



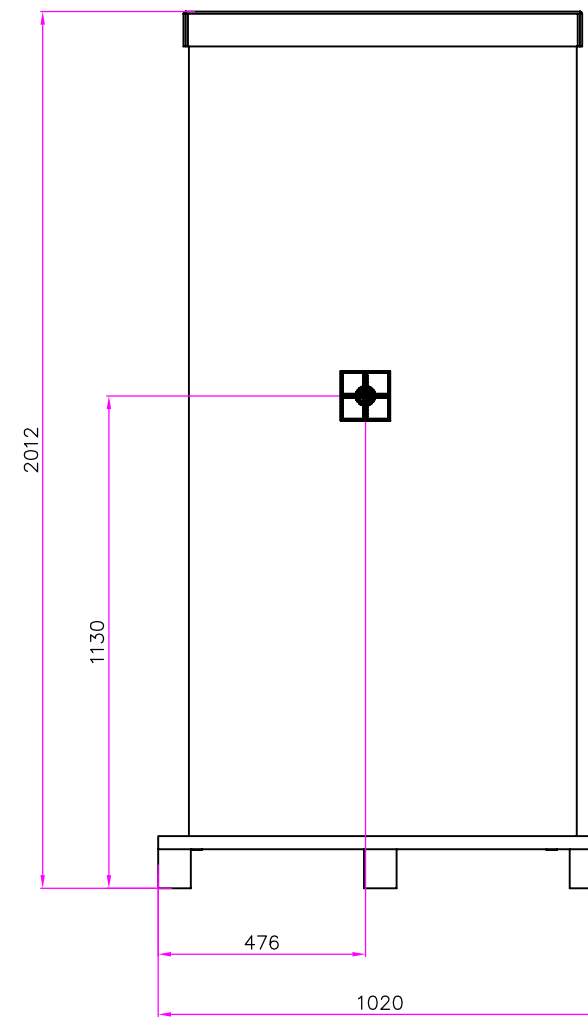
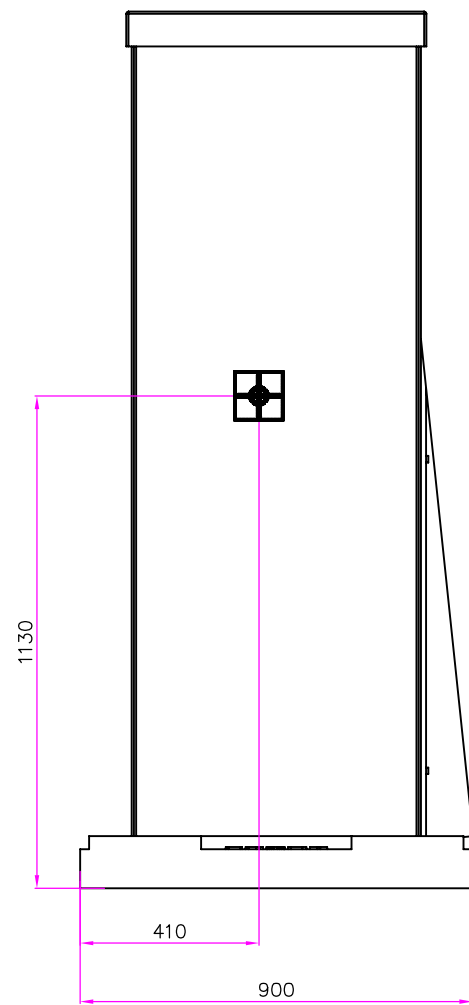
Powering Business Worldwide

SITE PLANNING DATA 93E 60KVA

Page 1	Packaging Dimensions
Page 2	Dimensional Drawings
Page 3	COG and Clearance Dimensions
Page 4	Customer Connections
Page 5	Electrical Wiring of Single Unit
Page 6	Electrical & Signal Wiring of Parallel Units
Page 7	Product Specifications



METRIC		THIRD ANGLE PROJECTION		EATON CORPORATION			
<small>DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994. SEE NOTES FOR TOLERANCES.</small>							
DESCRIPTION: 93E 60KVA							
ORIGINATED: Atif Rasheed	28-08-2015	ECO:	NAME:	REVISION: 001	SIZE: A2		
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COG dimensions for 60KVA Unit

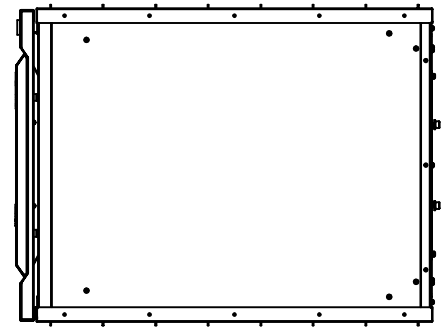
Notes:

1. The COG dimensions are approximated values with Pallet and packaging.
2. The COG dimensions for 60KVA UPS cabinet with package are X=410mm, Y=476mm, Z=1130mm.
3. Store the unit in dry and clean environment. Protect the unit from high humidity, rain or other direct exposure to water and also protect it from exposure to dirt and dust.
4. Optimal storing temperature for the unit without batteries is +15°C to +30°C and for batteries +20°C to +25°C.
5. Unites without batteries can be stored in -25°C to +55°C without risk of remediate damaging.
6. Storing batteries above +25°C will shorten the battery lifetime.
7. Batteries can be stored for six months without charging in temperature +20°C to +25°C, but batteries should not be stored uninstalled more than absolute necessary.
8. If batteries are stored above +25°C then batteries should be charged every four months.
9. Storing batteries longer than recommended without charging can harm the battery permanently.

