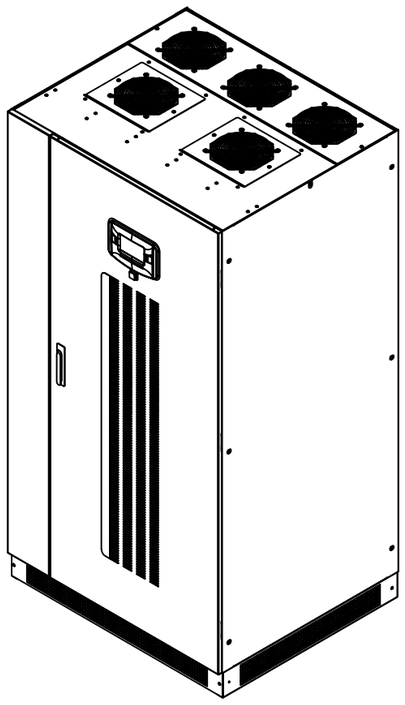
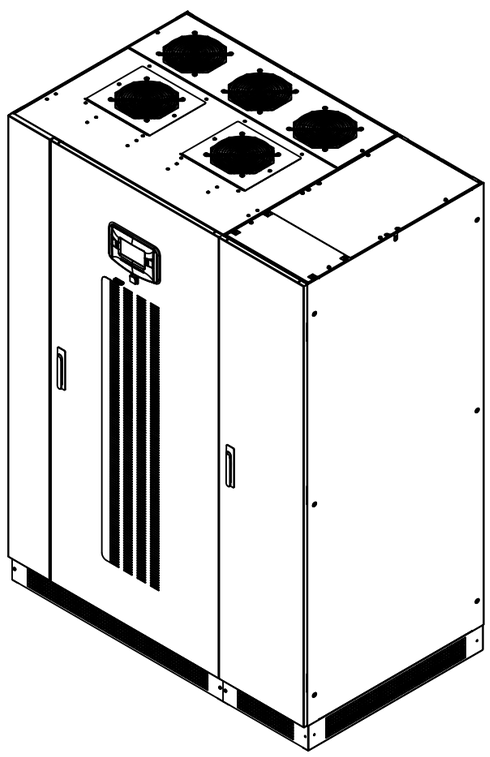
INSTALLATION INSTRUCTIONS

Reed “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
Reted 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	m³/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	m² / ft²	0,85 / 9,146			1,19 / 12,8		
Opening for Cable Entry							
TOP	m² / ft²	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 (kcmi/Awg)	500 or 2x2/0	2x4/0	2x4/0
INPUT AC LINE - DUAL SEPARETE 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 (kcmi/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 (kcmi/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 (kcmi/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.			

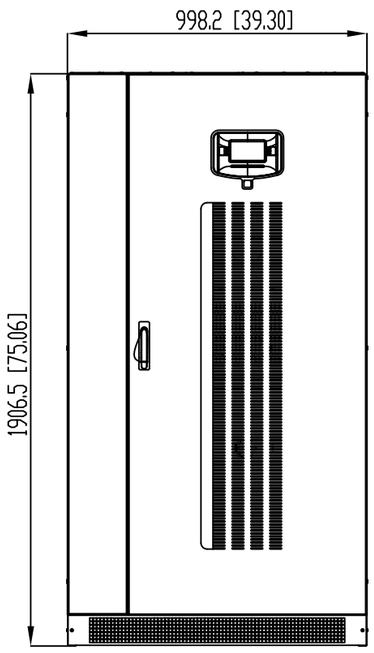
RPS	EDIT.	F.MASTROPASQUA	DATA: 19 / 05 / 2020	VARIATION:ADDED NOTE PAGE 8-10	DRAW. No	REV.
	CONT.	F.MASTROPASQUA	DATA: 19 / 05 / 2020	...	0MLMHTM16RUENIC	01
	APPR.	F. Amodeo	DATA: 19 / 05 / 2020	...		
	REPLACE:	0MLMHTM16RUENIC_00	Scala: 1:20	Peso/Weight: 3.60 Kg	PAG. 1 DI 10	
NOTE: ...				TITLE: MAN MHT UL 160-250 DRW EN ...		

