

# Mod II Series Modular UPS

## 20kVA - 200kVA

**20KVA MODULAR UPS**  
- Three Phase



- **High efficiency online double conversion technology**

Mod II is applied with online double conversion technology to reach its high performance over 94.5% at 50% 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, ModII simplifies future power expansion.

- **Unity output power factor**

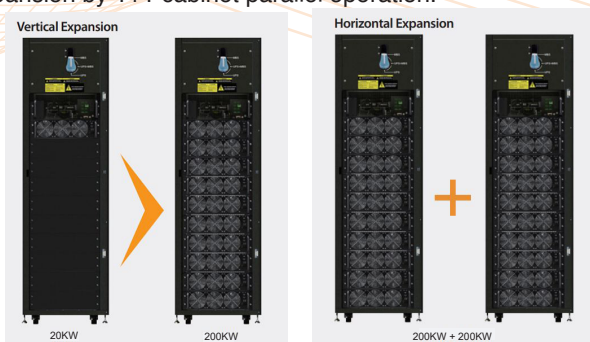
Mod II delivers unity output power (kVA=kW) providing the maximum power capacity to mission critical loads. It satisfies the requirements of the latest servers and optimizes IT investment with every penny.

- **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).

- **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 20KVA to 200KVA and achieve N+1 or N+X redundancy in the same rack. Mod II also supports horizontal expansion by 1+1 cabinet parallel operation.



- **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.

- **Highly reliable operation with redundant power supply in STS**

Mod II provides 2 power supplies in STS, ensuring no risk of shutdown.

- **User-adjustable charging current**

Mod II provides maximum 6A charging current for every power module and it's user-adjustable based on requirement.

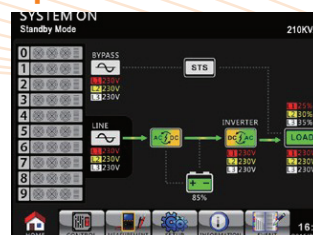
- **High overload capability**

Mod II 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, the intuitive design of 5.7" graphic LCD display enhances the readability of identified and advanced configuration.

- **Optional 10" touch LCD panel**



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## Technical Specification

MODEL	Mod II 20	Mod II 40	Mod II 60	Mod II 80	Mod II 100	Mod II 120	Mod II 140	Mod II 160	Mod II 180	Mod II 200
Phase	3 Phase In / 3 Phase Out									
Power Module Type	20kVA/20KW									
Power Rating	20kVA	40kVA	60kVA	80kVA	100kVA	120kVA	140kVA	160kVA	180kVA	200kVA
<b>INPUT</b>										
Nominal Voltage	3 x 380VAC / 400VAC / 415VAC (3Ph+ N)									
Voltage Range	305 ~ 478 VAC at 100% load ; 208 ~ 478 VAC at <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									
<b>OUTPUT</b>										
Nominal Voltage	3 x 380VAC / 400VAC / 415VAC (3Ph+ N)									
Voltage Regulation (Steady State)	< ± 1% Typical (balance load) ; < ± 2% Typical (unbalance load)									
Nominal Frequency	50Hz / 60Hz									
Frequency Range	46Hz ~ 54Hz or 56Hz ~ 64Hz									
Overload Capacity	1hour 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%									
<b>BATTERY / CHARGER</b>										
Nominal Voltage	+/- 216V (12V x 36pcs)									
Maximum Voltage	+/- 240V (12V x 40pcs)									
Minimum Voltage	+/- 192V (12V x 32pcs)									
Float Charging Voltage	2.25V/Cell									
Boost Charging Voltage	2.35V/Cell									
Temperature Compensation	Yes									
Maximum Charging Current (Per Power Module)	6A									
<b>COMMUNICATIONS / MANAGEMENT</b>										
Smart RS-232 / USB	Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7/8/10, Linux and MAC									
Optional SNMP	Power management from SNMP manager and web browser									
<b>STANDARDS / APPROVALS</b>										
Safety	IEC/EN 60950-1 ; IEC/EN 62040-1									
EMC	IEC/EN 62040-2 Category C3									
<b>ENVIRONMENT</b>										
Operating Temperature	0 ~ 40°C									
Relative Humidity	0% ~ 95% Non-Condensing									
Altitude	< 1000m for Nominal Power									
IP Protection	IP-20									
<b>PHYSICAL PROPERTIES</b>										
Power Module (W x D x H) mm	490 x 736.5 x 133									
Net Weight (kg)	34.5									
Battery Module	107 x 710 x 154									
Cabinet Dimension (W x D x H) mm	515 x 1000 x 753 (15U) / 600 x 1100 x 1475 (30U) / 600 x 1100 x 2010 (42U)									
Net Weight (kg)	230.5 or 273									

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\* When temperature is above 30°C , the output power factor will be de-rated, 0.9 at 31°C ~35°C and 0.8 at 36°C ~40°C .

\*\* One battery module contains 10 pcs of 12V/7Ah or 12/9Ah sealed lead acid batteries in one tray.

One complete battery set contains 4 battery modules.

\*\*\*If the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.

• \* Changes to the specification contained in this document, and to prices are reserved; so are errors and omissions.

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