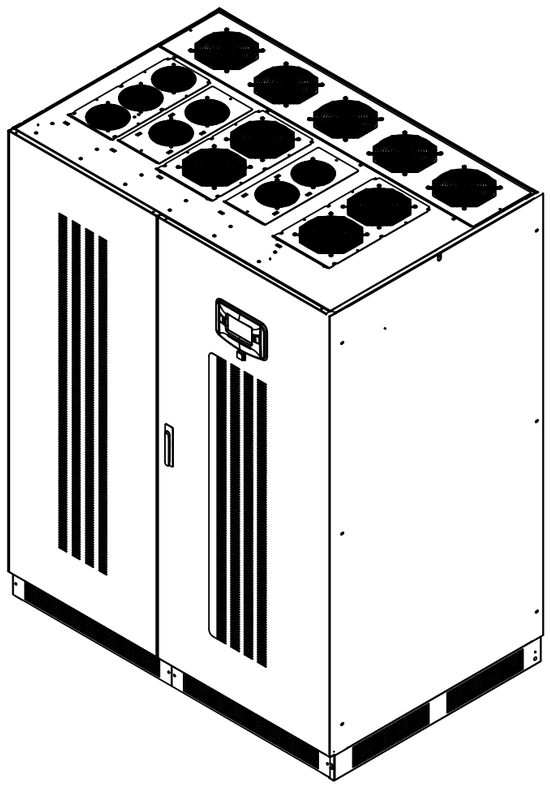
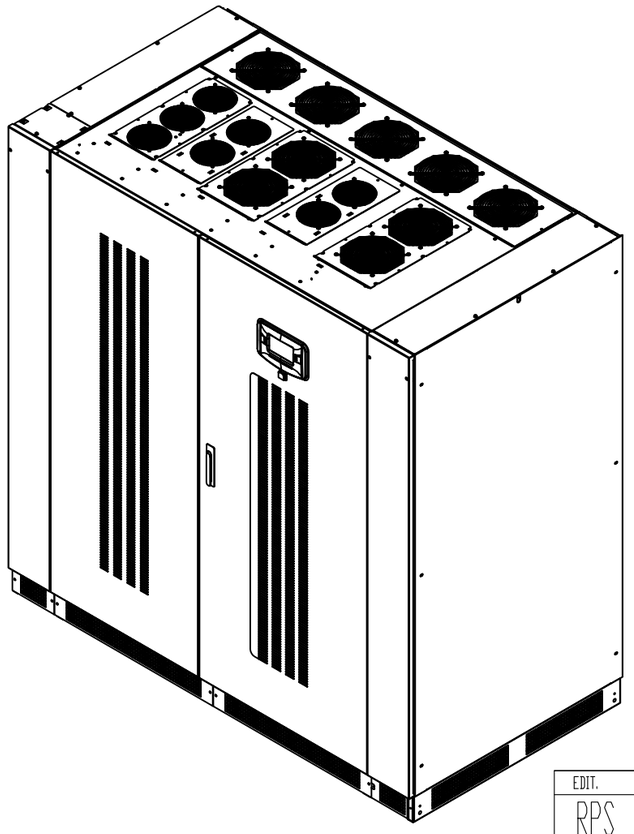
General characteristics for environmental consideration							
MASTER HP-UL Series		W/□ TCE			W/ TCE		
Type		MHT 300	MHT 400	MHT 500	MHT 300	MHT400	MHT 500
Rated Power	kVA/ kW	300/300	400/400	500/450	300/300	400/400	500/450
Power loss (kW) 50%load/100%load	kW	7.1/16.5	10.1/21.5	11.3/24.7	7.1/16.5	10.1/21.5	11.3/24.7
Air flow	m3h/CFM	8162/4801					
Max ambient temperature	°C/°F	40/104					
Altitude without derating	m/feet	1000/3300					
Relative Umidity		= 95% non condensing					
Dimensions and weight							
UPS weight	kg/lb	1900/ 4190	2150 / 4741		2000 / 4410	2250 / 4961	
Dimensions WxDxH	mm/in	1500x1000x1900 - 59x39.37x74.80			1900x1000x1900 - 74.80x39.37x74.80		
Footprint area	m²/ft²	1.5 / 16.14			1.9 / 20.44		
		□pening for Cable Entry					
T□P	m²/ft²	NA			0,29 / 3,14		
B□TT□M	m²/ft²	0,23 / 2.48			0,26 / 2,86		





POWER CONNECTIONS

This UPS is rated for use on a circuit capable of delivering no more than (SCCR) 50,000A rms symetrical amperes, 480 volts maximum

WARNING	The UPS is provided with Bond that connects the Neutral □utput to the frame Ground for delta input connection. This is required to meet NEC grounding code for separately derived neutrals. When a Neutral is provided in a Wye configured input connection, the bond should be removed, in accordance with Local code requirements. Refer to NEC article 250(Grounding and Bonding) for identify system of grounding and size of Equipment grounding conductor
	Branch □CP devices must be provided as parts of plant.
	Use at least 75°C rated copper wires. The size of cables are reported from NEC Table 310.16. Could be required a larger awg size than shown in these tables, because of temperature, number of conductors in conduit or long service runs.

MASTER HP UL size (kVA)	300	400	500**
INPUT AC LINE - SINGLE INPUT			
Input Line 3Ph + N + PE 277/480V 60Hz			
Branch-□CP device size (A)	600	800	
Phase and neutral cond. Size (kcmil/mm²)	2x250 / 2x127	3x250/ 3x127	4x250 / 4x127
INPUT AC LINE - DUAL SEPARATE INPUT (Remove the busbars connecting Input Mains line and Bypass Line See details on picture)			
Input Mains 3Ph + PE 277/480V 60Hz			
Branch-□CP device size (A)	600	800	
Phase and neutral cond. Size (kcmil/mm²)	2x250 / 2x127	3x250/ 3x127	4x250 / 4x127
Input Bypass Line 3Ph + N + PE 277/480V 60Hz			
Branch-□CP device size (A)	600	800	
Phase and neutral cond. Size (kcmil/mm²)	2x250 / 2x127	3x250/ 3x127	4x250 / 4x127
□utput AC LINE 3Ph + N 277/480V 60Hz			
Phase and neutral cond. Size (kcmil/mm²)	3x2/0 / 3x67.4	3x3/0 / 3x85	3x4/0 / 4x107
Battery DC Input			
Branch-□CP device size (A) *	800	1000	1200
Polarities + and - conductors (Kcmil/mm²)	3x250 / 3x127	3x350 / 3x177	3x500 / 3x253

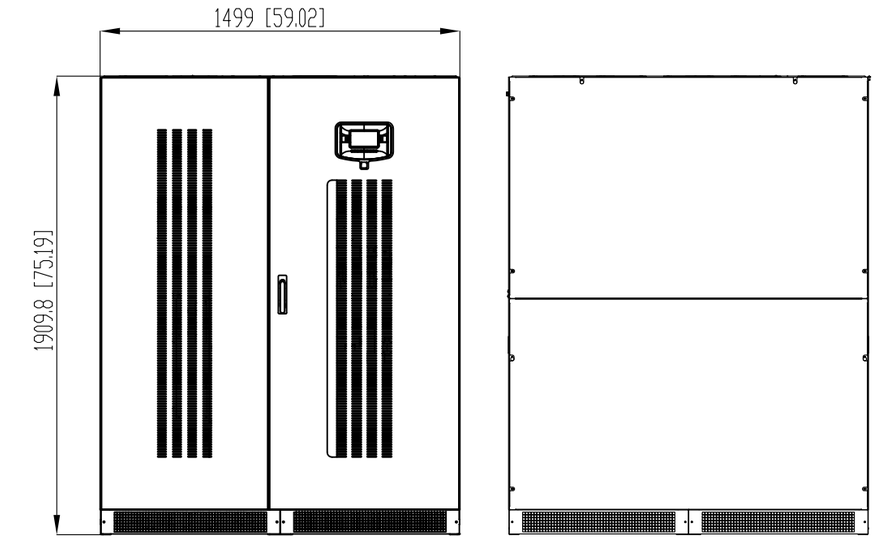
*If "Riello BBX 1900 480V UL L8 3U" battery cabinets are provided, the □CP device is included in the cabinet. For other applications read "User Manual" Battery connections.
**Note: For 500kVA, when installing copper conductors, use a suitable oxide inhibiting compound Ground terminal of Battery Cabinet must to connected to Ground terminal of UPS Cabinet.

EDIT.	A.Rebecchi	APPR.	B.Boldrini	DATA: 18 / 12 / 19	DRAW. No	REV.
RPS	VARIATION: Modify barnch-□PC device siz				0ML.MHTM30RUENIA	02
REPLACE:	0ML.MHTM30RUENIA_REV.01	Scala: 1:20	Peso/Weight: ...		PAG. 1 DI 10	
NOTE: ...			TITLE: Manu MHT 300÷500k DRW En UL ...			

