

MULTI DIALOG

MRM/MRMX 10-20kVA single/single phase or three/single phase

MRT 10-30kVA three/three phase



The Multi Dialog range uses advanced digital on-line (VFI) technology to support loads up to 30kVA (180kVA for the maximum parallel system). MRM models provide a single phase output from a single or three phase input. MRT models provide a three phase output.

The load is powered continuously by the inverter with an EMI filtered, stabilised and regulated sinewave supply. The Multi Dialog UPS has five user selectable operating modes: On-line, Economy, Smart-Active to achieve high operating efficiencies up to 98%, Stand-by/Off for emergency lighting applications, and Automatic Voltage Stabiliser (AVS). In Economy mode the UPS mimics digital line interactive (VI) technologies used for less critical or sensitive loads. In Smart-Active mode the UPS monitors the stability of the mains supply and automatically selects whether to operate in on-line or line interactive mode. All modes can be set using the PowerShield² software supplied with each UPS. Multi Dialog is an outstanding long runtime solution for critical voice and data processing applications. Runtimes from several minutes to many hours can be achieved using battery extension packs (BEPs) with extra chargers to maintain reasonable recharge times, or local standby generators.



- 1 Language selection
- 2 Input/Output measurements
- 3 Controls/Settings/Customisation options
- 4 Event log
- 5 Alarm reset
- 6 Time/Date
- 7 Scroll down
- 8 Scroll up

Buttons **7** and **8** are used to display detailed operating information

FEATURES

- Advanced digital on-line (VFI) technology (EN50091-3)
- High reliability: microprocessor controlled static and manual bypass facility
- IGBT based power electronics
- Parallel and redundant (N+1) operation (up to 6 units)
- Dual input option
- High level diagnostics: states, modes, measurements and alarms
- Built-in front panel LCD with scroll function, RS232 and signal contact ports
- Power factor correction with sinusoidal input
- Low power consumption and maintenance costs (MTTR 30 minutes)
- Low cost and simplified installation including: castors for easy positioning, selection of the three phase or single phase input, and calibration of the output voltage from the front panel keypad to allow for voltage drop down long cable runs.
- High level surge immunity (6kV to IEC801-5)
- Auto restart on power up (programmable)
- Built-in battery test facility (automatic and manual), temperature compensating charger and deep battery discharge protection
- Cold-start facility to allow the UPS to power up without a mains supply for security applications such as emergency lighting



APPLICATIONS

- Local Area Networks (LANs)
- Servers
- Data centres
- Internet centres (ISP/ASP/POP)
- Industrial PLCs
- PoS (Point of Sale) systems
- Emergency applications (lights/alarms)
- Medical appliances
- Telecommunications devices

ADVANCED COMMUNICATION

- Advanced, multi-platform communication, for all operating systems and network environments: PowerShield² monitoring and control software included, with SNMP agent, for Windows 95, 98, 2000, Me, NT 4.0, Novell operating systems. The UPS is supplied with a cable for direct connection to a PC (Plug and Play)
- RS232 and modem serial ports
- EPO (Emergency Power Off) contact for UPS shutdown using a remote panic button
- Remote control panel

