



Personal computers

Small computers network

Local Area Networks (LAN)

Workstations

Servers

EPOS (Electronic Point Of Sales) system

Data Centers

Industrial PLCs

Cash registers

Electro-medical devices

Emergency devices (lights/alarms)

Telecommunication devices

e-Business (Server Farms, ISP/ASP/POP)

Industrial processes

MASTER DIALOG RM/RT

RM 8-100 kVA three-phase/single-phase

RT 10-80 kVA three-phase/three-phase



HIGH RELIABILITY

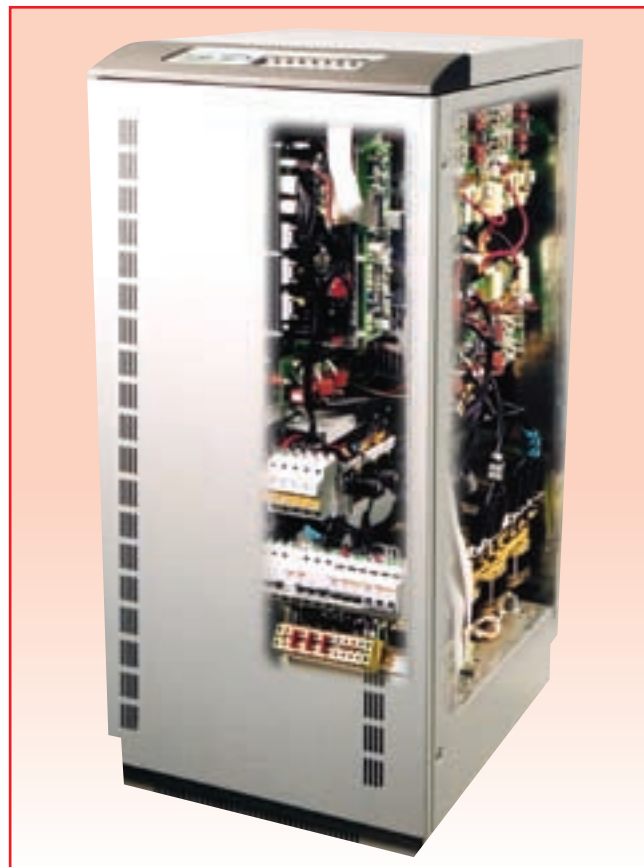
- Extremely high short-circuit current to ensure compatibility with the most difficult transformer applications (lighting, drives and industrial processes) and an isolation transformer on the inverter output.
- full microprocessor control with no-break static and manual bypasses,
- IGBT technology.

MASTER DIALOG RM/RT provides maximum protection for vital 'mission-critical' networks, security applications (electromedical) and industrial applications thanks to its outstanding mechanical and electrical design.

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

The **MASTER DIALOG RM/RT** series includes 8-100kVA three/single-phase and 10-80 kVA three-phase models and uses double conversion on-line technology (VFI) with an isolation transformer on the inverter output.

MASTER DIALOG RM/RT is supplied with **PowerShield²** software as standard and can be remotely monitored using the TeleNetGuard system from anywhere in the world. Additional battery extension packs allow the standard battery runtime to be extended up to several hours.



MINIMUM IMPACT ON THE MAINS

- Distortion of the input current <5% in the MASTER DIALOG "CLEAN" version which lets you save on sizing of the power supply source (transformer or generator set)

MAXIMUM BATTERY CARE

- battery deep discharge protection and temperature compensating charger
- built-in automatic and manual battery test feature

SIMPLE TO INSTALL

- capability to install the UPS into any distribution system (neutral not required on rectifier input)
- capability to separate the rectifier/bypass power networks and to power these from two separate sources, without Galvanic isolation (necessary on UPS without an output transformer)

MAXIMUM RELIABILITY AND AVAILABILITY

- maximum reliability and power availability - connect up to 8 units in parallel or N+1 redundancy, even of different power ratings.
The machines continue to work in parallel even if the cable connecting the UPS together is interrupted (CLOSED LOOP)

LOW CONSUMPTION LEVELS

- Thanks to the selectable Economy Mode function that enables use of the mains power supply when the latter is stable, guaranteeing very high performance (>98%) while still ensuring power supply continuity when the mains is down.

OPTIONS

- Isolation transformer module
- UPS Group Synchroniser (see UGS page 42)
- Hot connection device (see PSJ page 42)
- Interface for generator
- LED remote status panel
- LCD based remote control panel
- Closed loop parallel kit option (to be ordered with the unit)
- Empty battery cabinets for prolonged runtime

OTHER CHARACTERISTICS

- Reliable, filtered, stabilised and regulated sinewave output (double conversion on-line technology VFI according to IEC62040-3 specifications) with filters for atmospheric disturbance suppression
- 0.8 power factor makes Master Dialog suitable for powering ICT and industrial loads
- high level diagnostics: event log with 128 messages, states, measurements and alarms - available from the built-in LCD in several languages
- BACK FEED protection: to avoid energy feeding back into the mains supply should a fault occur.



LCD remote panel

ADVANCED COMMUNICATION

- Compatible with TeleNetGuard for remote maintenance
- advanced, multi-platform communication, for all operating systems and network environments:
PowerShield² supervision and shut-down software included, with SNMP agent, for Windows 95, 98, NT 4.0, Me, 2000, 2003, XP, Mac OS 9.x, X, Linux, Novell operating systems. The UPS is supplied with a cable for direct connection to the PC (Plug and Play)
- RS232 serial port
- volt-free signal contacts
- EPO (Emergency Power Off) shutdown input contact
- input for switching to bypass by remote signal
- LCD or LED-based remote control panel
- generator interface: enables desynchronisation of the UPS output from a generator supply which may be subject to phase and frequency variations. The interface also enables more economic use of the battery charger.

