

UPS FOR IT SOLUTION

UPS SERIES RODIUM



RODIUM is a state-of-the-art uninterruptible power supply, achieving the highest possible level of on-line double-conversion performance (VFI-SS-111) as defined within IEC EN 62040-3.

The UPS has been designed to protect critical information and telecommunications systems, networks, services and processes whose operation could be disrupted by poor power quality and/or breaks in their mains power supply.

The sizes available include: 10-12-15-20-30-40-60-80-100-120-160-200 kVA all with a three-phase input and output.

The RODIUM UPS is one of the most efficient UPS available with a minimal impact on its environment and power sources.

ZERO IMPACT SOURCE

RODIUM UPS are easy to install, especially on sites where there is limited power capacity available, a standby generator and potentially harmonic compatibility issues:

- low input current distortion - less than 3%
- high input power factor 0.99
- power walk-in function to achieve progressive rectifier start-up
- delayed start-up on mains power supply return

RODIUM also performs the role of a high specification filter, protecting its power supply sources (mains or generator) from any harmonics and reactive power generated by the loads it is powering.

BATTERY CARE SYSTEM

The RODIUM Battery Care System optimises battery performance, to help extend their working life and ensure that the UPS can deliver its full-rated back-up time when called upon in an emergency.

BATTERY RECHARGE: RODIUM is designed to work with VRLA AGM and GEL lead-acid batteries including open-vented types, in addition to Ni-Cads. Specific management features include:

- One-level recharge to meet the requirements of the most common VRLA AGM batteries
- Two voltage level recharge meeting the IU characteristic
- Restricted charging to reduce electrolyte consumption and extend the life of VRLA batteries

TEMPERATURE COMPENSATION: to avoid excessive voltage being applied to the batteries in a high ambient

BATTERY TEST: to detect performance degradation and predict battery failure.

DEEP DISCHARGE PROTECTION: to prevent the batteries being discharged below a level from which they cannot be recovered (especially when discharged over long periods with very low loads).

LOW AC RIPPLE CURRENT: from a high-frequency battery charger, to ensure the batteries are not subjected to this damaging element commonly experienced with some other UPS and power supply designs.

WIDE INPUT VOLTAGE RANGE: from a rectifier that can work down to less than 40% of its nominal supply rating (at half load), removing the need to discharge the batteries.

FLEXIBILITY

RODIUM can be used for a wide range of applications, thanks to its configuration options, flexibility, accessories and performance levels:

- suitable for powering capacitive loads, for example Blade servers - without any reduction in active power, from 0.9 leading to 0.9 lagging
- modes of operation include: On-Line, Eco, Smart-Active and Stand-By/Off
- frequency conversion mode
- Power Share connections for priority-based load shedding when the mains power supply has failed
- cold-start facility to switch the UPS on even without a mains power supply present
- extensive back-up time options using battery extension cabinets
- optional battery cabinet temperature sensor to assist the temperature compensating charger
- optional battery chargers to optimize recharge times
- optional dual input supplies
- optional isolation transformers for Galvanic isolation and neutral connectivity

ADVANCED COMMUNICATION

RODIUM has a large front panel graphic display providing information including: real-time measurements, operating status and alarms conditions - in eight different languages Advanced multiplatform communication, for all operating systems and network environments:

PowerShield³ monitoring and shutdown software included with SNMP agent

Compatible with TeleNetGuard for the remote assistance service

RS232 or USB serial port

Three communication slots for accessories including: network adapters and volt-free contacts

REPO (Remote Emergency Power Off) to shut down the UPS remotely in an emergency

Input for connection of an auxiliary contact for an external manual bypass

Input for synchronisation with an external power source

Graphic mimic panel display for remote connection.

LOW MANAGEMENT COST

The RODIUM design provides exceptional performance and efficiency levels, within a very compact footprint and overall case design:

- Lowest footprint in its category - 0.26m² for the 20kVA RODIUM with internal batteries.
- High efficiency up to 96% - saving up to 35% in dissipated energy in one year compared to a more traditional UPS (91%) resulting in a faster payback period of four years.
- High output power factor which at 0,9pF (1pF for models 160-200 kVA) provides up to 15% (20% for models 160-200 kVA) more active power compared to a more traditionally sized UPS - providing greater system expansion margin for further load increases.

