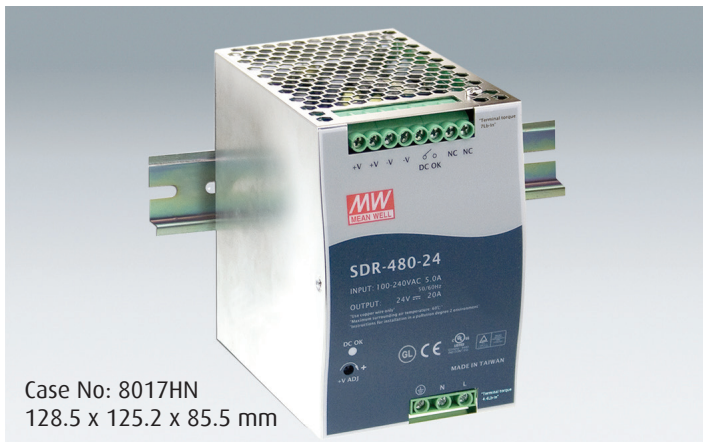


# SDR-480 Series

480W Single Output Industrial DIN RAIL with PFC Function Power Supply



Case No: 8017HN  
128.5 x 125.2 x 85.5 mm

## Features

- High efficiency 94% and low power dissipation
- 150% peak load capability
- Built-in active PFC function, PF>0.94
- Protections: Short circuit / Overload / Over Voltage / Over Temperature
- Built-in constant current limiting
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty



## Specification

INPUT	<b>Voltage</b>	90V ~ 264VAC 124 ~ 370VDC	
	<b>Frequency</b>	47 ~ 63 Hz	
	<b>Power Factor</b>	0.94/230VAC	0.99/115VAC at full load
	<b>Current</b>	5A@115VAC	2.5A@230VAC
	<b>Inrush Current (Typ.)</b>	40A@115VAC	80A@230VAC
	<b>Leakage Current</b>	<0.8mA@240VAC	
	<b>Efficiency</b>	94%	94%
		<b>MODEL No.</b>	<b>SDR-480-24</b>
OUTPUT	<b>Voltage</b>	24V	48V
	<b>Rated Current</b>	20A	10A
	<b>Current Range</b>	0 ~ 20A	0 ~ 10A
	<b>Rated Power</b>	480W	480W
	<b>Peak Current</b>	30A	15A
	<b>Peak Power</b>	720W (3sec)	
	<b>Ripple Noise MAX</b>	100mVp-p	120mVp-p
	<b>Voltage Adj. Range</b>	24 ~ 28V	48 ~ 55V
	<b>Voltage Tolerance</b>	± 1.2%	± 1.0%
	<b>Line Regulation</b>	± 0.5%	± 0.5%
	<b>Load Regulation</b>	± 1.0%	± 1.0%
	<b>Setup Rise Time</b>	1500ms, 150ms / 230VAC	3000ms, 150ms / 115VAC at full load
	<b>Holdup Time (Typ.)</b>	14ms / 230VAC at full load	
PROTECTION	<b>Overload</b>	Normally works within 110 ~ 150% rated output power for more than 3 seconds 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 shut down if over 2 seconds	
	<b>Over Voltage</b>	29~33V	56~65V
	<b>Over Temperature</b>	95° C ± 5° C (TSW: detect on heatsink of power switch) Protection Type: Shut down o/p voltage, recovers automatically after temperature goes down	
FUNCTION	<b>DC OK Relay contact ratings (max.)</b>	60Vdc/0.3A, 30Vdc/1A, 30VAC/0.5A resistive load	
ENVIRONMENT	<b>Working Temp.</b>	-25~+70°C (Refer to "Derating Curve")	
	<b>Working Humidity</b>	20~95% RH non-condensing	
	<b>Storage Temp., Humidity</b>	-40~+85°C, 10~95%RH	
	<b>Temp. Co-efficient</b>	±0.03% / °C (0~50°C)	
	<b>Vibration</b>	Component: 10~500Hz, 2G 10min./1cycle, 60 min. each along X, Y, Z axes; mounting: Compliance to IEC60068-2-6	
SAFETY & EMC	<b>Safety Standards</b>	UL508, TUV EN60950-1 approved, (Meets EN60204-1)	
	<b>Withstand Voltage</b>	I/P-OP:3KVAC	I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC
	<b>Isolation Resistance</b>	I/P-O/P, I/P-FG,O/P-FG:>100M Ohms / 500VDC / 25°C / 70%RH	
	<b>EMC Emission</b>	Compliance to EN55011, EN55022 (CISPR22). EN61204-3 Class B, EN61000-3-2,-3	
	<b>EMC Immunity</b>	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	
OTHERS	<b>MTBF</b>	112.9K hrs min. MIL-HDBK-217F (25°C)	
	<b>Packaging</b>	1.6Kg; 8pcs/13.8Kg/0.9CUFT	