Product Specifications

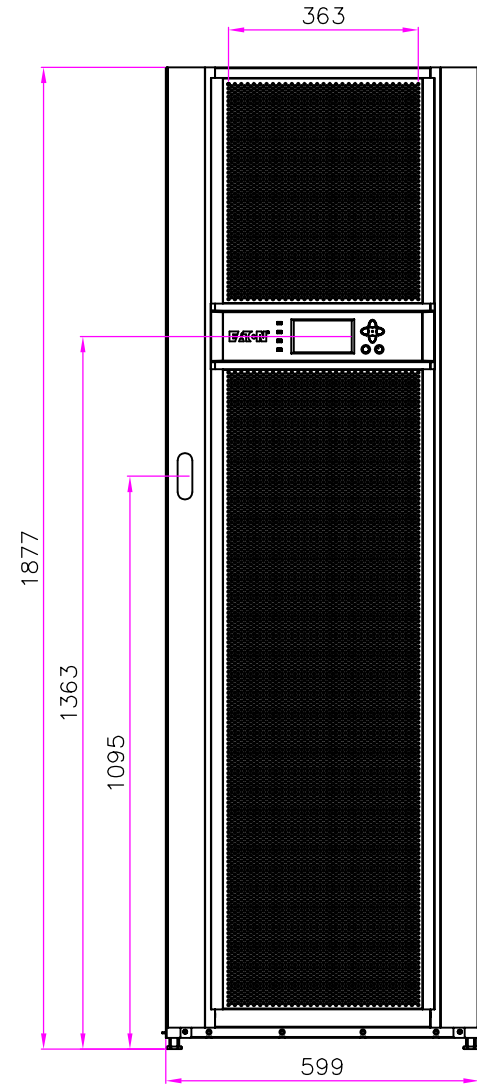
UPS Rating		Shipping Dimensions WXDXH	Approx. Weight Shipping
KVA	KW	MM	Kg
60	54	900X1020X2011	246

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DESCRIPTION: 93E 60KVA Packaging Dimension							
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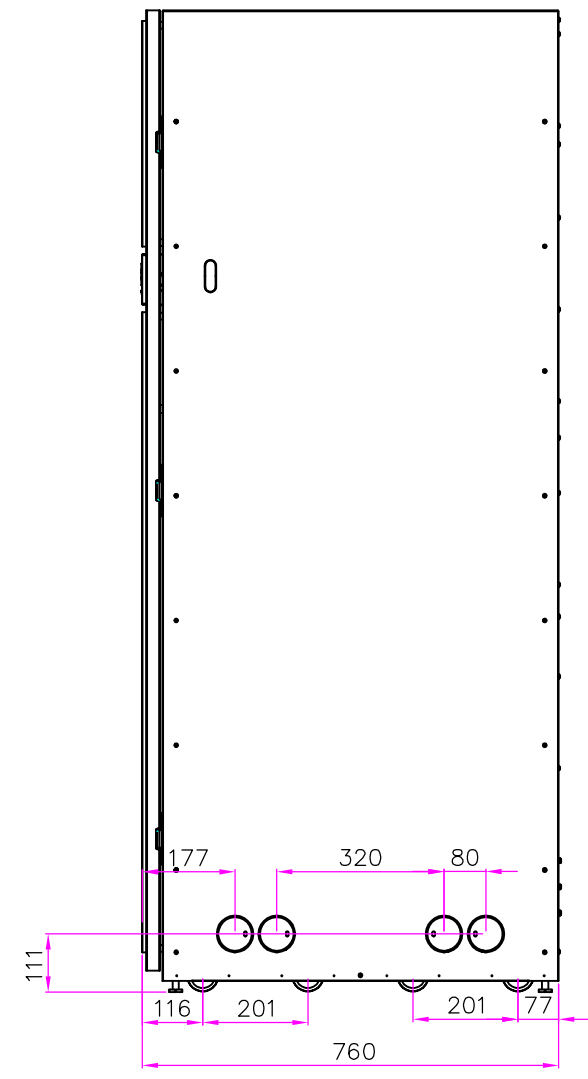


TOP VIEW

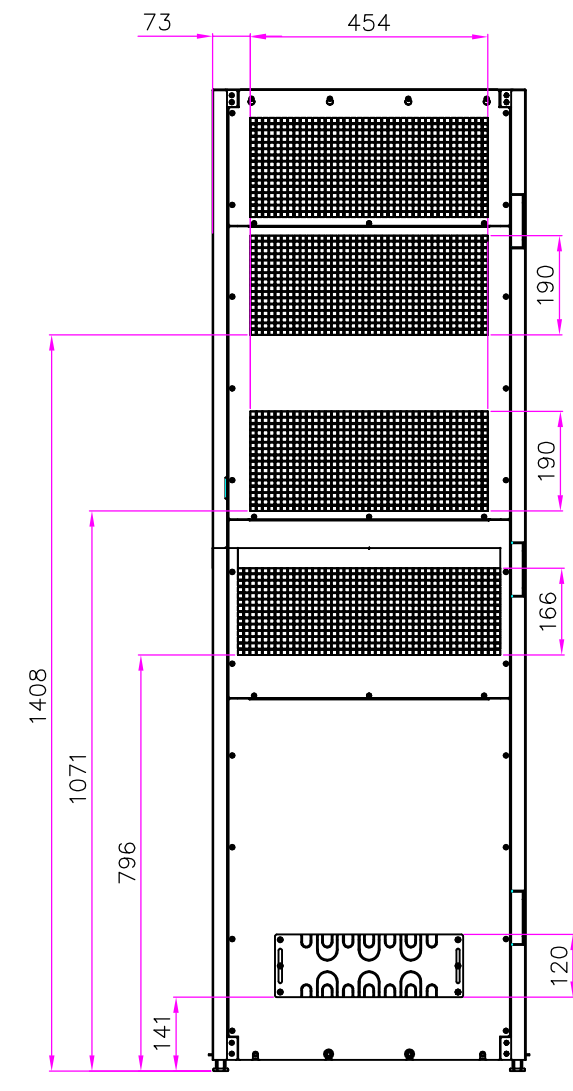
Product Specifications								
UPS Rating		Max Heat Dissipation at 100% Load	Cabinet Dimensions WXD _X H	Shipping Dimensions WXD _X H	Approx. Weight Cabinet	Approx. Weight Shipping	Point Landing	Cooling Air
KVA	KW	KW	MM	MM	Kg	Kg	Points/Kg	L/s
60	54	3.57	600X796X1876	900X1020X2011	207	246	8/26	335



