

Professional Series



Green
Power



Environmental
Friendly



Energy
Saving



Modular Plus⁺ Series

Modular True Double Conversion Online UPS



- High Efficiency Online Double Conversion Technology
- Modular Design lowers MTTR (Mean Time to Repair)
- N+1 or N+X Parallel Redundancy for Power Guarantee
- Graphic 5.7" LCD Display
- Optional 10" touch LCD Panel
- High Scalability
- Unity Output Power Factor - 1.0
- Flexible Battery Configuration Adapts Different Applications
- High Reliable Operation with Redundant Power Supply in STS
- High Overload Capability
- Comes with RS232/USB Port, Smart Slot & Power Management Software



• Software •



• 2 Years •
Warranty

Professional Series

High Efficiency Online Double Conversion Technology

Modular Plus uses online double conversion technology with high efficiency rate 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 simplifies future power expansion.

Unity Output Power Factor

Modular Plus delivers unity output power ($kVA=kW$) providing the maximum power capacity to mission critical loads.

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).

N+1 or N+X Parallel Redundancy for Power Guarantee

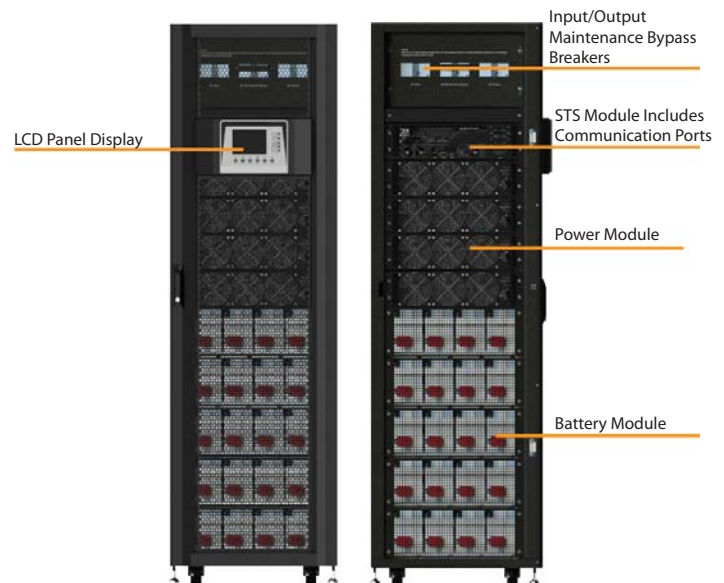
Scalable architecture allows you to optimize cost expense to meet power demands by vertically expanding in a single rack enclosure from 30KVA to 210KVA and achieve N+1 or N+X redundancy in the same rack

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

Modular Plus provides maximum 8A charging current for every power module and its adjustable based on requirement.

High Reliable Operation with Redundant Power Supply in STS

Modular Plus provides 2 power supplies in STS, ensuring no risk of shutdown.

High Overload Capability

Modular Plus supports 110% overload for 60 minutes, 125% for 10 minutes and 150% for 1 minute

Graphic 5.7" LCD Design for Easy Management

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

Optional 10" Touch LCD Panel



*Specification subjects to change without prior notice

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RIGHT POWER

The Power Of Continuity

Technical Specification:

MODEL	M+ 20K	M+ 40K	M+ 60K	M+ 80K	M+ 100K	M+ 120K	M+ 140K	M+ 200K
TOTAL CAPACITY*	20KW	40KW	60KW	80KW	100KW	120KW	140KW	200KW
UPS POWER MODULES	1	2	3	4	5	6	7	10
PHASE	3-Phase in / 3-phase out							
TOPOLOGY	True Double-Conversion Online							
INPUT								
NOMINAL VOLTAGE	3 x 380VAC/400VAC/415VAC (3Ph+N)							
VOLTAGE RANGE	305 ~ 478VAC @ Full load; 208 ~ 478VAC @ <70% Load							
NOMINAL FREQUENCY	50 or 60Hz (Auto-Sensing)							
FREQUENCY RANGE	40Hz ~ 70Hz							
INPUT POWER FACTOR	>0.99 @ 100% Load , >0.98 @ 50% Load							
HARMONIC DISTORTION (THDi)	<3% @ 100% Load							
OUTPUT								
NOMINAL VOLTAGE	3 x 380VAC/400VAC/415VAC (3Ph+N)							
OUTPUT POWER FACTOR	1.0							
VOLTAGE REGULATION	≤±1% Typical (balanced load) ; ≤±2% Typical (unbalanced load)							
NOMINAL FREQUENCY	50 or 60Hz							
FREQUENCY RANGE (SYNCHRONIZED)	46Hz ~ 54Hz or 56Hz ~ 64Hz							
OVERLOAD CAPACITY	1 Hour for 110%, 10mins for 125% ; 1min for 150%, 200ms for >150%							
HARMONIC DISTORTION	≤ 2% THD (Linear Load) ; ≤ 4% THD (Non-Linear Load)							
EFFICIENCY	Up to 94.5%							
BATTERY CHARGER								
NOMINAL VOLTAGE	+/-216V (12V x 36pcs)							
MAXIMUM VOLTAGE	+/-240V (12V x 40pcs)							
MINIMIUM VOLTAGE	+/-192V (12V x 32pcs)							
FLOAT CHARGING VOLTAGE	2.25V/Cell							
BOOST CHARGING VOLTAGE	2.35V/Cell							
TEMPERATURE COMPENSATION	Yes							
MAXIMUM CHARGING CURRENT	8A for each power module (User-adjustable)							
STATUS INDICATION								
LCD DISPLAY	Graphic 5.7" LCD Display Optional 10" Touch LCD Panel							
COMMUNICATION								
POWER MANAGEMENT SOFTWARE	Support Window Family, Linux & MAC							
INTERFACE	RS 232 / USB Port							
SNMP Slot	Yes							
ENVIRONMENT								
OPERATION TEMPERATURE	0 - 40°C							
RELATIVE HUMIDITY	0 - 95% non-condensing							
ALTITUDE	<1000m for Nominal Power							
IP CLASS	IP 20							
STANDARDS								
SAFETY	IEC/EN 60950-1 ; IEC/EN 62040-1							
EMC	IEC/EN 62040-2 Category C3							

