

## ■ Features

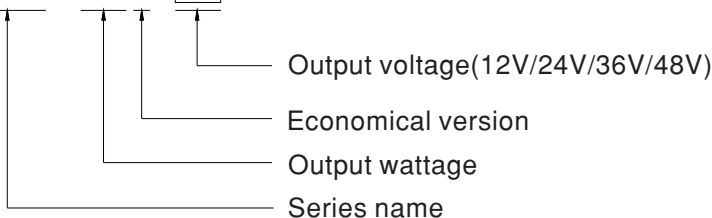
- 85~264Vac input range
- Global certificates in multi-fields (ITE 62368-1, Industrial 61558-1/-2-16, 61010)
- 30mm slim width
- High efficiency up to 91% and no load power dissipation < 1W
- Built-in constant current limiting circuit
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 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-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 < 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**



## ■ Applications

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

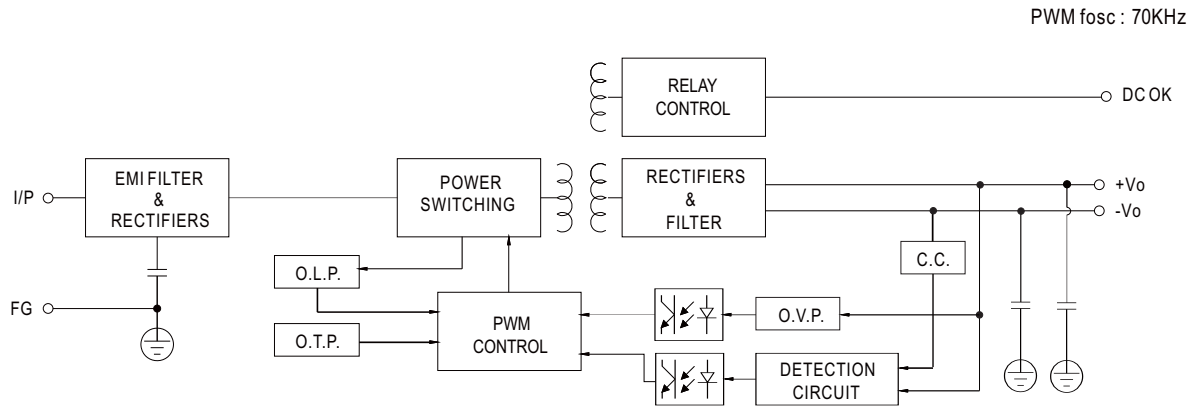
## ■ GTIN CODE

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

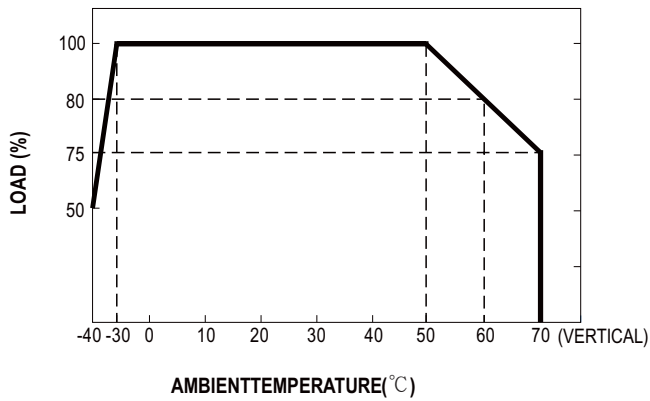
**SPECIFICATION**

| MODEL                 |  | XDR-150E-12  | XDR-150E-24  | XDR-150E-36         | XDR-150E-48  |           |   |
|-----------------------|--|--|--|---------------------|--|-----------|---|
| OUTPUT                | 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              | 124.6W   | 124.8W    |   |
|                       |  | 230VAC   | 132W   | 156W                | 155.9W   | 156W      |   |
|                       | RIPPLE & NOISE (max.)  | Note.2   | 100mVp-p   | 120mVp-p            | 150mVp-p   | 200mVp-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.)  | 2.6A/115Vac    1.6A/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 /230Vac<br>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   |           |   |
|                       | 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°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 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; <b>KC KC62368-1 and BIS IS13252 (Part 1):2010 certified, no stock ,contact sale for inquires</b> |  |                     |  |           |   |
