### **POWER+SA**

# Stand Alone/Tower 10kVA On-Line double conversion UPS True on-line batteries

#### Features

- Lightweight and compact design, weighing only 18 Kg
- Flexible use available in 3/3, 3/1 and 1/1 phase configurations
- Great performance:
  - > High efficiency AC/AC: 96%
  - > Low input THDi: <5%
  - > Input PF of 1
  - > Backlight LCD
- Available also in 208v with UL conformity
- Mainly used for Small & Medium sized applications, as well as an OEM component for large devices (such as Medical CT products)



## **POWER+SA**

### Stand Alone 20/30/40kVA On-Line double conversion UPS True on-line batteries

#### Features

- Unique and compact design, weighing only 68kg (at 40kVA)
- Great performance:
  - > High efficiency AC/AC: 96%
  - > Low input THDi: 5 %
  - > Input PF: 1
  - > Backlight LCD
  - > External battery cabinets available



## POWER+19"

## 10-20kVA On-Line double conversion UPS True on-line batteries

#### Features

- The POWER +19" is a variant of the POWER+ UPS, which can be integrated as a sub rack into any standard 19" rack, for a lower cost configuration of the 10kVA and 20kVA UPS's.
- The kit includes:
  - One or two 10kVA POWER+ modules
  - > A Controller with a built-in STSW
  - > A19" shelf to host the POWER+ module and controller
- The kit reaches a height of 4U with one 10Kva module and 6U with 2 modules.



