



MEAN WELL DDR-30 Series 30W DIN Rail Type DC-DC Converter Instruction Manual

[Home](#) » [MEAN WELL](#) » MEAN WELL DDR-30 Series 30W DIN Rail Type DC-DC Converter Instruction Manual 



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



Contents

- [1 Feature](#)
- [2 Applications](#)
- [3 Description](#)
- [4 Block Diagram](#)
- [5 Documents / Resources](#)
 - [5.1 References](#)
- [6 Related Posts](#)

Feature

- Width only 35mm (2SU)
- 4:1 ultra wide input range
- -40-1-135°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

GTIN CODE

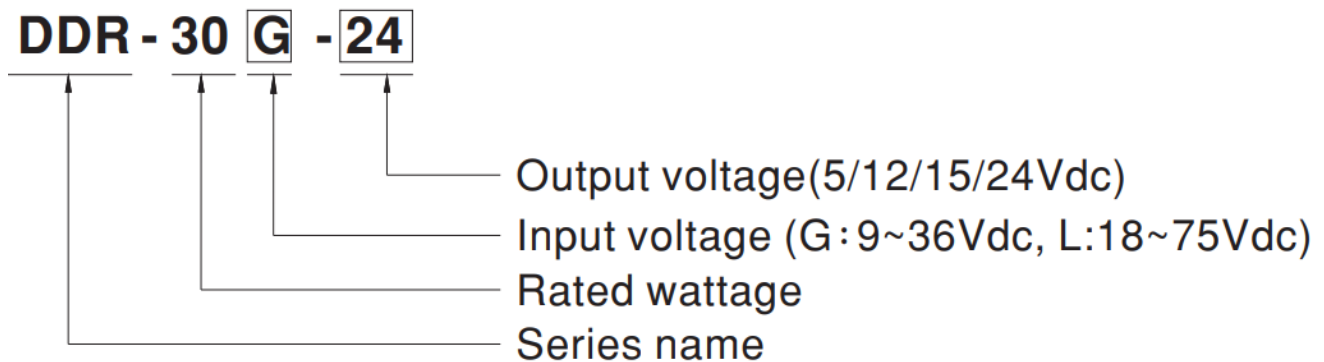
MW Search: <http://www.meanwell>

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



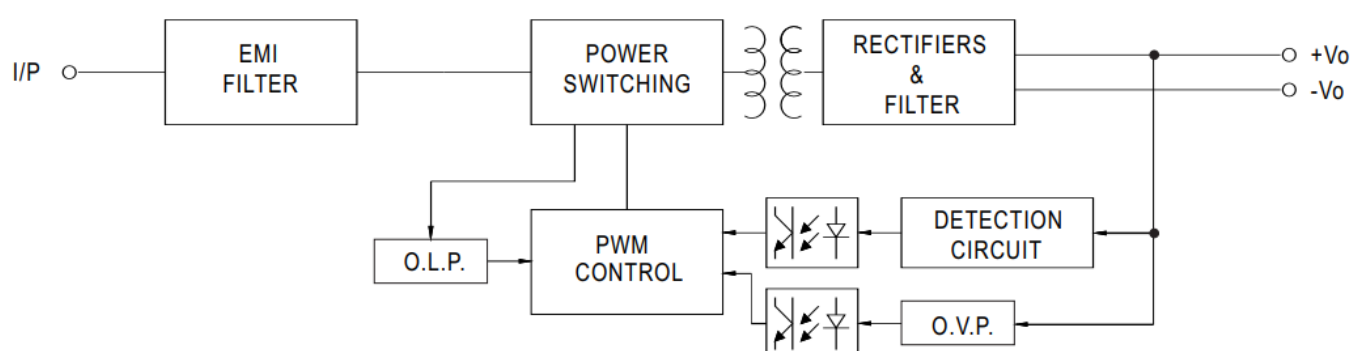
MODEL		DDR-30 G-5	DDR-30 G-12	DDR-30 G-15	DDR-30 G-24	DDR-30 L-5	DDR-30 L-12	DDR-30 L-15	DDR-30 L-24
	DC VOLTAGE	5V	12V	15V	24V	5V	12V	15V	24V
	RATED CURRENT	6A	25A	2A	1.25A	6A	2.5A	2A	1.25A
	CURRENT RANGE	0 ~ 6A	0 ~ 2.5A	0 ~ 2A	0~1.25A	0 ~ 6A	0 ~ 2.5A	0 ~ 2A	0~125A