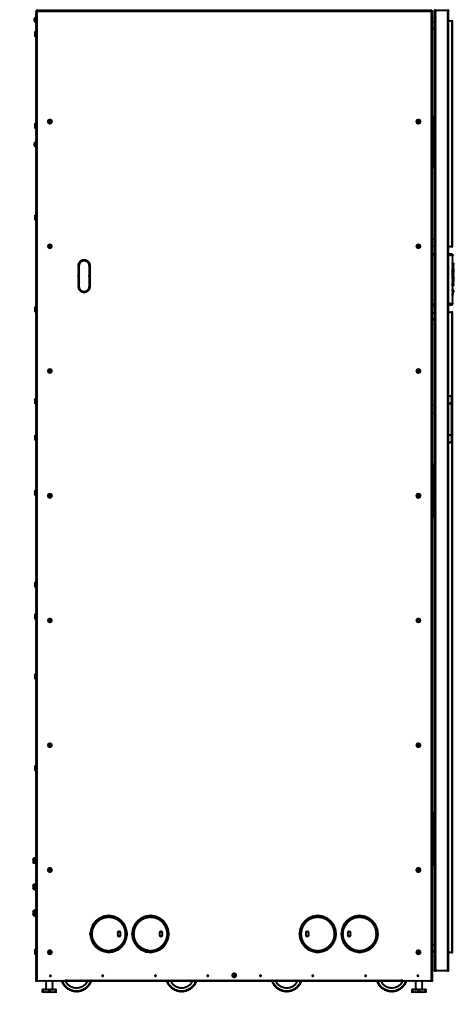
FRONT VIEW



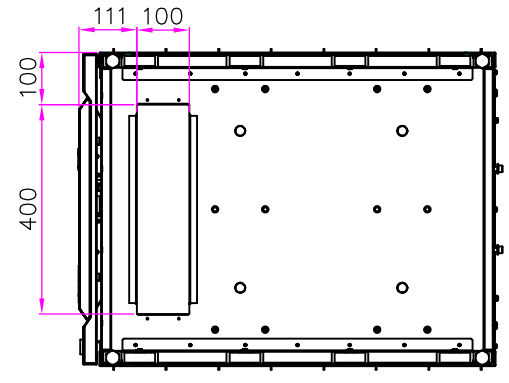
RIGHT VIEW



REAR VIEW



LEFT VIEW

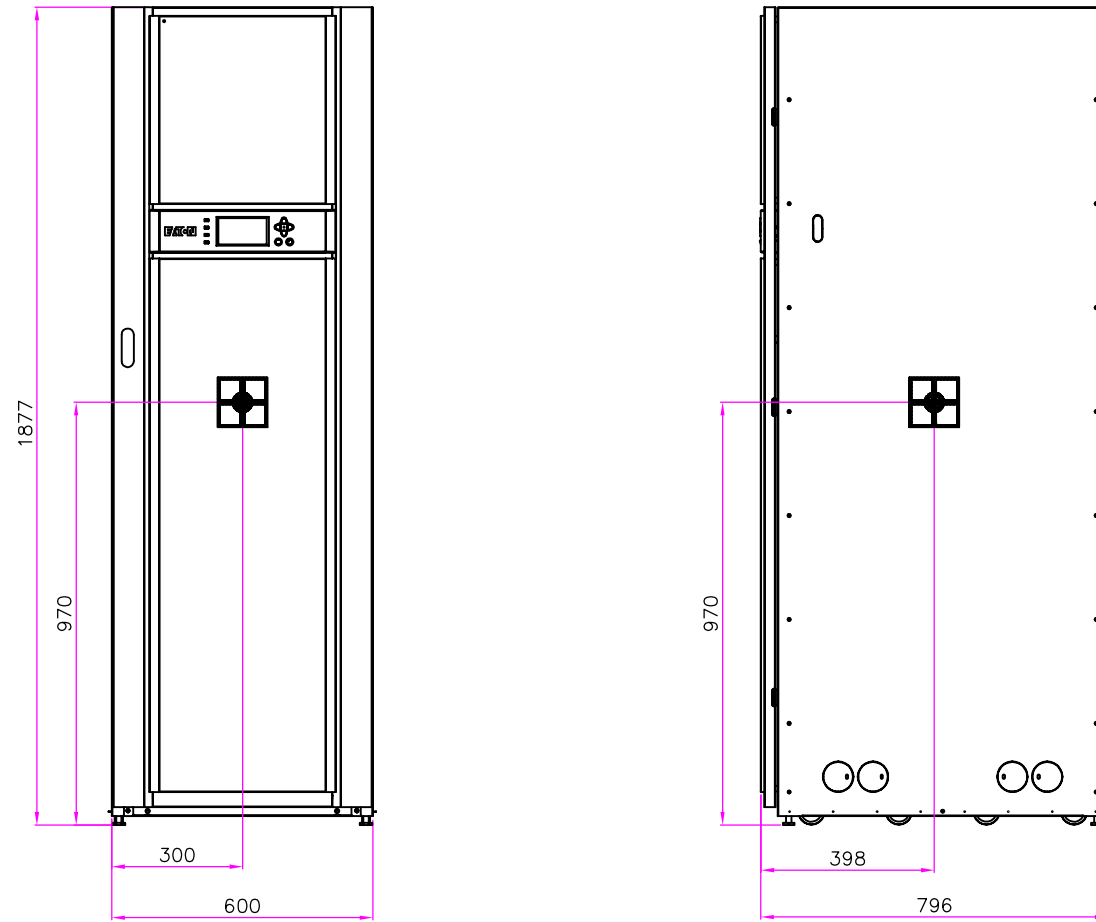


BOTTOM VIEW

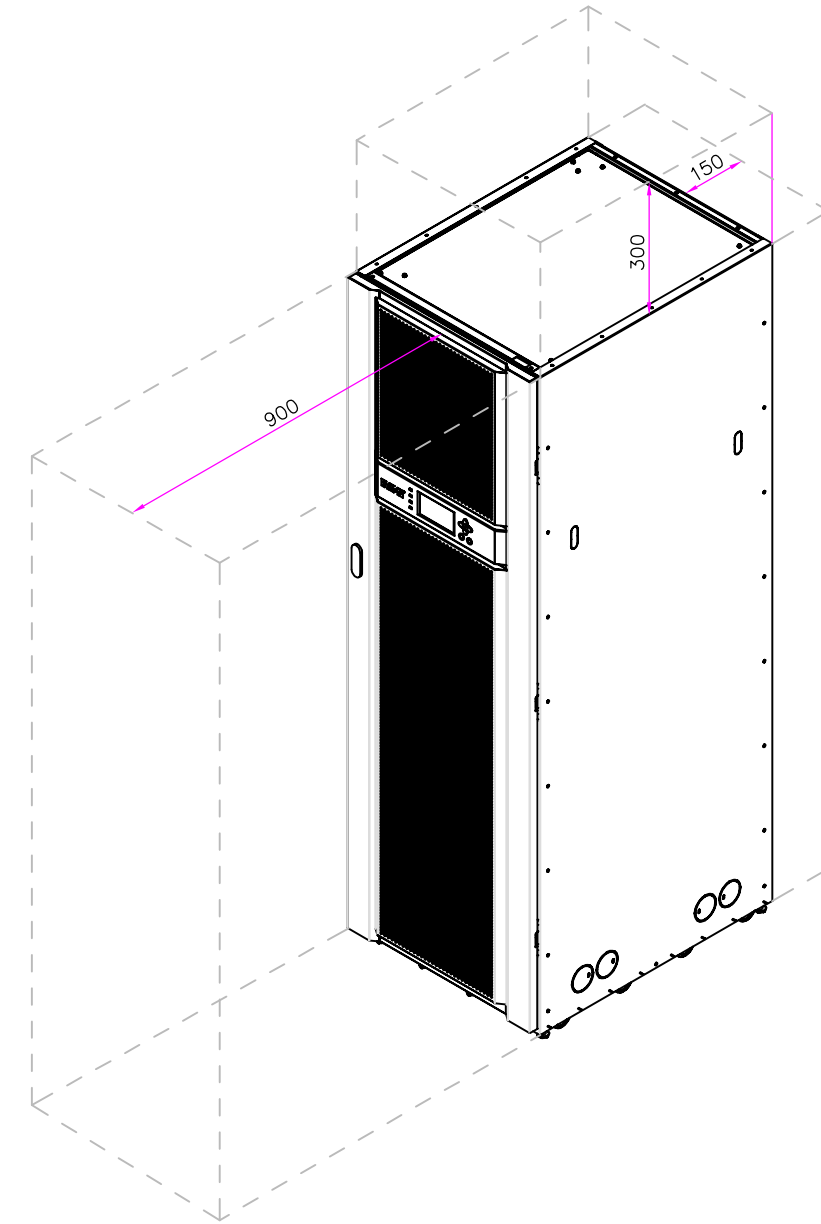
- Notes:
1. The system must be installed in a temperature and humidity controlled indoor area free of conductive contaminants.
 2. Continues ambient temperature range: 0–40°C (32–104F); Maximum relative humidity: 95% non-condensing.
 3. The UPS can be installed in line-up-and-match or standalone configurations.
 4. The rear cable entries through the removable access gland plate are standard. Access plates shall be custom-modified to suit conduit sizes.

