



LOCAL AREA NETWORKS (LAN)



SERVERS



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CASH REGISTERS



TELECOM-MUNICATION DEVICES



E-BUSINESS (Servers Farms, ISP/ASP/POP)



INDUSTRIAL PLCs



ELECTRO-MEDICAL DEVICES



EMERGENCY DEVICES (Lights/Alarms)

# Multi Dialog MDT

## MDT 60-80

### three/three-phase



Multi Dialog MDT 60-80 kVA



The **MULTI DIALOG** series includes 60-80 kVA three-phase models, and uses double conversion on-line technology (VFI).

The load is powered continuously by the inverter with a filtered, Stabilised and regulated sinewave supply. The input and output filters considerably increase the immunity of the load to mains disturbances and surges, even on bypass.

#### LOW POWER CONSUMPTION

- On-line Mode: up to 92% efficiency can be achieved due to the use of IGBT technology, increasing to 98% in one of the other operating modes
- Economy Mode: uses Line Interactive (VI) technology to power less critical loads from the mains supply for certain periods
- Smart Mode: if the mains supply is out of range, the UPS will power the load from the inverter as an On-line UPS. When the mains supply returns to within range again, the UPS will monitor this for a certain period before selecting Line Interactive operation

#### MAXIMUM RELIABILITY AND AVAILABILITY

- Connect up to 8 units in parallel or N+1 redundancy, of even different power ratings

| BATTERY BOXES             | BB 576-26M | BB B8576-B1 | BB 576-65M | BB 576-80M | BB 576-100M |
|---------------------------|------------|-------------|------------|------------|-------------|
| MOD. MDT                  | 60         | 60-80       | 60-80      | 60-80      | 60-80       |
| Dimensions (mm) h x w x d |            |             |            |            |             |

## HIGH LEVEL BATTERY RELIABILITY

- Automatic battery test
- Recharge compensated for temperature
- Automatic or manual rapid charge (boost) – duration programmable

## SENSITIVE SUPPLY COMPATIBLE

For power supply sources that are particularly sensitive to harmonics (generator sets or transformers of low power with respect to that of the UPS) it is often a good idea to take action to limit the harmonics injected back into the supply by the UPS.

**MULTI DIALOG AF** series have an active filter and use high frequency Insulate Gate Bipolar Transistor (IGBT) Technology with Digital Signal Processor (DSP) control.

The Active Filter helps to reduce harmonics generated by the UPS into the supply which could disrupt the operation of upstream generators and transformers whose rating is closely matched to that of the UPS

### • Advanced technology

Multi Dialog AF systems reduce harmonic distortion of the phase and neutral currents. The Digital Signal Processor (DSP) and the “current mode” instantly control and monitor the input current to maintain a perfect sinewave with 4% harmonic distortion

### • Maximum efficiency

Multi Dialog AF systems have low input distortion even at low loads and their overall efficiency is not affected by generator frequency variations or line impedance

### • Reduction of neutral current

Multi Dialog AF systems reduce the input neutral current by up to 3.5 times their nominal rating to help avoid oversizing input protections and conductors

### • Maximum reliability

Multi Dialog AF systems are extremely reliable. Overall UPS performance is unaffected should the harmonic filter fail.

### • Excellent capabilities

input distortion: (THDi) 4%  
input power factor: > 0.99

**Multi Dialog can also be supplied without the Active Filter for installations less sensitive to current harmonics.**

## OTHER CHARACTERISTICS

- Suitable for powering capacitive loads such as blade servers, without any reduction of the active power, from 0.8 leading to 0.8 lagging
- High level diagnostics: event log with 128 messages, states, measurements and alarms - available from the built-in LCD in several languages
- Reduced noise levels: high frequency inverter bridge
- Back feed protection standard: to avoid energy feeding back into the mains supply (in compliance with CEI 11-20; DK5600)
- Power factor correction (input power factor, close to 1)
- By pass may be deactivated to allow operation as a frequency converter (at 50 or 60 Hz)
- Emergency operation: the UPS can be set to operate only when the mains fails (for emergency lighting)

## ADVANCED COMMUNICATION

- Compatible with TeleNetGuard for remote maintenance
- Advanced, multi-platform communication for all operating systems and network environments: PowerShield<sup>3</sup> monitoring and shut-down software included, for Windows 2008, Vista, 2003, XP; Mac OS X, Linux, Novell and most popular Unix operating systems.
- The UPS is supplied with a communications cable for 'Plug and Play' PC connection
- Double RS232 serial ports
- Network adapter slot for SNMP agent
- Emergency Power Off (EPO) shutdown input contact
- Remote control mimic panel

| MDT MODELS  | MDT60 - AF  | MDT80 - AF      |
|---|---|-----------------|
| <b>INPUT</b>  |   |                 |
| Rated voltage                                       | 400 Vac Three-phase + N   |                 |
| Voltage range                                       | ± 20%   |                 |
| Frequency range                                     | 45 ÷ 65 Hz  |                 |
| Power factor  | >0.99   |                 |
| Current distortion                                  | THDI 4%   |                 |
| <b>BY PASS</b>                                      |   |                 |
| Rated voltage                                       | 400 Vac   |                 |
| Number of phases                                    | 3 + N   |                 |
| Permitted voltage range                             | ± 15% (selectable from ± 5% a ± 25%)                            |                 |
| Rated frequency                                     | 50/60 Hz  |                 |
| Permitted frequency range                           | ± 2% (selectable from ± 1% a ± 5%)                              |                 |
| <b>OUTPUT</b>                                       |   |                 |
| Rated power (kVA)                                   | 60  | 80              |
| Active power (kW)                                   | 48  | 64              |
| Number of phases                                    | 3 + N   |                 |
| Rated voltage (V)                                   | 380 - 400 - 415 V selectable                                    |                 |
| Voltage regulation range                            | 346 ÷ 422 V   |                 |
| Crest factor (I <sub>peak</sub> /I <sub>rms</sub> ) | 3: 1  |                 |
| Waveform  | Sinewave  |                 |
| Distortion with linear load                         | 2%  |                 |
| Static stability                                    | ± 1%  |                 |
| Dynamic stability                                   | ± 5% in 10 ms   |                 |
| Frequency   | 50/60 Hz selectable   |                 |
| Overload  | 125% 150% of the rated current for 10'/1'                       |                 |
| <b>BATTERIES</b>                                    |   |                 |
| Type  | Lead, flooded and VRLA AGM / GEL; NiCd                          |                 |
| Recharge time                                       | 4-8 h   |                 |
| <b>ENVIRONMENTAL</b>                                |   |                 |
| Weight (kg)   | 180   | 192             |
| Dimensions (HxWxD) (mm)                             | 1400 x 500 x 740  |                 |
| Input   | Three-phase + N   |                 |
| Remote signalling                                   | Volt free contacts  |                 |
| Remote controls                                     | EPO and Bypass  |                 |
| Communication                                       | Double RS232/C + remote contacts + communication interface slot |                 |
| Operating temperature                               | 0°C / +40°C   |                 |
| Relative humidity                                   | < 95% non condensing  |                 |
| Colour  | Dark grey RAL 7016  |                 |
| Noise   | < 56 dBA at 1 m   | < 60 dBA at 1 m |
| Protection rating                                   | IP20  |                 |
| Efficiency Smart Mode                               | > 98.5 %  |                 |
| Compliance  | EN 62040-1 EMC EN 62040-2 EN 62040-3                            |                 |