



# TME Modular Series UPS System

15 - 90 kVA/kW - 208/220 VAC



# TME Modular Series UPS 15-90 kVA/kW

## Highest Technology with Modular Design

GE's TME Series UPS is one of the most reliable three-phase UL UPS modular systems, designed for N+X redundancy, on-line and hot-swappable. The TME Series provides compact footprint with power modularity, achieving up to 90kW in order to guarantee maximum flexibility of system design for any kind of application.

The TME Series UPS provides high efficiency in all operating conditions keeping high level of protection to critical loads connected, minimizing input current distortion and consequently reducing operational costs. This makes TME Series UPS a perfect choice for environmental-friendly solutions.



## Flexible Design for Maximum Suitability

- 15kVA/kW Modular design on-line and hot-swappable
- N+X redundancy up to 270kVA/kW by paralleling 3 cabinets
- Top & Bottom cable entry available as standard
- Movable on wheels for easy handling in narrow environments

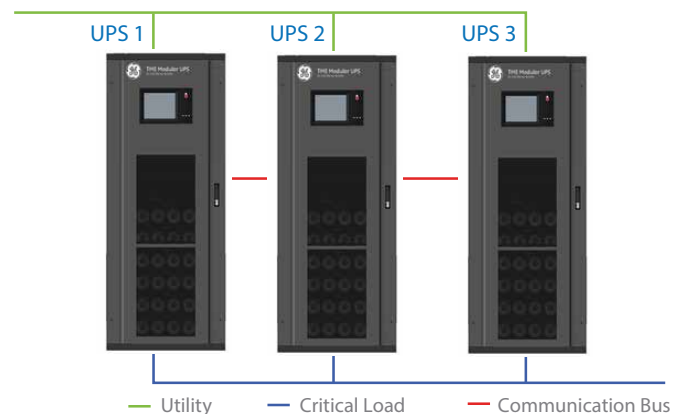
## Highest System Availability

- Excellent output performance with minimized voltage distortion and fast dynamic regulation
- Enhanced handling capability of stressing loads
- Wide accepted input voltage range for maximum compatibility with bad mains
- "Cold Start" available: UPS can be powered on from the battery in absence of input mains

## Key Features

- 15-90kVA/kW modular design
- High power capability up to 270kVA/kW
- On-line efficiency up to 93% and 98% in ECO mode
- Clean input performance with >0.99 PF and <4% THDi
- 125-261V (phase - phase) accepted input voltage minimizes battery operations
- Low Output Voltage distortion <1.5% THDU
- User Friendly 10.4" Touch LCD display
- SNMP card included
- Backfeed protection included
- Maintenance Bypass included

RPA Configuration  
True Redundancy up to 270kVA/kW





# Modular Technology

## Easy System Scalability

Thanks to its modular design, the TME Series UPS can easily scale power hand in hand with load demand, by plugging-in modules while the system is running: no need to switch on bypass.

## Optimized Redundant Architecture (N+X)

The TME Series UPS is based on 15kVA /kW power modules, 3U (5.25 in) high each. Thanks to this, N+X redundancy can be achieved at lower cost than standalone systems, where you need to add full sized UPS, resulting in less space required and minimized installation costs.

## Superior Battery Management (SBM)

Every GE UPS incorporates a standard feature called Superior Battery Management (SBM) that can be configured to periodically test the battery system and calculate true battery runtime using measured values for temperature and load.

### Advantages

- Works with all battery types: Flooded and VRLA
- Programmable features allow the user to select the frequency and type of battery tests that are performed:
  - Frequency range can be from once per week to once annually
  - Test type range can be from deep cycle to 3-min discharges
  - Manual tests can be performed at any time
- Temperature compensated battery charger - prevents overcharging
- Programmable end of discharge voltage - protects against deep discharge
- Deep discharge test (manually) - provides battery performance tracking
- Boost charging - enables fast recharging of batteries



Representative picture

## Higher Reliability with Hot Swappability

TME Series UPS has a design that simplifies Maintenance when a failure occurs. Modules can be hot-swapped safely, without either interrupting protection to the load or putting the system at risk, preventing human errors and reducing Mean Time To Repair (MTTR).

