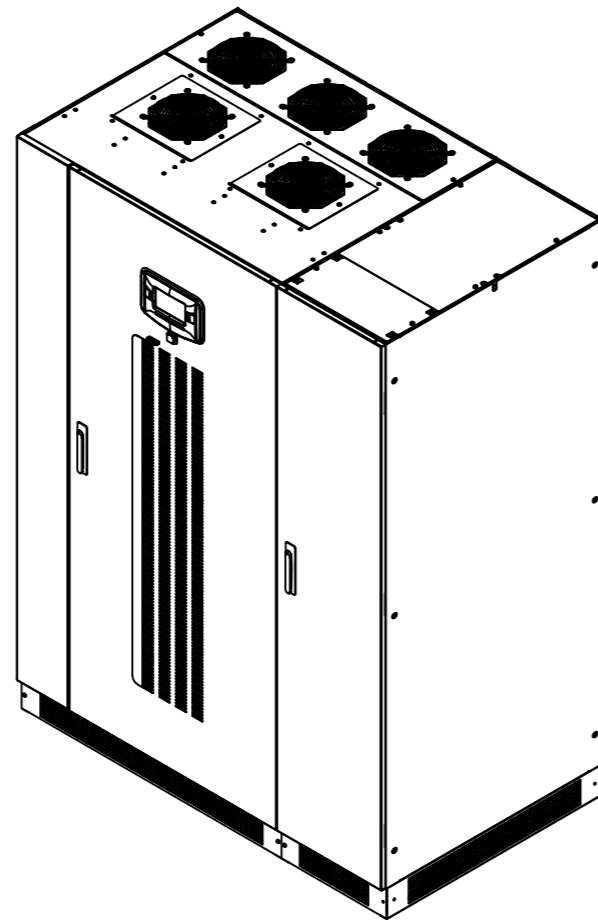
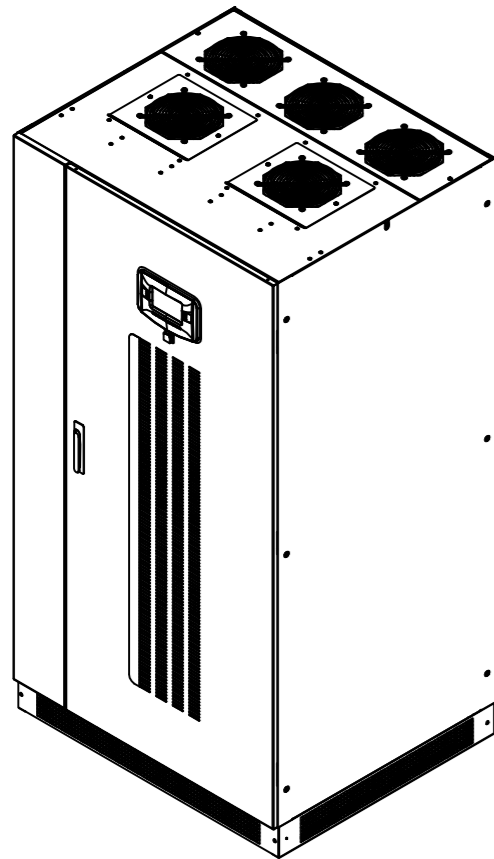


INSTALLATION INSTRUCTIONS
 Read "User Manual" before starting with installation

General characteristics for environmental consideration							
MASTER HP-UL Series		W/O TCE			W TCE		
Type		MHT 160	MHT 200	MHT 250	MHT 160	MHT200	MHT 250
Rated Power	kVA/ kW	160/144	200/180	250/225	160/144	200/180	250/225
Power loss (kW) 50%/load/100%/load	kW	4,6/10	5,75/12,5	7,2/15,6	4,6/10	5,75/12,5	7,2/15,6
Air flow	m ³ /h	3200					
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	840 / 1852	970 / 2139	1110 / 2448	1000 / 2205	1145 / 2525	1270 / 2800
Dimensions WxDxH	mm / in	1000x850x1900 39,37x33,46x74,8			1400x850x1900 55,12x33,46x74,8		
Footprint area	m ² / ft ²	0,85 / 9,146			1,19 / 12,8		
Opening for Cable Entry							
TOP	m ² / ft ²	NA			0,25 / 2,69		
BOTTOM		0,12 / 1,29			0,19 / 1,93		



POWER CONNECTIONS

WARNING

The UPS is provided with Bond that connects the Neutral Output 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 OCP 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)	160	200	250
SHORT CIRCUIT WITHSTAND RATING*			
Without TCE	50 kArms @ 480Vac		
With TCE	18 kArms @ 480Vac, max 50ms		
*Note: Maximum short-circuit current level at the UPS input terminals			
INPUT AC LINE - SINGLE LINE			
Input Line 3Ph + N + PE 277/480V 60Hz			
Branch-OCP device size (A)	300	350	450
Phase and neutral cond. Size (kcmil/Awg)	500 or 2x2/0	2x4/0	2x4/0
INPUT AC LINE - DUAL SEPARATE LINE			
(Remove the busbars connecting Input Mains line and Bypass Line See details on picture)			
Input Mains 3Ph + PE 480V 60Hz			
Phase and neutral cond. Size (kcmil/Awg)	500 or 2x2/0	2x4/0	2x4/0
Input Bypass Line 3Ph + N + PE 277/480V 60Hz			
Branch-OCP device size (A)	250	325	400
Phase and neutral cond. Size (kcmil/Awg)	300 or 2x2/0	2x4/0	2x4/0
Output 3Ph + N 277/480V 60Hz			
Branch-OCP device size (A)	300	350	450
Phase and neutral cond. Size (kcmil/Awg)	300 or 2x2/0	2x4/0	2x4/0
Battery DC Input			
Branch-OCP device size (A) *	400	500	600
Polarities + and - conductors (Kcmil/Awg)	2x4/0	2x300	3x4/0 or 4x2/0
*If "Riello BBX 1900 480V UL L8 3U" battery cabinets are provided, the OCP device is included in the cabinet. For other applications read "User Manual" Battery connections.			
Ground terminal of Battery Cabinet must to connected to Ground terminal of UPS Cabinet.			

RPS	EDIT:	O. Foppa	DATA:	14 / 03 / 2025	VARIATION:	change distances from ceiling	DRAW. No	REV.
	CONT:	A. Arosio	DATA:	14 / 03 / 2025	...	and wall	0MLMHTM16RUENID	00
	APPR:	S. Pagnoncelli	DATA:	14 / 03 / 2025	...		PAG. 1	DI 10
	REPLACE:	0MLMHTM16RUENIC_01	Scala:	1:20	Peso/Weight:	//		
NOTE:					TITLE: MAN MHT UL 160-250 DRW EN			
...					...			

INSTALLATION INSTRUCTIONS

W/O TCE

W TCE

NOTE:
1000mm [39,37in] MINIMUM FRONT
DISTANCE TO THE WALL

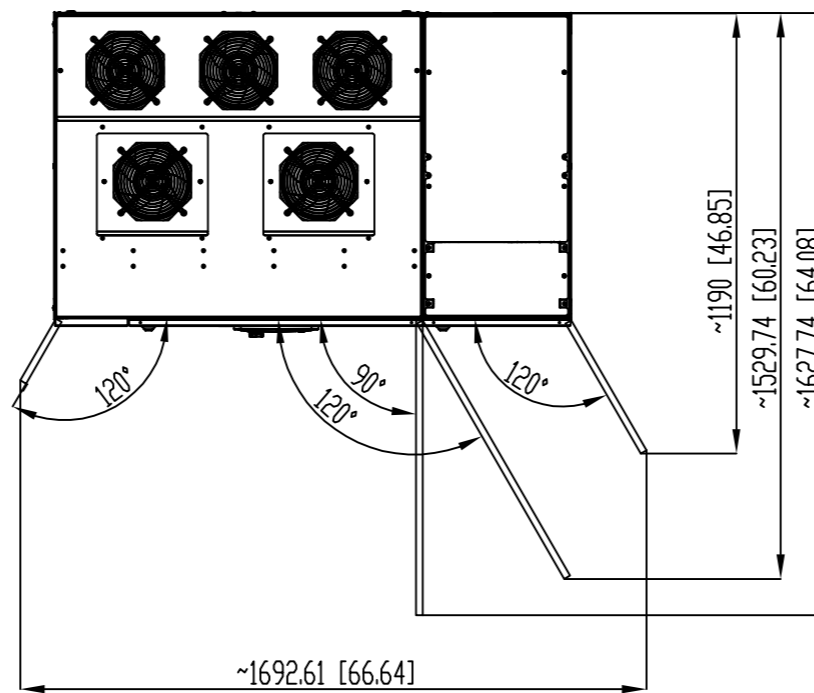
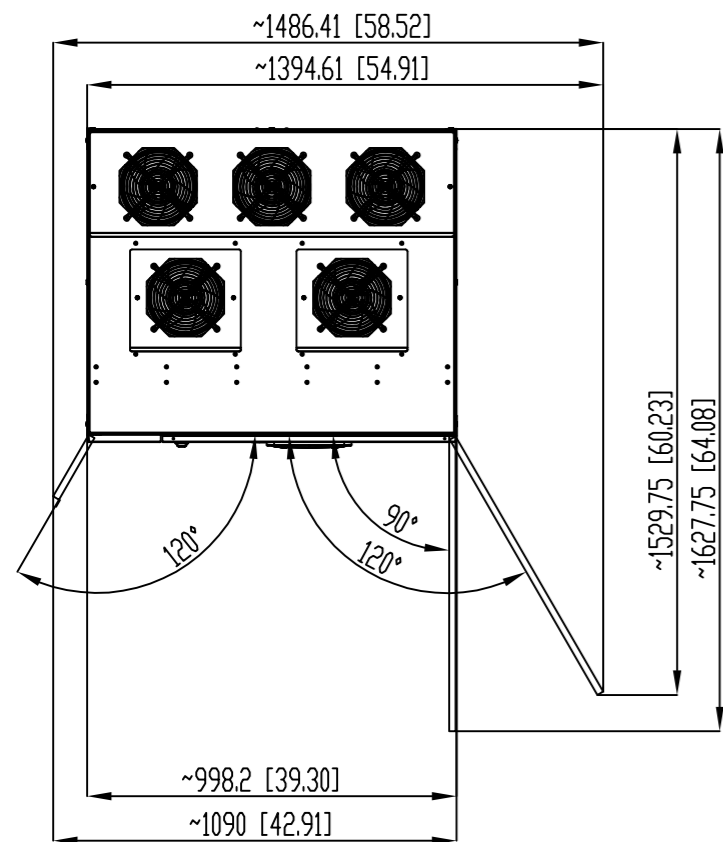
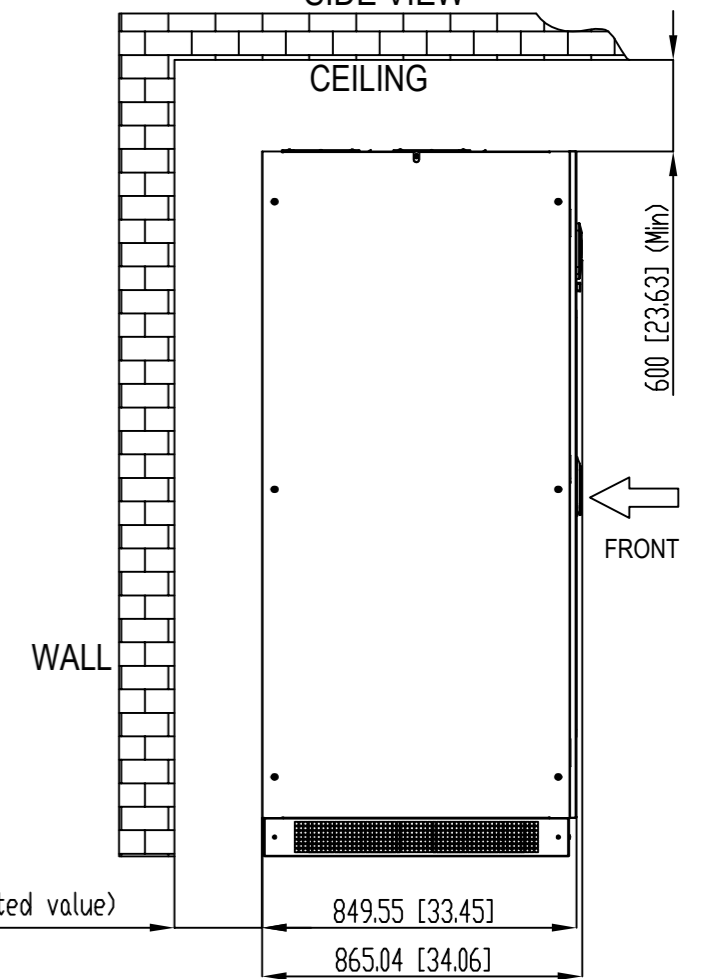
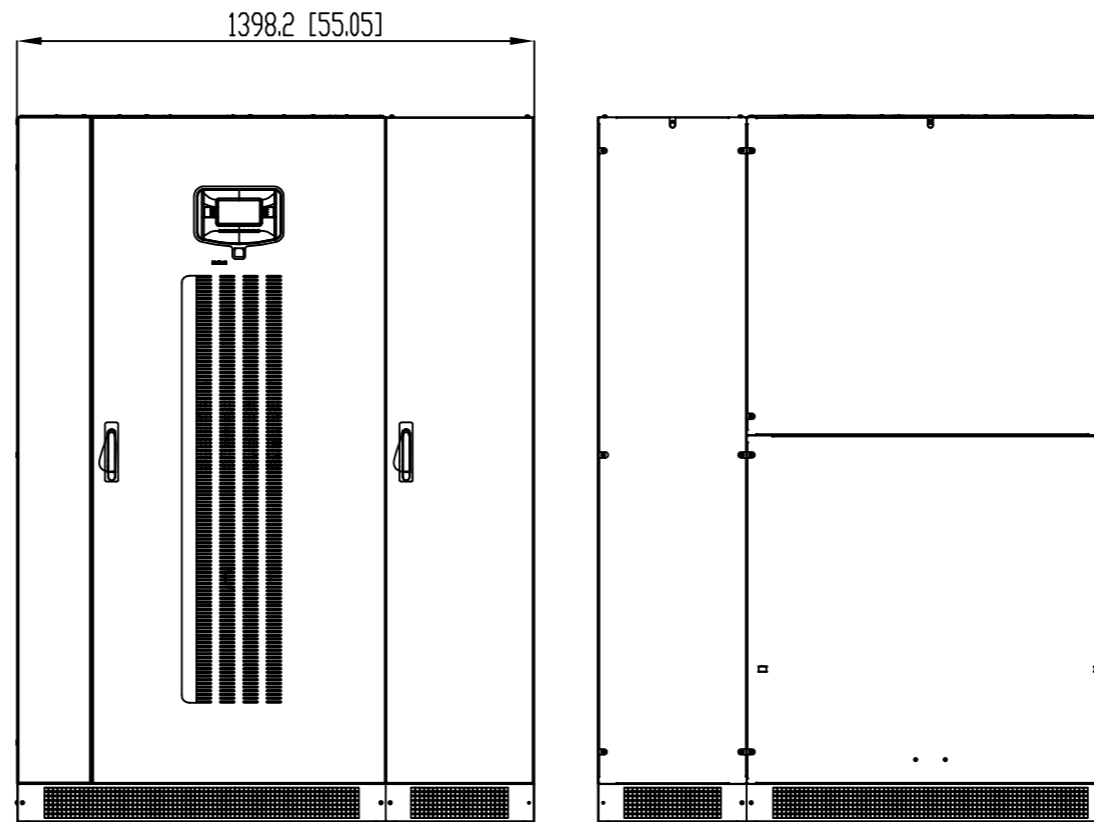
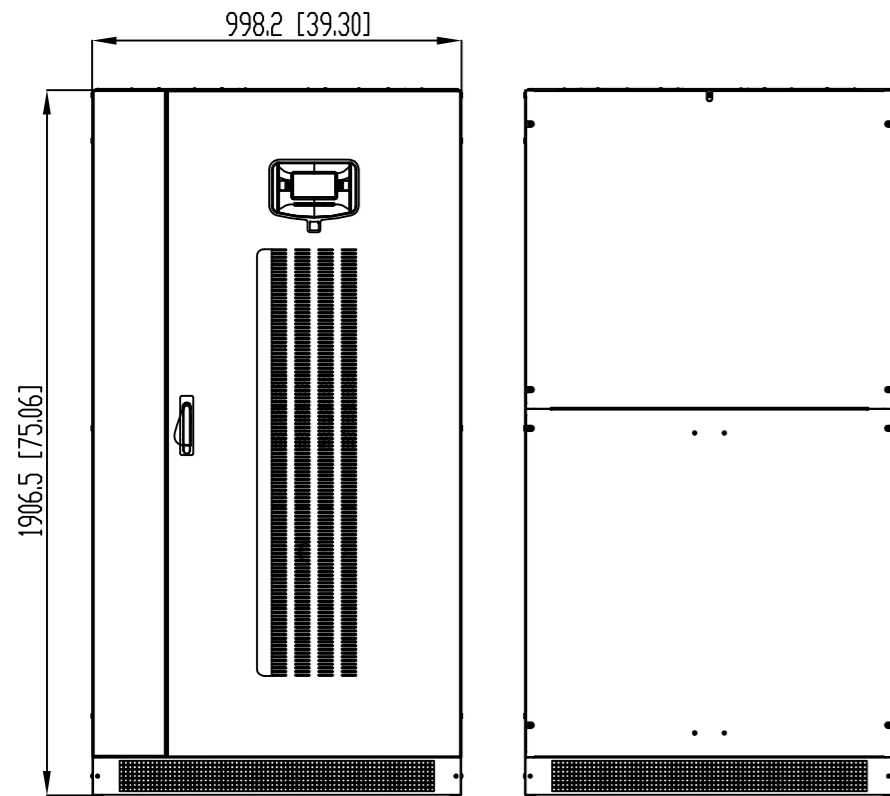
FRONT VIEW