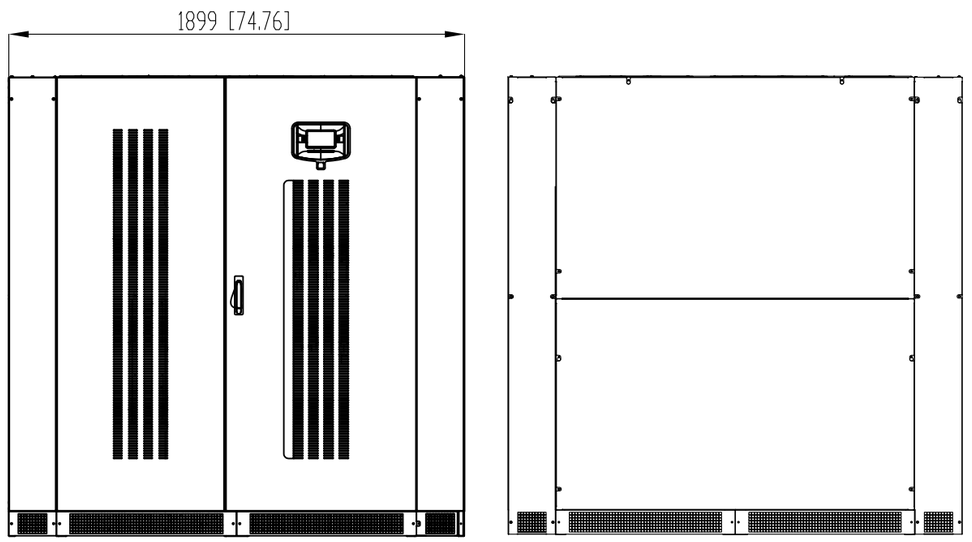
CART ISO_A3

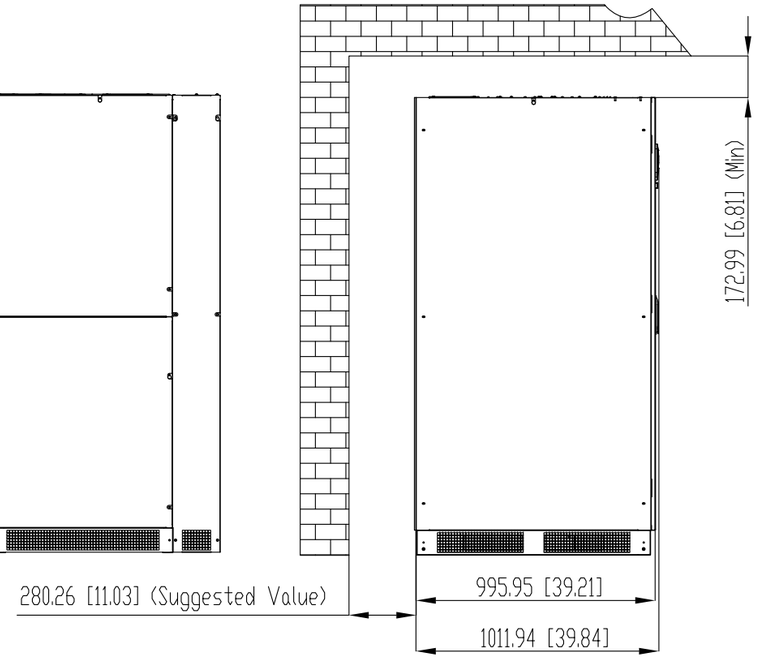
INSTALLATION INSTRUCTIONS

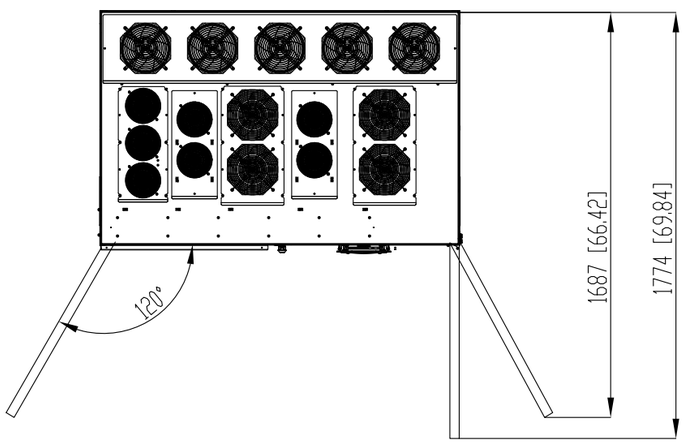
W/O TCE

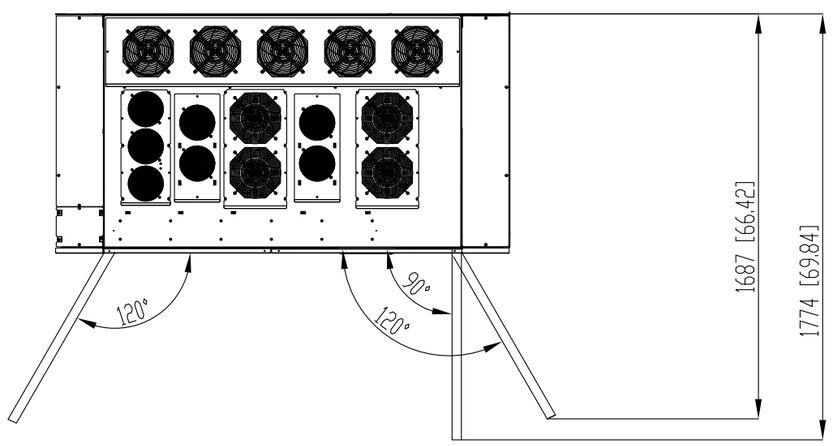


W TCE





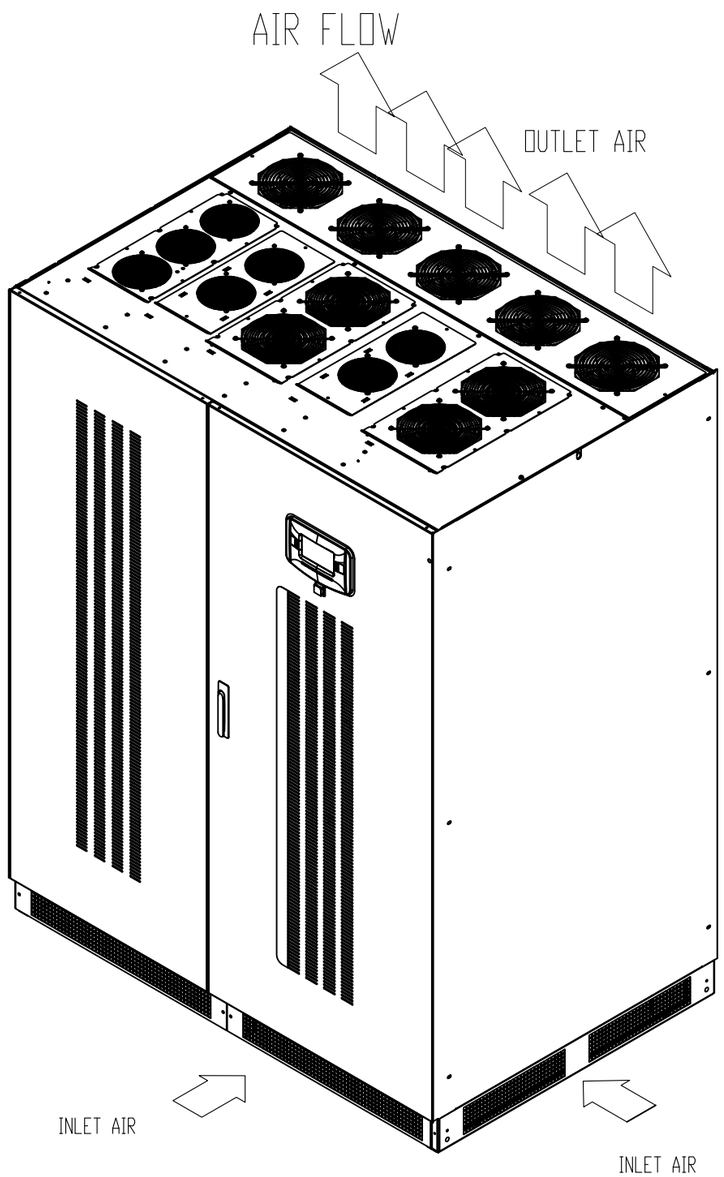




NOTE:
Do not mount side kickplate when there are cabinet side by side.
Leave at least one of the three (right, rear, left) of cabinet free

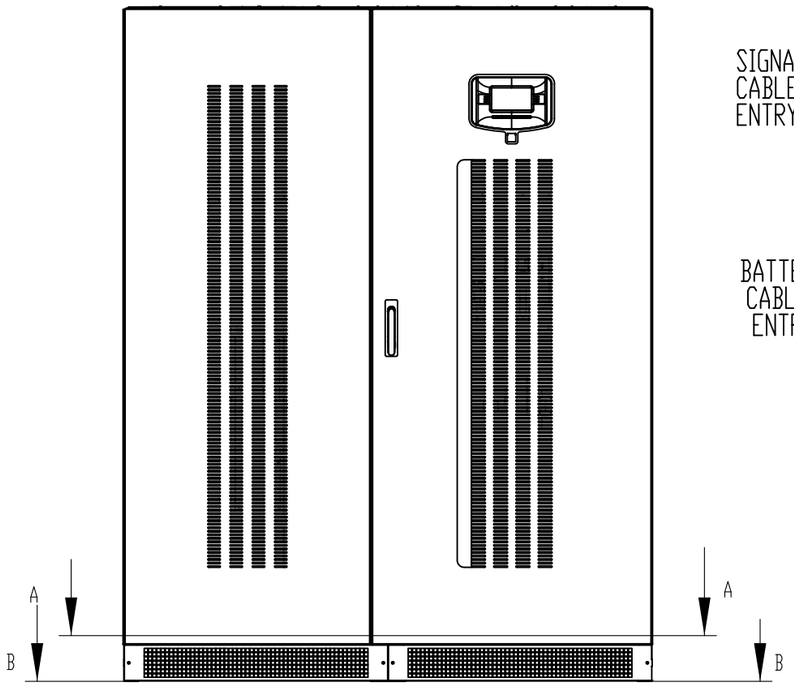
RPS	DRAW. No	REV.
	OMLMHTM3ORUENIA	02
	PAG. 2 DI 10	

MASTER HP - UL - Series
W/O TCE

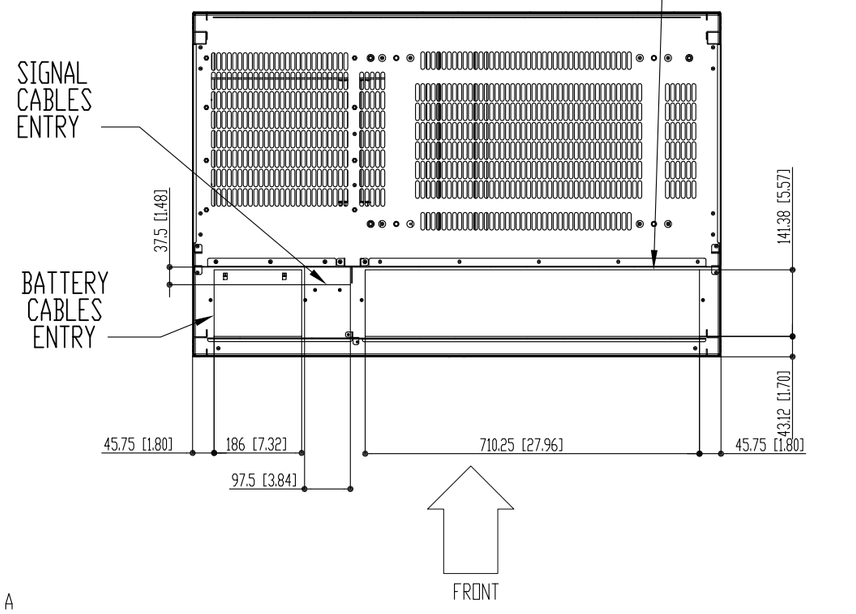


NOTE:
High temperaturerise may occur if the minimum value indicated is not maintained above the UPS

