W AC/DC Switching Power Supply – DIN rail

CoolPower Solutions

- High efficiency 94% and low power dissipation
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 150% peak load capability
- Built-in active PFC function, PF>0.94
- UL 508 (industrial control equipment) approved
- Built-in constant current limiting circuit and DC OK relay contact



Electrical specifications

Model No.		SDR480-24	SDR480-48
Max Output Wattage (W)		480W (Peak 720W)	480W (Peak 720W)
Input	Voltage	90 ~ 264VAC or 127-370 VDC	
	Frequency (Hz)	47-63 Hz	
	Power Factor (typ)	0,94 / 230VAC	
	Current (typ)	5 A (115 VAC) / 2,5 A (230 VAC)	
	Inrush Current (typ)	40 A (115 VAC) / 80 A (230 VAC)	
	Leakage Current	<0,8 mA /240 VAC	
Output	Voltage (V.DC.)	24V	48V
	Voltage Adjustable Range	24 - 28V	48 - 55V
	Voltage Tolerance	±1,2%	±1%
	Rated Current	20 A (Peak 30A)	10 A (Peak 15A)
	Line Regulation	±0,5%	±0,5%
	Load Regulation	±1%	±1%
	Ripple % Noise (max)	$100mV_{p-p}$	$120mV_{p-p}$
	Efficiency (typ)	94%	94%
	Hold-up Time	14 ms / 230 VAC at full load	
	Setup, Rise Time	1500 ms, 150 ms / 230 VAC	
Protection	Over Load	Normally works within 110 ~ 150% rated output power for more than 3s and then shut down o/p voltage with auto-recovery	
		>150% rated power, constant current limiting with auto-recovery within 2 seconds and may cause to shut down if over 2 seconds	
	Over Voltage	29 ~ 33V	56 ~ 65V
		Protection type : Shut down o/p voltage with auto-recovery or re-power on to recovery	
	Over Temperature	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	
Function	DC OK Relay contact	Ratings max. 60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load	
Environment	Operating Temperature	-25°C…+70°C (with derating)	
	Storage Temperature	-40°C…+85°C, 10 – 95% RH	
	Temperature coefficient	±0.03%/°C (0…50°C)	
	Humidity	20 - 95% RH	
	MTBF	112 900 h @ 25°C (MIL-HDBK-217F)	
Physical	Dimension (W xH x D)	85,5 x 125,2 x 128,5 mm	
	Weight	1,6 kg	
	Cooling Method	Free air convection	
Safety	Safety standards	UL508, TUV EN60950-1 approved;(meet EN60204-1)	
	Withstand Voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC	
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C / 70% RH	
	EMC Emission	Compliance to EN55011, EN55032 (CISPR32), EN61204-3 Class B, EN61000-3-2,-3	
	EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024,EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level, criteria A, SEMI F47, GL approved	

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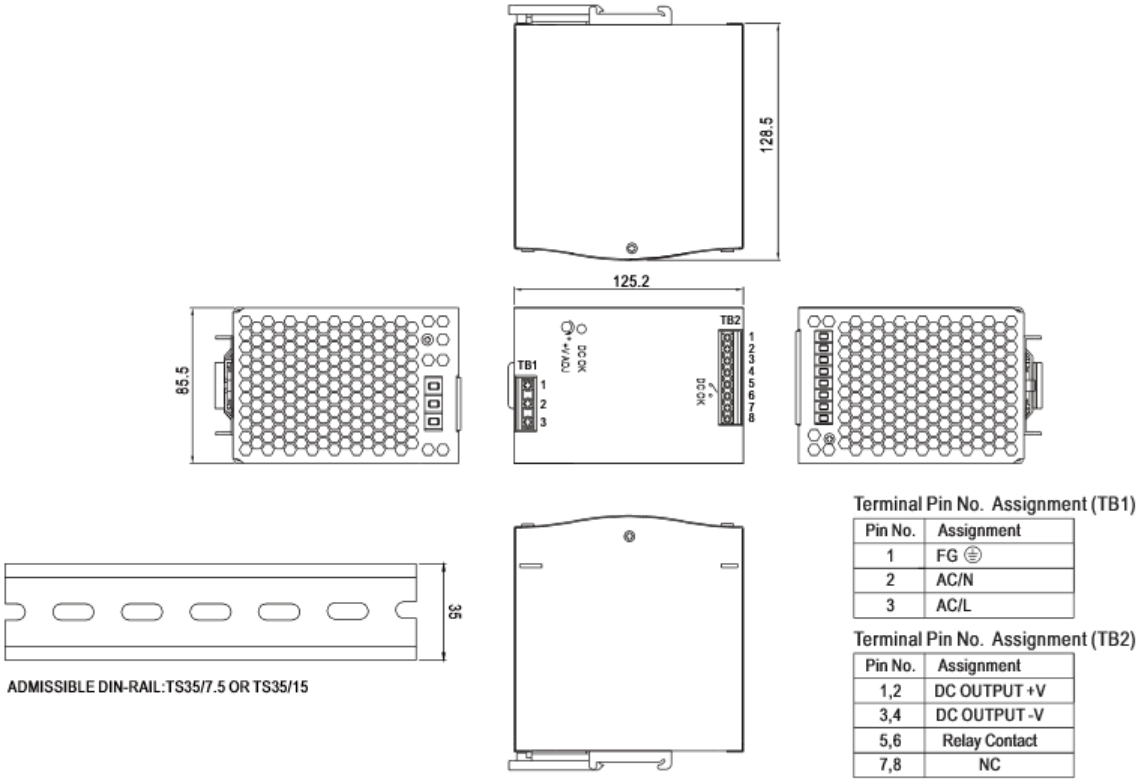
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Web: www.cps.fi

