

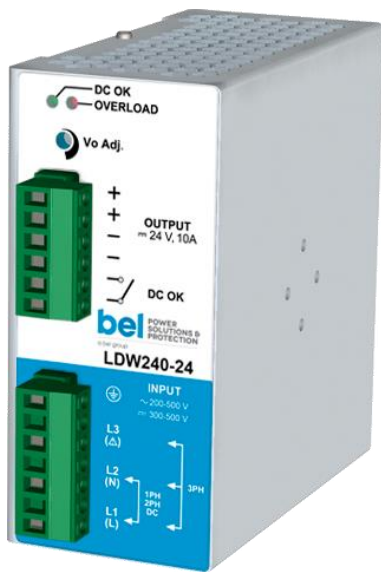
LDW240 Series

240W DIN Rail Switching Power Supply

LDW240 Series are single, two or three phase DIN Rail Switching Power Supplies.

Its compact size, high efficiency, excellent reliability together with easy installation makes it ideal for various industrial, telecom and renewable energy applications.

LDW240 Series are Class I isolation devices suitable for SELV and PELV circuitry (up to 48 VDC models) and are designed to be mounted on DIN rail and installed inside a protective enclosure.



Key Features & Benefits

- High efficiency and compact size
- Only 54 mm width aluminum enclosure
- Single, two or three phase input AC 187 – 550 VAC
- Wide DC input range 250 – 725 VDC
- 150% overload capability
- RoHS Compliant

Applications

- Industrial Control
- Communication
- Instrumentation Equipment
- Renewable

1. MODEL SELECTION

| MODEL | INPUT VOLTAGE | # of PHASES | OUTPUT VOLTAGE | OUTPUT CURRENT | REDUNDANCY |
|------------|-------------------------------|-------------|----------------|----------------|-------------------------------|
| LDW240-12 | 200 - 500 VAC (300 - 500 VDC) | 1 / 2 / 3 | 12 – 15 VDC | 15 – 12 A | |
| LDW240-24 | 200 - 500 VAC (300 - 500 VDC) | 1 / 2 / 3 | 24 VDC | 10 A | |
| LDW240-48P | 200 - 500 VAC (300 - 500 VDC) | 1 / 2 / 3 | 48 VDC | 5 A | Includes internal ORing diode |
| LDW240-72P | 200 - 500 VAC (300 - 500 VDC) | 1 / 2 / 3 | 72 VDC | 3.5 A | Includes internal ORing diode |

2. INPUT SPECIFICATIONS

Technical parameters are typical, measured in laboratory environment at 25°C and 400 VAC / 50 Hz, at nominal values, after minimum 5 minutes of operation.

| PARAMETER | DESCRIPTION / CONDITION | SPECIFICATION |
|--------------------------------|--|---|
| Input AC Voltage Range | Rated, single, two or three phase, UL certified Operating | 200 – 500 VAC 187 - 550 VAC |
| Input DC Voltage Range | Rated, UL certified Operating | 300 – 500 VDC 250 – 725 VDC |
| Input Frequency Range | | 47 - 63 Hz |
| Input AC Current | Single or two phase @ 200 VAC | 2.2 A |
| | Single or two phase @ 500 VAC | 1.1 A |
| | Three phase @ 200 VAC | 1.5 A |
| | Three phase @ 500 VAC | 0.8 A |
| Input DC Current | LDW240-12 | Vin = 250 VDC 0.9 A |
| | | Vin = 725 VDC 0.4 A |
| | LDW240-24, LDW240-48P, LDW240-72P | Vin = 250 VDC 1.4 A |
| | | Vin = 725 VDC 0.5 A |
| Inrush Peak Current | | ≤ 60 A |
| Touch (Leakage) Current | | ≤ 1.3 mA |
| Internal Protection Fuse | None, external fuse must be provided | |
| External Protection on AC Line | It is strongly recommended to provide external surge arresters (SPD) according to local regulations. | Fuse AT 6.3A or MCB 6 A C curve or 4 A D curve |