4U height

## POWER+ SA 20 kVA, 30 kVA, 40 kVA Technical Specifications

True online battery, double conversion   INPUT	POWER <sup>+</sup> SA UPS	20 kVA	30 kVA	40 kVA	
Voltage					
Voltage		inde of	·		
Frequency tolerance					
Power valk-in					
Power factor					
Power factor					
ThD    S   S   S   S   S   S   S   S   S					
Barth leakage current					
Section   Sec					
Rated power   20 kVA / 16 kW   30 kVA / 24 kW   40 kVA / 32 kW					
Frequency tracking range		20 14/4 / 16 144/	· · · · · · · · · · · · · · · · · · ·		
Slew rate	·			<u> </u>	
Voltage		±0.5, :			
Frequency					
Static regulation	3				
Regulation for unbalanced load					
Dynamic response to 100% load step   2 %	3		111		
Overload         110 % for 10 min.; 125 % for 60 sec.; 1000 % for 1 cycle           Waveform         Sinusoidal           THD         Less than 2 % for linear load           Load CF (max)         6:1           DC/AC efficiency (nominal)         98 %           AC/AC efficiency (nominal)         96 %           STATIC SWITCH (bypass)           Input connection         Dual feed           GENERAL           Maximum power dissipation (Po=8KW)         666 W (2274 BTU)         999 W (3408 BTU)         1332 W (4544 BTU)           Ambient temperature         -10 °C to +40 °C (operating): -20 °C to +70 °C (storage)           Relative humidity         95 % max non-condensation           Altitude         1500 m without derating           Enclosure         IP20           Cooling system         Multi-Fan with speed control (forced)           Acoustic noise (full load) @1.5m distance         54 dBA         57 dBA           MTBF         250,000 h         50 kg         59 kg         68 kg           COMMUNICATION         Ves         COMMUNICATION         Ves           Dry contact alarms         Yes         COMMUNICATION         Voltage, frequency, current, power           Batteries         Voltage, frequency, current, power         Batteries<	3	±19	±1 % for 100 % unbalanced load		
Sinusoidal	· ·		**		
ThD		110 % for 10 m	110 % for 10 min.; 125 % for 60 sec.; 1000 % for 1 cycle		
Load CF (max)   6:1     DC/AC efficiency (nominal)   98 %     AC/AC efficiency (nominal)   96 %     STATIC SWITCH (bypass)     Input connection	Waveform		Sinusoidal		
DC/AC efficiency (nominal)   98 %	THD	L	Less than 2 % for linear load		
AC/AC efficiency (nominal)  STATIC SWITCH (bypass)  Input connection  GENERAL  Maximum power dissipation (Po=8KW)  Ambient temperature  Relative humidity  Altitude  Cooling system  Acoustic noise (full load) @1.5m distance  Meight (electronic cabinet)  Dimensions (H x W x D) (mm)  Meight (electronic cabinet)  Dry contact alarms  SNMP/ Web  LCD DATA DISPLAY  Input  Voltage, frequency, current, power  Batteries  Log (events memory)  STANDARDS  EMC  Design  Safety  EMC  BATTERIES  BATTERIES  BATTERIES  Type  Sealed, valve regulated, lead-acid  Naximum power dissipation (Po=8KW)  Doual feed  Dual feed  Day (4544 BTU)  999 W (3408 BTU)  1332 W (4544 BTU) 1500 m without derating  1500 m w	Load CF (max)		6:1		
Input connection  GENERAL  Maximum power dissipation (Po=8KW)  Ambient temperature  Relative humidity  Altitude  Enclosure  Cooling system  Acoustic noise (full load) @1.5m distance  Meight (electronic cabinet)  COMMUNICATION  Dry contact alarms  SNMP/Web  LCD DATA DISPLAY  Input  Output  Batteries  LOG (events memory)  STANDARDS  EMC  Design  Safety  LOG (ASA (SA) (SC) (ASA)  LOG (SA) (SC) (ASA)  LOG (SC) (ASA)  LOG (SC) (ASA)  Dual feed  Day (408 BTU)  1332 W (4544 BTU)  1500 m without derating  IP20  Cooling; 300 m without derating  IP20  Cooling; 300 m without derating  IP20  Cooling system  Multi-Fan with speed control (forced)  Acoustic noise (full load) @1.5m distance  54 dBA  57 dBA  57 dBA  668 x 480 x 580  Be 68 kg  Cooling system  So kg  68 kg  Cooling system  So kg  68 kg  Cooling system  Voltage, frequency, current, power  Output  Voltage, frequency, current, power  Voltage  Log (events memory)  Last 256 events  STANDARDS  EMC  IEC 62040-2, under EMC 2004/108/EC  Design  IEC 62040-3  Safety  IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  EMF as per ICNIRP  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  BAttery cabinet	DC/AC efficiency (nominal)	98 %			
Input connection  GENERAL  Maximum power dissipation (Po=8KW) Ambient temperature  Felative humidity Altitude  Felative humidity  Felative humidit	AC/AC efficiency (nominal)		96 %		
