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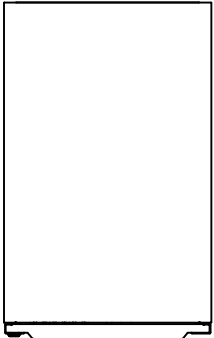
SITE PLANNING DATA Eaton 93PM 80-120 kVA

Page 1	Dimensional Drawings
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Page 4	Top Air Exhaust Kit Dimensions
Page 5	Electrical Wiring of Single Unit
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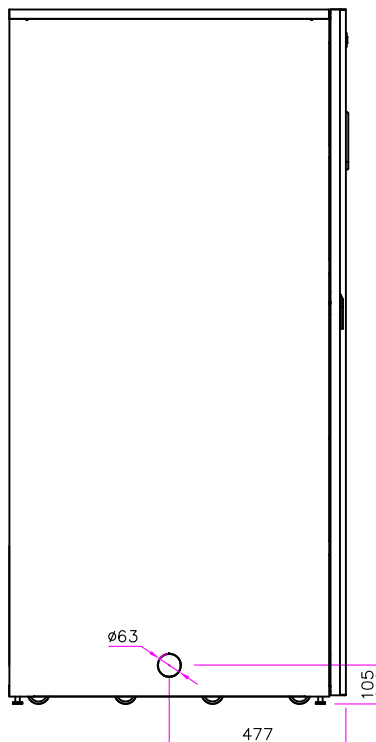


METRIC		THIRD ANGLE PROJECTION		EATON CORPORATION			
DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994. SEE NOTES FOR TOLERANCES.							
DESCRIPTION: Eaton 93PM 80-120 kVA							
ORIGINATED: Atif Rasheed	03.08.2015	ECO:	NAME:	REVISION: 003	SIZE: A2		
CHECKED: Meron Gemeda	18.04.2018	DOCUMENT TYPE:	P-110000455	STATE: RELEASED	SCALE: N/A		
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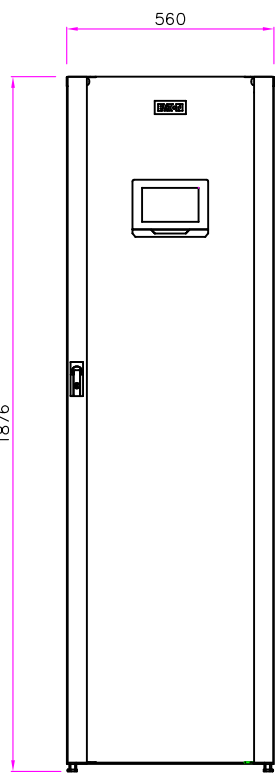
Product Specifications								
UPS Rating		Max Heat Dissipation at 100% Load	Cabinet Dimensions WxDXH	Shipping Dimensions WxDXH	Approx. Weight ⁶ Installed	Approx. Weight ⁶ Shipping	Floor Landing	Cooling Air
kVA	kW	kW	mm	mm	kg	kg	kg/m ²	l/S
80	80	2,9	560X914X1876	750X1135X2050	330	380	640	334
100	100	3,8	560X914X1876	750X1135X2050	330	380	640	334
120	108	4,2	560X914X1876	750X1135X2050	330	380	640	334



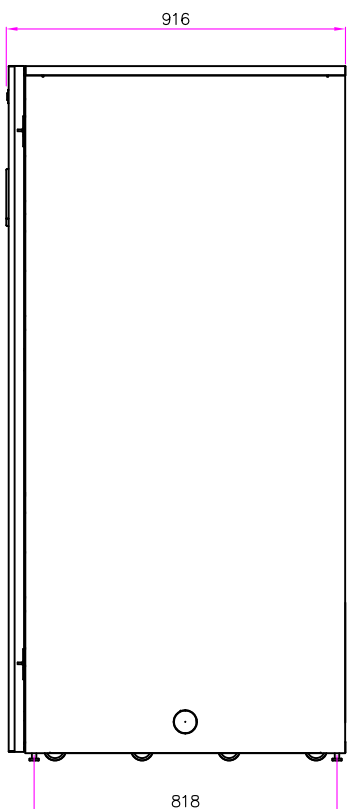
TOP VIEW



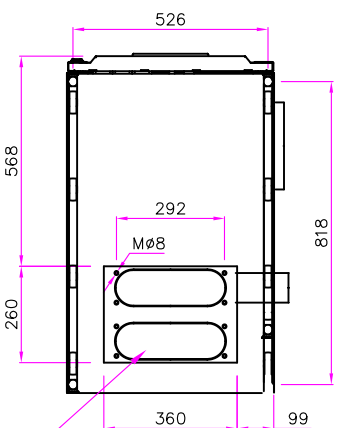
LEFT VIEW



FRONT VIEW



RIGHT VIEW



BOTTOM VIEW

CABLE ACCESS GLAND PLATE

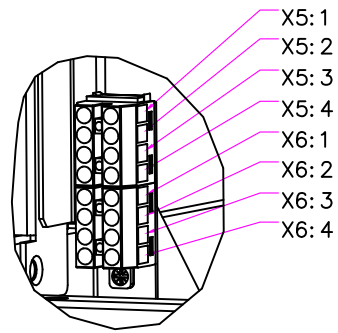
Notes:

