

## Technical data sheet

### Power supply · Compact Ultra, 240 W

#### Primary switchmode power supply, PFC

Input: AC 90–264 V, DC 110–345 V

Output: DC 48 V, 5 A



#### Identification

Type CPS2B1-240-48  
Part No. [723621](#)

#### Product version

Datasheet version 01

#### Use/Application/Properties

- |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Properties | <ul style="list-style-type: none"><li>• High efficiency and extremely compact dimensions</li><li>• Only 40 mm wide aluminium housing</li><li>• Active PFC (Power factor correction)</li><li>• Overload 150 %</li><li>• Constant current or hiccup mode, user definable</li><li>• Wide output voltage range</li><li>• Easy to connect in parallel to increase performance</li><li>• Up to 70 °C operating temperature without derating</li></ul> |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Input

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Number of phases                | 1                                   |
| Rated voltage $U_N$             | AC 120/240 V (UL certified)         |
| Operation voltage range         | AC 90–264 V / DC 110–345 V          |
| Frequency range                 | 47 Hz – 63 Hz                       |
| Rated current $I_N$             | 2.4 A @ AC 120 V / 1.2 A @ AC 240 V |
| Inrush peak current             | ≤34 A / 0.66 A <sup>2</sup> s       |
| Touch current (leakage current) | ≤0.6 mA                             |
| Internal fuse                   | T6,3 A (non-replaceable)            |
| External protection             | 10AT or MCB 10A C-curve             |

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Power factor correction P.F.C. >0,90, enabled

#### Output

|                                             |                                                                                                                                                               |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output voltage/current                      | DC 48 V/5 A                                                                                                                                                   |
| Rated voltage $U_N$                         | DC 48 V                                                                                                                                                       |
| Rated current $I_N$                         | 5 A                                                                                                                                                           |
| Overload limit in constant current mode     | 7 A                                                                                                                                                           |
| Max. output current                         | 8.5 A, 5 s @ Hiccup Mode                                                                                                                                      |
| Power Dissipation                           | <17 W                                                                                                                                                         |
| Setting range $U_{out\ min.}/U_{out\ max.}$ | DC 45–55 V                                                                                                                                                    |
| Load regulation                             | ≤1 %                                                                                                                                                          |
| Ripple and noise                            | ≤400 mV pp                                                                                                                                                    |
| Hold up time                                | ≥20 ms @ AC 240 V                                                                                                                                             |
| Parallel / redundant mode                   | Yes/via external decoupling diode e.g. Part-No. 722999<br>NOTE: Be sure to set the current limiting mode jumper when connecting multiple devices in parallel. |
| Efficiency                                  | >93.5 % @ AC 240 V                                                                                                                                            |
| Overtemperature protection                  | Yes                                                                                                                                                           |
| Over voltage protection                     | ≥DC 68 V                                                                                                                                                      |
| Short circuit                               | Adjustable: Hiccup, C.C. Mode                                                                                                                                 |

#### Status indication

|                                   |         |
|-----------------------------------|---------|
| Status indication DC ON LED green | ≥43.2 V |
| Status indication DC LOW LED red  | ≤43.2 V |

#### Monitoring

|                     |                        |
|---------------------|------------------------|
| DC ON Control (Rdy) | N/O contact            |
| Switching voltage   | AC/DC 300 V / DC 150 V |
| Switching current   | AC/DC 1 A              |
| Switching capacity  | 300 VA / 30 W          |
| Isolation voltage   | AC 500 V               |

#### General

|                                    |                                                        |
|------------------------------------|--------------------------------------------------------|
| Insulation voltage input / output  | DC 4.2 kV, 1 min.                                      |
| Insulation voltage input / ground  | DC 2.2 kV, 1 min.                                      |
| Insulation voltage output / ground | DC 750 V, 1 min.                                       |
| Derating                           | No derating                                            |
| Cooling                            | Air convection, 100 mm distance top/bottom, 20 mm side |
| Housing material                   | Aluminum                                               |
| Mounting                           | DIN rail mountable TS35<br>(EN 60715)                  |
| Installation position              | Vertical                                               |
| MTBF                               | MIL-HDBK-217F, >600000 h at 25 °C ambient full load    |
| Degree of protection               | IP20 (IEC 529 / EN 60529)                              |

