

## ■ Features

- 85~264Vac input range
- Global certificates in multi-fields (ITE 62368-1, Industrial 61558-1/-2-16, 61010)
- 30mm slim width
- High efficiency up to 91% and no load power dissipation <1W
- Built-in constant current limiting circuit
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fanless design, cooling by free air convection
- Over voltage category III (OVC III)
- -40~+70°C wide range operation temperature (>+50°C derating)
- Operating altitude up to 5000 meters
- Built-in DC OK relay contact
- Can be installed on DIN rail TS-35/7.5 or 15
- 3 years warranty

## ■ Description

The XDR-120E series is a 120W AC/DC economical ultra slim industrial DIN rail power. Key features of this series include a narrow 30mm casing, optimizing system installation space, and an ultra-wide input range of 85~264Vac suitable for global use. It boasts a maximum efficiency of 91% and a low standby power consumption <1W for energy savings and carbon reduction. It has built-in constant current, fanless design, a wide operating temperature range of -40 to +70°C (up to +50°C at full load); OVCIII compliance; built-in DC OK signal. With comprehensive protection functions, complete safety certifications, and a 3-years warranty, the XDR-120E series is a compact, high-performance, and highly reliable DIN rail power supply.

## ■ Model Encoding

**XDR - 120E - 24**

- Output voltage(12V/24V/36V/48V)
- Economical version
- Output wattage
- Series name

## ■ Applications

- Industrial control system
- Semiconductor fabrication equipment
- Factory automation
- Electro-mechanical apparatus
- Battery charger

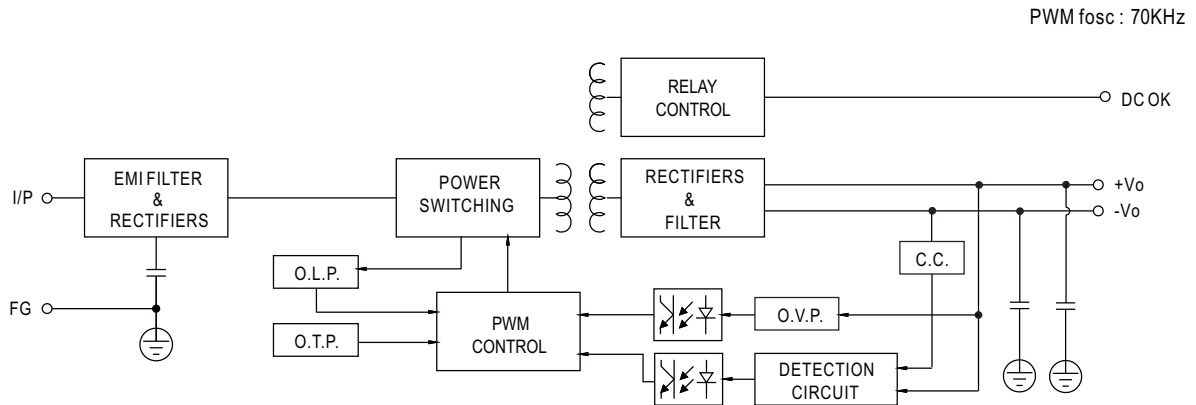
## ■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