|                       | OVER VOLTAGE CATEGORY  | Note.4    IEC/EN 61558-1/-2-16 (OVC III, altitude up to 2000m )<br>IEC/EN/UL 61010    (OVC II, altitude up to 5000m )<br>IEC/EN 62368-1    (OVC II, altitude up to 5000m )   |  |                     |  |           |   |
|                       | SAFETY EXTRA-LOW VOLTAGE(SELV)   | IEC/EN 61558-2-16 (SELV )<br>IEC/EN/UL 61010-2-201 (SELV )<br>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   |
|                       |  |  | 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   |  | 2201.7K hrs min.    Telcordia SR-332 (Bellcore) ;    440.4K hrs min.    MIL-HDBK-217F (25°C) |                     |  |           |   |
|                       | DIMENSION  | <b>30*125.2*116mm (W*H*D)</b>  |  |                     |  |           |   |
|                       | PACKING  | 430g; 24pcs/11.3Kg/1.27CUFT  |  |                     |  |           |   |
| NOTE                  | <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. 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% .</p> <p>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).</p> <p>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.<br/>In case the adjacent device is a heat source, 15mm clearance is recommended.</p> <p>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> )</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> |  |  |                     |  |           |   |

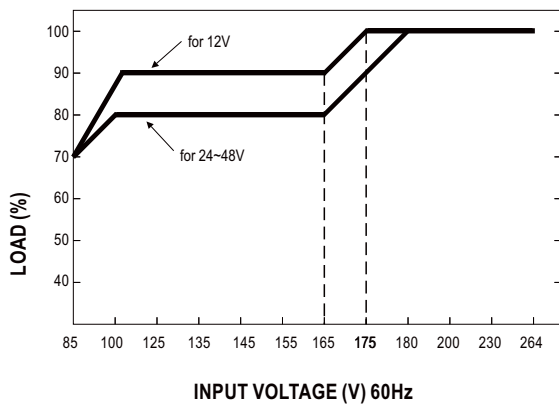
## Block Diagram



## Derating Curve



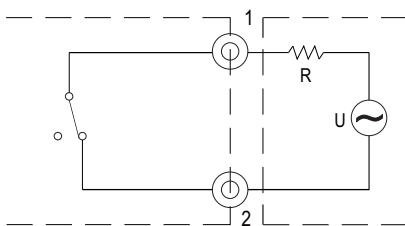
## Static Characteristics



■ **Function Manual**

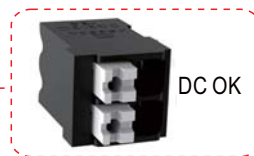
**1. DC OK Relay Contact**

|                        |                                      |
|------------------------|--------------------------------------|
| 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)

