



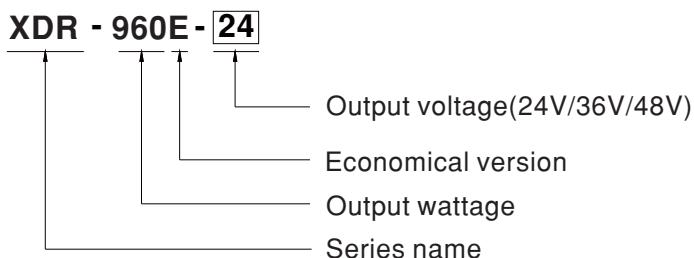
■ Features

- 180~264Vac input with PFC
- **Global certificates in multi-fields** (ITE 62368-1, Industrial 61558-1/2-16, 61010)
- **96mm** slim width
- High efficiency up to **95.5%** and no load power dissipation **<3.6W**
- Built-in **constant current** limiting circuit
- Current sharing up to **3840W (3+1)** for parallel use
- 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-960E series is a 960W AC/DC economical ultra slim industrial DIN rail power. Key features of this series include a narrow 96mm casing, optimizing system installation space. It boasts a maximum efficiency of 95.5% and a low standby power consumption <3.6W 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; parallel function capability up to 3840W; built-in DC OK signal. With comprehensive protection functions, complete safety certifications, and a 3-years warranty, the XDR-960E series is a compact, high-performance, and highly reliable DIN rail power supply.

■ Model Encoding



■ Applications

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

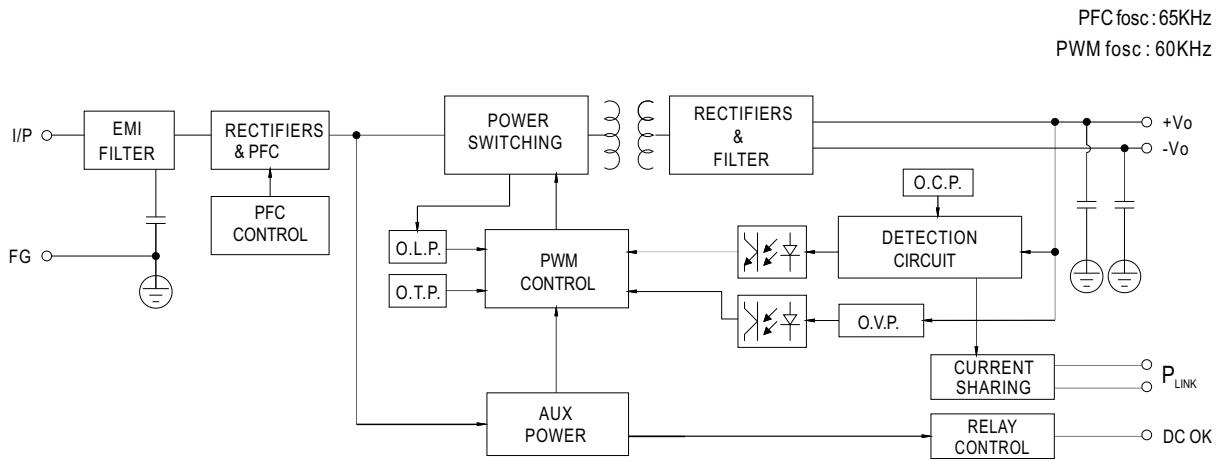
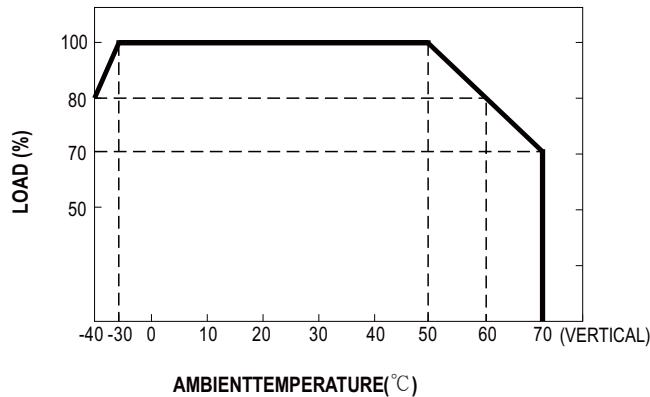
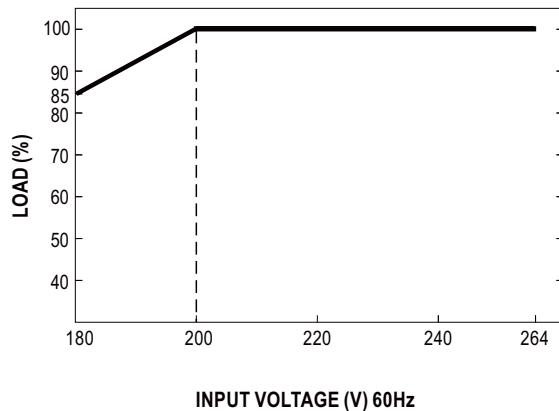
■ GTIN CODE

