

• High efficiency online double conversion technology

LM series is applied online double conversion technology with high efficiency up to 96% at over 50% load and 95% at 25% light load. It significantly reduces overall Total Cost of Ownership (TCO).

• High scalability

DSP control provides an improved solution with high performance. Integrated with modular design and parallel technology, +Power simplifies future power expansion.

• Unity output power factor

LM series delivers unity output power (kVA=kW) providing the maximum power capacity to mission critical loads. It satisfies the requirements of the latest servers and optimizes IT investment with every penny.

• Modular design lowers MTTR

Modular design is applied in power module, STS module and battery module. It will simplify maintenance and replacement with low MTTR (Mean Time To Repair).

• Ease of installation and maintenance

Built-in maintenance bypass assures continuous power to critical loads during UPS maintenance. Besides, to facilitate installation and maintenance, all panel control and connectors are front accessibility.

• Flexible battery configuration adapts different applications

Battery numbers can be adjusted flexibly. It will adapt different power demands and shorten system downtime. Battery voltage can be set from 32 to 40 pieces per string.

• Adjustable charging current

LM series provides maximum 8A charging current for every power module and it's adjustable based on requirement.

• High overload capability

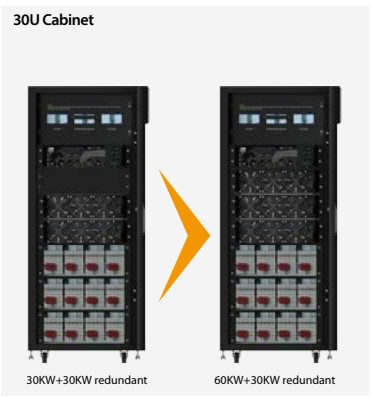
LM series supports, 110% overload for 60 minutes, 120% for 10 minutes, and 150% for 1 minute.

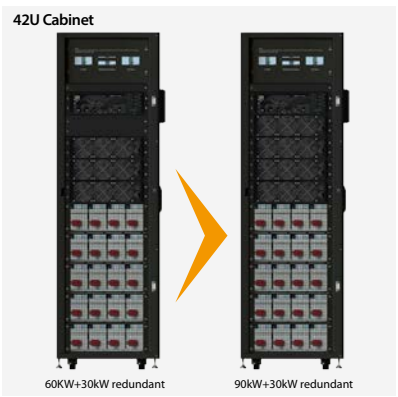
• Graphic 5.7" LCD design for easy management

Designed for easy management, +Power is equipped with 5.7" graphic LCD screen. Intuitive design enhances display information identified and advanced configuration.

• N+1 or N+X parallel redundancy for power guarantee

Scalable architecture allows you to optimize cost expense to meet power demands by vertically expanding in a single rack enclosure from 30KVA to 250KVA and achieve N+1 or N+X redundancy in the same rack.





Modular UPS Selection Guide

MODEL	LM30K	LM60K	LM90K	LM120K	LM150K	LM180K	LM210K
PHASE	3-phase in/3-phase out						
TOTAL CAPACITY*	40KVA / 30KW	80KVA / 60KW	120KVA / 90KW	150KVA / 120KW	180KVA / 150KW	210KVA / 180KW	250KVA / 210KW
UPS POWER MODULES	1	2	3	4	5	6	7
TOPOLOGY	True Double-Conversion Online						
INPUT							
Nominal Voltage	3 x 400 VAC (3Ph+N)						
Voltage Range	305 ~ 477 VAC @Full load; 208 ~ 304VAC@ <70% Load						
Nominal Frequency	50/60Hz (Auto Sensing)						
Frequency Range	40Hz ~70Hz						
Power Factor	> 0.99 @ 100% Load , >0.98 @ 50% Load						
Harmonic Distortion (THDi)	< 3% @ 100% load						
OUTPUT							
Nominal Voltage	3 x 400 VAC (3Ph+N)						
Voltage Regulation (Steady state)	≦ ± 1% Typical (balanced load) ; ≦ ± 2% Typical (unbalanced load)						
Voltage Regulation (Transient)	≦ ± 5% Typical						
Nominal Frequency	50/60Hz						
Frequency Range (Synchronized)	46Hz ~ 54Hz or 56Hz ~ 64Hz						
Overload Capability	1 hour for 110%, 10 mins for 120%,; 1 min for 150%, 200ms for >150%						
Harmonic Distortion	≦1% THD (Linear Load) ; ≦ 4% THD (Non-linear Load)						
Efficiency	> 96% @ over 50% Load, > 95% @ over 25% Load						
BATTERY / CHARGER							
Nominal Voltage	+/- 216V (12V x 36 pcs)						
Maximum Voltage	+/- 240 (12V x 40 pcs)						
Minimum Voltage	+/- 192V (12V x 32 pcs)						
Float Charging Voltage	2.25V / Cell						
Boost Charging Voltage	2.35V / Cell						
Temperature Compensation	Yes						
Maximum Charging Current	8A (User-adjustable)						
PHYSICAL							
Medium Size, D x W x H(mm)	1100 x 600 x 1485 (30U) mm			-			
Full Size, D x W x H(mm)	1100 x 600 x 2030 (42U) mm						
ENVIRONMENT							
Operation Temperature	0 ~ 40°C						
Relative Humidity	0 ~ 95% non-condensing						
Altitude	<1000m for Nominal power						
IP Class	IP 20						
MANAGEMENT							
Smart RS-232 / USB	Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix, and MAC						
Optional SNMP	Power management from SNMP manager and web browser						
STANDARDS							
Safety	IEC/EN 60950-1; IEC/EN 62040-1						
EMC	IEC/EN 62040-2 Category C3						

* When temperature is above 30°C, the output power will be derated, 27kW @ 31 ~ 35°C and 24kW @ 36 ~ 40°C.
* Note: One battery module contains 10 pcs of 12V/7Ah or 12/9Ah sealed lead acid batteries.
One power module provides 30kW power capacity
Product specifications are subject to change without further notice.

System Cabinet Selection

Complete System Cabinet							
Chassis Size	**Medium size (30U)**			**Full size (42U)**			
Capacity	30KW	60KW	90KW	30KW	60KW	90KW	120KW
Power Module Units	1	2	3	1	2	3	4
Power Redundancy Availability	Yes, 1+1	Yes, 2+1	No	Yes, 1+1	Yes, 2+1	Yes, 3+1	No
Built-in Battery	Yes, 80pcs	Yes, 120pcs	Yes, 120pcs *External battery cabinet is necessary.	Yes, 80pcs	Yes, 120pcs	Yes, 200pcs	Yes, 200pcs *External battery cabinet is necessary.

Long Backup Cabinet (Including power modules, STS module and Input/Output control module)							
Chassis Size	**Full size (42U)**						
Capacity	30KW	60KW	90KW	120KW	150KW	180KW	210KW
Power Module Units	1	2	3	4	5	6	7
Power Redundancy Availability	Yes, 1+1	Yes, 2+1	Yes, 3+1	Yes, 4+1	Yes, 5+1	Yes, 6+1	Yes, 7+1
Built-in Battery	No External battery is depending on customer's application. For detailed battery spec, please check us first.						