

Series S_{III}
from 60 to 800 kVA



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The Range

MASTERGUARD's Series SIII family is available from 60 to 800 kVA and is compatible with a wide range of battery autonomies. Aspects of Series SIII's premium class performance are:

- Single-cabinet industrialisation up to 500 kVA and dual cabinet for 600 and 800kVA, saving floor space and allowing for speedy commissioning
- Low input distortion, featuring THDi<5% without the need for bulky and expensive options and bringing significant benefits in terms of reliability
- High conversion efficiency (certified from 92-93%), allowing reduction in operating costs
- Capability of powering state-of-the-art IT loads with high PF, depending on the UPS rating.

Flexibility for Customised Solutions

Series SIII can be fully adapted to meet diverse requirements in terms of battery backup time, power, redundancy and harmonic control.

Series SIII is fully compatible with CROSS, MASTERGUARD's static switch assembly. CROSS provides additional protection against potential problems in the power distribution system by immediately switching to reserve in the event of a fault. Other options include:

- Galvanic isolation transformer
- Flexible paralleling configurations
- Wide remote connectivity capabilities (TCP/IP, SNMP, J-Bus, Profibus, RS232 etc.)

Leading Technology

MASTERGUARD employ patented Vector Control technology (patents: 95 P3875, 95 P3879 and 96 P3198) to increase the performance of power components and enable active conditioning of the load, bringing the following benefits:

- Improved performance for specific unbalanced load conditions
- Perfect load sharing between parallel connected UPS systems (less than 5% tolerance of any system output load fraction from 0 to 100%)
- Improved fault clearing capacity (with a peak of 200% of the inverter nominal current up to 5s) for downstream short circuits.
- Reduced ownership costs through quick installation times and reduced servicing.

Reliability

Series SIII uses intelligent double conversion technology.

This architecture combines the secure power provided by double conversion with the efficiency provided by digital interactive technology.

Up to eight Series SIII units may be connected in parallel, allowing MASTERGUARD to customise and adapt our solution to your changing load requirements.

Series SIII is available in the following configurations:

- Distributed Parallel; increasing power of the supply system whilst controlling costs

- Centralised Parallel; using an additional common output cubicle and providing a standby reserve line for the whole system, and
- HFC (High Fault Clearance) Parallel; enabling simultaneous switching on of all available standby reserve lines, with a downstream fault clearing capacity four times higher.

Communication

The system is fitted with a twin serial port, a slot bay for expansion cards and a computer interface.

A graphical liquid crystal display provides clear multilingual information on operating parameters.

Series SIII is fully compatible with MASTERGUARD's suite of connectivity solutions which allows users to preserve critical data and perform a controlled shutdown of equipment in the event of a power disturbance.

Monitoring

The Series SIII family is fully compatible with LIFE.net, MASTERGUARD's real-time UPS remote monitoring tool. LIFE.net is the nearest you can get to having a MASTERGUARD engineer permanently onsite. This service provides:

- Continuous real time monitoring of your UPS
- Automatic transmission of a daily status report
- Real time diagnosis of all UPS operational parameters
- A remote fix capability
- Monthly UPS Operational status reports
- Technical advice regarding the operation of your UPS
- The data collected by LIFE.net provides MASTERGUARD engineers with a detailed history of operation over the full service LIFE of the UPS system
- Unique ETS function for trouble shooting of the most common operating anomalies
- Power Quality Monitoring to effectively monitor power disturbance trends.

Applications

Series SIII provides secure power infrastructure for a wide range of applications including:

- Commercial processing systems
- Industrial automation
- Broadcasting and telecommunications systems
- Data centres.

Secure Power Always

The correct installation of your UPS is only the start of your relationship with MASTERGUARD. We are pleased to offer a range of maintenance plans which will:

- Help deliver reliability to your load
- Extend the life of your power protection equipment
- Optimise your capital expenditure
- Provide risk management at a fixed cost
- Provide a proactive approach to disaster recovery.

Contact your local MASTERGUARD sales office for more information.

