

# WDR120 Series

120 W AC/DC Switching Power Supply – DIN rail

CoolPower  
Solutions

- Single and two phase wide input range 180 ~ 550VAC
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- Built-in DC OK relay contact



## Electrical specifications

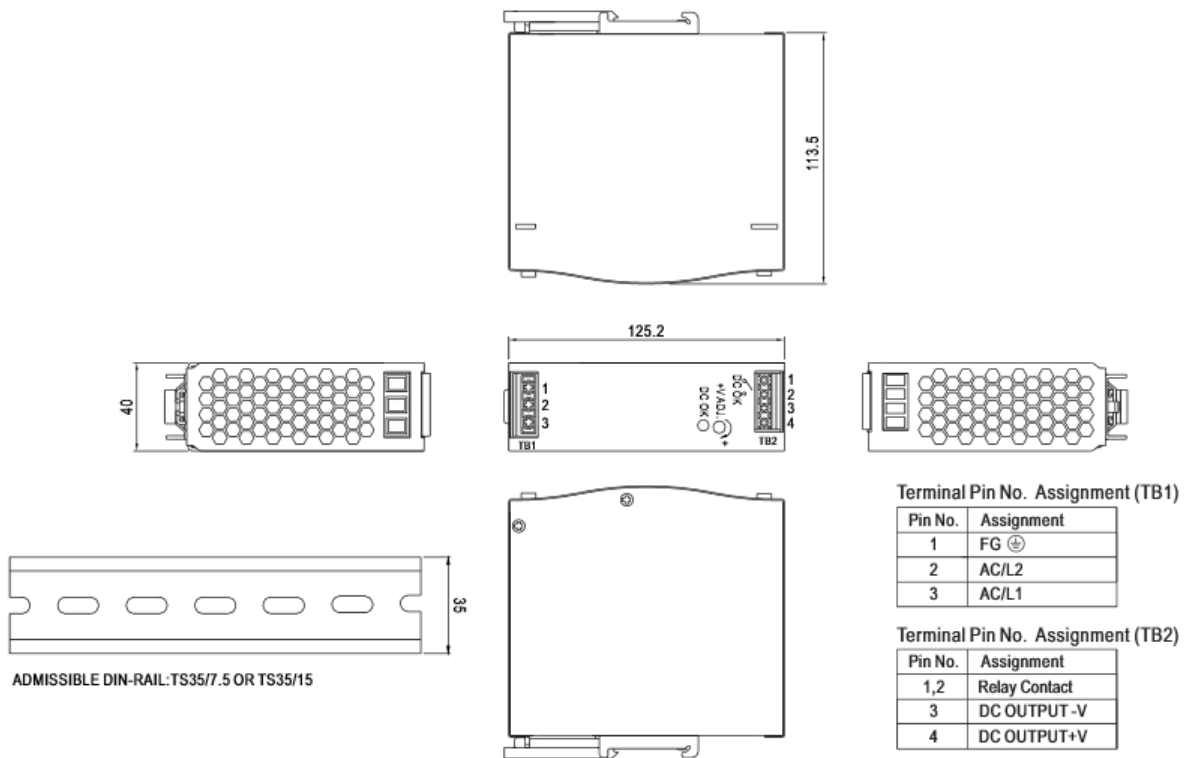
Model No.		WDR120-12	WDR120-24	WDR120-48
Max Output Wattage (W)		120W	120W	120W
Input	Voltage	180 ~ 550VAC or 254-780 VDC		
	Frequency (Hz)	47-63 Hz		
	Current	0,7 A (400 VAC) / 1,2 A (230 VAC)		
	Inrush Current	Cold start 50 A max		
	Leakage Current	<3,5 mA /530 VAC		
Output	Voltage (V.DC.)	12V	24V	48V
	Voltage Adjustable Range	12 - 15V	24 - 29V	48 - 58V
	Voltage Tolerance (Note 3)	±1,5%	±1%	±1%
	Rated Current	10 A	5 A	2,5 A
	Line Regulation	±0,5%	±0,5%	±0,5%
	Load Regulation	±0,5%	±0,5%	±0,5%
	Ripple % Noise (max) (Note 2)	120mV <sub>p-p</sub>	120mV <sub>p-p</sub>	150mV <sub>p-p</sub>
	Efficiency (typ)	89,5% / 400V	91% / 400V	92% / 400V
	Hold-up Time	50 ms / 400VAC; 10 ms / 230 VAC at full load		
	Setup, Rise Time	2000 ms, 70 ms / 400 VAC; 2000 ms, 70 ms / 230 VAC at full load		
Protection	Over Load	105 ~ 130% rated output power		
		Protection type : Constant current limiting, recovers automatically after fault condition is removed		
	Over Voltage	16 ~ 18V	31 ~ 37V	60 ~ 67V
		Protection type : Shut down o/p voltage, re-power on to recover		
Over Temperature	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down			
Function	DC OK Signal	Relay contact rating (max.) : 30V / 1A resistive		
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	268 000 h @ 25°C (MIL-HDBK-217F)		
Physical	Dimension (W x H x D)	40 x 125,2 x 113,5 mm		
	Weight	650 g		
	Cooling Method	Free air convection		
Safety	Safety standards	UL508 approved, IEC60950-1 CB approved by SIQ, design refer to GL ;(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		
	EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A		
Note	1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quick may lead to increase of the set up time.			

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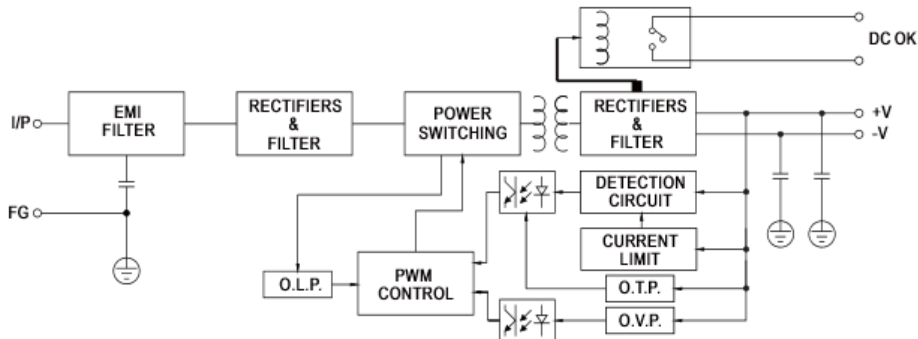
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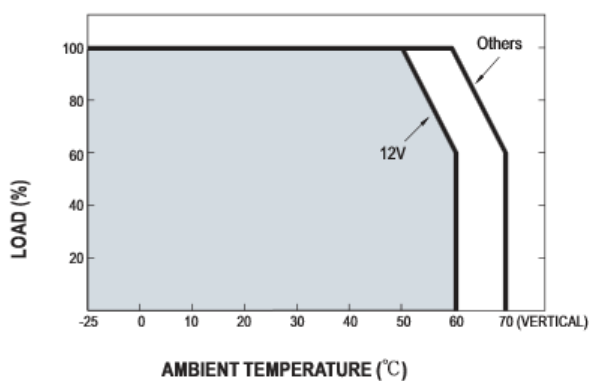
## Mechanical Specifications



## Block Diagramm



## Derating Curve



## Static Characteristics

