

Matrix UPS 60KVA-90KVA

Features:

- High efficiency online double conversion technology
- Output power factor 1
- N+1 (or more) Parallel redundancy – High reliability
- Wide input frequency range 40Hz-70Hz
- Wide input voltage range 305-478 VAC at 100% load 208-478 VAC <70% load
- Flexible power modul 20KW/30KW
- Modular design lowers MTTR
- Adjustable battery numbers
- Adjustable charging current
- Built-in maintenance bypass switch for easy maintenance without interruptible
- Graphic 5.7" LCD design for easy configuration

Power expansion

Integrate DSP control technology ,
modular design and parallel technology
Vertically expansion in a single rack enclosure

- **High efficiency**

Up to 94.5%

- **High overload capability**

110% overload for 60 minutes

125% for 10 minutes

150% for 1 minute

- **Flexible battery configuration**

Battery voltage can be adjusted : 32/36/40 pieces per string

- **Adjustable charging current**

Adjustable 6-8A charging current for each power module

- **6A- 20KW model**

8A- 30KW model

Internal & external battery cabinet

- **N+1 or N+X**

parallel redundancy for power guarantee



Specifications

MODEL	Matrix 60	Matrix 90
PHASE	3-phase in/3-phase out	
MAX CABINET CAPACITY*	60KW	90KW
BATTERY TYPE	External Battery	
One Power Module Capacity	20KVA/20KW	20KVA/20KW or 30KVA/30KW
Max. Power Module No.	3	
INPUT		
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 at 100% load, >0.98 at 50% load	
Harmonic Distortion (THDi)	< 3% @ 100% load	
OUTPUT		
Nominal Voltage	3 x 380VAC/400VAC/415VAC (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 range)	46Hz ~ 54Hz or 56Hz ~ 64Hz	
Overload Capability	1 hour for 110%, 10 mins for 125%, 1 min for 150% and 200ms for >150%	
Harmonic Distortion	≤ 1.5% THD (Linear Load) ≤ 4% THD (Non-linear Load)	
Efficiency	Up to 94.5%	
BATTERY / CHARGER		
Nominal Voltage	+/- 216V (12V x 36 Pcs)	
Maximum Voltage	+/- 240V (12V x 40 Pcs)	
Minimum Voltage	+/- 192V (12V x 32 Pcs)	
Floating Charge Voltage	2.25V/Cell	
Boost Charging Voltage	2.35V/Cell	
Temperature Compensation	Yes	
Maximum Charging Current	8A for 30KW power module (User-djustable) 6A for 20KW power module (User-adjustable)	
PHYSICAL		
Cabinet Dimension (D x W x H) mm	1000 x 515 x 760	
Net Weight (kgs)	182	183.5
ENVIRONMENT		
Operation Temperature	0 ~ 40°C	
Relative Humidity	0 ~ 95% non-condensing	
Altitude ***	< 1000m for Nominal power	
IP Class	IP 20	
MANAGEMENT		
RS-232/USB	Supports Windows 2000/2003/XP/Vista/2008/7, Linux 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 factor will be de-rated, 0.9 at 31°C~35°C and 0.8 at 36°C~40°C.

***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.
Characteristics subject to change without prior notice

Model	Description	Dimension DxWxH(mm)	Weight (kg)
M – module 20KW	3P/3P 20KVA/20KW power module	650x440x132(3U)	34
M – module 30KW	3P/3P 30KVA/30KW power module	650x440x132(3U)	34.5
Internal Battery Cabinet	120 pcs of 12V9Ah batteries	1000 x 514 x 610	387