CART ISO_A3

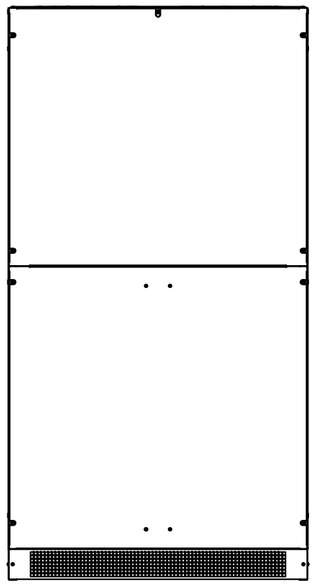
INSTALLATION INSTRUCTIONS

W/O TCE

FRONT VIEW

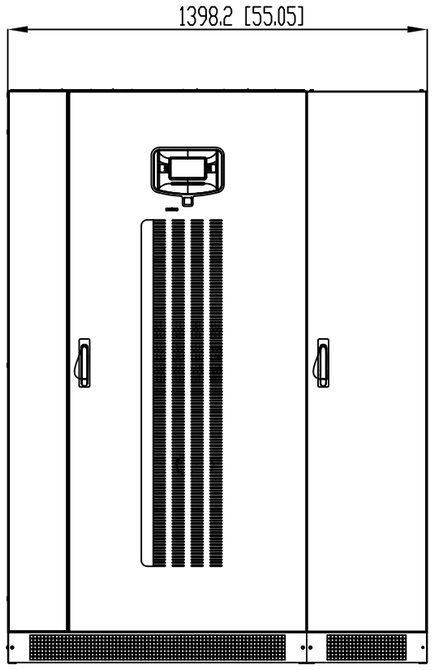


REAR VIEW

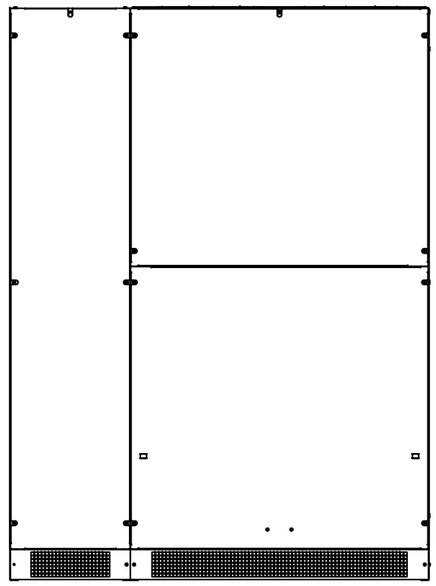


W TCE

FRONT VIEW

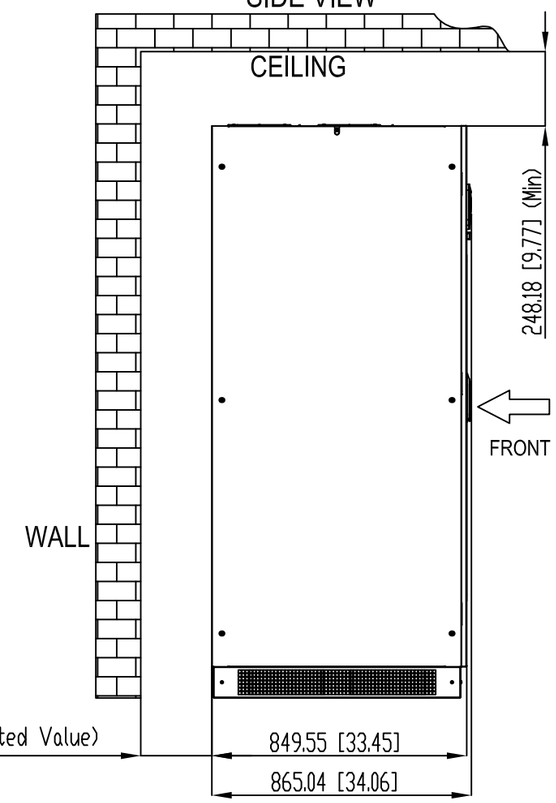


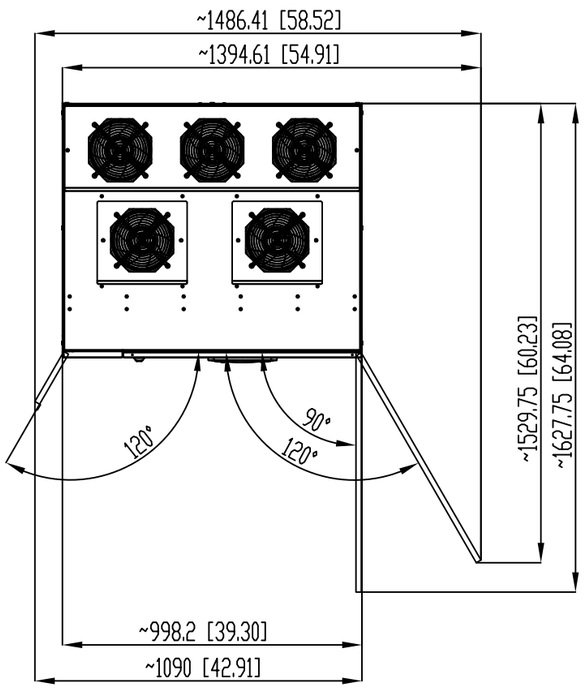
