> Ratings								
	50 W	75 W	100 W	150 W	200 W	300 W	400 W	600 W
24 V DC	2 A	3 A	4 A	6 A	8 A	12 A	16 A	24 A
48 V DC	-	-	2 A	3 A	4 A	6 A	8 A	12 A
The currents values refer to the nominal current (I_n) at rated output power.								

> Standard-based specifications	
Safety	EN 62368-1
EMC - Interference Immunity	EN 50130-4 • EN 61000-6-1 • EN 61000-6-2
EMC - Emission	EN 61000-3-2 • EN 61000-6-3 • EN 61000-6-4 • EN 55032 B class
Industry-specific	NFS 61940 • EN 54-4 / A2 • EN 12101-10
Environmental	This product range meets the environmental requirements according to ISO 14001, RoHS and WEEE.
Certification VdS	VdS 2344 - 2541 (all) VdS 2203 - 2593 - 2824 - 2882 (50-75 W)

> Environmental specifications			
Hygrometry	**During storage:** relative humidity 10% to 95% (non-condensing) **During operation:** relative humidity 20% to 95% (non-condensing)		
Storage temperature	-25 to +85°C		
Operating temperature	Power	50 W - 75 W	100 W - 600 W
	at 75% of load	-10°C to +60°C	-5°C to +50°C
	at 100% of load	-10°C to +55°C	-5°C to +40°C
Maximum operating height	Above 2,000 m, the maximum temperature decreases 5% every 1,000 m		
Service life 50-75 W	200,000 hours at 25°C (ext. environment) and 75% of load at nominal mains voltage		
Service life 100-600 W	50,000 hours at 25°C (ext. environment) and 75% of load at nominal mains voltage		

> Input characteristics		
	50 W - 75 W	100 W - 600 W
Voltage	99 to 264 V AC single-phase	195.5 to 264 V AC single-phase
Frequency	45 to 65 Hz	
Mains Type	TT - TN - IT	
Inrush current	Bipolar Curve C between 2 and 10 A	limited by NTC
Upstream circuit breaker to be provided	D curve	
Class	Class I	

	50 W	75 W	100 W	150 W	200 W	300 W	400 W	600 W
Primary current @ 195V	0.52 A	0.78 A	0.75 A	1 A	1.5 A	2 A	3 A	4 A
Efficiency	50 W - 75 W		100 W - 150 W		200 W - 300 W		400 W - 600 W	
η @ 20% load	81.3%		75%		84%		85%	
η @ nominal load	90.1%		84%		90%		91%	

> Output characteristics		
Nominal voltage	24 V DC	48 V DC
Float voltage (U_n) adjusted to half load and 25°C	27.2 V +/-0.5%	54.4 V +/-0.5%
Current limitation charger	I_n	

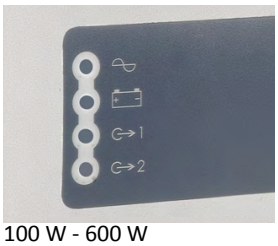
> Reliability of the output voltage	
Protection against external interferences	- Resistance against all types of external interferences: • Overvoltage occurring in the power supply (lightning, industrial overvoltage, insulation faults on neutral conductor impedance earthing) • Short circuit at the primary circuit due to a delayed fuse on the phase conductor • Differential mode shock waves by varisor and fuse. • Battery polarity reversal. • Overvoltages on the secondary circuit. • Overcurrents and short-circuits on the secondary circuit. • The short-circuits inside the product, protected by primary fuse. • High ambient temperatures (outside the specified range).
Management of charger current limitation	- Output current limitation allows a charge cycle to be started with a empty battery. • Fully protects the product from short-circuits on the installation. • Protection selectivity is ensured by fuses on each load output and the battery fuse.
High performance filtering and regulation	- Particulary efficient output voltage regulation • Static regulation < 0.5% of U_n. • Dynamic regulation < 5% of U_n for cumulative variations of the mains and the load (from 10% to 90%). - Enhanced filtering that eliminates all interference and reduces the ripple on the V DC output. Battery capacity preserved and the guarantee of optimum system operation. • LF rms ripple < 0.2% of U_n. • HF ripple (20 MHz-50 Ω) < 4 % of U_n.
> For the control and management of the emergency power source	
System control	- Monitoring of: • The status of Mains, battery and load fuses. • Battery presence or absence and its impedance. • Temperature inside the cabinet (200 W to 600 W). • Battery voltage and its operating status. • Mains voltage inside correct operating range.
Battery charge management	- This function is essential for reaching the design life and to ensure optimum operation of the battery. • The charge voltages are factory set for «sealed» recombination-type lead acid batteries. • They are consistent with the battery manufacturer's recommendations. • The charger features battery charge current limitation. • The supply of power to the load takes priority over the battery charge.
Battery backup	- Automatic disconnection of the load at end of discharge to preserve its future capacity. • Prevents deep discharge that can permanently downgrade performance, Cut-off threshold 1.8 V/cell (+/-0.5%). • An alarm is sent before disconnection (Pre-cut alarm threshold 1.85 V/cell (+/-0.5%). • The charger integrates a limitation of the battery charging current. This allows your application to take full advantage of the battery's capacity.

> Table of charger internal consumption during autonomy

	24 V DC	48 V DC
50 W - 75 W	39 mA	-
100 W - 150 W	75 mA	85 mA
200 W - 300 W	44 mA	37 mA
400 W - 600 W	106 mA	73 mA

> For optimal communication

50 W - 75 W



100 W - 600 W

Display and remote reporting of the information

- **Mains fault (normal source): signaled locally by an orange LED**.
  - If the mains is not present or < 195 V.
  - If the mains fuse is blown or not present, or if product is out of order.
  - Remote reporting by dry contact with delay (failsafe).