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DESCRIPTION: 93E 60KVA Dimensional Drawing								
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Cabinet Installation Clearances	
From Top of cabinet	300 mm
From Front of cabinet	900 mm
From Back of cabinet ⁵	150 mm



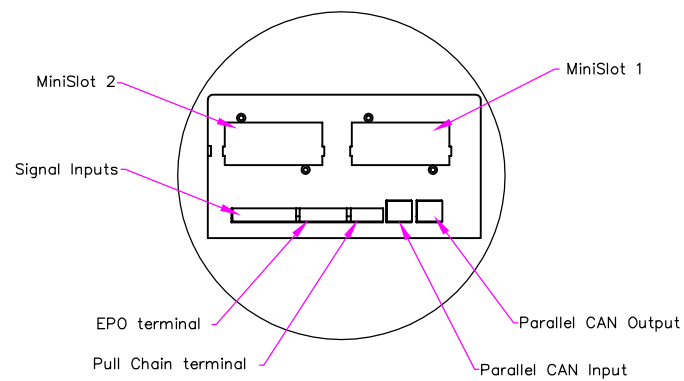
COG dimensions for 60KVA Unit



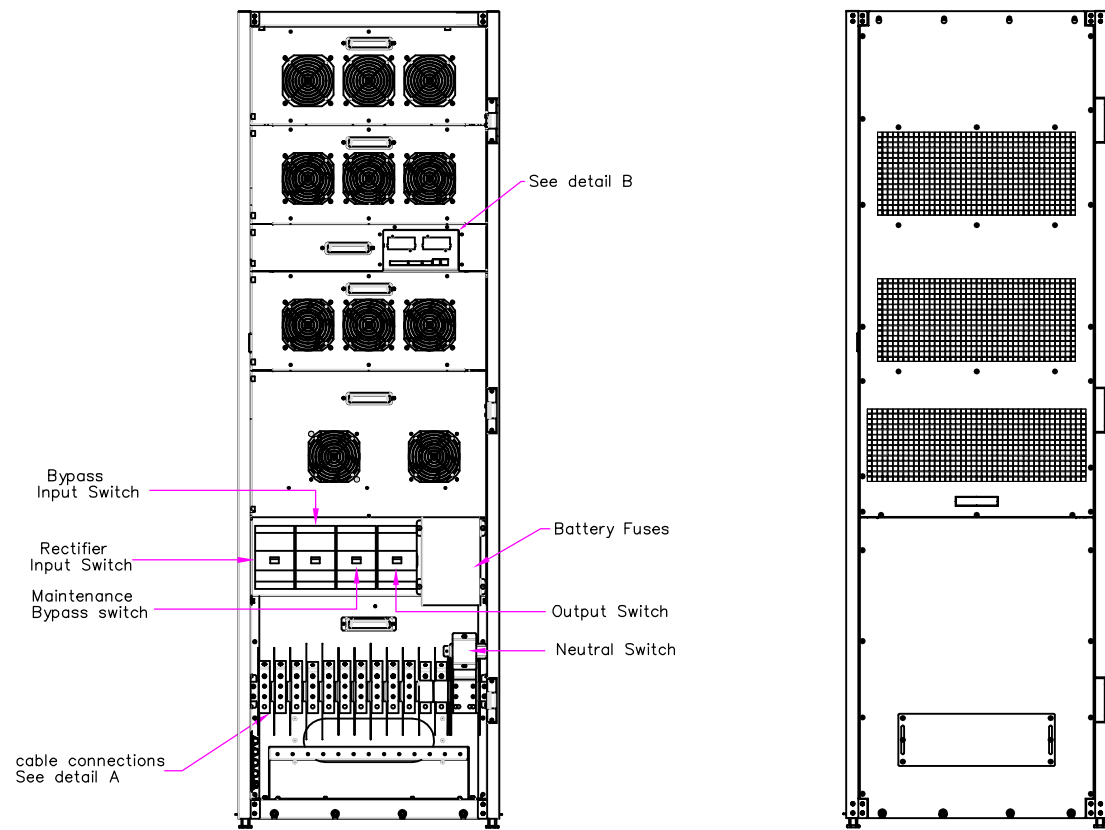
Notes:

1. The COG dimensions for UPS cabinet are approximated values.
2. The COG dimensions for 60KVA UPS cabinet without package are X=300mm , Y=398mm, Z=970mm.
3. Minimum overhead clearance above the UPS cabinet is 300mm (12in.) for servicing space.
4. Minimum 900mm (35in.) clearance in front of the UPS cabinet is required for cooling air intake and servicing space.
5. Minimum 150mm (5in.) clearance in back of the UPS cabinet is required for cooling air exhaust and servicing space at a ambient temperature of 25–30°C.If the ambient temperate is around 35–40°C then minimum of 200mm clearance is required.

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DESCRIPTION: 93E 60KVA Clearance and COG				
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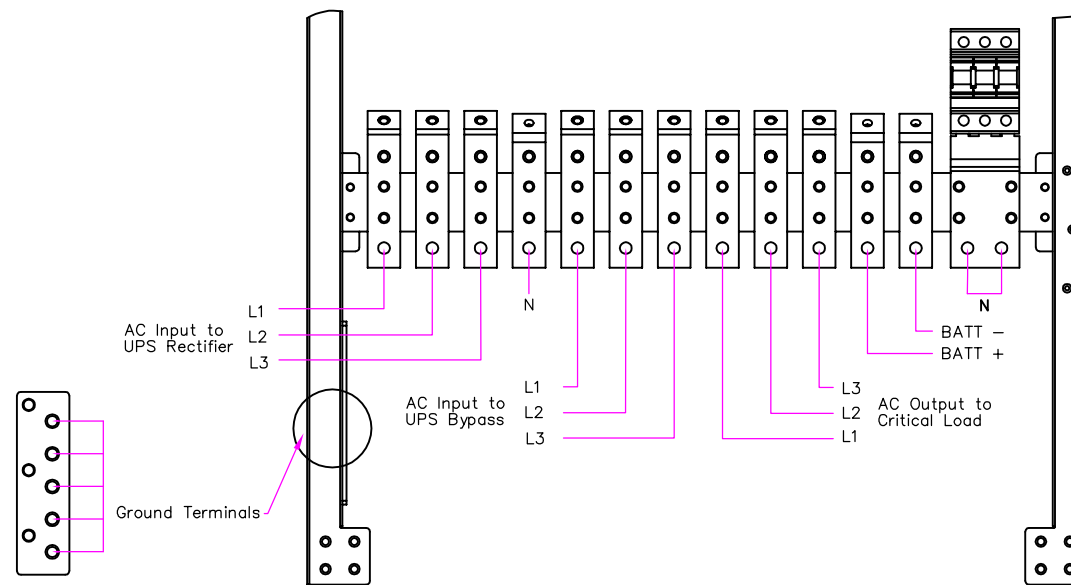