3. OUTPUT SPECIFICATIONS

| PARAMETER | DESCRIPTION / CONDITION | SPECIFICATION |
|---|-------------------------|---------------------------|
| Output Power | | 240 W |
| Rated Voltage (Voltage Adjustment Range) | LDW240-12 | 12 – 15 VDC (12 – 15 VDC) |
| | LDW240-24 | 24 VDC (23 – 28 VDC) |
| | LDW240-48P | 48 VDC (45 – 55 VDC) |
| | LDW240-72P | 72 VDC (72 – 85 VDC) |
| Continuous Current | LDW240-12 | 15 – 12 A |
| | LDW240-24 | 10 A |
| | LDW240-48P | 5 A |
| | LDW240-72P | 3.5 A |
| Overload Limit (max. 6 s) | LDW240-12 | 20 A |
| | LDW240-24 | 15 A |
| | LDW240-48P | 7.5 A |
| | LDW240-72P | 5 A |
| Short Circuit Peak Current | LDW240-12 | 34 A |
| | LDW240-24 | 38 A |
| | LDW240-48P | 18 A |
| | LDW240-72P | 13 A |
| Load Regulation | LDW240-12 / LDW240-24 | ≤1% |
| | LDW240-48P / LDW240-72P | ≤1.5% |

| | | |
|--------------------------------|---|------------|
| Ripple & Noise ¹ | | ≤ 100 mVpp |
| Hold up Time | Vin = 240 VAC | ≥ 15 ms |
| | Vin = 500 VAC | ≥ 100 ms |
| Protections | Overload, short circuit: Hiccup mode Over temperature Overvoltage | |
| Output Over Voltage Protection | LDW240-12 | ≥ 18 VDC |
| | LDW240-24 | ≥ 33 VDC |
| | LDW240-48P | ≥ 68 VDC |
| | LDW240-72P | ≥ 100 VDC |
| Status Signals | DC OK - green LED OVERLOAD - red LED DC OK - dry contact (NO, 24 VDC / 1 A) | |
| Parallel Connection | Possible for redundancy (with external ORing module) | |
| | P (models) - include internal ORing circuit | |
| Efficiency | LDW240-12 | > 89% |
| | LDW240-24 | > 93% |
| | LDW240-48P | > 91% |
| | LDW240-72P | > 92% |
| Dissipated Power | LDW240-12 | < 22.5 W |
| | LDW240-24 | < 18 W |
| | LDW240-48P | < 23.5 W |
| | LDW240-72P | < 22 W |

¹ Ripple and Noise are measured with 20 MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.

NOTE: Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.

4. ENVIRONMENTAL, EMC & SAFETY SPECIFICATIONS

| PARAMETER | DESCRIPTION / CONDITION | SPECIFICATION | |
|------------------------------|--|---|--------------------|
| Operating Temperature | UL certified up to 50°C (Start-up type tested: - 40°C) ² | - 40 to + 70°C | |
| Storage Temperature | | - 40°C to + 80°C | |
| Derating | | - 4.2 W / °C over 50°C | |
| Humidity | Non-condensing | 5 - 95% RH | |
| Life Time Expectancy | At 25 °C ambient, full load | 81648 h (9.3 years) | |
| Overvoltage Category | | III (EN50178) | |
| Pollution Degree | | 2 (IEC60664-1) | |
| Protection Class | | Class I | |
| Isolation Voltage | Input to Output | 4.2 kVDC | |
| | Input to Ground | 2.2 kVDC | |
| | Output to Ground | 0.75 kVDC | |
| Safety Standards & Approvals | UL508 (certified) | | |
| | EN60950 (reference) | | |
| | EN50178 (reference) | | |
| EMC Standards | Emission | EN55011 (CISPR11) EN55022 (CISPR22) | Class A Class A |
| | Immunity | EN61000-4-2 | Level 3 |
| | | EN61000-4-3 | Level 3 |
| | | EN61000-4-4 | Level 3 |
| | | EN61000-4-5 | Level 4 |
| | | EN61000-4-11 | Level 2 |
| Protection Degree | EN60529 | IP20 | |
| Vibration sinusoidal | IEC 60068-2-6 | IEC 60068-2-6:2007 (5-17.8 Hz: ±1.6 mm; 17.8-500 Hz: 2g 2Hours / axis (X,Y,Z)) | |
| Shock | IEC 60068-2-27 | IEC 60068-2-27:2008 (30 g 6 ms, 20 g 11 ms; 3 bumps / direction, 18 bumps total) | |