- The system must be installed in a temperature and humidity controlled indoor area free of conductive contaminants.
- Continuous ambient temperature range for 93PM unity output pf models: 5–40°C. Maximum relative humidity: 95% non-condensing.
- Continuous ambient temperature range, 93PM 0.9 output pf models, 5–35°C. Maximum relative humidity: 95% non-condensing
- Minimum overhead clearance for ventilation above the UPS cabinet is 500mm.
- Minimum 900mm clearance in front of the UPS cabinet is required for cooling air intake and servicing space.
- Minimum 200mm of clearance required in the back of the UPS cabinet for normal system. If using top air exhaust kit with the unit then no clearance required from the back.
- When using top air exhaust kit, add 21kg to the total weight and if using top cable access kit, add 18 kg to the total weight.
- When using top air exhaust kit add 200mm to the total depth. For top cable access kit add 100mm to the total width.
- When using Top air exhaust kit add 200 mm to the total depth, add 28kg to the total weight. No additional cooling clearance required at the back.
- Cablings may require more space.

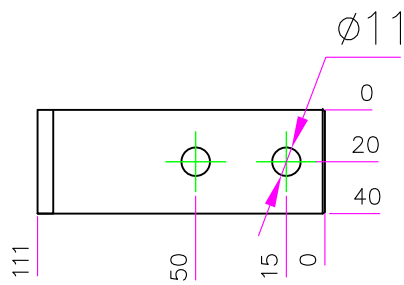
Cabinet Installation Clearances	
From Top of cabinet	500 mm
From Front of cabinet	900 mm
From Back of cabinet ⁵	200 mm

METRIC		THIRD ANGLE PROJECTION		EATON CORPORATION			EATON	
DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994. SEE NOTES FOR TOLERANCES.								
DESCRIPTION: Eaton 93PM 80–120 kVA Dimensional Drawing								
ORIGINATED: Atif Rasheed	03.08.2015	ECO:	NAME:	REVISION: 003	SIZE: A2			
MODIFIED: Meron Gameda	18.04.2018	DOCUMENT TYPE: AUTOCAD DRAWING	P-110000455	STATE: RELEASED	SCALE: 1:14			
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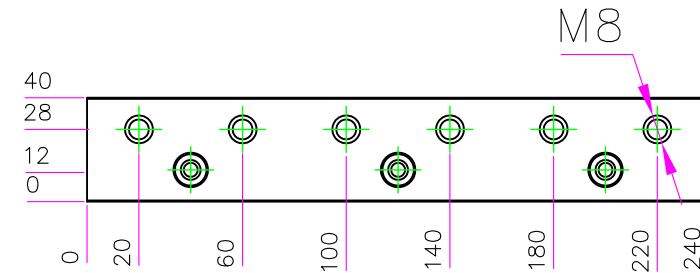
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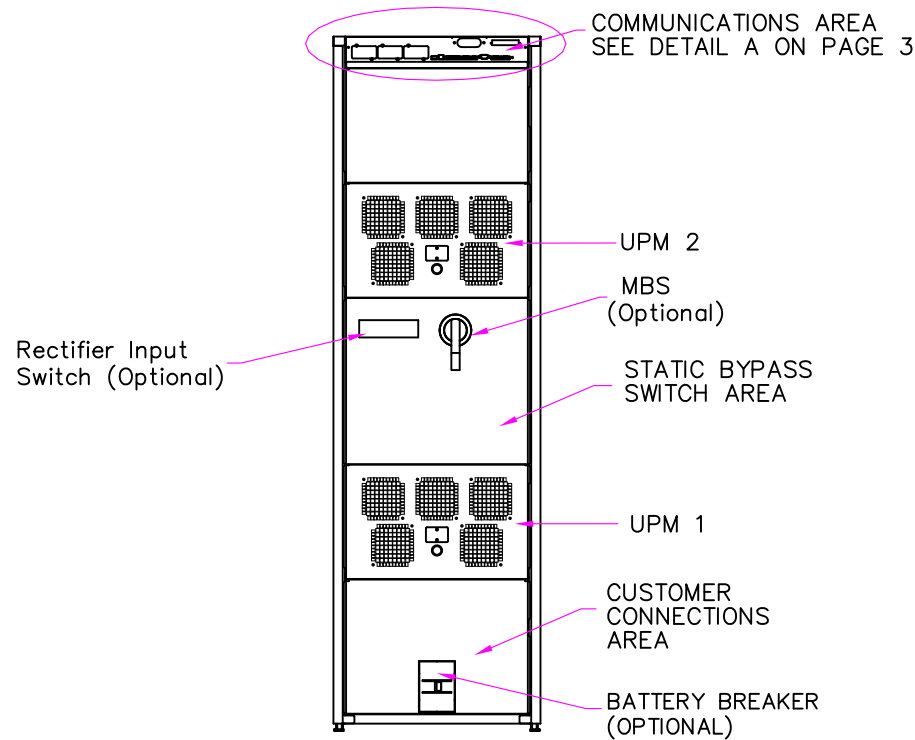
DETAIL B
BATTERY BREAKER
SIGNAL CONNECTIONS



