
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 12RT

250/800 kVA  
three-phase/three-phase



**MASTER DIALOG 12RT** provides maximum protection for vital 'mission-critical' networks, security applications (electromedical) and industrial applications thanks to its outstanding mechanical and electrical design. The **MASTER DIALOG 12RT** series runs from 250 to 800 kVA three-phase models and uses double conversion on-line technology (VFI) with an isolation transformer on the inverter output.

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.

**MASTER DIALOG 12RT** is supplied with **PowerShield<sup>2</sup>** 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.

## 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.

## MINIMUM IMPACT ON SUPPLIES - EASY SOURCE

- Input current distortion <4% for the Master Dialog "CLEAN" version with sinusoidal absorption to remove the risk of resonance with other input supply users or phase shift capacitor sets. The absorbed current distortion is independent of input supply parameters such as impedance. This enables Master Dialog to deliver maximum performance levels regardless of the installation environment. With these input features Master Dialog can achieve significant savings in terms of sizing and power supply sources - isolation transformers and generators over less sophisticated power systems.

## MAXIMUM BATTERY CARE

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

## SIMPLE TO INSTALL

- option to regulate the output voltage and offset voltage drops down long cable runs

## MAXIMUM RELIABILITY AND AVAILABILITY

- connect up to 8 units in parallel or N+1 redundancy, even of different power ratings.  
The UPS continue to operate in parallel even if one of the interconnecting communication cables is disconnected (Closed Loop).

## LOW CONSUMPTION LEVELS

- Master Dialog can achieve efficiencies >98% thanks to a selectable Economy Mode which can be used in stable electrical environments to provide power supply continuity should the mains fail.

### OTHER CHARACTERISTICS

- reliable, filtered, stabilised and regulated sinewave output (double conversion on-line technology VFI according to EN62040-3 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.

### OPTIONS

- **UGS - UPS Group Synchroniser**  
Allows 2 or more UPS not in parallel to remain synchronized even during a power failure. The UGS also enables a RIELLO UPS to be synchronised with an independent power source, even of a different power rating. The UGS is often used with the Parallel Systems Joiner (PSJ).
- **PSJ - Parallel Systems Joiner**  
Connects two UPS groups operating in parallel configurations through a power coupling switch. The Slave UPS Group is permanently synchronised to the Master group. Should one of the UPS in one of the parallel groups fail, the PSJ will automatically connect the remaining UPS to the other group via an external bypass.
- isolation transformers
- various lead acid battery types including 5 year, 10 year and 20 year design life, VRLA, NiCad options and runtimes up to several hours
- communications software
- automatic battery circuit breaker (for remote control)
- solutions for low input current distortion.



mimic panel

### ADVANCED COMMUNICATION

- Compatible with TeleNetGuard for remote maintenance
- advanced, multi-platform communication, for all operating systems and network environments: **PowerShield<sup>2</sup>** 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.

### SPECIFIC SOLUTIONS

The UPS can be adapted to your requirements. Please contact RIELLO UPS to discuss specific applications and options.