- Waveform capturing capability
- Fan failure detection
- Component life time counters (fan and capacitors)
- IGBT status diagnostic

### Improved reliability and availability

- Dedicated supply for bypass logic
- Dedicated supply for connectivity channels
- Main-board integrated RPA control: RPA board contains only interface hardware

# User Friendly LCD Display

## Intuitive System Data Access

10.4" Touch LCD Display, with self-explanatory graphics for easy access to system metering and Alarm screen.

Multi-language communication interface supporting: English, French and Spanish.

## Modules Monitoring

Detailed system information with dedicated screen for individual power modules: real time monitoring module status, including internal temperature and life counters of consumable parts, improves diagnostic capability of TME Series UPS.

## Scope Function

Real time plotting of UPS provided output voltage as well as connected load current, to provide clear information about how the UPS behaves based on load stressing.

## Advanced Remote Monitoring Capability

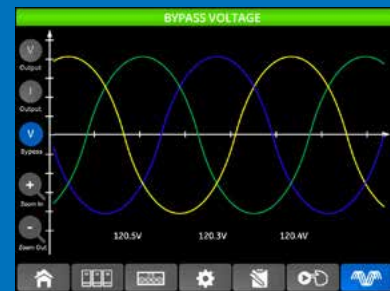
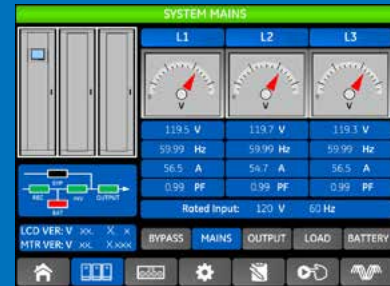
Integrated Relay Card (standard) for easy interface to Building Management Systems (BMS):

- 4 Programmable dry-contacts
- 2 Input dry-contacts for battery breakers interface
- Emergency Power Off (EPO) Contact

## Integrated SNMP Card for Web Monitoring

This Plug-In Card allows the UPS to communicate over a LAN or interface through all major building management systems (BMS).

Integrates a modern web server for UPS monitoring Via LAN, drives remote server shutdown in case of critical UPS alarms and works as Modbus TCP Converter "as well as Modbus RTU 485".



# TME Series Specifications

GENERAL DATA	TME SERIES 15 - 90 KVA/ KW (1 TO 6 MODULES)
Topology	VFI, double conversion
Nominal output power	15-90 kVA/kW
Overall efficiency in VFI mode	up to 93%
Overall efficiency in ECO mode	up to 98%
Audible noise level	65dB(A) full load (at 1 m)
UPS operating temperature range	32-104°F / 0-40°C
Protection degree	IP20 (IEC 60529)
Standards	UL 1778 5th edition
EMC (Electromagnetic Compatibility)	IEC/EN 62040-2, category C3 (FCC PART 15 Class A option)
Colour	RAL 9005 (Black)
External cable connections	Rear site: Top and bottom cable entry
Paralleling	Up to 3 units for redundancy or capacity in RPA configuration (option)

RECTIFIER	
Standard input voltage	3x 208/120V + Neutral + Ground
Rectified accepted ph-ph voltage range	125*-261V (phase - phase, low voltages acceptable with de-rated loads)
Input frequency range	40Hz ÷ 70 Hz
Power factor	>0.99
Input current THD	<4% at 100% linear load

\*conditions apply

BATTERY	
Battery type	Valve regulated lead-acid (VRLA)-standard, Vented lead-acid and wet battery
Float voltage at 68°F / 20°C	272Vdc
GE Battery Solutions	10 years design life VRLA batteries (EUROBAT)
Battery cold start	Available

INVERTER	
Nominal output voltage	3 x 208/120V
Output frequency	60 Hz
Output voltage THD for 100% linear load	<1.5%
Output voltage THD for 100% non-linear load	<6%
Overload capability (at 77°F / 25°C ambient temperature)	110% for 1 hour / 125% for 10 minutes / 150% for 1 minute / >150% for 200ms

## TME Series Specifications (Con .)

BYPASS	
	TME SERIES 15 -90 K VA/K W (1 TO 6 MODULES)
Overload on bypass	110% Long term operation / 111%-130% for 10 mins / 131-150% for 1 min. / >150% for 200ms
Primary components	Internal backfeed protection (circuit breaker) and maintenance bypass (circuit breaker)

INTERFACING	
SNMP Card with iUPS Guard 1 year license	Included

PHYSICAL DATA	
Weights	Cabinet - 617lbs./280kg, Power Module 15kW - 75lbs/34kg
Dimensions (WxDxH)	31.5 x 43.31 x 75 inches - 800x 1100x 1905mm



# TME UPS - Battery Systems

## Battery System Design

2.27VDC/Cell Float, 2.4VDC/Boost, 60 Cells (+ to N) and 60 Cells (- to N), 120 Cells total.