REAR VIEW

FRONT VIEW

REAR VIEW

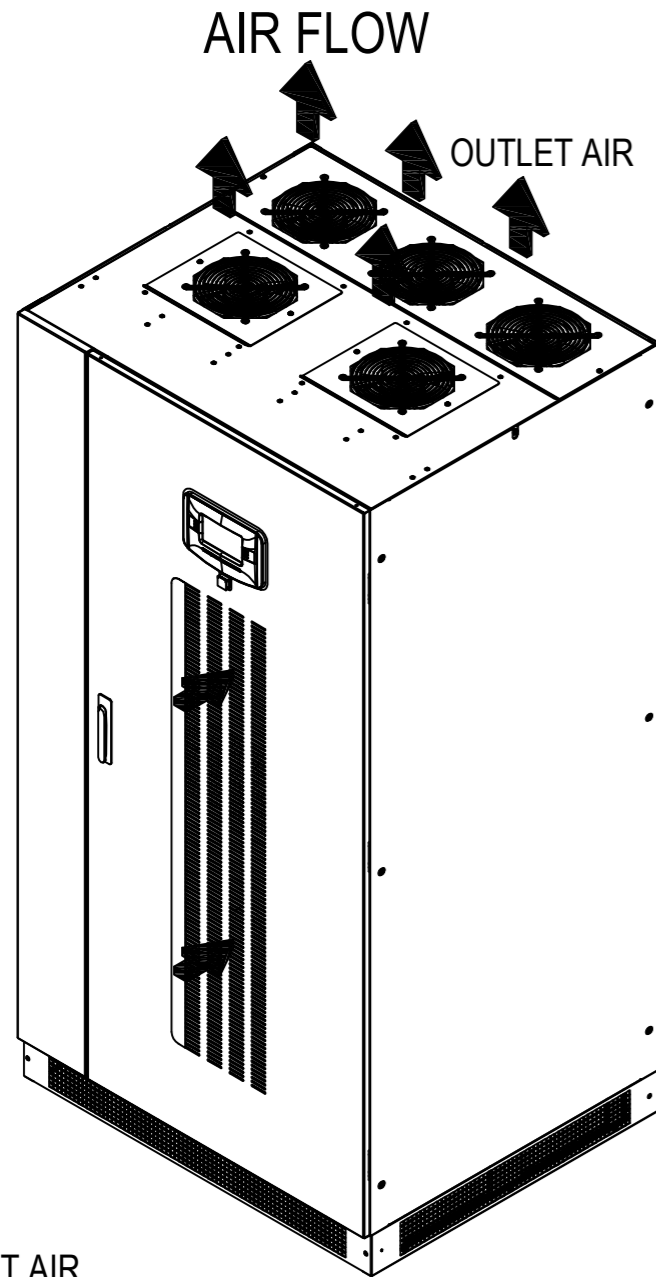
SIDE VIEW



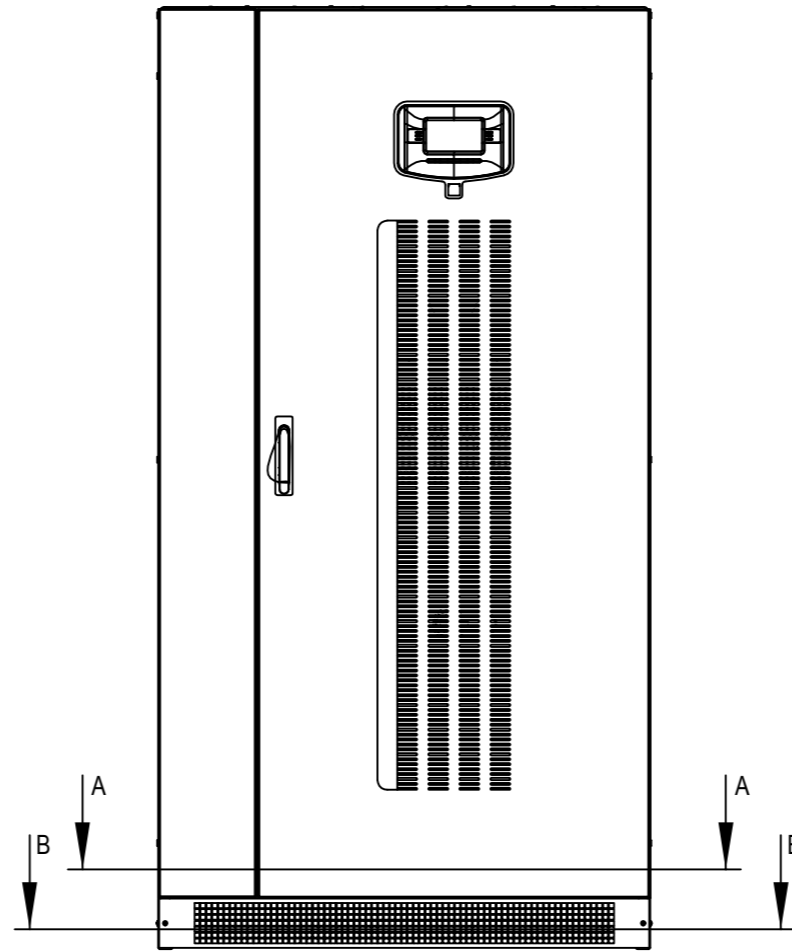
500 [19.69] (Suggested value)

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

MASTER HP- UL - Series
W/O TCE



FRONT VIEW

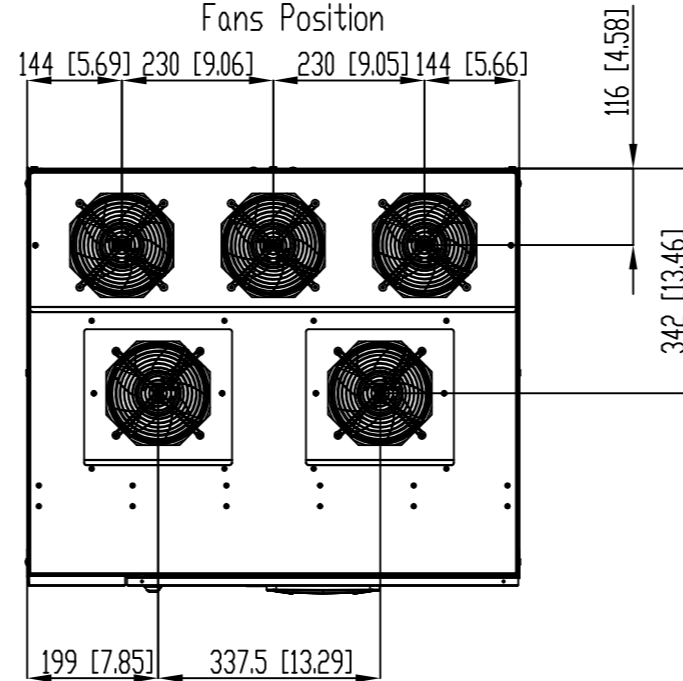


INLET AIR

INLET AIR

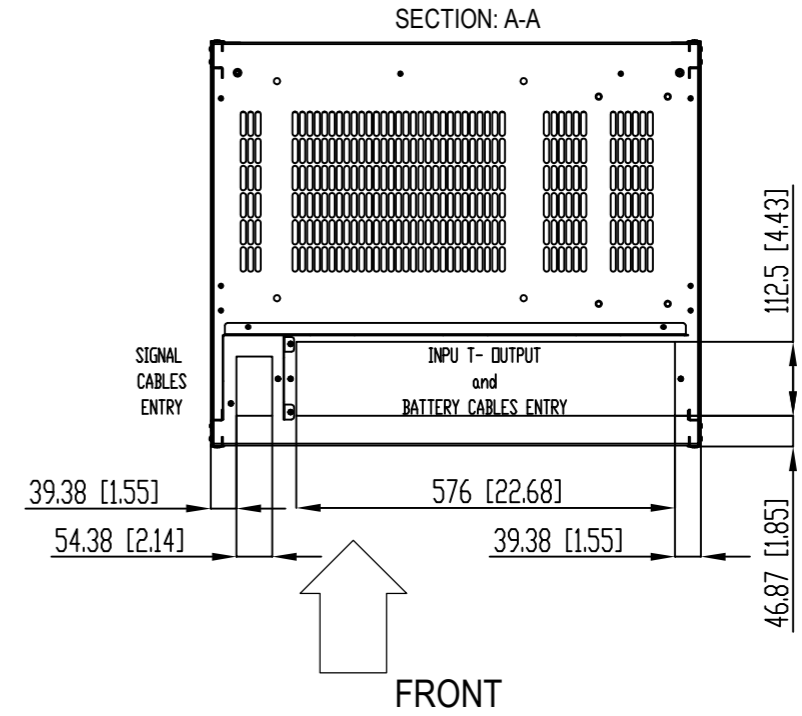
NOTE:
High temperaturerise may occur if the
minimum value indicated is not
maintained above the UPS

