



Technical Specifications

Tower Model (3Ph/3Ph)	SP 10 kVA	SP 15 kVA	SP 20 kVA	SP 30 kVA	SP 40 kVA	SP 60 kVA
Output Power (VA)	10.000	15.000	20.000	30.000	40.000	60.000
Nominal Active Power (W)	9.000	13.500	18.000	27.000	36.000	54.000
RECTIFIER INPUT						
Nominal Voltage	380/400V (Ph-Ph) 3Ph+N					
Input Voltage Range (VAC) (at 50% Load)	from -52% to +17%					
Input Voltage Range (VAC) (at full Load, with battery charging)	from -20% to +20%					
Frequency (Hz)	45 - 65					
Power Factor	≥ 0.99					
BYPASS INPUT						
Nominal Voltage	380/400V (Ph-Ph) 3Ph+N					
Voltage Tolerance	±15%					
Frequency Tolerance (Hz)	±3					
Transfer Time (ms)	<0.5					
OUTPUT						
Nominal Voltage (VAC) (Ph-Ph)	(380/400 Adjustable)					
Power Factor	0.9					
Wave Form	Sinusoidal					
Frequency (Hz)	50 or 60 (Adjustable)					
Frequency Tolerance (Battery Operation)	0.01%					
Voltage Regulation (Static)	±1%					
Out Volt unbalance at reference unbalance load	<0.5%					
Maximum phase angle variation	<0.1°					
Crest Factor	3:1					
Nominal Power (kVA)	10	15	20	30	40	60
Overload Protection (sec)	600 (at 100 - 125% Load)					
	60 (at 125 - 150% Load)					
THD _v	< 3%					
	Non-Linear Load < 5%					
BATTERY						
Battery Type	Maintenance-Free Lead Acid Batteries					
Battery String (Blocks)	30					
PROTECTION	Overload Protection, High Temperature, Input Over Voltage, Input & Output Over Current, Back-Feed Protection, Intelligent Charging Algorithm - Deep Charge Protection - Battery Test (Automatic / Manual), Short-Circuit Protection					
COMMUNICATION						
Standard Interface	RS232-ESD-Genset,					
Options	Modbus-4 Programmable Relay-Contacts-SNMP					
ENVIRONMENT						
Operating Temperature Range (°C)	0 - 40 C					
Battery Temperature Range (°C)	20 C - 25 C (Recommended For Longer Battery Life)					
Maximum Altitude without Derating (m)	1000					
Relative Humidity Range	20-95% (Non-Condensing)					
Acoustic Noise (dBA)	< 55 (at 1m)					
PHYSICAL						
Dimensions (HxWxD) (mm)	855 x 300 x 715	935x 300 x 865			1000 X 450 X 900	
Weight (kg) (without battery)	53 Kg Pallet	70 Kg Pallet	75Kg Pallet	60 Kg Pallet	105Pallet	
	44 Kg net	62 Kg net	67 Kg net	50 Kg net	95 Kg net	
Paint	RAL 7016@enclosure					
	RAL 9005@front door metal					
STANDARDS						
Safety	IEC/EN 62040-1					
EMC	IEC/EN 62040-2					
Performance	IEC/EN 62040-3					
Design	IEC/EN 62040					
	ISO 9001:2008 - ISO 14001:2004					
Protection Class	IP 20 (other IP as option)					

**The manufacturer reserves the rights to change the Technical Specifications and design without notice.