

Ziegler

Redefine Innovative Metering

**made
in
Germany**

Data Sheet

Switching Power Supply . Three Phase

Switched-Mode Power Supply (SMPS)



PS3-2430

24 VDC - 30 A

Input	Three-Phase. 400 Vac - 480 Vac
Output	24 Vdc - 30 A (One Output)
Efficiency	Up to 86%
	Strong Overload Without Switch-Off
Power Continuity	From 600 W to 720 W - Flexible
Protection	1) Short-Circuit Protection 2) Over-Voltage Protection
Installation	DIN Rail Mountable
Size	Extremely Small Size
Warranty	1 Year



Features

Input Data

Nominal Input Voltage (3 x Vac)	400 Vac - 480 Vac
Input Voltage range (Vac)	360 Vac to 530 Vac (400-480 Vac)
Inrush Current (Vn and In Load) I ² T	≤ 10 A ≤ 5 msec.
Frequency	47 Hz to 63 Hz ±6%
Input Current (400 Vac - 480 Vac)	1.35 A - 1.2 A
Internal Fuse	T 6.3 A
External Fuse (recommended)	Fast 6 A

Output Data

Output Voltage (Vn) / Nominal Current (In)	24 Vdc ±3% / 30 A
Adjustment Range (Vadj)	22 Vdc to 26 Vdc
Start Up with Strong Load (Capacitive Load)	≤ 30.000μF
Turn-On Delay After Applying Mains Voltage ¹	≤ 1 sec. (Approx.)
Max. Continuous Current	1.1 × In ± 5%
Reserve Out Current (Max. 1 min. 50 °C)	I _{max} = In + 25% (Approx.)
Hold-up Time (at 100 Vac - 240 Vac)	Typ. 27 msec
Residual Ripple	≤ 100 mV _{pp}
Minimum Load	No
Efficiency	≥ 86 %
Short-Circuit Protection (Hiccup Mode)	Yes
Over Load Protection (Hiccup Mode)	Yes
Over Voltage Output Protection	Yes. (Max. 35 Vdc)
Parallel Connection	Yes

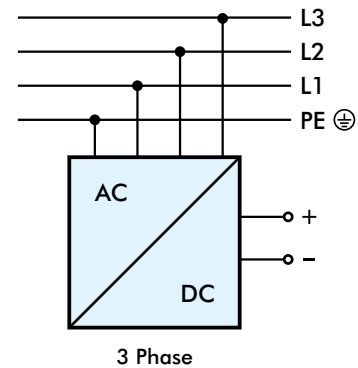
Climatic Data

Ambient Temperature Operation	-10 °C Up to +70 °C (>50° Derating 2.5% °C)
Ambient Temperature Storage	-25 °C Up to +85 °C
Humidity, No Moisture Condensation	95 % to 25 °C

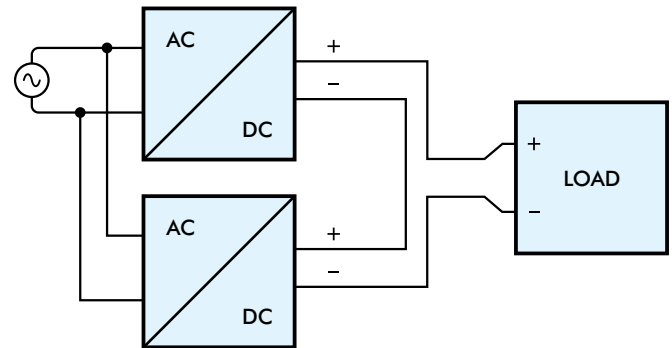
General Data

Isolation Voltage (Input / Output)	3000 Vac
Input / Ground Isolation PE (Input / PE)	1605 Vac
Output / Ground Isolation PE (Output / PE)	500 Vac
Degree of Protection (EN/IEC 60529)	IP20
Connection Terminal Blocks Screw Type	4 mm (30 AWG to 10 AWG)
Protection Class	I with PE Connected
Dimension (W-H-D)	250 mm × 150 mm × 160 mm
Weight	4.2 kg Approx.