TOP VIEW
Fans Position

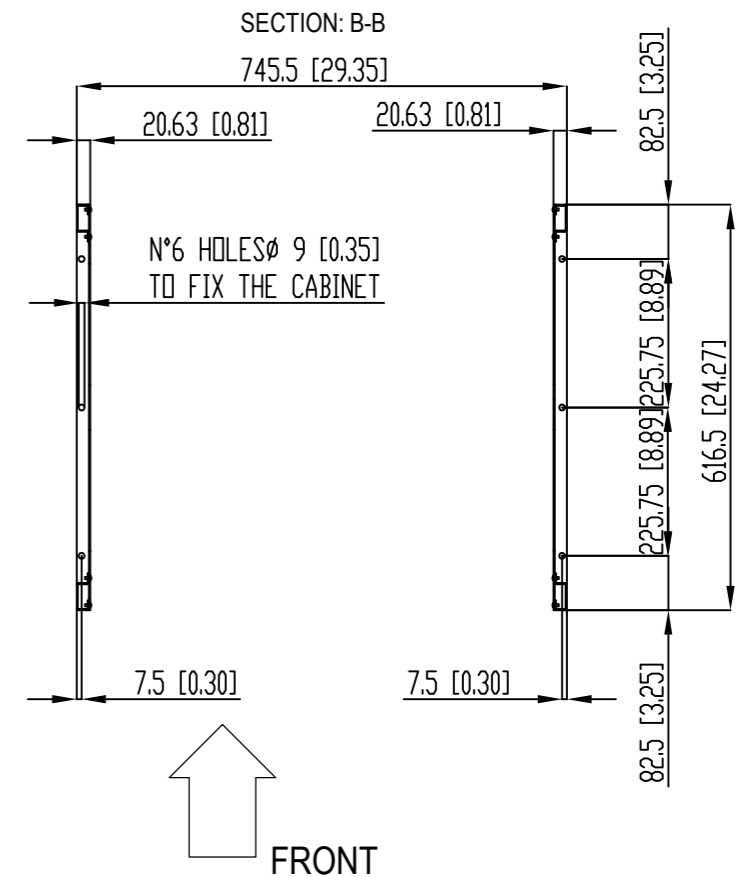


FRONT

BOTTOM VIEW
W/O DOOR AND PANNEL
Opening for Cable entry



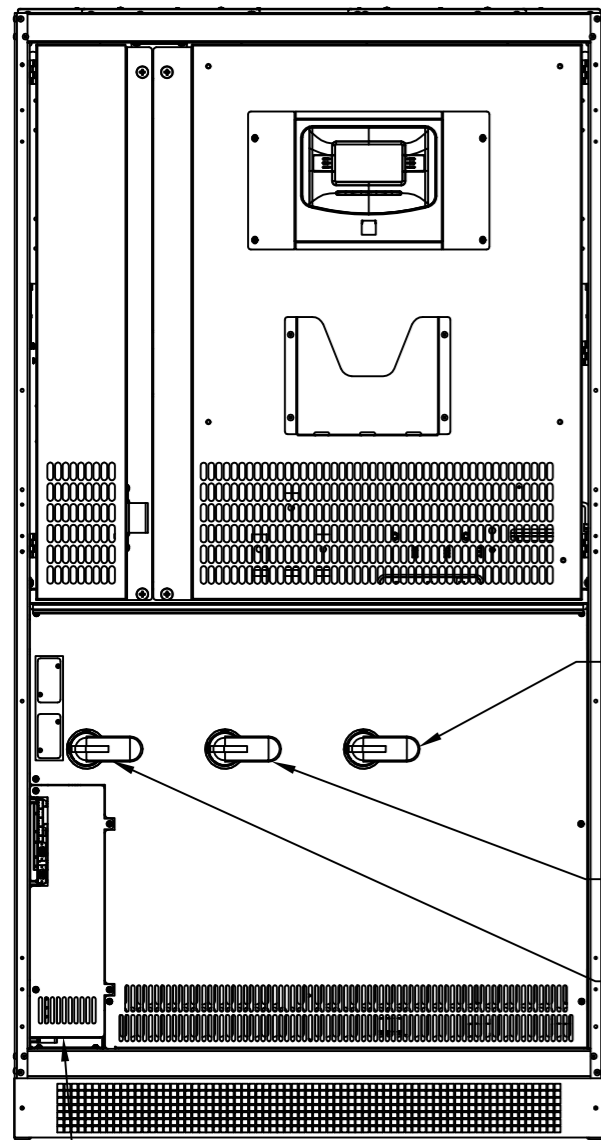
BOTTOM VIEW W/O DOOR AND PANNEL
Bearing surface of cabinet
for the seismic version see sheet 7



RPS	DRAW. No	REV.
	OMLMHTM16RUENID	00
	PAG. 3	DI 10

CART ISO_A3

MASTER HP - UL - Series W/O TCE



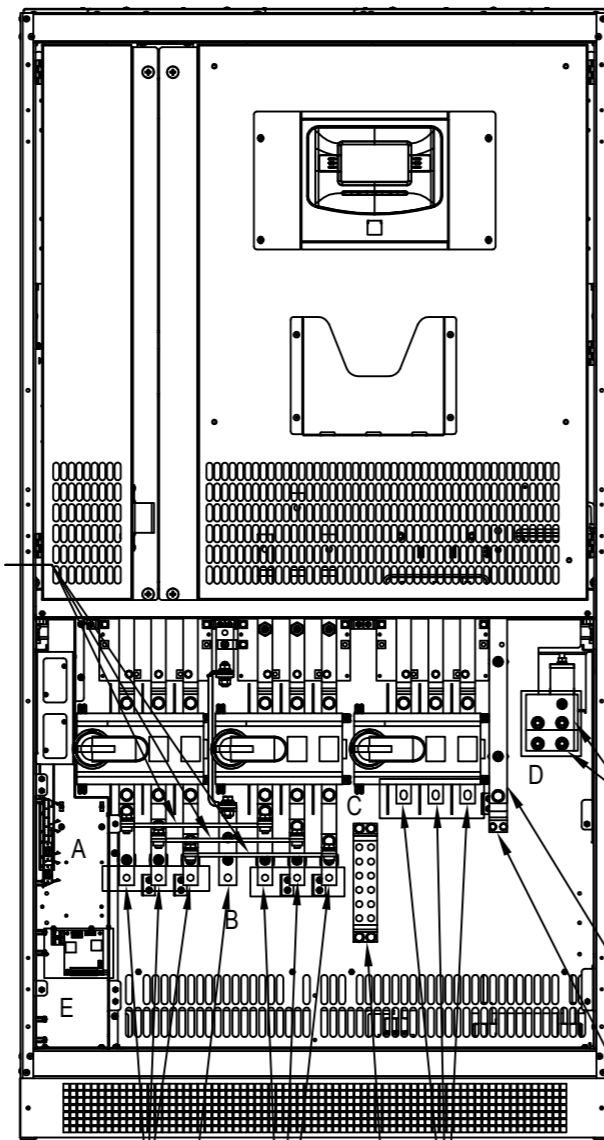
REMOVE FOR SEPARATE BYPASS LINE

SWOUT

SWBY

SWIN

SLOT FOR RS232 AND NETMAN-MULTICOM CABLES ENTRY



INPUT

BYPASS

INPUT N

BYPASS

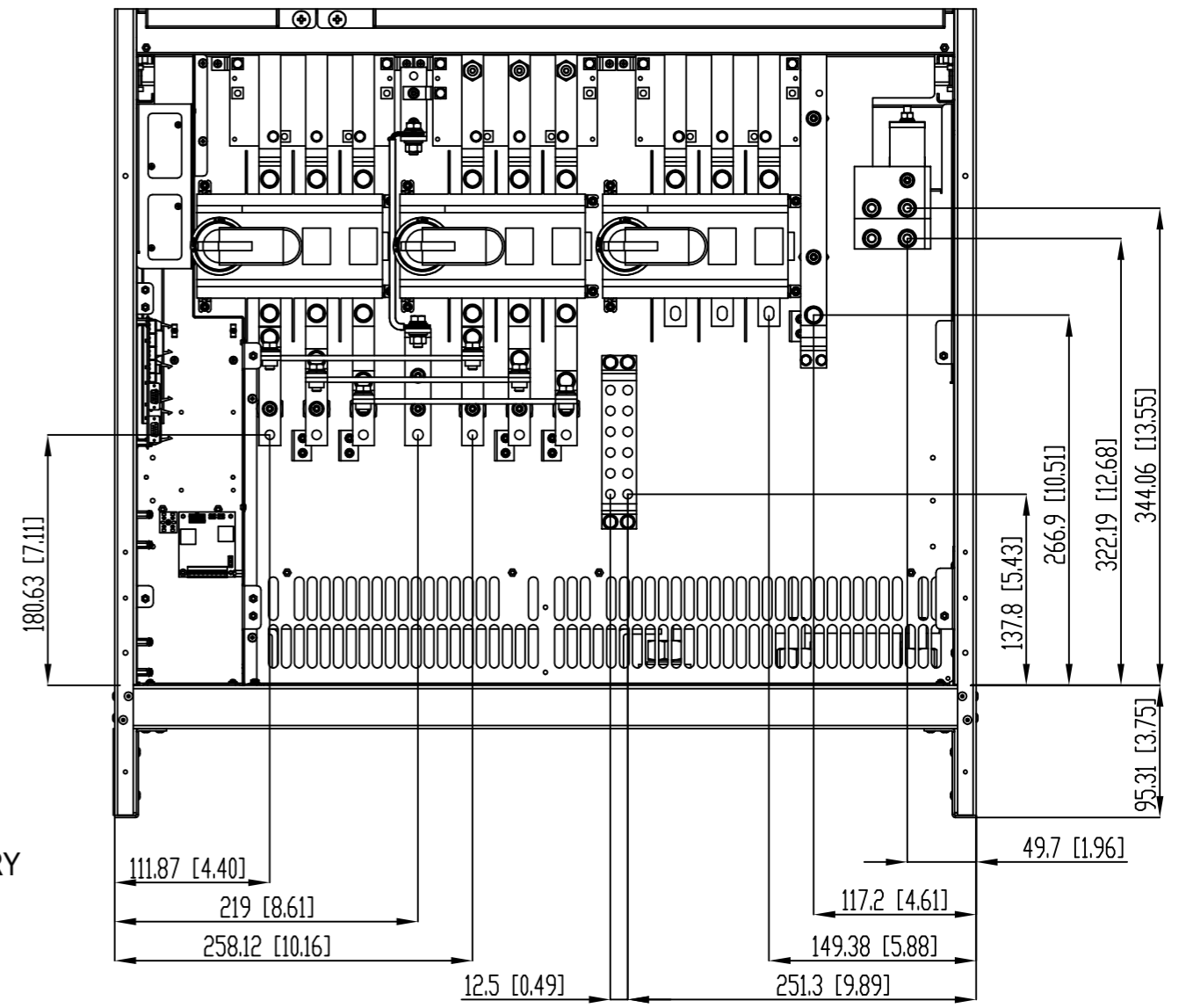
OUTPUT

GROUND

BATTERY

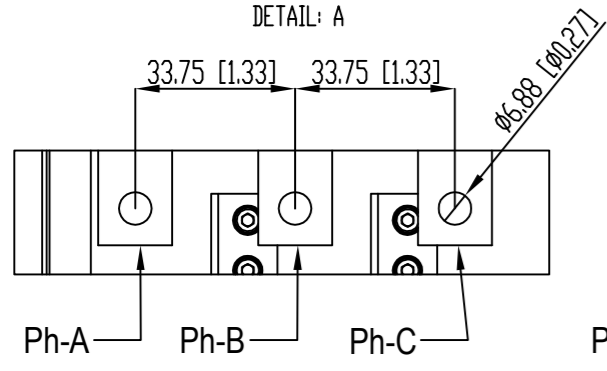
OUTPUT N

BOND (REMOVE FOR WYE APPLICATION)