- **Battery fault (safety supply): signaled by an orange LED**.
  - Remote reporting by dry contact with delay (failsafe).

- If battery is not present: The battery is tested in the following manner:
- Every 30 seconds for the first 20 minutes after commissioning:
- Every 15 minutes after the first 20 minutes, if a fault is detected, the test is conducted every 30 seconds, and continues up to 20 minutes after the fault disappears.

- If the internal impedance is too high (test every 4 hours maximum on a charged battery)**:** signaled by a green LED

- The impedance limit values are:

	24 V DC	48 V DC
50 W - 75 W	650 mΩ +/-15%	-
100 W - 150 W	410 mΩ +/-10%	1.65 Ω +/-10%
200 W - 300 W	164 mΩ +/-10%	656 mΩ +/-10%
400 W - 600 W	82 mΩ +/-10%	328 mΩ +/-10%

- If battery voltage < 1.8 V/ cell +/-3%.

- **Output 1 voltage presence (replacement normal source)**:
Voltage presence on this output is indicated by a green LED.

- Output 2 voltage presence (replacement normal source):
- Voltage presence on this output is indicated by a green LED.
- Remote reporting by dry contact with delay (failsafe) of the absence of one of the 2 load outputs.

- AES operates when the 2 green LEDs, corresponding to the load outputs, are illuminated.
If voltage is not present, the LEDs are off.

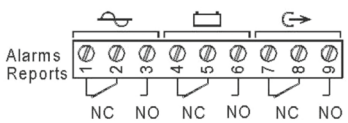
- Temperature compensation:
A battery voltage compensation system maintains the charge characteristics within the limits specified by the battery manufacturer across the entire operational temperature range.

- **Battery current limitation (50 W-75 W):**
2 microswitches (position 25%, 50%, 75% of rated current) are used to select the battery charging current according to the battery capacity. Battery manufacturers recommand to maintain charging current within 0.1 to 0.3 C. The product is delivered with the jumper in the '75' position.

- Battery current limitation (100 W-600 W):
A configuration jumper on the daughterboard (position 25%, 50%, 75% of the rated current) allows to adapt the battery charging current to its capacity.
The product is delivered with the jumper in the '75' position.

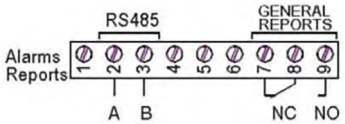
-Battery low voltage outage:
The outage threshold is 1.8 V/ cell +/- 3%.
The element causing the outage will be in the + position.

Communication AES



3 dry contacts with delay (failsafe) 1 A @ 24 V DC / 0.3 A @ 125 V AC

Communication AESRS



- The 3 faults (mains, battery, charger) and the information of opening the cover or removal from the wall are grouped on a single dry contact (failsafe).
- Dry contacts: 1 A @ 24 V DC, 0.3 A @ 125 V AC.
- An RS485 connection (Modbus) gives the above information in detail and communicates the analog values (voltages and load current, battery, rectifier, battery temperature).
- The power supply is addressed by two microswitches (4 possible addresses).

> Connections specifications				
Screw terminal	50 W - 75 W	100 W - 150 W	200 W - 300 W	400 W - 600 W
Mains	2.5 mm²*	2.5 mm²	2.5 mm²	2.5 mm²
Batteries	2.5 mm²*	6 mm²	6 mm²	10 mm²
Load (2, 6 or 10 outputs)	2.5 mm²*	6 mm²	6 mm²	10 mm²
Alarm reports	1.5 mm²*	1.5 mm²*	1.5 mm²*	1.5 mm²*
*Unpluggable connectors.				

> Cabinet and rack characteristics					
	Size W x H x D (mm)	Weight (kg)	IP	Base	Cover
C24	322 x 248 x 126	6 - 10	IP30	Metal, RAL 9006	ABS RAL 9003
C38*	289 x 350 x 189	21 - 25	IP31	Metal, RAL 7035	Metal, RAL 7035
C85*	408 x 408 x 224	25 - 50	IP31	Metal, RAL 7035	Metal, RAL 7035
C180	505 x 610 x 430	68 - 116	IP31	Metal, RAL 7035	Metal, RAL 7035
Rack	483 x 132 x 235	3	IP30	Metal, RAL 7035	Metal, RAL 7035
Rack F3U	482 x 132 x 110	3	IP30	Metal, RAL 7035	Metal, RAL 7035

*The following is installed in the C38 and C85 housings (24 V versions):
- a card with 5 fuse outputs (6 instead of 2 outputs are available)
- a DIN rail for integration of the user's equipment.
The following can be installed additionally in the C38 and C85 housings (24 V versions):
- an additional card with 5 fuse outputs (10 instead of 6 outputs are available).

> Battery capacity according to cabinet			
Cabinet	Type	24 V DC	48 V DC
C24	Wall-mounted	7 Ah, 12 Ah	2.1 Ah
C38	Wall-mounted & Floor-mounted	17 Ah, 24 Ah	7 Ah, 12 Ah
C85	Wall-mounted & Floor-mounted	24 Ah, 38 Ah	12 Ah, 17 Ah, 24 Ah
C180	Floor-mounted	65 Ah, 80 Ah, 120 Ah, 130 Ah, 170 Ah	38 Ah, 65 Ah, 80 Ah
Rack F3U	Rack	-	-
Rack	Rack	-	-