



POWERCLEVER SERIES

10-120 kVA 3:3 PHASE
10-30 kVA 3:1 PHASE

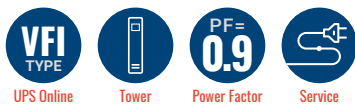
ONLINE UPS

HIGHLIGHTS

- IGBT PWM Rectifier & Inverter Technology
- Low Input Current THD (<3%)
- High Input Power Factor (>0.99)

DSP POWER FACTOR CORRECTED IGBT RECTIFIER

- Equipped with its new IGBT rectifier PowerClever Series keeps your critical loads protected while its space-saving compact design and front access for maintenance successfully reduce mean time to repair (MTTR).
- Thanks to the wide variety of accessories and options PowerClever Series presents maximum flexibility advantage to users and optimizes total cost of ownership.



CORPORATE HEADQUARTERS (USA AND INTERNATIONAL EXCLUDING EMEA)

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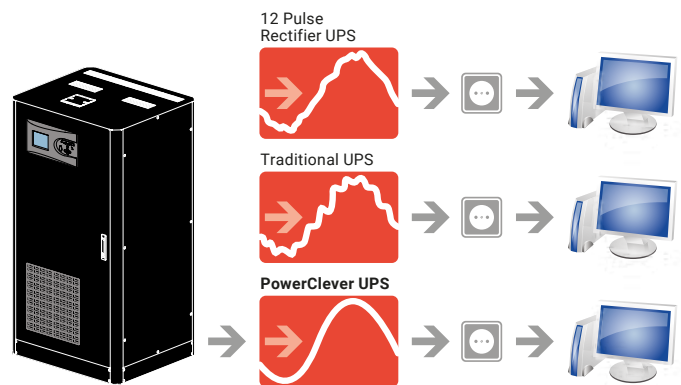
POWER-SONIC EUROPE LIMITED (EMEA – EUROPE, MIDDLE EAST AND AFRICA)

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HIGH PERFORMANCE & LOW TOTAL COST OF OWNERSHIP

- IGBT based power factor correction technology provides input power factor close to 1 (≥ 0.99). The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.
- Low input current total harmonic distortion (THDi) less than 3% helps to avoid the disturbance and expensive harmonic filters.
- Small footprint and easy maintenance.



OUTPUT	THD	POWER FACTOR
PowerClever with IGBT Rectifier	<3%	<0.99
Traditional UPS with Input Filter	<10%	<0.95
UPS without Input Filter	<25%	<0.85



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ONLINE UPS

HIGH INPUT POWER FACTOR

- 0.99 Input power factor ensures clean and sinusoidal input current.
- The high input power leads to reduced electricity pay-out, minimizes cable, switchboard, fuse and generator requirements, thus reducing investment cost.

MAXIMUM AVAILABILITY

- Parallel configuration up to 8 units per redundancy (N+1) and power increase.
- Loop connection helps the UPS system to continue the operation when the connection cable is interrupted.

STANDARD ELECTRICAL FEATURES

- Backfeed Protection
- Cold Start (Optional)
- Advanced Battery Management
- Short Circuit and Overload Protection
- Parallel Ready
- Redundant Power Supply
- Power Walk-in for Progressive Rectifier Start-up when the Mains is Restored
- Battery Temperature Sensor
- Static & Manual Bypass Operation

ADVANCED COMMUNICATION FEATURES

- 500 Real Time Event Log with Detailed Parameters
- User Friendly Multilingual 320x240 Graphic Display Provides Operation Information
- Monitoring and Shutdown Software
- RS232 Serial and RS485 Ports
- Modbus RTU (Optional)
- 2 Communication Slots
- Remote Emergency Power Off (Optional)
- Remote Display Panel (Optional)
- Dry Contact (Optional)
- SNMP (Optional)
- ProfiBUS (Optional)

FLEXIBILITY

- Temperature sensor for external battery cabinets for extended runtimes.
- External battery cabinets for different sizes of batteries to provide extended runtimes.
- Different sizes of 10-40kVA cabinets for larger capacity of internal batteries when long autonomy times are required.
- 3/1 Phase version is available for 10-30kVA power ratings.
- Frequency converter mode.
- Isolation transformers to vary neutral connectivity in the event of separate power sources or for galvanic isolation between input and output.
- Compatible version with EN 50171 for supplying power to emergency lighting systems.