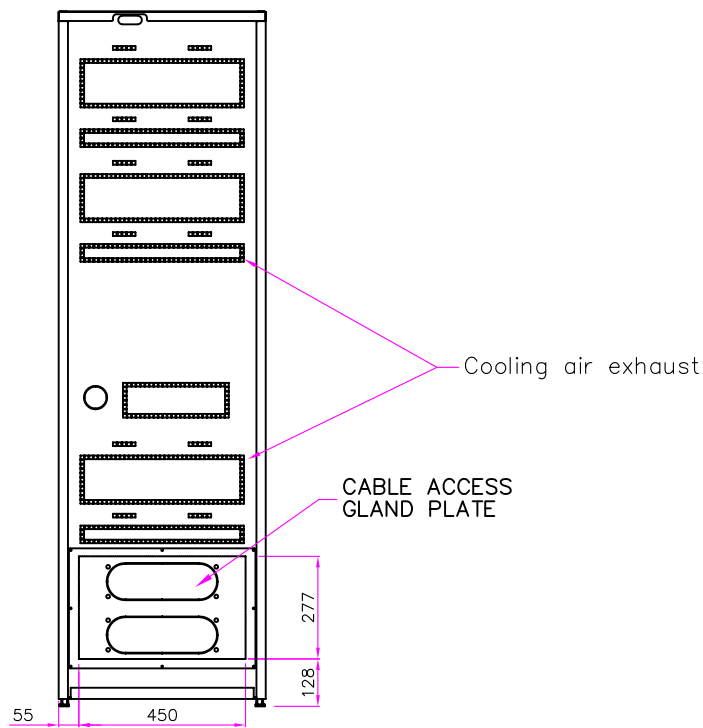
DETAIL C
SCALE 7:1



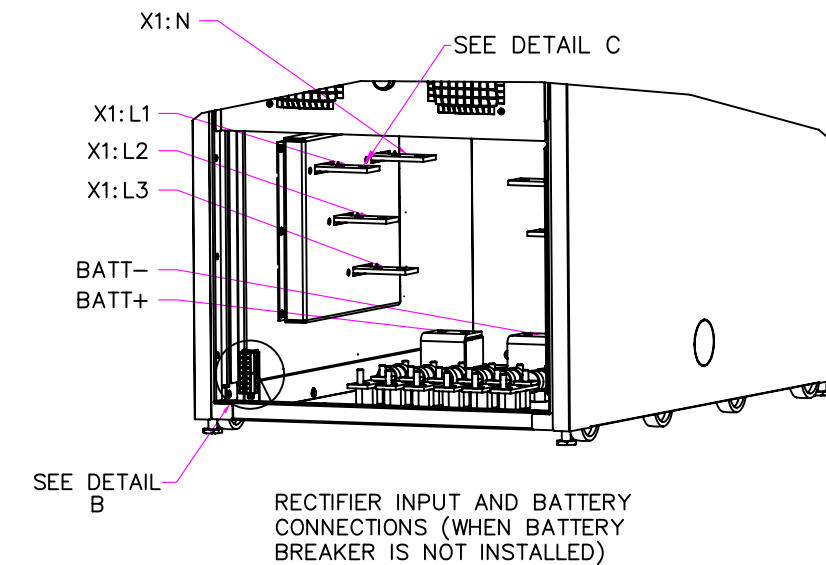
DETAIL D
SCALE 7:1



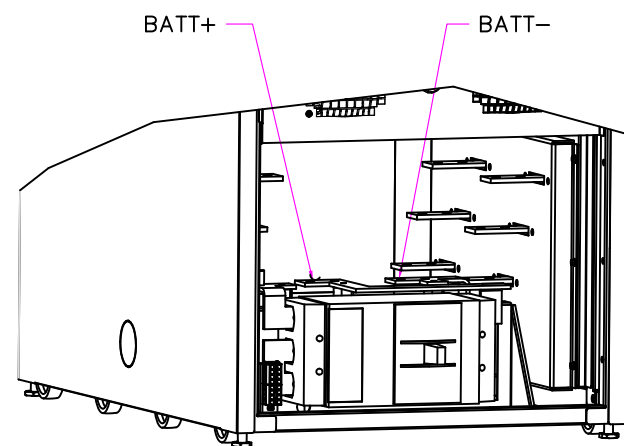
FRONT VIEW
(DOOR REMOVED)



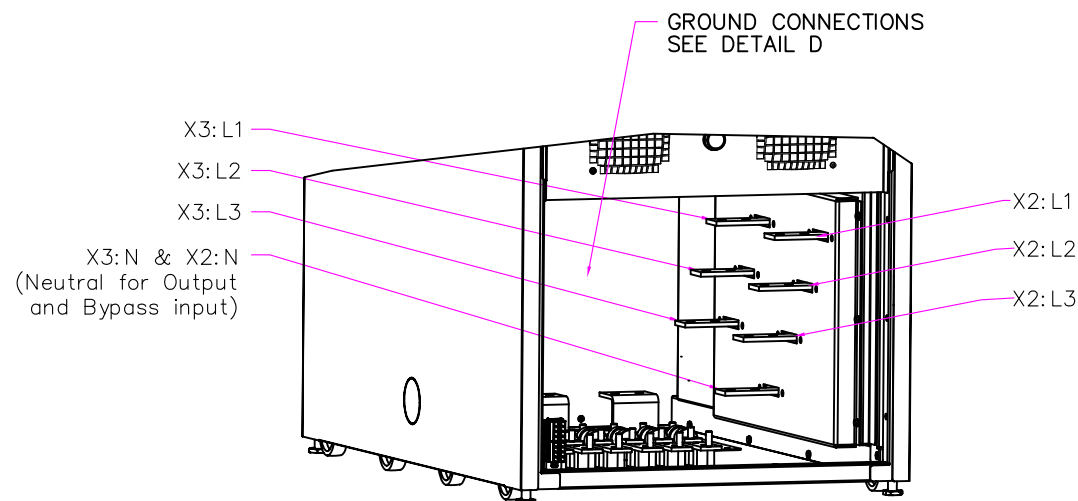
REAR VIEW



RECTIFIER INPUT AND BATTERY
CONNECTIONS (WHEN BATTERY
BREAKER IS NOT INSTALLED)