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple and 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. Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source.
6. 3 seconds max, please refer to peak loading curves.
7. Derating may be needed under low input voltage. Please check the derating curve for more details.

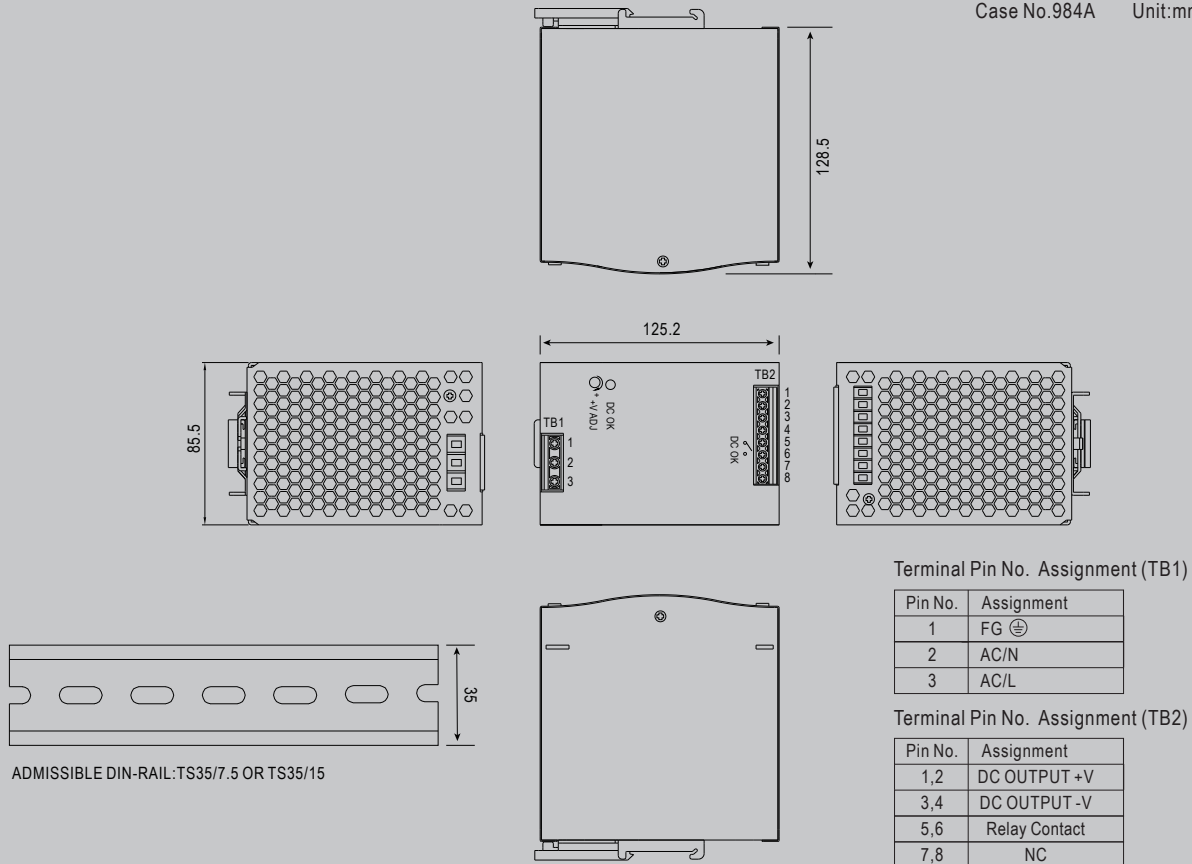
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Power Supply



