

# ModVI SERIES

## 120kVA - 600kVA

**MODULAR UPS**  
- Three Phase

### Features

- High Frequency True Online Double Conversion Technology
- Unity Power Factor (VA=W)
- Very Low Input harmonic distortion (THDi < 3%)
- The ModVI series supports vertical and horizontal scalability i.e. maximum vertical expansion is 600KW and horizontal expansion up to 1.2MW.
- The ModVI Series is compatible with both Valve Regulated Lead Acid (VRLA) and Lithium Ion rechargeable batteries.
- Hot Swappable Power Modules reduce Mean Time To Repair (MTTR) by allowing replacement without shutting down or transferring to a main power source.
- Built in security protection by dynamic password
- Power walk-in function to achieve progressive rectifier start-up
- Additional intelligent slot for UPS monitoring via SNMP, AS400 or Modbus card.



500KW / 600KW

300KW / 420KW

120KW / 180KW

### ModVI Series 120KVA to 600KVA

- 10" touch LCD screen**
  - Dynamic power flow in colour screen
  - Operation status for each power Module
  - Configurable charging current via LCD panel based on various batteries combination
- Security Lock**
- Switch Unit**
- Power Module**
  - Expand capacity by adding power up to 10 modules
  - N + 1 parallel redundancy for power guarantee
- Multiple Communication**



42U Cabinet



42U 600KW Cabinet

### 1 + 1 Cabinet Parallel Operation

- Maximum 1200KW supported output power



# ModVI SERIES

## Technical Specification

MODEL	ModVI 120	ModVI 180	ModVI 300	ModVI 420	ModVI 500	ModVI 600
Phase	3 Phase In / 3 Phase Out					
One Power Module Capacity	60kVA / 60KW					
Cabinet Capacity	120 KW	180 KW	300 KW	420 KW	500 KW	600 KW
Maximum No. of Power Modules	2	3	5	7	8	10
<b>INPUT</b>						
Nominal Voltage	3 x 380VAC / 400VAC / 415VAC (3Ph+ N)					
Voltage Range	-30% ~ +20%					
Nominal Frequency	50 / 60Hz (Auto-sensing)					
Frequency Range	40Hz ~ 70Hz					
Input Power Factor	> 0.99 @ 100% Load, >0.98 @ 50% load					
Total Harmonic Distortion (THDi)	< 3% @ 100% Load					
<b>OUTPUT</b>						
Nominal Voltage	3 x 380VAC / 400VAC / 415VAC (3Ph+ N)					
Voltage Regulation (Steady State)	± 1% Typical (Balanced Load) ; ± 2% Typical (Unbalance Load)					
Nominal Frequency	50Hz or 60Hz					
Frequency Range (Synchronized)	46Hz ~ 54Hz or 56Hz ~ 64Hz					
Overload Capacity	1 Hour for ≤ 110%, 10 mins for 111% ~ 125%, 1 min for 126% ~ 150%, 200ms for > 150%					
Total Harmonic Distortion (THDi)	≤ 2% (Linear Load); ≤ 4% (Non-Linear Load)					
Efficiency	0.96					
<b>BATTERIES / CHARGER</b>						
Nominal Voltage	+/- 192V ~ +/- 240V (Configurable)					
Maximum Voltage	+/-240V (12V x 40pcs)					
Minimum Voltage	+/-192V (12V x 32pcs)					
Float Charging Voltage	2.28V/Cell (2.25 ~ 2.33 Configurable)					
Boost Charging Voltage	2.35V/Cell					
Temperature Compensation	Yes					
Maximum Charging Current (Per Power Module)	18A (Configurable)					
<b>COMMUNICATIONS / MANAGEMENT</b>						
Smart RS-232 / USB	Supports Windows® Family, Linux and MAC					
Intelligent Slot	SNMP / AS400 card / Modbus Card (Optional)					
<b>STANDARD / APPROVALS</b>						
Safety	IEC/EN 62040-1					
EMC	IEC/EN 62040-2 Category C3					
IP Rating	IP 20					
<b>ENVIRONMENT</b>						
Operating Temperature	0°C - 40°C					
Relative Humidity	0% ~ 95% (Non-Condensing)					
Acoustic Level at 1m	≤ 75dB					
<b>PHYSICAL PROPERTIES</b>						
Cabinet Dimension (W x D x H) mm	600 x 1100 x 1475		600 x 1100 x 2010		1200 x 1100 x 2000	
Net Weight (kg)	308	352	516	654	932	1020
<b>WARRANTY &amp; SUPPORT</b>						
Product Warranty	2 Years Warranty for UPS Parts and Labour include VRLA Rechargeable Batteries.					

- Changes to the specification contained in this document, and to prices are reserved; so are errors and omissions. Only order confirmations and technical documentation by KOSS UPS is binding.
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### Power Module Physical Properties

Model	Description	Dimension (W x D x H) mm	Weight (kg)
ModVI 60	3P / 3P 60KVA / 60KW Power Module	438 x 750 x 130	44



**POWER LOGIC**

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