

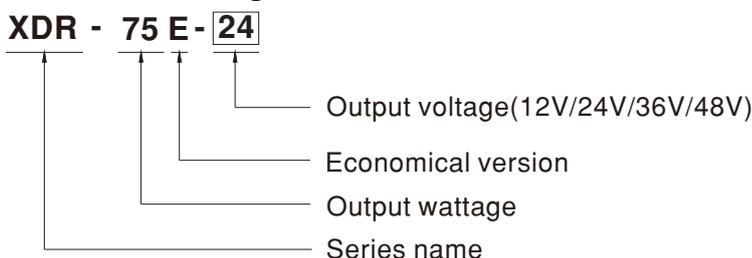
**Features**

- 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-75E series is a 75W 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-75E 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>

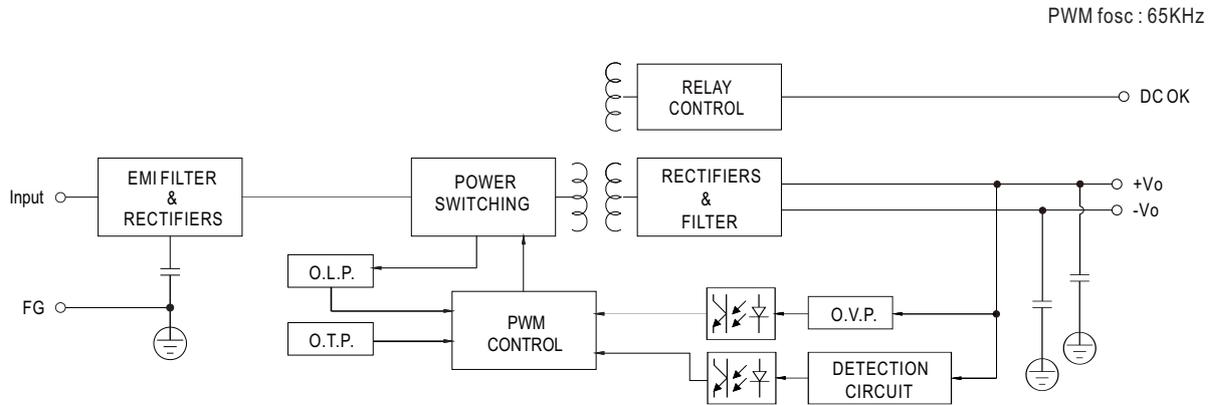


SPECIFICATION	XDR-75E-12	XDR-75E-24	XDR-75E-36	XDR-75E-48
<b>OUTPUT</b>				
DC VOLTAGE	12V	24V	36V	48V
RATED CURRENT	6.3A	3.2A	2.1A	1.6A
CURRENT RANGE	0 ~ 6.3A	0 ~ 3.2A	0 ~ 2.1A	0 ~ 1.6A
RATED POWER	75.6W	76.8W	75.6W	76.8W
RIPPLE & NOISE (max.)	Note.2 100mVp-p	100mVp-p	120mVp-p	120mVp-p
VOLTAGE ADJ. 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    10ms/115Vac at full load			
<b>INPUT</b>				
AC VOLTAGE RANGE	85 ~ 264Vac			
DC VOLTAGE RANGE	120 ~ 370Vdc			
NO LOAD POWER CONSUMPTION (Typ.)	0.5W @115Vac    0.7W @230Vac	0.8W @115Vac    0.9W @230Vac	0.8W @115Vac    1W @230Vac	
FREQUENCY RANGE	47 ~ 63Hz			
EFFICIENCY (Typ.)	89%	90%	91%	91%
AC CURRENT (Typ.)	1.4A/115Vac    0.8A/230Vac			
INRUSH CURRENT (Typ.)	COLD START    18A/115Vac    35A/230Vac			
LEAKAGE CURRENT	<1mA / 240Vac			
<b>PROTECTION</b>				
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 : Hiccup mode, recovers automatically after fault condition is removed			
<b>FUNCTION</b>				
DC OK RELAY CONTACT	Relay Contact Ratings (max.):30Vdc/1A, 30Vac/0.5A resistive load			
<b>ENVIRONMENT</b>				
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			
<b>SAFETY &amp; EMC</b> Note.6&7&8				
SAFETY STANDARDS	CB	IEC 62368-1, IEC 61558-1/2-16, IEC 61010-1/-2-201		
	TUV	BS EN/EN 62368-1, BS EN /EN 61558-1/-2-16, BS EN/EN 61010-1/-2-201		
	UL	UL/CUL 61010-1/-2-201		
	CCC	GB4943.1		
	BSMI	CNS15598-1		
	EAC	TPTC004 approved		
	KC/BIS	KC 62368-1 and BIS IS 13252 (Part 1) certified, no stock by request ,contact sales for inquires		

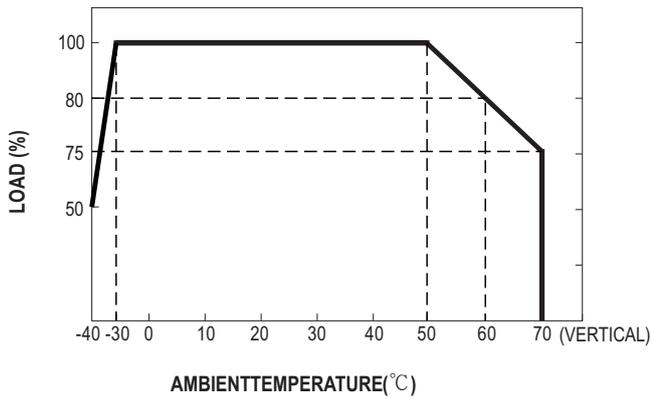


SPECIFICATION		XDR-75E-12	XDR-75E-24	XDR-75E-36	XDR-75E-48
<b>SAFETY &amp; EMC</b> <span style="float: right;">Note.6&amp;7&amp;8</span>					
<b>OVER VOLTAGE CATEGORY</b>	Note.4	IEC/EN 61558-1/-2-16 (OVC III, altitude up to 2000m) IEC/EN/UL 61010-1/-2-201 (OVC II, altitude up to 5000m) IEC/EN 62368-1 (OVC II, altitude up to 5000m)			
<b>SAFETY EXTRA-LOW VOLTAGE(SELV)</b>		IEC/EN 61558-2-16 (SELV) IEC/EN 62368-1 (SELV / ES1)			
<b>WITHSTAND VOLTAGE</b>		I/P-O/P: 4KVac I/P-FG: 2KVac O/P-FG: 1.5KVac O/P-DC OK: 0.5KVac			
<b>ISOLATION RESISTANCE</b>		I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500Vdc/25°C / 70%RH			
<b>EMC EMISSION</b>	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>	
	Conducted	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B	
	Radiated	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B	
	Harmonic Current	BS EN/EN61000-3-2		Class A	
	Voltage Flicker	BS EN/EN61000-3-3		-----	
<b>EMC IMMUNITY</b>	BS EN/EN55035 , BS EN/EN61204-3, BS EN/EN61000-6-2(BS EN/EN50082-2), KS C 9835				
	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>	
	ESD	BS EN/EN61000-4-2		Level 3, 8KV air ; Level 2, 4KV contact; criteria A	
	Radiated	BS EN/EN61000-4-3		Level 3, 10V/m ; criteria A	
	EFT / Burst	BS EN/EN61000-4-4		Level 3, 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	
<b>OTHERS</b>					
<b>MTBF</b>	2425.7K hrs min. Telcordia SR-332 (Bellcore) ; 533.7K hrs min. MIL-HDBK-217F (25°C)				
<b>DIMENSION</b>	30*125.2*116mm (W*H*D)				
<b>PACKING</b>	465g; 24pcs/12.15Kg/1.16CUFT				
<b>NOTE</b>					
<p>1. All parameters NOT specially mentioned are measured at 230Vac input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μ F &amp; 47 μ F parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>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).</p> <p>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.</p> <p>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 <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a>)</p> <p>7. The Regulatory Compliance Mark (RCM) is applied on a voluntary basis. The equipment meets the relevant IEC or AS/NZS standards, or AS/NZS 3820 where applicable. The use of the RCM mark complies with AS/NZS 4417.1.</p> <p>8. Some factory or model may not have the BIS logo, please contact your MEAN WELL sales for more information.</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>					

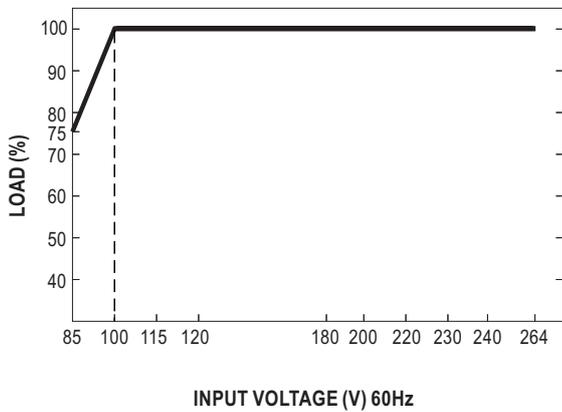
■ Block Diagram



■ Derating Curve



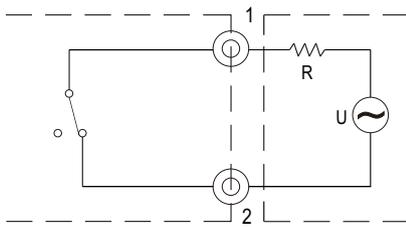
■ Static Characteristics



■ **Function Manual**

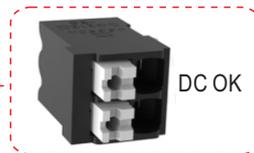
**1. DC OK Relay Contact**

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)