BATTERY CONNECTIONS
WITH BATTERY BREAKER



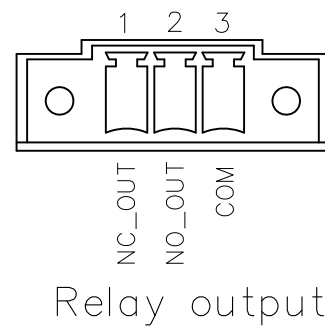
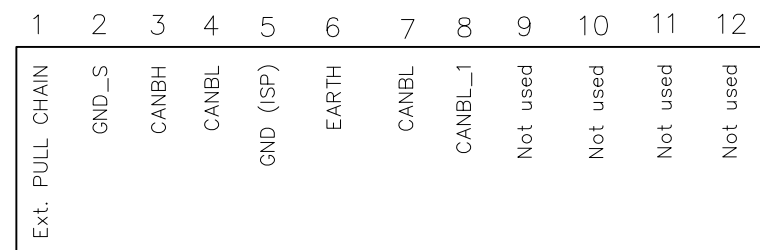
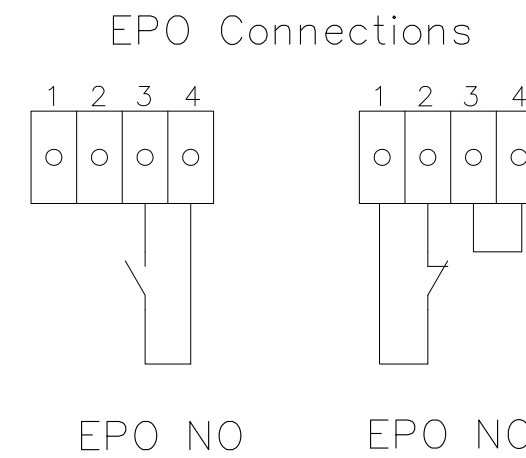
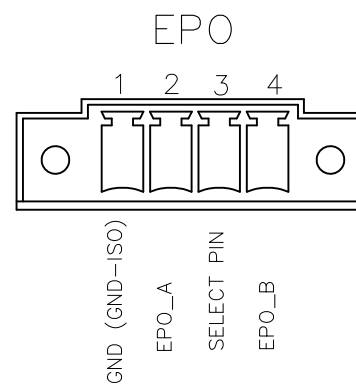
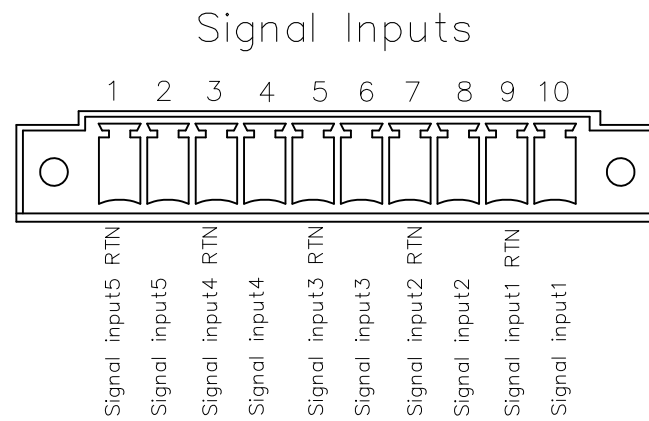
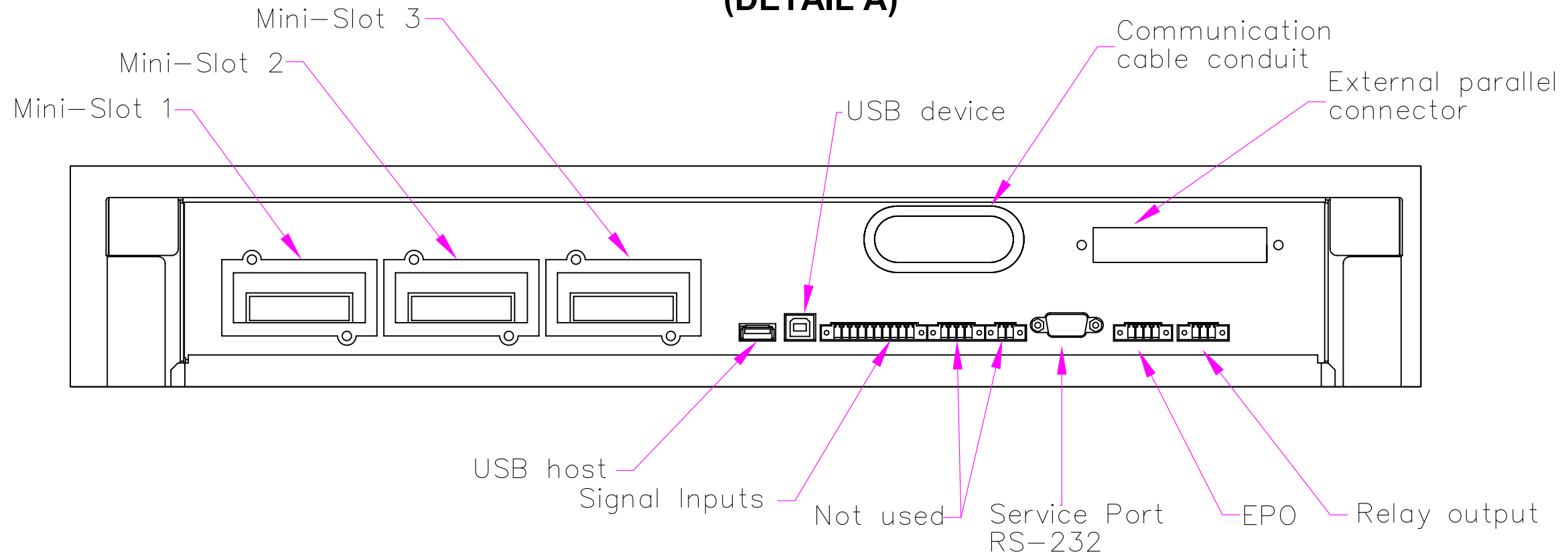
OUTPUT AND BYPASS
INPUT CONNECTIONS

