



STACO EM3

THREE PHASE MODULAR UPS

20 - 136 kW | 208/120V

APPLICATIONS INCLUDE

- Data Centers
- Blade Servers & High-Density Server Rooms
- BitCoin Mining Servers & Cryptocurrency Operations
- Hospitals, Medical Facilities, & Pharmaceuticals
- Monitoring Stations & Control Systems in Mission-Critical Infrastructure
- Education & Laboratories

PRODUCT FEATURES

- **High Power Density**
Delivers maximum capacity in a compact footprint, reducing space requirements.
- **Modular & Scalable Design**
Enables incremental expansion as power demand increases.
- **Simplified Integration**
Supports both retrofit and new installations with minimal disruption.
- **High Operating Efficiency**
Optimizes energy usage to reduce operating costs by up to 97% in on-line mode
- **Mission-Critical Reliability**
Ensures continuous, dependable power for critical infrastructure and high-availability environments.





PRODUCT OVERVIEW

The Staco EM3 is a modular, high-performance power platform designed for modern, power-intensive environments. It delivers a compact and adaptable solution that supports evolving infrastructure requirements while maintaining consistent performance.

Engineered for flexibility and growth, the EM3 enables organizations to deploy power efficiently and expand capacity as needs change—without unnecessary complexity.

With advanced EM3U power modules, the system scales from 20 kW up to 136 kW in a single UPS, and up to 544 kW in parallel, providing a resilient power foundation for demanding applications.

KEY BENEFITS

LOWER TOTAL COST OF OWNERSHIP

Reduces upfront investment and ongoing energy costs.

MODULAR & SCALABLE DESIGN

Adapts to demand and future growth.

DEPLOYMENT FLEXIBILITY

Integrates easily into new and existing infrastructures.

BUILT FOR CRITICAL ENVIRONMENTS

Ensures reliable power for high-availability applications



PRODUCT SELECTION CONVENTION

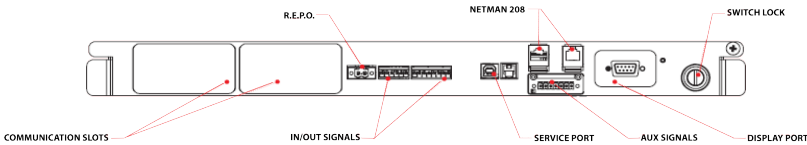
EXAMPLE MODEL NUMBER

EM3	040	C	1	-	02	A	0	0

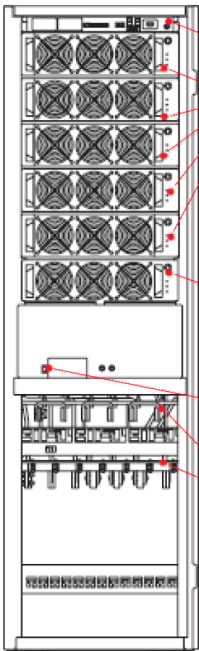
Model	Capacity	Frame	Capacity/ Redundant	Internal Batteries ⁵	Cable Entry ⁶	Communication	Temp Sense
EM3	020 20 kW 034 34 kW 040 40 kW 060 60 kW 068 68 kW 080 80 kW 102 102 kW 136 136 kW	C EM3U 68 Combo Cabinet (With Internal Batteries) ¹ P EM3U 136 Power Cabinet (Requires External Batteries) ²	0 Capacity ³ 1 Redundant ⁴	00 None 02 2 Strings 04 4 Strings 06 6 Strings 08 8 Strings 10 10 Strings 12 12 Strings	A Standard B Top Side/Entry Kit ⁷	0 Standard Integrated Netman 1 Extra Netman Card 2 EM3-Relay Card 3 Extra (2) Netman Cards 4 (2) EM3-Relay Card 9 Extra NetmaCard & EM3-Relay Card	0 None 1 Installed

¹ Combo up to 68kW max
² Power up to 138kW max
³ No extra module
⁴ One extra module
⁵ 02-12 are Combo Frame Only
⁶ On Power Frame Only
⁷ Combo: Top/Bottom; Power:Bottom