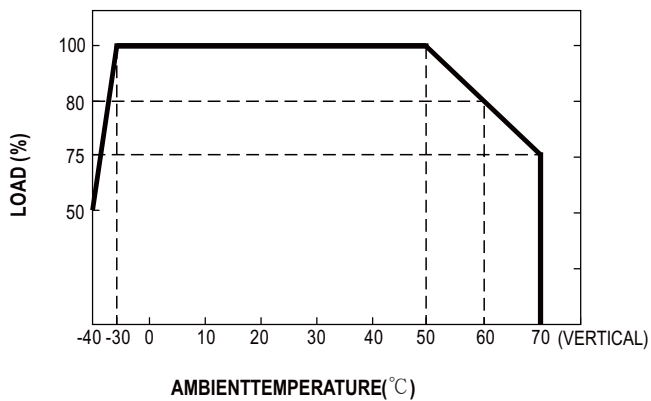
**SPECIFICATION**

MODEL		XDR-120E-12	XDR-120E-24	XDR-120E-36	XDR-120E-48	
OUTPUT	DC VOLTAGE	12V	24V	36V	48V	
	RATED CURRENT	10A	5A	3.33A	2.5A	
	CURRENT RANGE	0 ~ 10A	0 ~ 5A	0 ~ 3.33A	0 ~ 2.5A	
	RATED POWER	120W	120W	119.88W	120W	
	RIPPLE & NOISE (max.)	Note.2 100mVp-p	120mVp-p	150mVp-p	150mVp-p	
	VOLTAGE ADJ. RANGE	12 ~ 15V	24 ~ 29V	36 ~ 42V	48 ~ 55V	
	VOLTAGE TOLERANCE	Note.3 ± 2.0%	± 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	1200ms, 60ms/230Vac    2500ms, 60ms/115Vac at full load				
	HOLD UP TIME (Typ.)	16ms/230Vac    8ms/115Vac at full load				
INPUT	AC VOLTAGE RANGE	85 ~ 264Vac				
	DC VOLTAGE RANGE	120 ~ 370Vdc				
	NO LOAD POWER CONSUMPTION (Typ.)	0.9W @115Vac & 230Vac	1W @115Vac & 230Vac			
	FREQUENCY RANGE	47 ~ 63Hz				
	EFFICIENCY (Typ.)	89%	91%	91%	91%	
	AC CURRENT (Typ.)	2.3A/115Vac    1.3A/230Vac				
	INRUSH CURRENT (Typ.)	COLD START    20A/115Vac    40A/230Vac				
	LEAKAGE CURRENT	<1mA / 240Vac				
PROTECTION	OVERLOAD	105-130% rated output power, constant current limiting without shutdown, recovers automatically after fault condition is removed				
	OVER VOLTAGE	15 ~ 18V	30 ~ 34V	43 ~ 50V	56 ~ 65V	
		Protection type : Shut down o/p voltage, re-power on to recover				
	OVER TEMPERATURE	Protection type : Shut down o/p voltage,recovers automatically after fault condition is removed				
FUNCTION	DC OK RELAY CONTACT	Relay Contact Ratings (max.):30Vdc/1A, 30Vac/0.5A resistive load				
ENVIRONMENT	WORKING TEMP.	Note.4 -40 ~ +70℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 95% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing				
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)				
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6				
SAFETY & EMC (Note 7)	SAFETY STANDARDS	UL61010; TUV BS EN/EN62368-1, BS EN/EN61558-1/-2-16, BS EN/EN61010; CB IEC62368-1, IEC61558-1, IEC61010; RCM AS/NZS 62368-1, AS/NZS 61558-1/-2-16; BSMI CNS15598-1; CCC GB4943.1; EAC TPTC004 approved; KC KC62368-1 and BIS IS13252 (Part 1):2010 certified, no stock ,contact sale for inquires				
	OVER VOLTAGE CATEGORY	Note.5	IEC/EN 61558-1/-2-16 (OVC III, altitude up to 2000m ) IEC/EN/UL 61010 (OVC II, altitude up to 5000m ) IEC/EN 62368-1 (OVC II, altitude up to 5000m )			
	SAFETY EXTRA-LOW VOLTAGE(SELV)	IEC/EN 61558-2-16 (SELV ) IEC/EN/UL 61010-2-201 (SELV ) IEC/EN 62368-1 (SELV / ES1 )				
	WITHSTAND VOLTAGE	I/P-O/P: 4KVac    I/P-FG: 2KVac    O/P-FG: 1.5KVac    O/P-DC OK: 0.5KVac				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC/25℃ / 70%RH				
	EMC EMISSION	Parameter	Standard		Test Level / Note	
		Conducted	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936		Class B	
		Radiated	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936		Class B	
		Harmonic Current	BS EN/EN61000-3-2		Class A	
		Voltage Flicker	BS EN/EN61000-3-2		-----	
	EMC IMMUNITY	BS EN/EN55035, BS EN/EN61204-3, BS EN/EN61000-6-2(BS EN/EN50082-2)				
		Parameter	Standard		Test Level / Note	
		ESD	BS EN/EN61000-4-2		Level 3, 8KV air ; Level 3, 4KV contact; criteria A	
		Radiated	BS EN/EN61000-4-3		Level 3, 10V/m ; criteria A	
		EFT / Burst	BS EN/EN61000-4-4		Level 2, 2KV ; criteria A	
		Surge	BS EN/EN61000-4-5		Level 4, 2KV/Line-Line ;Level 4, 4KV/Line-Line-Chassis ;criteria A	
		Conducted	BS EN/EN61000-4-6		Level 3, 10V ; criteria A	
		Magnetic Field	BS EN/EN61000-4-8		Level 4, 30A/m ; criteria A	
OTHERS		MTBF	2223.1K hrs min.    Telcordia SR-332 (Bellcore) ;		440.4K hrs min.    MIL-HDBK-217F (25℃)	
	DIMENSION	30*125.2*116mm (W*H*D)				
	PACKING	420g; 24pcs/11.1Kg/1.27CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230Vac input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F & 47 μ F parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. When the temperature is between -40 ° C and -20 ° C and the input voltage is between 85V and 90V, the temperature derating curve drops to 40% . 5. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). 6. 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. 7. 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. (as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> ) ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>					