TECHNICAL DATA

single phase output models MRM

| MODEL | 10KVA | 15KVA | 20KVA |
|--|---|----------|--------|
| RECTIFIER INPUT | | | |
| Rated power [kVA] | 10 | 15 | 20 |
| Rated voltage | 400Vac three-phase+N or 230Vac single-phase | | |
| Voltage range | ±20% | | |
| Frequency range | 45-65Hz | | |
| Power factor | 0.95 | | |
| BATTERIES | | | |
| Type | Maintenance free sealed lead-acid | | |
| Recharge time | 8h | | |
| INVERTER OUTPUT | | | |
| Rated power [kVA] | 10 | 15 | 20 |
| Active power [kW]* | 8 | 12/10.5* | 16/12* |
| Number of phases | 1 | | |
| Rated voltage [V] | 230 | | |
| Voltage regulation range | 200-243V | | |
| Crest factor (Ipeak/Irms) | 3:1 | | |
| Waveform | Sinewave | | |
| Distortion with linear load | 2% | | |
| Static stability | ±1% | | |
| Dynamic stability | ±5% in 10ms | | |
| Frequency | 50 or 60Hz selectable | | |
| Overload | 125/150% of the rated current for 10/1' | | |
| BYPASS | | | |
| Rated voltage | 230V | | |
| Number of phases | 1 | | |
| Permitted voltage range | ±15% (selectable from ±5% to ±25%) | | |
| Rated frequency | 50/60Hz | | |
| Permitted frequency range | ±2% (selectable from ±1% to ±5%) | | |
| INSTALLATION INFORMATION | | | |
| Input | Three-phase or single-phase | | |
| Remote signalling | Volt-free contacts | | |
| Remote controls | EPO and bypass | | |
| Communication | RS232/C and modem ports | | |
| Operating temperature | 0-40°C | | |
| Relative humidity | 95% (non condensing) | | |
| Colour | Light grey RAL 7035 | | |
| Audible noise | <56dBA | | |
| Enclosure protection rating | IP20 | | |
| Efficiency | >92% | | |
| Compliance | Safety EN 50091-1 EMC EN 50091-2 Lev. A Directives 73/23-93/68-89/336 EEC | | |
| Air flow (m3/h) (for installations in a closed environment) | 320 | 320 | 480 |
| Bypass input current | 45A | 68A | 91A |
| Maximum rectifier input current | 18A | 27A | 36A |
| Differential input current** | 100mA | | |
| VALUE OF THE OUTPUT PROTECTIONS FOR SELECTIVITY*** | | | |
| Normal fuses (GI) | In (Rated current)/7 | | |
| Normal switches (Curve C) | In (Rated current)/7 | | |
| Extra Fast fuses | In (Rated current)/2 | | |

* With single-phase input

** This value must be added to the differential current of the equipment. Special applications on request

*** Complying with these values, the UPS will be able to provide the power required to interrupt the output protection if a short-circuit occurs, without switching the load to the mains supply

TECHNICAL DATA

MRM series

| Model No | Power | Back-up at full load | Dimensions (W x D x H) mm | Weight Kg |
|-------------|------------|----------------------|---------------------------|-----------|
| MRM10KVA000 | 10kVA/8kW | 0m | 450 x 760 x 1200 | 105 |
| MRM10KVA007 | | 8m | 450 x 760 x 1200 | 180 |
| MRM10KVA009 | | 11m | 450 x 760 x 1200 | 190 |
| MRM10KVA012 | | 15m | 450 x 760 x 1200 | 230 |
| MRM10KVA014 | 15kVA/12kW | 17m | 450 x 760 x 1200 | 296 |
| MRM10KVA019 | | 27m | 450 x 760 x 1200 | 342 |
| MRM10KVA024 | | 40m | 450 x 760 x 1200 | 390 |
| MRM15KVA000 | | 0m | 450 x 760 x 1200 | 115 |
| MRM15KVA007 | 20kVA/16kW | 8m | 450 x 760 x 1200 | 230 |
| MRM15KVA009 | | 11m | 450 x 760 x 1200 | 240 |
| MRM15KVA012 | | 15m | 450 x 760 x 1200 | 310 |
| MRM20KVA000 | | 0m | 450 x 760 x 1200 | 120 |
| MRM20KVA007 | 10m | 7m | 450 x 760 x 1200 | 245 |
| MRM20KVA012 | | 10m | 450 x 760 x 1200 | 315 |

TYPICAL BATTERY EXTENSION PACKS

| UPS Model No | Back-up at full load | Battery Extension Packs | Qty | Dimensions (W x D x H) mm | Weight Kg |
|--------------|----------------------|-------------------------|-----|---------------------------|-----------|
| MRM10KVA007 | 30m | BEP384012MY/01 | 1 | 285 x 805 x 735 | 180 |
| MRM10KVA012 | 40m | BEP384012MY/01 | 1 | 285 x 805 x 735 | 180 |
| MRM10KVA012 | 1h5 | BEP384038MB/02* | 1 | 555 x 720 x 1200 | 483 |
| MRM15KVA007 | 28m | BEP576012MB/01 | 1 | 555 x 720 x 1200 | 302 |
| MRM15KVA012 | 40m | BEP576012MB/01 | 1 | 555 x 720 x 1200 | 302 |
| MRM15KVA000 | 1h5 | BEP576038MC/02* | 1 | 860 x 720 x 1200 | 720 |
| MRM20KVA012 | 30m | BEP576012MB/01 | 1 | 555 x 720 x 1200 | 302 |
| MRM20KVA007 | 1h | BEP576038MC/02* | 1 | 860 x 720 x 1200 | 720 |

