Single-phase and three-phase UPS

MASTERYS IP+

from 10 to 80 kVA

high reliability in harsh industrial environments

Designed for the most demanding applications

- Designed to protect industrial processes.
- A compact solution with isolation transformer and integrated batteries.
- Robust enclosure (2mm thick heavy steel frame).
- Floor anchoring (to prevent tilting).
- Standard IP31 protection degree (up to IP52 for harsh environment with easy replaceable dust filters).
- Wide input voltage tolerance from -40% up to +20% of nominal voltage.
- Double EMC immunity comparing to UPS international standard IEC 62040-2.

Cost reductions and energy environmental considerations

- The high efficiency of IP+ reduces energy loss and the systems need for extensive air conditioning.
- ENERGY SAVER power management in parallel configuration.
- EXPERT BATTERY SYSTEM for battery management and reliability.

Process continuity

- True frontal access for input/output cabling, spares replacement and preventative maintenance.
- Scalable power and high availability (using redundancy) with the facility to parallel up to 6 units.

Easy integration into industrial network

- Input power factor > 0.99 and input current harmonic distortion < 3% thanks to IGBT rectifier.
- Compatible with Open Vented Lead Acid, Valve Regulated Lead Acid (VRLA) and Nickel Cadmium batteries.
- User-friendly multilingual interface with graphic display.
- Flexible communication boards for every industrial communication need: dry contacts, MODBUS, PROFIBUS, etc.
- Fully compatible with Generator sets.

TÜV SÜD Production monitored Safety tested

The ***MASTERYS IP*** + series is certified by TÜV SÜD with regard to product safety (EN 62040-1) and efficiency values (EN 62040-3)

GAMME 140 A

Your protection for
> Industrial processes
> Services
> Medical

socomec Innovative Power Solutions UPS

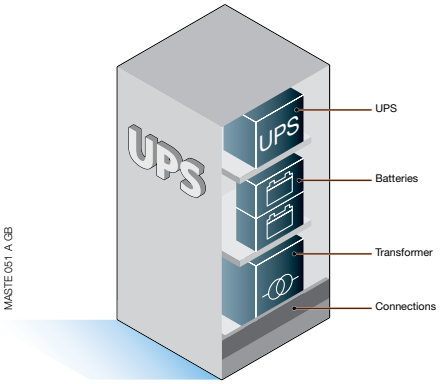
Range

Both for 400 V and 220 V

Model	Input / output	kVA	Back-up time std
IP 110	3/1	10	25'
IP 310	3/3	10	25'
IP 115	3/1	15	15'
IP 315	3/3	15	15'
IP 120	3/1	20	10'
IP 320	3/3	20	10'
IP 130	3/1	30	5'
IP 330	3/3	30	5'
IP 140	3/1	40	external bat.
IP 340	3/3	40	external bat.
IP 160	3/1	60	external bat.
IP 360	3/3	60	external bat.
IP 380	3/3	80	external bat.

Back-up time at 75 % of the load.

Internal architecture



Technical data

kVA	10	15	20	30	40	60	80
kW - Input/output: 3/1	9	13.5	18	27	32	48	-
kW - Input/output: 3/3	9	13.5	18	27	36	48	64
Parallel configuration (1)	up to 6 units						
INPUT							
Nominal voltage	(3ph + N) 400 V ± 20 % (3) (up to -40 % at 50 % Pn)						
Input frequency	50 / 60 Hz ± 10 %						
Power factor / THDI(2)	0.99 / < 3 %						
OUTPUT							
Output voltage	if 1ph + N 230 V ± 1 % (can be configured 220 / 240 V) if 3ph + N 400 V ± 1 % (380 / 415 V configurable)(3)						
Output frequency	50 / 60 Hz ± 2 % (can be configured from 1 % to 8 % with generating set)						
Automatic bypass	Nominal output voltage ± 15 % (configurable from 10 % to 20 % with generating set)						
Overload	125% for 10', 150% for 60"						
Crest factor	3:1 (complying with IEC 62040-3)						
PF acceptable without de-rating	up to 0.9 lead. (up to 0.7 lead for 10 min)						
EFFICIENCY							
Online mode @ 50 % of load	96 %						
Online mode @ 75 % of load	96 %						
Online mode @ 100 % of load	95.5 %						
Efficiency in *ECO-MODE*	up to 98 %						
ENVIRONMENT							
Operating ambient temperature	0 °C to +40 °C (15 °C to 25 °C for best battery life)						
Storage temperature range	-5 to +45 °C (15 °C to 25 °C for best battery life)						
Relative humidity	0 % - 95 % without condensation						
Maximum altitude	1000 m without de-rating (maximum 3000 m)						
Noise level (ISO 3746)	< 52 dB			< 55 dB		< 65 dB	
WEIGHT (kg)							
Input/output: 3/1	230	250	270	330	490	540	-
Input/output: 3/3	230	250	270	320	370	500	550
DIMENSIONS (W x D x H) (mm)							
Input/output: 3/1	600 x 800 x 1400					1000 x 835 x 1400	
Input/output: 3/3	600 x 800 x 1400					1000 x 835 x 1400	
STANDARDS							
Safety	EN 62040-1 (TÜV SÜD certified), EN 60950-1						
Performance and Topology	EN 62040-3 [VFI-SS-111]						
EMC standard	EN 62040-2 (2nd Edition)						
Product certification	CE						
IP rating	IP 31 (according to IEC 60529)						

(1) with transformer on input/bypass side
(2) for source THDV <2% and nominal load
(3) Three-phase 220 - 230 - 240V from 15 to 40kVA on demand

For industrial loads

- 100% non-linear loads.
- 100% unbalanced loads.
- 100% "6-pulse" loads (motor speed drivers, welding equipments, power supplies...).
- Motors.
- Lamps.

Standard communication equipment

- RS 232 / 485 serial port.
- RS 232 serial port for modem.
- Embedded LAN interface.
- ADC interface (configurable voltage free contacts).
- 2 auxiliary interface slots.

Standard electrical equipment

- Integrated maintenance bypass.
- Double input network.
- External backfeed control.

Electrical options

- External maintenance bypass.
- Additional battery charger.
- Long back-up time models.
- External battery cabinet.
- Electrical boards with tropicalisation anticorrosion protection.
- Additional transformer.
- Cold start.
- Adaptation for mains without neutral.
- ACS synchronisation system.

Communication options

- Remote panel.
- GSS interface (generator management).
- ***UNI VISION PRO*** software to manage connected applications including controlled automatic shutdown facility.
  Serial cable included.
- ***NET VISION*** interface WEB / SNMP manager for connecting the UPS system to the LAN / WAN network.
- PROFIBUS.

Remote maintenance

- ***T.SERVICE*** for continuous 24/7 monitoring via the SOCOMEC UPS maintenance software.