

## POWER SUPPLY 1-PHASE, 24V DC LOW POWER PIANO SERIES

PIM90.245 PSU 100-240V ac I/P 24V dc 3.8A 90W O/P Screw

- Output current between 1.5 A to 3.8 A
- · Push-in or screw terminals
- Up to 93.8% efficiency
- Low no-load power losses





## PRODUCT DESCRIPTION

The latest and smallest representatives of the PIANO product family are currently the 24V DIN rail power supplies PIM36 (36W), PIM60 (60W) and PIM90 (90W).

Mini power supplies. New space opportunities.

The new PIANO Mini (PIM) power supplies create space in your systems or machines and allow you a more flexible planning. A 90W DIN rail power supply in a 36 x 90 x 91mm (WxHxD) housing is currently unique in the market. The width of the 36W version is only 22.5mm - so literally a thumb's width. This results in completely new space opportunities for you.

Focus on core features.

The most important characteristic of the PIANO devices is their focus on the core features of a power supply: efficiency, lifetime, reliability and size. The very high PULS quality is maintained in each of these features.

An example is the high efficiency of 91.8% (PIM60) and 93.8% (PIM90) at full load and +40°C ambient temperature. This means lower heat losses. It makes the power supplies more durable and reduces your costs for the cooling of your system.

Push-in or screw terminals - you decide.

For the PIM60 and PIM90 you can choose between push-in and screw terminals. The push-in terminals reduce installation time, and are very reliable in environments prone to shock and vibration. In addition, they are ideally suited for robot-assisted wiring processes.

The screw terminals, that accommodate large diameter wires, are still popular in environments with minimal shock and vibration.

Growing power supply family.

With the new PIANO Mini products, PULS now provides a complete, cost-oriented product family in the 36-480W power range.

## **SPECIFICATIONS**

| Input voltage range                | Wide-range |
|------------------------------------|------------|
| Number of phases                   | 1          |
| Input voltage AC                   | 100-240 V  |
| Input voltage ac min               | 90 V AC    |
| Input voltage ac max               | 264 V AC   |
| Inrush current at 120 V ac typical | 18 A       |
| Inrush current at 230 V ac typical | 40 A       |

| Power Factor at 120 V AC, full load. Typical  | 0.58          |
|---|---------------|
| Power Factor at 230 V AC, full load. Typical  | 0.45          |
| Supply Frequency                              | 50-60 ±6 %    |
| Power Consumption At 120 V AC                 | 1.45 A        |
| Power Consumption At 230 V AC                 | 0.95 A        |
| Type Power Supply                             | AC-DC         |
|   |               |
| Output voltage                                | 24 V DC       |
| Output voltage min                            | 24 V DC       |
| Output voltage max                            | 28 V DC       |
| Output Current                                | 3.8 A         |
| Effect  | 90 W          |
| Power Reduction Of 60 To 70 ° C               | 2.4 W/°C      |
| Ripple. max                                   | 100 mV pp     |
| Temperature Range Without Derating From       | -10 °C        |
| Temperature Range Without Derating To         | 60 °C         |
|   |               |
| Efficiency At 120 V AC, full load. Typical    | 92.1 %        |
| Efficiency At 230 V AC. Typical               | 92 %          |
| Efficiency At 230 V AC, full load. Typical    | 93.8 %        |
| Lifetime at 120 V ac, full load and +40 ° C   | 64000 h       |
| Lifetime at 230 V ac, full load and +40 ° C   | 102000 h      |
| MTBF (IEC 61709) 230 V AC, Maximum Load, 40 ° | 102000 h      |
| С   |               |
| Width   | 36 mm         |
| Height  | 90 mm         |
| Depth   | 91 mm         |
| Weight  | 0.27 kg       |
|   |               |
| Clamp type                                    | Screw         |
| Series  | Piano         |
| Approvals                                     | CB, CE, cULus |
| Material Protection                           | Polycarbonate |
| Hold-up time at 120 V AC, full load. Typical. | 25 ms         |
| Hold-up time at 230 V AC, full load. Typical. | 119 ms        |
|   |               |

IP Class IP20