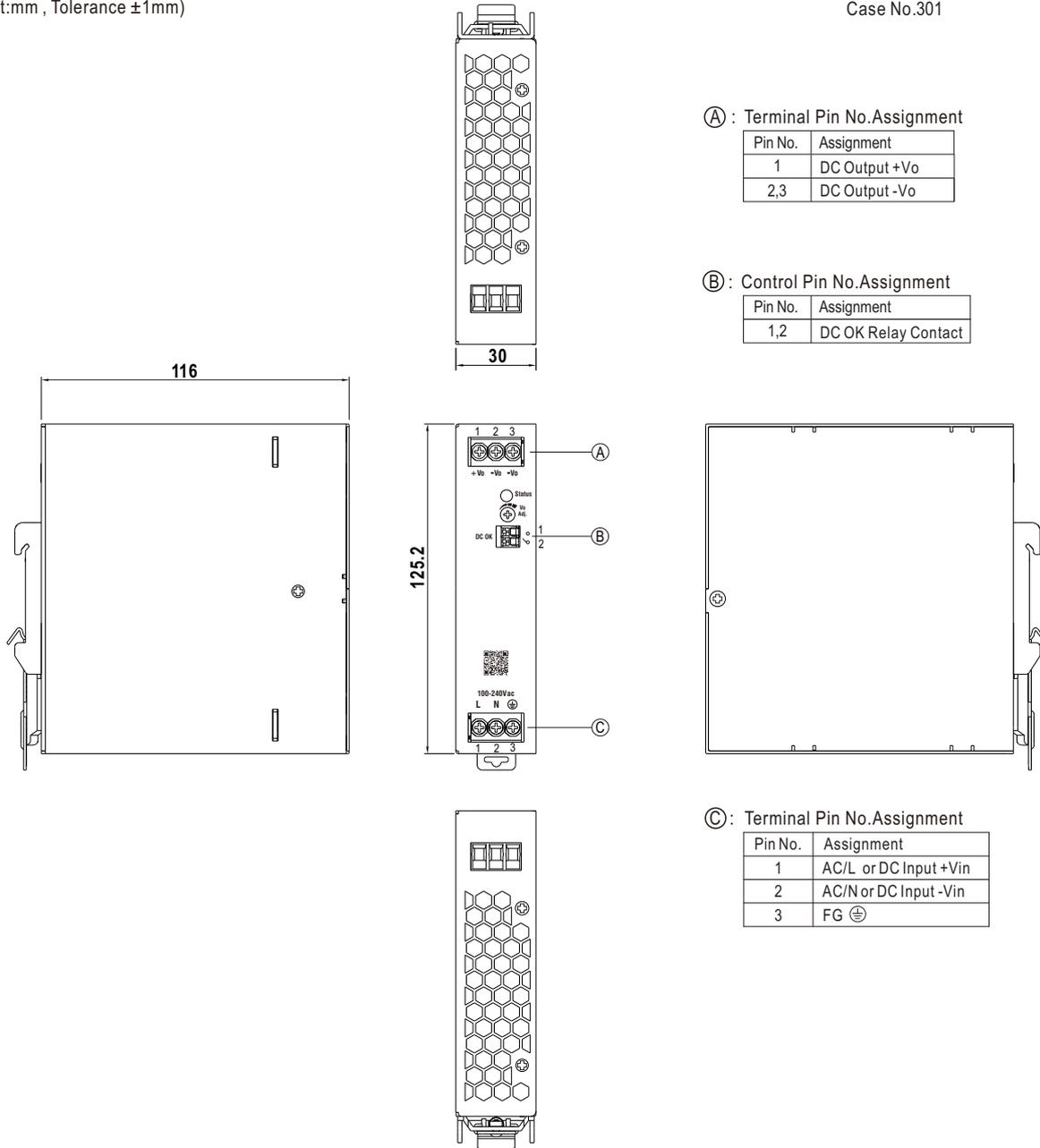
Internal circuit of DC\_OK, via relay contact



**■ Mechanical Specification**

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

Case No.301



Ⓐ : Terminal Pin No.Assignment

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

Ⓑ : Control Pin No.Assignment

Pin No.	Assignment
1,2	DC OK Relay Contact

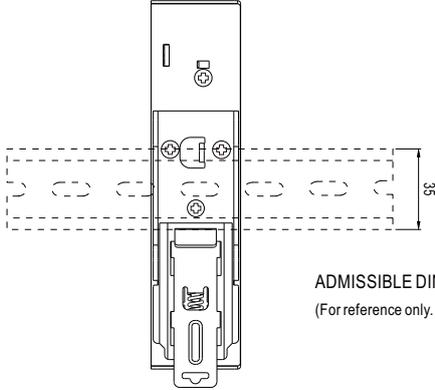
Ⓒ : Terminal Pin No.Assignment

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

**■ 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	18~10 AWG	18~10 AWG	24~16 AWG
Wire Stripping Length	7~8mm	7~8mm	8~9mm
Screw Terminal Torque	5 Lb-In	5 Lb-In	/

■ **Installation Instruction**

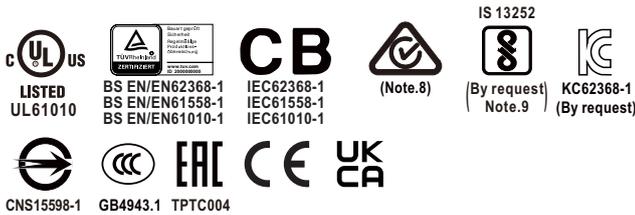


ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
(For reference only. Not included with unit.)

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>



## ■ 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 0.6W~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

## ■ Applications

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

## ■ GTIN CODE

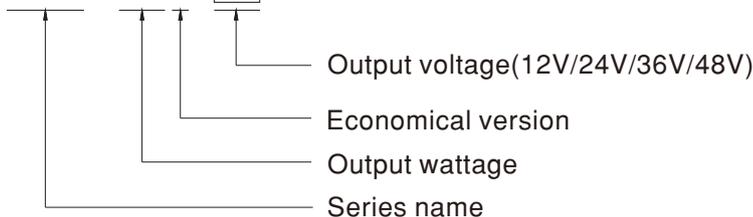
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## ■ Description

The XDR-150E series is a 150W 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 0.6W~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-150E series is a compact, high-performance, and highly reliable DIN rail power supply.

## ■ Model Encoding

**XDR - 150E - 24**





# 150W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-150E** series

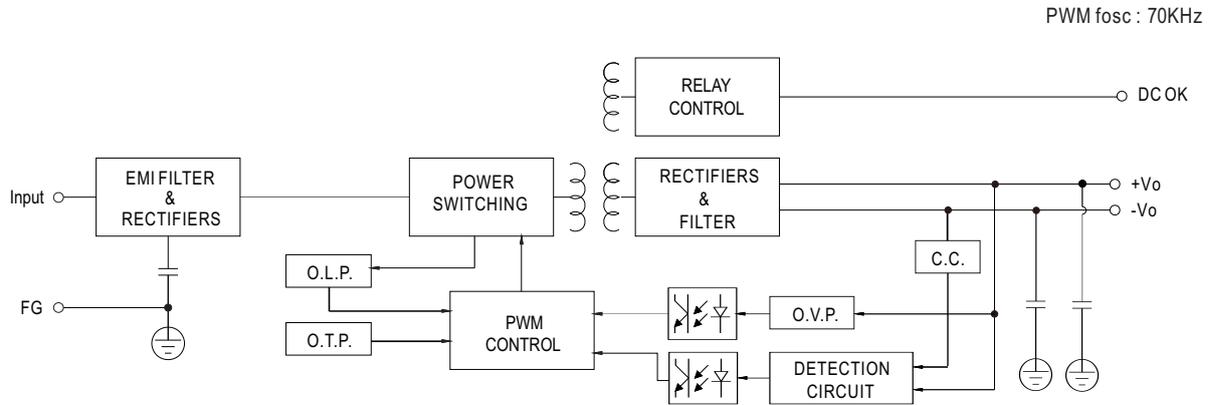
SPECIFICATION		XDR-150E-12	XDR-150E-24	XDR-150E-36	XDR-150E-48
<b>OUTPUT</b>					
DC VOLTAGE		12V	24V	36V	48V
RATED CURRENT	115VAC	10A	5.2A	3.46A	2.6A
	230VAC	11A	6.5A	4.33A	3.25A
CURRENT RANGE	115VAC	0 ~ 10A	0 ~ 5.2A	0 ~ 3.46A	0 ~ 2.6A
	230VAC	0 ~ 11A	0 ~ 6.5A	0 ~ 4.33A	0 ~ 3.25A
RATED POWER	115VAC	120W	124.8W	124.56W	124.8W
	230VAC	132W	156W	155.88W	156W
RIPPLE & NOISE (max.) <span style="float:right">Note.2</span>		100mVp-p	120mVp-p	150mVp-p	200mVp-p
VOLTAGE ADJ. RANGE		12 ~ 15V	24 ~ 29V	36 ~ 42V	48 ~ 55V
VOLTAGE TOLERANCE <span style="float:right">Note.3</span>		±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			
<b>INPUT</b>					
AC VOLTAGE RANGE		85 ~ 264Vac			
DC VOLTAGE RANGE		120 ~ 370Vdc			
NO LOAD POWER CONSUMPTION (Typ.)		0.6W @115Vac    0.9W @ 230Vac    0.8W @115Vac    1W @ 230Vac			
FREQUENCY RANGE		47 ~ 63Hz			
EFFICIENCY (Typ.)		89%	91%	91%	91%
AC CURRENT (Typ.)		2.6A/115Vac    1.6A/230Vac			
INRUSH CURRENT (Typ.)		COLD START    20A/115Vac    40A/230Vac			
LEAKAGE CURRENT		<1mA / 240Vac			
<b>PROTECTION</b>					
OVERLOAD		105~130% rated output power ,constant current limiting without shutdown, recovers automatically after fault condition is removed /230Vac 105~150% rated output power ,constant current limiting without shutdown, recovers automatically after fault condition is removed/115Vac			
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			
<b>FUNCTION</b>					
DC OK RELAY CONTACT		Relay Contact Ratings (max.):30Vdc/1A, 30Vac/0.5A resistive load			
<b>ENVIRONMENT</b>					
WORKING TEMP. <span style="float:right">Note.4</span>		-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			



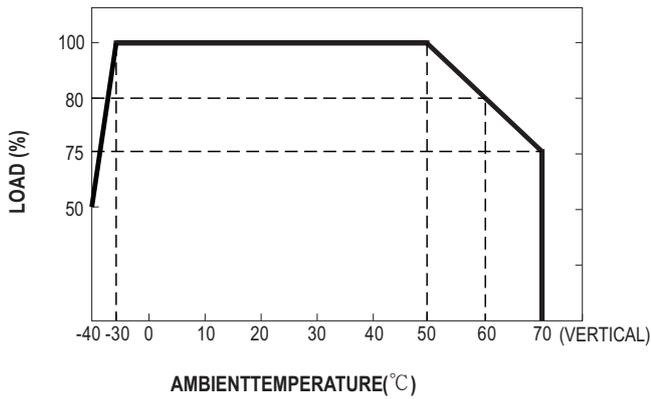
# 150W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-150E** series