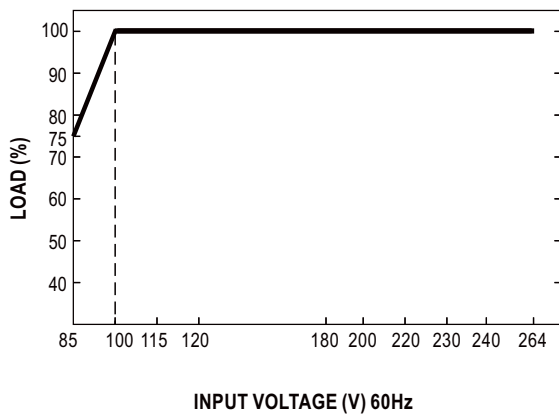
## ■ Block Diagram



## ■ Derating Curve



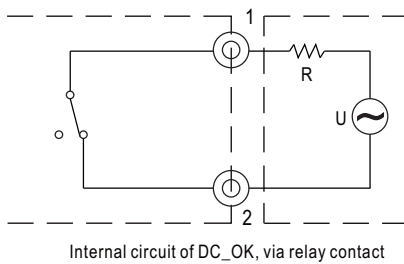
## ■ Static Characteristics



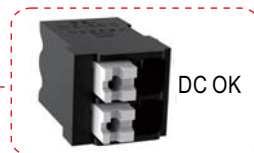
## ■ Function Manual

### 1.DC OK Relay Contact

Contact Close	PSU turns ON / DC OK.
Contact Open	PSU turns OFF / DC Fail.
Contact Ratings (max.)	30Vdc/1A, 30Vac/0.5A resistive load.



