

M Series UPS

100 - 260 kVA 208 Vac 3Ph



Online double conversion Modular UPS with parallel cabinet architecture, N+X parallel module redundancy and multi-language touch screen display.

M Series UPS is for internet service providers, banking, medical and telecommunication data centers, industrial control rooms and corporate offices.

FEATURES

Clean power

Online double conversion UPS with sine wave output

Power factor corrected conversion minimizes input current THD to less than 3%

'Step-by-step' transfer from battery mode to AC mode minimizes impact on mains supply

Low energy consumption and cost of ownership

Low energy consumption with efficiency of up to 95%

High input power factor of 0.99% minimizes energy consumption and hardware installation costs

Eco mode for system and sleep mode for modules is available to reduce energy consumption

Simulated 75% load test returns power to the grid

Advanced battery management

Maximizes battery life with intelligent three-level charging

Displays estimated battery backup and tests for battery capacity

Flexible, scalable and reliable

Front and rear access cabinets

Hot swappable power modules with individual display screens

Parallel operation of up to four UPS cabinets (three 260kVA cabinets)

Synchronized transfer to bypass for all parallel units

Firmware upgradable using RS485 port

UPS management PC software - Muser 4000

Options

External battery cabinet frames

Remote monitor

RS232 USB converter

SNMP card

Relay card

Parallel cable

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SPECIFICATIONS

UPS Cabinet Frame	M 3320A-100K MF	M 3320A-160K MF	M 3320A-260K MF
Capacity kVA / kW	100 / 90	160 / 144	260 / 234
Module slots (total height U)	5 (15 U)	8 (24 U)	13 (39 U)
UPS module kVA	20	20	20
AC input breaker Amp	3ph 400 A / 800 Vac	3ph 500 A / 800 Vac	3ph 800 A / 1000 Vac
AC output breaker Amp	3ph 400 A / 800 Vac	3ph 500 A / 800 Vac	3ph 800 A / 1000 Vac
Bypass breaker Amp	3ph 400 A / 800 Vac	3ph 500 A / 800 Vac	3ph 800 A / 800 Vac
DC battery breaker	option	option	option
Cable access	front	top, back	front, back
Weight Kg w/o modules	205	310	450
H x W x L mm	1600 x 600 x 860	2000 x 600 x 860	2000 x 1200 x 860

Installation Data	100kVA	160kVA	260kVA
AC input cable mm ²	150	120 (2)	185 (2)
AC output cable mm ²	120	95 (2)	150 (2)
DC input cable mm ²	120 (2)	150 (2)	185 (3)
Grounding cable mm ²	70	120	185 (2)

UPS Module	M 3320AM
Capacity kVA / kW	20 / 18
Charge current max Amp	10
Heat dissipation W	1240
Required air volume m ³ /hr	910
Short circuit duration (200ms)	I _p : 164 A / I _{rsm} : 116 A
Overload capacity in bypass	150% continuously, 1000% 20ms
Height	3 U
Weight Kg	

External Battery Cabinet Frame	M 24-065-144 BF	M 24-100-144 BF	M 24-120-144 BF
DC voltage	± 144 Vdc	± 144 Vdc	± 144 Vdc
12 V battery size	65 Ah	100 Ah	120 Ah
Battery layout	24 batteries (4 levels X 6)	24 batteries (4 levels X 6)	24 batteries (4 levels X 6)
DC breaker	250 A	400 A	400 A
Weight Kg w/o battery	197	197	197
H x W x L mm	1600 x 600 x 850	2000 x 600 x 850	2000 x 600 x 850

*Batteries not included.

MODULAR ONLINE DOUBLE CONVERSION UPS

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SPECIFICATIONS

AC Input

Rated voltage	120/208 Vac or 127/220 Vac (3 phase, 4 wire and ground)
Voltage range operating	72 - 125 Vac or 160 - 275Vac
Input power factor	>0.99%
Input frequency	40 - 70 Hz
THD	<3% 100% non-linear
Bypass range	Max. voltage: +25% (default: +15%), Min. voltage: -40% (default: -20%), Frequency: \pm 10% (default: \pm 1%)

AC Output

Rated voltage	120/208 Vac or 127/220 Vac (3 phase, 4 wire and ground)
Voltage regulation	\pm 2%
Efficiency	Up to 95%
Output frequency	synchronous with the network / 50/60 Hz \pm 0.1% battery mode
THD	<2% linear load, <5% non-linear load
Crest factor	3:1
Overload AC mode	<110% 60 min, <125% 10 min, <150% 1 min, >150% bypass
Overload battery mode	<110% 60 min, <125% 10 min, <150% 1 min, >150% shutdown

External Battery Requirements

DC nominal	+/- 144 Vdc
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General Specifications

Parallel operation	Up to 4 cabinets (up to three 260kVA cabinets)
Communication	RS232, RS485 (2), USB, expansion slots (2), parallel (2), dry contact (4), remote emergency power off, battery temp (2), LCD
Protocol / software	Megatec, MODBUS / MUSER 4000
Temperature	Operating 0 to +40° C, Storage -25 to +55° C
Altitude	< 1500 M
Humidity	\leq 95% non-condensing