RM MODELS	RM 8	RM 10	RM 15	RM 20	RM 30	RM 40	RM60	RM 80	RM 100	
POWER (kVA)	8	10	15	20	30	40	60	80	100	
INPUT										
Rated voltage (V)	400 Vac three-phase									
Voltage range	± 20%									
Frequency range	45 ÷ 65 Hz									
Power factor	> 0.92 in RM CLEAN version									
Distortion of the current absorbed	< 5% in RM CLEAN version									
Soft start	0-100% in 10"									
BY PASS										
Rated voltage (V)	230 Vac single-phase									
Permitted voltage range	± 15% (selectable from ± 10% to ± 25% from front panel)									
Rated frequency	50/60 Hz (autorange)									
Permitted frequency range	± 2% (selectable from ± 1% to ± 5% from front panel)									
Standard features	BackFeed protection; separate bypass line									
BATTERIES										
Type	Maintenance-free lead-acid VRLA AGM / GEL; NiCd									
Maximum recharge current (A)	0,2xC10									
RECTIFIER OUTPUT										
Maintenance voltage	Variable acc. to temperature (-0,5 Vx°C)									
Ripple	<1%									
INVERTER OUTPUT										
Rated power (kVA)	8	10	15	20	30	40	60	80	100	
Rated voltage (kW)	6.4	8	12	16	24	32	48	64	80	
Number of phases	1									
Rated voltage (V)	230 single-phase									
Rated current (A)	35	43	65	87	130	174	261	348	434	
Regulation of the output voltage	220 ÷ 244 V phase/neutral (configurable from control panel)									
Crest factor (I _{peak} /I _{rms})	3 : 1									
Waveform	Sinewave									
Static stability	± 1%									
Dynamic stability	± 5% in 5 ms									
Frequency	50/60 Hz configurable									
Overload	110% 125% 150% of the rated current for 5h/10'/1'									
Frequency stability	± 0,05% on mains failure ± 2% (selectable from ± 1% to ± 5%) with mains supply present									
ENVIRONMENTAL										
Weight (kg)	from 190 to 460	from 200 to 470	from 220 to 490	from 230 to 500	290	340	440	520	650	
Dimensions (hwd) (mm)	1200x555x720						1400x800x740		1400 x 1070x740	
Remote signaling	volt free contacts									
Remote controls	EPO and Bypass									
Communication	RS232 + remote contacts									
Operating temperature	0 °C - 40 °C									
Relative humidity	< 95% non condensing									
Colour	Light grey RAL 7035									
Noise	54 dBA at 1 m		60 dBA at 1 m			65 dBA at 1 m				
Protection rating	IP20									
Efficiency	>91%				>92%					
Compliance	Safety EN 62040-1 EMC EN 62040-2 Directives 73/23-93/68-89/336 EEC EN 62040-3									
Internal batteries	yes	yes	yes	yes	no	no	no	no	no	

RT MODELS	RT 10	RT 15	RT 20	RT 30	RT 40	RT 60	RT 80
POWER (kVA)	10	15	20	30	40	60	80
INPUT							
Rated voltage (V)	400 Vac three-phase						
Voltage range	± 20%						
Frequency range	45 ÷ 65 Hz						
Power factor	> 0.9 in RT CLEAN version						
Distortion of the current absorbed	< 5% in RT CLEAN version						
Soft start	0-100% in 10"						
BY PASS							
Rated voltage (V)	400 Vac three-phase						
Permitted voltage range	± 15% (selectable from ± 10% to ± 25% from front panel)						
Rated frequency	50/60 Hz auto sensing						
Permitted frequency range	± 2% (selectable from ± 1% to ± 5% from front panel)						
Standard features	BackFeed protection; separate bypass line						
BATTERIES							
Type	Maintenance-free lead-acid VRLA AGM/GEL; NiCd						
Maximum recharge current (A)	0,2xC10						
RECTIFIER OUTPUT							
Maintenance voltage	Variable acc. to temperature (-0,5 Vx°C)						
Ripple	<1%						
INVERTER OUTPUT							
Rated power (kVA)	10	15	20	30	40	60	80
Rated voltage (kW)	8	12	16	24	32	48	64
Number of phases	3 + N						
Rated voltage (V)	400						
Rated current (A)	14	22	29	43	58	87	115
Regulation of the output voltage	348 ÷ 424 V Phase/neutral (from control panel)						
Crest factor (I _{peak} /I _{rms})	3 : 1						
Waveform	Sinewave						
Static stability	± 1%						
Dynamic stability	± 5% in 5 ms						
Frequency	50/60 Hz configurable						
Overload	110% 125% 150% of the rated current for 5h/10'/1'						
Frequency stability	± 0,05% on mains failure; ± 2% (selectable from ± 1% to ± 5%) with mains supply present						
ENVIRONMENTAL							
Weight (kg)	from 210 to 480	from 220 to 490	from 230 to 500	from 282 to 552	330	450	555
Dimensions (hwd) (mm)	1200x555x720					1400x800x740	
Remote signaling	volt free contacts						
Remote controls	EPO and Bypass						
Communication	RS232 + remote contacts						
Operating temperature	0 °C - 40 °C						
Relative humidity	< 95% non condensing						
Colour	Light grey RAL 7035						
Noise	54 dBA at 1 m		60 dBA at 1 m			62 dBA at 1 m	
Protection rating	IP20						
Efficiency	> 90%		> 91%			> 92%	
Compliance	Safety EN 62040-1 EMC EN 62040-2 Directives 73/23-93/68-89/336 EEC EN 62040-3						
Internal batteries	yes	yes	yes	NO	no	no	no