



# Master Industrial



ONLINE



Tower



Service  
1st start



**3:1** 30-80 kVA  
DC BUS 220 Vdc

## HIGHLIGHTS

- **Battery voltage: 220 Vdc**
- **Galvanic isolation of input and output**
- **High short circuit current**
- **Redundant ventilation**

### INDUSTRIAL APPLICATION PROTECTION

Master Industrial series UPS provide maximum protection and power quality for any type of load, especially industrial applications, such as manufacturing and petrochemical processes, electrical distribution and power plants.

Master Industrial is an ON LINE double conversion UPS (class VFI SS 111 in accordance with IEC EN 62040-3) with input and output isolation transformers.

### INDUSTRIAL ENVIRONMENT

Master Industrial is suited to the most demanding installation environments where there are vibrations, mechanical stresses, dust and in general where operating conditions are unfavourable to products created for the standard UPS market.

### HIGH ICC

The high short circuit current (ICC = 3xIn) makes it suitable for loads that require high current peaks during switch-on or during normal operation.

### DC VOLTAGE 220 V

The input and inverter transformers guarantee the isolation of the batteries, which are sized for a voltage of 220 Vdc (from 108 to 114 elements), the standard industrial value.

### REDUNDANT VENTILATION

Redundant ventilation at 100% load is standard, ensuring operation with a normal load with half of the fans operating; in addition, each fan is monitored and an alarm signal is provided in the event of failure. The Easy Source input features, the Battery Care System, and the flexibility and communications capabilities are the same as those of the conventional Master MPS range.

## OPTIONS

### SOFTWARE

See Master MPS

### PRODUCT ACCESSORIES

Battery temperature sensor

Isolation transformer

Synchronisation device (UGS)

Hot connection device (PSJ)

Parallel configuration kit (Closed Loop)

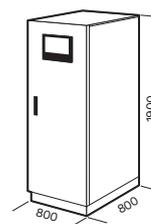
Battery cabinets empty or for extended runtimes

Top Cable Entry cabinets

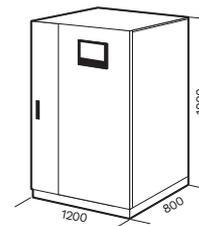
IP rating IP31/IP42

## DIMENSIONS

**MIM 30**  
**MIM 40**



**MIM 60**  
**MIM 80**



| MODELS  | MIM 30   | MIM 40 | MIM 60        | MIM 80 |
|---|--|--------|---------------|--------|
| <b>INPUT</b>  |  |        |               |        |
| Rated voltage [V]                                   | 380 / 400 / 415 three-phase  |        |               |        |
| Voltage tolerance [V]                               | 400 ±20% @ full load <sup>1</sup>  |        |               |        |
| Frequency [Hz]                                      | 45 - 65  |        |               |        |
| Power factor  | >0.93  |        |               |        |
| Current distortion                                  | <6%  |        |               |        |
| Soft start  | 0 - 100% in 120 sec. configurable  |        |               |        |
| Permitted frequency tolerance                       | ±2% (selectable from ±1% to ±5% from front panel)  |        |               |        |
| Standard equip. provided                            | Back Feed protection; separable bypass line; battery isolation   |        |               |        |
| <b>BATTERIES</b>                                    |  |        |               |        |
| Type  | VRLA AGM / GEL; NiCd   |        |               |        |
| Number of cells                                     | 108/114  |        |               |        |
| Maximum charging voltage [V]                        | 274  |        |               |        |
| Recharge voltage compensation                       | -0.11% x V x °C  |        |               |        |
| <b>OUTPUT</b>                                       |  |        |               |        |
| Nominal power [kVA]                                 | 30   | 40     | 60            | 80     |
| Active power [kW]                                   | 24   | 32     | 48            | 64     |
| Rated voltage [V]                                   | 230 single-phase   |        |               |        |
| Static stability                                    | ±1%  |        |               |        |
| Dynamic stability                                   | ±5%  |        |               |        |
| Voltage distortion                                  | <1% with linear load / <3% with non-linear load  |        |               |        |
| Frequency [Hz]                                      | 50 or 60 (selectable)  |        |               |        |
| Crest factor [I <sub>peak</sub> /I <sub>rms</sub> ] | 3:1  |        |               |        |
| Overload  | 110% for 60 min.; 125% for 10 min.; 150% for 1 min.  |        |               |        |
| Short circuit current                               | 3 x I nom.   |        |               |        |
| <b>OVERALL SPECIFICATIONS</b>                       |  |        |               |        |
| Weight [kg]   | 640  | 650    | 910           | 940    |
| Dimensions (WxDxH) [mm]                             | 800x800x1900   |        | 1200x800x1900 |        |
| Remote signals                                      | dry contacts   |        |               |        |
| Remote controls                                     | ESD and bypass   |        |               |        |
| Communications                                      | Double RS232 + dry contacts + 2 slots for communications interface   |        |               |        |
| Ambient temp. for the UPS                           | 0 °C - +40 °C  |        |               |        |
| Recommended temperature for battery life            | +20 °C - +25 °C  |        |               |        |
| Range of relative humidity                          | 5-95% non-condensing   |        |               |        |
| Colour  | Light grey RAL 7035  |        |               |        |
| Noise level at 1 m (ECO Mode) [dBA]                 | 68 - 70  |        |               |        |
| Ventilation   | Redundant fans (front-top)   |        |               |        |
| IP rating   | IP20   |        |               |        |
| Double conversion efficiency                        | up to 94%  |        |               |        |
| Standards   | European directives: L V 2014/35/EU low voltage Directive EMC 2014/30/EU electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; RoHS compliant Classification in accordance with IEC 62040-3 (Voltage frequency Independent) VFI - SS - 111 |        |               |        |
| Classification in accordance with IEC 62040-3       | (Voltage Frequency Independent) VFI - SS - 111   |        |               |        |
| Moving the UPS                                      | Pallet jack  |        |               |        |

<sup>1</sup> For wider tolerance conditions apply



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