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|                        |                                                                          |
|------------------------|--------------------------------------------------------------------------|
| Protection class       | I                                                                        |
| Weight/unit            | 0.75 kg                                                                  |
| Connection type        | Screw terminal<br>0,20 mm <sup>2</sup> – 2,5 mm <sup>2</sup> / AWG 24–14 |
| Strip length           | 6.0 - 7.5 mm / 0.24 - 0.30 in                                            |
| Screwdriver            | 3,0 × 0,5 mm                                                             |
| Tightening torque      | 0.5 – 0.6 Nm / 4.42 – 5.30 lbf in                                        |
| Dimensions (w × h × d) | 40.0 mm × 115.0 mm × 133.0 mm                                            |
| PU (units)             | 1                                                                        |

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#### General ambient conditions

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|                             |                                              |
|-----------------------------|----------------------------------------------|
| Operation temperature range | -40 °C ... +70 °C<br>UL approved up to 70 °C |
| Storage temperature range   | -40 °C ... +80 °C                            |
| Over voltage category       | III (EN 50178)                               |
| Degree of pollution         | 2 (IEC 60664-1)                              |
| Relative air humidity       | 5 – 95 %, non-condensing                     |

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#### Interface

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|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Life-cycle expectancy | 221'288 h (25.2 years) at 25 °C ambient full load |
|-----------------------|---------------------------------------------------|

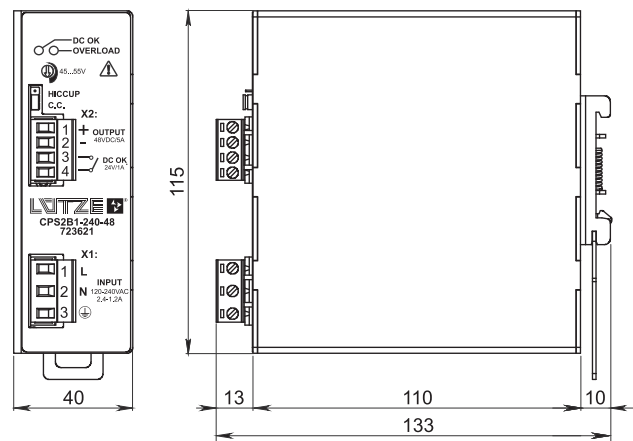
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#### Certifications/Standards

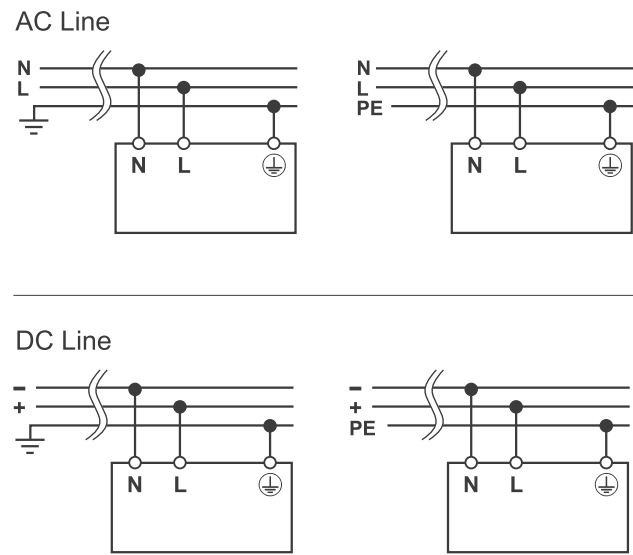
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|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Certifications | CE<br>UKCA<br>cULus (E249179)                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Standards      | UL 508<br>IEC/EN 61010-1<br>IEC/EN 60950<br>IEC/EN 61010-2-201<br>EN 55011 (CISPR11) Class B (EMC Emission)<br>EN 61000-3-2 Class A<br>EN 55022 (CISPR22) Class B (EMC Emission)<br>EN 61000-4-2 Level 3<br>EN 61000-4-3 Level 3<br>EN 61000-4-4 Level 4<br>EN 61000-4-5 Level 4<br>EN 61000-4-11 Level 2<br>IEC 60068-2-6 (Vibration sinusoidal), 5-17.8 Hz: ±1.6 mm, 17.8-500 Hz: 2 g<br>2 hours / axis (X,Y,Z)<br>IEC 60068-2-27 (Shock), 30 g 6 ms, 20 g 11 ms, 3 bumps / direction,<br>18 bumps total |

Dimensions

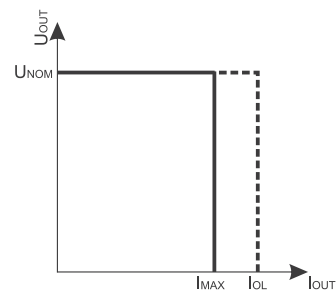


PIN assignment



Short circuit characteristics

C.C.



Hiccup