Interface Terminals
Detail B



Front View with
Door Removed

Rear View

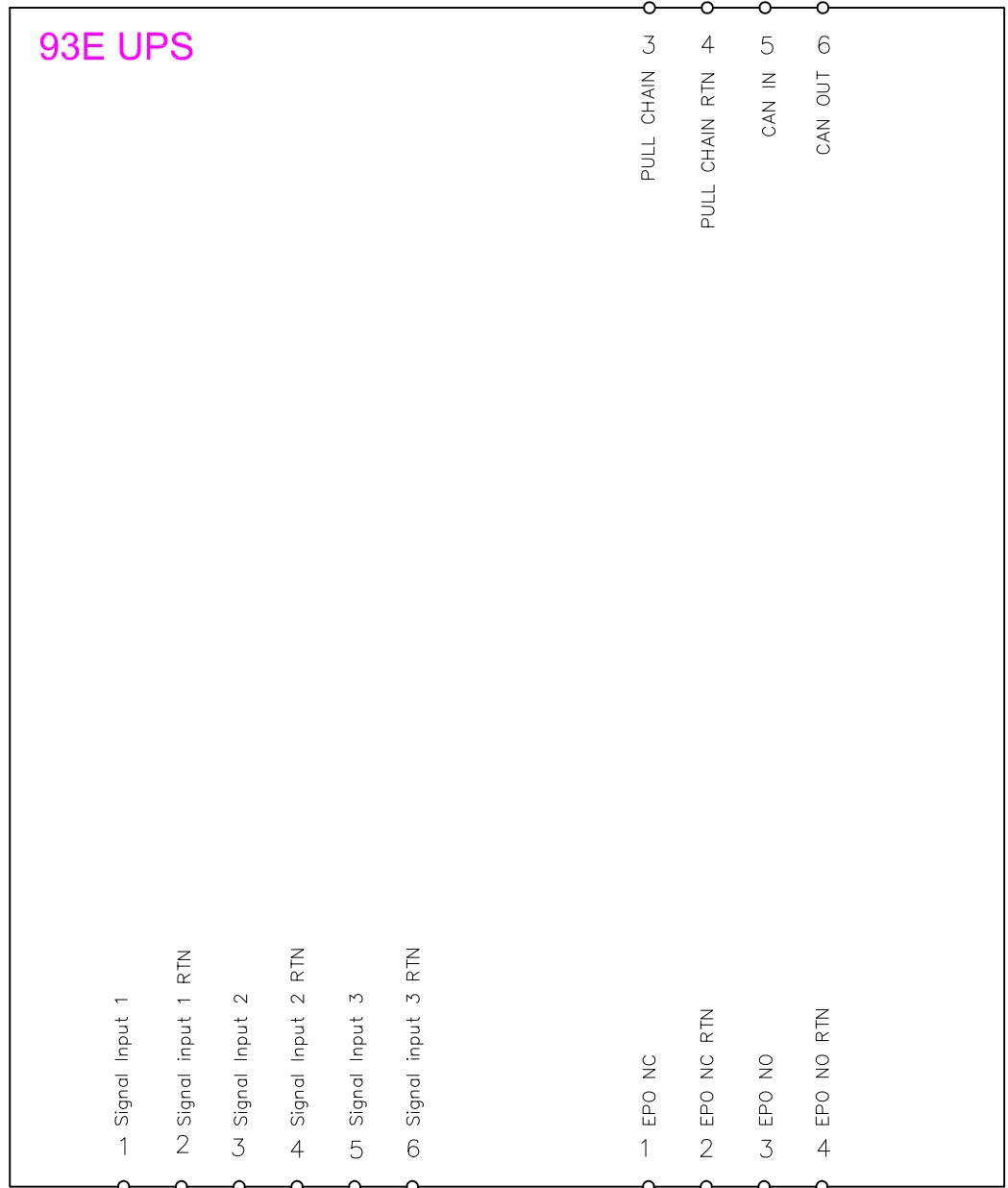
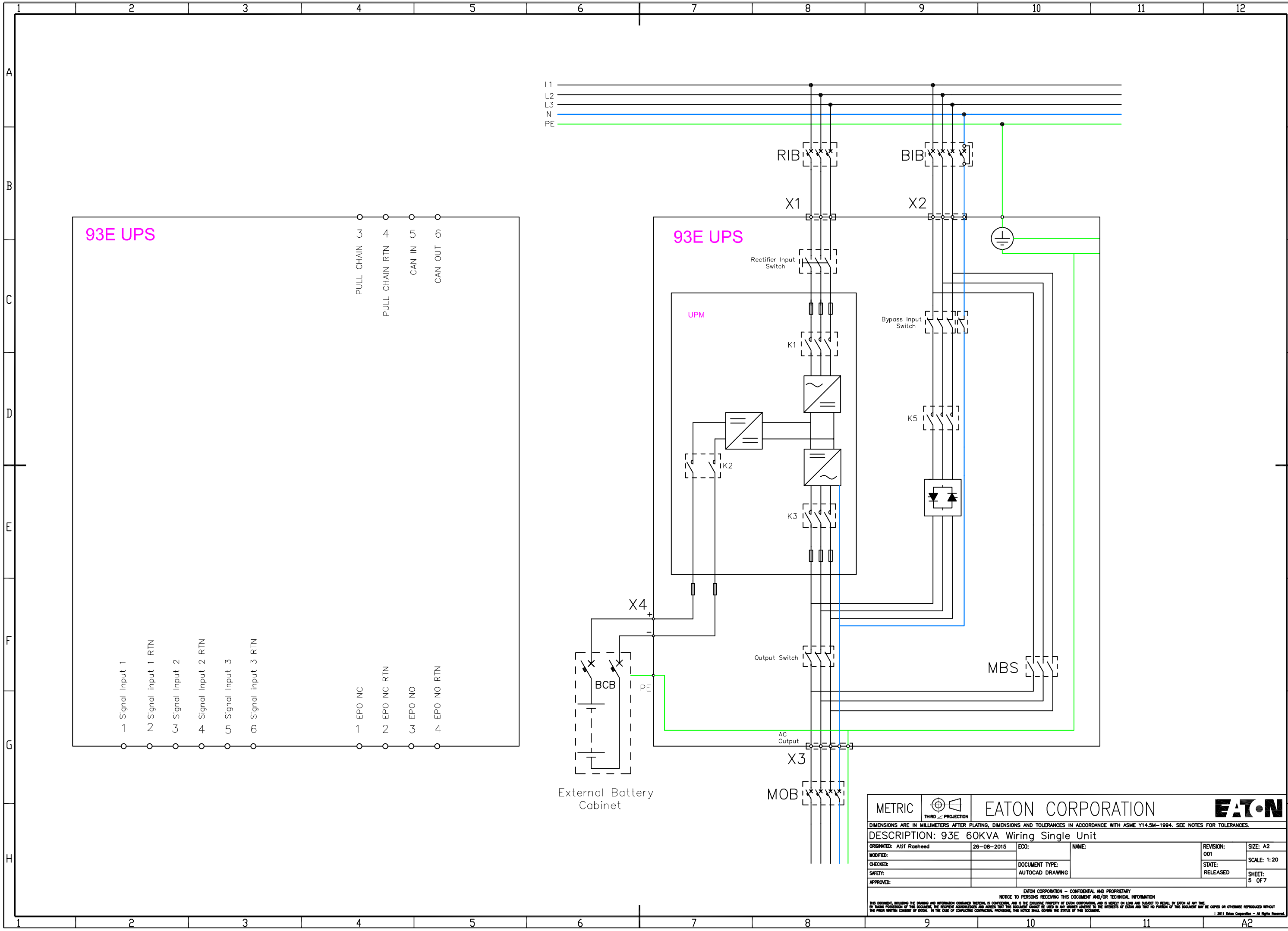