REAR VIEW

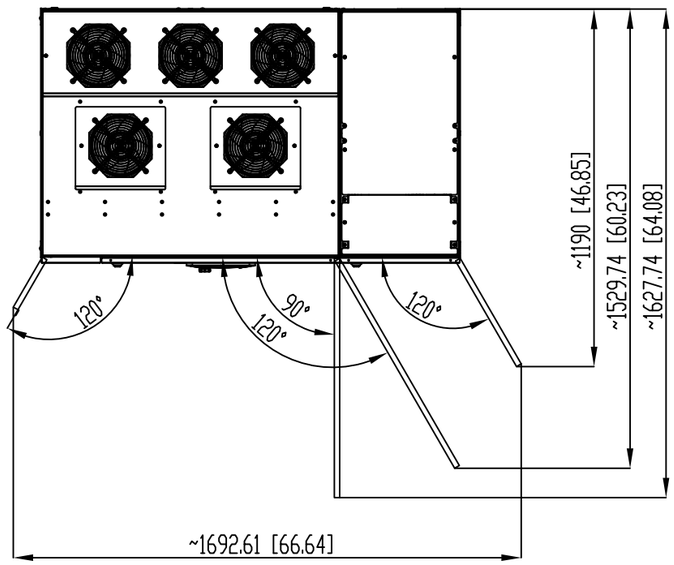


NOTE:
1000mm [39,37in] MINIMUM FRONT DISTANCE TO THE WALL

SIDE VIEW







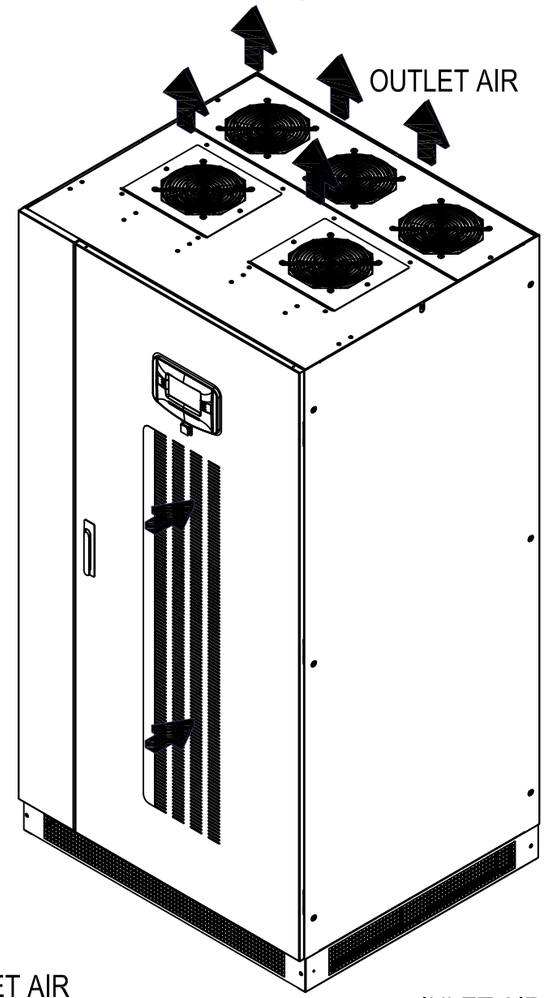
NOTE:
Do not mount side kickplate when there are cabinet side by side.
Leave at least one of the three (right, rear, left) of cabinet free