SPECIFICATION	XDR-150E-12	XDR-150E-24	XDR-150E-36	XDR-150E-48
<b>SAFETY &amp; EMC</b> <span style="float: right;">Note.7&amp;8&amp;9</span>				
<b>SAFETY STANDARDS</b>	CB IEC 62368-1, IEC 61558-1/2-16, IEC 61010-1/-2-201 TUV BS EN/EN 62368-1, BS EN /EN 61558-1/-2-16, BS EN/EN 61010-1/-2-201 UL UL/CUL 61010-1/-2-201 CCC GB4943.1 BSMI CNS15598-1 EAC TPTC004 approved KC/BIS <b>KC 62368-1 and BIS IS 13252 (Part 1) certified, no stock by request ,contact sales for inquires</b>			
<b>OVER VOLTAGE CATEGORY</b> <span style="float: right;">Note.5</span>	IEC/EN 61558-1/-2-16 (OVC III, altitude up to 2000m ) IEC/EN/UL 61010-1/-2-201 (OVC II, altitude up to 5000m ) IEC/EN 62368-1 (OVC II, altitude up to 5000m )			
<b>SAFETY EXTRA-LOW VOLTAGE(SELV)</b>	IEC/EN 61558-2-16 (SELV ) IEC/EN 62368-1 (SELV / ES1 )			
<b>WITHSTAND VOLTAGE</b>	I/P-O/P: 4KVac I/P-FG: 2KVac O/P-FG: 1.5KVac O/P-DC OK: 0.5KVac			
<b>ISOLATION RESISTANCE</b>	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500Vdc/25 °C / 70%RH			
<b>EMC EMISSION</b>	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>
	Conducted	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B
	Radiated	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B
	Harmonic Current	BS EN/EN61000-3-2		Class A(≤80% LOAD )
	Voltage Flicker	BS EN/EN61000-3-3		-----
<b>EMC IMMUNITY</b>	BS EN/EN55035 , BS EN/EN61204-3, BS EN/EN61000-6-2(BS EN/EN50082-2), KS C 9835			
	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>
	ESD	BS EN/EN61000-4-2		Level 3, 8KV air ; Level 2, 4KV contact; criteria A
	Radiated	BS EN/EN61000-4-3		Level 3, 10V/m ; criteria A
	EFT / Burst	BS EN/EN61000-4-4		Level 3, 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	
<b>OTHERS</b>				
<b>MTBF</b>	2201.7K hrs min. Telcordia SR-332 (Bellcore) ; 440.4K hrs min. MIL-HDBK-217F (25°C)			
<b>DIMENSION</b>	<b>30*125.2*116mm (W*H*D)</b>			
<b>PACKING</b>	510g; 24pcs/13.25Kg/1.16CUFT			
<b>NOTE</b>				
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 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°C/1000m with fanless models and of 5°C/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/EML_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EML_statement_en.pdf</a> ) 8. The Regulatory Compliance Mark (RCM) is applied on a voluntary basis. The equipment meets the relevant IEC or AS/NZS standards, or AS/NZS 3820 where applicable. The use of the RCM mark complies with AS/NZS 4417.1. 9. Some factory or model may not have the BIS logo, please contact your MEAN WELL sales for more information. ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>				

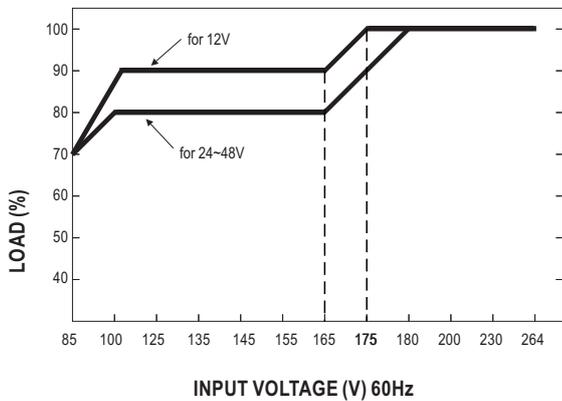
■ Block Diagram



■ Derating Curve



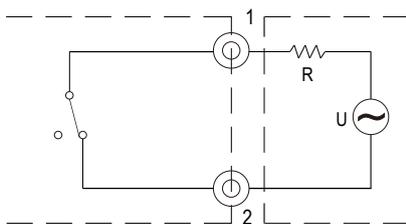
■ Static Characteristics



■ **Function Manual**

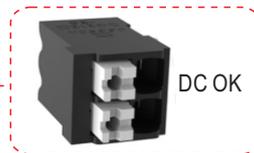
**1. DC OK Relay Contact**

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)

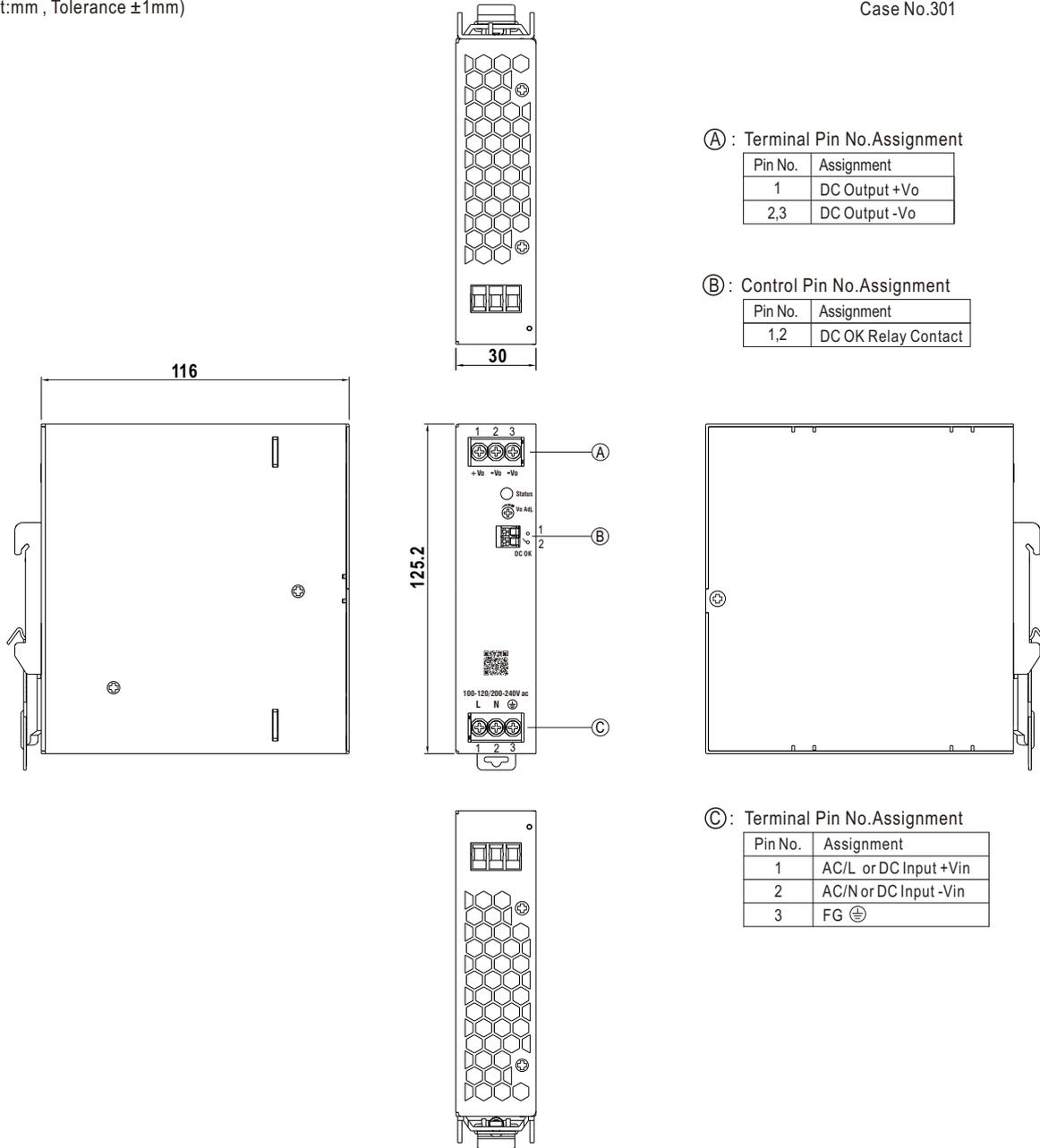
Internal circuit of DC\_OK, via relay contact



**■ Mechanical Specification**

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

Case No.301



**(A) : Terminal Pin No.Assignment**

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

**(B) : Control Pin No.Assignment**

Pin No.	Assignment
1,2	DC OK Relay Contact

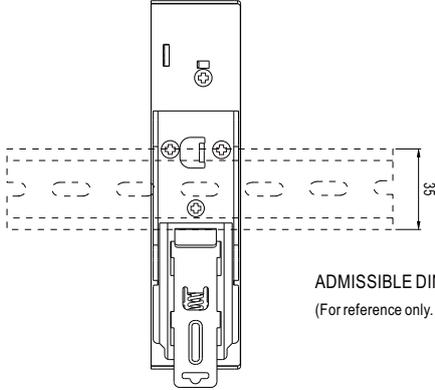
**(C) : Terminal Pin No.Assignment**

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

**■ 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	20~10 AWG	16~10 AWG	24~16 AWG
Wire Stripping Length	7~8mm	7~8mm	8~9mm
Screw Terminal Torque	5 Lb-In	5 Lb-In	/

#### ■ Installation Instruction

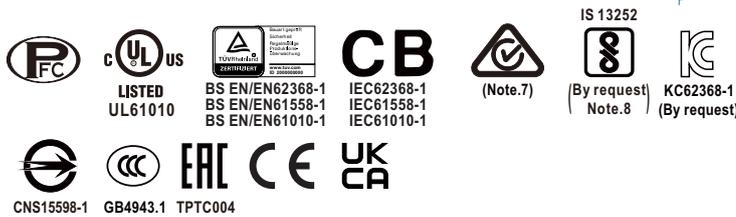


ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
(For reference only. Not included with unit.)