OUTPUT	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	75mVpb	75mVp-p	100mVp-p
	VOLTAGEADJ. 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.)	3300 μF	2200 μF	1500 μF	1000 μF	3300 μF	2200 μF	1500 μF	1000 μF
INPUT	VOLTAGE RANGE Note.4	9~36Vdc					18~75Vdc		
	EFFICIENCY (Typ.)	85%	186%	187%	89%	86%	189%	190%	191%
	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	113.8~16.2V	117.2~20.29V	128.8~ 34V I S75 – 7V	113.8~162V	117.25~2025V	128.8~34V	
		Protection type : Shutdown 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									
	WORKING TEMP.	-40 ~ +85°C (Refer to 'Derating Curve,							
	WORKING HUMIDITY	5 ~ 95% RH non-condensing							

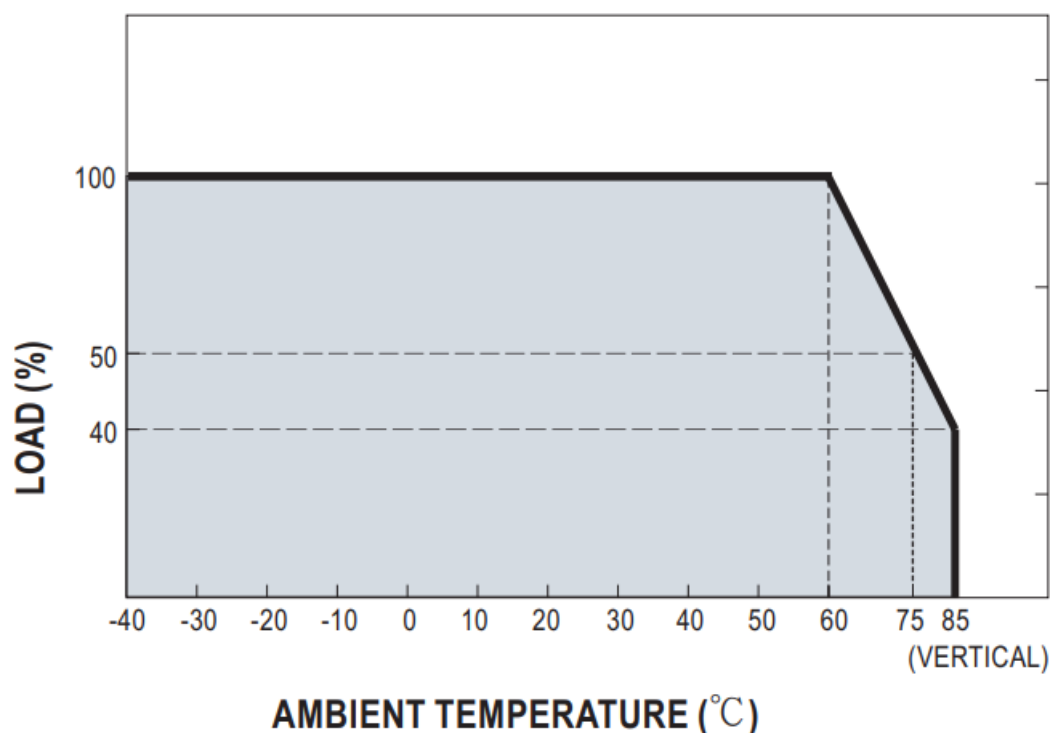
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C .5 ~ 95% RH non-condensng		
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)		
	VIBRATION	Component:10 -500Hz, 2G 1Ortin./1cyde, 60mki. each along X, Y, 2 axes; Mounting: Compliance to IEC600684-6		
	OPERATING ALTITUDE	5000 meters		
SAFETY & EMC (Note 5)	SAFETY STANDARDS	HUI EC 62368-1 ,ASINZS 62368.1 approved; Desigi refer to UL508		
	WITHSTAND VOLTAGE	I/P-0/P:4KVdc		
	ISOLATION RESISTANCE	I/P-01P>100M Ohms/ 500Vdc/ 25°C/70% RH		
	EMC EMISSION	Parameter	Standard	Test Level! Note
		Conducted	BS EN/EN55032	Class B
		Radiated	BS E N/E N55032	Class B
		Voltage Flicker	BS EN/EN61000-3-3	—
	EMC IMMUNITY	BS E N/E N55035 . BS E N/E N61000-6-2(BS EN/EN50382-2)		
		Parameter	Standard	Test Level! Note
		ESD	BS EN/EN61030-4-2	Level 3. 8IW air : Level 3. 6IW contact: criteriaA
		Radiated	BS EN/EN61000-4-3	Level 3, 10V/m ;criteria A
		EFT/ Burst	BS E N/E N 61030-4-4	Level 3. 2KV; criteria A
		Surge	BS EN/EN61000-4-5	Level 3, 1KV/Line-Line;criteria A
		Conducted	BS E N/E N 61030-4-6	Level 3, WV ; critenaA
		Magnetic Field	BS EN/EN61000-4-8	Level 4, 30A/m ;criteria A
OTHERS	MTBF	2780.3K hrsmn. Telcordia SR-332 (Be core) ;483.8K hrs min. MIL-HDBK-217F (25(:)		
	DIMENSION	35'90'54.5mrn (WH'D)		
	PACKING	0.12K9;96pcs/12.5K9/1.1CUFT		

NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at normal input (G24Vdc, L:48Vdc), 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 0.1 of & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Denting may be needed under low input voltage. Please check the denting curve for more details 5. 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) 6. The ambient temperature denting of 3.5t/1000m with fanless models and of 5t/1000m with fan models for operating altitude higher than 2000m(6500ft). <p>Product Liability Disclaimer: For detailed information. please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>
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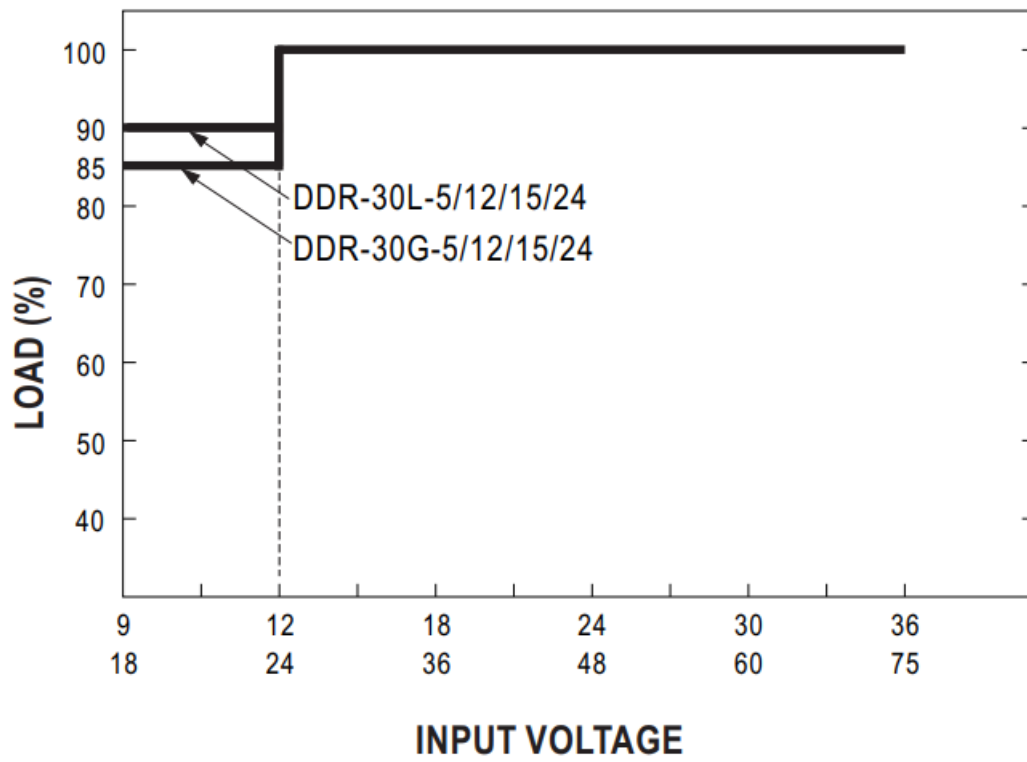
Block Diagram