Sample application

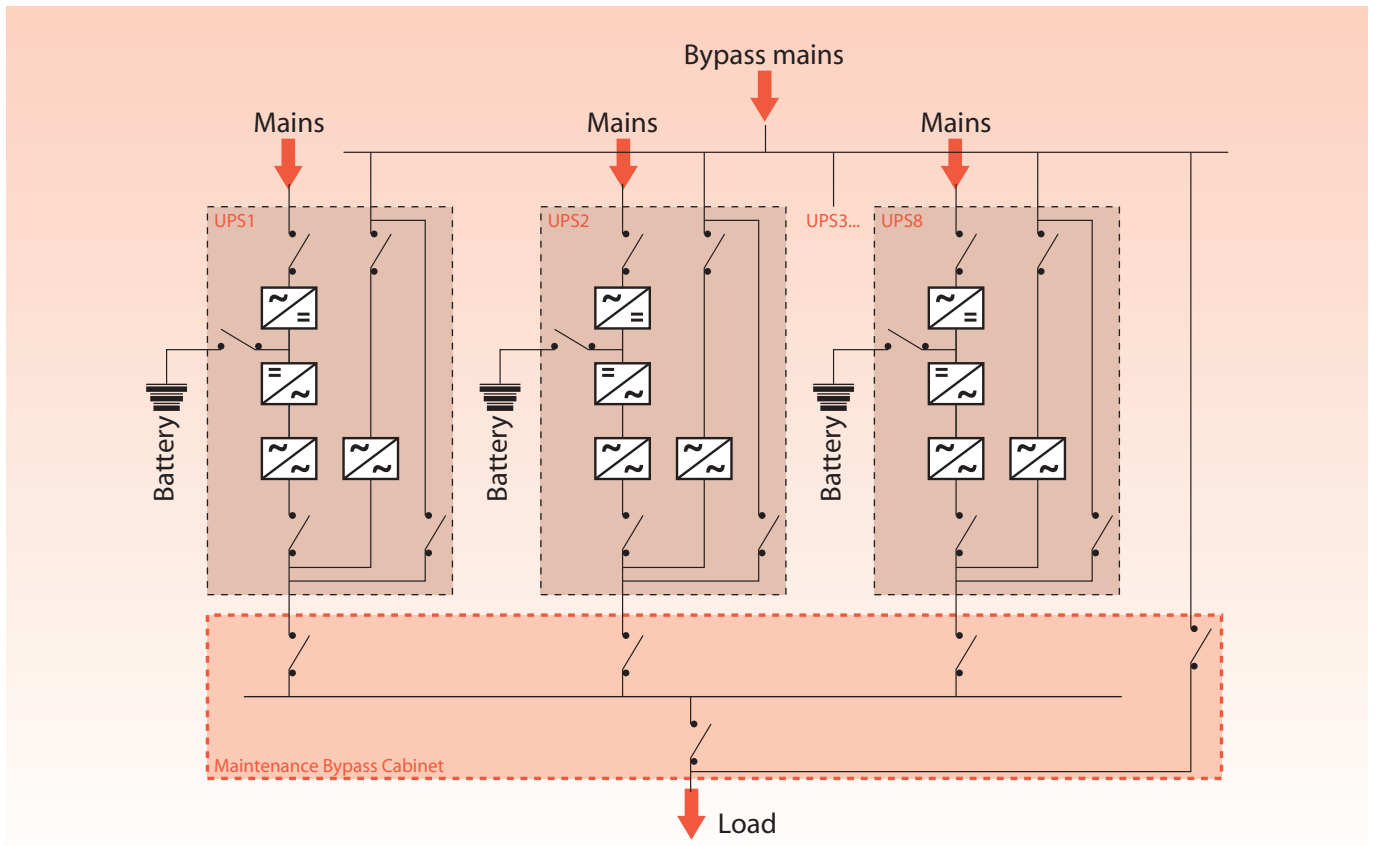


UPS mounted in a shelter

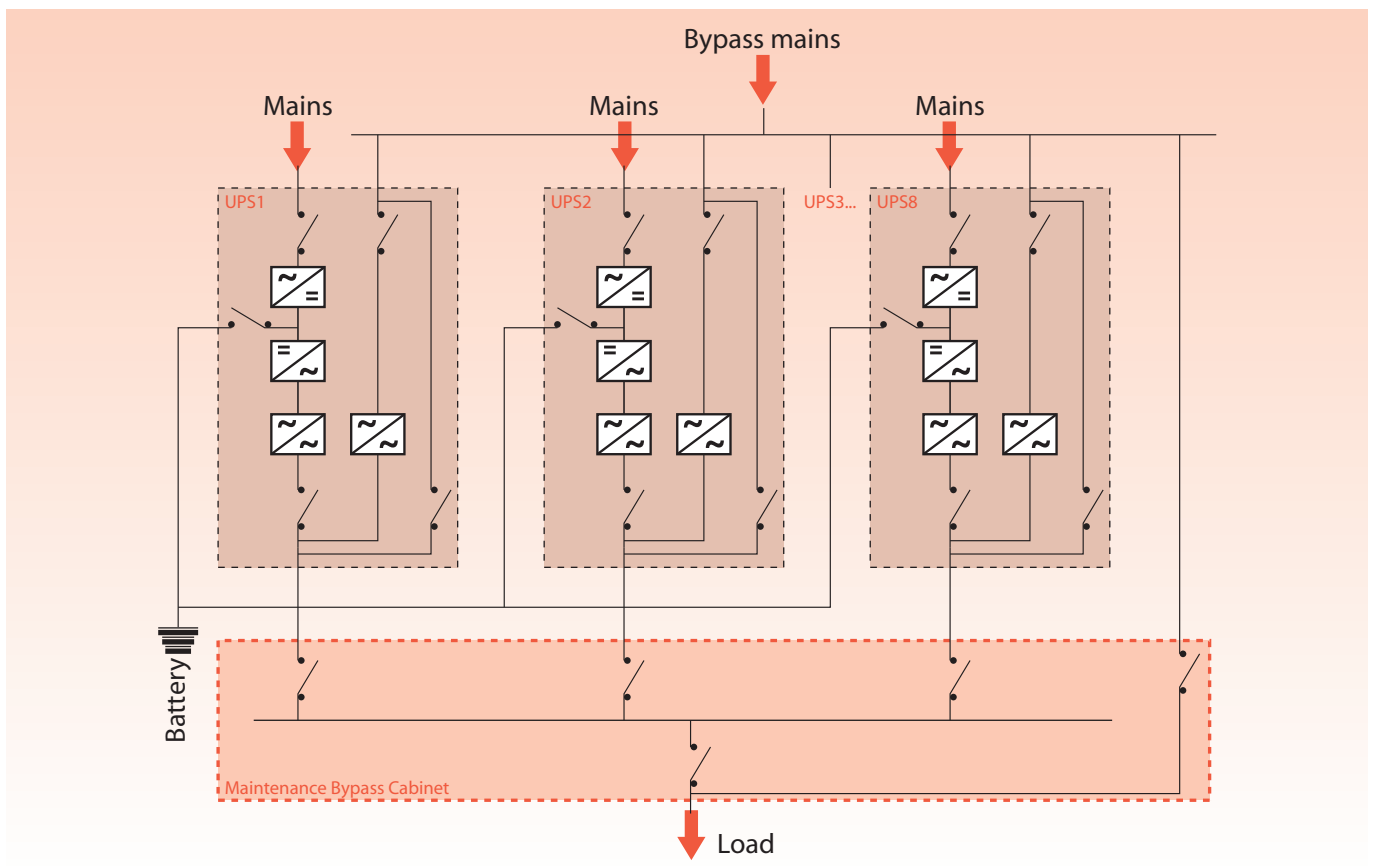
## NO-BREAK POWER ARCHITECTURES

The **Master DIALOG** range features a wide range of modules and configurations that can be manufactured into one complete system to solve your power problems. Each system is there-

