Power Conversion®

M9080 and M90140 Modular Online Three-Phase UPS

15kVA, 20kVA, 30kVA, 40kVA, 45kVA, 60kVA, 75kVA, 80kVA, 90kVA, 100kVA, 105kVA, 105kVA (N+1) 120kVA, 140KVA, and 140kVA (N+1) Models

Site Planning Guide

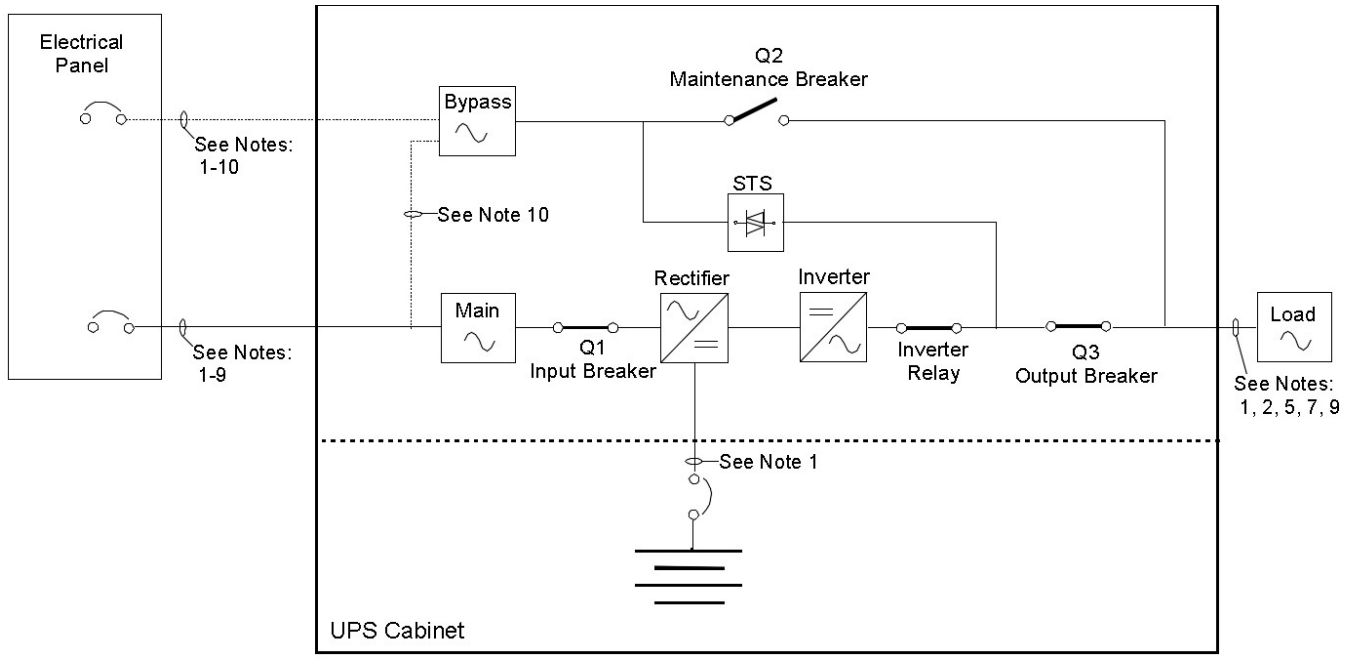
M90-80 and M90-140 Site Planning Data 15 – 140kVA, 208VAC, 60Hz

1. Manufacturer recommends sizing all cables for 80kVA or 140kVA system to allow for future expansion
2. UPS must be installed in accordance with all local, state, and national electrical codes
3. Nominal (Nom) current is based on full rated output load at nominal input voltage. Nominal current is considered continuous current as defined in NEC 215.
4. Maximum (Max) current is based on nominal current plus maximum battery recharge current. Battery recharge current is considered non-continuous current as defined in NEC 215.
5. Over Current Protective Device (OCPD) to be supplied by customer
6. Wiring Requirements: AC Rectifier and Bypass Input : Three-Phase, 4 wire plus ground , Battery: +, -, Center-Tap
7. Ground conductor to be sized per NEC 250. Neutral conductor to sized for full capacity per NEC 310
8. UPS accepts top cable entry
9. Input and output cables to be in dedicated conduits
10. Remove Main Input to Bypass Input jumpers and add Bypass input circuit for dual input configuration. Main Input service and Bypass Input service must be in phase.
11. Weight includes UPS chassis, power modules, and standard internal battery (M90-80 only). Batteries are located in trays in UPS cabinet of XPC M90-80 Systems and are located in external cabinet on XPC M90-140 systems.
    Weight of external battery cabinet dependent on battery system selected.
12. Minimum ventilation clearance is 16” back and 36” front. Minimum service clearance is 36” back, and 36” front. Manufacturer recommends using Liguidtite flexible metal conduit to allow moving UPS to provide required service clearance. Article 351 4(a)(1) covering permitted use, states Liquidtight flexible metal conduit shall be permitted to be used where conditions of installation, operation, or maintenance require flexibility.
13. Operation in ECO-Mode will result in input current reflecting output current