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Mechanical Specifications



Terminal Pin No. Assignment (TB1)

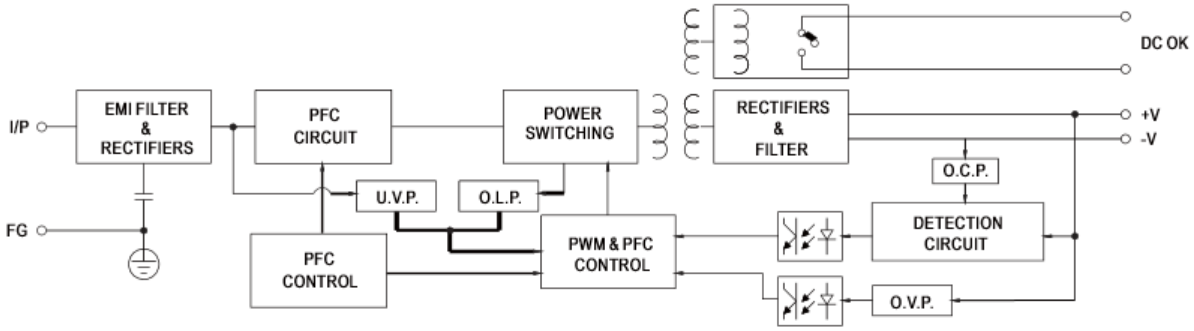
Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin No. Assignment (TB2)

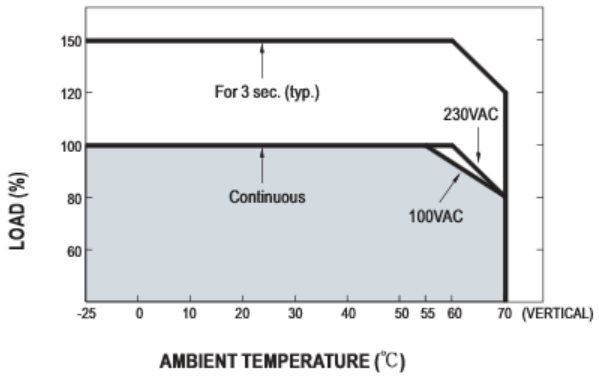
Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	Relay Contact
7,8	NC

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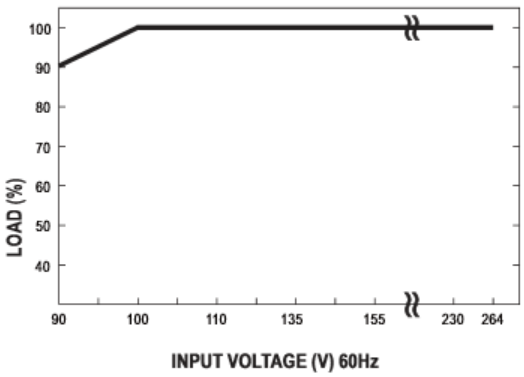
Block Diagramm



Derating Curve



Output Derating vs Input Voltage



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