## Battery Cabinet System Applications - VRLA Batteries

UPS POWER RATING	BATTERY RUNTIME (BOL)	NO. OF BATTERIES	NO. OF CABINETS	CABINET WIDTH (IN)	LINEUP WIDTH (IN)	CABINET DEPTH (IN)	CABINET HEIGHT (IN)	CABINET WEIGHT (LBS)	LINEUP WIDTH (LBS)
15kva / 15kw	9	20	1	24	24	42	75	1050	1050
	13	20	1	24	24	42	75	1120	1120
	18	20	1	24	24	42	75	1120	1120
	31	20	1	24	24	42	75	1460	1460
	46	20	1	24	24	42	75	1800	1800
	59	20	1	24	24	42	75	2020	2020
30kva / 30kw	73	20	1	24	24	42	75	2200	2200
	5	20	1	24	24	42	75	1120	1120
	11	20	1	24	24	42	75	1460	1460
	17	20	1	24	24	42	75	1800	1800
	23	20	1	24	24	42	75	2020	2020
	29	20	1	24	24	42	75	2200	2200
	42	20	1	24	24	42	75	2720	2720
	46	40	2	24	48	42	75	1800	3600
45kva / 45kw	59	40	2	24	48	42	75	2020	4040
	73	40	2	24	48	42	75	2200	4400
	7	20	1	24	24	42	75	1800	1800
	13	20	1	24	24	42	75	2020	2020
	16	20	1	24	24	42	75	2200	2200
	24	20	1	24	24	42	75	2720	2720
	26	20	2	24	48	42	75	1800	3600
60kva / 60kw	35	40	2	24	48	42	75	2020	4040
	43	40	2	24	48	42	75	2200	4400
	62	40	2	24	48	42	75	2720	5440
	7	20	1	24	24	42	75	2020	2020
	9	20	1	24	24	42	75	2200	2200
	15	20	1	24	24	42	75	2720	2720
	17	40	2	24	48	42	75	1800	3600
	23	40	2	24	48	42	75	2020	4040
60kva / 60kw	29	40	2	24	48	42	75	2200	4400
	42	40	2	24	48	42	75	2720	5440
	50	60	3	24	72	42	75	2200	6600
	73	60	3	24	72	42	75	2720	8160



## TME UPS - Battery Systems (Cont.)

UPS POWER RATING	BATTERY RUNTIME (BOL)	NO. OF BATTERIES	NO. OF CABINETS	CABINET WIDTH (IN)	LINEUP WIDTH (IN)	CABINET DEPTH (IN)	CABINET HEIGHT (IN)	CABINET WEIGHT (LBS)	LINEUP WEIGHT (LBS)
75kva / 75kw	5	20	1	24	24	42	75	2200	2200
	9	20	1	24	24	42	75	2720	2720
	12	40	2	24	48	42	75	1800	3600
	17	40	2	24	48	42	75	2020	4040
	21	40	2	24	48	42	75	2200	4400
	30	40	2	24	48	42	75	2720	5440
	38	60	3	24	72	42	75	2200	6600
	54	60	3	24	72	42	75	2720	8160
90kva / 90kw	6	20	1	24	24	42	75	2720	2720
	7	40	2	24	48	42	75	2020	4040
	13	40	2	24	48	42	75	2020	4040
	16	40	2	24	48	42	75	2200	4400
	24	40	2	24	48	42	75	2720	5440
	29	60	3	24	72	42	75	2200	6600
	42	60	3	24	72	42	75	2720	8160
	62	80	4	24	96	42	75	2720	10880

## TME UPS - Matching Accessories

Battery Cabinet  
- UP to 4 cabinets



24" w

Input Transformer Cabinet (optional)

- 600V or 480V input
- K13, DOE2016 Xfmr
- 3CB MBP included



30" w

TME Modular Series UPS



24" w

Output Maint Bypass Cabinet (optional)

- 3CB or 2CB, 208V
- Mech or Elect Interlock



12" w

Output Distribution Cabinet (optional)

- 30 or 42 Ckt GE Panel
- Up to (6) 15-225A 3P GE Subfeed CBs



18" w

All matching accessory assemblies are 75"hi and 42"deep

# Power Quality Service

## Performance Through People

Whether you are a large corporation with multiple sites or a small business owner with a single location, GE will enable you to have a constant supply of clean and reliable power to keep your business up and running.