GENERAL           Maximum power dissipation (Po=8KW)         666 W (2274 BTU)         999 W (3408 BTU)         1332 W (4544 BTU)           Ambient temperature         -10 °C to +40 °C (operating); -20 °C to +70 °C (storage)           Relative humidity         95 % max non-condensation           Altitude         1500 m without derating           Enclosure         IP20           Cooling system         Multi-Fan with speed control (forced)           Acoustic noise (full load) @1.5m distance         54 dBA         57 dBA           MTBF         250,000 h         50 kg         59 kg         68 kg           COMMUNICATION           Yes           SNMP/ Web         Yes           LCD DATA DISPLAY           Input         Voltage, frequency, current, power           Output         Voltage, frequency, current, power           Batteries         Voltage           Log (events memory)         Last 256 events           STANDARDS           EMC         IEC 62040-2, under EMC 2004/108/EC           Design         IEC 62040-3           Safety         IEC 62040-1, under LVD 2006/95/EC           Low magnetic field radiation         EMF as per ICNIRP           BATTERI	STATIC SWITCH (bypass)				
Maximum power dissipation (Po=8KW) Ambient temperature Relative humidity Ambient temperature Relative humidity  Altitude  1500 m without derating Enclosure  Cooling system  Multi-Fan with speed control (forced)  Acoustic noise (full load) @1.5m distance  Acoustic noise (full load) @1.5m distance  MTBF  Dimensions (H x W x D) (mm)  Dimensions (H x W x D) (mm)  COMMUNICATION  Dry contact alarms  SNMP/Web  LCD DATA DISPLAY  Input  Voltage, frequency, current, power  Batteries  Log (events memory)  EMC  EMC  Design  EMC  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  1332 W (4544 BTU)  1500 °C (to +70 °C (to trape)  Condensition  BATERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet	Input connection		Dual feed		
Ambient temperature  Relative humidity  Relative hu	GENERAL				
Ambient temperature  Relative humidity  Relative hu	Maximum power dissipation (Po=8KW)	666 W (2274 BTU)	999 W (3408 BTU)	1332 W (4544 BTU)	
Relative humidity  Altitude  1500 m without derating  Enclosure  IP20  Cooling system  Acoustic noise (full load) @1.5m distance  S4 dBA  TFRI  250,000 h  Dimensions (H x W x D) (mm)  660 x 480 x 580  Weight (electronic cabinet)  50 kg  59 kg  68 kg  COMMUNICATION  Dry contact alarms  Yes  SNMP/ Web  Yes  LCD DATA DISPLAY  Input  Voltage, frequency, current, power  Output  Voltage, frequency, current, power  Batteries  Voltage  Log (events memory)  Last 256 events  STANDARDS  EMC  IEC 62040-2, under EMC 2004/108/EC  Design  IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  EMF as per ICNIRP  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  External		-10 °C to +40 °	C (operating); -20 OC to	+70 °C (storage)	
Altitude 1500 m without derating IP20  Cooling system Multi-Fan with speed control (forced)  Acoustic noise (full load) @1.5m distance 54 dBA 57 dBA  MTBF 250,000 h  Dimensions (H x W x D) (mm) 660 x 480 x 580  Weight (electronic cabinet) 50 kg 59 kg 68 kg  COMMUNICATION  Dry contact alarms Yes  SNMP/ Web Yes  LCD DATA DISPLAY  Input Voltage, frequency, current, power  Output Voltage, frequency, current, power  Batteries Voltage  Log (events memory) Last 256 events  TANDARDS  EMC IEC 62040-2, under EMC 2004/108/EC  Design IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation EMF as per ICNIRP  BATTERIES  Type Sealed, valve regulated, lead-acid  Number 64x12 V  Battery cabinet		<del>-  </del>			
Enclosure  Cooling system  Multi-Fan with speed control (forced)  Acoustic noise (full load) @1.5m distance  54 dBA  To dBA  MTBF  250,000 h  Dimensions (H x W x D) (mm)  660 x 480 x 580  Weight (electronic cabinet)  To by contact alarms  To des kg  To	Altitude				
Cooling system  Acoustic noise (full load) @1.5m distance  Acoustic noise (full load) @1.5m distance  MTBF  250,000 h  Dimensions (H x W x D) (mm)  660 x 480 x 580  Weight (electronic cabinet)  50 kg  59 kg  68 kg  COMMUNICATION  Dry contact alarms  SNMP/ Web  10put	Enclosure		3		
Acoustic noise (full load) @1.5m distance  MTBF  Dimensions (H x W x D) (mm)  Weight (electronic cabinet)  Dry contact alarms  SMMP/ Web  LCD DATA DISPLAY  Input  Voltage, frequency, current, power  Output  Batteries  Log (events memory)  STANDARDS  EMC  Design  SIANDARDS  EMC  Design  Safety  LEC 62040-2, under EMC 2004/108/EC  Design  Safety  LEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  S70 kg  59 kg  68 kg  COMMUNICATION  Ves  Sys  Sys  Sys  Sys  Sys  Sys  Sys  S	Cooling system	i i			
MTBF Dimensions (H x W x D) (mm)  Weight (electronic cabinet)  Dry contact alarms  SNMP/Web  LCD DATA DISPLAY Input  Output  Voltage, frequency, current, power Output  Voltage Batteries  Log (events memory)  EMC  Design  Safety  LEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  BATTERIES  Type  Sealed, valve regulated, lead-acid Number  Battery cabinet  SO kg  59 kg  68	3 ,				
Dimensions (H x W x D) (mm)  Weight (electronic cabinet)  Dry contact alarms  SNMP/ Web  LCD DATA DISPLAY  Input  Voltage, frequency, current, power  Output  Voltage  Batteries  Log (events memory)  EMC  Design  Safety  IEC 62040-2, under EMC 2004/108/EC  Design  Safety  IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  EMF as per ICNIRP  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  So kg  59 kg  68 kg		3.457.			