RPS	DRAW. No	REV.
	0MLMHTM16RUENIC	01
	PAG. 2 DI 10	

CART ISO_A3

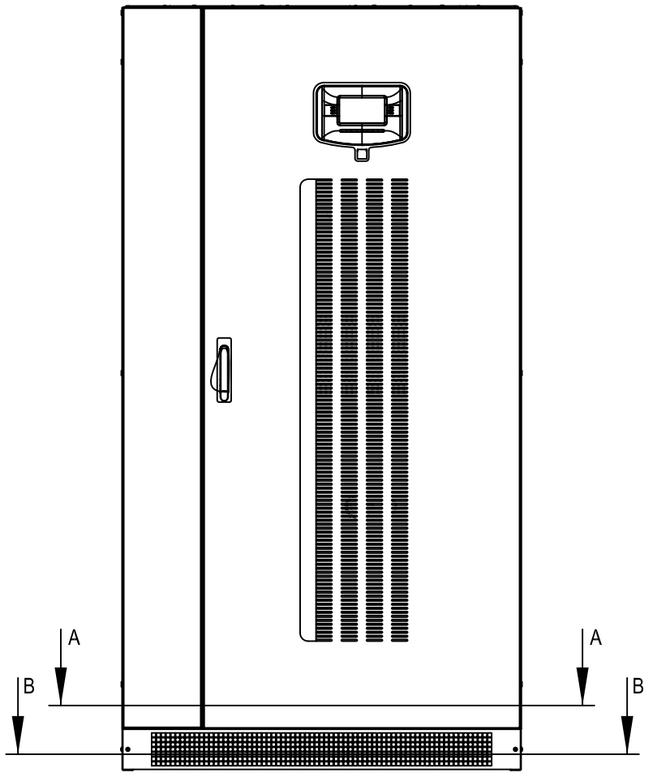
MASTER HP- UL - Series
W/O TCE

AIR FLOW

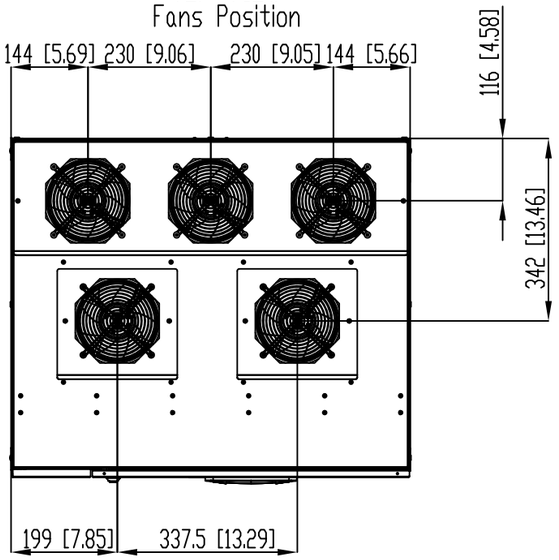


NOTE:
High temperaturerise may occur if the minimum value indicated is not maintained above the UPS

FRONT VIEW

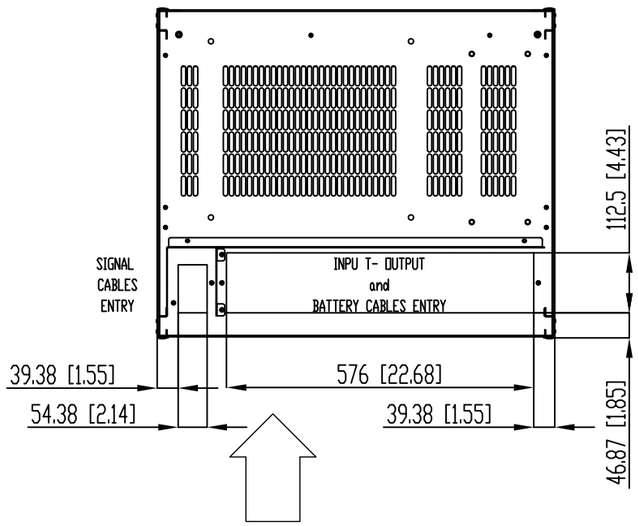


TOP VIEW
Fans Position



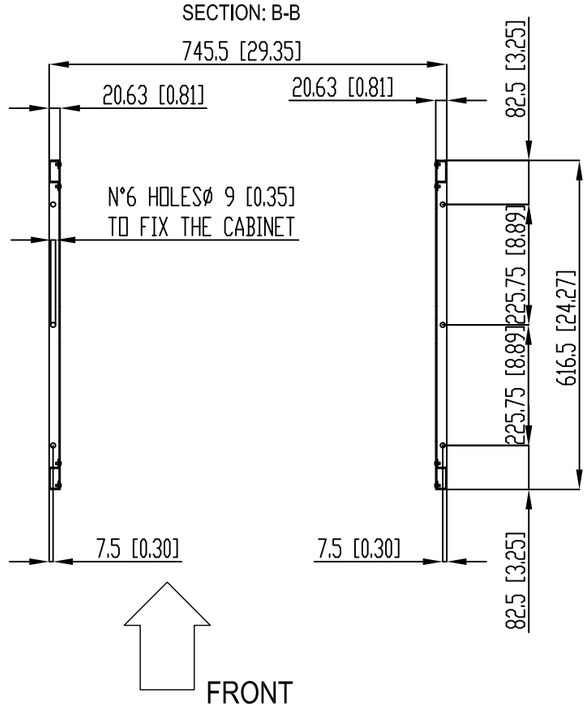
BOTTOM VIEW
W/O DOOR AND PANNEL
Opening for Cable entry