Connection

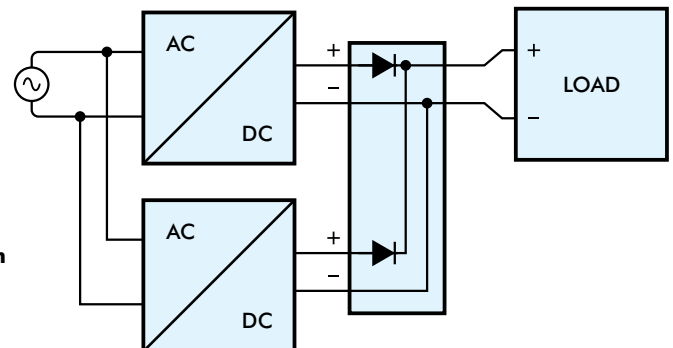


Serial Connection

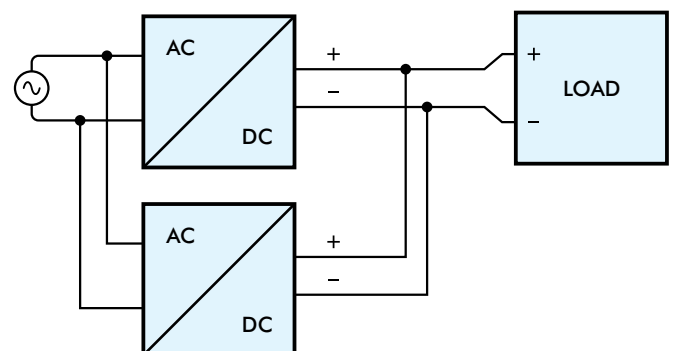


Parallel Connection

Parallel Connection Redundancy



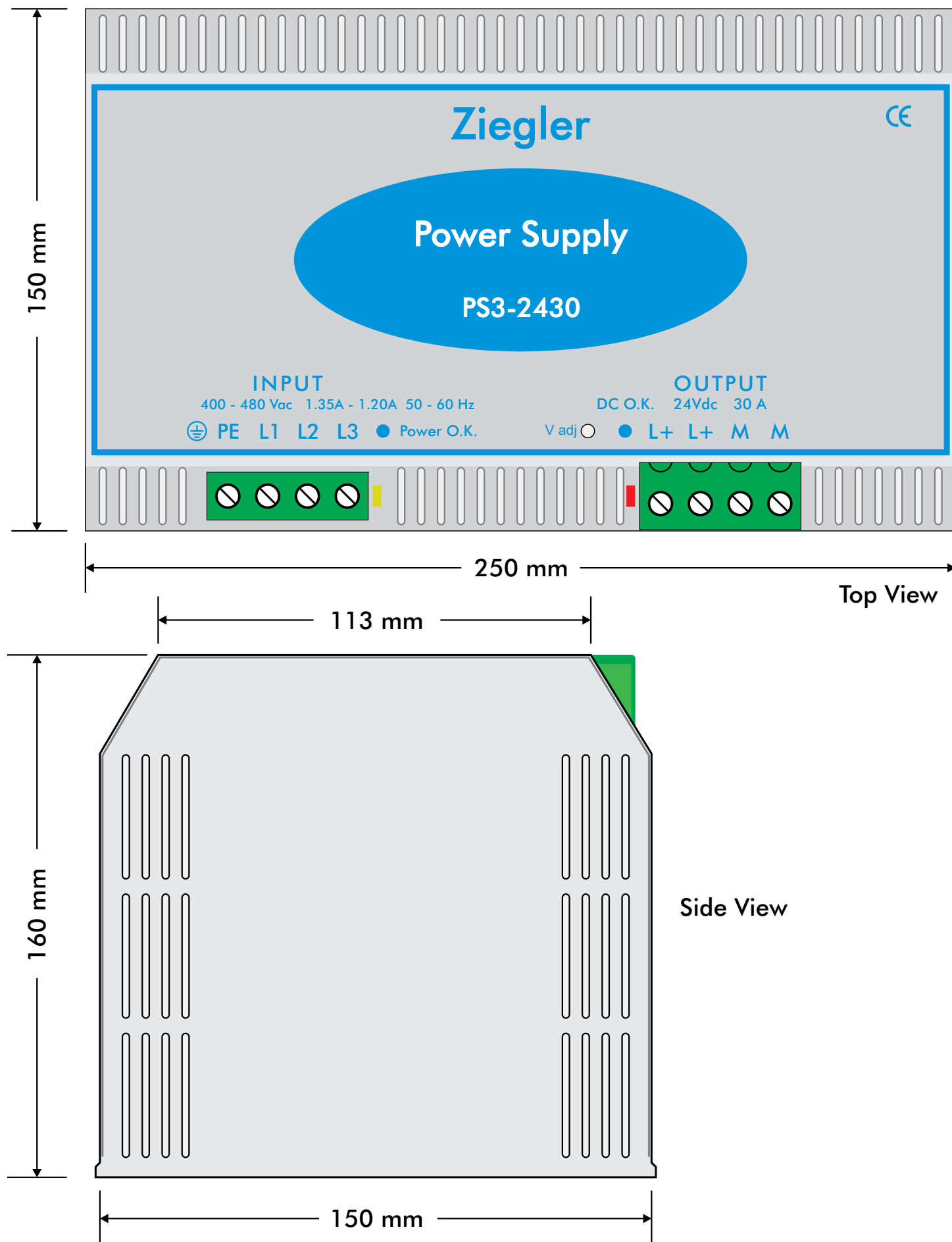
Parallel Connection, to Increase Output Power