## Mechanical Specification

Case No.984A Unit:mm



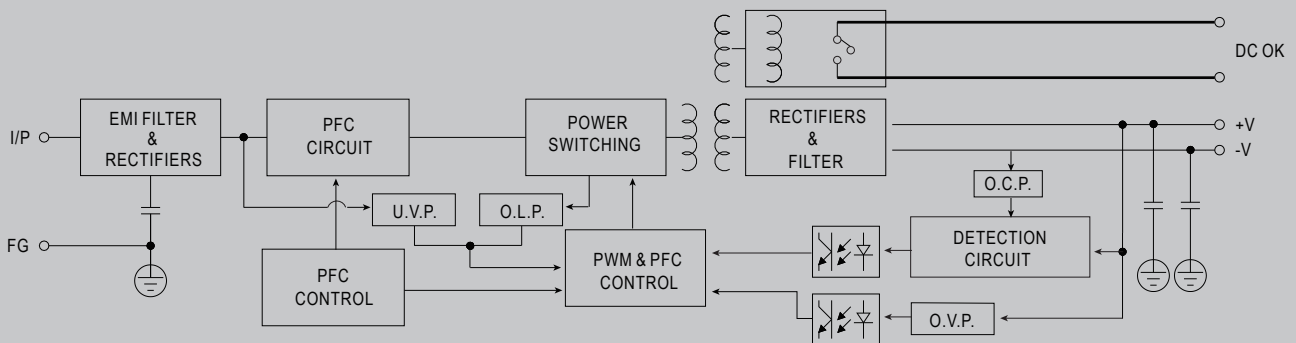
Terminal Pin No. Assignment (TB1)

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

## Block Diagram



Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	30V/1A resistive load.

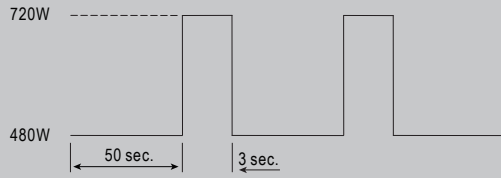
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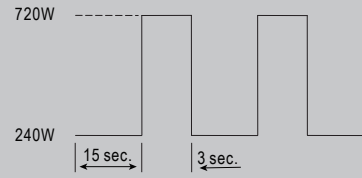


## Peak Loading

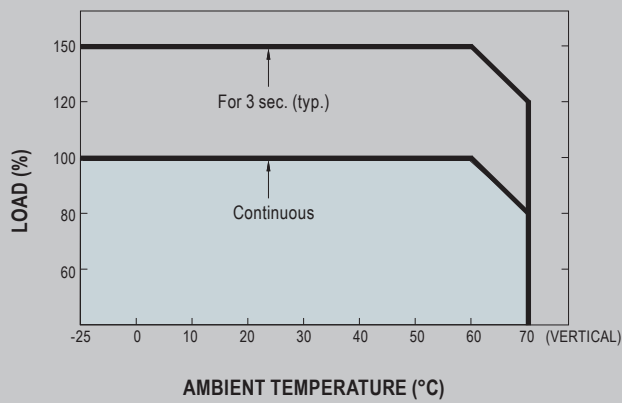
(1)



(2)



## Derating Curve



## Output derating VS input voltage