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



SPECIFICATION

MODEL	XDR-960E-24		XDR-960E-36		XDR-960E-48	
OUTPUT	DC VOLTAGE	24V	36V	48V		
	RATED CURRENT	40A	26.6A	20A		
	CURRENT RANGE	0 ~ 40A	0 ~ 26.6A	0 ~ 20A		
	RATED POWER	960W	957.6W	960W		
	RIPPLE & NOISE (max.) Note.2	120mVp-p	150mVp-p	150mVp-p		
	VOLTAGE ADJ. RANGE	24 ~ 29V	36 ~ 42V	48 ~ 55V		
	VOLTAGE TOLERANCE Note.3	±1.0%	±1.0%	±1.0%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±1.0%	±1.0%	±1.0%		
	SETUP, RISE TIME	500ms, 50ms/230Vac at full load				
INPUT	HOLD UP TIME (Typ.)	15ms/230Vac at full load				
	AC VOLTAGE RANGE	180 ~ 264Vac				
	DC VOLTAGE RANGE	254.5 ~ 370Vdc				
	NO LOAD POWER CONSUMPTION (Typ.)	2.7W @ 230Vac	3.6W @ 230Vac			
	FREQUENCY RANGE	47 ~ 63Hz				
	POWDR FACTOR (Typ.)	PF>0.95/230Vac at full load				
	EFFICIENCY (Typ.)	94.5%	95%	95.5%		
	AC CURRENT (Typ.)	4.5A/230Vac				
	INRUSH CURRENT (Typ.)	COLD START 30A/230Vac				
PROTECTION	LEAKAGE CURRENT	<3.5mA / 240Vac				
	OVERLOAD	105~130% rated output power Hiccup mode when output voltage <30%, recovers automatically after fault condition is removed Constant current limiting without shutdown within 30%~100% rated output voltage, recovers automatically after fault condition is removed				
	OVER VOLTAGE	30 ~ 34V	43 ~ 50V	56 ~ 65V		
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover				
FUNCTION	PARALLEL(Droop Mode)	Up to 3840W or (3+1) units;Please refer to Function Manual for more details				
	DC OK RELAY CONTACT	Relay Contact Ratings (max.):30Vdc/1A, 30Vac/0.5A resistive load				
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 95% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing				
	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 6)	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.4	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°C / 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		
	EMC IMMUNITY	Voltage Flicker	BS EN/EN61000-3-2	-----		
		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		
OTHERS	Conducted	BS EN/EN61000-4-6	Level 3, 10V ; criteria A			
	Magnetic Field	BS EN/EN61000-4-8	Level 4, 30A/m ; criteria A			
PACKING	MTBF	K hrs min. Telcordia SR-332 (Bellcore) ;				
	DIMENSION	96*125.2*132mm (W*H*D)				
	PACKING	Kg; pcs/Kg/CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230Vac input, 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 μF & 47 μF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 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). 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. 6. 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx					

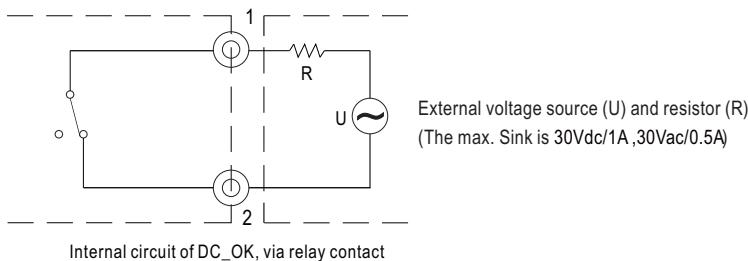
Block Diagram

Derating Curve

Static Characteristics


■ Function Manual

Pin No.	Function	Description
1,2	DC OK Relay Contact	Contact Close: PSU turns ON/DC_OK Contact Open: PSU turns OFF/DC_fail
3,4	Parallel Use Link(P_{LINK})	P_{LINK} should be short to enable droop parallel use. (Default disable)

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.