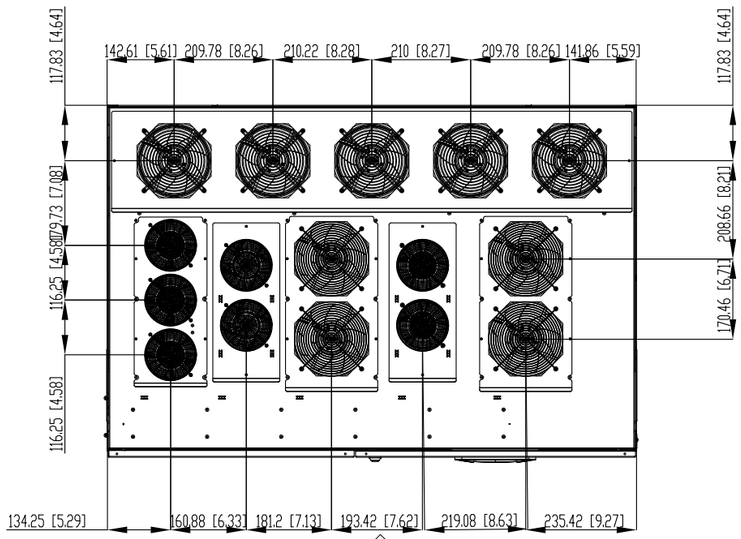
FRONT VIEW



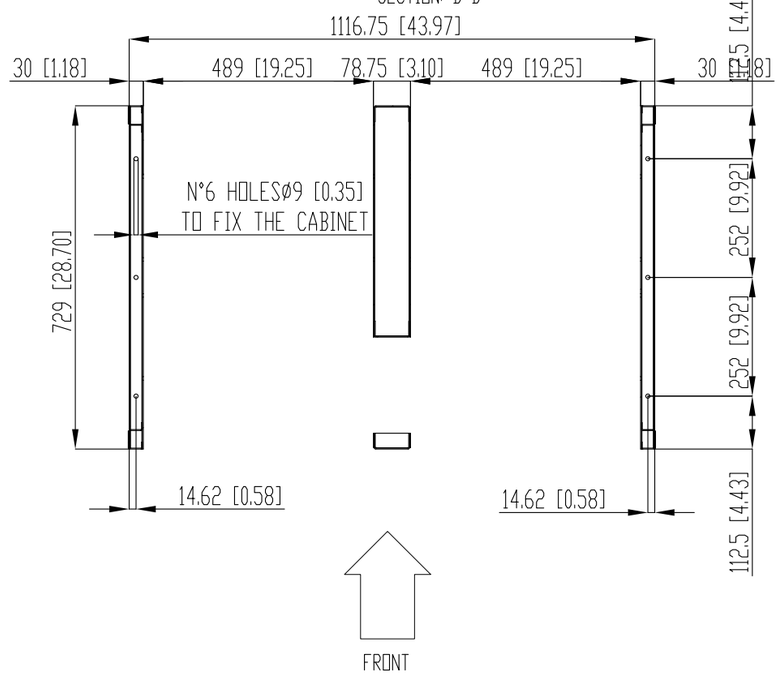
BOTTOM VIEW
W/O DOOR AND PANEL
Bearing surface of cabinet
SECTION: A-A



TOP VIEW
Fans Position

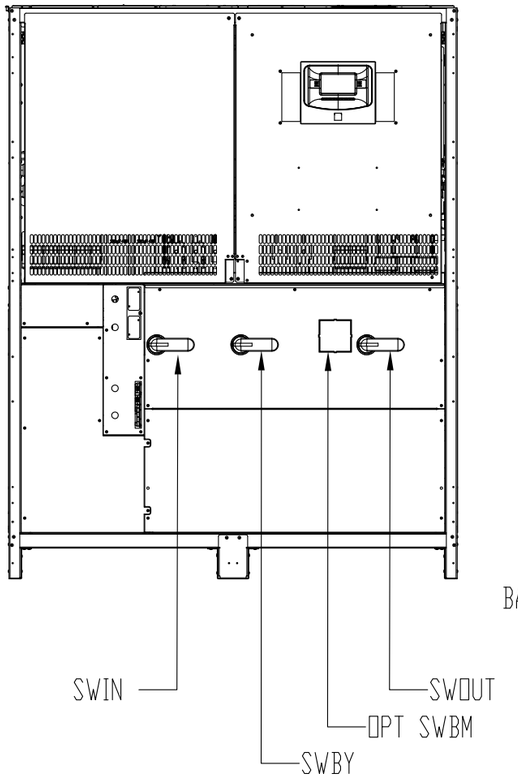


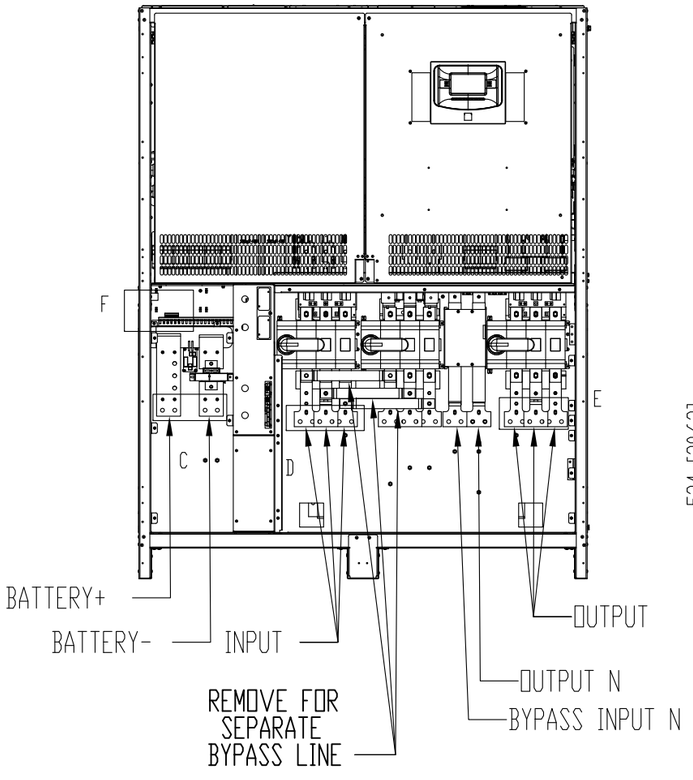
BOTTOM VIEW
W/O DOOR AND PANEL
Bearing surface of cabinet
SECTION: B-B