¹: Switching On Delay Applying Mains Voltage

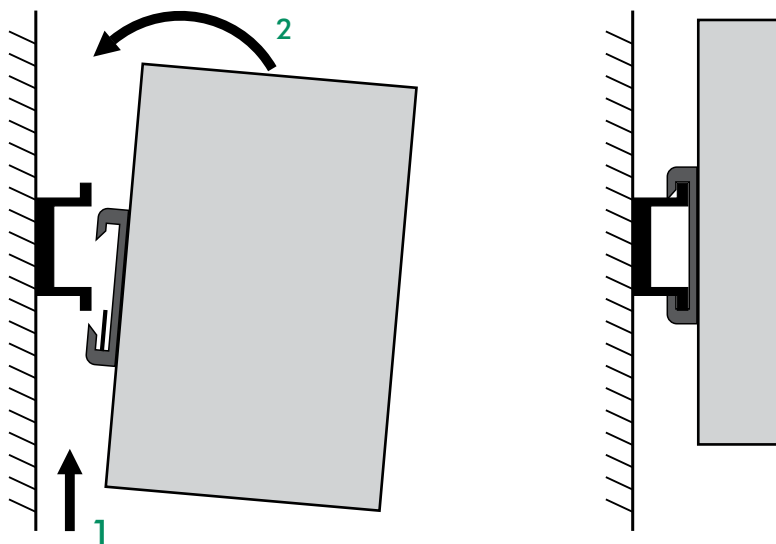
Features

Connection



Rail Mounting

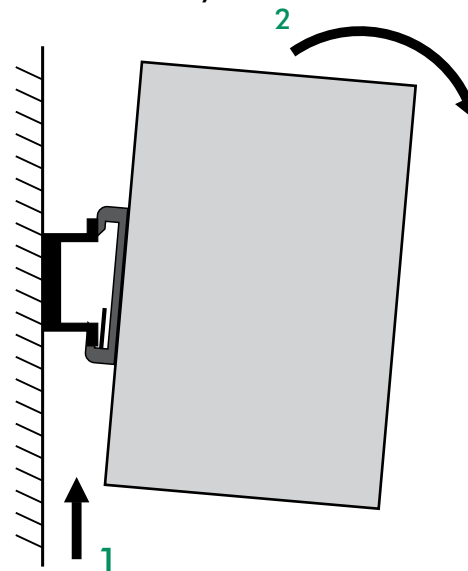
■ Assembly



- Place the Module with the Mounting Rail Guide at the Lower Edge and Snap in with an Upward Movement.



■ Disassembly



- Push the Module Upwards and Pull.

Other Models / Modules Must have a Minimum Vertical and Horizontal Distance of 10 cm to This Power Supply in Order to Guarantee Sufficient Auto Convection. Depending on the Ambient Temperature and Load of the Device, the Temperature of the Housing Can Become Very High.

Standards and Certification

Norms and Certifications

The CE Mark in According to EMC 89/336/EEC and Low Voltage 93/68/EEC.

Electrical Safety

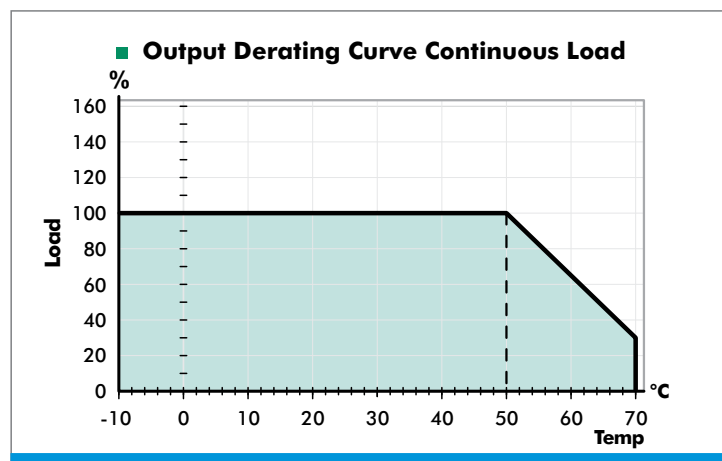
According to IEC/EN 60950 (VDE 0805) e EN 50178 (VDE0160) for Assembling Device. The Unit Must be Installed According to IEC/EN 60950.

Generic

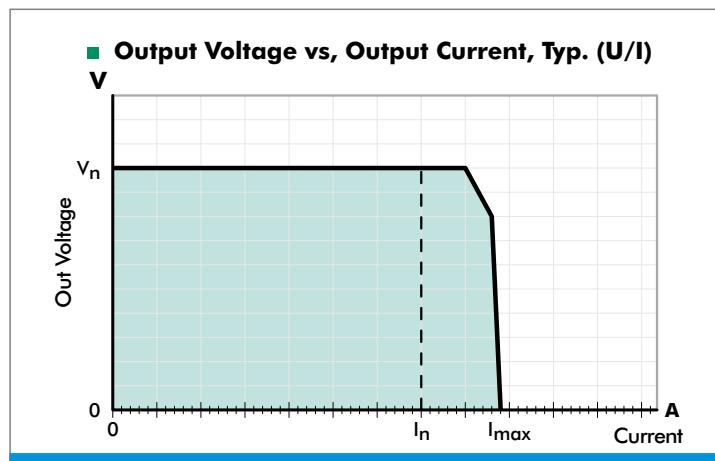
Immunity According to EN 50082-2 Level 4 Class B.

Noise Radiation According to EN 55011.

Temperature Ratings



Output Device



ZIEGLER INSTRUMENTS

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