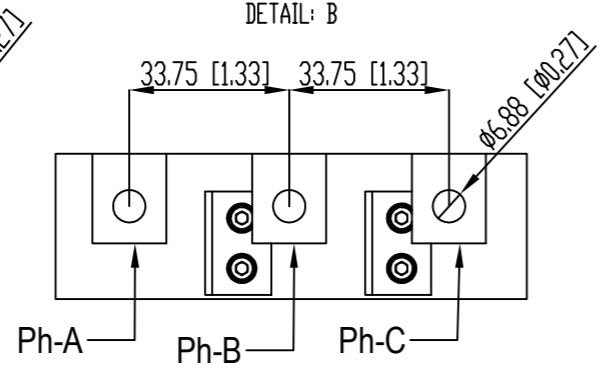


Torque specification		
Bolt size	Torque Load	
3/8 - M10	40Nm	29,5lbf-ft

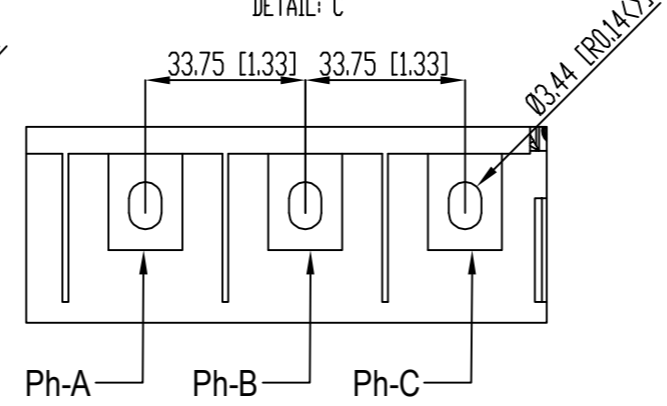
INPUT
DETAIL: A



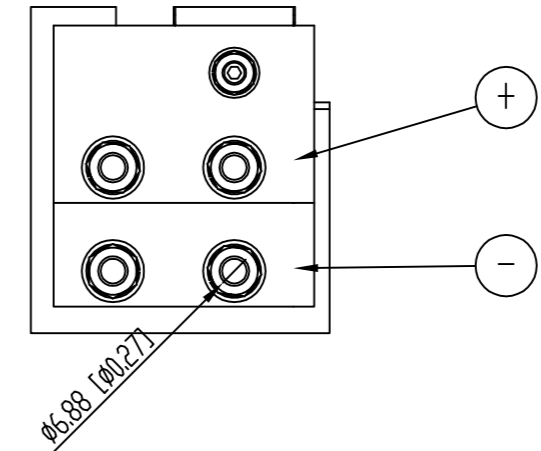
BYPASS
DETAIL: B



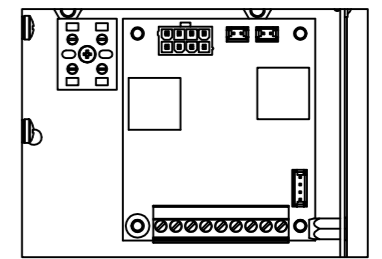
OUTPUT
DETAIL: C



BATTERY
DETAIL: D



AUX CONNECTIONS
DETAIL: E



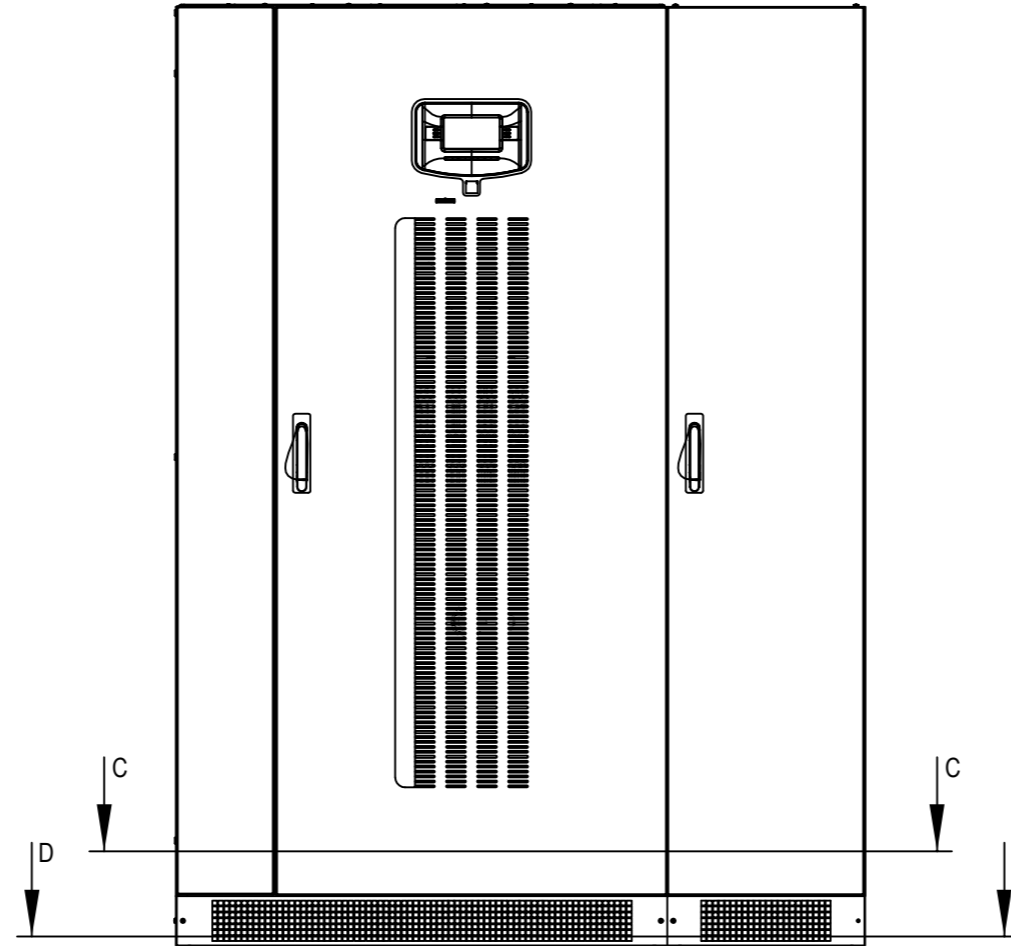
RPS

DRAW. No	REV.
0MLMHTM16RUENID	00
PAG. 4	DI 10

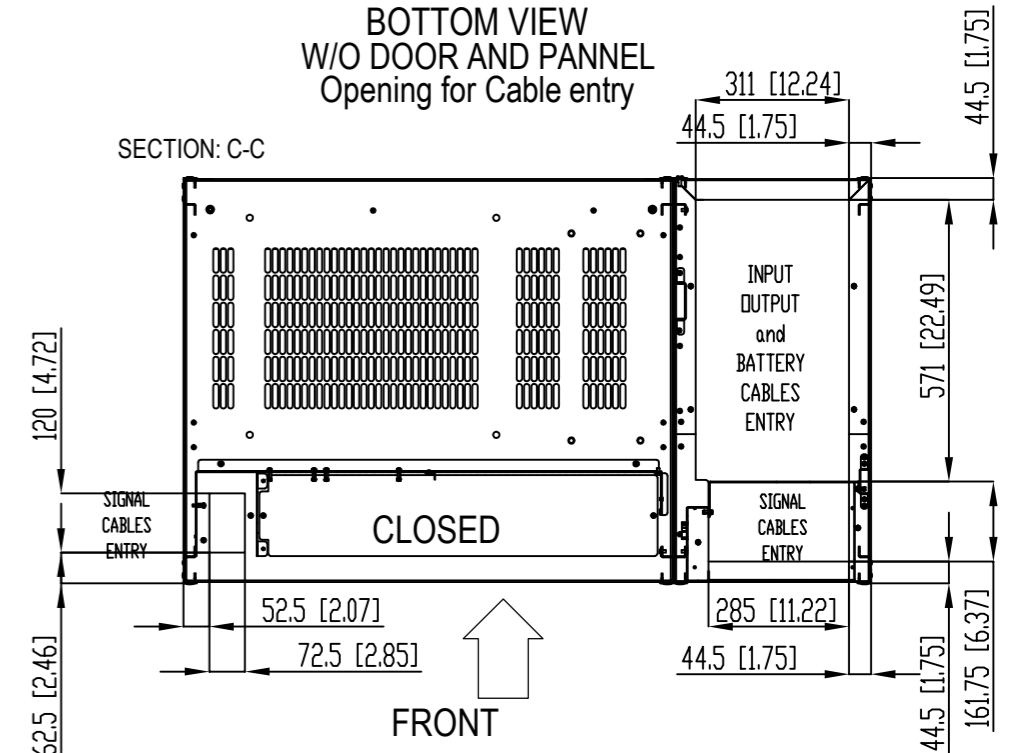
CART ISO_A3

MASTER HP- UL - Series W TCE

FRONT VIEW

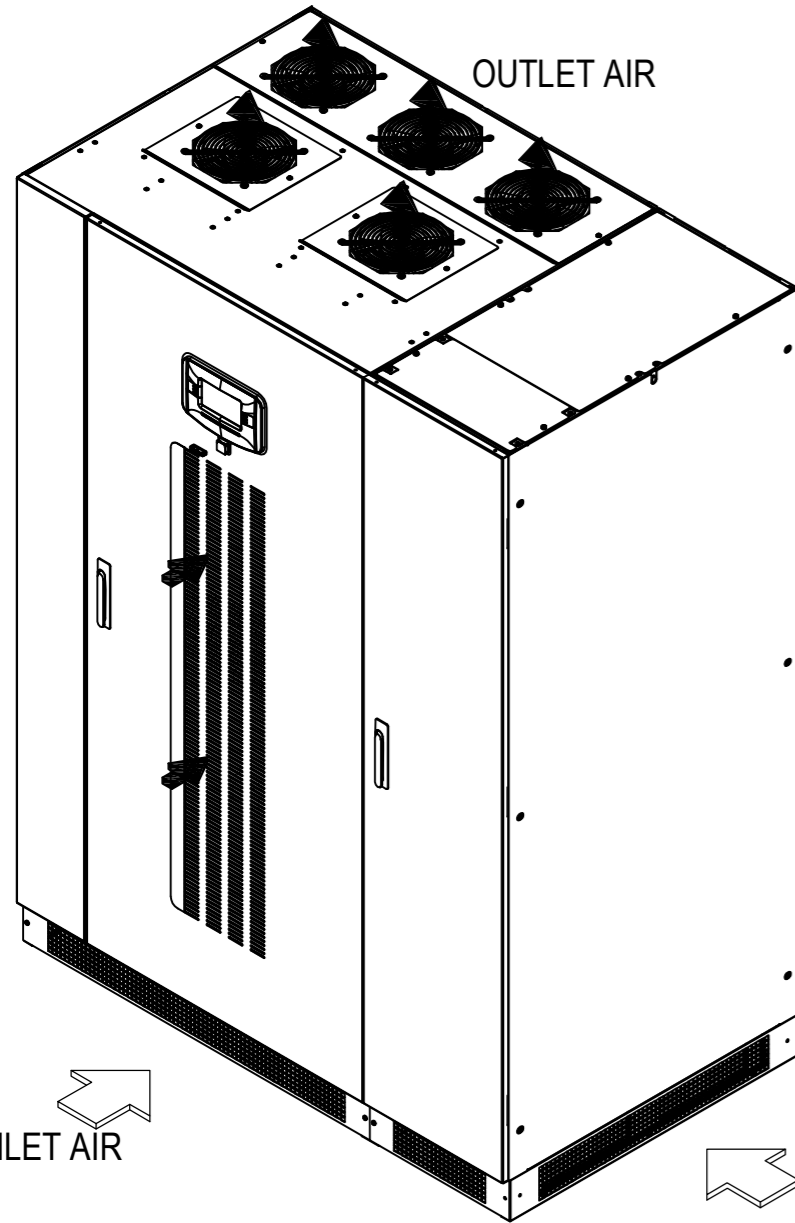


BOTTOM VIEW
W/O DOOR AND PANNEL
Opening for Cable entry

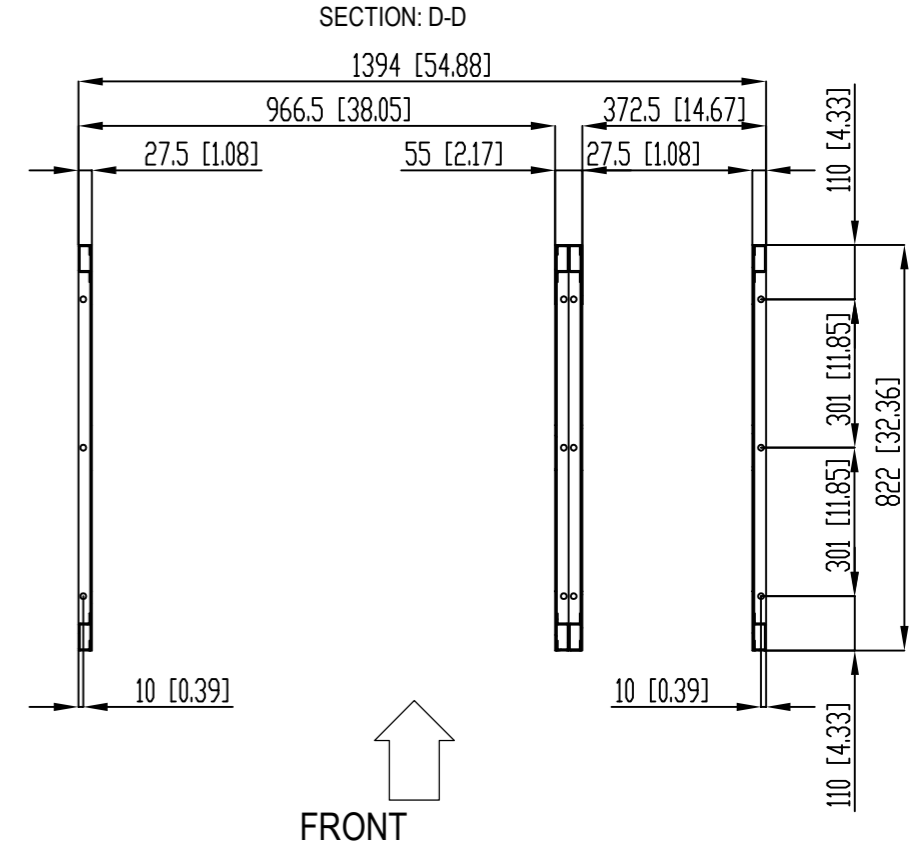


AIR FLOW

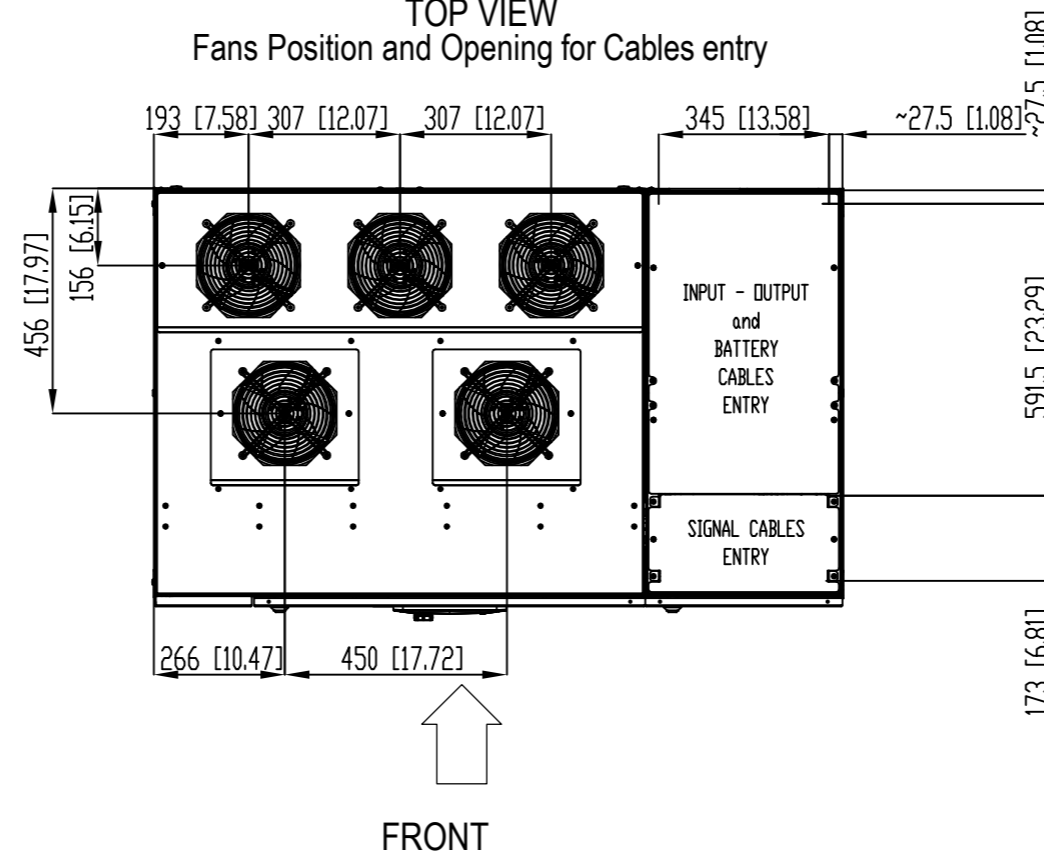
OUTLET AIR



BOTTOM VIEW
W/O DOOR AND PANNEL
Bearing surface of cabinet
for the seismic version see sheet 9