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>



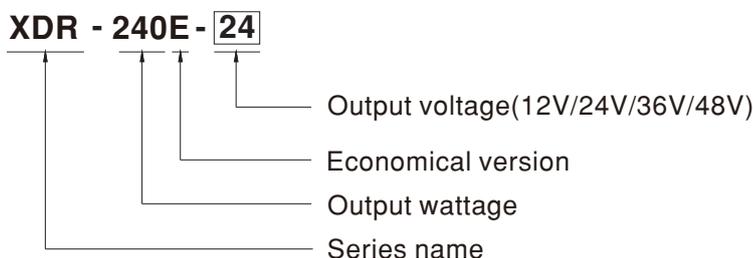
### ■ Features

- 85~264Vac input with PFC
- Global certificates in multi-fields (ITE 62368-1, Industrial 61558-1/-2-16, 61010)
- 40mm slim width
- High efficiency up to 95.5% and no load power dissipation < 1.2W
- 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-240E series is a 240W AC/DC economical ultra slim industrial DIN rail power. Key features of this series include a narrow 40mm casing, optimizing system installation space, and an ultra-wide input range of 85~264Vac suitable for global use. It boasts a maximum efficiency of 95.5% and a low standby power consumption < 1.2W 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-240E 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>



# 240W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-240E** series

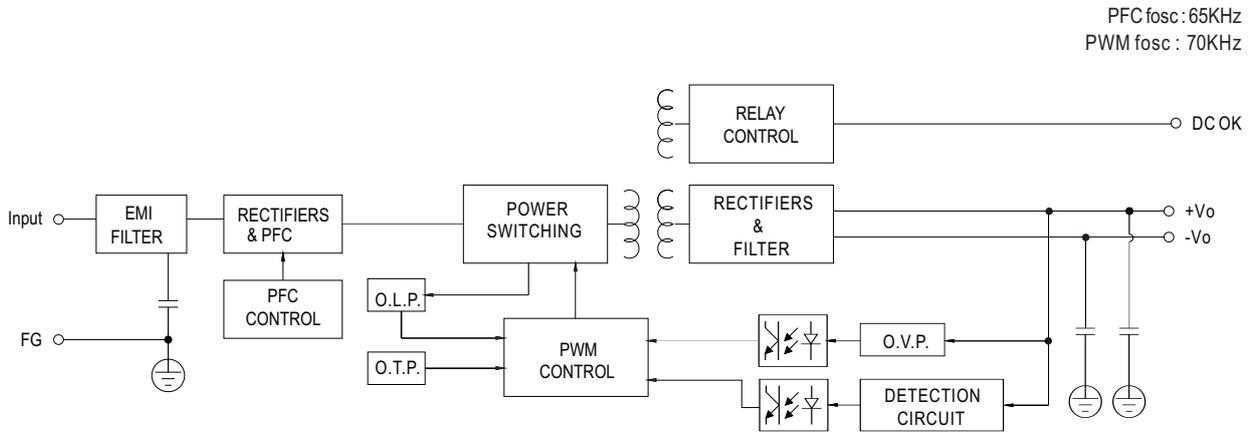
SPECIFICATION	XDR-240E-12	XDR-240E-24	XDR-240E-36	XDR-240E-48
<b>OUTPUT</b>				
DC VOLTAGE	12V	24V	36V	48V
RATED CURRENT	20A	10A	6.66A	5A
CURRENT RANGE	0 ~ 20A	0 ~ 10A	0 ~ 6.66A	0 ~ 5A
RATED POWER	240W			
RIPPLE & NOISE (max.)	Note.2 100mVp-p	100mVp-p	120mVp-p	150mVp-p
VOLTAGE ADJ. RANGE	12 ~ 15V	24 ~ 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, 150ms/115Vac at full load			
HOLD UP TIME (Typ.)	20ms/230Vac    20ms/115Vac at full load			
<b>INPUT</b>				
AC VOLTAGE RANGE	85 ~ 264Vac			
DC VOLTAGE RANGE	120 ~ 370Vdc			
NO LOAD POWER CONSUMPTION (Typ.)	1W @115Vac & 230Vac		1.2W @115Vac & 230Vac	
FREQUENCY RANGE	47 ~ 63Hz			
POWDR FACTOR (Typ.)	PF>0.95/230Vac PF>0.98/115Vac at full load			
EFFICIENCY (Typ.)	94%	95.2%	95.5%	95.5%
AC CURRENT (Typ.)	2.6A/115Vac    1.3A/230Vac			
INRUSH CURRENT (Typ.)	COLD START    15A/115Vac    30A/230Vac			
LEAKAGE CURRENT	<1mA / 240Vac			
<b>PROTECTION</b>				
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	Max. 18V	Max. 35V	Max. 50V	Max. 63V
	Protection type : Hiccup mode, recovers automatically after fault condition is removed			
OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down			
<b>FUNCTION</b>				
DC OK RELAY CONTACT	Relay Contact Ratings (max.):30Vdc/1A, 30Vac/0.5A resistive load			
<b>ENVIRONMENT</b>				
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			



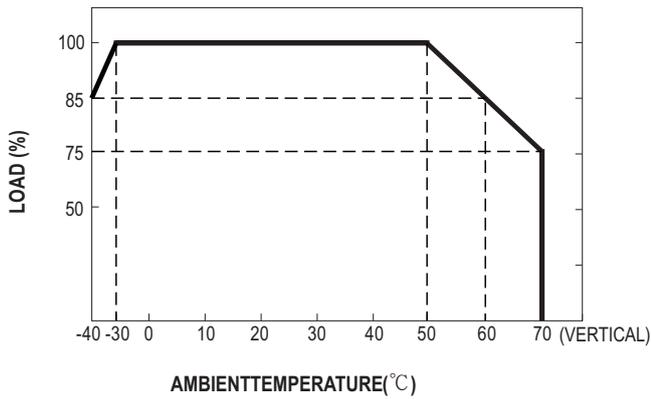
# 240W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-240E** series

SPECIFICATION	XDR-240E-12	XDR-240E-24	XDR-240E-36	XDR-240E-48
<b>SAFETY &amp; EMC</b> <span style="float: right;">Note.6&amp;7&amp;8</span>				
<b>SAFETY STANDARDS</b>	CB IEC 62368-1, IEC 61558-1/2-16, IEC 61010-1/2-201 TUV BS EN/EN 62368-1, BS EN /EN 61558-1/2-16, BS EN/EN 61010-1/2-201 UL UL/CUL 61010-1/2-201 CCC GB4943.1 BSMI CNS15598-1 EAC TPTC004 approved KC/BIS <b>KC 62368-1 and BIS IS 13252 (Part 1) certified, no stock by request ,contact sales for inquires</b>			
<b>OVER VOLTAGE CATEGORY</b> <span style="float: right;">Note.4</span>	IEC/EN 61558-1/2-16 (OVC III, altitude up to 2000m ) IEC/EN/UL 61010-1/2-201 (OVC II, altitude up to 5000m ) IEC/EN 62368-1 (OVC II, altitude up to 5000m )			
<b>SAFETY EXTRA-LOW VOLTAGE(SELV)</b>	IEC/EN 61558-2-16 (SELV ) IEC/EN 62368-1 (SELV / ES1 )			
<b>WITHSTAND VOLTAGE</b>	I/P-O/P: 4KVac I/P-FG: 2KVac O/P-FG: 1.5KVac O/P-DC OK: 0.5KVac			
<b>ISOLATION RESISTANCE</b>	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500Vdc/25°C / 70%RH			
<b>EMC EMISSION</b>	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>
	Conducted	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B
	Radiated	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B
	Harmonic Current	BS EN/EN61000-3-2		Class A
	Voltage Flicker	BS EN/EN61000-3-3		----
<b>EMC IMMUNITY</b>	BS EN/EN55035 , BS EN/EN61204-3, BS EN/EN61000-6-2(BS EN/EN50082-2), KS C 9835			
	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>
	ESD	BS EN/EN61000-4-2		Level 3, 8KV air ; Level 2, 4KV contact; criteria A
	Radiated	BS EN/EN61000-4-3		Level 3, 10V/m ; criteria A
	EFT / Burst	BS EN/EN61000-4-4		Level 3, 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
<b>OTHERS</b>				
<b>MTBF</b>	1723.2K hrs min. Telcordia SR-332 (Bellcore) ; 324.4K hrs min. MIL-HDBK-217F (25°C)			
<b>DIMENSION</b>	<b>40*125.2*116mm (W*H*D)</b>			
<b>PACKING</b>	610g; 16pcs/12.2Kg/1.27CUFT			
<b>NOTE</b>				
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 <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> ) 7. The Regulatory Compliance Mark (RCM) is applied on a voluntary basis. The equipment meets the relevant IEC or AS/NZS standards, or AS/NZS 3820 where applicable. The use of the RCM mark complies with AS/NZS 4417.1. 8. Some factory or model may not have the BIS logo, please contact your MEAN WELL sales for more information. ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>				

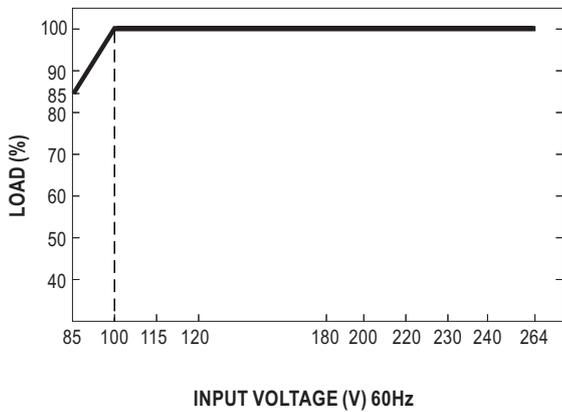
■ Block Diagram



■ Derating Curve



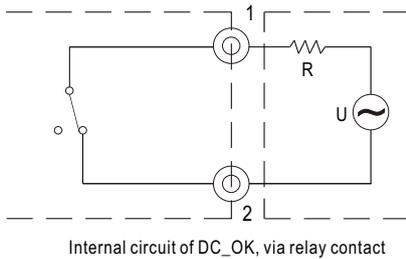
■ Static Characteristics



■ **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.