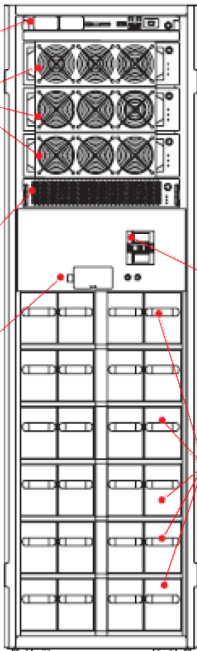
Staco EM3 Connectivity Panel



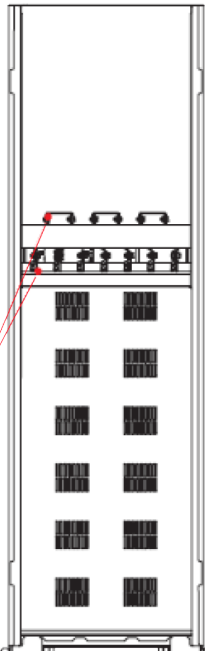
136kW Power Cabinet
System Front



68kW Combo Cabinet
System Front



68kW Combo Cabinet
System Back



STACO EM3

TECHNICAL SPECIFICATIONS

Input		
Related Voltage	208/120V - 220/127V three phase + neutral	
Related frequency	60 Hz / 50 Hz	
Voltage tolerance	124V - 250V ¹	
Frequency tolerance	40 Hz - 72 Hz	
Power factor	0.99	
THDI	<3%	
Bypass		
Nominal current	200 - 500 A (According to system power configuration)	
Rated voltage	208/220V three phase + neutral	
Voltage tolerance	From 162V (adjustable) to 239V (adjustable)	
Rated frequency	60 Hz or 50 Hz	
Frequency tolerance	±5% (selectable)	
Overload	125% for 10 min; 150% for 1 min	
Batteries		
Battery arrangement (parallel systems)	Separate/common	
Type	VRLA	
Recharging method	One level, two level, cyclic recharge (selectable)	
Output		
Rated voltage	208/120V - 220/127V three phase + neutral	
Rated frequency	60 Hz or 50 Hz	
Voltage stability	±1%	
Dynamic stability	EN62040-3 class performance 1% non linear load	
Overall Specifications		
Cabinet type	EM3U 68 Combo Cabinet (Accommodates internal batteries)	EM3U 136 Power Cabinet (Requires external batteries)
UPS nominal output power ²	68 kVA/68 kW	136 kVA/ 136 kW
Cabinet layout description	3 x 34kW Power Modules (with N+1) or 3 x 20kW Power Modules+6x battery shelves ³	5 x 34kW Power Modules (with N+1) or 5x20kW Power Modules
Parallelable up to	4 units	
Dimensions	78.5”H x 23.6”W x 41.3”D (1995mm H x 600mm W x 985mm D)	78.5”H x 23.6”W x 37.0”D (1995mm H x 600mm W x 940mm D)
Weight ⁴	2,582 lbs. / 1,171 kg	1,190 lbs. / 540 kg
System noise level	<62 dBA	<66 dBA
Cabinet IP rating	IP20	
Efficiency ON LINE mode	Up to 97%	
Cable Input	Rear side either top or bottom	Front access - bottom (top with optional side cabinet)
Color	RAL 9005	
Ambient temp. for the UPS	32 - 104°F / 0-40°C	
Ventilation	Front to rear (Top on request)	
Standards	UL 1778 5th Edition CSA C22.2 107. -14, FCC Part 15 Subpart B class A - IEC 62040-3	
Moving UPS cabinet types	Wheels (cabinets shipped without Power Module (PM) & Battery Module (BM))	

¹ Conditions apply.

² Power rating between 68 kW and 136 kW can be settled with a selected number of Power Modules.

³ 12 strings max

⁴Weight including Power Modules to reach nominal full power and batteries (only for combo configurations).

STACO SERVICE

FIELD SERVICE PROGRAM

Staco specializes in providing choice and flexibility by developing tailored solutions for preventive and remedial maintenance services, as well as emergency repairs for all of our products. Staco Service is built upon a nationwide network of highly trained and motivated customer support engineers and technicians who can provide professional services and care throughout the life of your equipment.

- Start-Ups
- Preventive Maintenance
- Spare Parts
- Battery Analysis/Refresh/Replacement
- On-Site Training
- Time & Material Services
- Maintenance Contracts/ Agreements

WHY STACO ENERGY PRODUCTS?

BECAUSE WE ARE YOUR CUSTOM POWER SOLUTIONS PROVIDER!

Unique application design demands, harsh environment concerns, the need to meet non-standard physical space requirements; providing the "not so usual" is what we do best. From leading edge uninterruptible power supplies, power conditioners, to the world's most stable voltage control systems, we have the technology you need to protect and manage your business, and the knowledge to make it work for you.

Since 1937, customers worldwide have relied on Staco Energy as their custom solutions provider, to solve a wide range of electrical power problems. Headquartered in Miamisburg, Ohio, Staco Energy Products is a wholly owned subsidiary of Components Corporation of America, located in Dallas, Texas.

Voltage Control



UPS & Emergency Lighting



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