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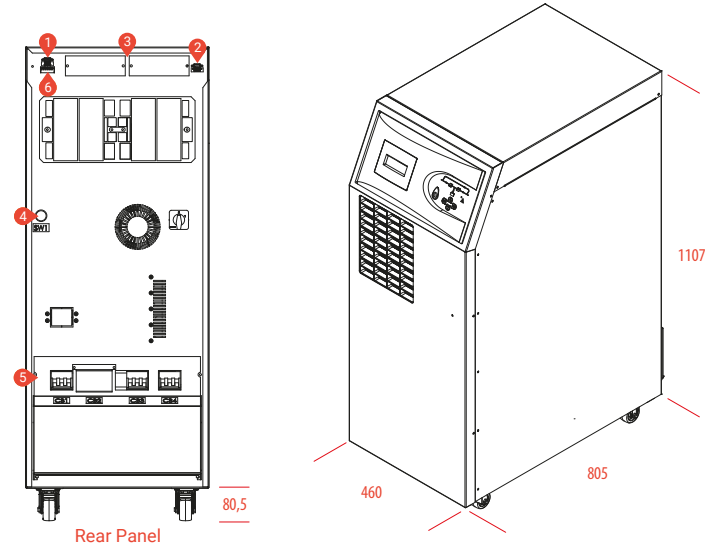
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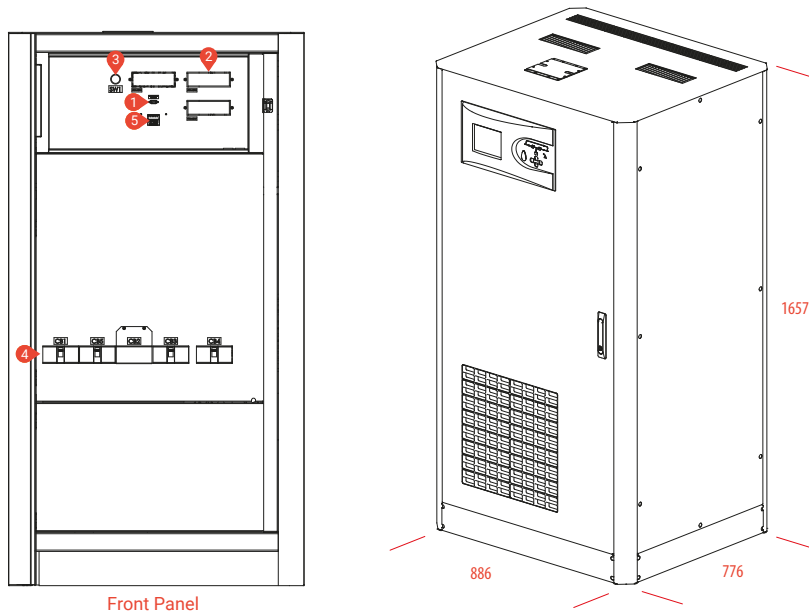
DETAILS

POWERCLEVER SERIES 10-60 kVA



1. Parallel Port Terminal
2. RS232 Terminal
3. Optional Card Slots
4. Manual DC Precharge Button (Automatic Precharge is Option)
5. Manual Bypass/Input/Output/Battery MCBs
6. External Battery Temperature Sensor Terminals

POWERCLEVER SERIES 80-120 kVA



1. RS232 Terminal
2. Optional Card Slots
3. DC Bus Ramping Up Button
4. Manual DC Precharge Button (Automatic Precharge is Option)
5. Manual Bypass/Input/Output/Battery MCBs

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MODEL										
Capacity	10kVA	15kVA	20kVA	30kVA	40kVA	60kVA	80kVA	100kVA	120kVA	
Power Watt	9kW	13.5kW	18kW	27kW	36kW	54kW	72kW	90kW	108kW	
INPUT										
Nominal Voltage	380/400/415 VAC 3P+N (Optional 220/380 VAC -37% +22% 3P+N+PE)									
Voltage Tolerance	-20% +15%									
Frequency Tolerance	50-60 Hz ± 10% (Selectable)									
Power Factor	>0.99									
Total Harmonic Distortion	THDi <3%									
OUTPUT										
Power Factor	0.9									
Nominal Voltage	380/400/415 VAC 3P+N									
Voltage Tolerance	Static ±1, Dynamic ±3									
Frequency Tolerance	50-60 Hz ±0.01% (Battery Mode)									
Output THD	Linear Load <1% / Non Linear Load <3%									
Crest Factor	3:1									
Overload Capacity*	At 125% Load 10min, at 150% Load 1min									
Efficiency (Online Mode)	Up to 93%									
Efficiency (Eco Mode)	Up to 99%									
BYPASS										
Nominal Voltage	380/400/415 VAC 3P+N									
Voltage Tolerance	15% (Configurable from 10% to 30%)									
Frequency Tolerance	±5 (Selectable)									
BATTERY										
Type	VRLA / GEL									
Quantity (12V DC VRLA)	62									
Charge Value (C)	25% of Active Power (Nominal 0.1 C10, Adjustable)									
Recharge Time	6-8 hours									
Internal Battery	62 x 7Ah or 9Ah				External Battery Pack					
ENVIRONMENT										
Running Temperature	For UPS 0°C/+40°C For Battery +15°C/+25°C									
Storage Temperature	For UPS -15°C/+45°C For Battery 0°C/+30°C									
Protection Class	IP20									
Humidity	0-95% Without Condensation									
Altitude	<1000m Correction Factor 1, <2000m Correction Factor >0.92, <3000m Correction Factor >0.84									
Noise Level	<53 dBA	<55 dBA	<60 dBA	<65 dBA	<72 dBA	<74 dBA	<74 dBA	<75 dBA	<75 dBA	
COMMUNICATION										
Communication Port	RS232 Standart, RS485 and SNMP Adapter Option									
STANDARDS										
Quality	ISO 9001, ISO 14001, ISO 18001, TSE-HYB									
Performance	EN62040-3 (VFI-SS-111, Bureau Veritas Certified)									
EMC/LVD	EN62040-2, EN62040-1, EN60950, (TÜV SÜD Certified)									
DIMENSIONS & WEIGHT										
Cabinet Dimensions (mm)	Width	460				886				
	Depth	805				776				
	Height	1107				1657				
Net Weight (kg)	122	123	127	146	167	177	322	351	360	
Packaging Dimensions (mm)	Width	600				970				
	Depth	900				900				
	Height	1400				2040				
Gross Weight (kg)	140	141	145	164	185	195	357	376	395	

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* under certain conditions

* 3 Phase in / 1 Phase Out Version is Available. (10 to 30kVA)