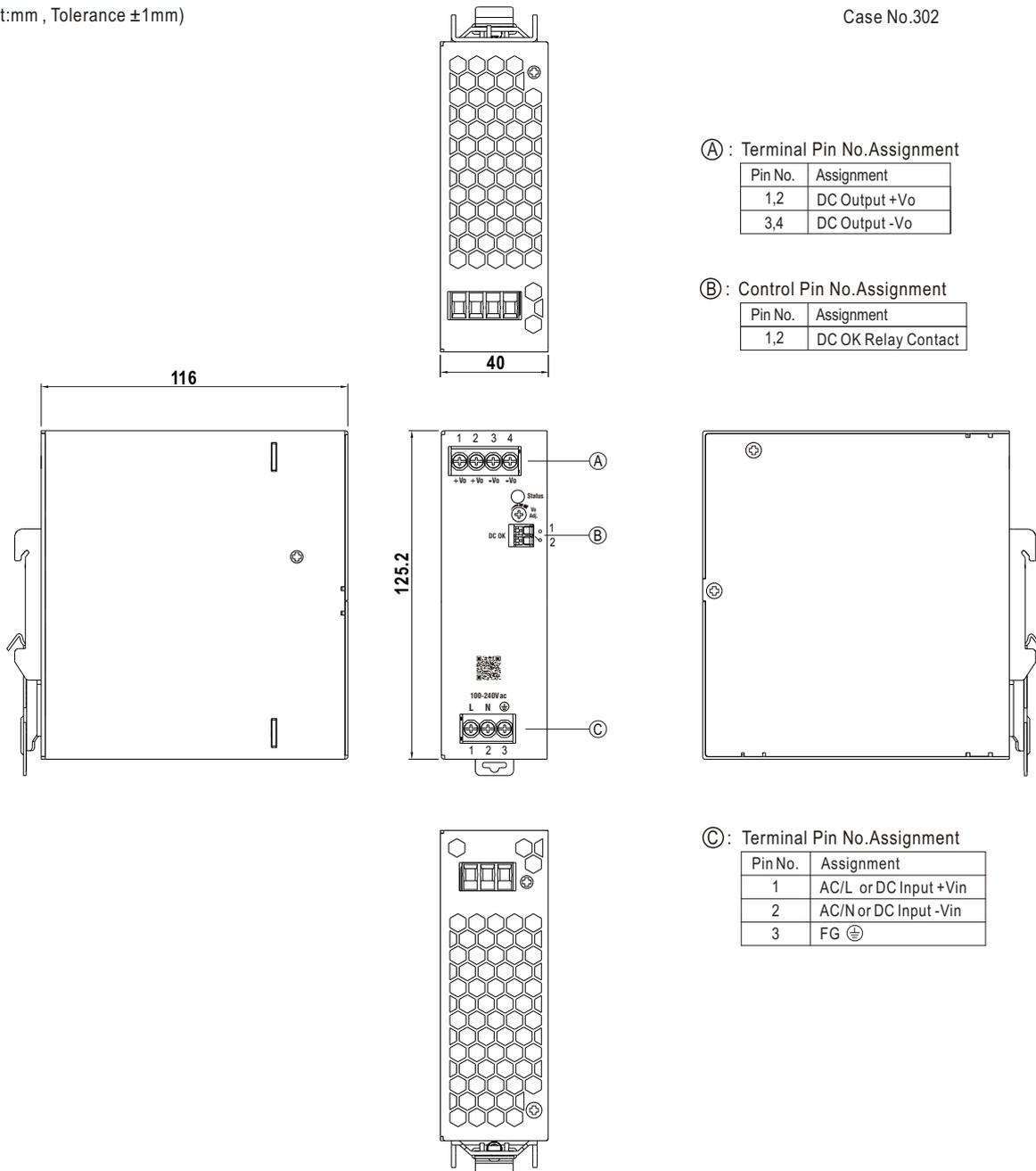
External voltage source (U) and resistor (R)  
(The max. Sink is 30Vdc/1A, 30Vac/0.5A)



**■ Mechanical Specification**

(Unit:mm , Tolerance ±1mm)

Case No.302



**Ⓐ : Terminal Pin No. Assignment**

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

**Ⓑ : Control Pin No. Assignment**

Pin No.	Assignment
1,2	DC OK Relay Contact

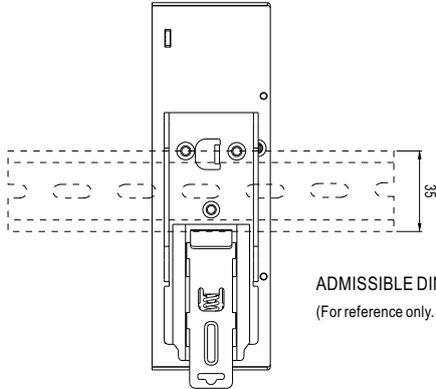
**Ⓒ : Terminal Pin No. Assignment**

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

**■ 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	XDR-240E-12	20~10 AWG	14~10 AWG	24~16 AWG
	XDR-240E-24/36/48		18~10 AWG	
Wire Stripping Length		7~8mm	7~8mm	8~9mm
Screw Terminal Torque		5 Lb-In	5 Lb-In	/

#### ■ Installation Instruction

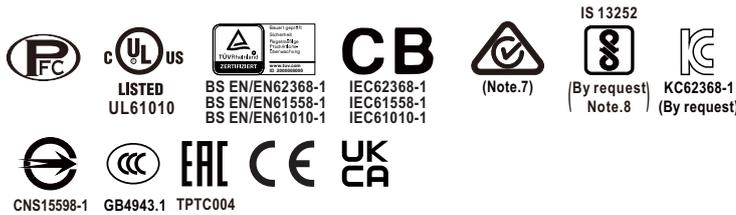


ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
(For reference only. Not included with unit.)

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>



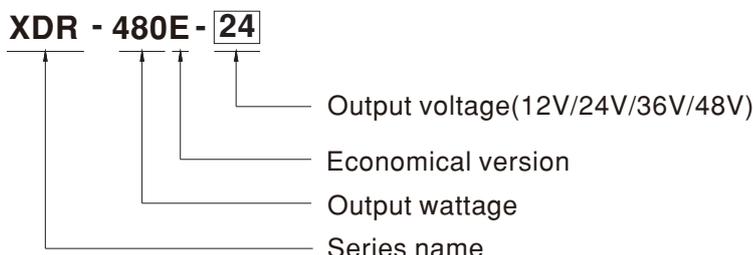
## ■ Features

- 85~264Vac input with PFC
- **Global certificates in multi-fields** (ITE 62368-1, Industrial 61558-1/-2-16, 61010)
- **48mm** slim width
- High efficiency up to **96%** and no load power dissipation < **1.2W**
- Built-in **constant current** limiting circuit
- Current sharing up to **1920W (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-480E series is a 480W AC/DC economical ultra slim industrial DIN rail power. Key features of this series include a narrow 48mm casing, optimizing system installation space, and an ultra-wide input range of 85~264Vac suitable for global use. It boasts a maximum efficiency of 96% and a low standby power consumption <1.2W 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 1920W; built-in DC OK signal. With comprehensive protection functions, complete safety certifications, and a 3-years warranty, the XDR-480E 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

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# 480W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-480E** series

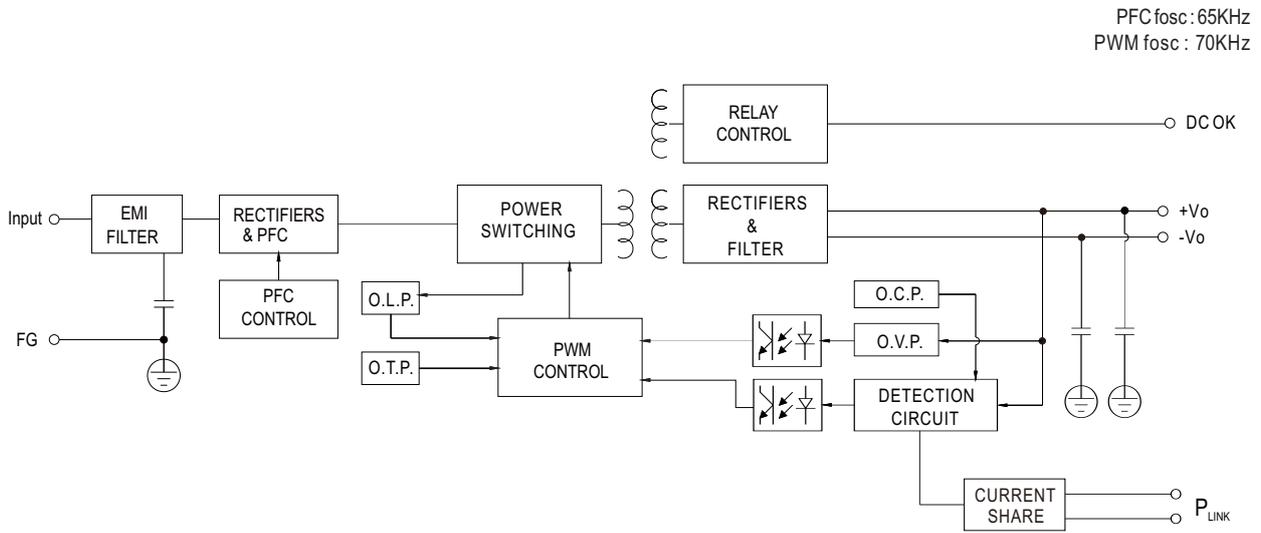
SPECIFICATION	XDR-480E-12	XDR-480E-24	XDR-480E-36	XDR-480E-48
<b>OUTPUT</b>				
DC VOLTAGE	12V	24V	36V	48V
RATED CURRENT	30A	20A	13.3A	10A
CURRENT RANGE	0 ~ 30A	0 ~ 20A	0 ~ 13.3A	0 ~ 10A
RATED POWER	360W	480W	478.8W	480W
RIPPLE & NOISE (max.) <span style="float:right">Note.2</span>	100mVp-p	120mVp-p	150mVp-p	150mVp-p
VOLTAGE ADJ. RANGE	12 ~ 15V	24 ~ 29V	36 ~ 42V	48 ~ 55V
VOLTAGE TOLERANCE <span style="float:right">Note.3</span>	±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	1500ms, 150ms/230Vac    3000ms, 150ms/115Vac at full load			
HOLD UP TIME (Typ.)	15ms/230Vac    15ms/115Vac at full load			
<b>INPUT</b>				
AC VOLTAGE RANGE	85 ~ 264Vac			
DC VOLTAGE RANGE	120 ~ 370Vdc			
NO LOAD POWER CONSUMPTION (Typ.)	1W @115Vac & 230Vac		1.2W @115Vac & 230Vac	
FREQUENCY RANGE	47 ~ 63Hz			
POWDR FACTOR (Typ.)	PF>0.95/230Vac PF>0.98/115Vac at full load			
EFFICIENCY (Typ.)	94%	95.5%	95.5%	96%
AC CURRENT (Typ.)	6A/115Vac    3A/230Vac			
INRUSH CURRENT (Typ.)	COLD START    15A/115Vac    30A/230Vac			
LEAKAGE CURRENT	<1mA / 240Vac			
<b>PROTECTION</b>				
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	Max. 18V	Max. 35V	Max. 50V	Max. 63V
	Protection type : Hiccup mode, recovers automatically after fault condition is removed.			
OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down			
<b>FUNCTION</b>				
PARALLEL (Droop Mode)	Up to 1920W Max (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			
<b>ENVIRONMENT</b>				
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			



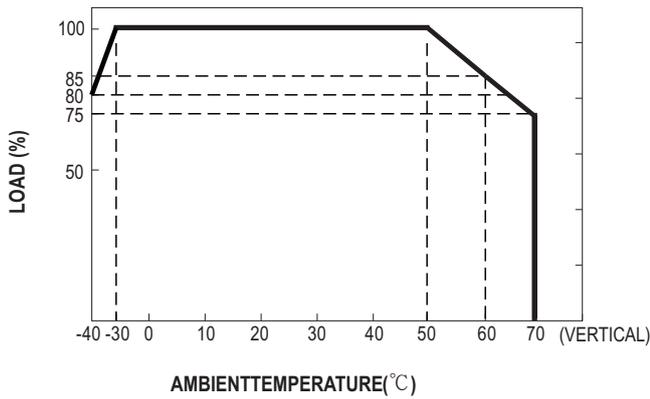
# 480W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-480E** series