TOP VIEW
Fans Position and Opening for Cables entry

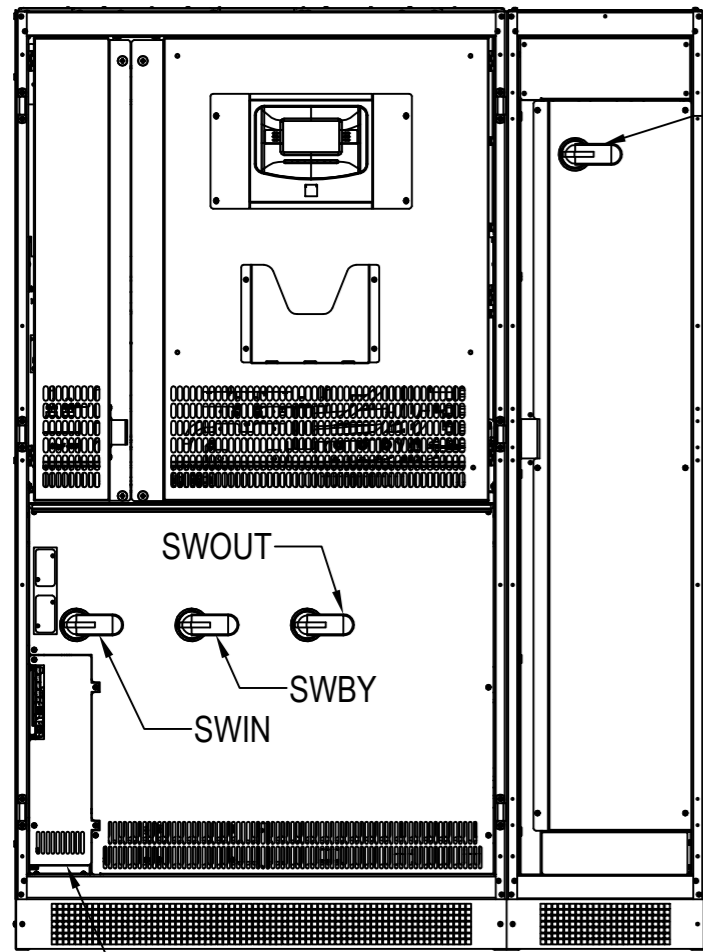


NOTE:
High temperaturerise may occur if the
minimum value indicated is not
maintained above the UPS

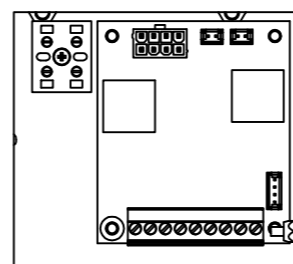
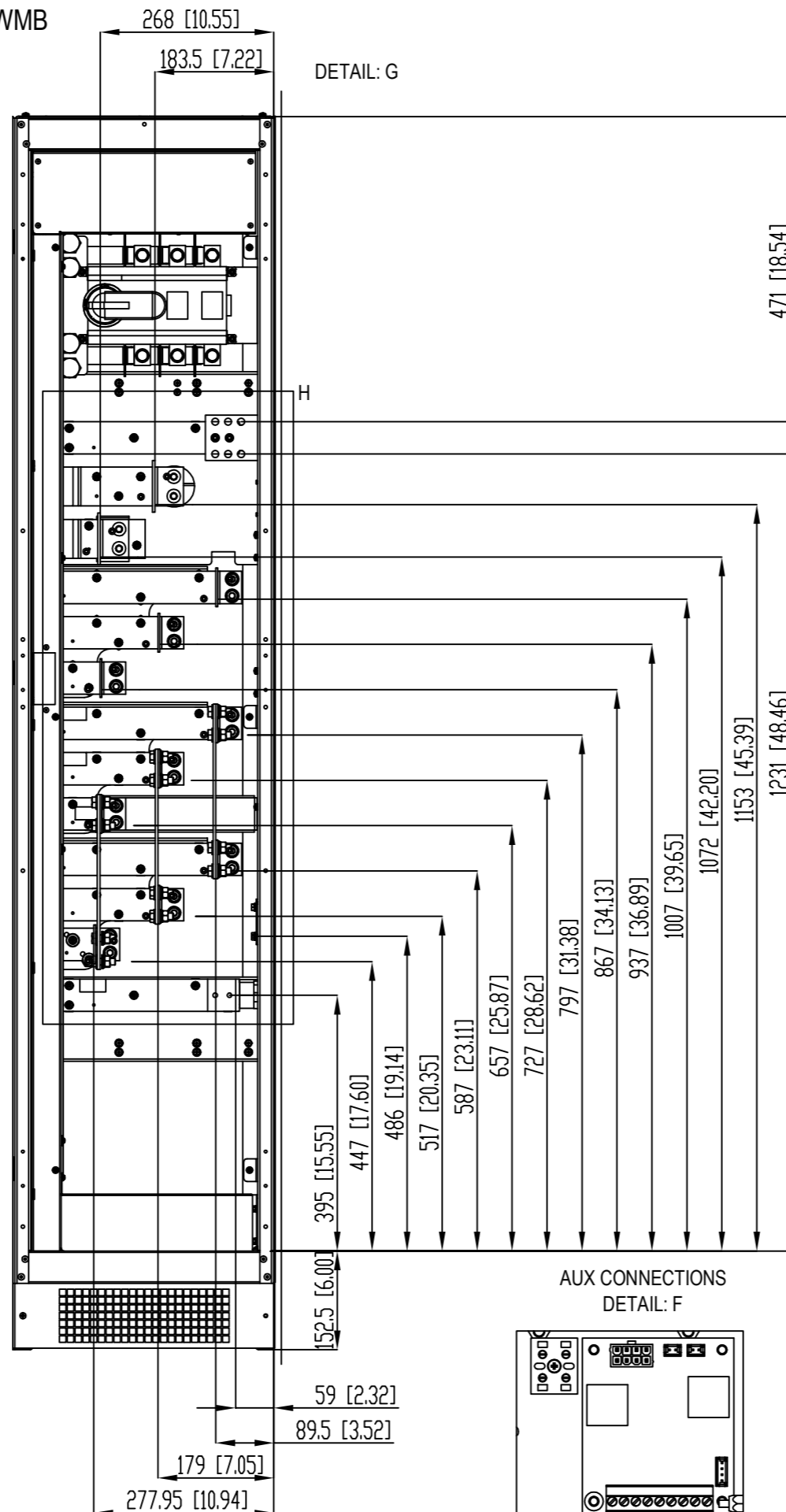
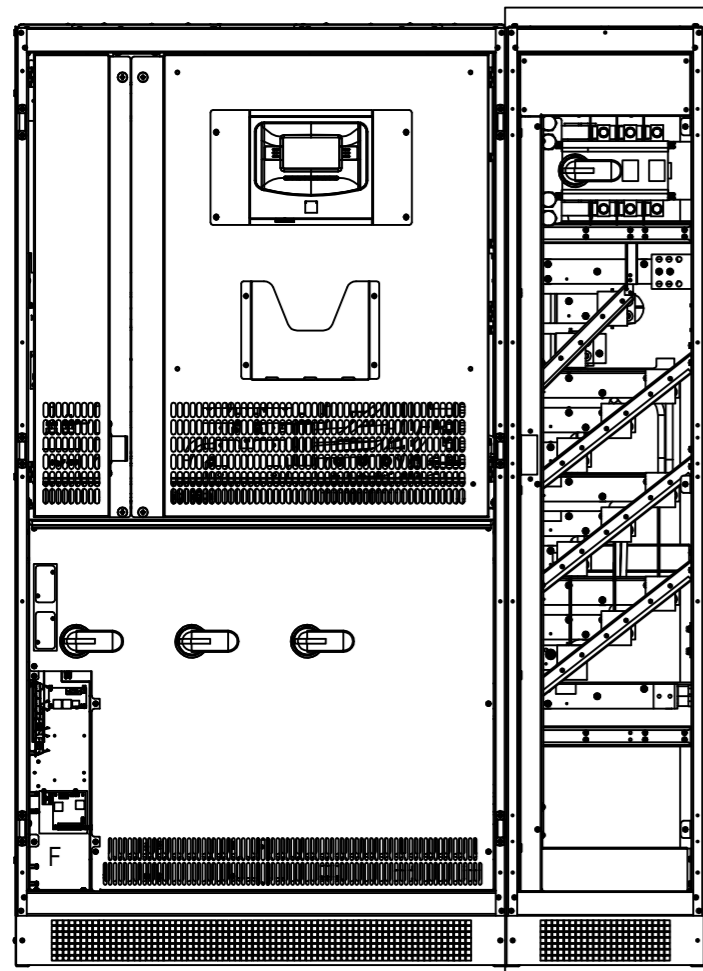
RPS

DRAW. No	REV.
OMLMHTM16RUENID	00
PAG. 5	DI 10

MASTER HP- UL - Series W TCE



SLOT FOR RS232 AND NETMAN-MULTICOM CABLES ENTRY



BOND (REMOVE FOR WYE APPLICATION)

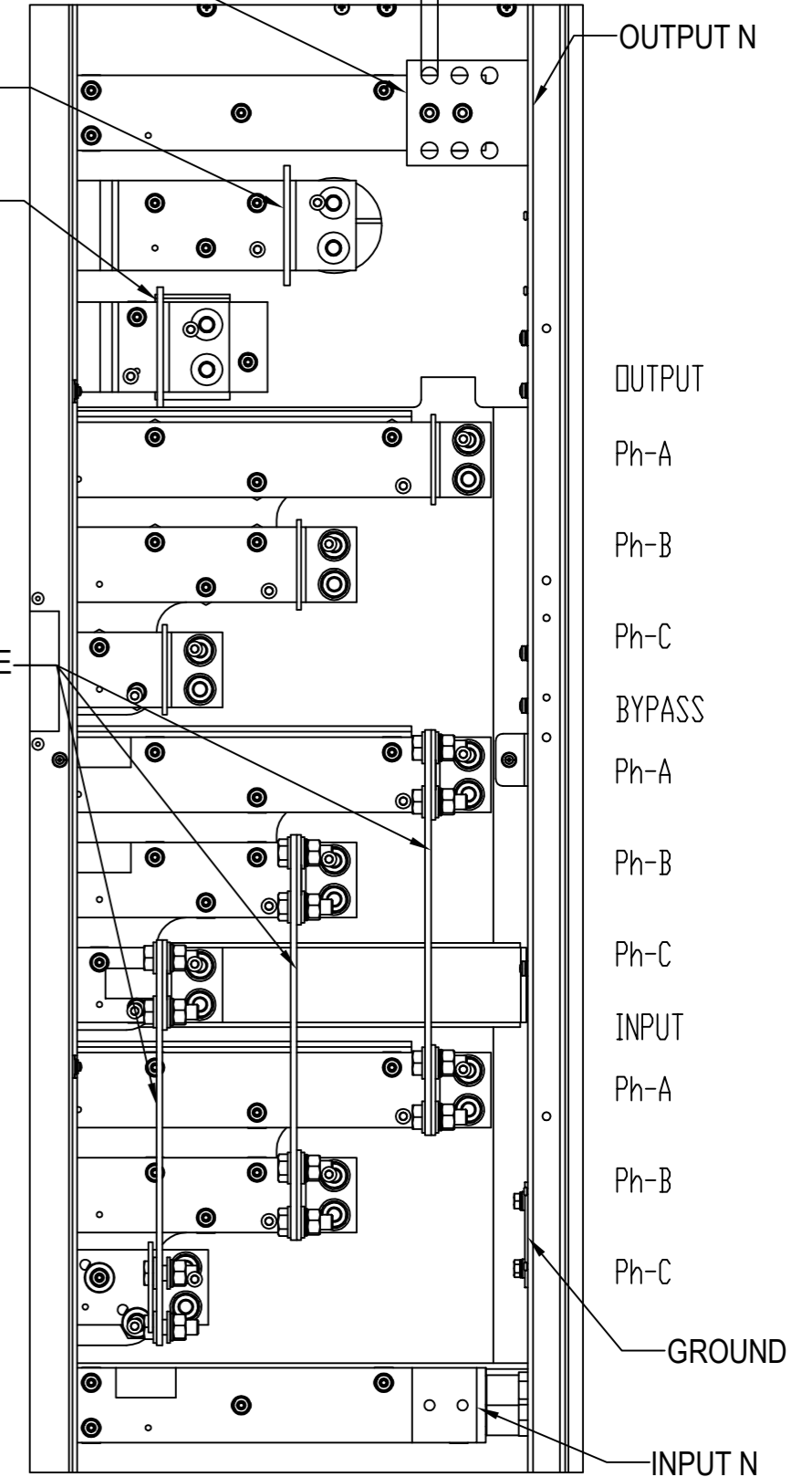
DETAIL: H

ALL HOLES Ø 11 [0.43]

BATTERY " + "

BATTERY " - "