DATA SHEET

MODELS

TM10^{BAT} TM12^{BAT} TM15^{BAT} TM20^{BAT} TT10^{BAT} TT12^{BAT} TT15^{BAT} TT20^{BAT}

INPUT	NOMINAL VOLTAGE	380-400-415 Vac three-phase + N / 220-230-240 Vac single-phase + N				380-400-415 Vac three-phase + N			
	NOMINAL FREQUENCY	50/60 Hz							
	FREQUENCY TOLERANCE	40 - 72 Hz							
	POWER FACTOR AT FULL LOAD	0,99							
	CURRENT DISTORTION	THDI ≤ 3%							
BYPASS	NOMINAL VOLTAGE	220-230-240 Vac single-phase + N				380-400-415 Vac three phase + N			
	NUMBER OF PHASES	1				3 + N			
	VOLTAGE TOLERANCE (PH-N)	180 - 264 V (selectable)							
	NOMINAL FREQUENCY	50 o 60 Hz (selectable)							
	FREQUENCY TOLERANCE	±5 (selectable)							
	BYPASS OVERLOAD	125% for 60 minutes, 150% for 10 minute							
OUTPUT	NOMINAL POWER (KVA)	10	12	15	20	10	12	15	20
	ACTIVE POWER (KW)	9	10,8	13,5	18	9	10,8	13,5	18
	POWER FACTOR	0,9							
	NUMBER OF PHASES	1				3 + N			
	NOMINAL VOLTAGE (V)	220-230-240 Vac single-phase + N (selectable)				380-400-415 Vac three-phase + N (selectable)			
	STATIC VARIATION	± 1%							
	DYNAMIC VARIATION	± 3%							
	CREST FACTOR	3 : 1 Ipeak/Irms							
	VOLTAGE DISTORTION	≤ 1% with linear load / ≤ 3% with non-linear load							
	FREQUENCY	50/60 Hz							
	FREQUENCY STABILITY DURING BATTERY OPERATION	0,01%							
BATTERIES	TYPE	VRLA AGM/GEL/NiCd/Li-ion/Supercaps							
	RECHARGE TIME	6 hours							
INFO FOR INSTALLATION	WEIGHT WITHOUT BATTERIES (kg) (MCM/MSM)	80/105	82/110	90/115	95/120	80/105	82/110	90/115	95/120
	DIMENSIONS (WxDxH) (mm)	320 x 840 x 930 (MCM/MCT version) / 440 x 850 x 1320 (MSM/MST version)							
	COMMUNICATIONS	3 slots for communications interface / USB / RS232							
	OPERATING TEMPERATURE	0 °C / +40 °C							
	RELATIVE HUMIDITY	90% non-condensing							
	COLOUR	Dark grey RAL 7016							
	NOISE LEVEL AT 1 m [dBA ±2] SMART ACTIVE	< 40 dBA							
	IP RATING	IP20							
	SMART ACTIVE EFFICIENCY	up to 98%				up to 99%			
	STANDARDS	European Directives: L V 2006/95/CE low voltage Directive EMC 2004/108/CE electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2 C2 Classification in accordance with IEC 62040-3 (Voltage Frequency Independent) VFI - SS - 111							
	MOVING THE UPS	castors / transpallet (10 - 20 kVA)							

DATA SHEET

MODELS

TT30^{BAT}TT40^{BAT}TT60^{BAT}TT80^{BAT}TT100^{BAT}TT125^{BAT}TT160^{BAT}TT200^{BAT}

INPUT	NOMINAL VOLTAGE	380-400-415 Vac three-phase + N								
	NOMINAL FREQUENCY	50/60 Hz								
	FREQUENCY TOLERANCE	40 - 72 Hz								
	POWER FACTOR AT FULL LOAD	0,99								
	CURRENT DISTORTION	THDI ≤ 3%						THDI ≤ 2,5%		
BYPASS	NOMINAL VOLTAGE	380-400-415 Vac three-phase + N								
	NUMBER OF PHASES	3 + N								
	VOLTAGE TOLERANCE (PH-N)	180 - 264 V (selectable)								
	NOMINAL FREQUENCY	50 or 60 Hz (selectable)								
	FREQUENCY TOLERANCE	±5 (selectable)								
	BYPASS OVERLOAD	125% for 60 minutes, 150% for 10 minute								
OUTPUT	NOMINAL POWER (KVA)	30	40	60	80	100	125	160	200	
	ACTIVE POWER (KW)	27	36	54	72	90	112,5	160	200	
	POWER FACTOR	0,9						1		
	NUMBER OF PHASES	3 + N								
	NOMINAL VOLTAGE (V)	380-400-415 Vac three-phase + N (selectable)								
	STATIC VARIATION	± 1%								
	DYNAMIC VARIATION	± 3%								
	CREST FACTOR	3 : 1 I _{peak} /I _{rms}								
	VOLTAGE DISTORTION	≤ 1% with linear load / ≤ 3% with non-linear load								
	FREQUENCY	50/60 Hz								
	FREQUENCY STABILITY DURING BATTERY OPERATION	0,01%								
	BATTERIES	TYPE	VRLA AGM/GEL/NiCd/Li-ion/Supercaps							
RECHARGE TIME		6 hours								
INFO FOR INSTALLATION	WEIGHT WITHOUT BATTERIES (kg) (MCM/MSM)	135	145	190	200	220	250	450	460	
	DIMENSIONS (WxDxH) (mm)	440x850x1320		500x850x1600			650x840 x1600	850x1050x1900		
	COMMUNICATIONS	3 slots for communications interface / USB / RS232								
	OPERATING TEMPERATURE	0 °C / +40 °C								
	RELATIVE HUMIDITY	90% non-condensing								
	COLOUR	Dark grey RAL 7016								
	NOISE LEVEL AT 1 m [dBA ±2] SMART ACTIVE	< 40 dBA		< 63 dBA				< 50 dBA		
	IP RATING	IP20								
	SMART ACTIVE EFFICIENCY	fino a 99%								
	STANDARDS	European Directives: L V 2006/95/CE low voltage Directive EMC 2004/108/CE electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2 C2 Classification in accordance with IEC 62040-3 (Voltage Frequency Independent) VFI - SS - 111								
	MOVING THE UPS	castors (30 - 200 kVA)								



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ISO9001:2015

BUREAU VERITAS
Certification