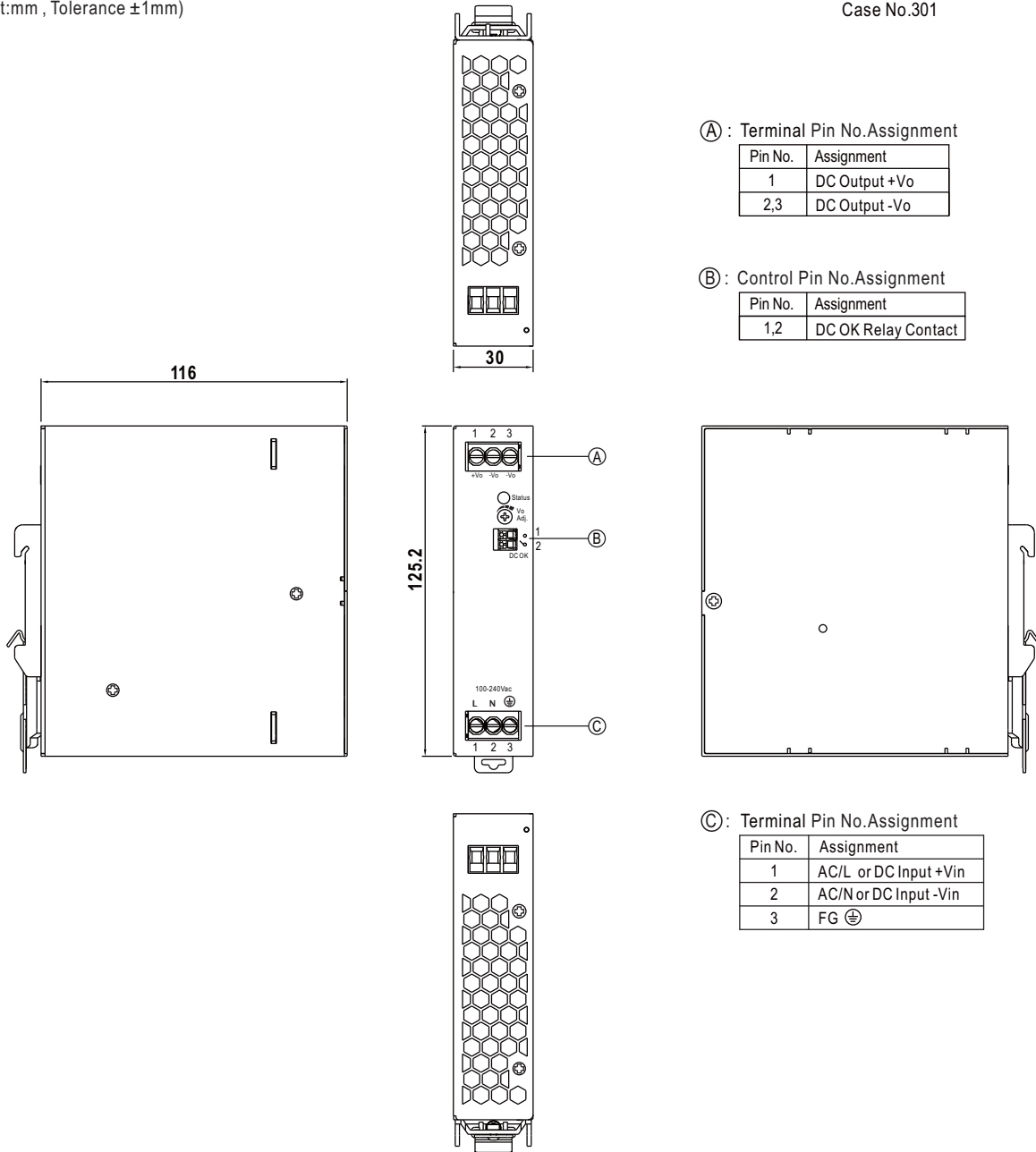
External voltage source (U) and resistor (R)  
(The max. Sink is 30Vdc/1A, 30Vac/0.5A)



## ■ Mechanical Specification

(Unit:mm , Tolerance  $\pm 1$ mm)

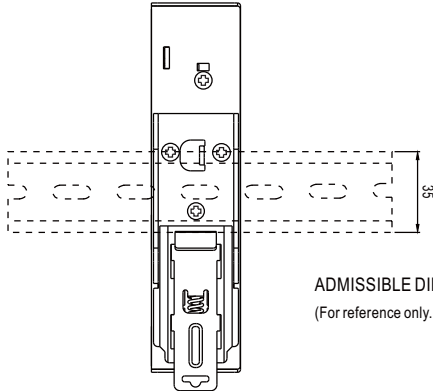
Case No.301



## ■ Recommend Wiring

	AC Input T.B	DC Output T.B	Signal connector
Solid Wire	6mm <sup>2</sup> max.	6mm <sup>2</sup> max.	1.5mm <sup>2</sup> max.
A.W.G	22~10 AWG	22~10 AWG	24~16 AWG
Screw Terminal Torque	9 Lb-In	9 Lb-In	/

#### ■ Installation Instruction



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
(For reference only. Not included with unit.)

This series fits DIN rail TS35/7.5 or TS35/15.  
For installation details, please refer to the Instruction manual.

#### ■ Installation Manual

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