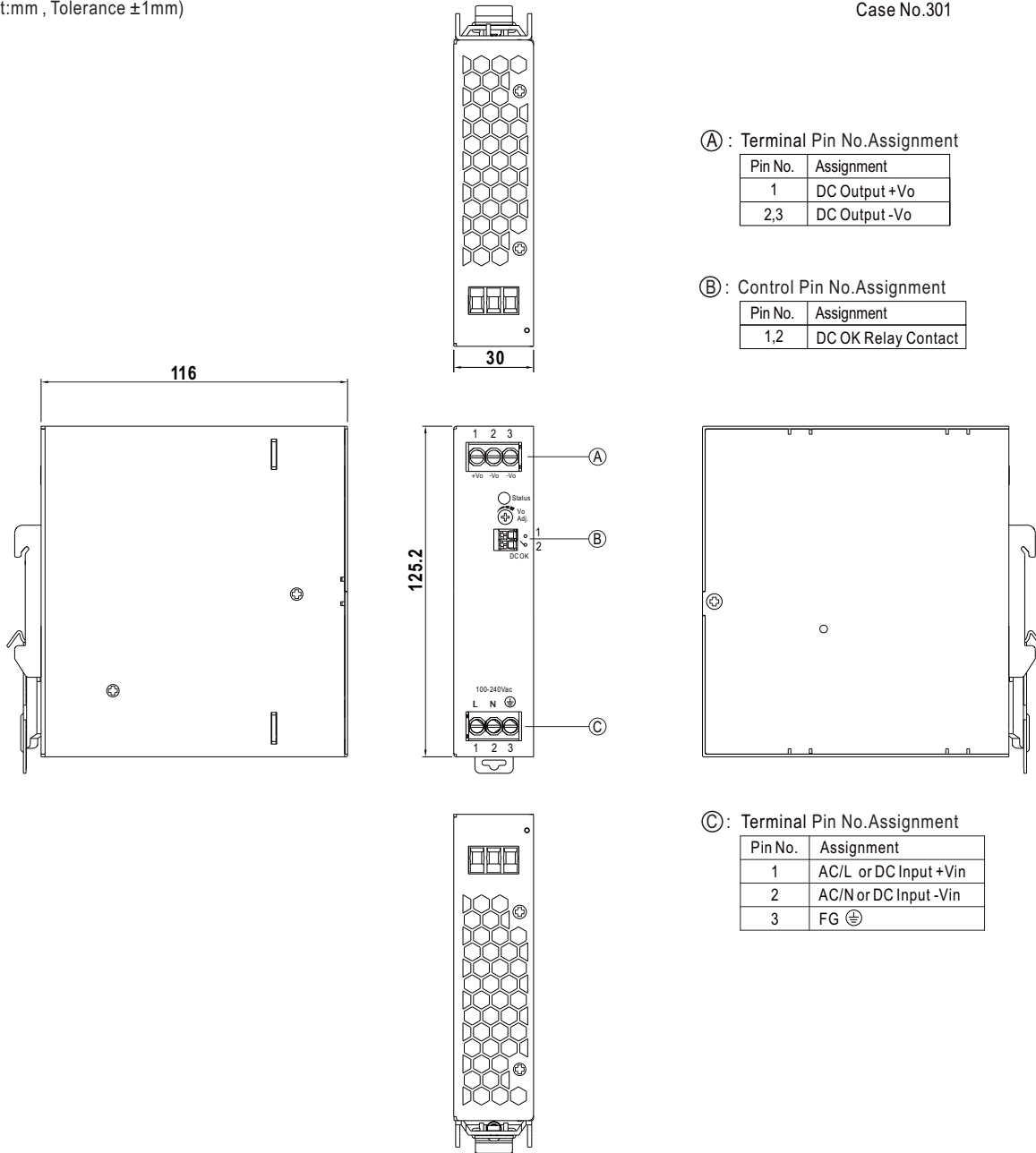
Internal circuit of DC\_OK, via relay contact



**■ 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

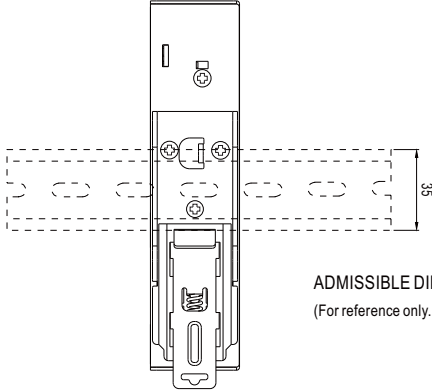
| Pin No. | Assignment            |
|---------|-----------------------|
| 1       | AC/L or DC Input +Vin |
| 2       | AC/N or DC Input -Vin |
| 3       | FG $\oplus$           |

**■ 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                 | 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>