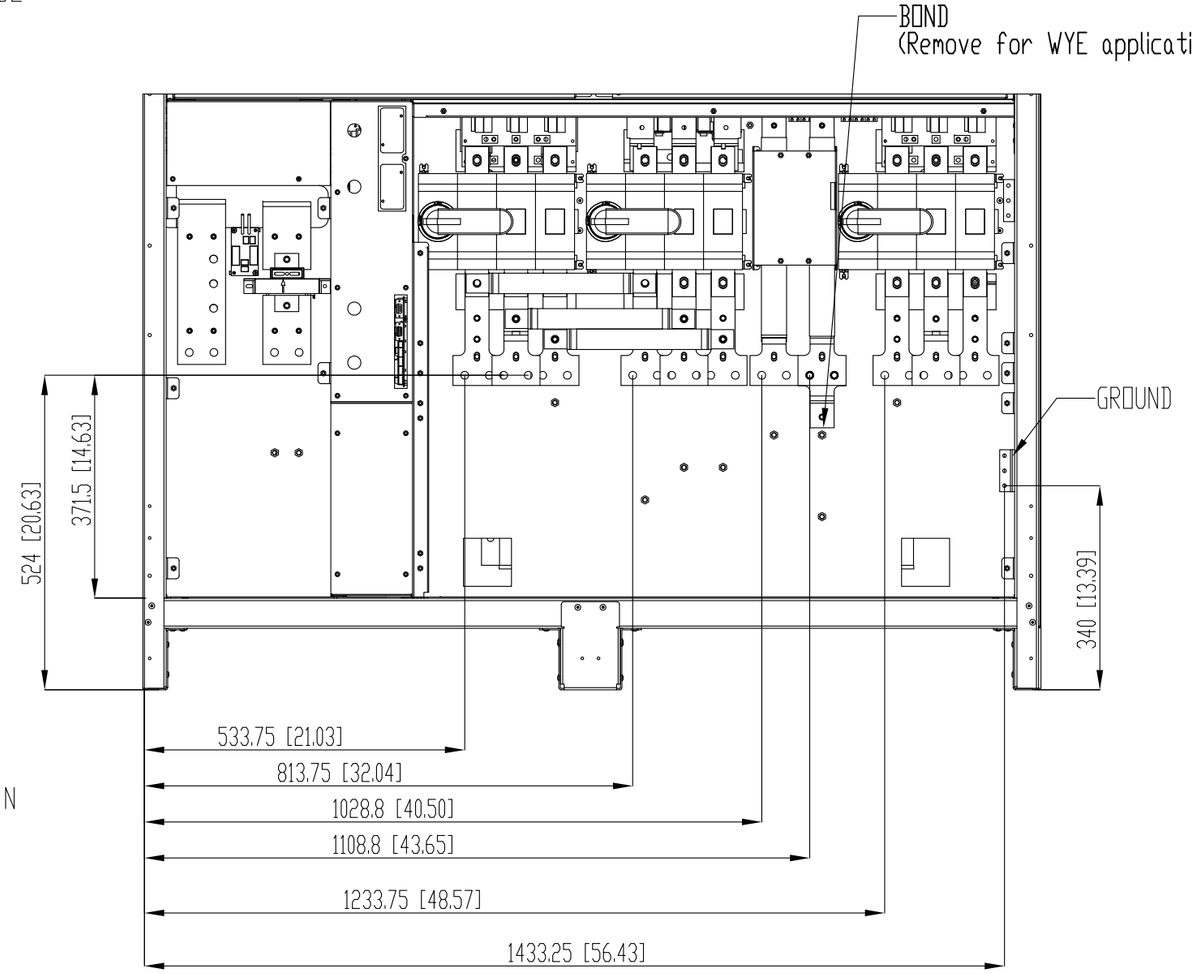


RPS	DRAW. No	REV.
	OMLMHTM30RUENIA	02
	PAG. 3 DI 10	

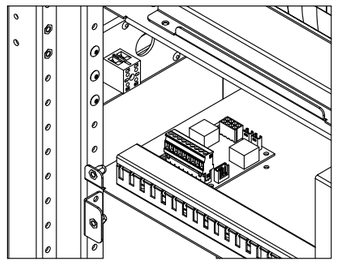
SIZE 300 kVA W/O TCE



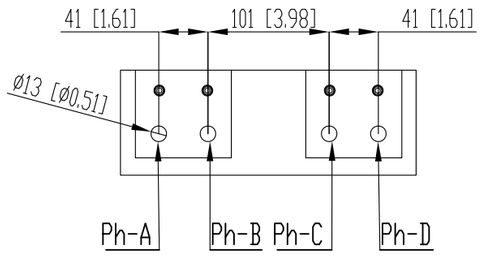




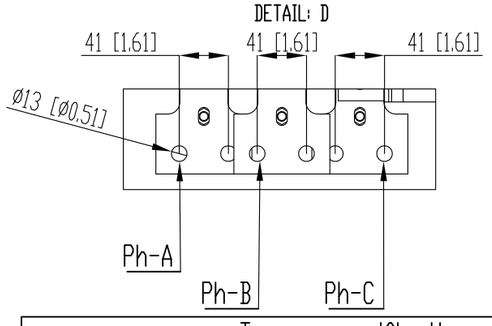
AUX CONNECTIONS
DETAIL: F



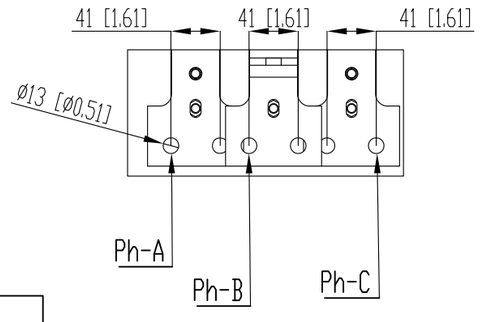
BATTERY
DETAIL: C



INPUT
DETAIL: D



OUTPUT
DETAIL: E

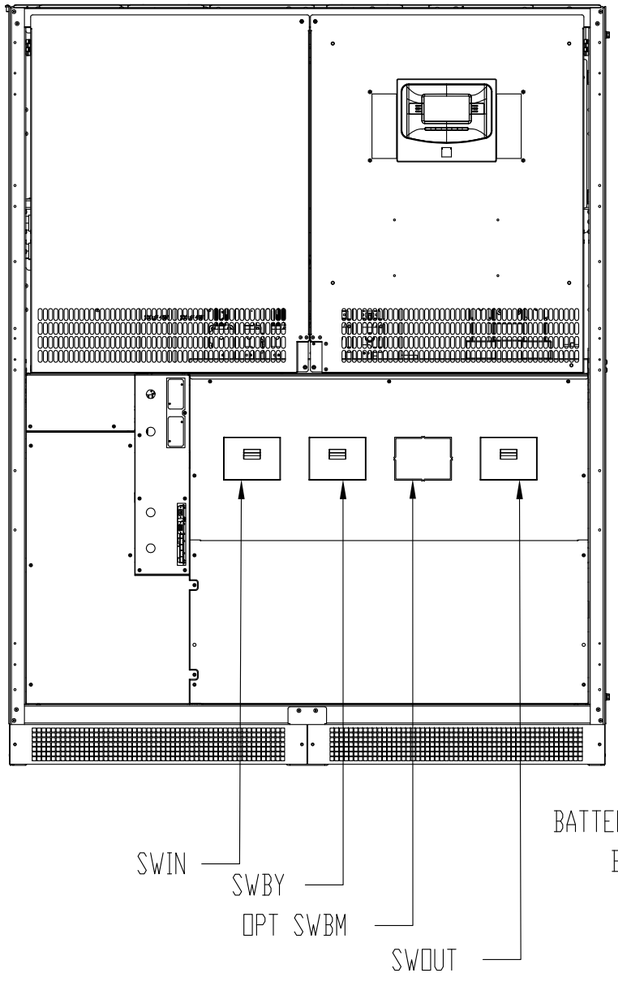


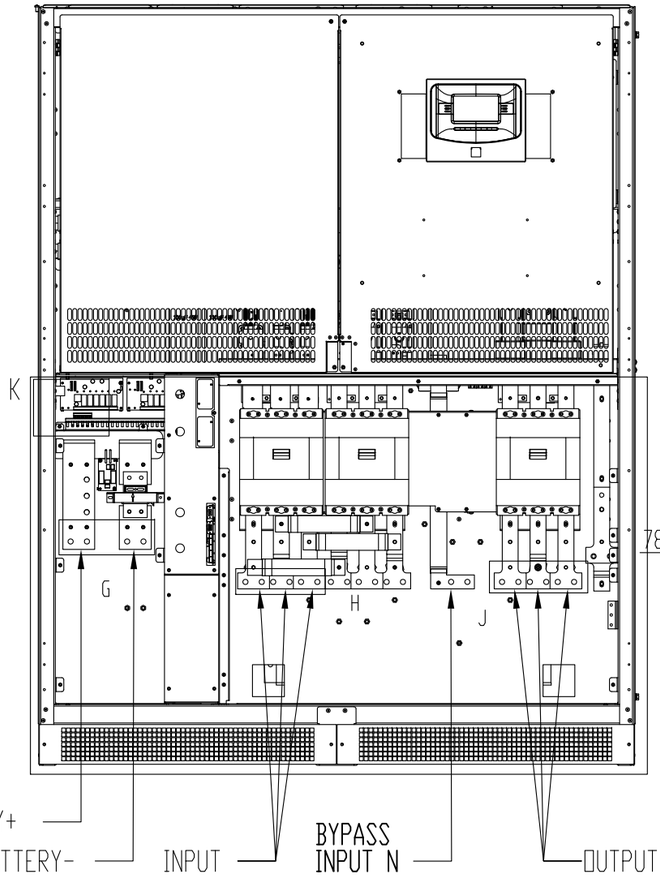
Torque specification		
Bolt size	Torque Load	
1/2 - M12	70Nm	51.5 lfb-ft

