

10 – 60KW Hot Swappable Modular UPS

Falcon 7000M



Falcon 7000M is a truly modular and hot swappable system designed and developed with the most advanced technology to provide the lowest total cost of ownership while providing high flexibility and reliability.

Falcon 7000M is designed with hot swappable power modules with static bypass with special attention to avoid single point of failures in the system. Each module has its own controller which eliminates the need of a common controller.

Highlights of Falcon 7000M UPS at a Glance

Total Cost of Ownership

- Green and energy saving:
 - AC/AC efficiency >94%
 - Input power factor >0.99
 - Input THDi is <3%

Flexibility

- Modular design with N+X redundancy, online hot-swappable
- Battery cold start feature allows UPS to be powered on from the battery without utility
- Automatic recording of the relevant data during faults makes it easy for trouble shooting
- Independent LCD display on each power module
- User Programmable dry contacts
- Friendly human machine interface 10.touch screen display
- Wide Communication Options

Reliability

- Full DSP control for high stability, reliability and safety
- Integrated IGBT module with improved performance and reduced size
- Optimized battery management, intelligent charging and discharging to effectively improve the life of the battery



Applications

- Data Centre
- Commercial Offices
- Infrastructure
- IT/ITES
- BFSI
- Healthcare

Flexibility

Falcon 7000M is designed as a rack independent system for easy adjustment, the rack or tower enhances the flexibility of modularity and scalability. Its 19" form factor makes it compatible for installation in any server rack optimizing the space requirement.

Hot swappable design of UPS and battery modules makes the system easier for expansion and maintenance activity without disturbing the loads.

Cold Start function of the UPS provides a higher flexibility to switch on the UPS in battery mode without the availability of mains power supply.

Falcon 7000M with output power factor of 1.0 ensures higher efficiency and higher performance capable of delivering 12.5% more real power when compared with the conventional system.

The power modules share a common battery which gives a complete control on the battery back up and selection of battery capacity.

Battery configuration can be adapted between 32-40 no's of 12V battery blocks which gives flexibility for optimised battery selection.

Scalability

Falcon 7000M provides the flexibility to customize the capacity of UPS based on the power demand ranging from 10KW to 60KW in N+1 configuration and optionally with N+X configuration

Falcon 7000M can have many customized Frame configurations with built-in battery and Transformer options..

Advanced 3 Level Topology

Falcon 7000M incorporates advanced 3 level technology. Fuji Electric 3 level topology is more advantageous than conventional 3 level topology as losses can be reduced.

■ ***Power Module***



■ ***Rack Mount Battery Module***



Rackmount Hot swappable battery module with 32 Nos 7AH Battery

■ ***Customised Frame Configurations***



6+1 UPS Module Configuration



3 UPS Module & 4 Battery Module Configuration

Easy to Install

The power modules of Falcon 7000M are designed with auto configuration function. Once the module is inserted into the slot, the module switches on automatically without any manual intervention.

Rack independent UPS modules makes it flexible for the modules to be installed in a standard 19" server rack.

User Friendly Display

Independent LCD display for each power module with self-starting function provides the full overview of operation conditions and status of the module. It also can be set to display information of whole system.

An optional 10" LCD display is also available to provide the global status of the full system.

Communication Options

The optional but not necessary communication modules provide the extra capability to have extra Dry-Contacts / EPO / RS232 / USB and 2 additional slots for SNMP / Modbus / potential free contact cards to fulfill all the possible communication demands required by customers.

Total Cost of Ownership

Falcon 7000M is an online double conversion UPS fully meeting the requirements of IEC62040-3.

The Eco mode operation of Falcon 7000M guarantees an overall AC-AC efficiency of 99% and an efficiency of up to 94% in online double conversion mode of operation offering the highest efficiency.

