

TOP CLASS TOPcharge		TCNL13/12	TCNL22/24
<b>Inverter</b>			
Nominal Power (TA20°C)	1300VA	2200VA	
Nominal Battery Voltage UDC IN	12V	24V	
Efficiency max.	app. 92%	app. 93%	
Input Voltage Range	10.5 - 16V DC	21 - 32V DC	
Nominal DC-Current IDC IN	125A	100A	
Max. DC-Current IDC app.	350A	290A	
Low Voltage Cut Off	10.5 - 9V DC	21 - 18VDC	
Nominal Output Voltage	230V AC +/- 2%		
Nominal Output Current	5.7A	9.7A	
Output Frequency (crystal controlled)	50Hz +/- 0.5%		
Permanent Load Power Factor CosPhi	0.3 - 1		
Max. Surge Power	300%		
Powerdraw OFF/Standby	0W / ca. 2W (230V Test puis every 800ms)		
Load sensing at	4 - 40Watt (adjustable)		
Synchronisation	Fully automatic synchronisation to Grid or Generator		
Powerdraw 230V AC OK	typ. 11W	typ. 16W	
<b>Charger</b>			
Max. cont Charge Power (230VAC/UDCnom)	1300W	2200W	
Charge algorithm	Adjustable IU or IUoU		
Charging Current (adjustable)	0 - 90A	0 - 90A	
Equalise charge mode, Boost (only with remote Display)		Equalise voltage and time, adjustable	
Efficiency max.	88%	91%	
Load Factor Cos Phi	≥1		
Input Voltage (AC-source)	196V - 256V AC		
Input Frequency Range (AC-source)	45 - 55Hz		
Temperatur compensation (included when delivered)	-5mV /K /Cell (range 0° - 35°), Trefrence =25°C		
Float Voltage (adjustable)	12.5 - 15V	25 - 30V	
<b>General</b>			
Ambient Temperature Range	-20 bis +50 Grad C (max. 95% not condensing)		
Automatic Transfer Switch	40A / 230V		
Transfer Time	typ. 20ms / max. 50ms		
Relay Contact for Generator start up	2A/30V DC (isolated)		
Generator time	Adjustable 0-25 minutes		
Automatic FAN	55°C (Hysteresis 55°ON - 45°OFF) or Pac >80% Pnenn		
Toroidal Transformer	IEC 742, VDE0561		
EMC	complies to CE-rules		
Enclosure	IP20		
Dimensions mm	260x181x375	320x211x456	
Dimensions optional Display Panel mm	110x90x30		
RS 232 interface for operating data and parameters	4800Baud, 8N1		
Data transfer and power supply of remote display	Up to 60m, electrically isolated, no external power is needed		
Weight app.	17Kg	21Kg	
(Technical Changes Reserved)			