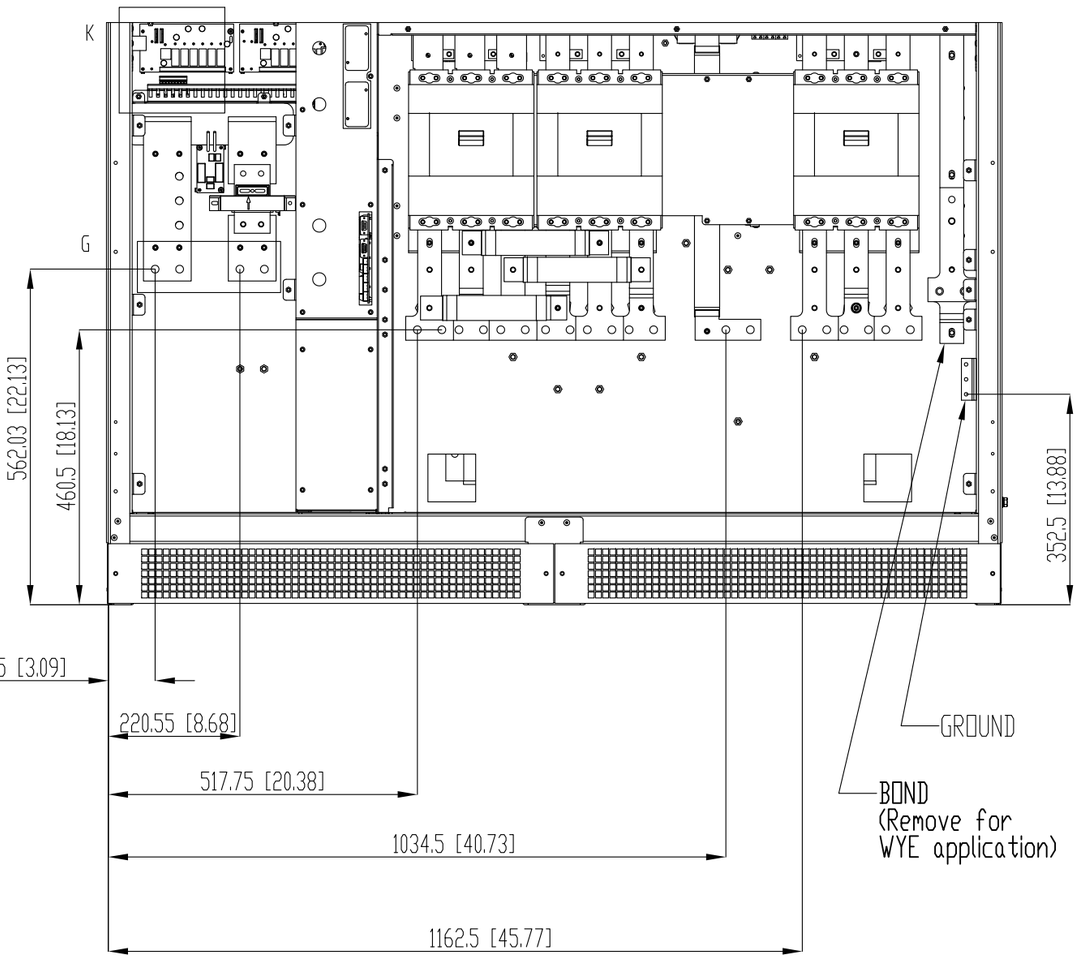
RPS

DRAW. No	REV.
OMLMHTM30RUENIA	02
PAG. 4 DI 10	

SIZE 400-500 kVA W/O TCE

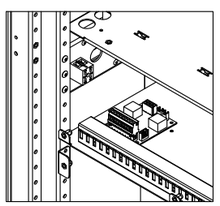




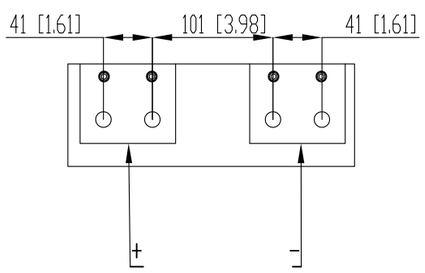


Torque specification		
Bolt size	Torque Load	
1/2 M12	70 Nm	51.5 lfb-ft

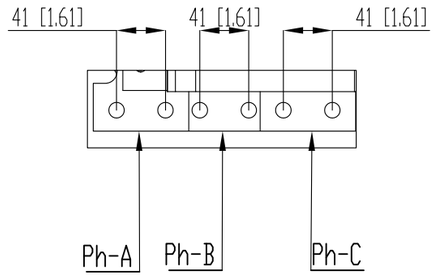
AUX CONNECTIONS
DETAIL: K



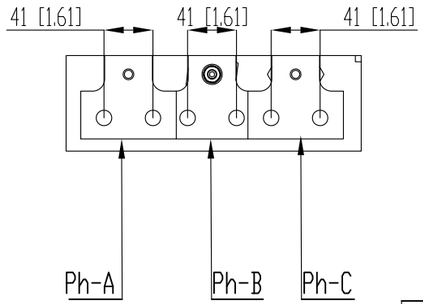
BATTERY
DETAIL: G



INPUT
DETAIL: H



OUTPUT
DETAIL: J

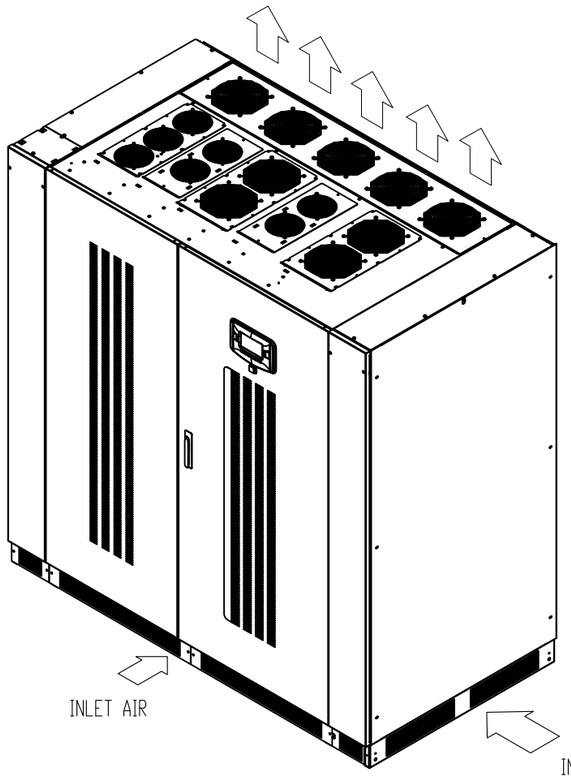


RPS

DRAW. No	REV.
OMLMHTM30RUENIA	02
PAG. 5 DI 10	

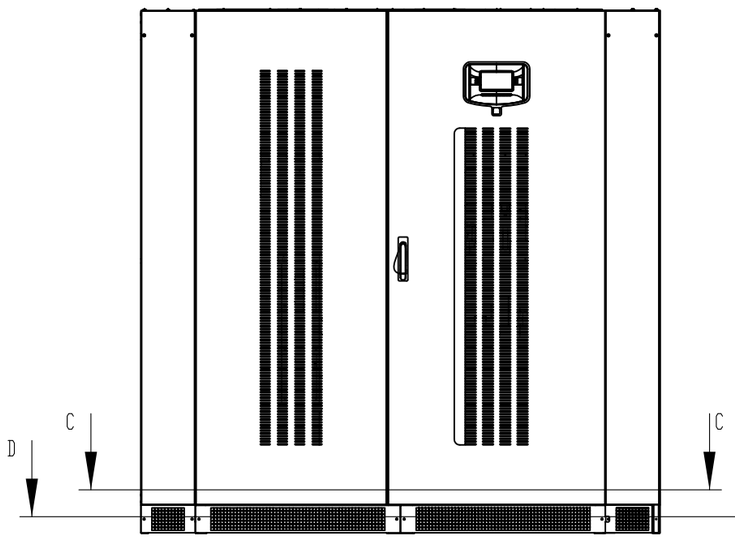
MASTER HP- UL - Series
W TCE

AIR FLOW



NOTE:
High temperaturerise may occur if the minimum value indicated is not maintained above the UPS

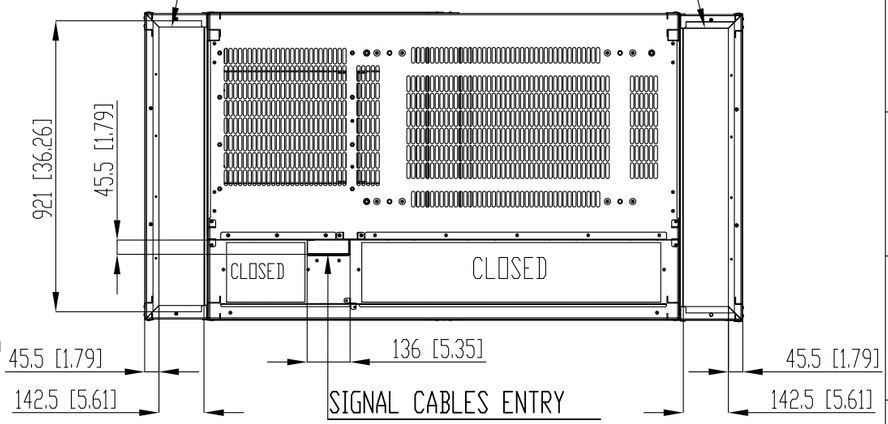
FRONT VIEW



INPUT AND BATTERY CABLE ENTRY

BOTTOM VIEW
W/O DOOR AND PANEL
Bearing surface of cabinet
SECTION: C-C

BYPASS AND OUTPUT CABLE ENTRY

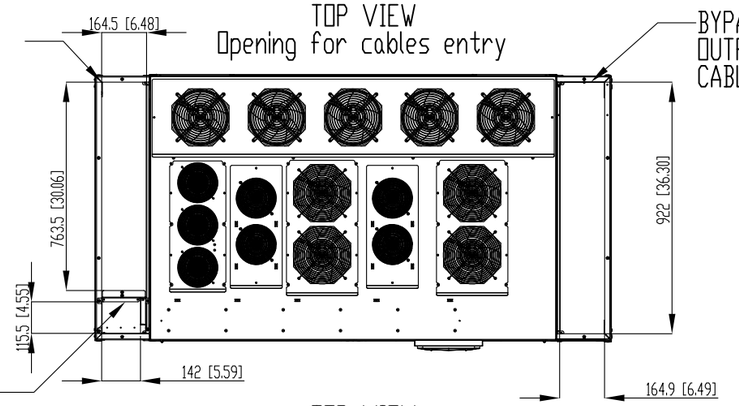


FRONT

INPUT AND BATTERY CABLE ENTRY

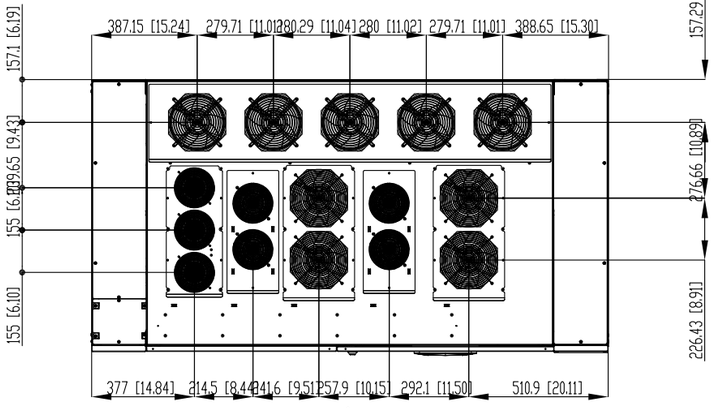
TOP VIEW
Opening for cables entry

BYPASS AND OUTPUT CABLE ENTRY



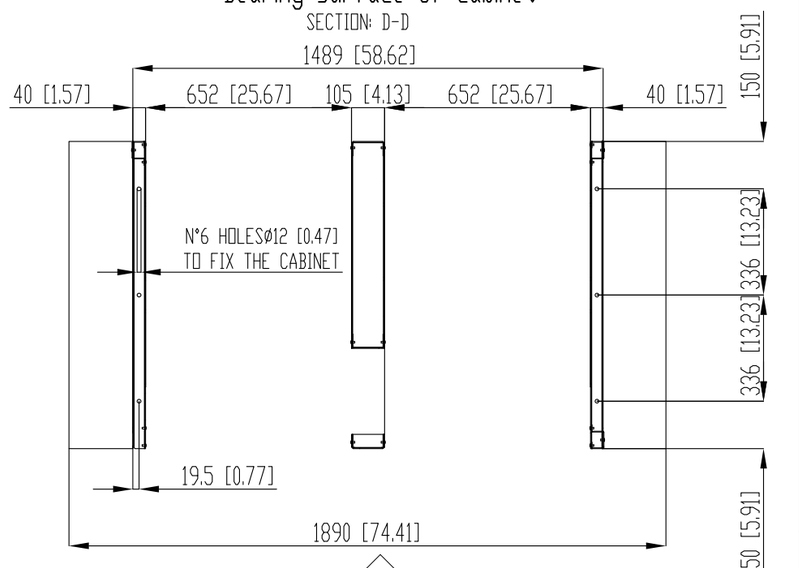
SIGNAL CABLES ENTRY

TOP VIEW
Fans Position



FRONT

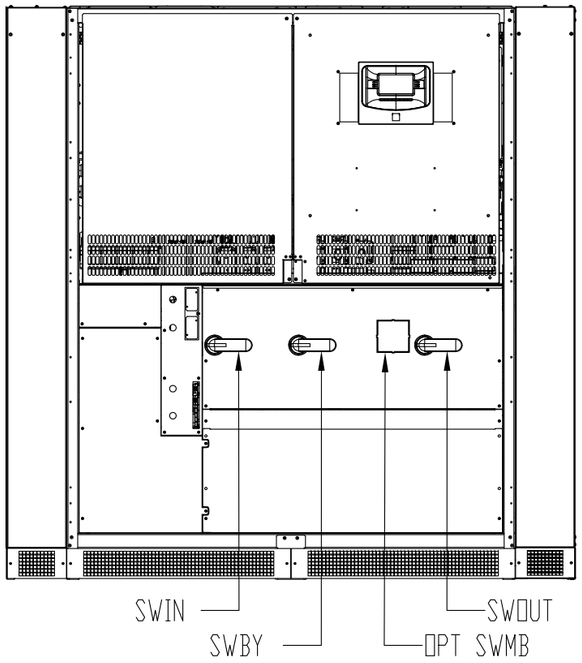
BOTTOM VIEW
W/O DOOR AND PANEL
Bearing surface of cabinet
SECTION: D-D