Power cable connections
Detail A

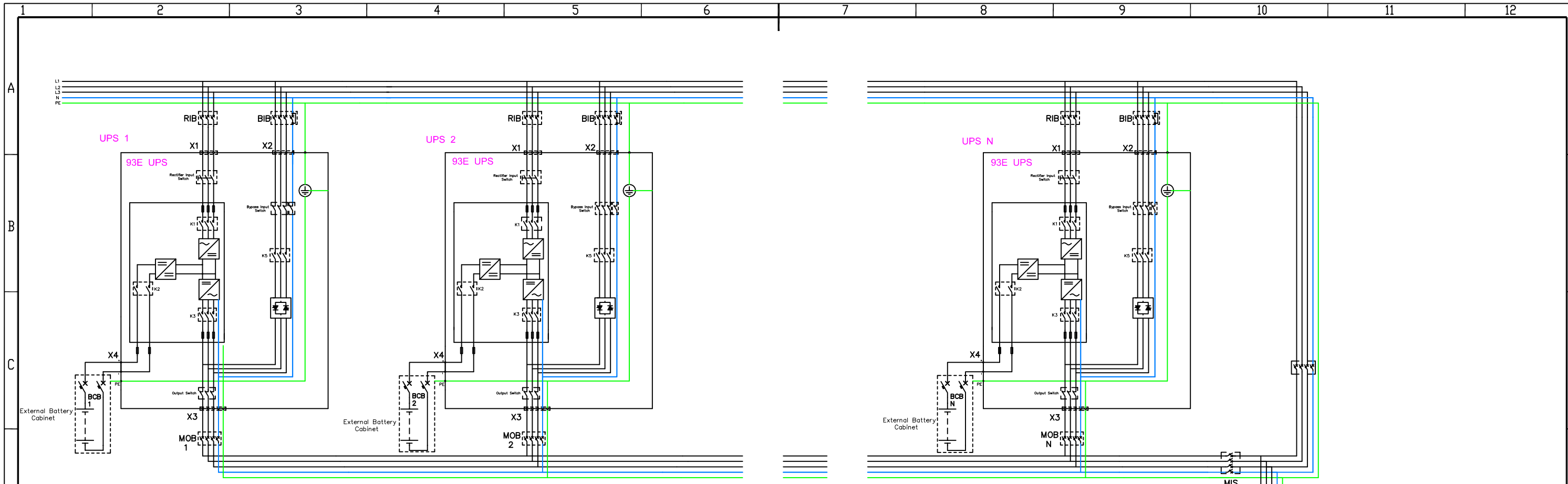
Notes:

1. M8 size power cable terminals are used for UPS input, output (L1,L2,L3,N) and PE connections. It requires approximately 12Nm of tightening torque.

