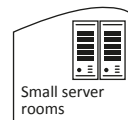
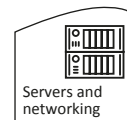
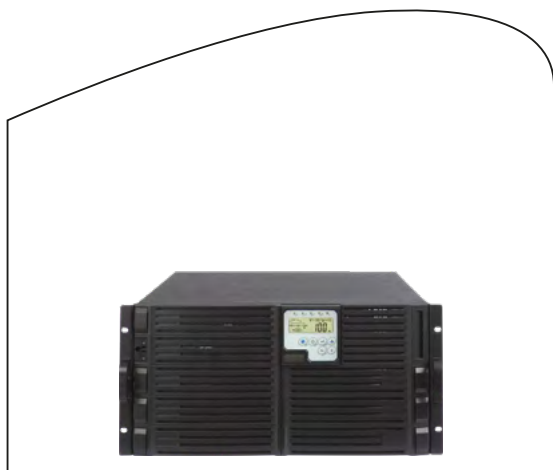


SINGLE-PHASE ONLINE UPS



Features

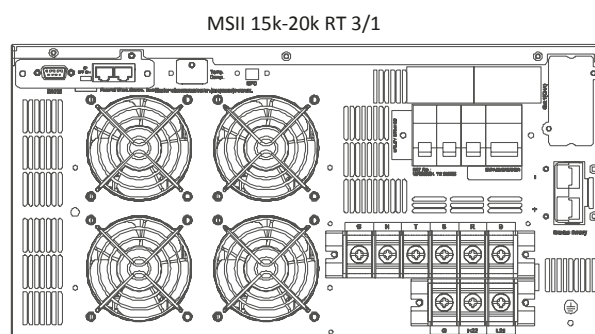
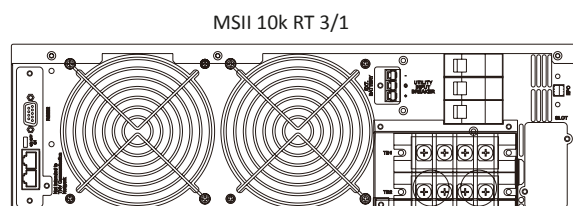
- Online double conversion technology (VFI) from 10000 VA to 20000 VA with a power factor of 0.9.
- Versatile because the display panel can be turned to transform the rack into a tower.
- Full power bypass line with single-phase output.
- Up to 4 units in parallel, 3 + 1 redundancy possible with parallel kit.
- Low running costs: the high efficiency VFI and ECO features minimise energy consumption.
- User-friendly monitoring software can be downloaded free and is compatible with the main operating systems, for: monitoring functions, diagnostics, controlled shutdown of loads in the event of faults.
- Cold start.
- Wide input voltage and frequency ranges reduce battery switching, thereby increasing battery life and efficiency.

- Flexible battery configuration to suit your uptime requirements.
- 6-step operation test that can be activated manually.
- Dual input (for Mars II 20 kVA version only).
- RS232 port, slots for optional communication cards and remote EPO.

Key options

- Cards: USB, RS-485 ModBus, SNMP/web and relay card with dry contacts to send the UPS status to various systems, such as BMS, PLC, SCADA and AS400.
- Isolation transformer.
- Parallel kit.
- Rail kit for rack mounting.
- External battery cabinets.
- External manual bypass with additional sockets.

BACK PANEL



Because of its convertible design,
the MSII RT 3/1 combines
reliability with great installation flexibility

MODEL		MSII 10000 RT 3/1	MSII 15000 RT 3/1	MSII 20000 RT 3/1
POWER	VA	10000	15000	20000
	W	9000	13500	18000
INPUT	Rated voltage*	277–485 Vac	190–485 Vac	
	Rated frequency	45–65 Hz	45–70 Hz	
	Power factor	>0.99		
OUTPUT	Rated voltage	200/208/220/230/240 Vac selectable		
	Voltage distortion	<3% with linear load, <7% with distorting load		
	Voltage stability	±1%		
	Frequency	50/60 Hz (selectable)		
	Frequency stability	≤ 0.2% (free running)		
	Power factor	0.9		
	Crest factor	3:1		
	Waveform	Pure sine wave		
EFFICIENCY	Output connection	Terminal blocks		
	VFI mode	Up to 93%		
GENERAL	ECO mode	Up to 95%		
	Dimensions (WxDxH) mm	440x680x132 (3U)	440x720x220 (5U)	
	Weight (kg)	28	36	
	Alarms	Audible and visual alarm alerts for: power failure, low battery, bypass transfer, and UPS fault.		
	Protection	Overload, overheating, short circuit, deep discharge, battery overcharging.		
	Operating mode	Multi-mode: VFI, ECO, frequency converter (CVCF)		
	Cold start from the battery without mains power	Included		
	Parallel connection	Up to 4 units for 3+1 redundancy		
BATTERY	Battery type	12V VRLA, AGM (maintenance-free lead)		
	Number per string	20		
	Uptime with battery (in min)	50% load	Depends on the external battery cabinets	
		100% load	Depends on the external battery cabinets	
	Charging time (90%)	6 hours		
ENVIRONMENTAL PARAMETERS	Battery expansion module dimensions (WxDxH) **	440x680x132 (3U)	440x680x132 (5U)	
	Operating temperature***	0–40°C		
	Relative humidity	95% (non-condensing)		
	Altitude (a.s.l.)	<1000 m with no power derating, >1000 m with 1% derating for every 100 m.		
CONNECTIVITY	Audible noise at 1 m.	≤50 dBA	≤60 dBA	
	Built-in communication ports	RS232, EPO, additional slots for optional cards		
	User interface	LCD and function keys (parameters: voltage, frequency, load percentage, battery voltage, output voltage, UPS temperature).		
	Optional accessories	Cards: SNMP, USB, RS485 ModBus, dry contact relays		
REGULATIONS	Compatible software platforms	Microsoft Windows, Linux, Mac OS, VMware		
	Standards	IEC EN 62040-1, IEC EN 62040-2, IEC EN 62040-3		
	Marking	CE, UKCA		

* Depending on the load ** Battery weight and configuration depends on the required uptime *** To be verified according to the battery parameters