* Denotes that the battery pack has its own built-in charger

OPTIONS

- 10 year design life, 5 year warranty batteries
- USB signal converter
- SNMP network slot-in adapter
- Remote status panel with LEDs
- Wall mounted maintenance bypass with manual and automatic transfer
- Isolation (Galvanic) pack for the bypass supply
- Voltage conversion pack (110/230 and 230/110V)
- Battery cabinets, cladded racks, internal trays and cables
- Parallel/redundant operation card
- Harmonics filter - for three phase input installations
- 19" rackmount trays and PowerRak cabinet system
- PowerShield² UPS monitoring and control software, and SNMP solutions
- Service and maintenance plans

TECHNICAL DATA

single phase output models MRMX

| MODEL | 10KVA | 15KVA | 20KVA |
|--|---|----------|--------|
| RECTIFIER INPUT | | | |
| Rated power [kVA] | 10 | 15 | 20 |
| Rated voltage | 400Vac three-phase+N or 230Vac single-phase | | |
| Voltage range | ±20% | | |
| Frequency range | 45-65Hz | | |
| Power factor | 0.95 | | |
| BATTERIES | | | |
| Type | Maintenance free sealed lead-acid | | |
| Recharge time | 8h | | |
| INVERTER OUTPUT | | | |
| Rated power [kVA] | 10 | 15 | 20 |
| Active power [kW]* | 8 | 12/10.5* | 16/12* |
| Number of phases | 1 | | |
| Rated voltage [V] | 230 | | |
| Voltage regulation range | 200-243V | | |
| Crest factor (Ipeak/Irms) | 3:1 | | |
| Waveform | Sinewave | | |
| Distortion with linear load | 2% | | |
| Static stability | ±1% | | |
| Dynamic stability | ±5% in 10ms | | |
| Frequency | 50 or 60Hz selectable | | |
| Overload | 125/150% of the rated current for 10/1' | | |
| BYPASS | | | |
| Rated voltage | 230V | | |
| Number of phases | 1 | | |
| Permitted voltage range | ±15% (selectable from ±5% to ±25%) | | |
| Rated frequency | 50/60Hz | | |
| Permitted frequency range | ±2% (selectable from ±1% to ±5%) | | |
| INSTALLATION INFORMATION | | | |
| Input | Three-phase or single-phase | | |
| Remote signalling | Volt-free contacts | | |
| Remote controls | EPO and bypass | | |
| Communication | RS232/C and modem ports | | |
| Operating temperature | 0-40°C | | |
| Relative humidity | 95% (non condensing) | | |
| Colour | Light grey RAL 7035 | | |
| Audible noise | <56dBA | | |
| Enclosure protection rating | IP20 | | |
| Efficiency | >92% | | |
| Compliance | Safety EN 50091-1 EMC EN 50091-2 Lev. A Directives 73/23-93/68-89/336 EEC | | |
| Air flow (m3/h) (for installations in a closed environment) | 320 | 320 | 480 |
| Bypass input current | 45A | 68A | 91A |
| Maximum rectifier input current | 18A | 27A | 36A |
| Differential input current** | 100mA | | |
| VALUE OF THE OUTPUT PROTECTIONS FOR SELECTIVITY*** | | | |
| Normal fuses (GI) | In (Rated current)/7 | | |
| Normal switches (Curve C) | In (Rated current)/7 | | |
| Extra Fast fuses | In (Rated current)/2 | | |

* With single-phase input

** This value must be added to the differential current of the equipment. Special applications on request

*** Complying with these values, the UPS will be able to provide the power required to interrupt the output protection if a short-circuit occurs, without switching the load to the mains supply

TECHNICAL DATA

MRMX series (with Galvanic isolation)

| Model No | Power | Back-up at full load | Dimensions (W x D x H) mm | Weight Kg |
|--------------|------------|----------------------|---------------------------|-----------|
| MRMX10KVA000 | 10kVA/8kW | 0m | 450 x 760 x 1200 | 170 |
| MRMX10KVA007 | | 8m | 450 x 760 x 1200 | 260 |
| MRMX10KVA012 | | 15m | 450 x 760 x 1200 | 290 |
| MRMX15KVA000 | 15kVA/12kW | 0m | 450 x 760 x 1200 | 215 |
| MRMX20KVA000 | 20kVA/16kW | 0m | 450 x 760 x 1200 | 240 |

