

# Mission critical availability with scalable, modular unity power factor output

The M90U is a scalable modular online double conversion UPS that protects critical data and equipment from power problems while supplying clean and reliable network grade power.

M90U can be configured with a fully redundant power module and battery modules. Should one module fail, the remaining modules smoothly take over the load. The power modules are independent and can be hot swapped without risk to the critical load.

For capacities up to 80kVA reference www. xpcc.com/m90u-80

#### **PRODUCT SNAPSHOT**

- > Capacities: 15kVA/15kW, 20kVA/20kW, 30kVA/30kW, 40kVA/40kW, 45kVA/45kW, 60kVA /60kW
- > Hot swappable power modules
- ) Up to 94% online mode or 98% ECO mode
- > UL-1778, cUL, FCC A, RoHS, TAA (select models)
- > 2 year electronics, 2 year battery warranty (USA and Canada)

#### **FEATURES**

#### Unity output power factor— M90U systems provide more real capacity for high density loads

**Scalable**—when power and runtime requirements change M90U modularity makes it easy to add modules and increase capacity

### Highest availability system can be configured with redundant power and battery modules

Reduce energy cost—bestin-class energy efficiency provides lowest energy consumption and heat output

Dual or single utility input provides maximum installation flexibility

## Maintenance bypass—

manually transfer critical loads from UPS power to utility power, enabling M90 maintenance

**Large LCD display**—5.7" display provides graphic display including status and alarms

**Mounting**— Standard Floor Mount Brackets included. Seismic Hold Down Anchorage available



	MODEL NUMBER	M90U-15	M90U-30	M90U-45	M90U-20	M90U-40	M90U-60			
CAPACITY	Power rating	15kVA/15kW	30kVA/30kW	45kVA/45kW	20kVA/20kW	40kVA/40kW	60kVA/60kW			
	Enclosure capacity: power modules	Up to 45kVA (3 x 15kVA)								
	Enclosure capacity: battery modules	Up to 12 internal battery modules								
INPUT	Voltage / frequency nominal	208Y/120V three-phase, 50/60Hz auto-sensing								
	Voltage / frequency range	121–253VAC* (L-L), 40–70Hz								
OUTPUT	Voltage / Frequency	208Y/120V three-phase, 50/60Hz ± 0.5Hz								
	THD (full load)	< 2%								
	Efficiency	Up to 94% online mode or 98% ECO mode								
	Overload capacity	105%-110% for 60min; 110%-125% for 10min; 126%-150% for 1min; >150% for 200ms								
BATTERY SYSTEM	Nominal voltage	± 120V								
	Charge Current (programable)	8A	16A	24A	8A	16A	24A			
DIMENSIONS &	Enclosure	20.3"W x 39.4"D x 54"H / 484 lbs								
WEIGHT	Power module	19.0"W x 28.0"D x 5.1"H / 74 lbs (20kVA) / 72 lbs (15kVA)								
	Battery module	4.1"W x 28.3"D x 6.0"H / 68 lbs								
ENVIRONMENT	Temperature	0-40°C (32-104°F)**								
	Altitude	5,200 ft above sea level**								
	Audible noise	< 65dBA at 1m								
APPROVALS		UL-1778, cUL, FCC A, RoHS, TAA (select models)								
WARRANTY		2 years (USA and Canada)								
COMMUNICATIONS INTERFACE		RS-232, EPO, intelligent slot for optional cards (Web/SNMP, Modbus), optional relay card								
INCLUDED IN BOX		User manual, RS-232 cable, Ramp for unloading UPS enclosure, Floor Mount Brackets								
AVAILABLE OPTIONS		External maintenance bypass, 480V input transformer, battery temperature sensor, seismic hold down anchorage								

<sup>\*</sup>Depending on load level \*\*Battery life is reduced above 30°C, UPS capacity derates above 30°C and 5,200 ft above sea level

#### BATTERY RUNTIMES

DATTERT ROTUTIVIES												
System Load (kW)	5	10	15	20	25	30	35	40	45	50	55	60
2 battery modules	16	6	-	-	-	-	-	-	-	-	-	-
4 battery modules	37	16	9	6	-	-	-	-	-	-	-	-
6 battery modules	60	26	16	11	8	6	-	-	-	-	-	-
8 battery modules	85	37	23	16	12	9	8	6	5	-	-	-
10 battery modules	110	48	30	21	16	13	10	9	7	6	5	4
12 battery modules	127	60	37	26	20	16	13	11	9	8	7	6

Runtimes are shown in minutes and will vary based on battery age and site conditions. Runtimes are based on fully formed batteries.

