



On-line UPS  
Modular Type

On-line UPS

USE UPS POWER | THREE-PHASE

+Power E 15U-60 / +Power E 15U-90

- High efficiency online double conversion technology • Output power factor 1
- Modular design lowers MTTR
- Adjustable battery numbers
- Adjustable charging current
- Built-in maintenance bypass switch for easy maintenance without interruption
- Graphic 5.7" LCD design for easy configuration
- Support 1+1 cabinets parallel

MODEL	+Power E 15U-60	+Power E 15U-90
<b>PHASE</b>	3-phase in/3-phase out	
<b>MAX CABINET CAPACITY*</b>	60KW	90KW
<b>BATTERY TYPE</b>	External Battery	
<b>ONE POWER MODULE CAPACITY</b>	20KVA / 20KW	30KVA / 30KW
<b>MAX. POWER MODULE NO.</b>	3	
<b>INPUT</b>		
Nominal Voltage	3 x 380VAC/400VAC/415VAC (3Ph+N)	
Voltage Range	305 ~ 478 VAC at 70% - 100% load; 208 ~ 478 VAC for <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	
<b>OUTPUT</b>		
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)	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	≤ 2% THD (Linear Load) ; ≤ 4% THD (Non-linear Load)	
Efficiency	Up to 94.5%	
<b>BATTERY / CHARGER</b>		
Nominal Voltage	+/- 216V (12V x 36 Pcs)	
Maximum Voltage	+/- 240V (12V x 40 Pcs)	
Minimum Voltage	+/- 192V (12V x 32 Pcs)	
Float Charging Voltage	2.25V/Cell	
Boost Charging Voltage	2.35V/Cell	
Temperature Compensation	Yes	
Maximum Charging Current	6A (User-adjustable)	8A (User-adjustable)
<b>PHYSICAL</b>		
Cabinet Dimension (D x W x H) mm	1000 x 515 x 760	
Net Weight (kg)	182	183.5
<b>ENVIRONMENT</b>		
Operating Temperature	0 ~ 40°C	
Relative Humidity	0 ~ 95% non-condensing	
Altitude	<1000m for Nominal power	
IP Class	IP 20	
<b>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</b>		
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. Product specifications are subject to change without further notice.

Model	Description	Dimension DxWxH(mm)	Weight (kg)
PM-30HV	3P/3P 30KVA / 30KW power module	650 x 440 x 132 (3U)	34.5
PM-20HV	3P/3P 20KVA / 20KW power module	650 x 440 x 132 (3U)	34.0
Battery Cabinet	120 pcs of 12V 9Ah batteries	1000 x 514 x 610	387





+Power 400V 30K Cabinet						
Rack Model Name	30U-90HV	30U-120HV	30U-180HV	42U-120HV	42U-210HV	42U-300HV
Height	30U	30U	30U	42U	42U	42U
STS Capacity	90K	120K	210K	120K	210K	300K
Type of installable power module	HV 30K or HV 20K	HV 30K or HV 20K	HV 30K or HV 20K	HV 30K or HV 20K	HV 30K or HV 20K	HV 30K or HV 20K
Max. number of installable power module	3	4	6	4	8	10
Number of installable battery modules in Layer	3	N/A	N/A	5	N/A	N/A
Max. capacity of installing HV 20K module	60K	80K	120K	80K	160K	200K
Max. capacity of installing HV 30K module	90K	120K	180K	120K	210K (If installed with 8 pcs, one is for redundancy)	300K
Max capacity w/internal battery, no external battery	60K (Maximum with 3 layers of battery modules)	N/A	N/A	90K (Maximum with 5 layers of battery modules)	N/A	N/A
Built-in empty battery modules in BOM	Yes, 12pcs	No	No	Yes, 20pcs	No	No



+Power 208V 20K Cabinet					
Rack Model Name	30U-60LV	30U-80LV	30U-120LV	42U-80LV	42U-140LV
Height	30U	30U	30U	42U	42U
STS Capacity	LV 60KVA	LV 80KVA	LV 140KVA	LV 80KVA	LV 140KVA
Type of installable power module	LV 20K only	LV 20K only	LV 20K only	LV 20K only	LV 20K only
Max. number of installable power module	3	4	6	4	8
Number of installable battery modules in layer	3	N/A	N/A	4	N/A
Max. capacity of installing LV 20K module	60KVA	80KVA	120KVA	80KVA	140KVA (If installed with 8 pcs, one is for redundancy)
Max capacity w/internal battery, no external battery	60K	N/A	N/A	80K	N/A
Built-in empty battery modules in BOM	Yes, 12pcs	No	No	Yes, 16pcs	No

+Power 400V 20K Cabinet			
Rack Model Name	30U-80-20KHV	30U-120-20KHV	42U-200-20KHV
Height	30U	30U	42U
STS Capacity	90K	120K	210K
Type of installable power module	HV 20K only	HV 20K only	HV 20K only
Max. number of installable power module	4	6	10
Number of installable battery modules in layer	N/A	N/A	N/A
Max. capacity of installing HV 20K module	80K	120K	200K
Max. capacity of installing HV 30K module	N/A	N/A	N/A
Max capacity w/ internal battery, no external battery	N/A	N/A	N/A



+Power E 208V Cabinet		
Rack Model Name	E-60LV	E-60LV-L
Height	15U	~30U
STS Capacity	LV 60K	LV 60K
Type of installable power module	LV 20K only	LV 20K only
Max. number of power module	3	3
Number of installable battery module in layer	N/A	3
Max. capacity of installing LV 20K module	60KVA	60K
Max capacity w/ internal battery, no external battery	N/A	60
Built-in empty battery modules in BOM	No	The battery module of +Power E is easy-replaceable without hot-swappable design
Note	+Power E (15U) without battery module is available. +Power E (30U) with battery module is available.	

+Power E 400V Cabinet				
Rack Model Name	E-90HV	E-60-20KHV	E-90HV-L	E-60-20KHV-L
Height	15U	15U	~30U	~30U
STS Capacity	90K	60K	90K	60K
Type of installable power module	HV 30K or HV 20K	HV 20K only	HV 30K or HV 20K	HV 20K only
Max. number of installable power module	3	3	3	3
Number of installable battery module in layer	N/A	N/A	3	3
Max. capacity of installing HV 20K module	60K	60K	60K	60K
Max. capacity of installing HV 30K module	90K	N/A	90K	N/A
Max capacity w/internal battery, no external battery	N/A	N/A	60K	60K
Built-in empty battery modules in BOM	No	No	The battery module of +Power E is easy-replaceable without hot-swappable design	
Note	+Power E (15U) without battery module is available. +Power E (30U) with battery module is available.			