SOLON Top Charge

Off-grid sine wave inverter and charge unit.

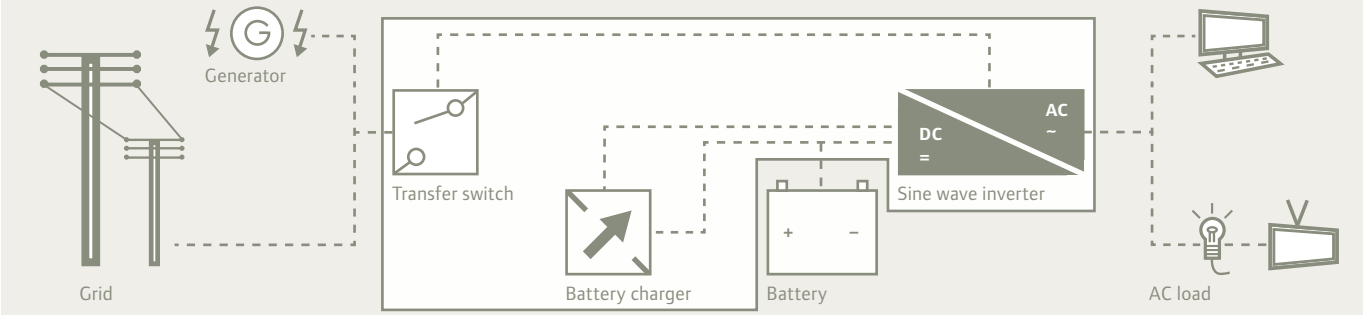
- Pure sine wave
- Short circuit and overload security
- High efficiency factor
- Galvanic isolation

SOLON

Don't leave the planet to the stupid

SOLON Top Charge

Off-grid application



Input variables (DC)

		13/12	22/24
Rated voltage DC	$U_{DC\ IN}$	12 V	24 V
Input voltage range	U_{DC}	10.5 – 16.0 V_{DC}	21.0 – 32.0 V_{DC}
Dynamic low voltage cut (depending on load)	U_{DC}	10.5 – 9.0 V_{DC}	21.0 – 18.0 V_{DC}
Rated current DC	$I_{DC\ IN}$	125 A	100 A
Max. current	$I_{DC\ max}$	350 A	290 A

Output variables (AC)

Rated output current AC	$I_{AC\ OUT}$	5.7 A	9.6 A
Short circuit current (max. 0.5 s)	$I_{AC\ K}$	16 A	25 A
Continuous power	P_{AC}	1.000 VA	2.000 VA
Rated power (10 min at T_A = 20°C)	P_{10}	1.400 VA	2.900 VA
Rated power (30 min at T_A = 20°C)	P_{30}	1.300 VA	2.200 VA
Rated output voltage AC (short circuit proof)	$U_{AC\ OUT}$	230 V_{AC} ±2 %	230 V_{AC} ±2 %
Output frequency (pure sine wave)	f_{AC}	50 Hz ±0,5 %	50 Hz ±0,5 %
Power factor	CosPhi	0.3 – 1.0	0.3 – 1.0

Battery charger

Max. cont. charge power	1.300 W	2.200 W
Charging current (adjustable)	0 – 75 A	0 – 75 A
Efficiency factor max.	88 %	91 %
Float voltage (adjustable)	12,5 – 15,0 V	25,0 – 30,0 V
Charge algorithm	I_0U or $I_{UO}U$ selectable	
CosPhi	≈ 1	
Input voltage range	196 – 245 V_{DC}	
Input frequency range	45 – 55 Hz	
Temperature compensation (sensor included)	–10 mV/K per cell (0 – 35°C)	

Typical data

	13/12	22/24
Dimensions (L x W x H)	385 x 260 x 181 mm	456 x 320 x 211 mm
Weight	17 kg	21 kg
Efficiency factor max.	92 %	93 %
Consumption 230 V_{AC} OK	11 W	16 W
DC breaker	No	125 A
Remote control ON/OFF	Yes	Yes
Alarm contact	Yes	Yes
Housing protection	IP 20	IP 20
Display	LED/optional LCD	
Automatic transfer switch	40 A/250 V	40 A/250 V
Transfer time	Typ. 20 ms/max 50 ms	
Relais contact for generator startup	2 A/30 V DC (isolated)	
Generator time	0 – 255 min	0 – 255 min
Interface	RS 232	RS 232
Reset after short circuit	Every 60 s	Every 60 s
Reset after overload	Every 60 s	Every 60 s
Reset after overtemperature	Automatically after reaching semiconductor temp. 45°C	
Reset after battery failure	Automatically after reaching UDC_{IN}	
Ambient temperature range	–25°C to +50°C (max. 95 % rH, non-condensing)	
Consumption standby/OFF	ca. 1 W (testpulse 800 ms)/0 W	
Toroidal transformator	Galvanically isolated EN61558 (ICE61558)	
Temperature and load controlled fan	ON 55°C/OFF 45°C, P_D > 80 %	
Warranty	2 years	
Certificate	Declaration of conformity	

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