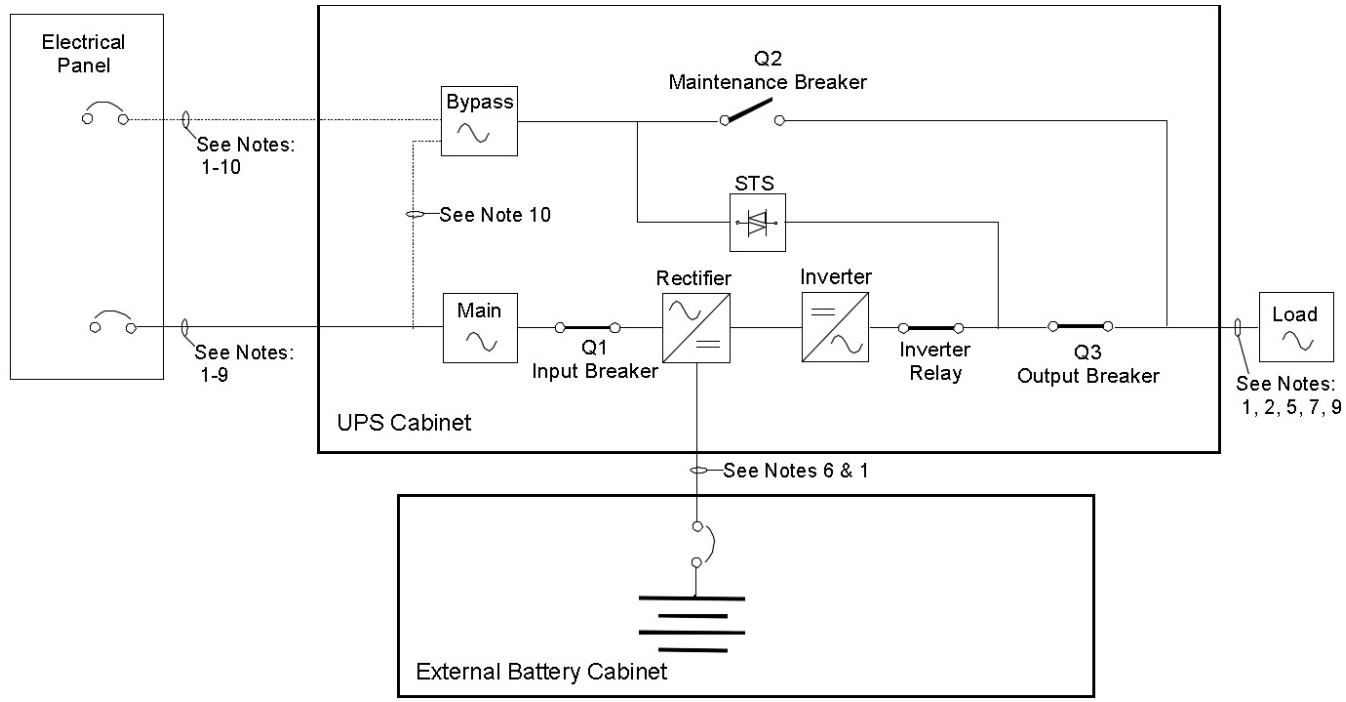
UPS Rating	kVA	15	20	30	40	45	60	80	Notes
	kW	13.5	18	27	36	40.5	54	72	
Voltage	Input	208	208	208	208	208	208	208	6
	Output	208	208	208	208	208	208	208	6
AC Rectifier Input (A)	Nom.	41	54	82	109	122	163	217	1, 3, 7,
	Max	47	60	93	120	140	180	240	4
	Rec OCPD	60	70	125	150	175	225	300	1,2,5,9
AC Bypass Input (A)	Nom.	42	56	83	111	125	167	167	1,3,7
	Max	42	56	83	111	125	167	223	4
	Rec OCPD	60	70	125	150	175	225	300	1,2,5,9, 10
Battery	Nominal VDC	+/- 120	+/- 120	+/- 120	+/- 120	+/- 120	+/- 120	+/- 120	6
	Maximum DC Current	75	98	150	196	225	294	392	1,4
AC Output (A)	Nom	42	56	83	111	125	167	223	1
	Rec. OCPD	60	76	125	150	175	225	300	1,2,5,7,9
Mechanical	Heat BTU/Hr	4007	5342	8013	10684	12020	16026	21368	12
	Dimensions W x D x H	20.6 x 43.3 x 79.1	" "	" "	" "	" "	" "	" "	8
	Weight (lbs) 20kVA Modules		1851		1925		1999	2073	11
	Weight (lbs) 15kVA Modules	1850		1923		1996	2069		11