SECTION: A-A



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

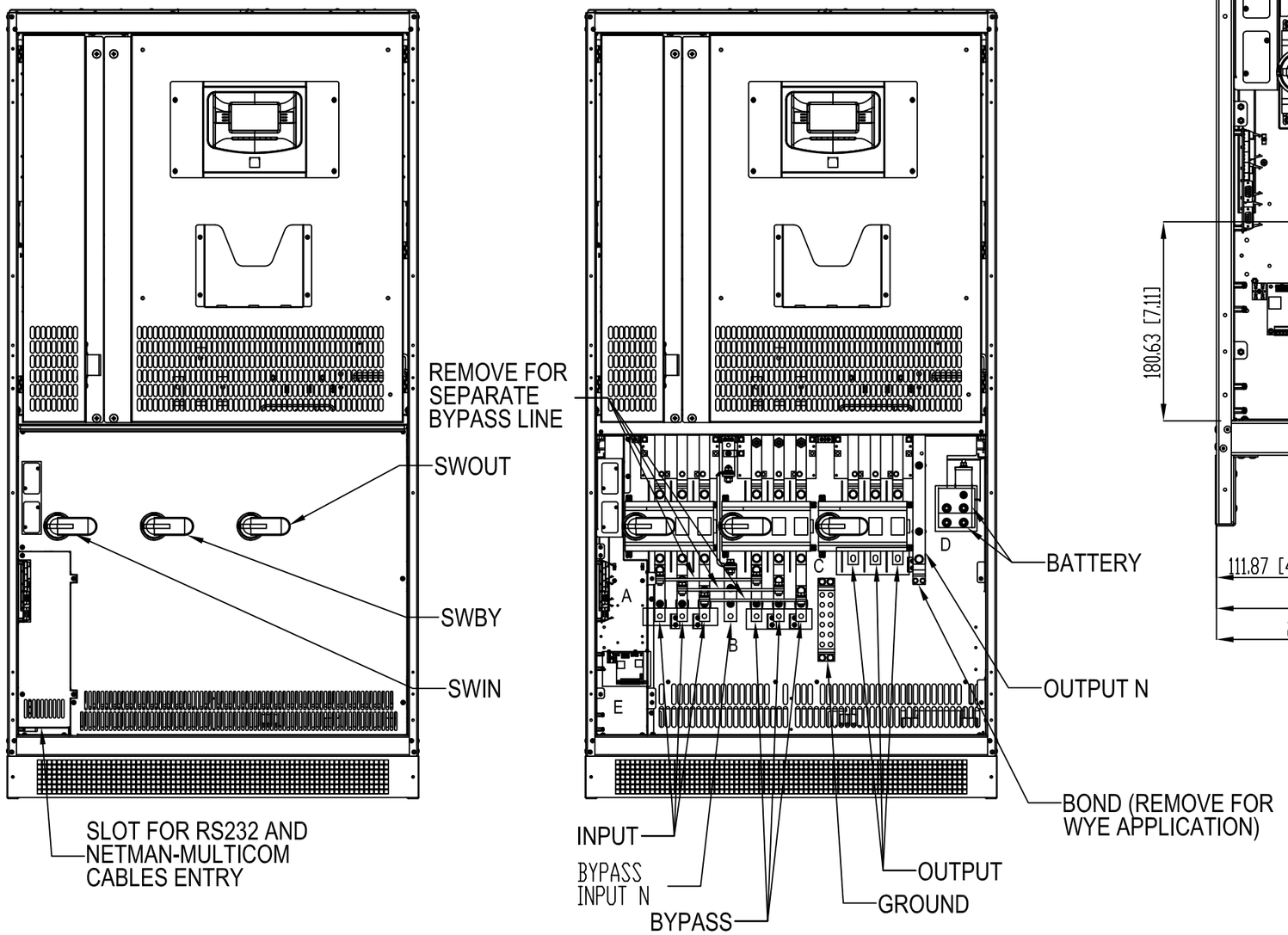
SECTION: B-B

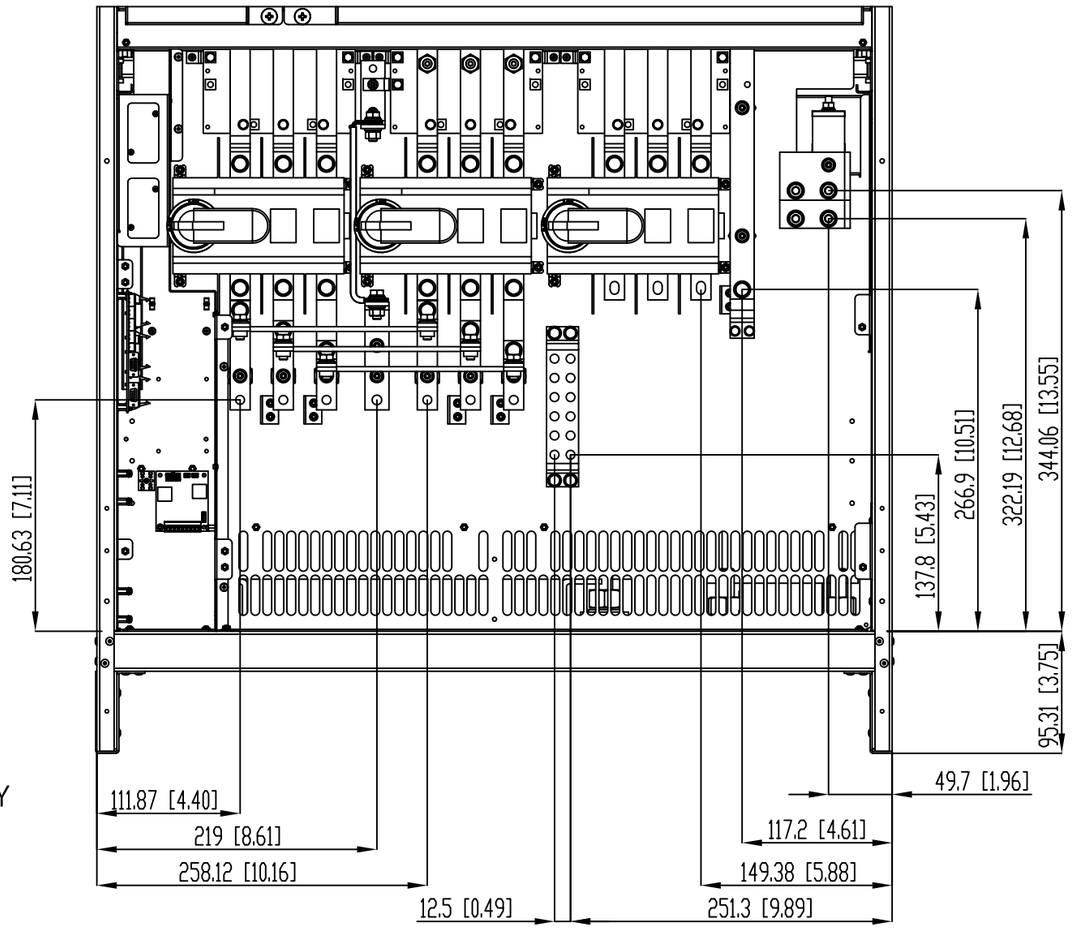


RPS	DRAW. No	REV.
	0MLMHTM16RUENIC	01
	PAG. 3 DI 10	

CART ISO_A3

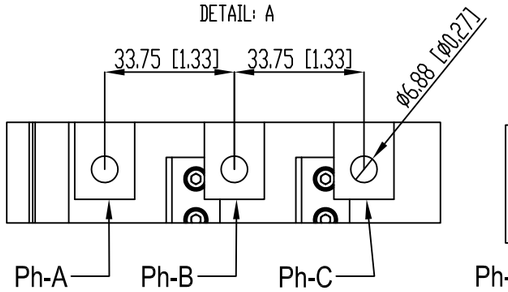
MASTER HP - UL - Series
W/O TCE