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DESCRIPTION: 93E 60KVA Customer Connections							
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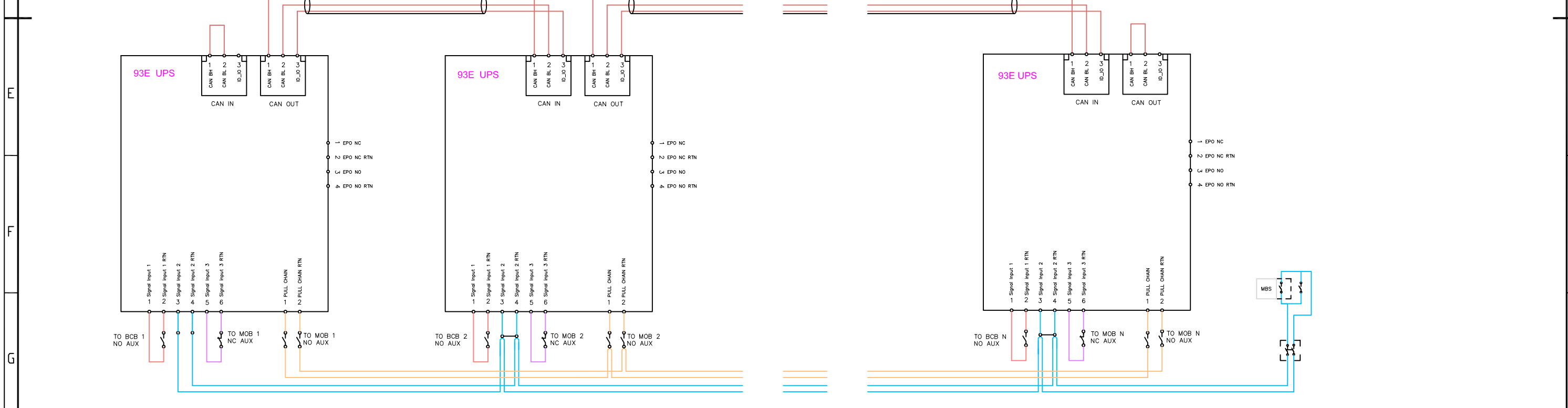


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DESCRIPTION: 93E 60KVA Wiring Single Unit							
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POWER WIRING

SIGNAL WIRING



MBS STATUS (Provided by others, Installed by others)
0.75 - 2.5mm² twisted pair (if possible, else shielded)
No earth needed

PULL CHAIN (REDUNDANT ON BYP STATUS)
Provided by Eaton, Installed by Eaton

PCAN (DUAL AS OPTION)
Provided by Eaton, Installed by Eaton

MOB STATUS (Provided by others, Installed by others)
0.75 - 2.5mm² twisted pair (if possible, else shielded)
No earth needed

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DESCRIPTION: 93E 60KVA Wiring Parallel Units							
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93E 60KVA UPS Site Planning Data

Product Specifications																	
UPS Rating		AC Input		3P Rectifier Input Breaker (RIB)		3P+Bolted N Bypass Input Breaker (BIB)		AC Output		4P Inverter AC output Breaker MOB			Battery Breaker (BCB) (Ratings at the end of discharge, 1.67VPC) (36 Blocks)		For Single Unit Maintenance Bypass Switch (MBS)	For Parallel Units Common Maintenance Bypass Switch (MBS)	
				Nominal Current	Maximum Current	Nominal Current at 400v Input	Maximum Current at 15 % under voltage			Output Current	Invertor Short Circuit Current	Auxiliary Switches	Rating	Battery end of discharge current	Auxiliary Switches	Rating	Rating
KVA	KW	v	A	A	A	A	v	A	A / 0...100ms	A / 100...160ms	Qty	VDC	A	Qty	A	A	Qty
60	54	400	92	102	87	100	400	87	161	101	1	500	162	1	87	87 x N	1

Minimum recommended cable and fuse sizes									
UPS RATING KVA	Rectifier Input Cable [mm ²] (3P)	Rectifier Fuse [A]	Bypass Input Cable [mm ²] (3P+N)	Bypass Fuse [A]	UPS Output Cable [mm ²] (3P+N)	Output Fuse [A]	PE Cable [mm ²]	POS. & NEG. Line [mm ²]	Battery Fuse [A]
60	1 x 50	125	1 x 35	100	1 x 35	100	1 x 25	2 x 35	200

Notes:

1. Rectifier AC input current calculations: Nominal – 100% load without charging; Maximum – 100% load with maximum charging (Rectifier current limit).
2. Inverter AC output current calculation: At 100% rated output load.
3. The system must be installed on a level floor suitable for computer or electronic equipment.
4. All wiring and installations must be in accordance with applicable National and Local Electric Regulations.
5. AC input to UPS: (3) phases, (1) neutral, (1) ground.
AC output to load: (3) phases, (1) neutral, (1) ground.
DC input from battery to UPS: (1) positive, (1) negative, (1) ground.
6. All breakers should be adjusted according to the specified Ampere values to protect the UPS and installation.
7. For UPS installation that utilizes single feed input, The input breaker should be configured according to the rated rectifier input current.
8. Cable sizing is based on the standard IEC 60364-5-52 and IEC 60364-5-54. The sizing is for 70°C rated copper cables.
8. Specifications are subject to change.

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