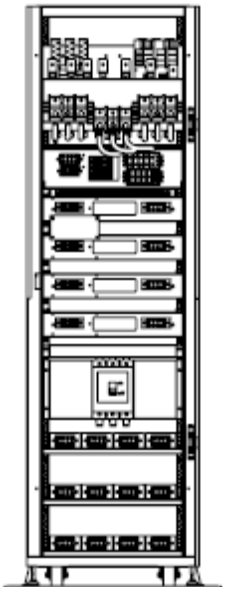
UPS Rating	kVA	90	100	105	105(N+1)	120	140	140(N+1)	Notes
	kW	81	90	94.5	94.5	108	126	126	
Voltage	Input	208	208	208	208	208	208	208	6
	Output	208	208	208	208	208	208	208	6
AC Rectifier Input (A)	Nom.	246	270	287	287	324	378	378	1, 3, 7, 13
	Max	282	300	329	329	360	420	420	4
	Rec OCPD	350	400	450	450	500	600	600	1,2,5,9
AC Bypass Input (A)	Nom.	252	280	294	294	336	392	392	1,3,7
	Max	252	280	294	294	336	392	392	4
	Rec OCPD	350	350	400	400	450	500	500	1,2,5,9, 10
Battery	Nominal VDC	+/- 120	+/- 120	+/- 120	+/- 120	+/- 120	+/- 120	+/- 120	6
	Maximum DC Current	450	490	525	525	588	686	686	1,4
AC Output (A)	Nom	252	280	294	294	336	392	392	1
	Rec. OCPD	350	350	400	400	450	500	500	1,2,5,7,9
Mechanical	Heat BTU/Hr	20034	26710	24041	24041	32052	37394	37394	12
	Dimensions W x D x H	" "	" "	" "	" "	" "	" "	" "	8
	Weight (lbs) 20kVA Modules		1027			1101	1175	1249	11
	Weight (lbs) 15kVA Modules	1095		1169	1242				11