Notes:

1. The bus bars are Tin coated and suitable for both Cu and Al connections.
2. M10 size power cable bolts are used for UPS input and output (L1,L2,L3,N) connections. It requires approximately 47Nm of tightening torque.
3. M8 size power cable bolts are used for PE connections and it requires approximately 24Nm of tightening torque.

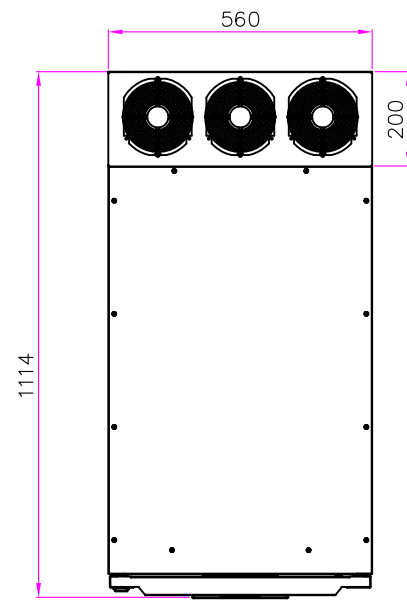
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DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994. SEE NOTES FOR TOLERANCES.							
DESCRIPTION: Eaton 93PM 80-120 kVA Customer Connections							
ORIGINATED: Atif Rasheed	03.08.2015	ECO:	NAME:	REVISION: 003	SIZE: A2		
MODIFIED: Atif Rasheed	21.08.2017			STATE: RELEASED	SCALE: 1:14		
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COMMUNICATION AREA (DETAIL A)

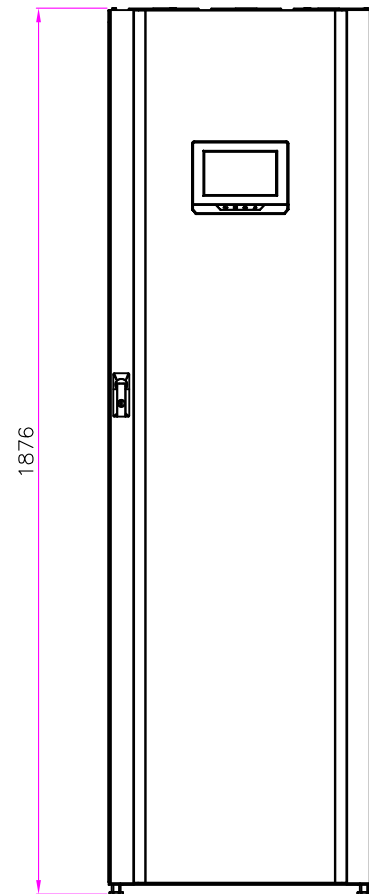


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DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994. SEE NOTES FOR TOLERANCES.					
DESCRIPTION: Eaton 93PM 80-120 kVA Customer Connections Detail View					
ORIGINATED: Atif Rasheed	03.08.2015	ECO:	NAME:	REVISION: 003	SIZE: A2
MODIFIED: Atif Rasheed	21.08.2017	DOCUMENT TYPE: AUTOCAD DRAWING	P-110000455		SCALE: 1:6
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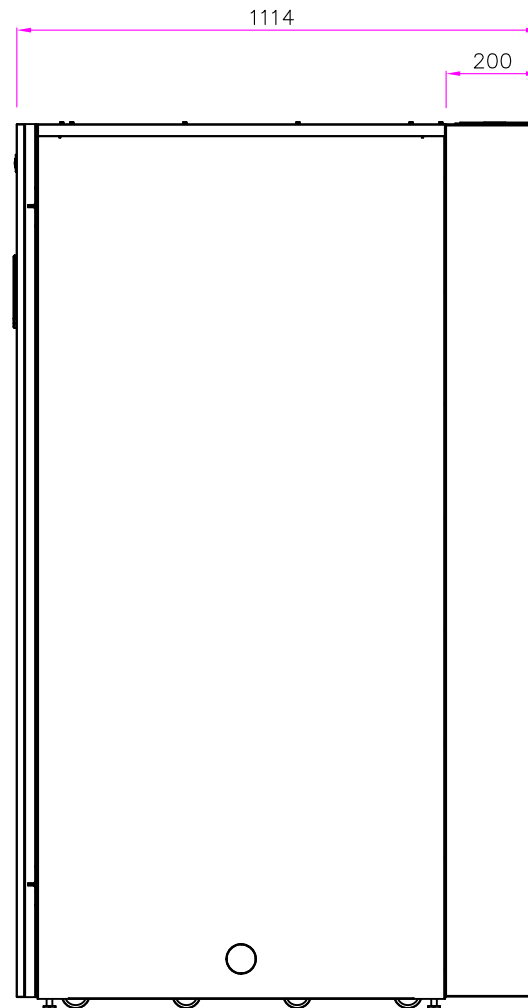
OPTIONAL TOP AIR EXHAUST KIT (FACTORY INSTALLED)