REMOVE FOR SEPARATE BYPASS LINE



Torque specification		
Bolt size	Torque Load	
M10 - 3/8	40Nm	29,5lbf-ft

RPS

DRAW. No	REV.
0MLMHTM16RUENID	00
PAG. 6	DI 10

MASTER HP- UL - Series W/O TCE -Seismic Version

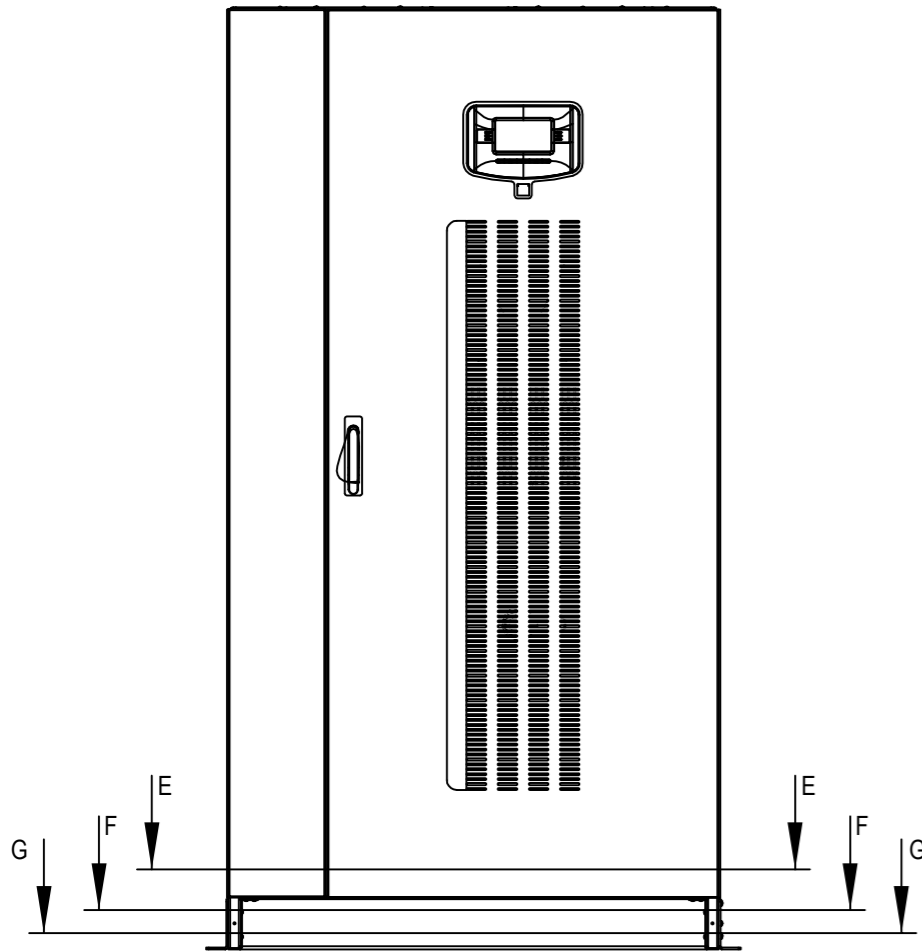
THE MASTER HP-UL UPS IS OSHPD SPECIAL SEISMIC CERTIFICATION APPROVED AND IS IBC COMPLIANT (IBC 2006, 2009, 2012 AND 2015)

SEISMIC CRITERIA:

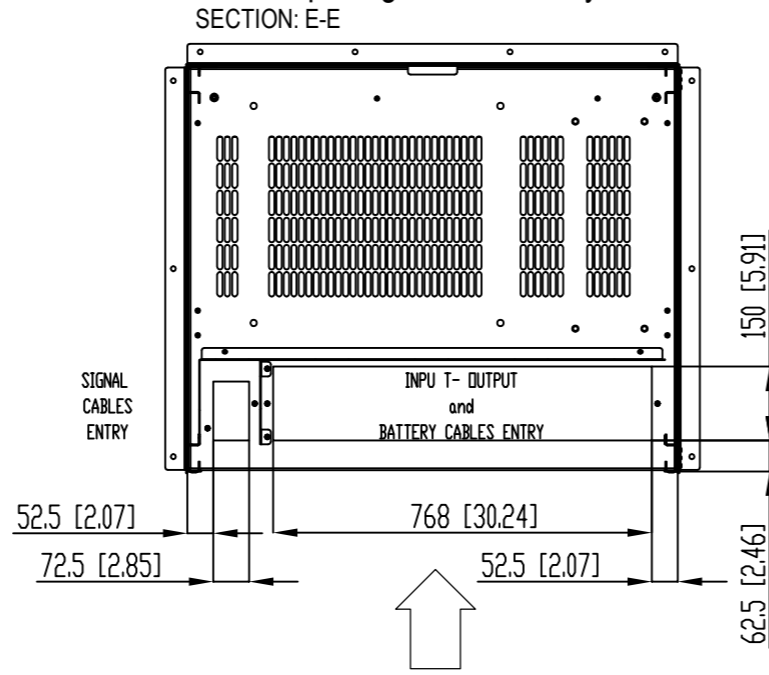
$S_{DS}(g) = 2.00$ $z/h = 1.0$ $I_p = 1.5$ (ROOF LEVEL OR BELOW)

$S_{DS}(g) = 2.50$ $z/h = 0.0$ $I_p = 1.5$ (GROUND LEVEL OR BELOW)

FRONT VIEW

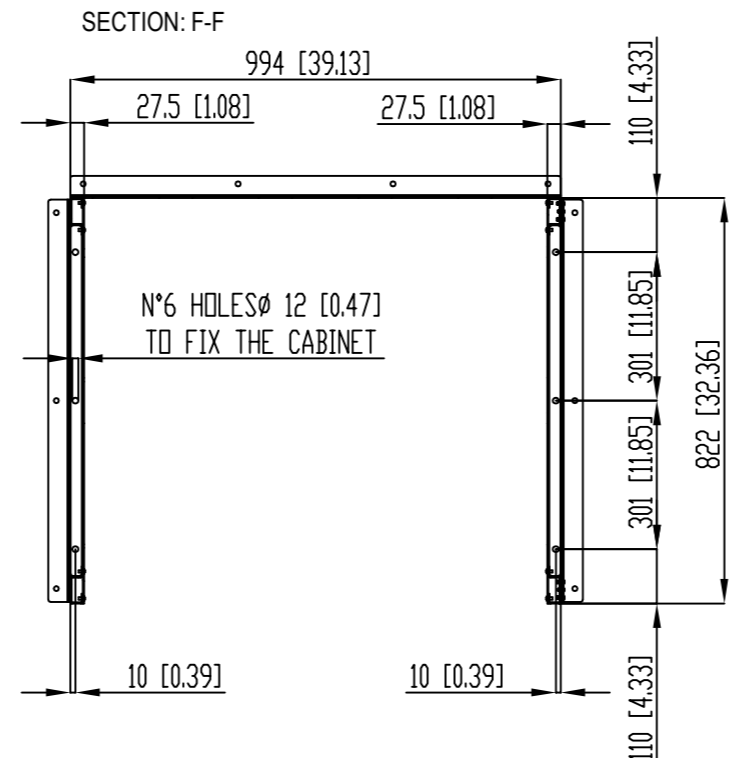


BOTTOM VIEW
W/O DOOR AND PANNEL
Opening for Cable entry

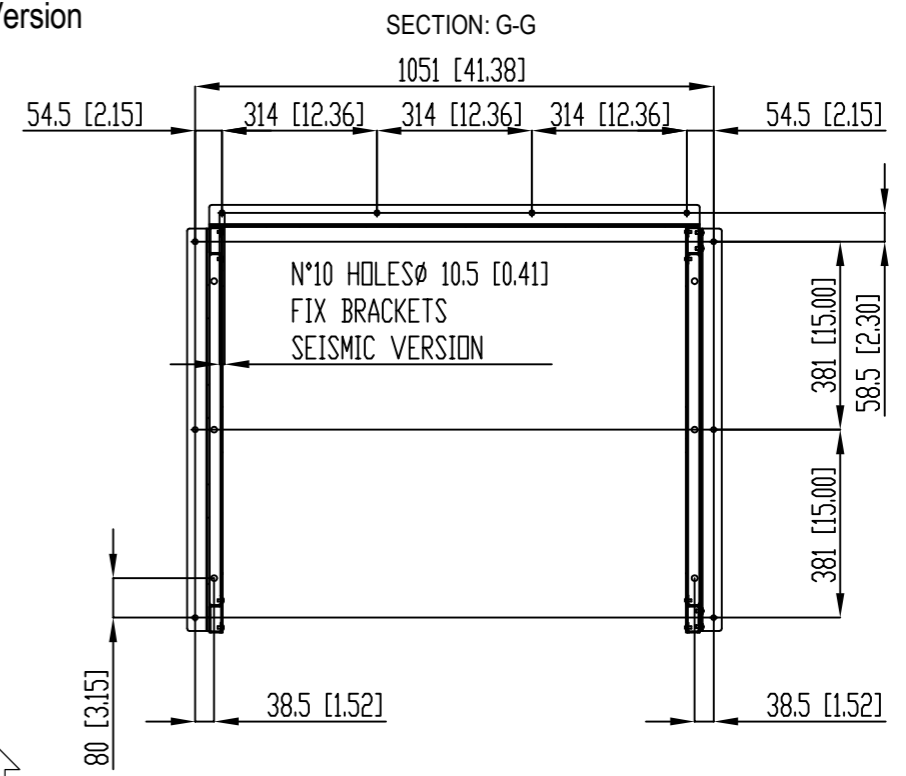


FRONT

BOTTOM VIEW W/O DOOR
AND PANNEL
Bearing surface of cabinet
Seismic Version



FRONT



RPS	DRAW. No		REV.
	OMLMHTM16RUENID		00
	PAG. 7	DI	10

CART ISO_A3

MASTER HP- UL - Series W/O TCE -Seismic Version

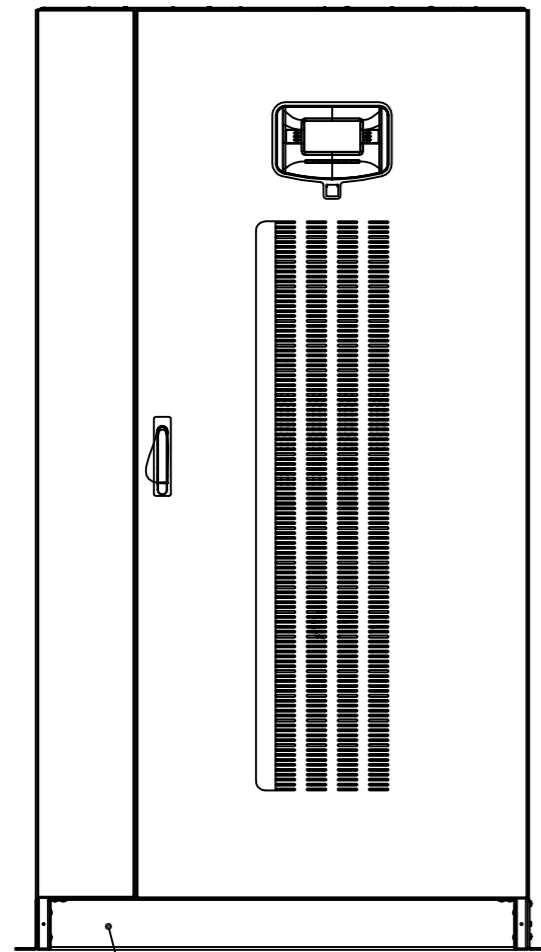
THE MASTER HP-UL UPS IS OSHPD SPECIAL SEISMIC CERTIFICATION APPROVED AND IS IBC COMPLIANT (IBC 2006, 2009, 2012 AND 2015)

SEISMIC CRITERIA:

$S_{Ds} (g) = 2.00$ $z/h = 1.0$ $I_p = 1.5$ (ROOF LEVEL OR BELOW)

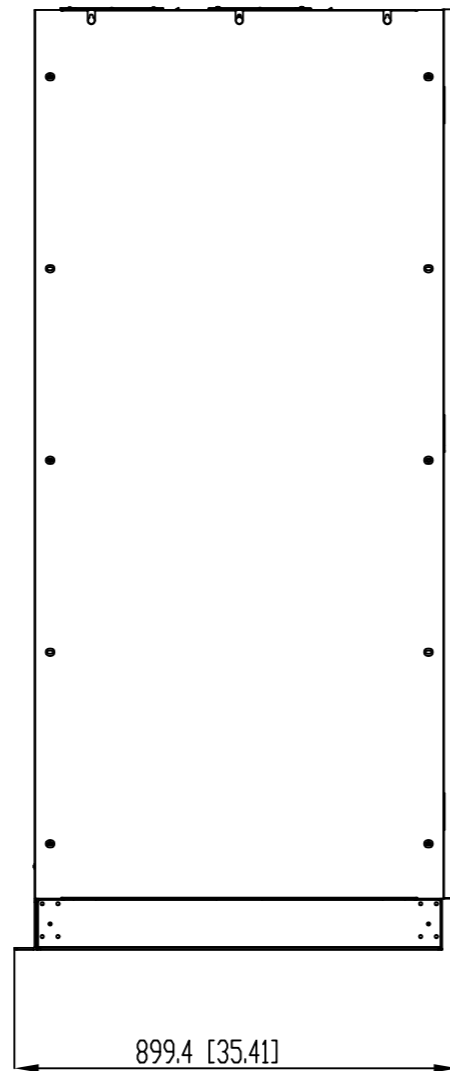
$S_{Ds} (g) = 2.50$ $z/h = 0.0$ $I_p = 1.5$ (GROUND LEVEL OR BELOW)