² Possible at nominal voltage with load derating



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5. MECHANICAL SPECIFICATIONS

| PARAMETER | DESCRIPTION / CONDITION | SPECIFICATION |
|----------------------|------------------------------------|-----------------------------|
| Weight | | 650 g |
| Dimensions | | 54 x 115 x 110 mm |
| Mounting Rail | | IEC 60715/H15/TH35-7.5(-15) |
| Connection Terminals | Screw type pluggable (24 - 12 AWG) | 2.5 mm ² |
| Case Material | Aluminum | |

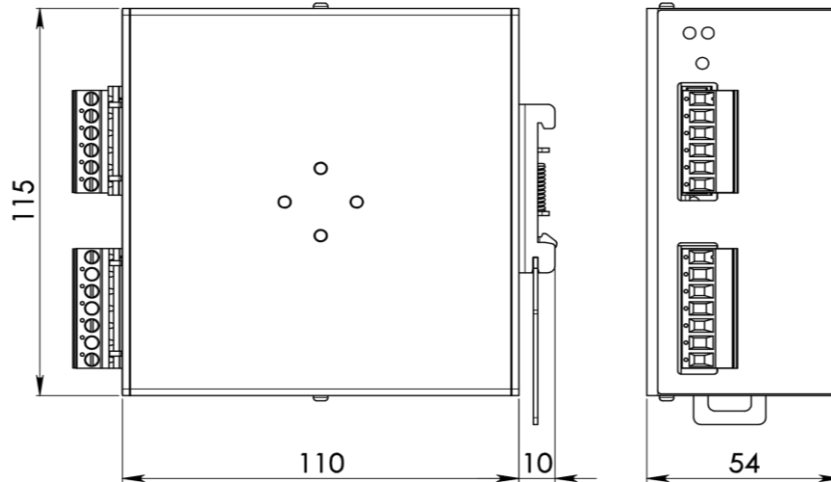
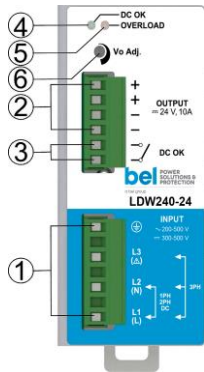


Figure 1. Mechanical Drawing

6. PIN LAYOUT & DESCRIPTION



| PIN | DESCRIPTION |
|-----|---|
| 1 | AC/DC input |
| 2 | DC output (load) |
| 3 | Diagnostic Output (dry contact, NC output OK) |
| 4 | Green LED: Output OK |
| 5 | Red LED: Overload |
| 6 | Output voltage adjustment |

| INPUT CONNECTION | OUTPUT CONNECTION |
|--|--|
| Single phase: L = Line N = Neutral ⊕ = Earth ground | + = Positive DC - = Negative DC Dry contact = NC |
| 2 phase: L1 = Phase 1 L2 = Phase 2 I = Earth ground | |
| 3 phase: L1 = Phase 1 L2 = Phase 2 L3 = Phase 3 ⊕ = Earth ground | |
| DC: L1(N) = + Positive DC L2(L) = - Negative DC L3 = do not connect ⊕ = Earth ground | |

For more information on these products consult: tech.support@psbel.com

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.



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- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
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