MASTERYS GP

High-efficiency protection without compromise

Green Power 2.0 range from 10 to 120 kVA/kW

The solution for

- Data centres
- Telecommunications
- Healthcare sector
- Service sector
- Infrastructure
- Industrial applications

Certifications

The *MASTERYS GP* series is certified by TÜV SÜD with regard to product safety (EN 62040-1).

Advantages

3 LEVEL

96%

PF 1

kW = kVA

Better performance than the EU Code of Conduct on efficiency of AC UPS

Energy saving + Full rated power = reduced TCO

Energy Saving: high efficiency without compromise

- Offers the highest efficiency in the market using VFI – Double Conversion Mode, the only UPS working-mode that assures total load protection against all mains quality problems.
- Ultra high efficiency output independently tested and verified by an international certification organization in a wide range of load and voltage operating conditions, to have the value in the real site conditions.
- Ultra high efficiency in VFI mode is provided by an innovative topology (3-Level technology) that has been developed for all the Green Power 2.0 UPS ranges.

Full-rated power: kW=kVA

- No power downgrading when supplying the latest generation of servers (leading or unity power factor).
- Real full power, according to IEC 62040: kW=kVA (unity power factor design) means 25% more active power available compared to legacy UPS.
- Suitable also for leading power factor loads down to 0.9 without apparent power derating.

Significant cost-saving (TCO)

- Maximum energy saving thanks to 96% efficiency in true double conversion mode: 50% saving on energy losses compared to legacy UPS gives significant savings in energy bill.
- UPS "self-paying" with energy saving.
- Energy Saver mode for global efficiency improvement on parallel systems.
- kW=kVA means maximum power available with the same UPS rating: no overdesign cost and therefore less €/kW.
- Upstream infrastructure cost optimization (sources and distribution), thanks to high performance IGBT rectifier.
- Battery configuration can be optimized, thanks to a very wide DC range.
- Extended battery life and performance:
  - long life battery,
  - very wide input voltage and frequency acceptance, without battery use.
- EBS (Expert Battery System) charging management improves battery service life.

socomec Innovative Power Solutions

Standard electrical features

- Dual input mains.
- Internal maintenance bypass.
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.
- Battery temperature sensor.

Electrical options

- External maintenance bypass.
- External battery cabinet.
- Additional battery chargers.
- Galvanic isolation transformer.
- Parallel kit.
- ACS synchronization system.

Standard communication features

- User-friendly multilingual interface with color graphic display.
- Commissioning wizard.
- 2 slots for communication options.
- Dry-contact interface (100-120 kVA/kW).
- MODBUS TCP.
- MODBUS RTU.
- Embedded LAN interface (web pages, email).

Communication options

- Dry-contact interface (10-80 kVA/kW).
- PROFIBUS.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems.

Remote monitoring service

- LINK-UPS, remote monitoring service that connects your UPS to your Critical Power specialist 24/7.

Technical data

MASTERYS GP										
Sn [kVA]	10	15	20	30	40	60	80	100	120
Pn [kW]	10	15	20	30	40	60	80	100	120
Input / output 3/1	•	•	•	-	-	-	-	-	-
Input / output 3/3	•	•	•	•	•	•	•	•	•
Parallel configuration	up to 6 units								
INPUT									
Rated voltage	400 V 3ph+N								
Voltage tolerance	240 V to 480 V(1)								
Rated frequency	50/60 Hz ± 10%								
Power factor / THDI	> 0.99 / < 2.5%								
OUTPUT									
Power factor	1 (according to IEC/EN 62040-3)								
Rated voltage	1ph + N: 230 V (can be configured 220/240 V) 3ph + N: 400 V (can be configured 380/415 V)								
Voltage tolerance	static load ±1 % dynamic load in accordance with VFI-SS-111								
Rated frequency	50/60 Hz								
Frequency tolerance	± 2% (configurable for GenSet compatibility)								
Total output voltage distortion - linear load	< 1%								
Total output voltage distortion - non-linear load	< 3%								
Overload	125% for 10 minutes, 150% for 1 minute (1)								
Crest factor	3:1								
BYPASS									
Rated voltage	rated output voltage								
Voltage tolerance	± 15% (configurable from 10% to 20%)								
Rated frequency	50/60 Hz								
Frequency tolerance	± 2%								
EFFICIENCY (TÜV SÜD verified)									
Online mode @ 50 % of load	up to 96%								
Online mode @ 75 % of load	up to 96%								
Online mode @ 100 % of load	up to 96%								
Eco Mode	up to 98%								
ENVIRONMENT									
Operating ambient temperature	from 0 °C up to +40(1) °C (from 15 °C to 25 °C for maximum battery life)								
Relative humidity	0% - 95% without condensation								
Maximum altitude	1000 m without derating (max. 3000 m)								
Acoustic level at 1 m (ISO 3746)	< 52 dBA			< 55 dBA		< 60 dBA		< 65 dBA	
UPS CABINET									
Dimensions W	444 mm					600 mm		700 mm	
Dimensions D	795 mm					800 mm			
Dimensions H	800 mm		1000 mm		1400 mm			1930 mm	
Weight	190 kg	195 kg		315 kg	320 kg	180 kg	200 kg	380 kg	
Degree of protection	IP20								
Colours	RAL 7012								
STANDARDS									
Safety	IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2								
EMC	IEC/EN 62040-2, AS 62040.2								
Performance	IEC/EN 62040-3, AS 62040.3								
Seismic compliance	On demand according to Uniform Building Code UBC-1997 Zone 4								
Product declaration	CE, RCM (E2376)								

(1) Conditions apply.