Weight (electronic cabinet)  COMMUNICATION  Dry contact alarms  SNMP/ Web  LCD DATA DISPLAY  Input  Output  Voltage, frequency, current, power  Output  Batteries  Log (events memory)  EMC  Design  Safety  LEC 62040-2, under EMC 2004/108/EC  Design  Safety  LEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  Syds  Sy					
COMMUNICATION  Dry contact alarms  SNMP/ Web  LCD DATA DISPLAY  Input  Output  Voltage, frequency, current, power  Output  Batteries  Log (events memory)  EMC  Design  Safety  IEC 62040-2, under EMC 2004/108/EC  Design  IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  EMF as per ICNIRP  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  External		50 kg			
Dry contact alarms  SNMP/ Web  Yes  LCD DATA DISPLAY  Input  Voltage, frequency, current, power  Output  Voltage, frequency, current, power  Voltage  Log (events memory)  Last 256 events  STANDARDS  EMC  IEC 62040-2, under EMC 2004/108/EC  Design  IEC 62040-3  Safety  IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  EMF as per ICNIRP  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  External		30 kg	1 37 Ng		
SNMP/ Web  LCD DATA DISPLAY  Input  Voltage, frequency, current, power  Output  Voltage, frequency, current, power  Batteries  Voltage  Log (events memory)  Last 256 events  STANDARDS  EMC  IEC 62040-2, under EMC 2004/108/EC  Design  IEC 62040-3  Safety  IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  EMF as per ICNIRP  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  External			Yes		
Input Voltage, frequency, current, power Output Voltage, frequency, current, power Batteries Voltage Log (events memory) Last 256 events  STANDARDS  EMC IEC 62040-2, under EMC 2004/108/EC Design IEC 62040-3 Safety IEC 62040-1, under LVD 2006/95/EC Low magnetic field radiation EMF as per ICNIRP  BATTERIES Type Sealed, valve regulated, lead-acid Number 64x12 V Battery cabinet  Voltage, frequency, current, power Voltage, frequency, current, power	·				
Input Voltage, frequency, current, power  Output Voltage, frequency, current, power  Batteries Voltage  Log (events memory) Last 256 events  STANDARDS  EMC IEC 62040-2, under EMC 2004/108/EC  Design IEC 62040-3  Safety IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation EMF as per ICNIRP  BATTERIES  Type Sealed, valve regulated, lead-acid  Number 64x12 V  Battery cabinet External			162		
Output Voltage, frequency, current, power Batteries Voltage Log (events memory) Last 256 events  STANDARDS  EMC IEC 62040-2, under EMC 2004/108/EC Design IEC 62040-3 Safety IEC 62040-1, under LVD 2006/95/EC Low magnetic field radiation EMF as per ICNIRP  BATTERIES Type Sealed, valve regulated, lead-acid Number 64x12 V  Battery cabinet External		\/- Ia.	ago fraguency surrent	20Mor	
Batteries Voltage Log (events memory) Last 256 events  STANDARDS  EMC IEC 62040-2, under EMC 2004/108/EC Design IEC 62040-3 Safety IEC 62040-1, under LVD 2006/95/EC Low magnetic field radiation EMF as per ICNIRP  BATTERIES Type Sealed, valve regulated, lead-acid Number 64x12 V  Battery cabinet External	·				
Log (events memory)  STANDARDS  EMC  IEC 62040-2, under EMC 2004/108/EC  Design  IEC 62040-3  Safety  IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation  EMF as per ICNIRP  BATTERIES  Type  Sealed, valve regulated, lead-acid  Number  Battery cabinet  External	•	Volta			
STANDARDSEMCIEC 62040-2, under EMC 2004/108/ECDesignIEC 62040-3SafetyIEC 62040-1, under LVD 2006/95/ECLow magnetic field radiationEMF as per ICNIRPBATTERIESTypeSealed, valve regulated, lead-acidNumber64x12 VBattery cabinetExternal					
EMC IEC 62040-2, under EMC 2004/108/EC  Design IEC 62040-3  Safety IEC 62040-1, under LVD 2006/95/EC  Low magnetic field radiation EMF as per ICNIRP  BATTERIES  Type Sealed, valve regulated, lead-acid  Number 64x12 V  Battery cabinet External			Last 256 events		
Design IEC 62040-3 Safety IEC 62040-1, under LVD 2006/95/EC Low magnetic field radiation EMF as per ICNIRP  BATTERIES Type Sealed, valve regulated, lead-acid Number 64x12 V Battery cabinet External			IFC coate o		
Safety IEC 62040-1, under LVD 2006/95/EC Low magnetic field radiation EMF as per ICNIRP  BATTERIES Type Sealed, valve regulated, lead-acid Number 64x12 V Battery cabinet External		IEC 62			
Low magnetic field radiation EMF as per ICNIRP  BATTERIES  Type Sealed, valve regulated, lead-acid  Number 64x12 V  Battery cabinet External					
Type Sealed, valve regulated, lead-acid Number 64x12 V Battery cabinet External	,	IEC 6		/95/EC	
Type Sealed, valve regulated, lead-acid  Number 64x12 V  Battery cabinet External	Low magnetic field radiation		EMF as per ICNIRP		
Number 64x12 V Battery cabinet External	BATTERIES				
Battery cabinet External	Туре	Seal			
	Number		64x12 V		
	Battery cabinet		External		
ا	DC voltage		±432 V		

 $<sup>\</sup>ensuremath{^{*}}\xspace$  All specifications are typical and subject to change without prior notice