TYPICAL BATTERY EXTENSION PACKS

| UPS Model No | Back-up at full load | Battery Extension Packs | Qty | Dimensions (W x D x H) mm | Weight Kg |
|--------------|----------------------|-------------------------|-----|---------------------------|-----------|
| MRMX10KVA007 | 30m | BEP384012MY/01 | 1 | 285 x 805 x 735 | 180 |
| MRMX10KVA012 | 40m | BEP384012MY/01 | 1 | 285 x 805 x 735 | 180 |
| MRMX10KVA012 | 1h5 | BEP384038MB/01 | 1 | 555 x 720 x 1200 | 483 |
| MRMX15KVA000 | 8m | BEP576007MM/01 | 1 | 450 x 760 x 1200 | 192 |
| MRMX15KVA000 | 15m | BEP576012MM/01 | 1 | 450 x 760 x 1200 | 240 |
| MRMX15KVA000 | 40m | BEP576024MC/01 | 1 | 860 x 720 x 1200 | 567 |
| MRMX15KVA000 | 1h5 | BEP576038MC/01 | 1 | 860 x 720 x 1200 | 720 |
| MRMX20KVA000 | 7m | BEP576007MM/01 | 1 | 450 x 760 x 1200 | 192 |
| MRMX20KVA000 | 10m | BEP576012MM/01 | 1 | 450 x 760 x 1200 | 240 |
| MRMX20KVA000 | 30m | BEP576024MC/01 | 1 | 860 x 720 x 1200 | 567 |
| MRMX20KVA000 | 1h | BEP576038MC/01 | 1 | 860 x 720 x 1200 | 720 |

OPTIONS

- 10 year design life, 5 year warranty batteries
- USB signal converter
- SNMP network slot-in adapter
- Remote status panel with LEDs
- Wall mounted maintenance bypass with manual and automatic transfer
- Voltage conversion pack (110/230 and 230/110V)
- Battery cabinets, cladded racks, internal trays and cables
- Parallel/redundant operation card
- Harmonics filter - for three phase input installations
- 19" rackmount trays and PowerRak cabinet system
- PowerShield² UPS monitoring and control software, and SNMP solutions
- Service and maintenance plans

TECHNICAL DATA

three phase output models MRT

| MODEL | 10KVA | 15KVA | 20KVA | 30KVA |
|--|---|-------|-------|-------|
| RECTIFIER INPUT | | | | |
| Rated power [kVA] | 10 | 15 | 20 | 30 |
| Rated voltage | 400Vac three-phase+N | | | |
| Voltage range | ±20% | | | |
| Frequency range | 45- 65Hz | | | |
| Power factor | 0.95 | | | |
| BATTERIES | | | | |
| Type | Maintenance free sealed lead-acid | | | |
| Recharge time | 8h | | | |
| INVERTER OUTPUT | | | | |
| Rated power [kVA] | 10 | 15 | 20 | 30 |
| Active power [kW] | 8 | 12 | 16 | 24 |
| Number of phases | 3 | | | |
| Rated voltage [V] | 400 | | | |
| Voltage regulation | Adjustable from 346-420 V | | | |
| Crest factor (Ipeak/Irms) | 3:1 | | | |
| Waveform | Sinewave | | | |
| Distortion with linear load | 2% | | | |
| Static stability | ±1% | | | |
| Dynamic stability | ±5% in 10ms | | | |
| Frequency | 50 or 60Hz selectable | | | |
| Overload | 125/150% of the rated current for 10/1' | | | |
| BYPASS | | | | |
| Rated voltage | 400V | | | |
| Number of phases | 3 | | | |
| Permitted voltage range | ±15% (selectable from ±5% to ±25%) | | | |
| Rated frequency | 50/60Hz | | | |
| Permitted frequency range | ±2% (selectable from ±1% to ±5%) | | | |
| INSTALLATION INFORMATION | | | | |
| Input | Three-phase+N | | | |
| Remote signalling | Volt-free contacts | | | |
| Remote controls | EPO and bypass | | | |
| Communication | RS232/C and modem ports | | | |
| Operating temperature | 0-40°C | | | |
| Relative humidity | 95% (non condensing) | | | |
| Colour | Light grey RAL 7035 | | | |
| Noise | <56dBA | | | |
| Enclosure protection rating | IP20 | | | |
| Efficiency | >92% | | | |
| Compliance | Safety EN 50091-1 EMC EN 50091-2 Lev. A Directives 73/23-93/68-89/336 EEC | | | |
| Air flow (m3/h) (for installations in a closed environment) | 320 | 320 | 480 | 480 |
| Bypass input current | 15A | 23A | 30A | 46A |
| Maximum rectifier input current | 18A | 27A | 36A | 54A |
| Differential input current* | 100mA | | | |
| VALUE OF THE OUTPUT PROTECTIONS FOR SELECTIVITY** | | | | |
| Normal fuses (GI) | In (Rated current)/7 | | | |
| Normal switches (Curve C) | In (Rated current)/7 | | | |
| Extra Fast fuses (EF) | In (Rated current)/2 | | | |

