

PM990 G5

10 kVA ~ 30 kVA

(3:3)

PF 1.0



FEATURES

- Advanced dual-core DSP control technology, rectification and inversion are controlled by dual DSP
- True Online double conversion IGBT-PWM Technology, 3 level topology
- Output power factor 1.0, load capacity improved 11% more than traditional products
- Active Power Factor Correction Technology, input power factor up to 0.99
- System efficiency improved to 96%, energy saving rate is doubled
- Working efficiency up to 99% in ECO mode
- Slew Rate - 1 Hz/s
- Dual input design, supporting independent bypass
- Advanced digital and parallel technology, providing higher reliability than single system
- Wide input voltage range, 50 / 60 Hz auto-sensing frequency
- 50 Hz / 60 Hz frequency conversion mode
- Compact internal layout, small footprint
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Features strong fault tolerance, one fan damaged takes 50% of the load, two fans damaged take 30% of the load
- Conformal coating technology to make UPS operate in harsh environment for a long time
- IoT Monitoring
- Effective hardware and software protection, robust self-diagnosis function, abundant event log for future check
- Linear downgrading in low voltage input reducing battery discharging times
- Flexible battery configuration setting, selectable battery numbers: 30 ~ 46 pcs
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)
- Zero switching time for UPS power supply mode when the mains power is unstable, ensuring the output is uninterrupted
- Settable delayed start time when mains power is restored
- 5 inches LCD colorful touch screen, friendly human & machine interface
- Powerful background software for parameters configuration and online upgrade
- Advanced multi-platform communication for UPS monitoring: RS232, USB, RS485, CAN, NET, dry contacts, SNMP card, Wi-Fi card and GPRS card
- Constant Voltage Constant Current Solid State charger
- Intelligent battery management, automatic equalized and float charging control, charger dormancy control, improving the reliability of charger and extending the battery life
- Options and accessories: supplied RS232, USB, RS485, CAN, NET, parallel, LBS, dry contacts, EPO and battery temperature compensation interface; optional SNMP card, Wi-Fi card, GPRS card, battery temperature sensor, EMD detector and SMS alarms
- LED Indications - Mains Mode of Operation / Battery Mode of Operation / Bypass feeding the load / UPS Fault
- Doubling the battery charging speed, 90% capacity restored in 4 hours (standard model UPS)
- Alarms - Mains Failure, Battery Low Alarm, UPS Overload, Fault, Shutdown
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Type of Cooling - Forced Air
- Advanced battery management (ABM), automatic floating / equalizing charge control, charger dormancy control
- Configurable switching time from battery mode to mains mode when mains power is restored, reducing the impact on power grid or generator
- Generator Compatibility
- Inbuilt Phase sequence protection with Indication
- Optional Isolation Transformer
- Automatic Restart - UPS parameters are available remotely on a laptop & mobile phone through an app using an IoT device
- Effective software and hardware protection function, powerful self-diagnostic function, abundant historical records
- Remote Emergency Power Off (REPO)
- Form Factor - Tower
- Standard maintenance bypass
- Standard RS232/USB communication port
- Optional RS485 / SNMP / AS400 communication port and SMS alarms
- Optional N+X redundancy parallel up to 6 units
- Optional battery temperature compensation, EMD environmental sensors
- Automatic & Bi-directional static bypass (in built)
- Overall Efficiency (AC to AC) - $\geq 94\%$
- Measurements on Display - Input Voltage / Input Frequency, Bypass Voltage / Bypass Frequency, Output Voltage / Output Frequency, Battery Voltage Load: In kVA / kW / Percentage
- Battery pack monitoring with software interface, including communication mode RS485.

MODEL	CH 3310 K	CH 3315 K	CH 3320K	CH 3330 K
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW	30 kVA / 30 kW
INPUT				
Input wiring	Three-phase five-wire (3Φ + N + PE)			
Rated voltage	380 / 400 / 415 Vac			
Voltage range	304 ~ 485 Vac 138 ~ 304 @40% ~ 100% load			
Frequency range	40 ~ 70 Hz			
Power factor	≥ 0.99			
THDi	≤ 3%			
Bypass voltage range	-20% ~ +15% (settable)			
Battery voltage	±240 Vdc (±180 ~ ± 240 Vdc settable)			
Number of battery	40 pcs 12 V batteries (30 ~ 40 pcs settable)			
OUTPUT				
Output wiring	Three-phase five-wire (3Φ + N + PE)			
Rated voltage	380 / 400 / 415 Vac			
Voltage regulation	±1%			
Frequency	Synchronized with utility in mains mode, 50 / 60 Hz ± 0.1% in battery mode			
Waveform	Sine Wave			
Power factor	1.0			
Total harmonic distortion (THDV)	<1% (full linear load) <3% (full non-linear load according to IEC/EN62040-3)			
Crest factor	3:1			
Overload capability	105% ~110% for 60 min, 110% ~ 125% for 10 min, 125% ~ 150% for 1 min, > 150% for 0.2 s			
BATTERIES				
DC voltage	± 240 Vdc (± 180 ~ ± 240 Vdc Settable)			
Number of batteries	40 pcs (30 - 40 pcs settable)			
Charging current	10 A Max	10 A Max	10 A Max	10 A Max
Recharge time	Upto 8-12 Hrs			
SYSTEM				
Max. efficiency	Max 95%, ECO mode- >=99 %			
Transfer time	0 ms			
Max. number of parallel connections	4			
Protection	Short-circuit – overload – overtemperature –excessive low battery – overvoltage / undervoltage - fans failure			
Communications	Standard configuration: RS232, USB, RS485, EPO, dry contacts, Parallel Port; Optional configuration: SNMP card, Wi-Fi card, GPRS card, SMS alarms			
Display	LCD + 5 inches colorful LCD touch screen			
OTHERS				
Operating environment	0°C ~ 45°C			
Storage temperature	-40°C ~ 70°C (without batteries)			
Relative humidity	0 ~ 95% (non-condensing)			
Altitude	1000m, load derated 1% per 100m from 1000 ~ 2000m			
IP rating	IP 20			
Noise	58dB @ 100% load, 55dB @ 50% load			
Dimensions (W × D × H) (mm)	250 × 720 × 560	250 × 720 × 560	250 × 840 × 650	250 × 840 × 650
Packaged dimensions (W × D × H) (mm)	350 × 800 × 718	350 × 800 × 718	350 × 800 × 718	350 × 980 × 810
Net weight (kg)	31	33	33	42
Gross weight (kg)	40	42	42	52

- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.
- Derate capacity to 90% when the number of batteries is set to 30 pcs.