FRONT VIEW

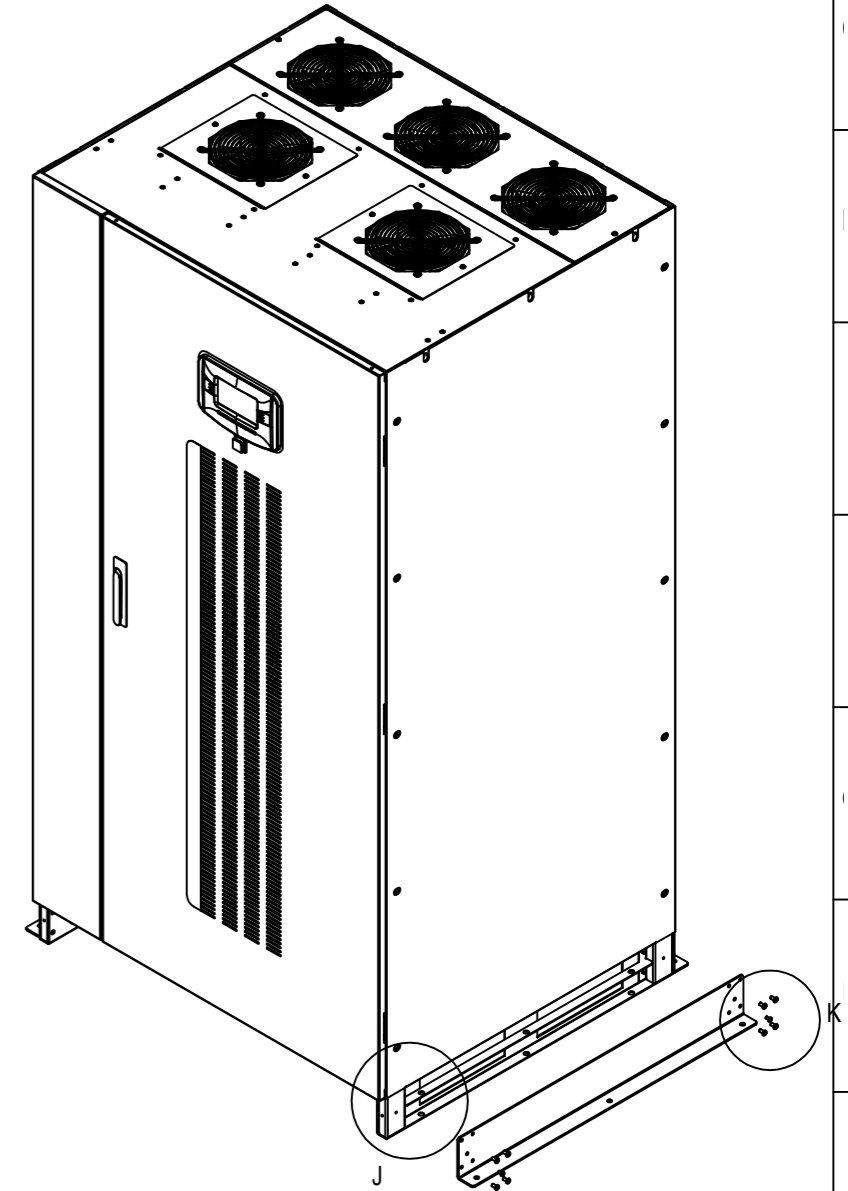
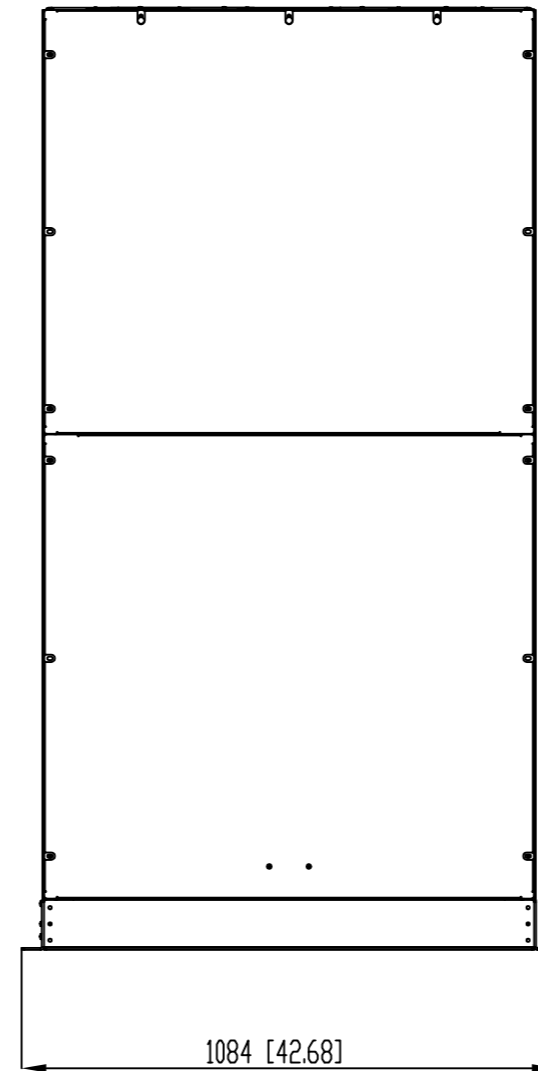


THIS FRONT AREA
MUST BE OPENED;
NO SEISMIC BRACKET

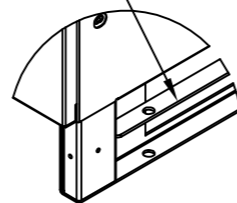
LEFT SIDE VIEW



REAR VIEW



INSERT FLAT FIXING
SUPPORT ON BOTH SIDES

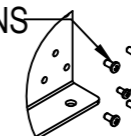


DETAIL: J

NOTE:
UNIT IS MOUNTED WITH 3 / 8 " (M10)
GRADE 8 BOLTS

M6 SCREWS IN ALL OTHER LOCATIONS

M5 SCREWS IN MIDDLE ONLY



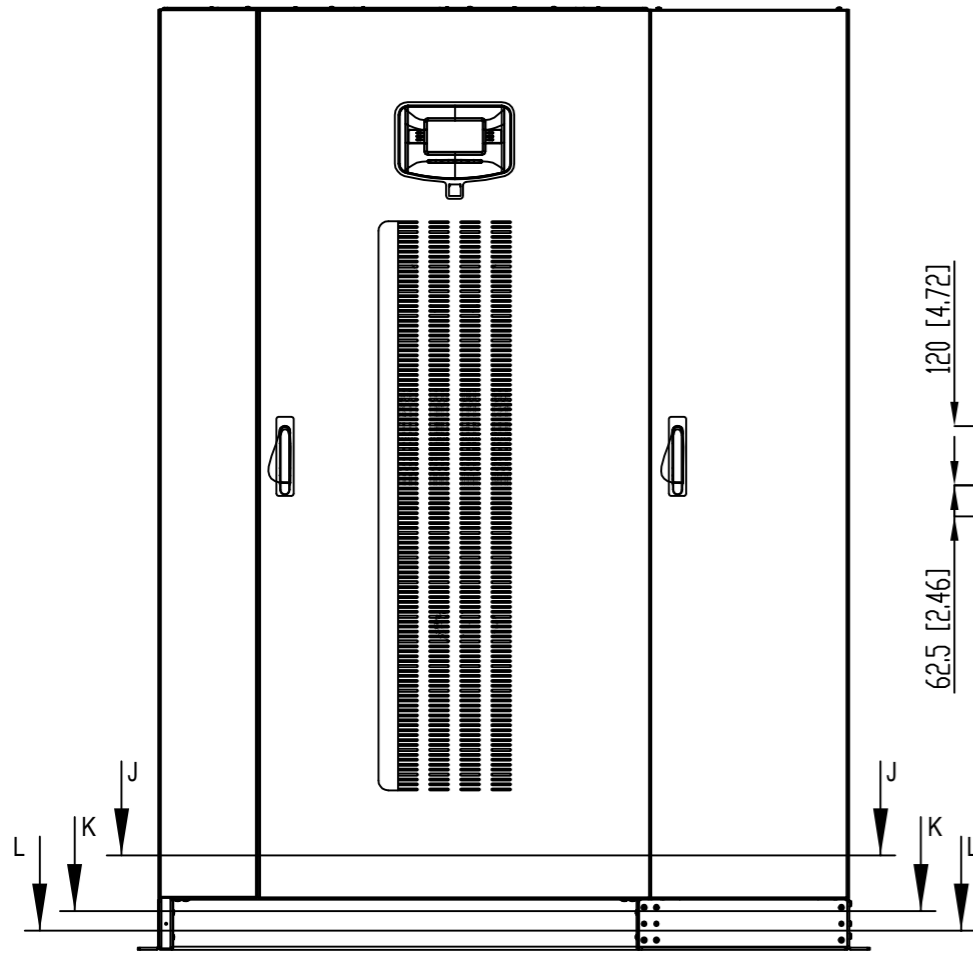
DETAIL: K

MASTER HP-UL - Series W TCE -Seismic Version

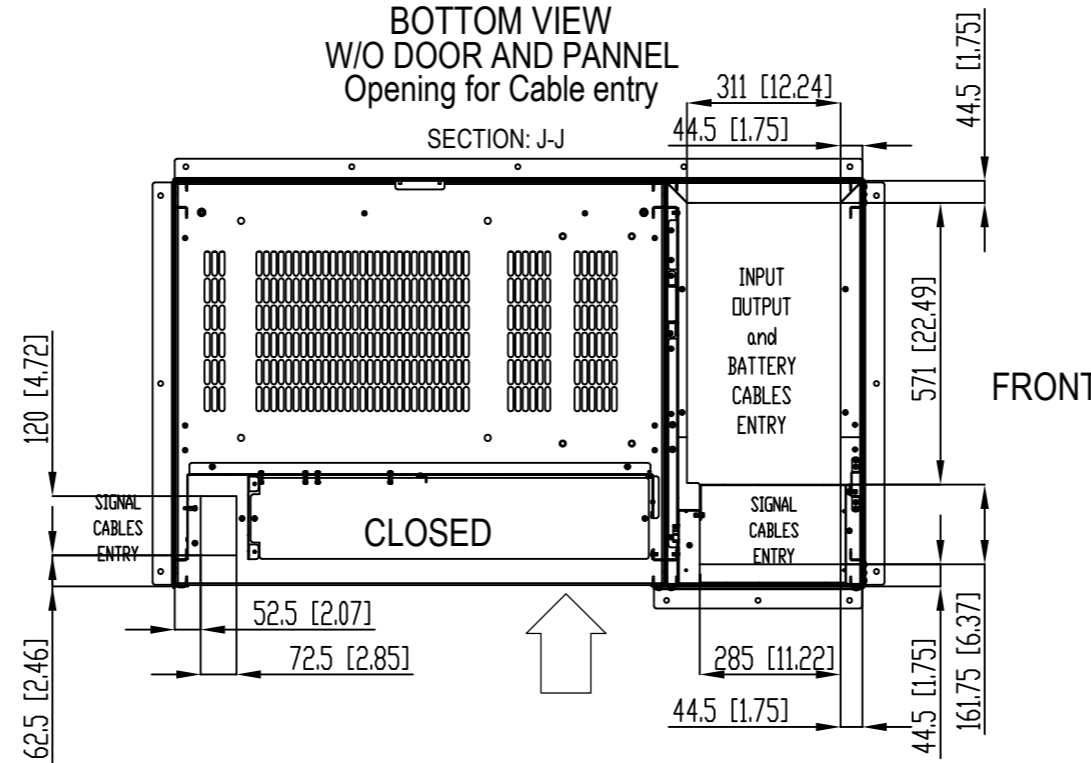
THE MASTER HP-UL UPS IS OSHPD SPECIAL SEISMIC CERTIFICATION APPROVED AND IS IBC COMPLIANT (IBC 2006, 2009, 2012 AND 2015)

SEISMIC CRITERIA:
 $S_{ds}(g) = 2.00$ $z/h = 1.0$ $I_p = 1.5$ (ROOF LEVEL OR BELOW)
 $S_{ds}(g) = 2.50$ $z/h = 0.0$ $I_p = 0.0$ (GROUND LEVEL OR BELOW)