SPECIFICATION	XDR-480E-12	XDR-480E-24	XDR-480E-36	XDR-480E-48
<b>SAFETY &amp; EMC</b> <span style="float: right;">Note.6&amp;7&amp;8</span>				
<b>SAFETY STANDARDS</b>	CB IEC 62368-1, IEC 61558-1/2-16, IEC 61010-1/2-201 TUV BS EN/EN 62368-1, BS EN /EN 61558-1/2-16, BS EN/EN 61010-1/2-201 UL UL/CUL 61010-1/2-201 CCC GB4943.1 BSMI CNS15598-1 EAC TPTC004 approved KC/BIS <b>KC 62368-1 and BIS IS 13252 (Part 1) certified, no stock by request ,contact sales for inquires</b>			
<b>OVER VOLTAGE CATEGORY</b> <span style="float: right;">Note.4</span>	IEC/EN 61558-1/2-16 (OVC III, altitude up to 2000m) IEC/EN/UL 61010-1/2-201 (OVC II, altitude up to 5000m) IEC/EN 62368-1 (OVC II, altitude up to 5000m)			
<b>SAFETY EXTRA-LOW VOLTAGE(SELV)</b>	IEC/EN 61558-2-16 (SELV) IEC/EN 62368-1 (SELV / ES1)			
<b>WITHSTAND VOLTAGE</b>	I/P-O/P: 4KVac I/P-FG: 2KVac O/P-FG: 1.5KVac O/P-DC OK: 0.5KVac			
<b>ISOLATION RESISTANCE</b>	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500Vdc/25°C / 70%RH			
<b>EMC EMISSION</b>	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>
	Conducted	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B
	Radiated	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832		Class B
	Harmonic Current	BS EN/EN61000-3-2		Class A
	Voltage Flicker	BS EN/EN61000-3-3		-----
<b>EMC IMMUNITY</b>	BS EN/EN55035 , BS EN/EN61204-3, BS EN/EN61000-6-2(BS EN/EN50082-2), KS C 9835			
	<b>Parameter</b>	<b>Standard</b>		<b>Test Level / Note</b>
	ESD	BS EN/EN61000-4-2		Level 3, 8KV air ; Level 2, 4KV contact; criteria A
	Radiated	BS EN/EN61000-4-3		Level 3, 10V/m ; criteria A
	EFT / Burst	BS EN/EN61000-4-4		Level 3, 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
<b>OTHERS</b>				
<b>MTBF</b>	1482.0K hrs min. Telcordia SR-332 (Bellcore) ; 258.3K hrs min. MIL-HDBK-217F (25°C)			
<b>DIMENSION</b>	<b>48*125.2*125mm (W*H*D)</b>			
<b>PACKING</b>	890g; 12pcs/13Kg/1.16CUFT			
<b>NOTE</b>				
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 <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> ) 7. The Regulatory Compliance Mark (RCM) is applied on a voluntary basis. The equipment meets the relevant IEC or AS/NZS standards, or AS/NZS 3820 where applicable. The use of the RCM mark complies with AS/NZS 4417.1. 8. Some factory or model may not have the BIS logo, please contact your MEAN WELL sales for more information. ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>				

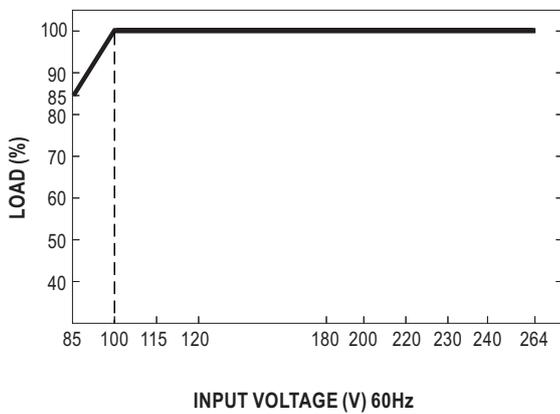
■ Block Diagram



■ Derating Curve



■ Static Characteristics

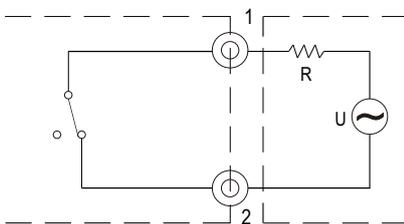


## Function Manual

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	Paraller Use Link(P <sub>LINK</sub> )	P <sub>LINK</sub> 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.



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

Internal circuit of DC\_OK, via relay contact

### 2.Parallel Use

XDR-480E 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 :

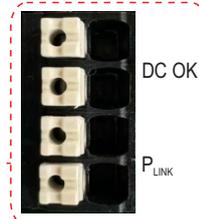
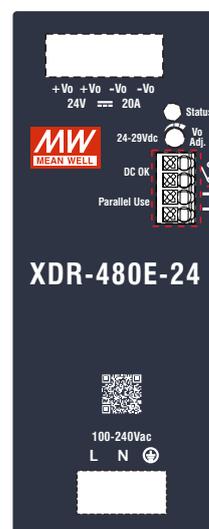
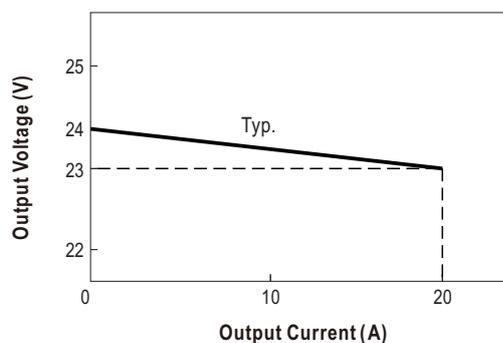
- (1) Difference of output voltages among parallel units should be less than **0.1V**.
- (2) The total output current must not exceed the value determined by the following equation (Output current at parallel operation)=(The rated current per unit) x (Number of unit) x 0.9.
- (3) In parallel operation 4 units is the maximum, please consult the manufacture 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<sub>LINK</sub> lines should be shorted locally.**
- (8) In parallel operation ,after overload or short circuit fault occurs, re-power on to recover.
- (9) The "Parallel Use" mode regulates the output voltage in such a manner that the rated load is approx. 4% lower than the no-load voltage (12V:approx.7%).

For example XDR-480E-24:

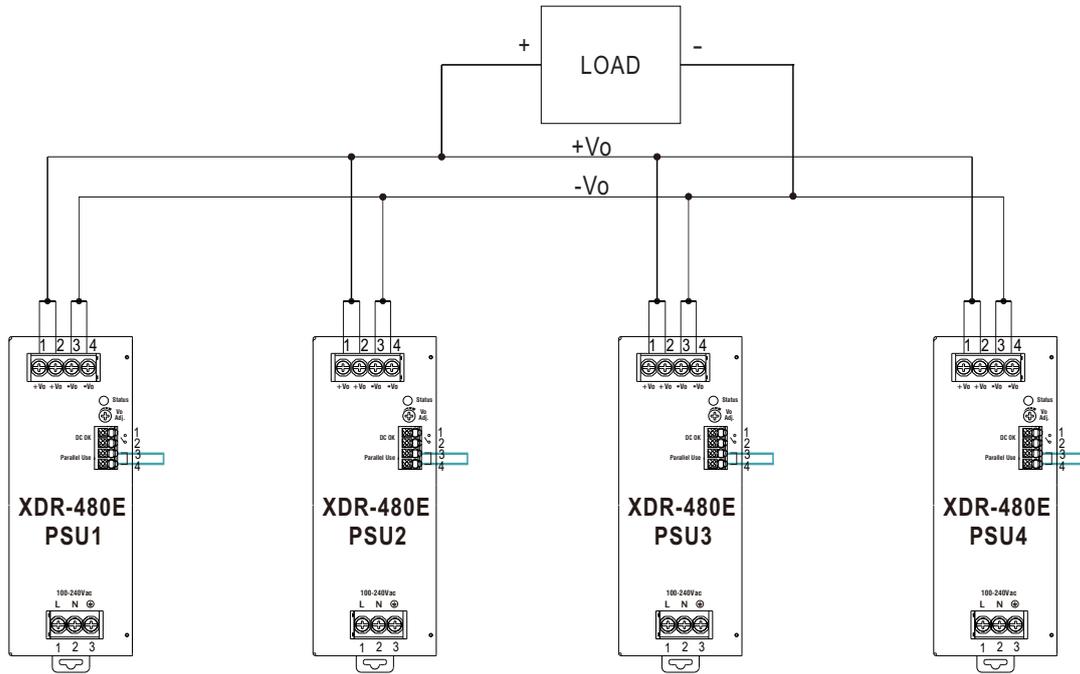
No load output voltage=24V

Normal load output current=20A

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



Enable : P<sub>LINK</sub> should be short

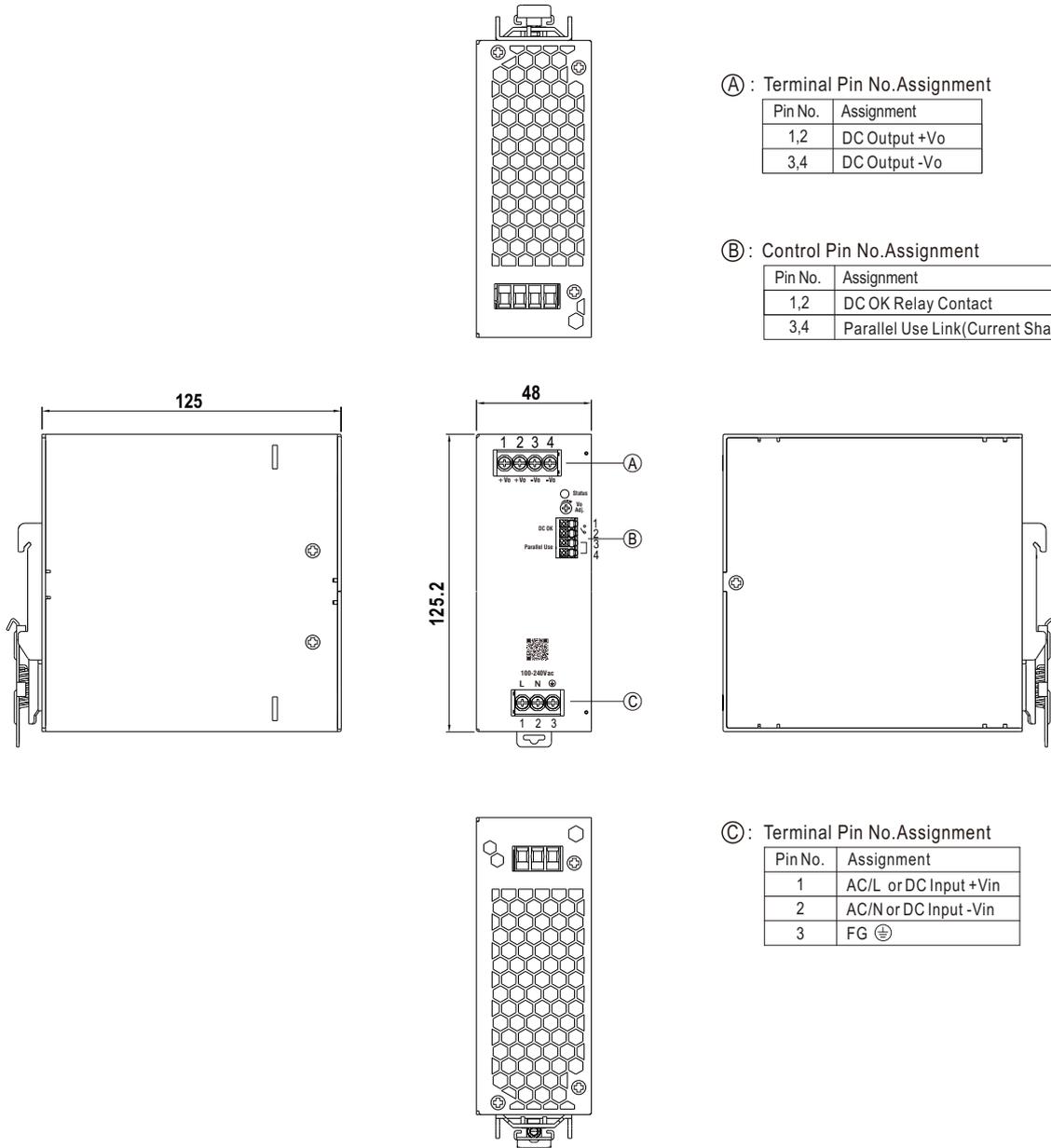


※ Please contact MEAN WELL for more details.

## ■ Mechanical Specification

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

Case No.303



Ⓐ : Terminal Pin No.Assignment

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

Ⓑ : Control Pin No.Assignment

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

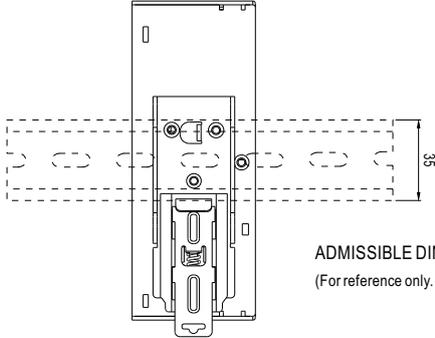
Ⓒ : Terminal Pin No.Assignment

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

## ■ 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	XDR-480E-12	18~10 AWG	12~10 AWG	24~16 AWG
	XDR-480E-24/36/48		16~10 AWG	
Wire Stripping Length		10~11mm	10~11mm	8~9mm
Screw Terminal Torque		5 Lb-In	5 Lb-In	/

### ■ Installation Instruction

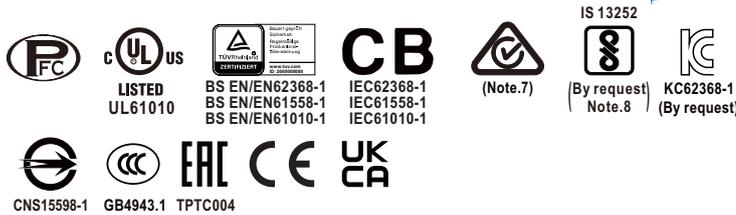


ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
(For reference only. Not included with unit.)

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>



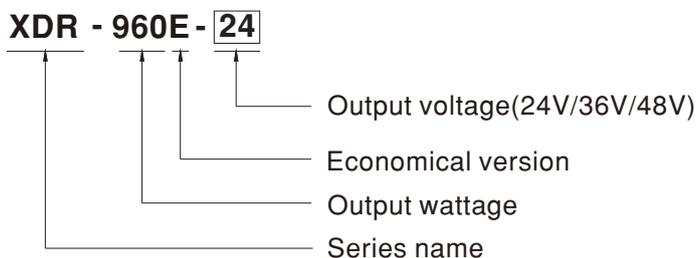
### ■ Features

- 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 3.9W
- 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 3.9W 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>



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

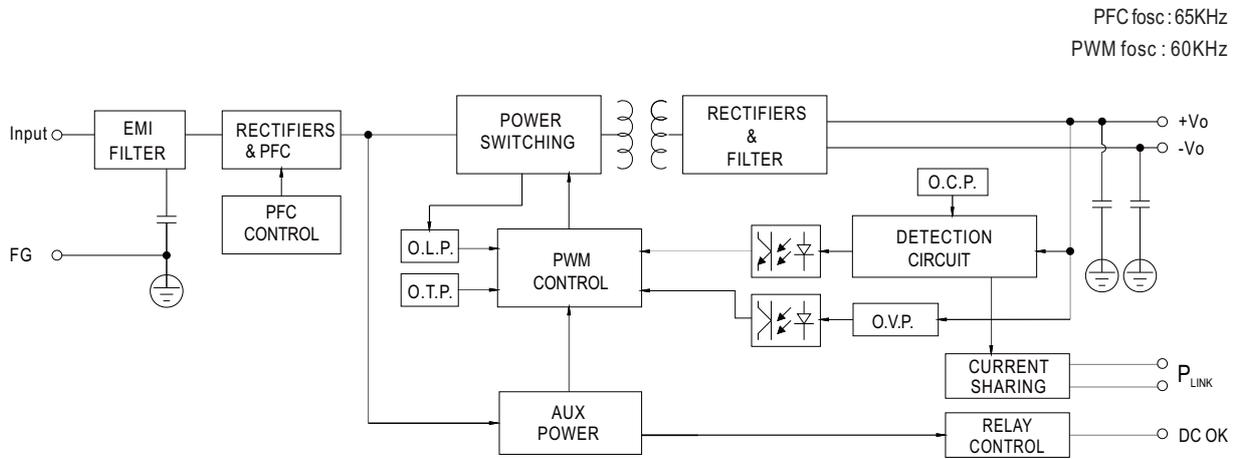
SPECIFICATION	XDR-960E-24	XDR-960E-36	XDR-960E-48
<b>OUTPUT</b>			
DC VOLTAGE	24V	36V	48V
RATED CURRENT	40A	26.6A	20A
CURRENT RANGE	0 ~ 40A	0 ~ 26.6A	0 ~ 20A
RATED POWER	960W	957.6W	960W
RIPPLE & NOISE (max.) <span style="float:right">Note.2</span>	120mVp-p	150mVp-p	150mVp-p
VOLTAGE ADJ. RANGE	24 ~ 29V	36 ~ 42V	48 ~ 55V
VOLTAGE TOLERANCE <span style="float:right">Note.3</span>	±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		
HOLD UP TIME (Typ.)	15ms/230Vac at full load		
<b>INPUT</b>			
AC VOLTAGE RANGE	180 ~ 264Vac		
DC VOLTAGE RANGE	254.5 ~ 370Vdc		
NO LOAD POWER CONSUMPTION (Typ.)	3.9W @ 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.)	5A/230Vac		
INRUSH CURRENT (Typ.)	COLD START 30A/230Vac		
LEAKAGE CURRENT	<3.5mA / 240Vac		
<b>PROTECTION</b>			
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
	Protection type : Shut down o/p voltage, re-power on to recover		
OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down		
<b>FUNCTION</b>			
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		
<b>ENVIRONMENT</b>			
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		



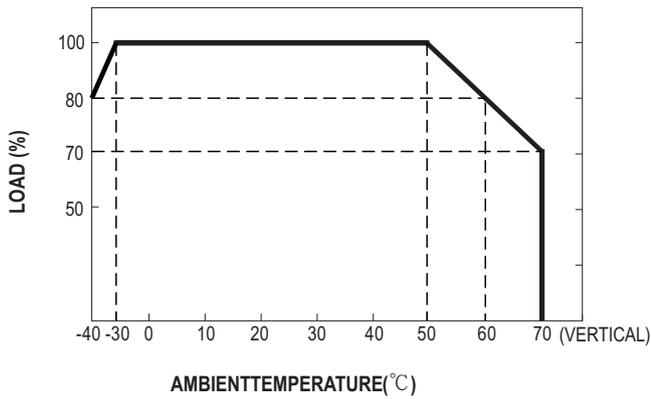
# 960W AC/DC Economical Ultra Slim Industrial DIN Rail Power **XDR-960E** series

SPECIFICATION	XDR-960E-24	XDR-960E-36	XDR-960E-48
<b>SAFETY &amp; EMC</b> <span style="float: right;">Note.6&amp;7&amp;8</span>			
<b>SAFETY STANDARDS</b>	CB IEC 62368-1, IEC 61558-1/2-16, IEC 61010-1/2-201 TUV BS EN/EN 62368-1, BS EN /EN 61558-1/2-16, BS EN/EN 61010-1/2-201 UL UL/CUL 61010-1/2-201 CCC GB4943.1 BSMI CNS15598-1 EAC TPTC004 approved KC/BIS <b>KC 62368-1 and BIS IS 13252 (Part 1) certified, no stock by request ,contact sales for inquires</b>		
<b>OVER VOLTAGE CATEGORY</b> <span style="float: right;">Note.4</span>	IEC/EN 61558-1/2-16 (OVC III, altitude up to 2000m) IEC/EN/UL 61010-1/2-201 (OVC II, altitude up to 5000m) IEC/EN 62368-1 (OVC II, altitude up to 5000m)		
<b>SAFETY EXTRA-LOW VOLTAGE(SELV)</b>	IEC/EN 61558-2-16 (SELV) IEC/EN 62368-1 (SELV / ES1)		
<b>WITHSTAND VOLTAGE</b>	I/P-O/P: 4KVac I/P-FG: 2KVac O/P-FG: 1.5KVac O/P-DC OK: 0.5KVac		
<b>ISOLATION RESISTANCE</b>	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500Vdc/25°C / 70%RH		
<b>EMC EMISSION</b>	<b>Parameter</b>	<b>Standard</b>	<b>Test Level / Note</b>
	Conducted	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832	Class B
	Radiated	BS EN/EN55032 (CISPR32) / BS EN/EN61204-3 / CNS15936 / KS C 9832	Class B
	Harmonic Current	BS EN/EN61000-3-2	Class A
	Voltage Flicker	BS EN/EN61000-3-3	----
<b>EMC IMMUNITY</b>	BS EN/EN55035 , BS EN/EN61204-3, BS EN/EN61000-6-2(BS EN/EN50082-2), KS C 9835		
	<b>Parameter</b>	<b>Standard</b>	<b>Test Level / Note</b>
	ESD	BS EN/EN61000-4-2	Level 3, 8KV air ; Level 2, 4KV contact; criteria A
	Radiated	BS EN/EN61000-4-3	Level 3, 10V/m ; criteria A
	EFT / Burst	BS EN/EN61000-4-4	Level 3, 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
<b>OTHERS</b>			
<b>MTBF</b>	1147.2K hrs min. Telcordia SR-332 (Bellcore); 169.9K hrs min. MIL-HDBK-217F (25°C)		
<b>DIMENSION</b>	<b>96*125.2*132mm (W*H*D)</b>		
<b>PACKING</b>	1.93Kg; 6pcs/12.55Kg/1.47CUFT		
<b>NOTE</b>			
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 <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> ) 7. The Regulatory Compliance Mark (RCM) is applied on a voluntary basis. The equipment meets the relevant IEC or AS/NZS standards, or AS/NZS 3820 where applicable. The use of the RCM mark complies with AS/NZS 4417.1. 8. Some factory or model may not have the BIS logo, please contact your MEAN WELL sales for more information. ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>			

