

<b>&gt; Ratings</b>		
	50 W	75 W
12 V DC	4 A	6 A
24 V DC	2 A	3 A
The currents ( $I_n$ ) shown are at rated output power.		
<b>&gt; Standard-based specifications</b>		
Safety	EN 62368-1	
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2	
EMC - Emission	EN 61000-6-3 • EN 61000-6-4 • EN 55032 class B	
Trade	EN 50131 - 6 grade 3	
Environment	This product range meets the environmental requirements of ISO 14001, RoHS and WEEE standards.    	
Certification		VdS 2115
<b>&gt; Environmental specifications</b>		
Humidity	while working: relative humidity 20% to 95% (non-condensing)	
Storage temperature	-25°C to +85°C	
Working temperature	Power	50 W - 75 W
	75% of load	-10°C to +60°C
	100% of load	-10°C to +55°C
Altitude	Above 2,000 m, the temperature decreases by 5% every 1,000 m	
Working life	200,000 hours at 25°C for external atmosphere and 75% load	
<b>&gt; Input specifications</b>		
Voltage	99 to 264 V AC single phase	
Frequency	45 to 65 Hz	
Neutral system	TT - TN - IT	
Switch-on current	limited by CTN	
Upstream circuit breaker required	Bipolar curve D	
Class	Class I	
	50 W	75 W
Primary current @ 195 V	0.51 A (12 V) - 0.52 A (24 V)	0.76 A (12 V) - 0.78 A (24 V)
Primary current @ 99 V	1 A (12 V) - 0.98 A (24 V)	1.63 A (12 V) - 1.5 A (24 V)
Efficiency	50 W	75 W
At 20% load	85%	85%
At rated load	88%	90%
<b>&gt; Output specifications</b>		
Rated voltage	12 V DC - 24 V DC	12 V DC - 24 V DC
Floating voltage ( $U_n$ ) set at half-load and 25°C	13.6 V (12 V) - 27.2 V (24 V)	13.6 V (12 V) - 27.2 V (24 V)
Short-circuit current limitation	From $I_n$ to $I_n + 15\%$ for output voltage > 50% of $U_n$	

> For reliable output voltage	
Protection against external attack	<ul style="list-style-type: none"> <li>- <b>Resistance to all types of external aggressions:</b> <ul style="list-style-type: none"> <li>• Overvoltages encountered on the mains network (lightning, industrial, isolation fault on impedance-earthed neutral system, etc.)</li> <li>• Short-circuit on the primary power supply by a slow-blow fuse on the phase.</li> <li>• Differential mode shock waves by varistor and fuse.</li> <li>• Battery polarity inversions.</li> <li>• Overvoltages on secondary.</li> <li>• Overcurrents and short-circuits at secondary.</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 control	<ul style="list-style-type: none"> <li>- <b>Output current limitation</b> allows a charging cycle to be started with a discharged battery. <ul style="list-style-type: none"> <li>• Protects the product completely from short-circuits on the installation.</li> <li>• Protection selectivity is provided by fuses on each load output and the battery fuse.</li> </ul> </li> </ul>
High-performance regulation and filtering	<ul style="list-style-type: none"> <li>- Particularly efficient <b>output voltage regulation</b> <ul style="list-style-type: none"> <li>• Dynamic regulation &lt; 5% of <math>U_n</math> for cumulative variations of the mains and the load (from 10% to 90%).</li> </ul> </li> <li>- <b>Enhanced filtering</b>, which eliminates all interference and reduces the ripple on the DC output voltage. Battery capacity preserved and a guarantee of optimum system operation. <ul style="list-style-type: none"> <li>• LF rms ripple &lt; 0.2% <math>U_n</math>.</li> <li>• HF ripple (20 MHz-50 Ω) &lt; 4% <math>U_n</math>.</li> </ul> </li> </ul> <p><i>Note: The AXS3 and AXRS ranges can operate without battery and may be used as a direct power supply.</i></p>
> For emergency power source control	
System control	<ul style="list-style-type: none"> <li>- <b>Monitoring of:</b> <ul style="list-style-type: none"> <li>• The status of mains, battery and load fuses.</li> <li>• Battery voltage.</li> <li>• Its operating status.</li> <li>• Mains voltage present in the correct operating range.</li> </ul> </li> </ul>
Battery charge management	<ul style="list-style-type: none"> <li>- <b>This function is essential</b> for reaching the design life and to ensure optimum operation of the battery. <ul style="list-style-type: none"> <li>• The load voltages are factory set for "sealed" recombination-type lead acid batteries.</li> <li>• They are consistent with the battery manufacturers' recommendations.</li> <li>• The charger features battery charging current limitation.</li> <li>• Supplying power to the load takes priority over battery charging.</li> </ul> </li> <li>- The <b>battery current limit</b> is adjustable by the customer depending on the battery capacity to ensure recharge between 0.1 and 0.3C recommended by the manufacturers. <ul style="list-style-type: none"> <li>• The thresholds are 25%, 50% and 75% of rated current.</li> <li>• The selection is made by 2 microswitches.</li> <li>• The default load current is 75% of rated current.</li> </ul> </li> <li>- <b>A battery voltage compensation system</b> maintains the charge characteristics within the limits specified by the battery manufacturer across the whole of the operational temperature range. A probe placed close to the batteries measures the temperature thereof.</li> </ul>
Battery backup	<ul style="list-style-type: none"> <li>- <b>Automatic disconnection of the battery at end of discharge</b> to preserve its future capacity. <ul style="list-style-type: none"> <li>• Prevents excessively deep discharge that can permanently downgrade performance (cut-out threshold 1.8V/cell).</li> <li>• An alarm is sent before disconnection (Pre-cut alarm threshold 1.85 V/ cell).</li> <li>• In autonomous operation, up to the cut-off threshold, the design of the SLAT unit significantly limits the charger's own consumption on the battery.</li> <li>• This allows your application to take full advantage of the battery's capacity.</li> </ul> </li> </ul>