* This value must be added to the differential current of the equipment. Special applications on request

** Complying with these values, the UPS will be able to provide the power required to interrupt the output protection if a short-circuit occurs, without switching the load to the mains supply

TECHNICAL DATA

MRT series

| Model No | Power | Back-up at full load | Dimensions (W x D x H) mm | Weight Kg |
|-------------|------------|----------------------|---------------------------|-----------|
| MRT10KVA000 | 10kVA/8kW | 0m | 450 x 760 x 1200 | 110 |
| MRT10KVA007 | | 8m | 450 x 760 x 1200 | 185 |
| MRT10KVA009 | | 11m | 450 x 760 x 1200 | 195 |
| MRT10KVA012 | | 15m | 450 x 760 x 1200 | 235 |
| MRT10KVA014 | | 17m | 450 x 760 x 1200 | 296 |
| MRT10KVA019 | 15kVA/12kW | 27m | 450 x 760 x 1200 | 342 |
| MRT10KVA024 | | 40m | 450 x 760 x 1200 | 390 |
| MRT15KVA000 | | 0m | 450 x 760 x 1200 | 120 |
| MRT15KVA007 | | 8m | 450 x 760 x 1200 | 235 |
| MRT15KVA009 | | 11m | 450 x 760 x 1200 | 245 |
| MRT15KVA012 | 15m | 450 x 760 x 1200 | 315 | |
| MRT20KVA000 | 20kVA/16kW | 0m | 450 x 760 x 1200 | 125 |
| MRT20KVA007 | | 7m | 450 x 760 x 1200 | 250 |
| MRT20KVA012 | | 9m | 450 x 760 x 1200 | 320 |
| MRT30KVA000 | 30kVA/24kW | 0m | 450 x 760 x 1200 | 135 |
| MRT30KVA014 | | 6m | 450 x 760 x 1200 | 260 |

TYPICAL BATTERY EXTENSION PACKS

| UPS Model No | Back-up at full load | Battery Extension Packs | Qty | Dimensions (W x D x H) mm | Weight Kg |
|--------------|----------------------|-------------------------|-----|---------------------------|-----------|
| MRT10KVA007 | 30m | BEP384012MY/01 | 1 | 285 x 805 x 735 | 180 |
| MRT10KVA012 | 40m | BEP384012MY/01 | 1 | 285 x 805 x 735 | 180 |
| MRT10KVA012 | 1h5 | BEP384038MB/02* | 1 | 555 x 720 x 1200 | 483 |
| MRT15KVA007 | 28m | BEP576012MB/01 | 1 | 555 x 720 x 1200 | 302 |
| MRT15KVA012 | 40m | BEP576012MB/01 | 1 | 555 x 720 x 1200 | 302 |
| MRT15KVA000 | 1h5 | BEP576038MC/02* | 1 | 860 x 720 x 1200 | 720 |
| MRT20KVA012 | 30m | BEP576012MB/01 | 1 | 555 x 720 x 1200 | 302 |
| MRT20KVA007 | 1h | BEP576038MC/02* | 1 | 860 x 720 x 1200 | 720 |

* Denotes that the battery pack has its own built-in charger

OPTIONS

- 10 year design life, 5 year warranty batteries
- USB signal converter
- SNMP network slot-in adapter
- Remote status panel with LEDs
- Wall mounted maintenance bypass with manual and automatic transfer
- Isolation (Galvanic) pack for the bypass supply
- Voltage conversion pack (110/230 and 230/110V)
- Battery cabinets, cladded racks, internal trays and cables
- Parallel/redundant operation cards
- Harmonics filter - for three phase input installations
- 19" rackmount trays and PowerRak cabinet system
- PowerShield² UPS monitoring and control software and SNMP solutions
- Service and maintenance plans