

## Model # MURM400/50K

50-400KVA/400KW, 380/400/415V, 50/60Hz True hot swappable Modular On-line double conversion UPS



### Product Description

MURM400/50K Smart hot swappable Modular UPS with unity power factor provides the most compact footprint of less than 2.4m<sup>2</sup> with maximum capacity of 1600KW with high performance. Smart modular UPS is a scalable three-phase In/Out uninterruptible power supply system with DSP technology and provides true on-line double conversion power protection. The available UPS power and redundancy level can expand vertically from 50 to 400 kVA / 400 kW in one single power cabinet, and four power cabinets can be connected in parallel, increasing the capacity up to 1600KW. It features modular hot-swappable design, all modules support “plug & play”, including power modules, bypass module, and control module, simplifies UPS servicing and maintenance.

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### Applications

- Critical applications where ever higher reliability is needed
- Medical & lifesaving equipment's
- Data centers & Larger computer rooms
- Industrial & Petrochemical application
- Banking & Telecommunication
- Power Generation & distribution stations

### Key Features

- Capacities from 50KVA/50KW to 400KVA/400KW in 50KVA/50KW modular steps, N+1 Redundancy (up to 400KW)
- **Full DSP** control of high stability, reliability and safety
- Friendly human machine interface with **colorful touch screen** of 7 inches
- Independent **LCD display** for each power module with self-starting function
- Integrated IGBT module with improved performance and reduced size
- Automatically record the critical wave information when fault happen, easy for trouble shooting
- Monitor runtime of critical components, such as fans and capacitors, settable alarm for service period
- Self-Aging mode for full load test with less than 10% of the total power capacity needed
- **Maximum availability** - 'Six nines' (99.9999%) availability by uniquely combining the benefits of parallel redundancy and 'hot-swap' modularity to ensure 24/7 power availability.
- **High energy efficiency total flexibility & low total cost of ownership** – The combination of high energy efficiency up to 98% and scalable flexibility using 'hot-swap' modules ensures that MURM400/50K offers a low total cost of ownership.
- UPS modules can be simply added, in cost effective incremental steps as the critical load power requirement grows. This ensures the UPS is 'rightsized' at initial installation, reducing the system's initial cost, optimizing its operating efficiency and reducing ongoing operating costs.
- Smart charging management system, intelligently control the whole process of the charging and discharging effectively improve the life time of the battery
- Independent charger for batteries, intelligent battery management system
- Battery cold start, UPS can be powered on from the battery without utility
- Totally front access, top and bottom cable connection
- Quick and simple power upgrade or repair by 'Hot-Swapping' modules while the UPS is online maximizes availability and simplifies system upgrades
- High power density with footprints of less than 2.4m<sup>2</sup> up to 1600KVA in parallel, 50KVA power module with height of only 3U
- 0.99 Output power factor and 0.99 ~ unity power factor at Input side
- Low input harmonic distortion (THDi<3%)

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### Product Specifications

MODEL	MURM400/50K
Rated capacity	400KVA/400KW
Numbers of power modules	8
Rated capacity of power module	50KVA/50KW
INPUT	
Input wiring	3 Ph + N + PE
Rated voltage	380 / 400 / 415 Vac
Voltage range	138 ~ 485 Vac (305 ~ 485 Vac without power downgrading;
	138 ~ 305 Vac with linear downgrading 40%)
Input frequency	40 ~ 70 Hz
Power factor	≥ 0.99
Current distortion	< 3%
BATTERIES	
Battery voltage	± 240 Vdc (±180, ± 192, ± 204, ± 216, ± 228, ± 252, ± 264, ± 276 selectable)
Number of battery	40 pcs 12 V batteries ( 30 / 32 / 34 / 36 / 38 / 42 / 44 / 46 pcs selectable)
OUTPUT	
Output wiring	3 Ph + N + PE
Rated voltage	380 / 400 / 415 Vac ± 1%
Frequency	Synchronized with utility in mains power mode:
	50 Hz / 60 Hz ± 0.25% in battery mode
Power factor	1
Voltage distortion	≤ 1% with linear load / ≤ 3 % with non-linear load
Crest factor	3:1
Inverter overload capacity	105% < load ≤ 110%: transfer to bypass in 60 min
	110% < load ≤ 125%: transfer to bypass in 10 min
	125% < load ≤ 150%: transfer to bypass in 1 min
	Load > 150%: transfer to bypass in 200 ms
Bypass overload capacity	Load ≤135% for long term; < 1000% load for 100 ms
SYSTEM	
Efficiency	96.50%
Max. number of parallel connections	4 units
Transfer time	0 ms
Protections	Short circuit protection, overload protection, over-temperature protection, battery low voltage protection, output over/low voltage protection, fans failure protection etc.
Communications	RS485, dry contacts, SNMP
Display	7 inches LCD touch screen
OTHERS	
Operating temperature	0 ~ 40°C
Storage temperature	-40°C ~ +70°C
Humidity	0 ~ 95%(non-condensing)
Altitude	≤2000 m. Above 2000 m, de-rating 1% for each additional 100 m
Protection level	IP 20
Noise level at 1 m	< 68 dB

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Cabinet dimensions (W x D x H) (mm)	1200 × 850 × 2000
UPS module dimensions (W x D x H) (mm)	442 × 620 × 130
Cabinet weight (kg)	415
Power module weight (kg)	32kgs/module
EMI	EN62040-2
EMS	IEC61000-4-2(ESD)
	IEC61000-4-3(RS)
	IEC61000-4-4(EFT)
	IEC61000-4-5(surge)
Quality Standards	ISO9001:2015, ISO14001:2015, RoHs, CE

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