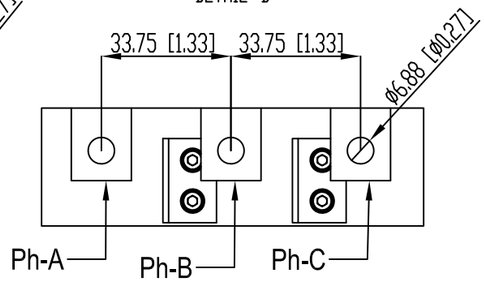


Torque specification		
Bolt size	Torque Load	
3/8 - M10	40Nm	29,5lbf-ft

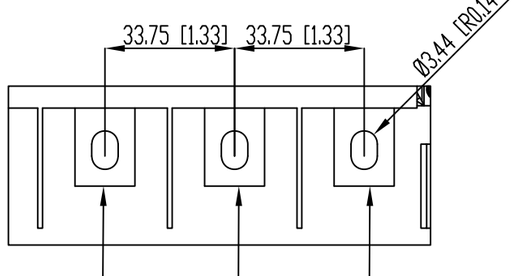
INPUT
DETAIL: A



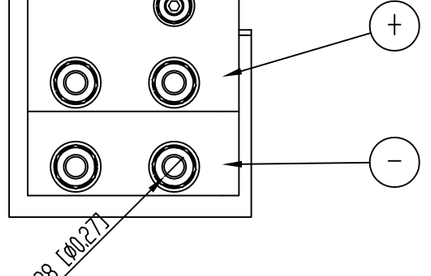
BYPASS
DETAIL: B



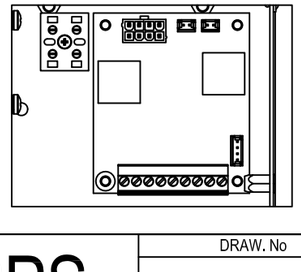
OUTPUT
DETAIL: C



BATTERY
DETAIL: D



AUX CONNECTIONS
DETAIL: E

