

DIAMOND SERIES UPS

(10-40kVA)



True On-line Double Conversion Diamond Plus UPS Series has been designed to backup various applications. Small datacenters, Medical Lab equipment, light industrial facilities all require rugged UPS equipment.

Engineered to support demanding applications

- Available sizes**
 10, 15, 20, 30 and 40kVA models available
- Small Footprint**
 The 10/15/20kVA Diamond Series UPS units have one of the smallest footprints in the industry. Just 9.8" wide (10kVA), and 12" wide (15/20kVA) allows for the Diamond Series UPS units to fit into small locations where space is a premium. Additionally the 30/40kVA is only 23.4" wide which also allows for these units to fit into small locations.
- Power Factor 1:1**
 For critical applications, this 3-phase online UPS has an output power factor of 1.0. This ensures higher kW output with its advanced IGBT performance.
- Conformal Coated Boards**
 Conformal coated boards protects the Diamond Series units to be used in "Light Industrial" applications. Boards that are conformal coated include the Main PCB, Bypass, Charger, Parallel and Joint boards.
- Warranty**
 Two (2) year warranty on the electronics, one (1) year warranty on the batteries.
 For additional warranty options please call factory.
- Parallel operation with common battery**
 The system can be operated in up to 6 units in parallel, increasing the capacity and performance. Besides, this parallel UPS system can share common battery packs which might greatly reduce the expense and reach the same performance.
- Very powerful charger**
 Diamond series is built-in powerful charger to support long runtime applications when connecting to big capacity of external battery cabinet.
- Adjustable battery design**
 The number of connected batteries can be adjusted flexibly based on different power demands. This feature can allow UPS to keep running even when some battery packs are damaged.
- Power walk-in function**
 The Diamond Series is designed to have flexible power walk-in by way of adjusting the power walk-in time. This setting will optimize generator sizing and reduce the impact to the AC source by having different walk-in time for different paralleled UPS system when AC grid is recovered.

Specifications:

MODEL		10K(L)	15K(L)	20K(L)	30K(L)	40K(L)
CAPACITY*		10kVA / 10kW	15kVA / 15kW	20kVA / 20kW	30kVA/30kW	40kVA/40kW
INPUT						
Input Voltage - (Range)		208VAC - (+30%, -17%)				
Input (THD) _i		1% - 100% Load, 2% - 50% Load				
Frequency Range		46Hz ~ 64 Hz				
Phase		3 Phase with Neutral				
Power Factor		≥ 0.99 at 100% Load				
OUTPUT						
Phase		3 Phase with Neutral				
Output Voltage		3 x 208/220 VAC (Ph-Ph), 3 x 120/127 VAC (Ph-N)				
AC Voltage Regulation		± 1%				
Frequency Range (Sync Range)		50/60Hz				
Overload	AC Mode	100%~110%: 1 hour; 110%~130%: 1min; >130% : 1sec				
	Battery Mode	100%~110%: 30sec; 110%~130%: 10sec; >130% : 1sec				
Current Crest Ratio		3:1 max				
Harmonic Distortion		≤ 2 % @ 100% Linear Load; ≤ 4 % @ 100% Non-linear Load (PF≥0.8)				
Transfer Time	Line↔ Battery	0 ms				
	Inverter↔ Bypass	0 ms (When phase lock fails, <4ms interruption occurs from inverter to bypass)				
EFFICIENCY						
AC Mode		94%				
Battery Mode		93.5%				
ECO Mode		97%				
BATTERY						
PHYSICAL						
Standard Model	Dimension, W x D x H (In.)	9.8" x 27" x 33"	12" x 34" x 40"		23.4"x 35.8" x 64.9"	
	Net Weight (lbs)	209	398	508	979 lbs	979 lbs
Shipping Information	Dimensions, W x D x H (In.)	15" x 31.9" x 49.6"	17.1" x 37.8" x 49.6"	17.1" x 37.8" x 49.6"	28" x 40.8" x 74.9"	28" x 40.8" x 74.9"
	Net Weight (lbs)	242 lbs	517 lbs	517 lbs	1,177 lbs	1,177 lbs
External Batt. Cabinets	TBA	Optional	Optional		Optional	
ENVIRONMENT						
Operation Temperature		0 ~ 40°C (the battery life will down when > 25°C)				
Operation Humidity		<95 % and non-condensing				
Operation Altitude ft/(m)		3,300 ft., (1000)				
Acoustic Noise Level		Less than 54dB @ 1 Meter	Less than 54dB @ 1 Meter	Less than 54dB @ 1 Meter	Less than 54dB @ 1 Meter	Less than 54dB @ 1 Meter
MANAGEMENT						
Smart RS-232 or USB		Supports Windows® 2000/2003/XP/Vista/2008/7/8/10, Linux, Unix, and MAC				
MODBUS		Supports MODBUS for Industrial Applications				
Optional SNMP		Power management from SNMP manager and web browser				
APPROVAL AGENCIES						
All Agency Approvals		UL1778 (5 th Edition), cUL, CSAc 22.2				
		IEC 62040-1 UPS Standards				
		EMI Compatibility: FCC Title 47, Part 15, Subpart B				
		Seismic/OSHPD (2022)				