



■ Features

- Compliance to EN50155 and EN45545-2 railway standard
- Width only 40mm
- 2:1 wide input range
- -40~+70°C wide working temperature
- 150% peak load capability
- Current sharing up to 960W(3+1)
- DC output adjustable
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Protections: Short circuit / Overload / Over voltage / Over temperature / Input reverse polarity/ Input under voltage protection
- 4KVdc I/O isolation(Reinforced isolation)
- DC OK relay contact
- Remote ON-OFF control
- 3 years warranty

■ Applications

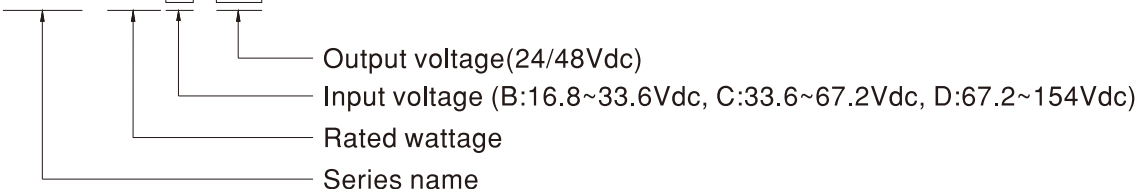
- Bus, tram, metro or railway system
- Industrial control system
- Semi-conductor fabrication equipment
- Factory automation
- Electro-mechanical
- Wireless network
- Telecom or datacom system

■ Description

DDR-240 series is a 240W DIN Rail type DC-DC converter with main features including DIN rail-type easy installation, ultra slim width (40mm), 2:1 wide input voltage, fanless design, -40~+70°C wide operating temperature, 4KVdc I/O isolation, 150% peak load, current sharing, DC OK, adjustable output voltage and full protective functions. This series of models has various input options: 16.8~33.6V / 33.6~67.2V / 67.2~154V and two output options: 24V / 48V and can be used for industrial & railway control, security control, communication system and other fields. Suitable applications include to DC buck/boost regulator, increasing system insulation level and voltage drop compensation along cable...etc.