Delegate your power management to the experts.

| Series SIII | 60 | 80 | 100 | 120 | 160 | 200 | 250 | 300 | 400 | 500 | 600 | 800 |
|---|---|------|------|------|------|------|------|------|------|------|------|------|
| TECHNICAL CHARACTERISTICS | | | | | | | | | | | | |
| Apparent nominal output power at 25° C (kVA) | 66 | 88 | 110 | 132 | 176 | 220 | 275 | 330 | 440 | 550 | 660 | 880 |
| Apparent nominal output power at 40°C (kVA) | 60 | 80 | 100 | 120 | 160 | 200 | 250 | 300 | 400 | 500 | 600 | 800 |
| INPUT | | | | | | | | | | | | |
| Nominal mains input voltage/voltage tolerance (V) | 400 ± 15% (380 V, 415 V selectable) three-phase | | | | | | | | | | | |
| Minimum input voltage w/o battery discharging | -25% | -25% | -25% | -25% | -25% | -25% | -20% | -20% | -20% | -20% | -20% | -20% |
| Nominal bypass input voltage/voltage tolerance (V) | 400 ± 10% (380 V, 415 V selectable) three-phase + neutral | | | | | | | | | | | |
| Nominal input frequency/frequency tolerance (Hz) | 50 ± 10% (60Hz selectable) | | | | | | | | | | | |
| Input current distortion at maximum input power THD (%) | 5* | 5* | 5* | 5* | 5* | 5* | 5 | 5 | 5 | 5 | 5 | 5 |
| OUTPUT | | | | | | | | | | | | |
| Nominal output voltage (V) | 400 (380 V, 415 V selectable) three-phase + neutral | | | | | | | | | | | |
| Output voltage stability by load variation 0 - 100% (%) | static ± 1 dynamic Complies with IEC/EN 62040-3, Class 1 | | | | | | | | | | | |
| Output frequency (nominal) (Hz) | 50 (60 Hz selectable) | | | | | | | | | | | |
| Output frequency variation (%) | with mains synchronisation ± 0.75 (1.5, 2.5, 6.0 selectable) with own reference ± 0.05 | | | | | | | | | | | |
| Inverter overload capacity | 125% for 10 min., 150% for 1 min. | | | | | | | | | | | |
| Nominal output power factor | PF 0.8 | | | | | | | | | | | |
| Automatic adjustment of nominal power with temperature | 110% at 25° C, 100% at 40° C | | | | | | | | | | | |
| GENERAL | | | | | | | | | | | | |
| Operating temperature (°C) | 0-40 | | | | | | | | | | | |
| Recommended battery temperature (°C) | +15/+25 | | | | | | | | | | | |
| Relative humidity (without condensation at 20° C) | <90% | | | | | | | | | | | |
| Protection level | IP 20 | | | | | | | | | | | |
| Colour | RAL 7035 | | | | | | | | | | | |
| Noise at 1 m (dBA) | 62 | 62 | 62 | 64 | 65 | 65 | 68 | 68 | 70 | 72 | 72 | 75 |
| AC/AC efficiency (%) in double conversion mode | 92 | 92 | 93 | 93 | 93 | 93 | 92 | 93 | 93 | 93 | 93 | 93 |
| AC/AC efficiency (%) in digital interactive mode | 97 | | | | | | | | | | | |
| Parallel configuration | up to 8 units in modular configuration; up to 7 units plus system static switch in HFC and centralised configuration | | | | | | | | | | | |
| DIMENSIONS AND WEIGHT | | | | | | | | | | | | |
| Height (mm) | 1780 | | | | | | | | | | | |
| Width (mm) | 820 | 820 | 1020 | 1020 | 1420 | 1420 | 1620 | 1620 | 1620 | 2020 | 3270 | 3270 |
| Depth (mm)** | 830 | | | | | | | | | | | |
| UPS weight (net, ±2%) (kg) | 595 | 595 | 615 | 700 | 1050 | 1050 | 1860 | 1860 | 2095 | 2495 | 4050 | 4050 |

* With "Low THDi" option ** Without front handle (+28 mm with front handle)

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