M9080 with Internal Battery Installation

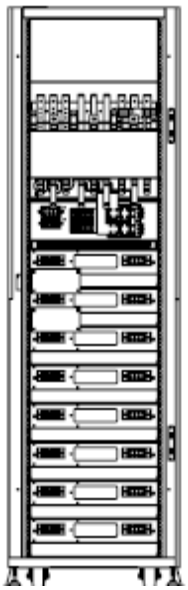


M9080 and M90140 with External Battery Cabinet Installation

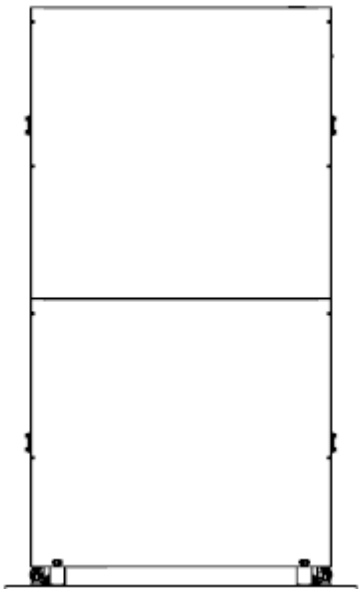




M9080 Rear View

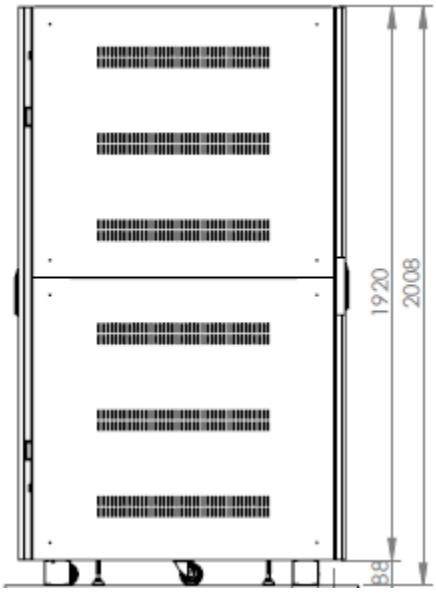


M90140 Rear View



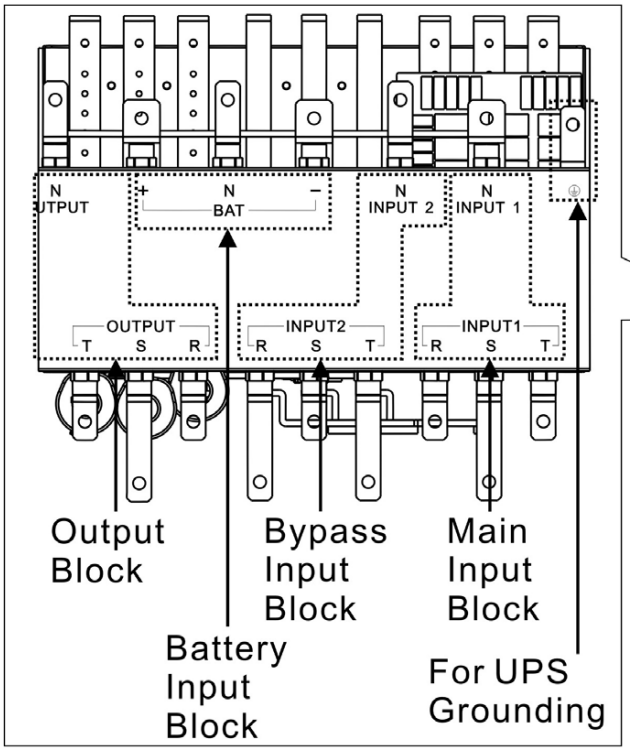
M9080 and M90140 Side View

M90-BC Front View

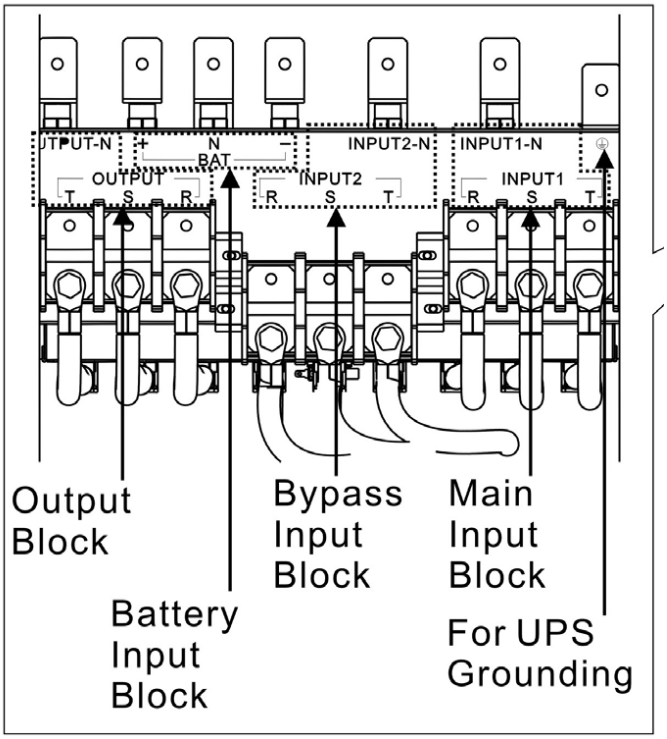


M90-BC Side View

Electrical Terminals



M9080 Electrical Terminals



M90140 Electrical Terminals