

# PSO-35 series

35W Switching Power Supply with UPS function



## ■ Features:

- Universal AC input range / Full range
- Output Protections: Short circuit / Overload
- Battery Protections: Battery cut-off
- Built-in battery charger with charging current control circuit
- LED alarm signals: AC OK, DC OK, Battery charging
- Cold start function: power ON without AC mains through ST switch
- Cooling by free air convection



## ⊙ ELECTRICAL SPECIFICATION

MODEL	PSO-35-13	PSO-35-27
<b>OUTPUT</b>		
Rated Voltage	13.8V	27.6V
Voltage Adjustment Range	11.3 ÷ 14.9V	21.3 ÷ 29.8V
Rated Current	2.5A	1.2A
Current Range	0 ÷ 2.5A	0 ÷ 1.2A
Rated Power	35W	35W
Line Regulation	± 0.5%	± 0.5%
Load Regulation	± 1%	± 1%
Voltage Tolerance [3]	± 3%	± 3%
Ripple & Noise (max.) [2]	300mV <sub>p-p</sub>	1000mV <sub>p-p</sub>
Setup, Rise Time [4]	800ms, 50ms / 230VAC; 1600ms, 50ms/115VAC at full load	
Hold up Time (typ.)	80ms / 230VAC; 16ms/115VAC at full load	

<b>BATTERY</b>		
Rated Voltage	12V	24V
Charging parameters	13.4V ± 0.2V / 0.5A ± 0.1A	27.4V ± 0.2V / 0.5A ± 0.1A

<b>INPUT</b>		
Voltage Range	80 ÷ 264VAC	
Frequency Range	47 ÷ 63Hz	
Power Factor (typ.)	PF > 0.6 / 230VAC at full load	
Efficiency (typ.)	81%	83%
AC current (typ.)	0.9A/115VAC; 0.45A / 230VAC	
Inrush current (max.)	45A / 230VAC(25°C)	

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## OUTPUT PROTECTIONS

<b>Over Current</b>	Range: 110 ÷ 150%
	Type: hiccup mode, auto-recovery
<b>Short Circuit</b>	Type: hiccup mode, auto-recovery

## BATTERY PROTECTIONS

<b>Battery Cut-off</b>	Range: 9.5 ÷ 11V	Range: 19 ÷ 22V
	Type: shut off, re-power on to recovery	

## WORKING ENVIRONMENT

<b>Working Temperature</b>	-10°C ÷ +50°C (Refer to derating Curve)
<b>Working Humidity</b>	20 ÷ 90% RH non-condensing
<b>Storage Temperature and Humidity</b>	-20°C ÷ +85°C, 10 ÷ 95% RH non-condensing

## SAFETY AND EMC REGULATIONS

<b>Safety Standards</b>	Compliance to EN60950-1
<b>Withstand Voltage</b>	IN/OUT: 1.5kVAC; IN/FG: 1.5kVAC; OUT/FG: 0.5kVAC
<b>EMC Emission</b>	Compliance to EN55032
<b>EMC Immunity</b>	Compliance to EN55024
<b>Harmonic Current</b>	Compliance to EN61000-3-3; EN61000-3-2

## OTHERS

<b>Dimensions</b>	110 x 78 x 36mm (L x W x H)
<b>Weight</b>	0.4kg

**EAN Code**



519018851205724



519018851200651

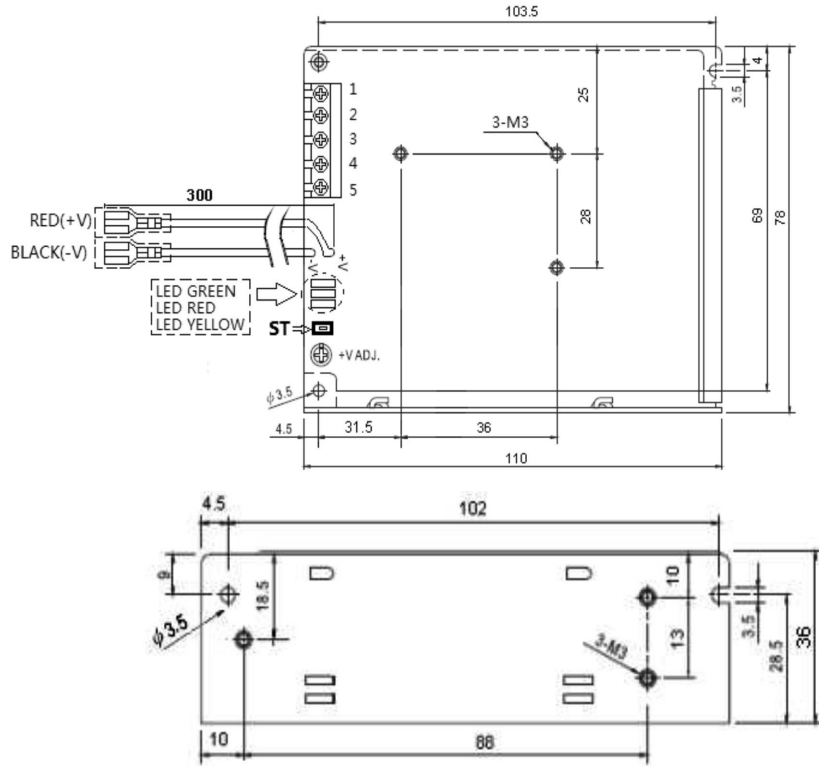
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF i 47µF parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.
4. Setup and rise time is measured from 0 to 90% rated output voltage.
5. Power supply is considered as component not indented to apply by end-user. Power supply meets safety and EMC standards however the final equipment with power supply must be re-quality to comply with EMC Directives.

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## © MECHANICAL SPECIFICATION



## PIN ASSIGNMENT

INPUT and OUTPUT (Screw terminal block 9.5mm pitch)		BATTERY (Faston 6.35x0.8mm)		Alarm Signals	
No.	Assignment	No.	Assignment	No.	Assignment
1	Input: AC/N	RED (+V)	Battery positive	LED GREEN	<span style="color: green;">■</span> - DC Power On <span style="border: 1px solid green; display: inline-block; width: 10px; height: 10px;"></span> - DC power Off
2	Input: AC/L	BLACK (-V)	Battery negative	LED RED	<span style="color: red;">■</span> - AC Input ON <span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px;"></span> - AC Input off
3	Input: FG			LED YELLOW	<span style="color: yellow;">■</span> - Battery is charging <span style="border: 1px solid yellow; display: inline-block; width: 10px; height: 10px;"></span> - Battery is not charging
4	Output: U <sub>OUT</sub> -			ST	Short Push when AC input off to power on DC output
5	Output: U <sub>OUT</sub> +				

## DERATING CURVE

