



Feature

- Width only 35mm (2SU)
- 4:1 ultra wide input range
- -40~+85°C wide working temperature
- No minimum load required
- DC output adjustable ($\pm 10\%$)
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Protections: Short circuit / Overload / Over voltage / Input reverse polarity / Input under voltage protection
- 4KVdc I/O isolation(Reinforced isolation)
- 3 years warranty

Applications

- Industrial control system
- Semi-conductor fabrication equipment
- Factory automation
- Electro-mechanical
- Wireless network
- Telecom or datacom system

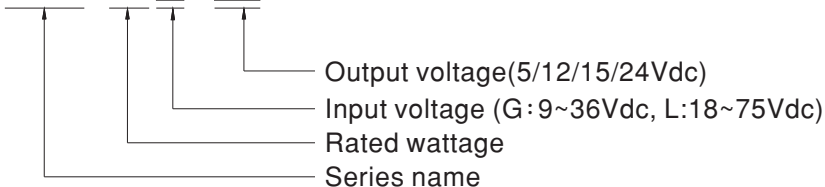
Description

DDR-30 series is a 30W DIN Rail type DC-DC converter with main features including DIN rail-type easy installation, ultra slim width (35mm), 4:1 ultra wide input voltage, -40~+85°C wide operating temperature, 4KVdc I/O isolation, adjustable output voltage ($\pm 10\%$) and full protective functions...etc.

This series has two input options: 9~36V / 18~75V and various output options: 5V / 12V / 15V / 24V and can be used for industrial control, security control, communication system and other fields. Suitable applications are DC buck/boost regulator, increasing system insulation level and voltage drop compensation along cable...etc.

Model Encoding

DDR - 30 G - 24



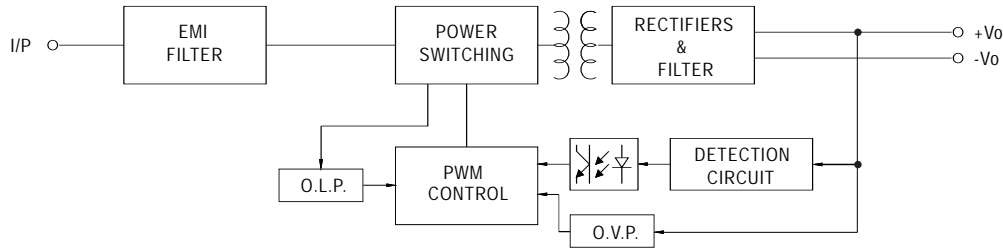
**30W DIN Rail Type DC-DC Converter****DDR-30 series****SPECIFICATION**

MODEL		DDR-30G-5	DDR-30G-12	DDR-30G-15	DDR-30G-24	DDR-30L-5	DDR-30L-12	DDR-30L-15	DDR-30L-24		
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	5V	12V	15V	24V		
	RATED CURRENT	6A	2.5A	2A	1.25A	6A	2.5A	2A	1.25A		
	CURRENT RANGE	0 ~ 6A	0 ~ 2.5A	0 ~ 2A	0 ~ 1.25A	0 ~ 6A	0 ~ 2.5A	0 ~ 2A	0 ~ 1.25A		
	RATED POWER	30W	30W	30W	30W	30W	30W	30W	30W		
	RIPPLE & NOISE (max.) Note.2	60mVp-p	75mVp-p	75mVp-p	100mVp-p	60mVp-p	75mVp-p	75mVp-p	100mVp-p		
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5V	9 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 28V	4.5 ~ 5.5V	9 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 28V		
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±1.5%	±0.5%	±0.5%	±0.5%	±1.5%	±0.5%	±0.5%	±0.5%		
	SETUP, RISE TIME	120ms, 85ms at full load									
HOLD UP TIME (Typ.)	G-type: 7ms@24Vdc input				L-type: 18ms@48Vdc input						
EXTERNAL CAPACITANCE LOAD (Max.)	3300µF	2200µF	1500µF	1000µF	3300µF	2200µF	1500µF	1000µF			
INPUT	VOLTAGE RANGE Note.4	9 ~ 36Vdc				18 ~ 75Vdc					
	EFFICIENCY (Typ.)	85%	86%	87%	89%	86%	89%	90%	91%		
	DC CURRENT (Typ.)	1.5A/24Vdc				0.8A/48Vdc					
	INRUSH CURRENT (Typ.)	15A/24Vdc				15A/48Vdc					
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed									
	OVER VOLTAGE	5.75 ~ 7V	13.8 ~ 16.2V	17.25 ~ 20.25V	28.8 ~ 34V	5.75 ~ 7V	13.8 ~ 16.2V	17.25 ~ 20.25V	28.8 ~ 34V		
		Protection type : Shut down o/p voltage, re-power on to recover									
	REVERSE POLARITY	By internal MOSFET, no damage, recovers automatically after fault condition removed									
UNDER VOLTAGE LOCKOUT	24Vin (G-type):Power ON ≥ 9V , OFF ≤ 8.5V										
	48Vin (L-type):Power ON ≥ 18V , OFF ≤ 17V										
ENVIRONMENT	WORKING TEMP.	-40 ~ +85°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	5 ~ 95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C , 5 ~ 95% RH non-condensing									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)									
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6									
	OPERATING ALTITUDE	2000 meters									
SAFETY & EMC (Note 5)	SAFETY STANDARDS	IEC 62368-1 (LVD) approved, Design refer to UL508									
	WITHSTAND VOLTAGE	I/P-O/P:4KVdc									
	ISOLATION RESISTANCE	I/P-O/P>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	-----				
	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 ; criteria A				
Conducted					EN61000-4-6	Level 3, 10V ; criteria A					
Magnetic Field					EN61000-4-8	Level 4, 30A/m ; criteria A					
OTHERS	MTBF	483.3K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	35*90*54.5mm (W*H*D)									
	PACKING	0.12Kg/96pcs/12.5Kg/1.04CUFT									
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at normal input (G:24Vdc, L:48Vdc), rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Derating may be needed under low input voltage. Please check the derating curve for more details. 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) The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). 										