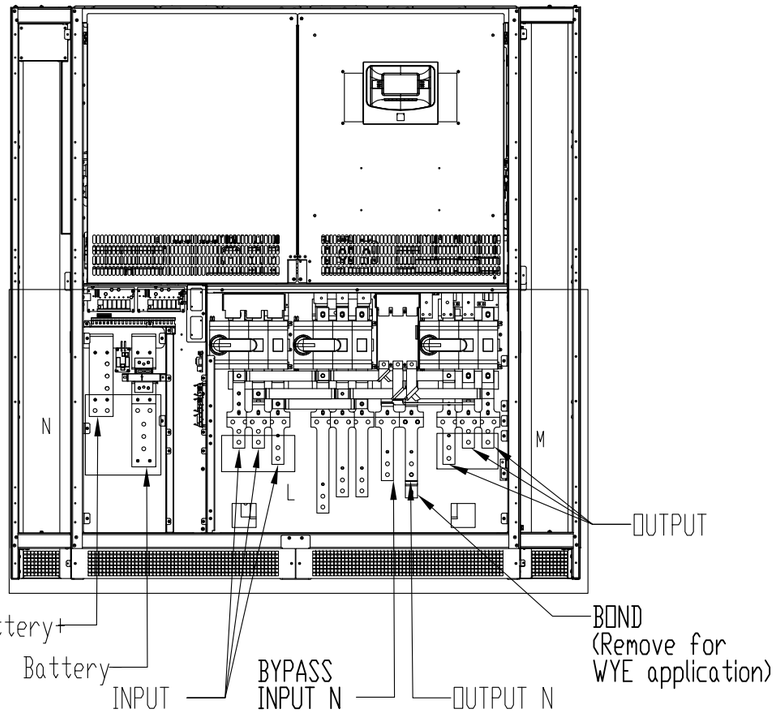


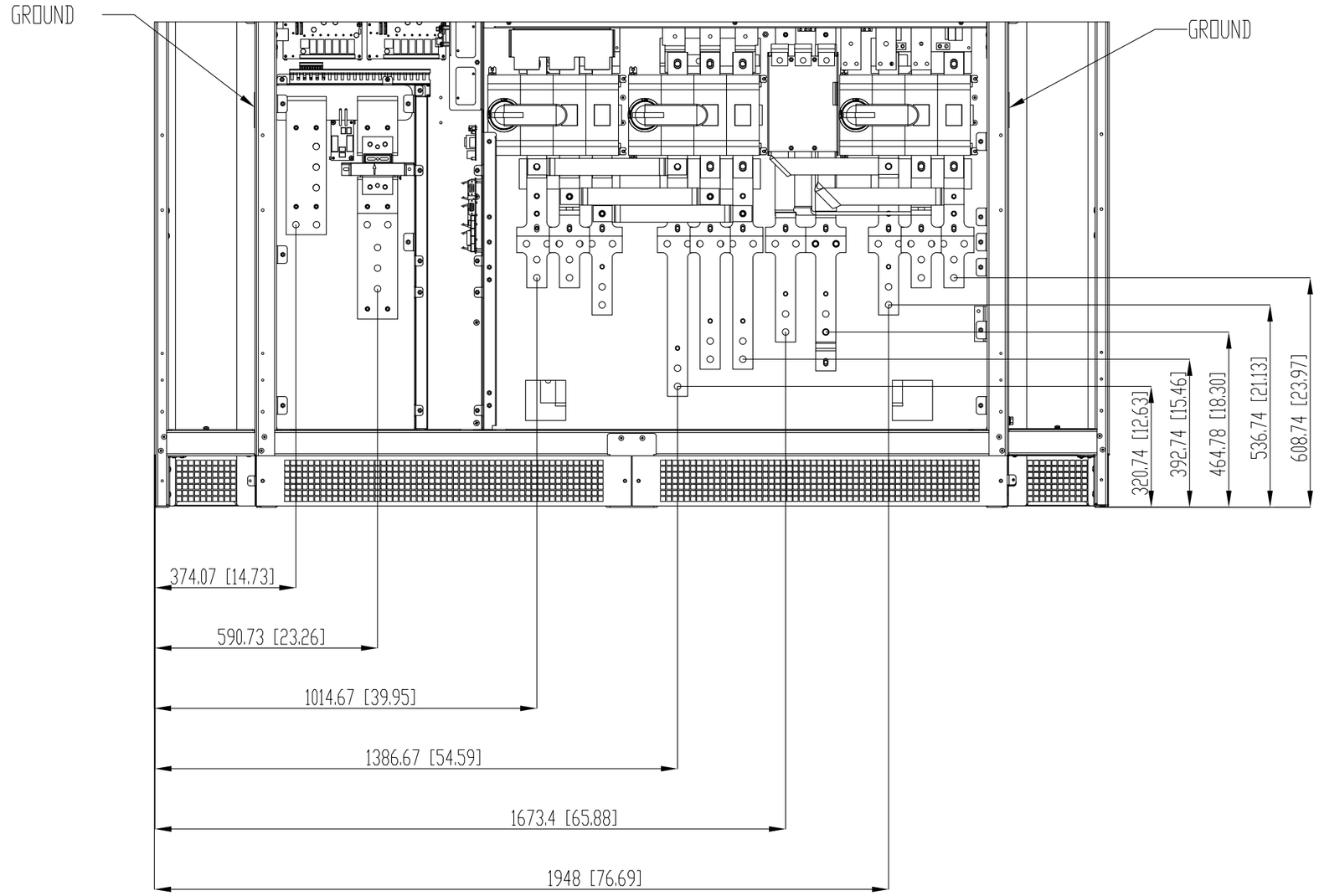
FRONT

RPS	DRAW. No	REV.
	0MLMHTM30RUENIA	02
	PAG. 6 DI 10	

SIZE 300 kVA W/ TCE

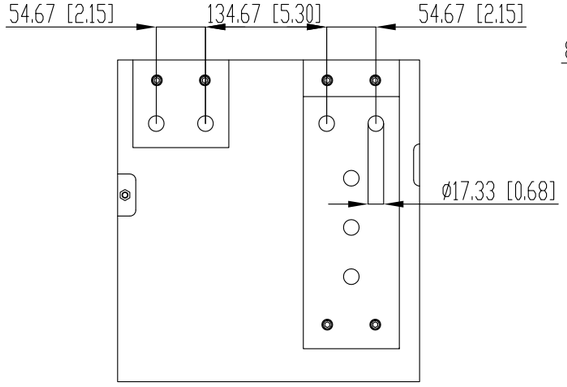




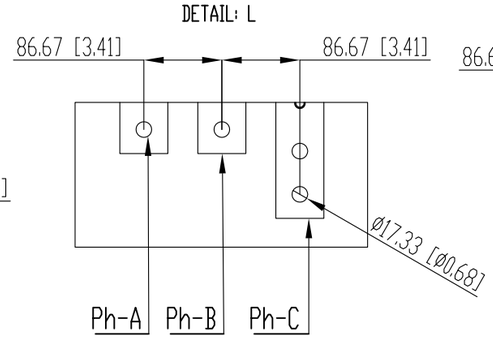


Torque specification		
Bolt size	Torque Load	
1/2 - M12	70Nm	51.5 lbf-ft

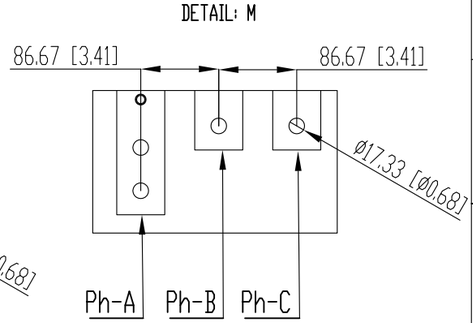
BATTERY
DETAIL: N



INPUT
DETAIL: L



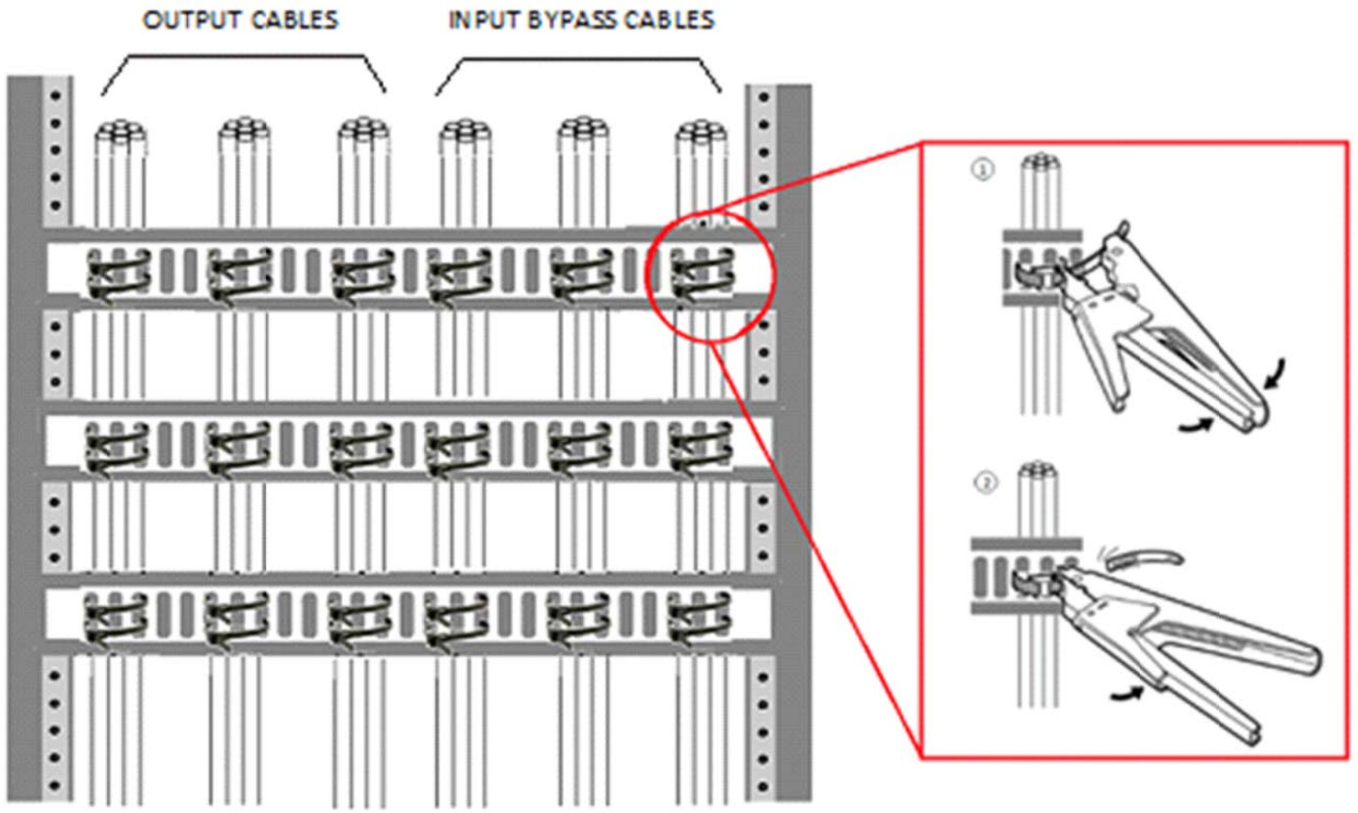
OUTPUT
DETAIL: M



RPS	DRAW. No	REV.
	0MLMHTM30RUENIA	02
	PAG. 7 DI 10	

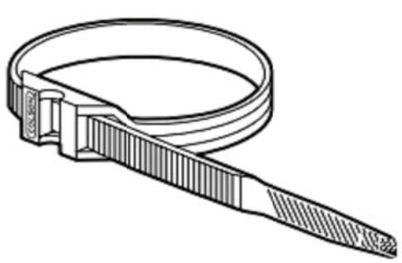
TCE - FASTENING CABLES

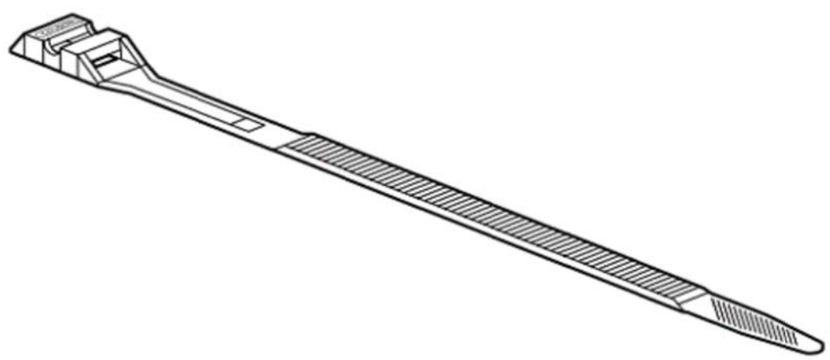
typical application



FASTENING CABLES	
Cable Ties	legrand
model	PA12