■ Rack Installation Kit



■ Comprehensive Monitoring



10" System Level Display
(optional)

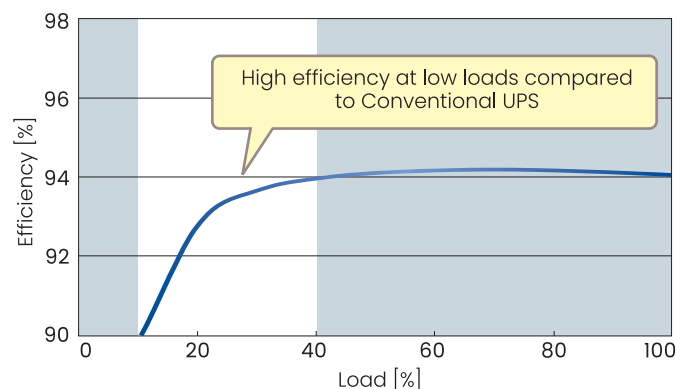


Module Level Display

■ Communication Module



■ Efficiency



Technical Specification

Falcon 7000M

60+10KW Hot Swappable Modular UPS

Model	Falcon 7000M
Input Output Configuration	3 phase in / 3 phase out
Module Capacity	10KVA/10KW
Max Power	60KVA/60KW
Nominal Input Voltage	3 x /380VAC/400VAC/415VAC (3Ph+N+PE)
Input Voltage Range	190-520 VAC (3-phase) @ 50% load
	305-478 VAC (3-phase) @ 100% load
Input Frequency Range	40-70Hz
Input Power Factor	≥0.99 @ 100% load
THDi	< 5% @ Full linear load
Output Voltage	380VAC/400VAC/415VAC (3Ph+N)
Voltage Regulation	± 1%
Freq. Range (Sync.)	46-54Hz or 56-64Hz
Freq. Range (Batt. Mode)	50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz
Current Crest Ratio	3:1 (Max)
Harmonic Distortion	≤ 2 % THD (Linear Load) ≤ 5 % THD (Non-linear Load)
AC Mode to Batt. Mode	Zero
Inverter to Bypass	Zero
Efficiency	
AC Mode	94%
ECO Mode	97%
Battery Numbers	32 ~ 40 pcs (Adjustable)
Nominal Voltage	+/-192V (12V x 32 pcs)
Charging Voltage	± 218V
Charging Current	+/- 4A
LCD/LED Display	UPS Status, Load Level, Battery Level, Input / Output Voltage, Discharge Timer and Fault Conditions
Physical	
Module Dimension (WxDXH in mm)	418 X 678 X 132 [3U]
Module Weight (kgs)	22
Cabinet Dimension (WxDXH in mm)	600 X 1200 X 1200
Cabinet Weight (kgs)	120
Communications Options	RS232 (Standard) SNMP, RS485, Potential Free Contact (Optional)