> Charger consumption on the battery during autonomy		
	12 V DC	24 V DC
50 W	31.5 mA	38.5 mA
75 W	31.5 mA	38.5 mA

> For optimal communication

Orange

Green

Green

3 LEDs on card indicate the 3 fault states. Signaling failure orange LED if fault, green otherwise.

- **Mains fault:**
  - If mains not present.
- **Charger fault:**
  - If no voltage on Output 1.
  - If no voltage on Output 2.
  - If low voltage outputs (product overload).
  - If the mains fuse is blown or not present.
  - If the product is out of order.
- **Battery fault:**
  - Battery fault if no battery (test every 30 seconds during the first 20 minutes after start-up and test every 15 minutes maximum. If a fault is detected, the test is conducted every 30 seconds, and continues up to 20 minutes after the fault disappears).
  - If battery voltage < 1.85 V/cell +/-3%.
  - If the internal impedance is too high (test every 4 hours maximum on a charged battery).

A switch with a wired contact loop detects when the cover is opened or the unit is removed from the wall.

Display and remote reporting of the information

On motherboard

A LED on the motherboard indicates the operational status before the cabinet is closed (display board not connected) or when no display board exists.

Signals:

- All OK: green
- Faults: red

Communication AXS3

The 3 faults (mains, battery, output) are reported on 3 independent dry contacts NC / NO (failsafe).  
Dry contact: 1A @ 24 V DC, 0.3A @ 125 V AC.  
An additional tamper dry contact is provided, grouping cover opening and wall detachment.

Communication AXRS\*

- The 3 faults (mains, battery, charger) and opening of the cover and removal from the wall data are grouped one single dry contact (failsafe).
- Dry contact: 1 A @ 24 V DC, 0.3 A @ 125 V AC.
- A serial RS485 link (Modbus) allows to know precisely the fault information mentioned above and communicates the analog values (user's, battery's, charger's voltages and currents, battery temperature).
- The power supply is addressed by two microswitches (4 possible addresses).

\*Exists with RS485 communication. For more information, contact us.

> Connection specifications	50 W - 75 W
Mains	1x3pin/0.2 - 2.5 mm <sup>2</sup> /15 A
Batteries	1x2pin/0.2 - 2.5 mm <sup>2</sup> /15 A
Load (2 outputs)	1x2pin/0.2 - 2.5 mm <sup>2</sup> /15 A
Alarm reports	1x9pin/0.2 - 1.5 mm <sup>2</sup> /14.5 A

All terminal blocks are removable with screen printing on the mobile card.



<b>&gt; Options</b>				
3 or 5 fuse outputs kit	<ul style="list-style-type: none"> <li>• Customer installable Printed Circuit Board.</li> <li>• Secured by 4 clips on the motherboard.</li> <li>• Connectors with 2.5 mm<sup>2</sup> screw terminals.</li> <li>• 5 x 20 fuse, rating 4 A.</li> </ul>			
<b>&gt; Cabinet characteristics</b>				
Cabinet	Dimension W x H x D (mm)	IP	Base	Cover
C24	322 x 248 x 126	IP30	Metal, RAL 9006	ABS RAL 9003
C38	289 x 350 x 189	IP31	Metal, RAL 7035	Metal, RAL 7035
C85	408 x 408 x 224	IP31	Metal, RAL 7035	Metal, RAL 7035
<b>&gt; Types of battery cabinet</b>				
Cabinet	Type	12 V DC		24 V DC
C24	Wall-mounted	7 Ah, 12 Ah, 24 Ah (2 x 12 Ah)		7 Ah, 12 Ah
C38	Wall-mounted & Floor-mounted	17 Ah, 24 Ah, 38 Ah		17 Ah, 24 Ah
C85	Wall-mounted & Floor-mounted	48 Ah (2 x 24 Ah), 65 Ah (3 x 12 Ah), 80 Ah, 96 Ah (4 x 24 Ah)		24 Ah, 38 Ah, 48 Ah (4 x 24 Ah)
<b>&gt; Associated battery capacities</b>				
Charger voltage	12 V DC		24 V DC	
Charger ratings	4 A	6 A	2 A	3 A
Maximum battery charging current	3 A	4.5 A	1.5 A	2.25 A
Maximum capacity C20 - 1.75 V	50 Ah	86 Ah	26 Ah	40 Ah
Minimum capacity C20 - 1.75 V	7 Ah	7 Ah	7 Ah	7 Ah

SLAT can change specifications on his products without prior notice.