Power Module Dimension

DESCRIPTION	DIMENSION (DxWxH)mm	WEIGHT (KG)
3P/3P 20KVA/20KW POWER MODULE	650 x 440 x 132 (3U)	34

Chassis Dimension

DESCRIPTION	DIMENSION (DxWxH)mm	MAX POWER MODULE / MAX BATTERY MODULE
M+ CHASSIS DIMENSION (DxWxH)mm	1100 x 600 x 1475 (30U)	Max 3 Power Module + Max 3 Battery Module
	1100 x 600 x 1475 (30U)	Max 6 Power Module
	1100 x 600 x 2010 (42U)	Max 7 + 1 Power Module (N+ 1)
	1100 x 600 x 2010 (42U)	Max 4 Power Module + 5 Battery Module
	1100 x 600 x 2010 (42U)	Max 10 Power Module
M+R CHASSIS DIMENSION (DxWxH)mm	1000 x 515 x 760 (15U)	Max 3 Power Module
	1000 x 515 x 1475 (30U)	Max 3 Power Module + Max 3 Battery Module

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Technical Specification:

MODEL	M+ 30K	M+ 60K	M+90K	M+ 120K	M+ 150K	M+ 180K	M+ 210K	M+ 300K
TOTAL CAPACITY*	30KW	60KW	90KW	120KW	150KW	180KW	210KW	300KW
UPS POWER MODULES	1	2	3	4	5	6	7	10
PHASE	3-Phase in / 3-phase out							
TOPOLOGY	True Double-Conversion Online							
INPUT								
NOMINAL VOLTAGE	3 x 380VAC/400VAC/415VAC (3Ph+N)							
VOLTAGE RANGE	305 ~ 478VAC @ Full load; 208 ~ 478VAC @ <70% Load							
NOMINAL FREQUENCY	50 or 60Hz (Auto-Sensing)							
FREQUENCY RANGE	40Hz ~ 70Hz							
INPUT POWER FACTOR	>0.99 @ 100% Load , >0.98 @ 50% Load							
HARMONIC DISTORTION (THDi)	< 3% @ 100% Load							
OUTPUT								
NOMINAL VOLTAGE	3 x 380VAC/400VAC/415VAC (3Ph+N)							
OUTPUT POWER FACTOR	1.0							
VOLTAGE REGULATION (STEADY STATE)	≤ ±1% Typical (balanced load) ; ≤ ±2% Typical (unbalanced load)							
NOMINAL FREQUENCY	50 or 60Hz							
FREQUENCY RANGE (SYNCHRONIZED)	46Hz ~ 54Hz or 56Hz ~ 64Hz							
OVERLOAD CAPACITY	1 Hour for 110%, 10mins for 125% ; 1min for 150%, 200ms for >150%							
HARMONIC DISTORTION	≤ 2% THD (Linear Load) ; ≤ 4% THD (Non-Linear Load)							
EFFICIENCY	Up to 94.5%							
BATTERY CHARGER								
NOMINAL VOLTAGE	+/-216V (12V x 36pcs)							
MAXIMUM VOLTAGE	+/-240V (12V x 40pcs)							
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FLOAT CHARGING VOLTAGE	2.25V/Cell							
BOOST CHARGING VOLTAGE	2.35V/Cell							
TEMPERATURE COMPENSATION	Yes							
MAXIMUM CHARGING CURRENT	8A for each power module (User-adjustable)							
STATUS INDICATION								
LCD DISPLAY	Graphic 5.7" LCD Display							
	Optional 10" Touch LCD Panel							
COMMUNICATION								
POWER MANAGEMENT SOFTWARE	Support Window Family, Linux & MAC							
INTERFACE	RS 232 / USB Port							
SNMP Slot	Yes							
ENVIRONMENT								
OPERATION TEMPERATURE	0 ~ 40°C							
RELATIVE HUMIDITY	0 - 95% non-condensing							
ALTITUDE	<1000m for Nominal Power							
IP CLASS	IP 20							
STANDARDS								
SAFETY	IEC/EN 60950-1 ; IEC/EN 62040-1							
EMC	IEC/EN 62040-2 Category C3							

Power Module Dimension

DESCRIPTION	DIMENSION (DxWxH)mm	WEIGHT (KG)
3P/3P 30KVA/30KW Power Module	650 x 440 x 132 (3U)	34.5

Chassis Dimension

DESCRIPTION	DIMENSION (DxWxH)mm	MAX POWER MODULE / MAX BATTERY MODULE
M+ CHASSIS DIMENSION (DxWxH)mm	1100 x 600 x 1475 (30U)	Max 3 Power Module + Max 3 Battery Module
	1100 x 600 x 1475 (30U)	Max 6 Power Module
	1100 x 600 x 2010 (42U)	Max 7 + 1 Power Module (N+ 1)
	1100 x 600 x 2010 (42U)	Max 4 Power Module + 5 Battery Module
	1100 x 600 x 2010 (42U)	Max 10 Power Module
M+R CHASSIS DIMENSION (DxWxH)mm	1000 x 515 x 760 (15U)	Max 3 Power Module
	1000 x 515 x 1475 (30U)	Max 3 Power Module + Max 3 Battery Module

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