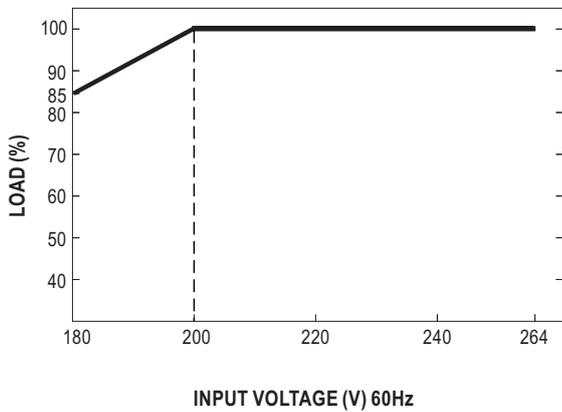
■ Block Diagram



■ Derating Curve



■ Static Characteristics

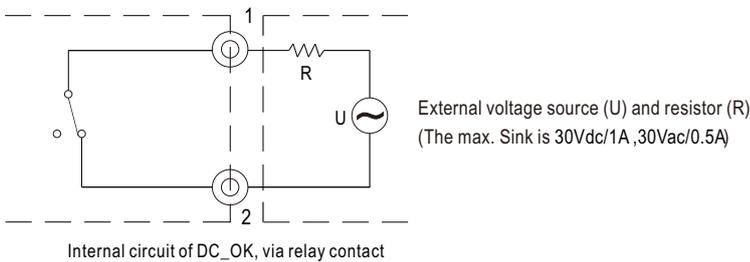


■ **Function Manual**

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	Paraller Use Link(P <sub>LINK</sub> )	P <sub>LINK</sub> 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 :

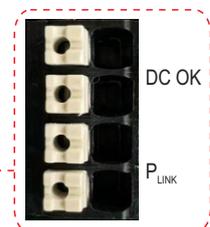
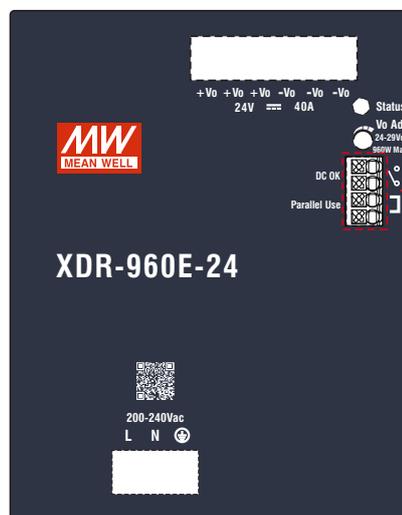
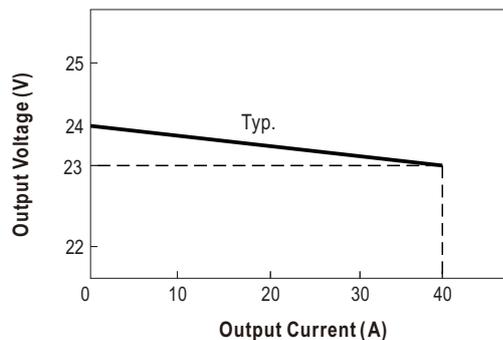
- (1) Difference of output voltages among parallel units should be less than **0.1V**.
- (2) The total output current must not exceed the value determined by the following equation (Output current at parallel operation)=(The rated current per unit) x (Number of unit) x 0.9.
- (3) In parallel operation 4 units is the maximum, please consult the manufacture 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<sub>LINK</sub> lines should be shorted locally.**
- (8) In parallel operation, after overload or short circuit fault occurs, re-power on to recover.
- (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:

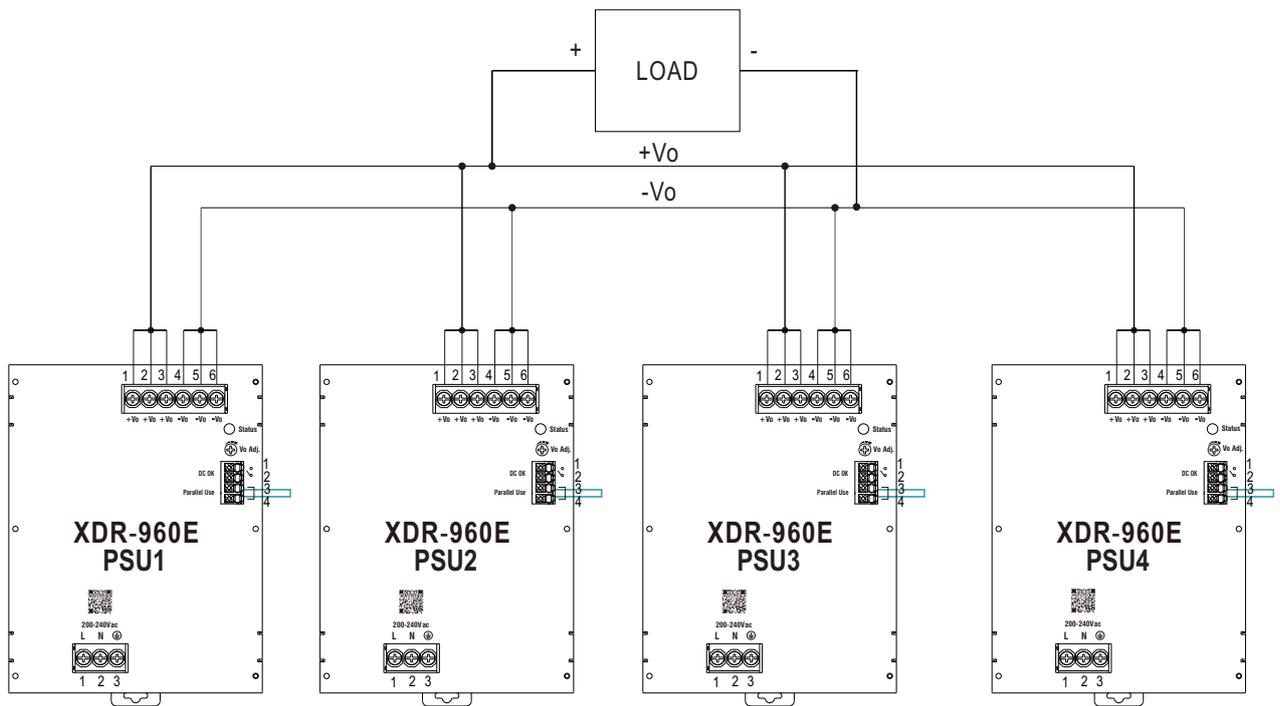
No load output voltage=24V

Normal load output current=40A

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



Enable : P<sub>LINK</sub> should be short

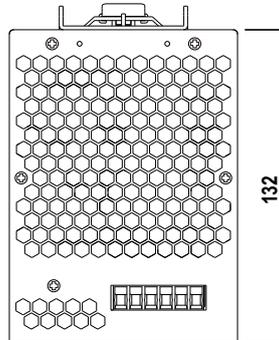


※ Please contact MEAN WELL for more details.

■ Mechanical Specification

(Unit:mm , Tolerance ±1mm)

Case No. 304

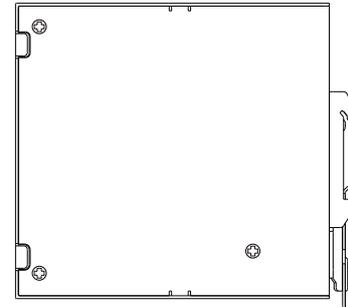
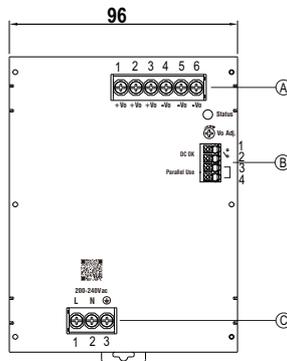
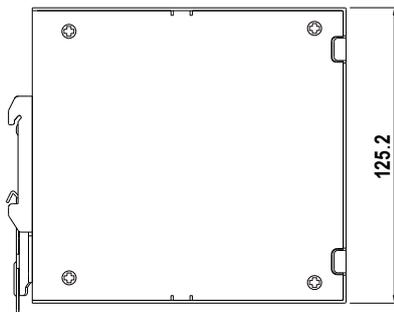


Ⓐ : Terminal Pin No. Assignment

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

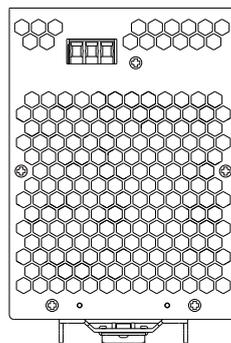
Ⓑ : Control Pin No. Assignment

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



Ⓒ : Terminal Pin No. Assignment

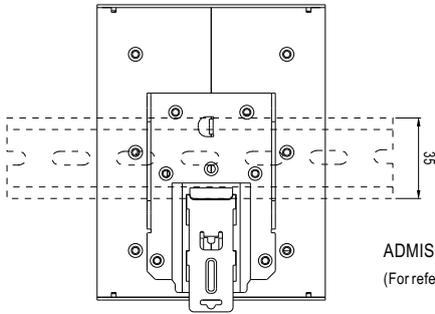
Pin No.	Assignment
1	AC/L or DC Input +Vin
2	AC/N or DC Input -Vin
3	FG (⊕)



■ 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	18~10 AWG	18~8 AWG	24~16 AWG
Wire Stripping Length	10~11mm	10~11mm	8~9mm
Screw Terminal Torque	5 Lb-In	5 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>