Derating Curve

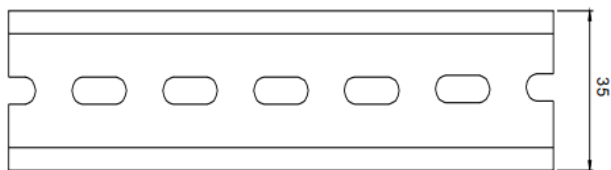
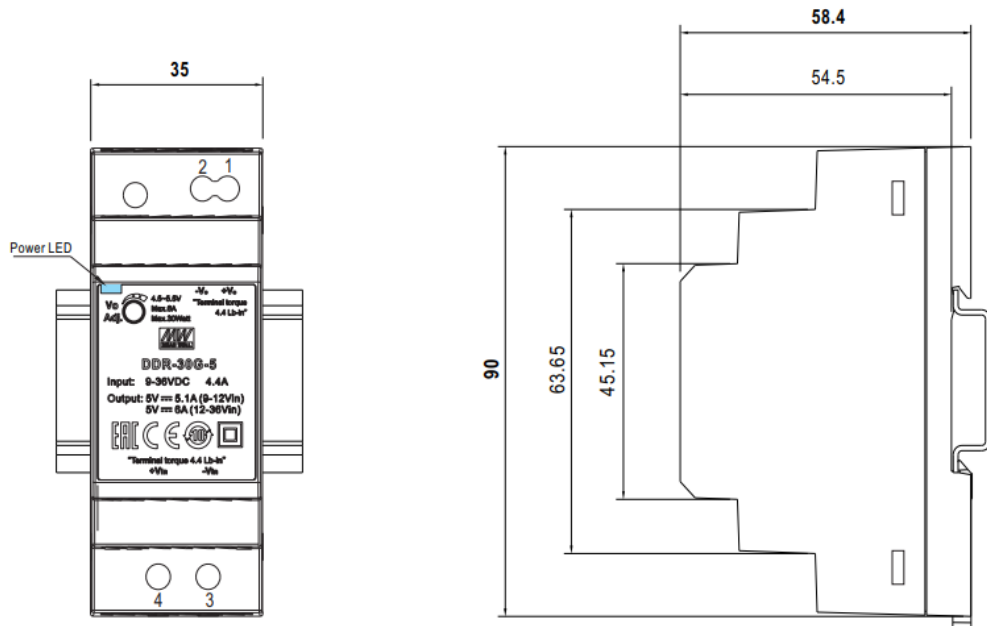


Output derating VS input voltage



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>



<https://www.meanwell.com/Upload/PDF/DDR%20DIN%20rail%20power%20supply.pdf>



Downloaded from Arrow.com.

File Name:DDR-30-SPEC 2022-09-20



Household



Industrial



Security



Network



Telecom

Documents / Resources

	<p>MEAN WELL DDR-30 Series 30W DIN Rail Type DC-DC Converter [pdf] Instruction Manual DDR-30 Series 30W DIN Rail Type DC-DC Converter, DDR-30 Series, 30W DIN Rail Type DC-DC Converter, Rail Type DC-DC Converter, DC-DC Converter, Converter</p>
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References

- [MEAN WELL Switching Power Supply Manufacturer](#)