GE has local offices in a number of countries around the globe and also a network of selected business partners, whose salespeople and service engineers combine expertise in our solutions with an in-depth knowledge of local market conditions.

GE's service & authorized service providers business partners, located in more than 100 countries around the world, use all that expertise and knowledge to adapt GE's products and services precisely to their customers' needs.

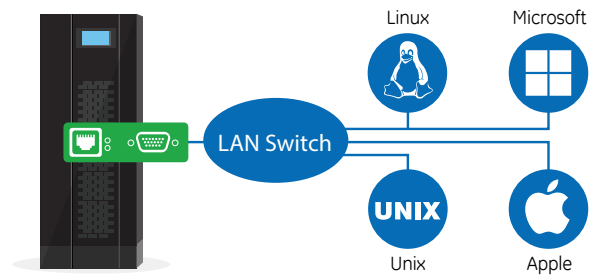
- On site & emergency services
- Service agreements
- Spare parts and repairs
- Support and remote services
- 24/7 Online support

# Software & Connectivity Solutions

## Protection Software

GE Data Protection software can communicate with the UPS over RS-232, USB or SNMP to receive status information and measurement values of the UPS. In case of a critical condition (time on battery, remaining battery autonomy time or low battery) for the load, the software starts a controlled shutdown.

An enhanced alarm management system provides the possibility to start applications, send messages, and send e-mails for every upcoming or disappearing alarm.



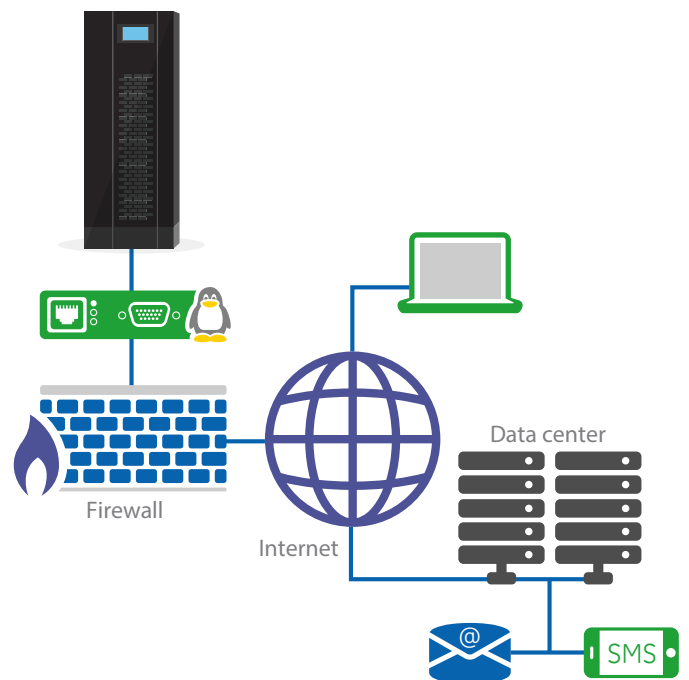
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## Remote Monitoring and Diagnostic Solution (iUPSGuard)

GE remote monitoring solution is an anytime, anywhere concept in UPS status monitoring and alarm notification supporting all GE UPS product lines.

Accessing the latest site information via Web and being alerted by Email or SMS, it enables the user to make timely decisions in case of changing critical conditions. With comprehensive data collection and analysis it improves diagnostics capability and enhances response time.

- 24/7 remote access to your UPS data using standard web browser
- Automatic alerting in case of event direct and immediately to your cell phone or by email
- Regularly operational reports with proactive information on critical data
- Preventative information using PMAD (Preventative Maintenance & Advanced Diagnostics) feature
- Possibility to reduce intervention and onsite work



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