TOP VIEW



FRONT VIEW

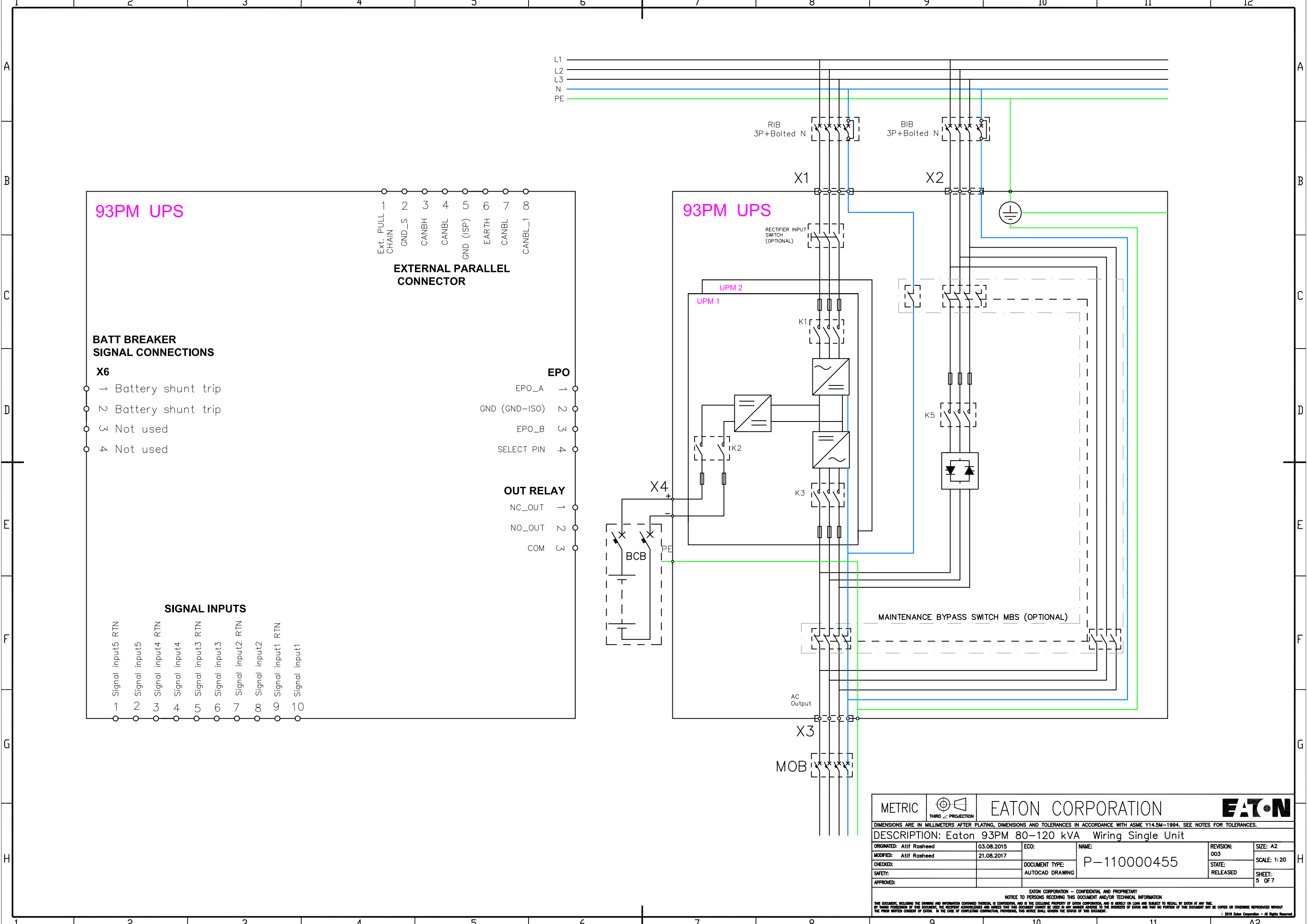


RIGHT VIEW

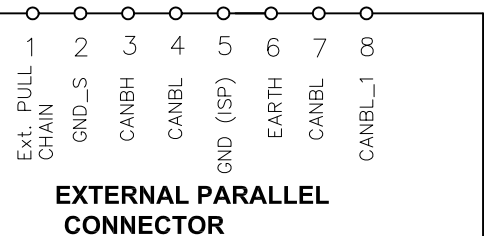
Notes:

1. Minimum 200mm (8in.) of clearance required in the back of the UPS cabinet for normal system. If using top air exhaust kit with the unit then no clearance required from the back.
2. Minimum 500mm of clearance is required from top of cabinet.