Tensil strength	530 N
Dimension	Length 357 mm width 9mm
TOOLS	
Tool	COLSON
model	319 96
Description	Suitable for ties 6mm and 9mm wide

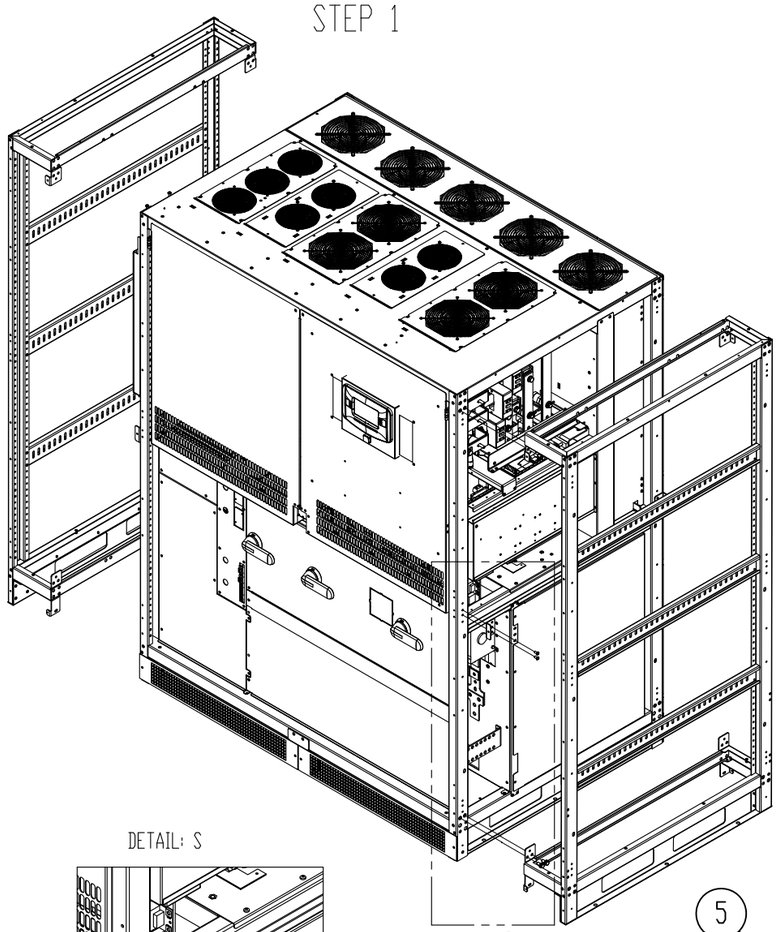
FASTENING CABLES:
Bypass and output conductors entering into TCE cabinet, must be fastened to each horizontal brace of the metal frame cabinet with 2 cable ties (total 6 per phase), like pictured in the drawing.



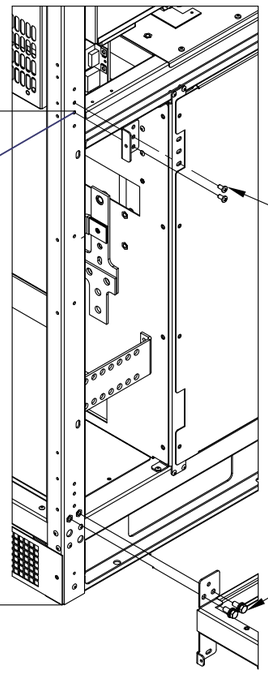


RPS	DRAW. No	REV.
	OMLMHTM30RUENIA	02
	PAG. 8 DI 10	

STEP 1



DETAIL: S



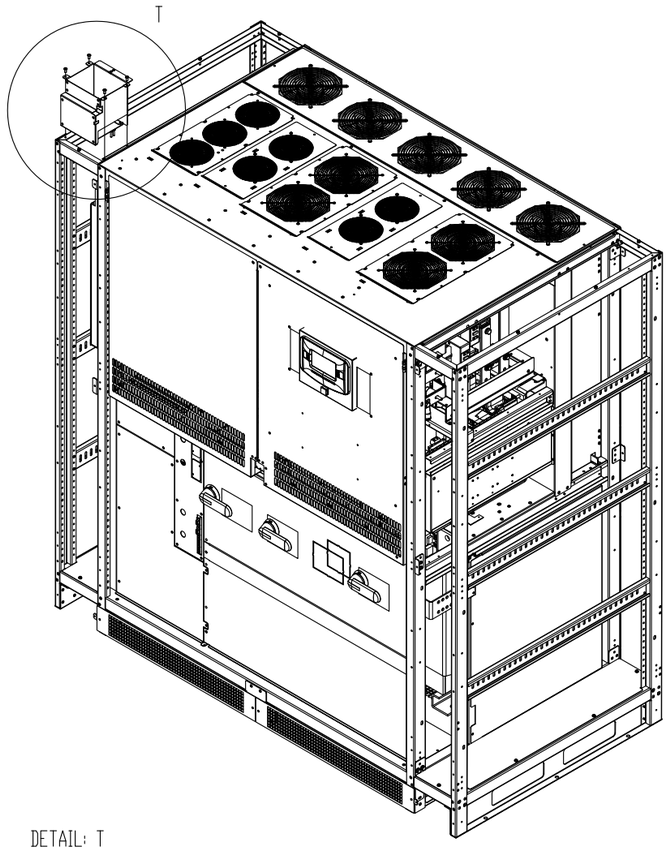
4

Fixing the front and back,on both sides.

1 2 3

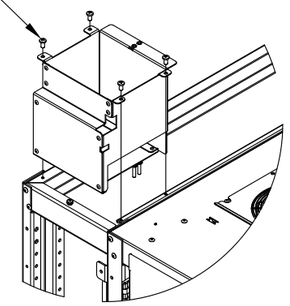
Fixing the bottom and top, front and back, on both sides.

