





# DATASHEET FIT IN

## > Ratings

	75 W	150 W	300 W	600 W
12 VDC	6 A	12 A	24 A	32 A
24 VDC	3 A	6 A	12 A	24 A
48 VDC	-	3 A	6 A	12 A

The currents ( $I_n$ ) shown are at rated output power.

## > Standard-based specifications

Safety	EN 60950 SELV class
EMC - Immunity	EN 61000-6-1 ☑ EN 61000-6-2
EMC - Emissions	EN 61000-3-2 ☑ EN 61000-6-3 ☑ EN 61000-6-4 ☑ EN 55022
Environmental	<p>This product range complies with the environmental policy (ISO 14001, RoHS and WEEE).</p>    

## > Environmental specifications

Relative humidity	storage: 10% to 95% non-condensing relative humidity operation: 20% to 95% non-condensing relative humidity		
Storage temperature	-25°C to +85°C		
Operating temperature	Power	75 W	100 W - 600 W
	75% of load	-5°C to +50°C	-5°C to +50°C
	100% of load	-5°C to +50°C	-5°C to +40°C
Altitude	Above 2,000 m, the maximum temperature decreases by 5% every 1,000 m		
Service life	50,000 h at 25°C (external environment) and 75% of load, product installed in a cabinet		

## > Input characteristics

Voltages	98 V to 264 V (115 V -15% to 230 V +15%) single-phase (300 W - 600 W) 195 V to 264 V (230 V +/-15%) single-phase (150 W)			
Frequency	45 to 65 Hz			
Neutral systems	TT - TN - IT			
Inrush current	limited by NTC			
Upstream circuit breaker to be provided	Curve D			
Class	Class I			
	75 W	150 W	300 W	600 W
Mains consumption @195 V	0.5 A	1 A	2 A	4 A
Efficiency at 20% load	71%	75%	84%	85%
Efficiency at rated load	85%	84%	90%	91%

## > Output characteristics

Rated voltage	12 V DC	24 V DC	48 V DC
Floating voltage ( $U_n$ ) set at half-load and at 25°C (V)	13.6 +/-0.5%	27.2 +/-0.5%	54.4 +/-0.5%
Adjustment range (V) in power supply mode only	12-14	23-29	46-58
Charger current limitation	From $I_n$ to $I_n$ +15%		

### > For reliable output voltage

Protection against external aggressions	<ul style="list-style-type: none"> <li>- Resistance to any type of external aggression: <ul style="list-style-type: none"> <li>• Overvoltages encountered on the mains network (lightning strikes, industrial environment, isolation fault on impedance-earthed neutral system, etc.)</li> <li>☑ Short-circuit on the primary power supply primary by a slow blow fuse on the phase.</li> <li>• Differential mode shock waves by varistor and fuse.</li> <li>• Inversions of battery polarity.</li> <li>☑ Overvoltages on the secondary power supply.</li> <li>☑ Overcurrents and short-circuits on the secondary power supply.</li> <li>☑ Short-circuits inside the product, protected by primary fuse.</li> <li>• Increases in external temperatures (outside the specified range).</li> </ul> </li> </ul>
Charger current limitation	<ul style="list-style-type: none"> <li>- The output current limitation allows to start a charge cycle with a dead battery.</li> <li>• Completely protects the product from short-circuits on the installation.</li> <li>• The selectivity of the protection is ensured by the fuses on each output use and the battery fuse.</li> </ul>
High performance filtering and regulation	<ul style="list-style-type: none"> <li>- Particularly efficient output voltage regulation <ul style="list-style-type: none"> <li>• Static regulation &lt; 0.5% of <math>U_n</math>.</li> <li>• Dynamic regulation &lt; 5% of <math>U_n</math> for cumulative variations of the mains and the load (10% to 90%).</li> </ul> </li> <li>- Enhanced filtering that eliminates all parasites and reduces the ripple on the V DC output.</li> <li>Battery capacity preserved and guarantee of optimum system operation. <ul style="list-style-type: none"> <li>• LF rms ripple &lt; 0.2% of <math>U_n</math>.</li> <li>• HF ripple (20 MHz-50 <math>\Omega</math>) &lt; 4% of <math>U_n</math>.</li> </ul> </li> </ul>

### > For the control of the emergency power source

System control	<b>Monitoring of:</b> <ul style="list-style-type: none"> <li>• Status of mains, battery and load fuses.</li> <li>• Battery presence or absence.</li> <li>• Battery voltage.</li> <li>• Its operating status.</li> <li>• Mains voltage present in the correct operating range.</li> </ul>
Battery charge management	<p><b>This function is essential</b> for reaching the design life and to ensure optimum operation of the battery.</p> <ul style="list-style-type: none"> <li>• The charge voltages are factory adjusted for "sealed" recombination-type lead acid batteries.</li> <li>• They are consistent with the battery manufacturers' recommendations.</li> <li>• The charger includes battery charge current limitation.</li> <li>• The power supply to the load takes priority over the battery charge.</li> </ul>
Battery backup	<p><b>Automatic disconnection of the charger at the end of discharge</b> to preserve its future capacity.</p> <ul style="list-style-type: none"> <li>☑ Prevents excessively deep discharge, that may permanently downgrade performance (cut-off threshold: 1.8V/cell).</li> <li>• A report is sent before disconnection (pre-cut-off alarm threshold: 1.85V/cell).</li> <li>• During autonomous operation, up to the cut-off threshold, the design of the SLAT unit allows to significantly limit the charger's own consumption on the battery.</li> <li>• This allows the application to take full advantage of the battery capacity.</li> </ul>

### > Charger consumption on the battery in autonomous mode

	12 V DC	24 V DC	48 V DC
75 W	32 mA	39 mA	-
150 W	49 mA	75 mA	85 mA
300 W	65 mA	44 mA	37 mA
600 W	141 mA	106 mA	73 mA

**> Communication**

Displaying and remote reporting of the information

**- Internal signaling on motherboard:**

A LED on the motherboard indicates the operational status.

Signals:

☑ Everything OK: green

☑ Mains fault: orange

• Battery or charger fault, or load not present: red

(this fault takes priority over a mains fault).

**- Mains fault:**

Remote reporting by means of a dry contact with time delay relay (fail-safe).

**- Charger fault:**

A charger fault occurs if the mains fuse is out of order or not present, or if the unit is out of order.

Remote reporting by means of a dry contact with time delay relay (fail-safe).

**- Battery fault:**

A battery fault occurs if the battery is not present or if voltage < 1.85 V/cell in autonomous mode.

Remote reporting by means of a dry contact with time delay relay (fail-safe).

**> Connection specifications**

Screw terminal	75 W	150 W	300 W	600 W
Mains	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
Batteries	2.5 mm <sup>2</sup>	6 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>
Load (2 outputs)	2.5 mm <sup>2</sup>	6 mm <sup>2</sup>	6 mm <sup>2</sup>	10 mm <sup>2</sup>
Alarm report*	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>

\*The alarm report connector can be unplugged

**> Boards characteristics**

Version	Dimensions W x H x D (mm)	Base	Cover
CG1	105 x 185 x 57	Metal	Grille
CG2	125 x 177 x 68	Metal	Grille
CG3	182 x 231 x 73	Metal	Grille
CG4	215 x 265 x 77	Metal	Grille

**> Product references**

Available on [www.slat.com](http://www.slat.com)

SLAT can change specifications on his products without prior notice.