METRIC		THIRD ANGLE PROJECTION		EATON CORPORATION		EATON	
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DESCRIPTION: Eaton 93PM 80-120 kVA Top Air Exhaust Kit							
ORIGINATED: Atif Rasheed	03.08.2015	ECO:	NAME:	REVISION: 003	SIZE: A2		
CHECKED: Atif Rasheed	21.08.2017	DOCUMENT TYPE:	P-110000455	STATE: RELEASED	SCALE: 1:11		
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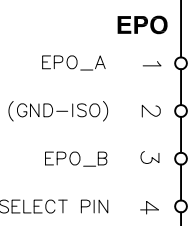
93PM UPS



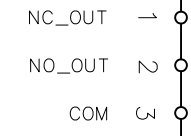
BATT BREAKER SIGNAL CONNECTIONS

X6

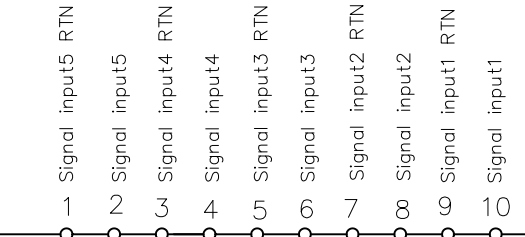
- → Battery shunt trip
- ~ Battery shunt trip
- ∞ Not used
- ↗ Not used



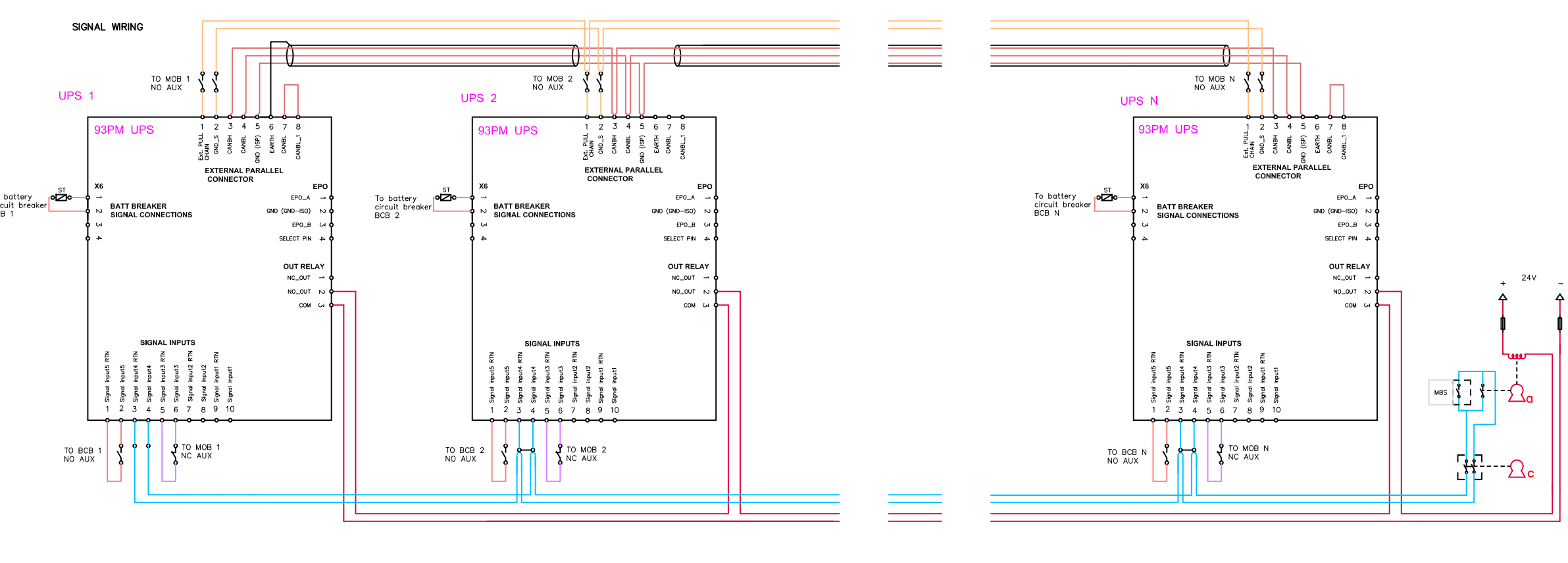
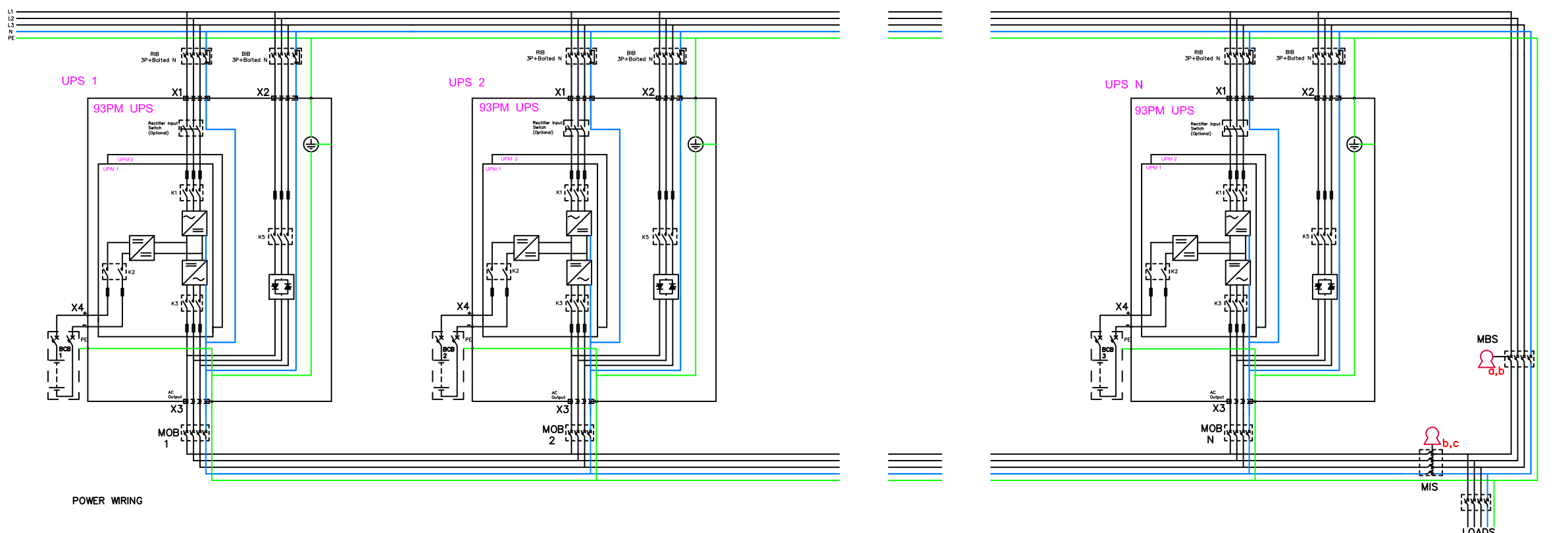
OUT RELAY