STEP 2

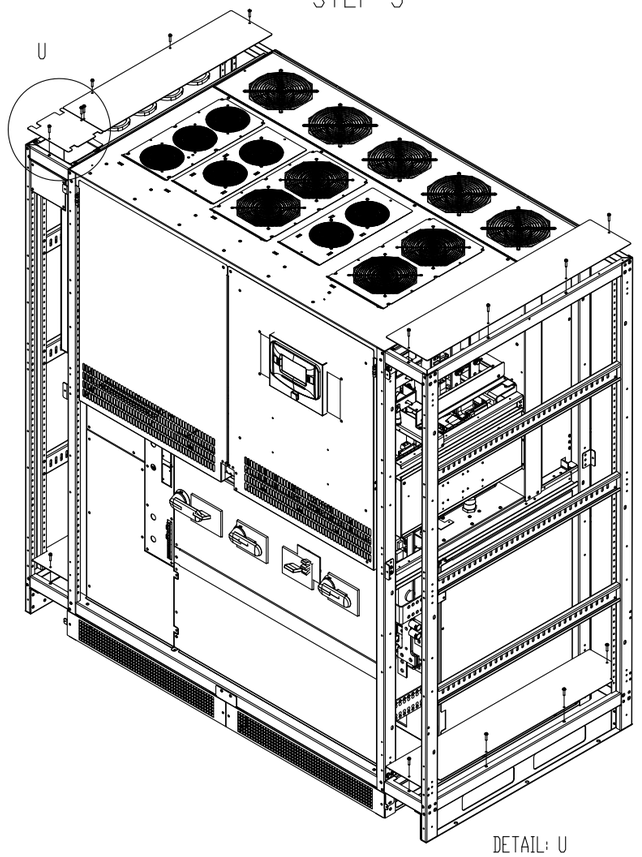


DETAIL: T

5

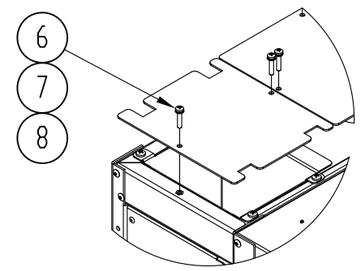


STEP 3



DETAIL: U

6
7
8

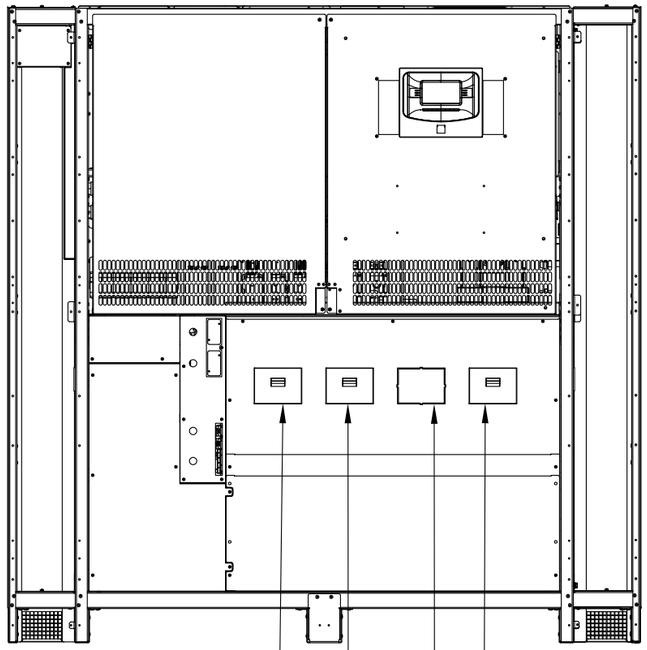


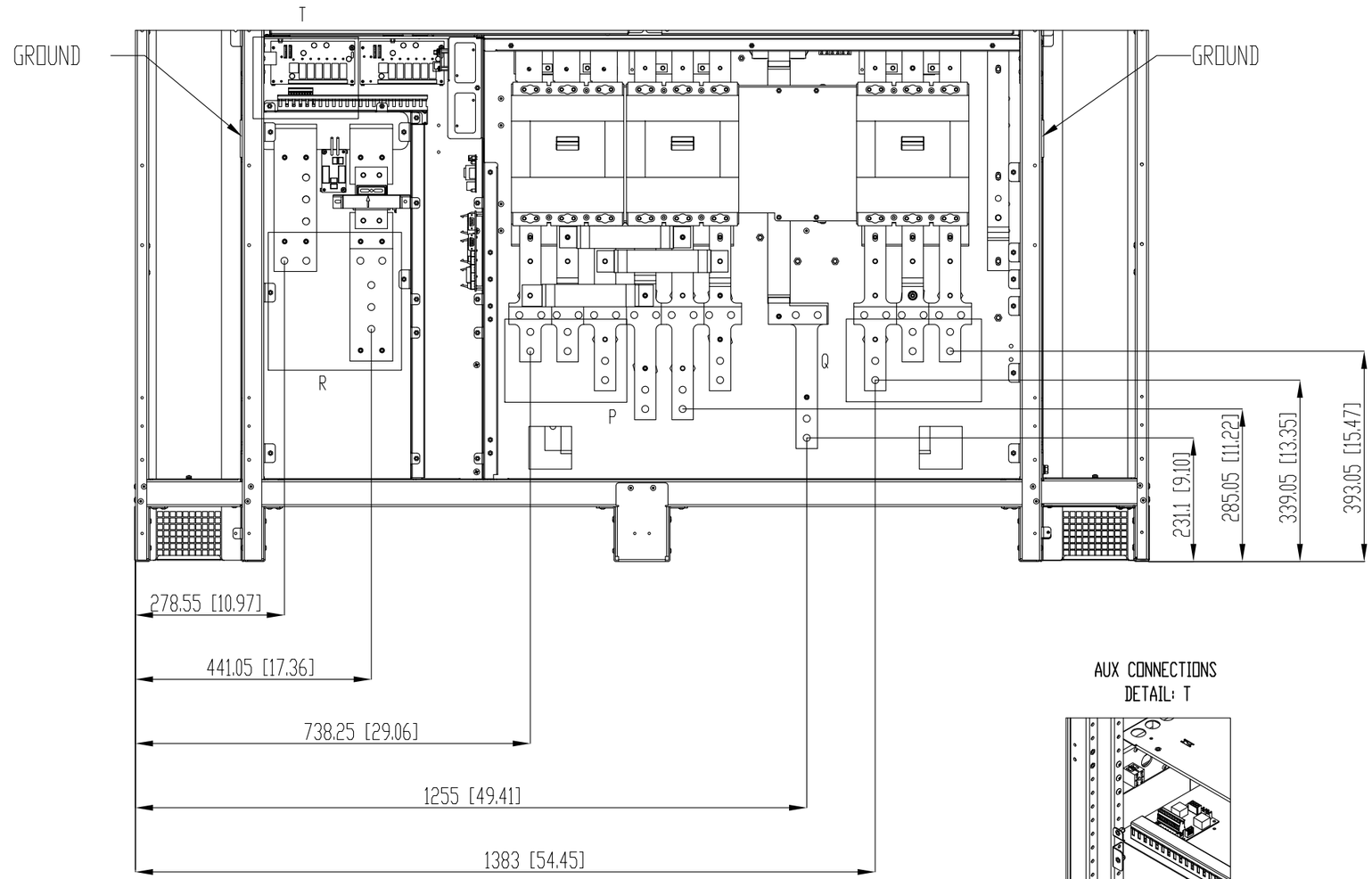
ITEM	DESCRIPTION	QTY
1	Hex head screws M8x20	16
2	Washer spring (single coil) ø8	16
3	Washer plain ø8	16
4	Thread forming screws pan head Ty.H cross recess M6x16	8
5	Thread forming screws pan head Ty. H cross recess M5x10	4
6	Cross recessed pan head screw Ty.H M5x25	18
7	Washer spring (single coil) ø5	18
8	Washer plain ø5	18

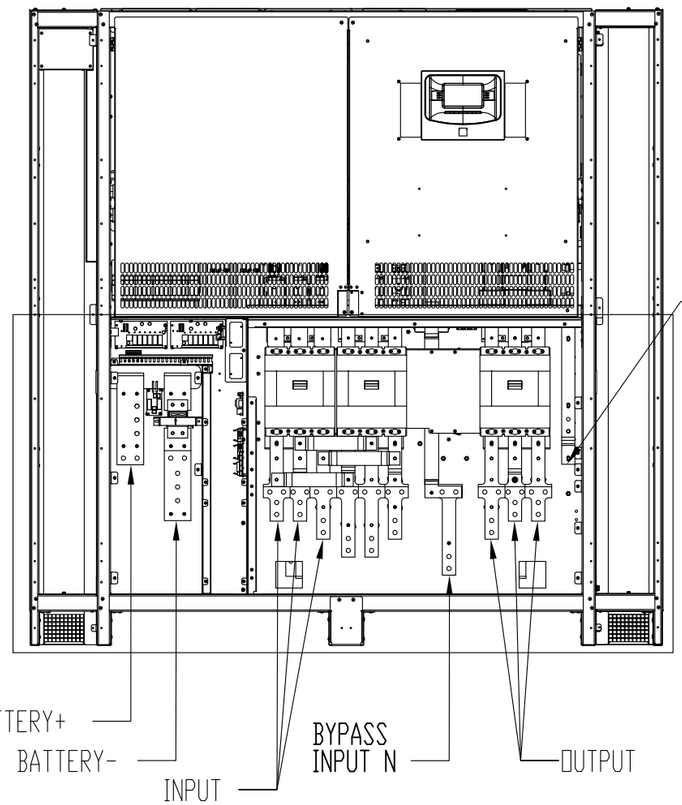
RPS

DRAW. No	REV.
OMLMHTM3ORUENIA	02
PAG. 9 DI 10	

SIZE 400/500 kVA W/ TCE

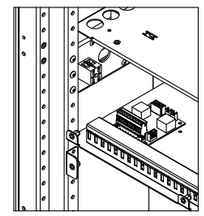




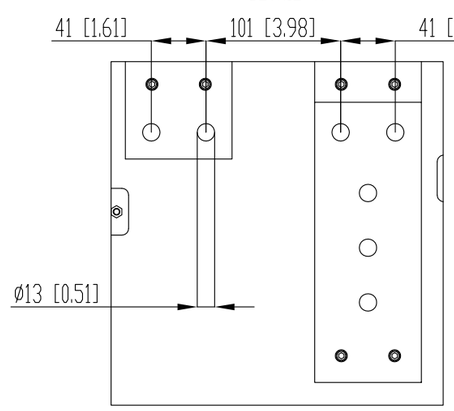


Torque specification		
Bolt size	Torque Load	
1/2 - M12	70Nm	51.5 lbf-ft

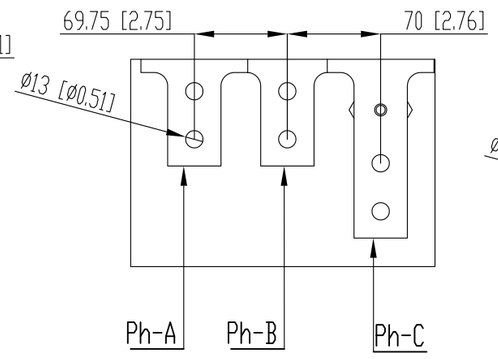
AUX CONNECTIONS
DETAIL: T



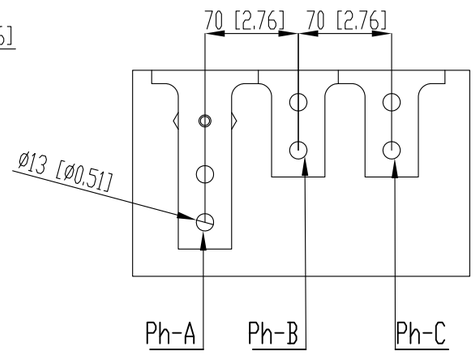
BATTERY
DETAIL: R



INPUT
DETAIL: P



OUTPUT
DETAIL: Q



RPS	DRAW. No	REV.
	OMLMHTM30RUENIA	02
	PAG. 8 DI 10	