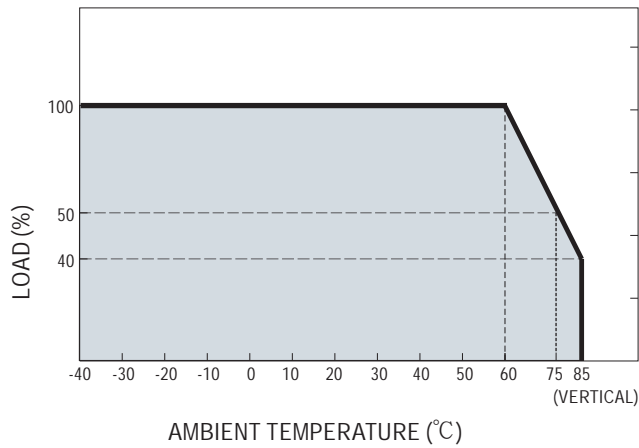


Block Diagram

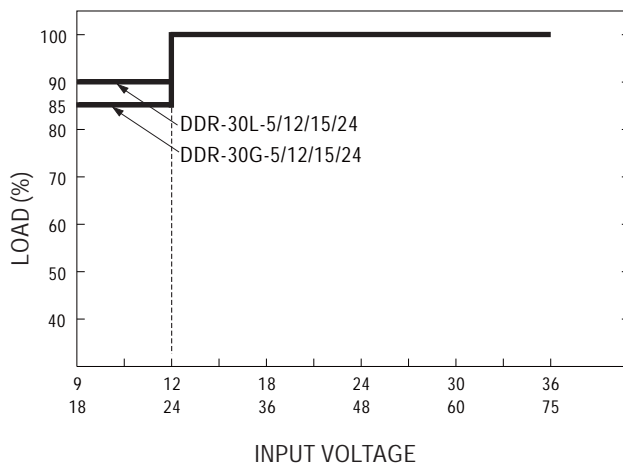
fosc : 100KHz



Derating Curve



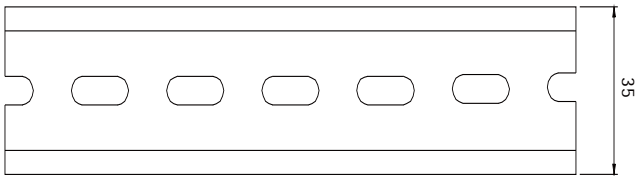
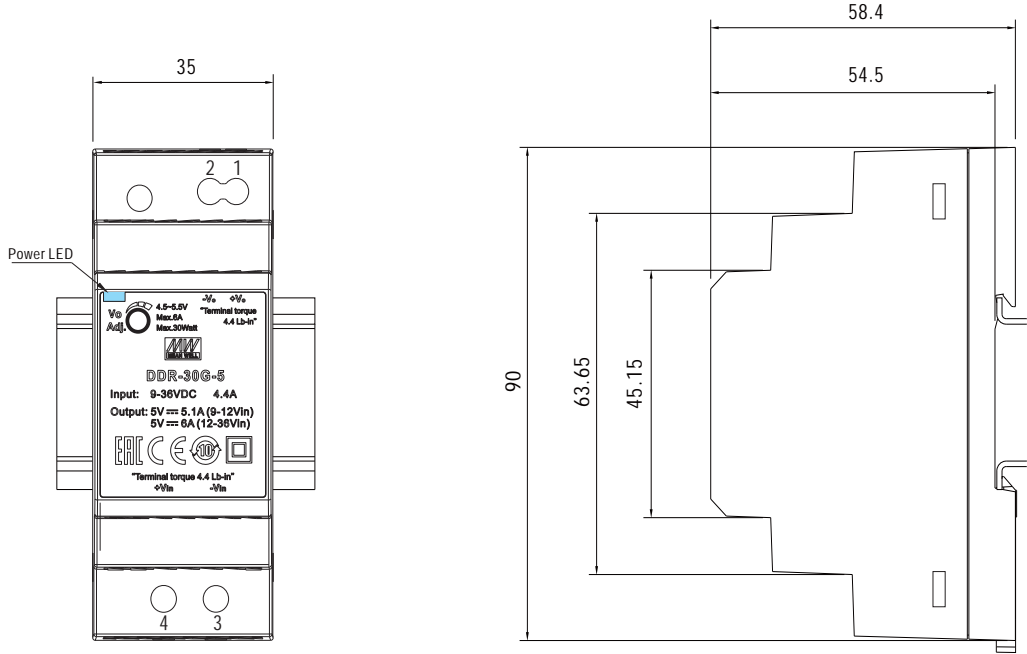
Output derating VS input voltage





■ Mechanical Specification

(Unit: mm , tolerance $\pm 0.5\text{mm}$)



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

Terminal Pin No. Assignment

Pin No.	Assignment
1	DC Output +Vo
2	DC Output -Vo
3	DC Input -Vin
4	DC Input +Vin

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>