*at Part Load

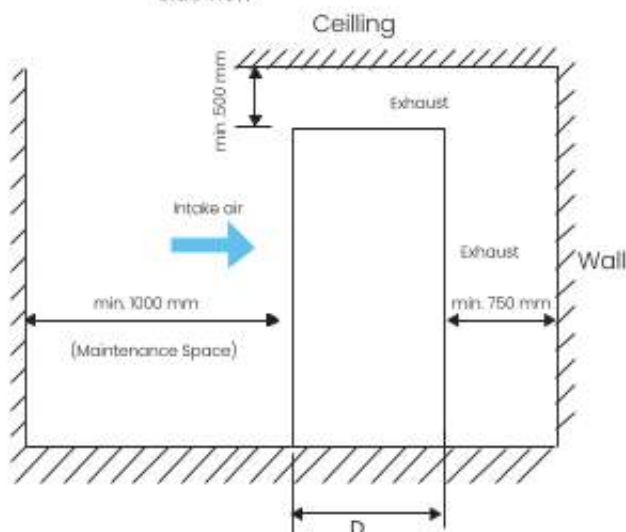
**Specifications are subject to change

UPS Main Unit

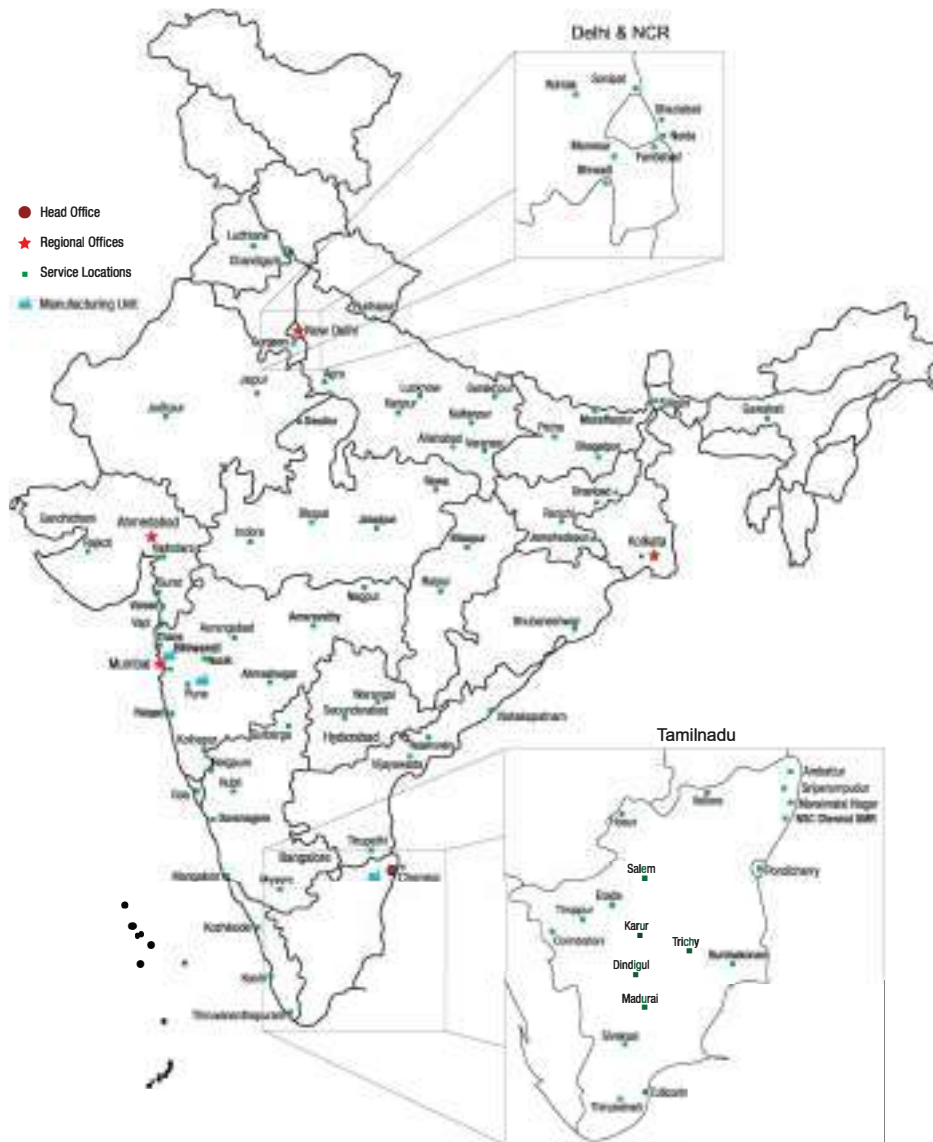
Front View



Side view



Pan India Sales & Service Network



Product Offerings

- Online UPS (1-800 KVA)
- Servo Controlled Voltage Stabilizer (Oil Cooled / Air Cooled)
- Active Harmonic Filter
- Static Transfer Switch
- Isolation Transformer
- Solar Inverter
- Medium Voltage / Low Voltage VFD
- Instrumentation
- Factory Automation
- Process Automation (PLC/HMI/SCADA)

Service Offerings

- Comprehensive Annual Maintenance Contracts (CAMC)
- Annual Maintenance Contracts (Labour - AMC)
- AMC for Third Party Power Products
- Battery Replacement Services
- Power Audits
- Stabilizer Retrofits
- Rental UPS and Stabilizers
- Stabilizer Oil Replacement
- Remote Monitoring

Service Support



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