SIGNAL INPUTS



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DESCRIPTION: Eaton 93PM 80-120 kVA Wiring Single Unit					
ORIGINATED: Atif Rasheed	03.08.2015	ECO:	NAME:	REVISION: 003	SIZE: A2
CHECKED: Atif Rasheed	21.08.2017	DOCUMENT TYPE:	P-110000455	STATE: RELEASED	SCALE: 1:20
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- MBS STATUS (Provided by others, Installed by others)
0.75 - 2.5mm² twisted pair (if possible, else shielded)
No earth needed
- MOB STATUS (Provided by others, Installed by others)
0.75 - 2.5mm² twisted pair (if possible, else shielded)
No earth needed
- PCAN (DUAL AS OPTION)
Provided by Eaton, Installed by Eaton
- PULL CHAIN (Redundant ON BYPASS STATUS)
Provided by Eaton, Installed by Eaton
- ON BYPASS STATUS (NO INVERTORS ONLINE)
Provided by others, Installed by others
1.5 - 2.5mm² , 600v
- BATT AUX AND SHUNT TRIP
Provided by Eaton, Installed by Eaton
1.5 - 2.5mm²

- Mechanical bypass interlocking sequence
- Place UPS system to bypass. On bypass status (K3) will energize Key A solenoid to release it
 - Removing key A will switch on "force bypass" to the UPS system
 - Place key A to MBS breaker and close breaker. Key B will be released.
 - Aux contact of MBS will keep "force bypass" on UPS system
 - Place key B to MIS breaker and open MIS to isolate UPS system from load. Key C will be released
 - Place key C to it's dedicated keyhole to release "force bypass" command to allow UPS system testing

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DESCRIPTION: Eaton 93PM 80-120 kVA Wiring Parallel Units					
ORIGINATED: Atif Rasheed	03.08.2015	ECO:	NAME:	REVISION: 003	SIZE: A2
CHECKED: Atif Rasheed	21.08.2017	DOCUMENT TYPE:	P-110000455	STATE: RELEASED	SCALE: 1:45
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Eaton 93PM 80-120 kVA UPS Site Planning Data

Product Specifications																			
UPS Rating		AC Input		3P+Bolted N Rectifier Input Breaker (RIB)		3P+Bolted N Bypass Input Breaker (BIB)		4P Inverter AC output Breaker MOB			Battery Breaker (BCB) (Ratings at 36 blocks string length)						For Parallel Units Common Maintenance Bypass Switch (MBS)		
				Nominal Current	Maximum Current	Nominal Current	Integrated Bypass Fuse	AC Output	Output Current	Inverter Short Circuit Current	Auxiliary Switches	Rating	Separate Battery Configuration (UPM Battery)		Common Battery Configuration (UPS Battery)		Trip Device (Shunt Trip)	BCB Auxiliary Switches	Rating
kVA	kW	V	A	A	A	Type	V	A	A / 400ms	Qty	VDC	Rated current [A] per UPM	Maximum current [A] per UPM	Rated current [A]	Maximum current [A]	VDC	Qty	A	Qty
80	80	400	133	152	116	Bussman 550A 170M4465	400	116	345	2	500	111	141	177	253	24	1	116 x N	1
100	100	400	163	190	145	Bussman 550A 170M4465	400	145	345	2	500	111	141	222	281	24	1	145 x N	1
120	108	400	189	202	174	Bussman 550A 170M4465	400	174	345	2	500	N/A	N/A	239	274	24	1	174 x N	1

Notes:

1. Rectifier AC input current calculations: Nominal, 100% load with full charging;
2. Maximum AC input calculations: Rectifier current limit.
3. Inverter AC output current calculation: Nominal, 100% rated load.
4. The system must be installed on a level floor suitable for computer or electronic equipment.
5. All wiring and installations must be in accordance with applicable National and Local Electric Regulations.
6. 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.
7. All breakers should be adjusted according to the specified Ampere values to protect the UPS and installation.
8. For UPS installation that utilizes single feed input, the input breaker should be configured according to the rated rectifier input current..
9. Specifications are subject to change.

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