

## 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.



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



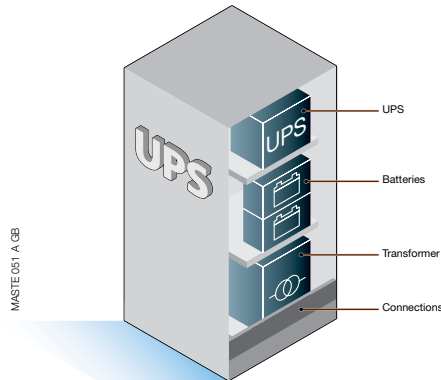
## Range

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



## 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.

## 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 <sup>(1)</sup>	up to 6 units						

INPUT	
Nominal voltage	(3ph + N) 400 V ± 20 % <sup>(3)</sup> (up to -40 % at 50 % Pn)
Input frequency	50 / 60 Hz ± 10 %
Power factor / THDI <sup>(2)</sup>	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) <sup>(3)</sup>
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	up to 96 %
Online mode @ 75 % of load	up to 96 %
Online mode @ 100 % of load	up to 95.5 %
Efficiency in <b>ECO-MODE</b>	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

## 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.