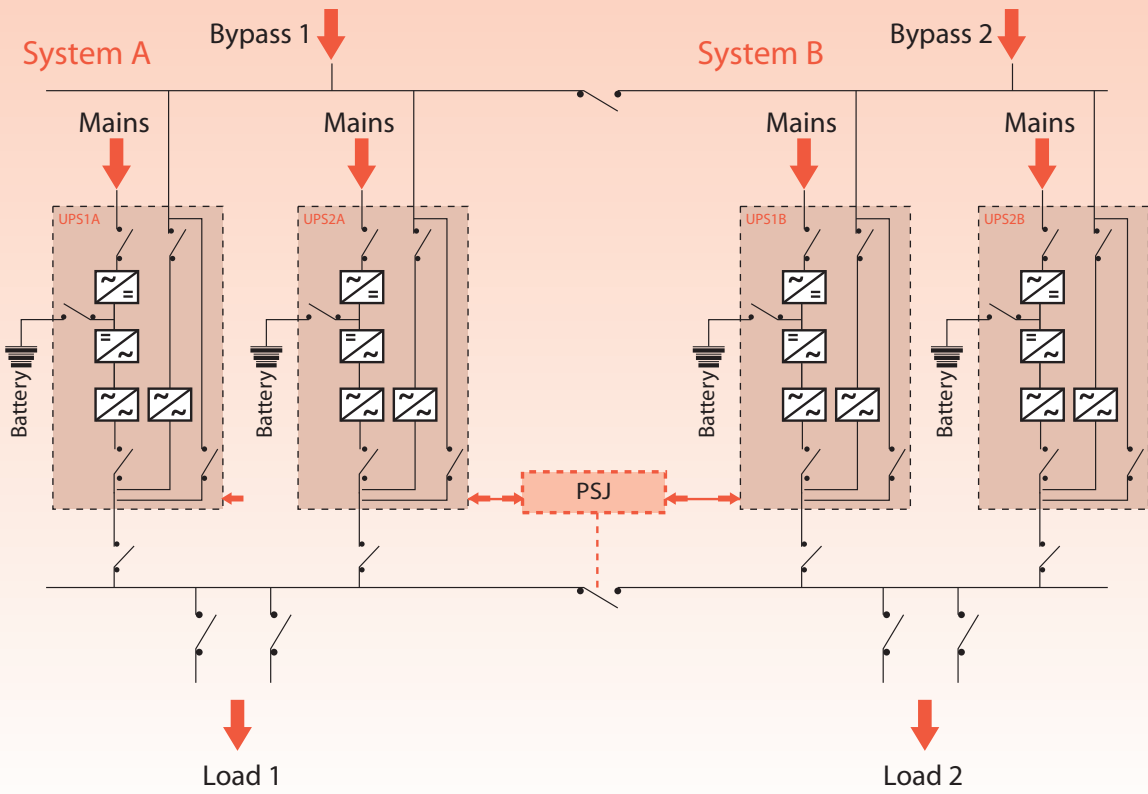
fore unique and we ask that you consult our engineers for your specific application. Some typical configurations are illustrated below:



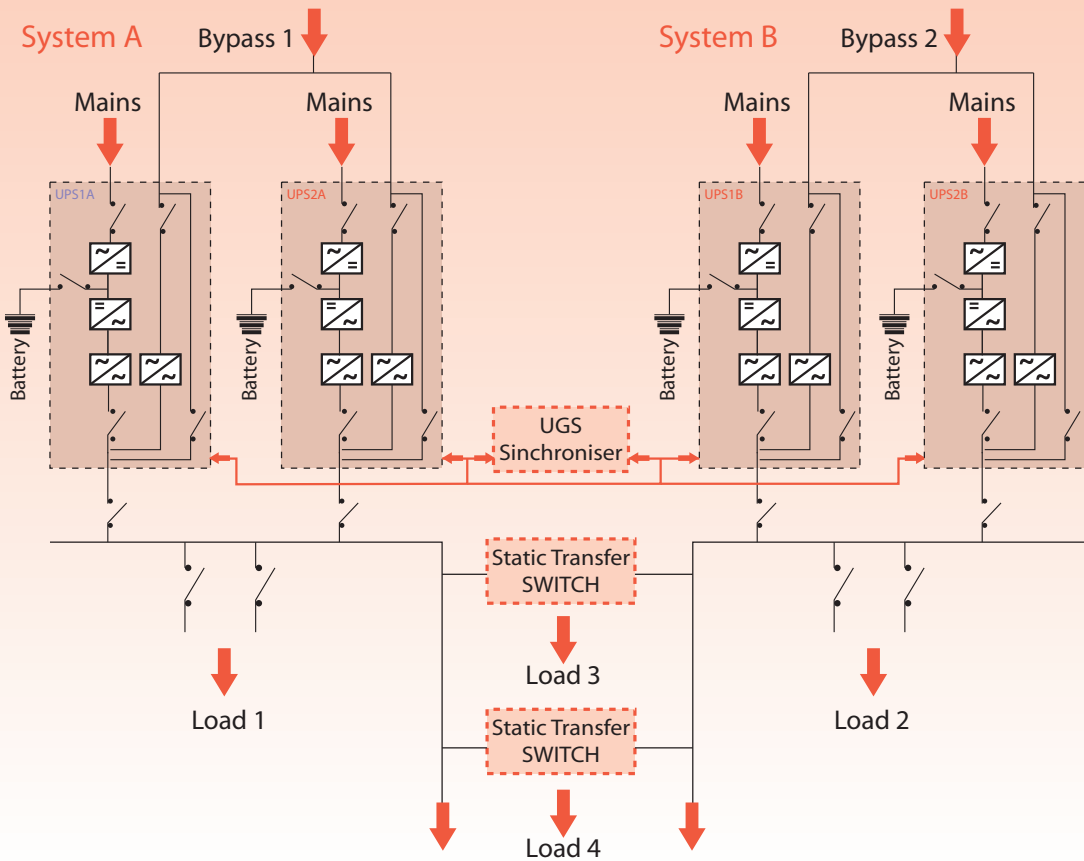
1. Parallel configuration of up to 8 units with separate batteries



2. Parallel configuration of up to 8 units with a common battery



3. Dynamic dual bus configuration



4. Dual bus system configuration

MODELS	12RT 250	12RT 300	12RT 400	12RT 500	12RT 600	12RT 800
<b>POWER (kVA)</b>	250	300	400	500	600	800
<b>INPUT</b>						
Rated voltage (V)	380-400-415 Vac three-phase					
Voltage range	± 20%					
Frequency range	50 ÷ 60 Hz ± 5%					
Total harmonic distortion	< 4% in CLEAN version					
<b>BY PASS</b>						
Rated voltage (V)	380-400-415 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	Back Feed protection; separate bypass line					
<b>BATTERIES</b>						
Type	Lead, flooded and VRLA AGM / GEL; NiCd					
Maximum recharge current (A)	0,2xC10					
<b>RECTIFIER OUTPUT</b>						
Maintenance voltage	Variable acc. to temperature (-0,5 Vx°C)					
Ripple	<1%					
<b>INVERTER OUTPUT</b>						
Rated power (kVA)	250	300	400	500	600	800
Rated power (kW)	200	240	320	400	480	640
Number of phases	3 + N					
Rated voltage (V)	380-400-415 three-phase + N					
Rated current (A)	362	434	579	724	869	1159
Crest factor (I <sub>peak</sub> /I <sub>rms</sub> )	3 : 1					
Waveform	Sinewave					
Static stability	± 1%					
Dynamic stability	± 5% in 5ms					
Frequency	50/60 Hz configurable					
Overload	110% 125% 150% of the rated current for 60'/10'/1'					
Frequency stability	± 0,05% on mains failure ± 2% with mains supply present					
<b>ENVIRONMENTAL</b>						
Weight (kg)	2200	2600	3600	4000	5300	
Dimensions (hwd) (mm)	1900x1630x850	1900x1630x1000	1900x3200x980		1900x4400x1000	
Remote signalling	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	<70 dBA at 1 m			<78 dBA at 1 m		
Protection rating	IP20					
Efficiency	> 93 %			> 94 %		
Compliance	Safety EN 62040-1 EMC EN 62040-2 Directives 73/23-93/68-89/336 EEC EN 62040-3					
<b>OPTIONS</b>						
Isolation transformer module						
UPS Group Synchroniser (see UGS)						
Hot connection device (see PSJ)						
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						