■ Model Encoding

DDR - 240 B - 24



SPECIFICATION

MODEL		DDR-240B-24	DDR-240B-48	DDR-240C-24	DDR-240C-48	DDR-240D-24	DDR-240D-48		
OUTPUT	DC VOLTAGE	24V	48V	24V	48V	24V	48V		
	RATED CURRENT	10A	5A	10A	5A	10A	5A		
	CURRENT RANGE	0 ~ 10A	0 ~ 5A	0 ~ 10A	0 ~ 5A	0 ~ 10A	0 ~ 5A		
	RATED POWER	240W	240W	240W	240W	240W	240W		
	PEAK	CURRENT	15A	7.5A	15A	7.5A	15A	7.5A	
		POWER <small>Note.5</small>	360W (3sec.)						
	RIPPLE & NOISE (max.) <small>Note.2</small>	80mVp-p		100mVp-p		80mVp-p		100mVp-p	
	VOLTAGE ADJ. RANGE	24 ~ 28V		48 ~ 56V		24 ~ 28V		48 ~ 56V	
	VOLTAGE TOLERANCE <small>Note.3</small>	±1.0%		±1.0%		±1.0%		±1.0%	
	LINE REGULATION	±0.5%		±0.5%		±0.5%		±0.5%	
LOAD REGULATION	±1.0%		±1.0%		±1.0%		±1.0%		
SETUP, RISE TIME	500ms, 60ms								
HOLD UP TIME (Typ.)	6ms@24Vdc			8ms@48Vdc		11ms@110Vdc			
INPUT	VOLTAGE RANGE <small>Note.4</small>	CONTINUOUS	16.8 ~ 33.6Vdc		33.6 ~ 67.2Vdc		67.2 ~ 154Vdc		
		100ms	14.4 ~ 16.8Vdc		28.8 ~ 33.6Vdc		66 ~ 67.2Vdc		
	EFFICIENCY (Typ.)	90%		91%		92%		92.5%	
	DC CURRENT (Typ.)	11.2A @24Vdc			5.6A @48Vdc		2.5A @110Vdc		
	INRUSH CURRENT (Typ.)	30A							
INTERRUPTION OF VOLTAGE SUPPLY	S2 (EN 50155 5.1.1.2) ; B/C-type comply with S2 level (10ms)@ 70% load ; D-type comply with S2 level (10ms)@ full load								
PROTECTION	OVERLOAD <small>Note.5</small>	Normally works within 150% rated output power for more than 3 seconds and then constant current protection 105~135% rated output power with auto-recovery							
	OVER VOLTAGE	28.8 ~ 35V	57.6 ~ 65.0V	28.8 ~ 35V	57.6 ~ 65V	28.8 ~ 35V	57.6 ~ 65V		
		Protection type : Shut down o/p voltage, re-power on to recover							
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover							
UNDER VOLTAGE LOCKOUT	24Vin (B - type) :Power ON ≥16.8V , OFF ≤16.5V			48Vin (C - type) :Power ON ≥33.6V , OFF ≤33V		110Vin (D - type):Power ON ≥67.2V , OFF ≤65V			
FUNCTION	DC OK REALY CONTACT RATINGS (max.)	30Vdc/1A resistive load							
	CURRENT SHARING	Up to 960W (3+1 units). Please refer to the Function Manual							
	REMOTE ON-OFF CONTROL	Please refer to the Function Manual							
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")							
	WORKING HUMIDITY	5 ~ 95% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85, 5 ~ 95% RH non-condensing							
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 55°C)							
	VIBRATION	Component:10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC61373							
OPERATING ALTITUDE <small>Note.7</small>	2000 meters								
SAFETY & EMC (Note 6)	SAFETY STANDARDS	IEC 62368-1 (LVD, except for 67.2~154Vin), EAC TP TC 004 approved; Design refer to UL508							
	WITHSTAND VOLTAGE	I/P-O/P:4KVdc I/P-FG:2.5KVdc O/P-FG:0.71KVdc							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500Vdc / 25°C / 70% RH							
	EMC EMISSION	Parameter	Standard			Test Level / Note			
		Conducted	EN55032			Class B			
		Radiated	EN55032			Class B			
		Voltage Flicker	EN61000-3-3			----			
		Harmonic Current	----			-----			
	EMC IMMUNITY	En55024 , EN61000-6-2(EN50082-2)							
		Parameter	Standard			Test Level / Note			
ESD		EN61000-4-2			Level 3, 8KV air ; Level 3, 6KV contact; criteria A				
Radiated		EN61000-4-3			Level 3, 10V/m ; criteria A				
EFT / Burst		EN61000-4-4			Level 3, 2KV ; criteria A				
Surge		EN61000-4-5			Level 3, 1KV/Line-Line ;Level 3, 2KV/Line-Line-FG ;criteria A				
Conducted		EN61000-4-6			Level 3, 10V ; criteria A				
Magnetic Field	EN61000-4-8			Level 4, 30A/m ; criteria A					
RAILWAY STANDARD	Compliance to EN45545-2 for fire protection ; Meet EN50155 / IEC60571 including IEC61373 for shock & vibration, EN50121-3-2 for EMC								
OTHERS	MTBF	484.9K hrs min. Telcordia SR-332 (Bellcore) ; 189.9K hrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	40*125.2*113.5mm (W*H*D)							
	PACKING	0.76Kg;20psc/16.2Kg/1.16CUFT							
NOTE	<p>1. All parameters NOT specially mentioned are measured at normal input (B:24Vdc , C:48Vdc , D:110Vdc) , rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μf & 47 μf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>5. 3 seconds max., please refer to peak loading curves.</p> <p>6. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)</p> <p>7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than2000m(6500ft).</p>								