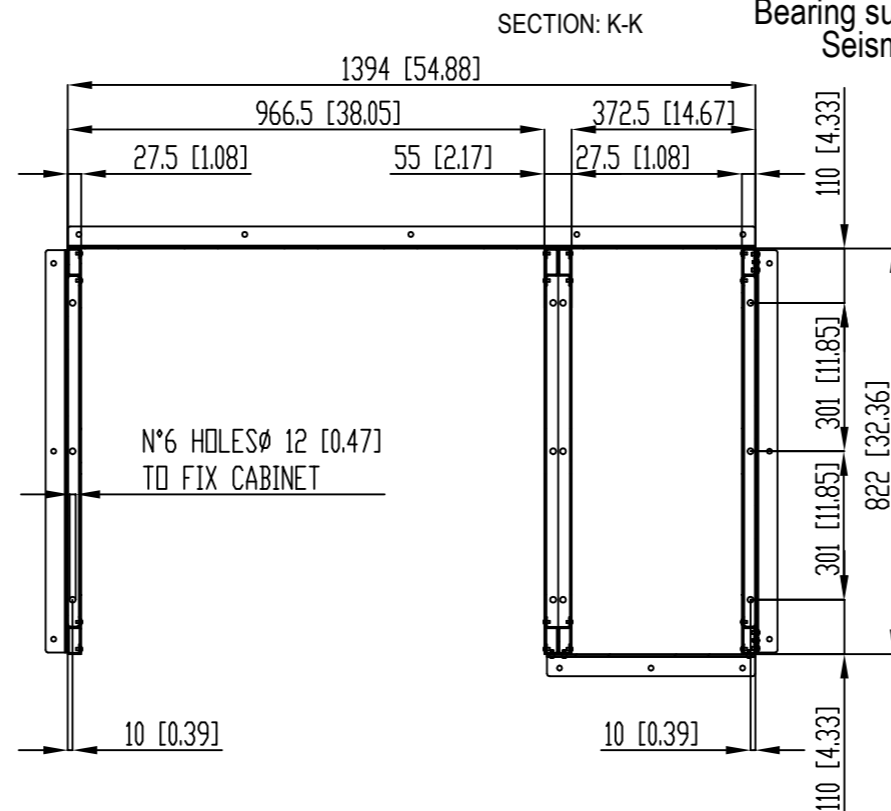
FRONT VIEW



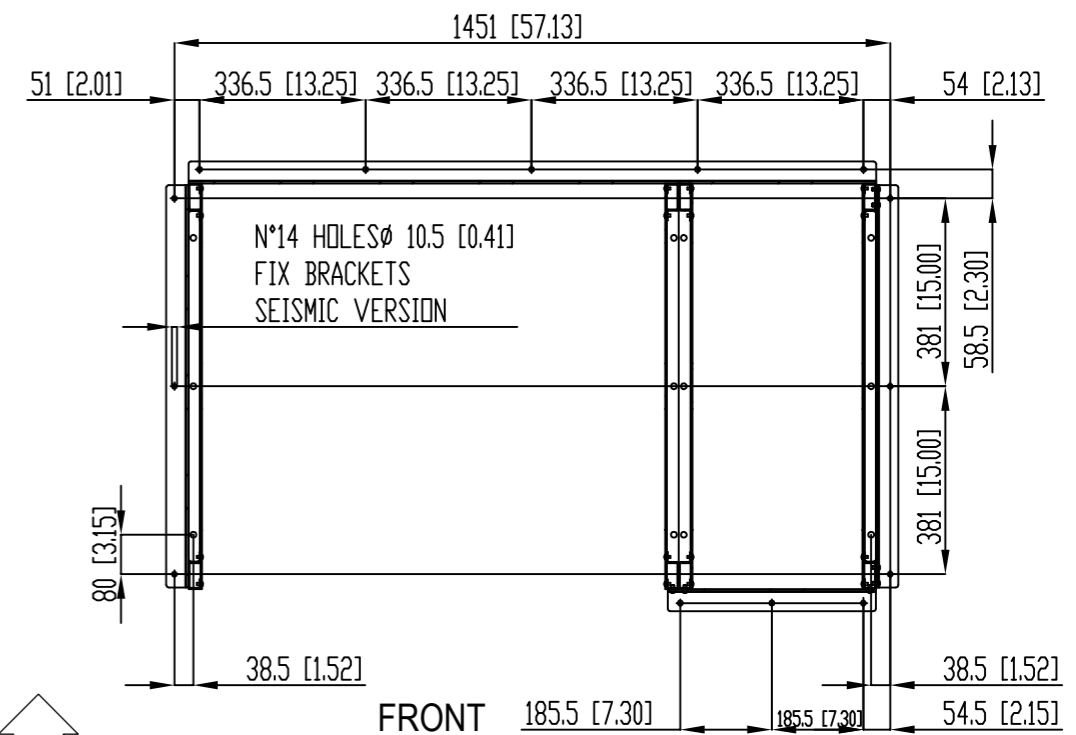
BOTTOM VIEW
W/O DOOR AND PANNEL
Opening for Cable entry



BOTTOM VIEW
W/O DOOR AND PANNEL
Bearing surface of cabinet
Seismic Version



SECTION: L-L



CART ISO_A3

RPS	DRAW. No	REV.
	OMLMHTM16RUENID	00
	PAG. 9	DI 10

MASTER HP- UL - Series W TCE -Seismic Version

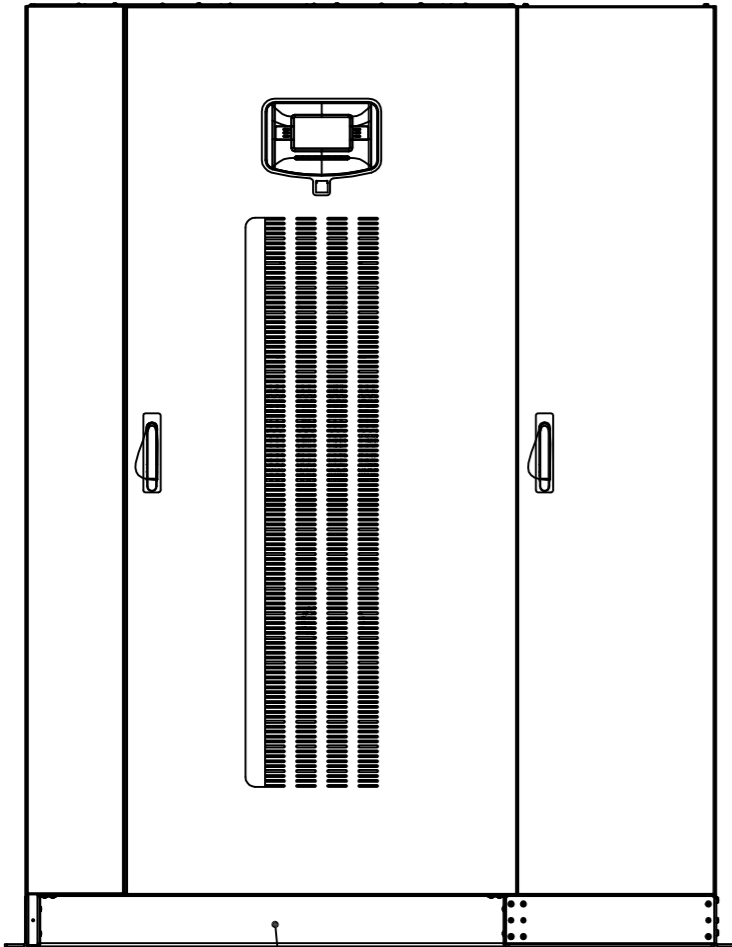
THE MASTER HP-UL UPS IS OSHPD SPECIAL SEISMIC CERTIFICATION APPROVED AND IS IBC COMPLIANT (IBC 2006, 2009, 2012 AND 2015)

SEISMIC CRITERIA:

S_{ds} (g) = 2.00 z/h = 1.0 I_p = 1.5 (ROOF LEVEL OR BELOW)

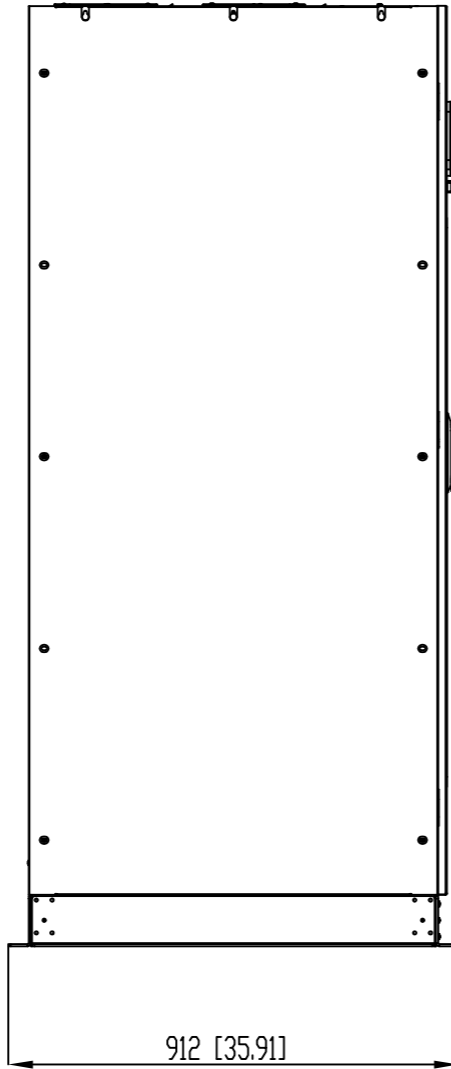
S_{ds} (g) = 2.50 z/h = 0.0 I_p = 0.0 (GROUND LEVEL OR BELOW)

FRONT VIEW

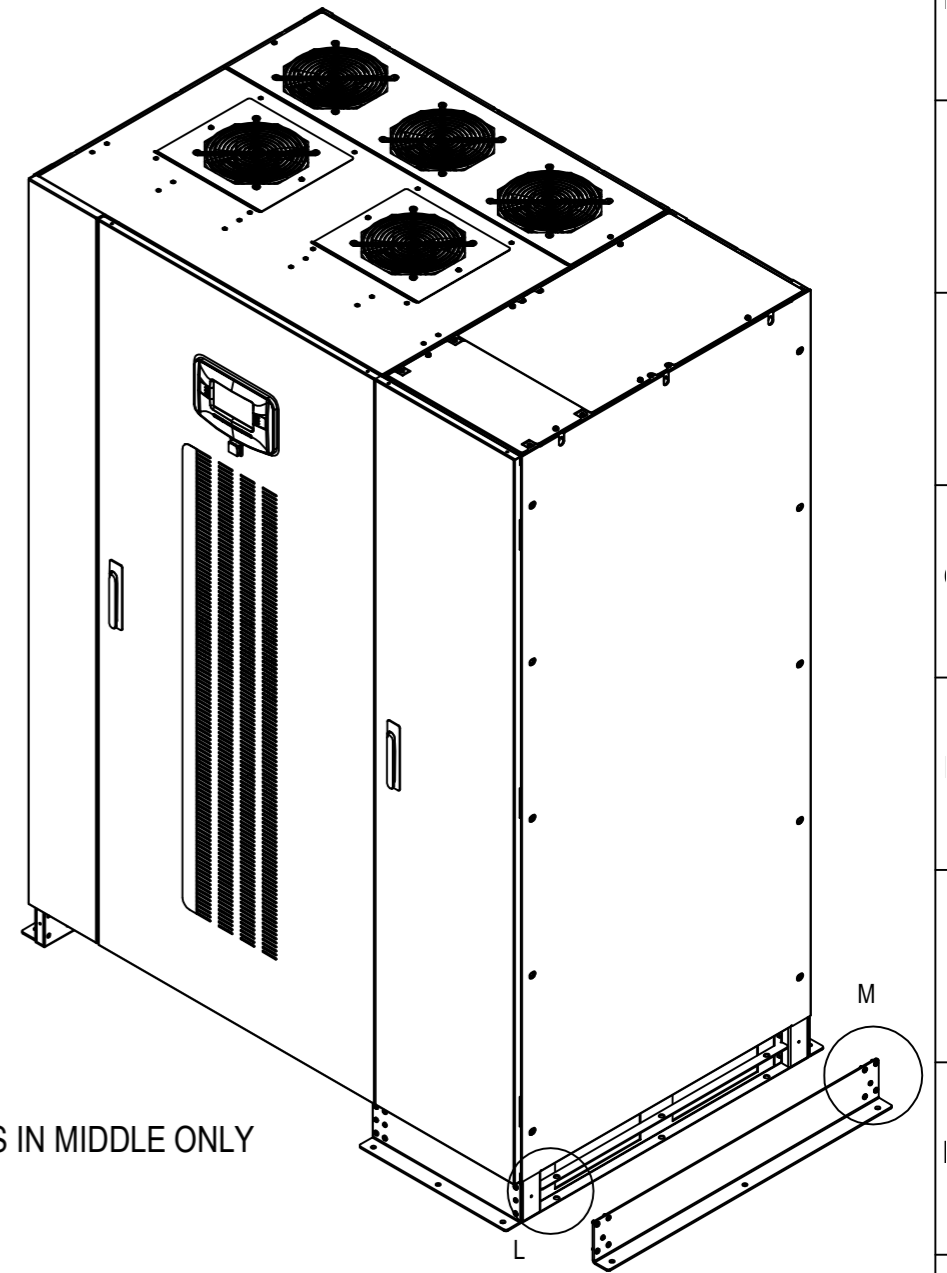
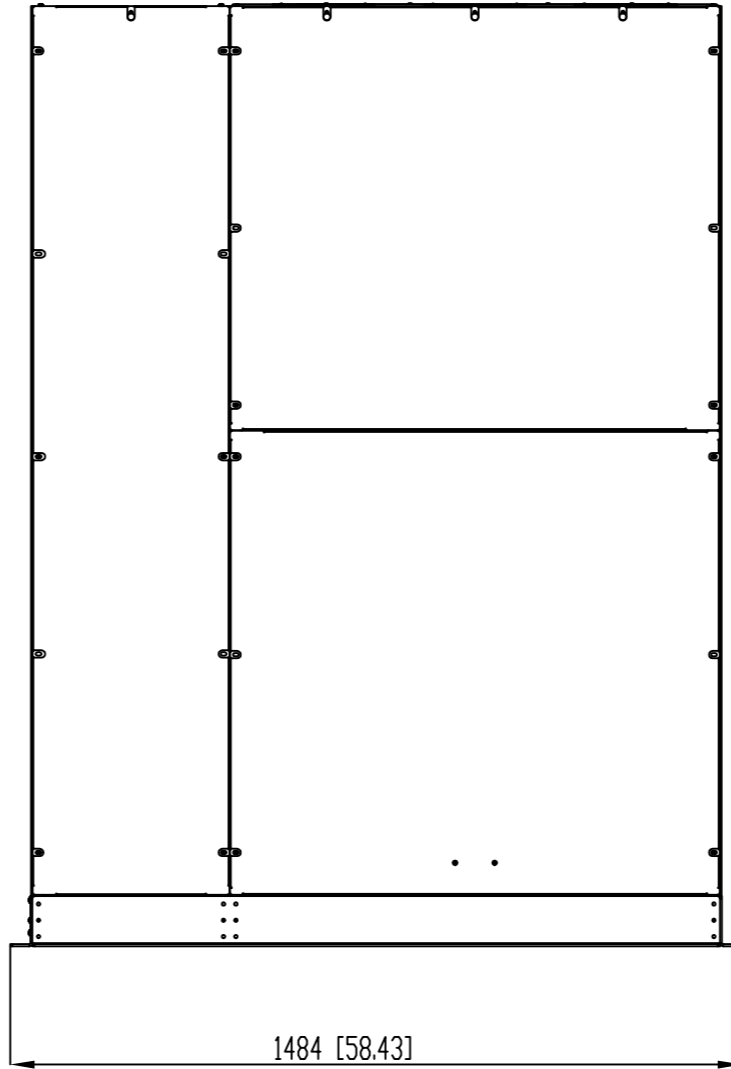


THIS FRONT AREA
MUST BE OPENED;
NO SEISMIC BRACKET

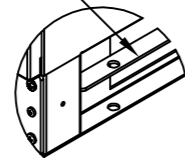
LEFT SIDE VIEW



REAR VIEW



INSERT FLAT FIXING
SUPPORT ON BOTH SIDES

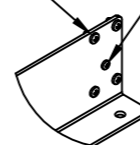


DETAIL: L

NOTE:
UNIT IS MOUNTED WITH 3 / 8 " (M10)
GRADE 8 BOLTS

M6 SCREWS IN ALL OTHER LOCATIONS

M5 SCREWS IN MIDDLE ONLY



DETAIL: M

RPS

DRAW. No		REV.
0MLMHTM16RUENID		00
PAG.	10	DI 10