


### Compact 240W 24V DIN RAIL Power Supply With Wide Input Range and Single Output

UNIT CODE	DESCRIPTION
C-WDR 240-24	Wide Input Range 240 Watt, 24 Volt, Single Output Compact DIN RAIL Power Supply with PFC

SPECIFICATIONS		
AC Input	Output	Approvals
<b>180 ~ 550VAC</b> Single phase 230VAC or any two phases from a 330~550VAC three-phase power system	+24VDC @ 0 ~ 10A	

### Features at a Glance:

Single and 2-Phase wide input range 180~550VAC

Built-in active PFC - complies w/ EN61000-3-2

High reliability, compact and quiet

High efficiency (91%) and low power dissipation

Slim (63mm), Installed on DIN rail TS35 / 7.5 or 15

Low temperature power-on (-30 °C)

Built-in: constant current limiting circuit  
& DC OK relay contact

Protections: Short circuit, Overload,  
Over voltage, Over temperature

LED indicator for power on

Cooling by natural (free air) convection

100% full load burn-in test

Safety standards: UL508 approved, IEC60950-1 CB  
approved by SIQ, design refer to GL

MTBF hours: 141.1Khrs *MIL-HDBK-217F (25°C)*

Case: 979B

Weight: 2.33 Lbs. (1.06 Kgs)

Dimensions: 2.48" W x 4.9" H x 4.46" D  
63 x 125.2 x 113.5mm (W\*H\*D)

3 year warranty



C-WDR240 is a 240W AC/DC compact industrial DIN rail power supply, that features a wide input range for both single and two phase power systems. With a 180 to 550VAC wide input range, C-WDR-240 can be used in general power system with single phase 230VAC input or can capture any two phases from a 330~550VAC three-phase power system.

Other standard functions include DC OK relay contact alarm signal output, front panel LED indicator, front panel DC voltage adjustment, as well as protection for short-circuit, overload, over voltage, and over temperature. WDR-240 series has certificates for compliance with UL/CB/CE and also meet the EMC requirements of heavy industry immunity level (EN61000-6-2).

[Release & Application Notes](#)

Pricing	1 ~ 9	\$ 292
	10+	\$ 285
	25+	\$ 275

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240W Single Output Industrial DIN RAIL Power Supply

## WDR-240 series



### Features :

- Single and two phase wide input range 180~550VAC
- Built-in active PFC circuit compliance to EN61000-3-2
- High efficiency 91% and low power dissipation
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 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

MODEL	WDR-240-24	WDR-240-48	
OUTPUT	DC VOLTAGE	24V	48V
	RATED CURRENT	10A	5A
	CURRENT RANGE	0 ~ 10A	0 ~ 5A
	RATED POWER	240W	240W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	24 ~ 28V	48 ~ 55V
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%
	SETUP, RISE TIME	800ms, 150ms/400VAC    1500ms, 150ms/230VAC at full load	
HOLD UP TIME (Typ.)	18ms / 400VAC    18ms / 230VAC at full load		
INPUT	VOLTAGE RANGE Note.6	180 ~ 550VAC    254 ~ 780VDC	
	FREQUENCY RANGE	47 ~ 63Hz	
	POWER FACTOR (Typ.)	PF ≥ 0.84/400VAC	PF ≥ 0.84/230VAC
	EFFICIENCY (Typ.)	91%	
	AC CURRENT (Typ.)	1A/400VAC	2A/230VAC
	INRUSH CURRENT (Typ.)	COLD START 50A	
	LEAKAGE CURRENT	<3.5mA / 530VAC	
PROTECTION	OVERLOAD	105 ~ 130% rated output power Protection type : Constant current limiting, unit will shut down after 3 sec. , auto-recovery after 1 minute if the fault condition is removed	
	OVER VOLTAGE	29 ~ 33V	56 ~ 65V
	OVER TEMPERATURE	90°C ±5°C (TSW) detect on heatsink of power switch Protection type : Shut down o/p voltage, recovers automatically after temperature goes down	
FUNCTION	DC OK REALY CONTACT RATINGS (max.) 60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load		
ENVIRONMENT	WORKING TEMP. Note.5	-30 ~ +70°C (Refer to "Derating Curve")	
	WORKING HUMIDITY	20 ~ 95% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH	
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)	
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6	
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL508 approved, IEC60950-1 CB approved by SIQ, design refer to GL	
	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 EN55022 (CISPR22), 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 approved	
OTHERS	MTBF	141.1K hrs min.    MIL-HDBK-217F (25°C)	
	DIMENSION	63*125.2*113.5mm (W*H*D)	
	PACKING	1.06Kg; 12pcs/13.7Kg/1.06CUFT	
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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.</li> <li>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, 15mm clearance is recommended.</li> <li>6. Derating may be needed under low input voltage. Please check the derating curve for more details.</li> </ol>		