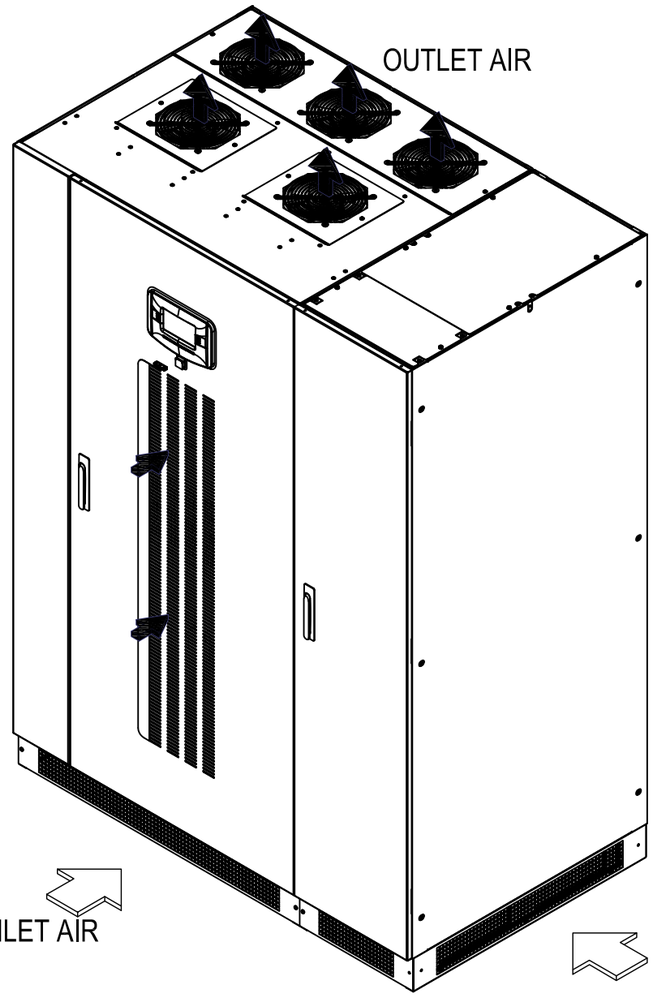


RPS	DRAW. No	REV.
	0MLMHTM16RUENIC	01
	PAG. 4 DI 10	

CART ISO_A3

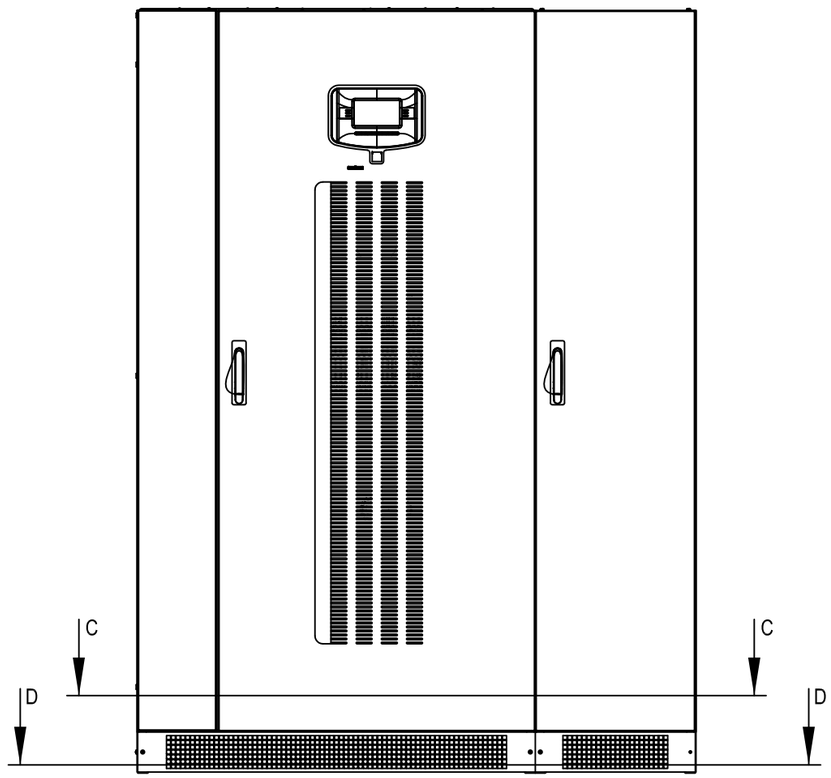
MASTER HP- UL - Series
W TCE

AIR FLOW



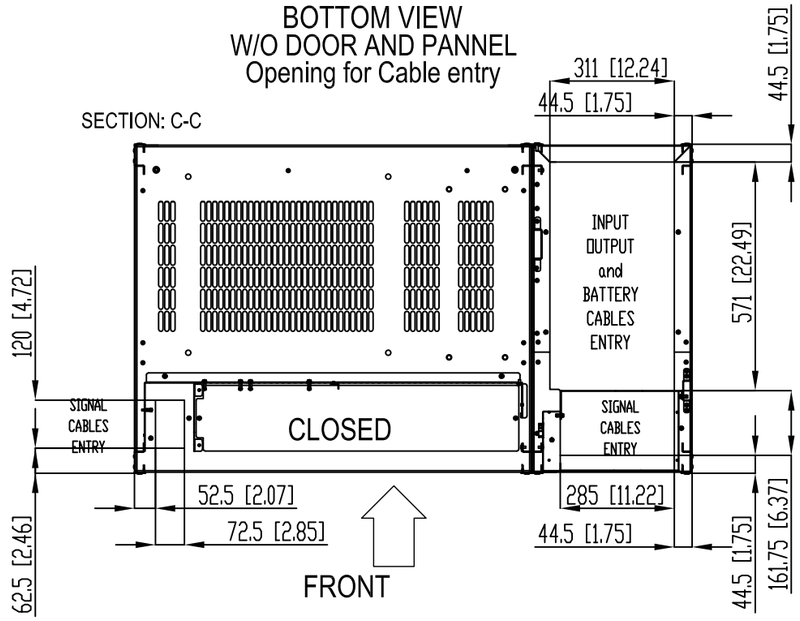
NOTE:
High temperaturerise may occur if the minimum value indicated is not maintained above the UPS