2.Parallel Use

XDR-960E has the built-in [droop mode current sharing](#) function and can be connected in parallel, up to 4 units, to provide higher output power as exhibited below :

- (1) Difference of output voltages among parallel units should be less than [0.1V](#).
- (2) The total output current must not exceed the value determined by the following equation (Output current at parallel operation)=(The rated current per unit) x (Number of unit) x 0.9.
- (3) In parallel operation 4 units is the maximum, please consult the manufacturer for other applications.
- (4) The power supplies should be paralleled using short and large diameter wiring and then connected to the load.
- (5) When in parallel operation, the minimum output load should be greater than 7% of total output load. (Min. load >7% rated current per unit x number of unit)
- (6) In parallel connection, maybe only one unit (master) operate if the total output load is less than 7% of rated load condition.

The other PSUs (slaves) may go into standby mode and their output LEDs & relays will not turn on.

- (7) [P_{LINK} lines should be shorted locally](#).

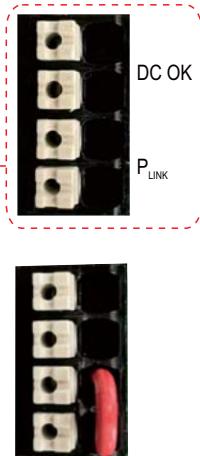
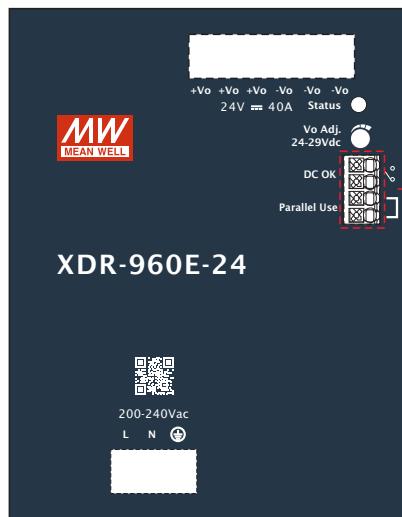
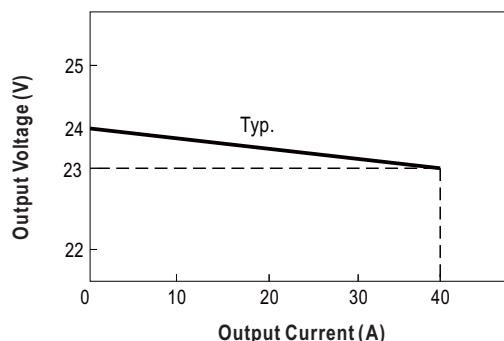
- (8) The "Parallel Use" mode regulates the output voltage in such a manner that the voltage at no load is approx. 4% higher than at normal load.

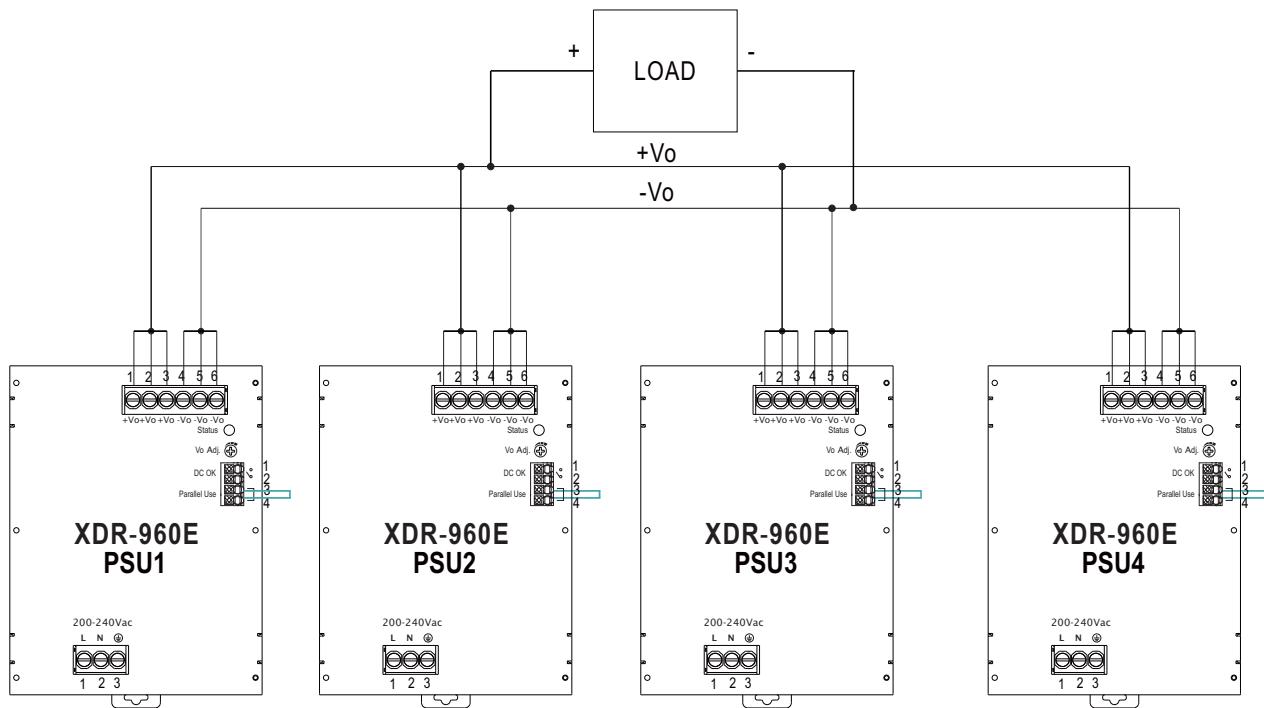
For example XDR-960E-24:

No load output voltage=24V

Normal load output current=40A

0~100% load output voltage=24V~23V



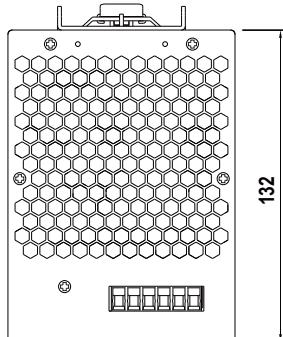


※ Please contact MEAN WELL for more details.

■ Mechanical Specification

(Unit:mm , Tolerance ± 1 mm)

Case No. 304

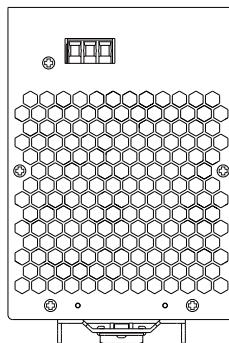
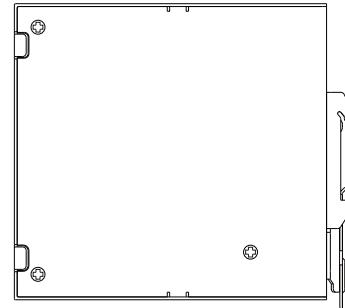
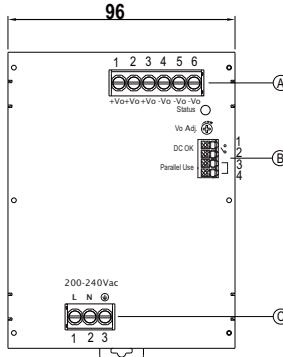
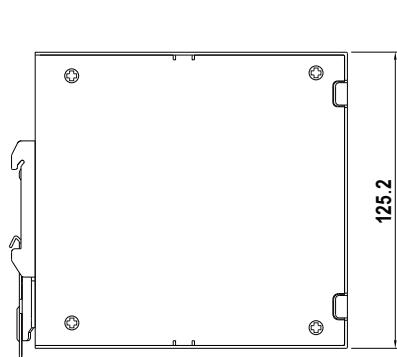


(A) : Terminal Pin No.Assignment

Pin No.	Assignment
1,2,3	DC Output +Vo
4,5,6	DC Output -Vo

(B) : Control Pin No.Assignment

Pin No.	Assignment
1,2	DC OK Relay Contact
3,4	Parallel Use Link(Current Sharing)



(C) : Terminal Pin No.Assignment

Pin No.	Assignment
1	AC/L or DC Input +Vin
2	AC/N or DC Input -Vin
3	FG \ominus

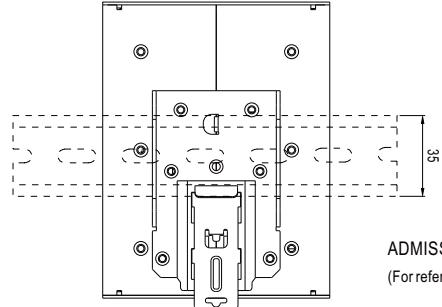
■ Recommend Wiring

	AC Input T.B	DC Output T.B	Signal connector
Solid Wire	6mm ² max.	6mm ² max.	1.5mm ² max.
A.W.G	18~10 AWG	18~8 AWG	24~16 AWG
Screw Terminal Torque	9 Lb-In	9 Lb-In	/



960W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-960E** series

■ Installation Instruction



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

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

■ Installation Manual

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