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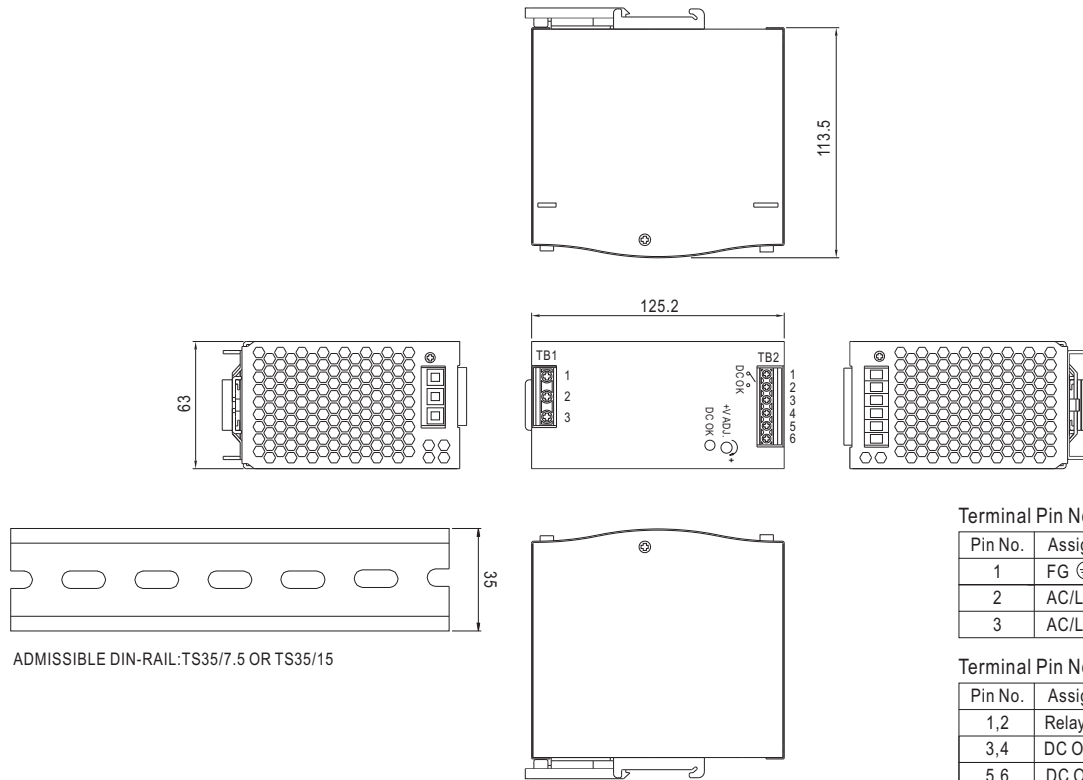


240W Single Output Industrial DIN RAIL Power Supply

## WDR-240 series

### Mechanical Specification

Case No. 979B Unit:mm



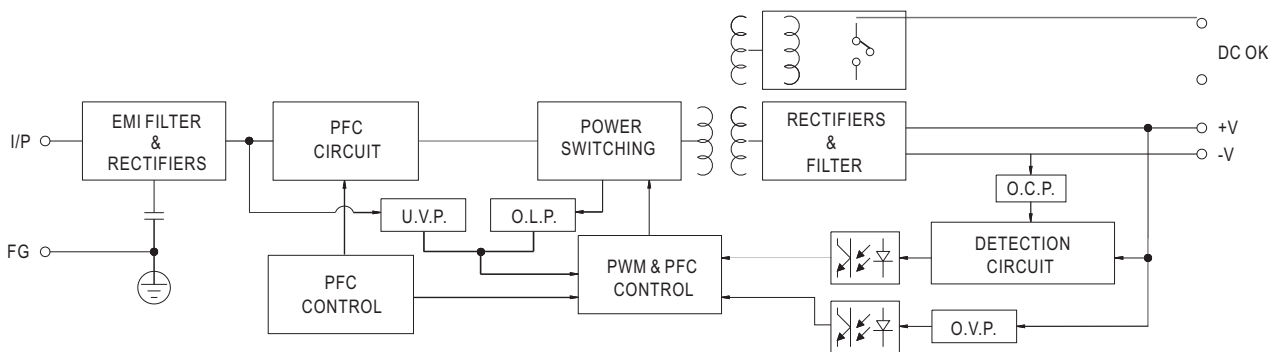
Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG ⊕
2	AC/L2
3	AC/L1

Terminal Pin No. Assignment (TB2)

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

### Block Diagram



### DC OK Relay Contact

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

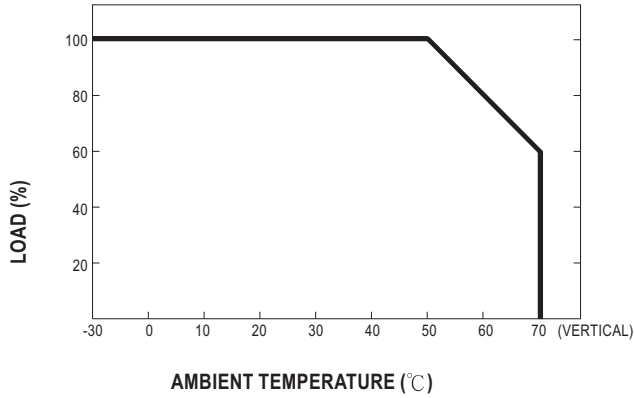
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## WDR-240 series

■ Derating Curve



■ Output derating VS input voltage