FRONT VIEW



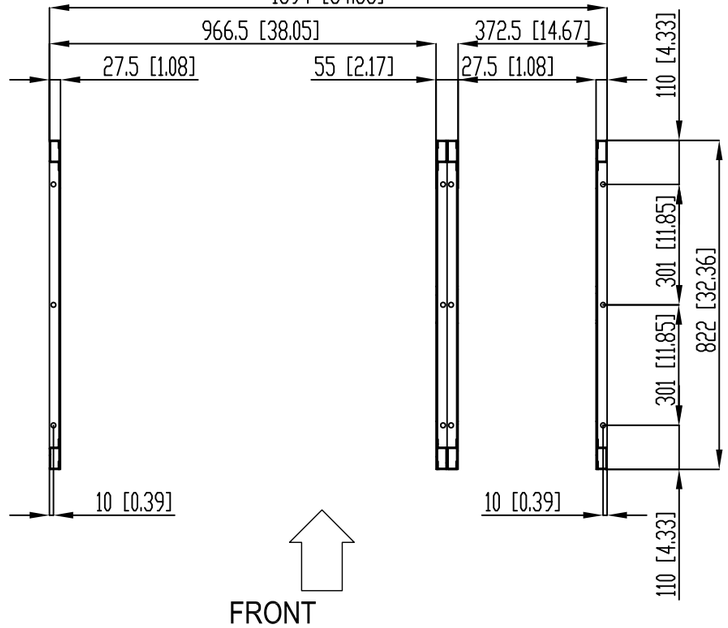
BOTTOM VIEW
W/O DOOR AND PANNEL
Opening for Cable entry

SECTION: C-C

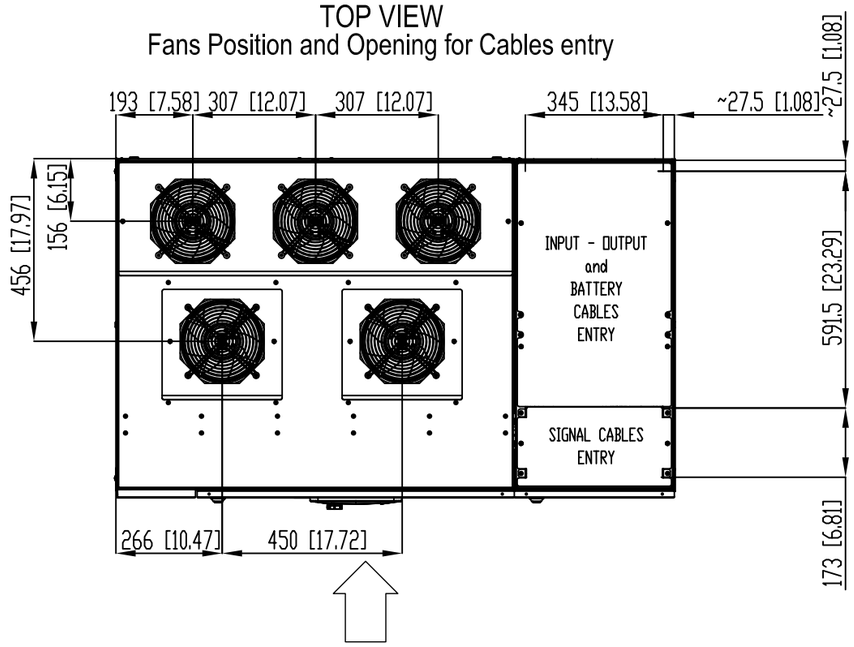


BOTTOM VIEW
W/O DOOR AND PANNEL
Bearing surface of cabinet
for the seismic version see sheet 9

SECTION: D-D



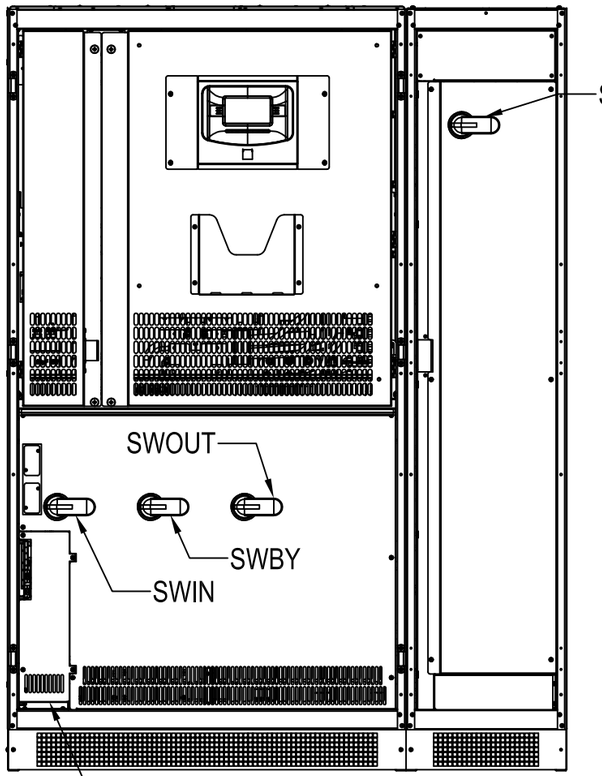
TOP VIEW
Fans Position and Opening for Cables entry

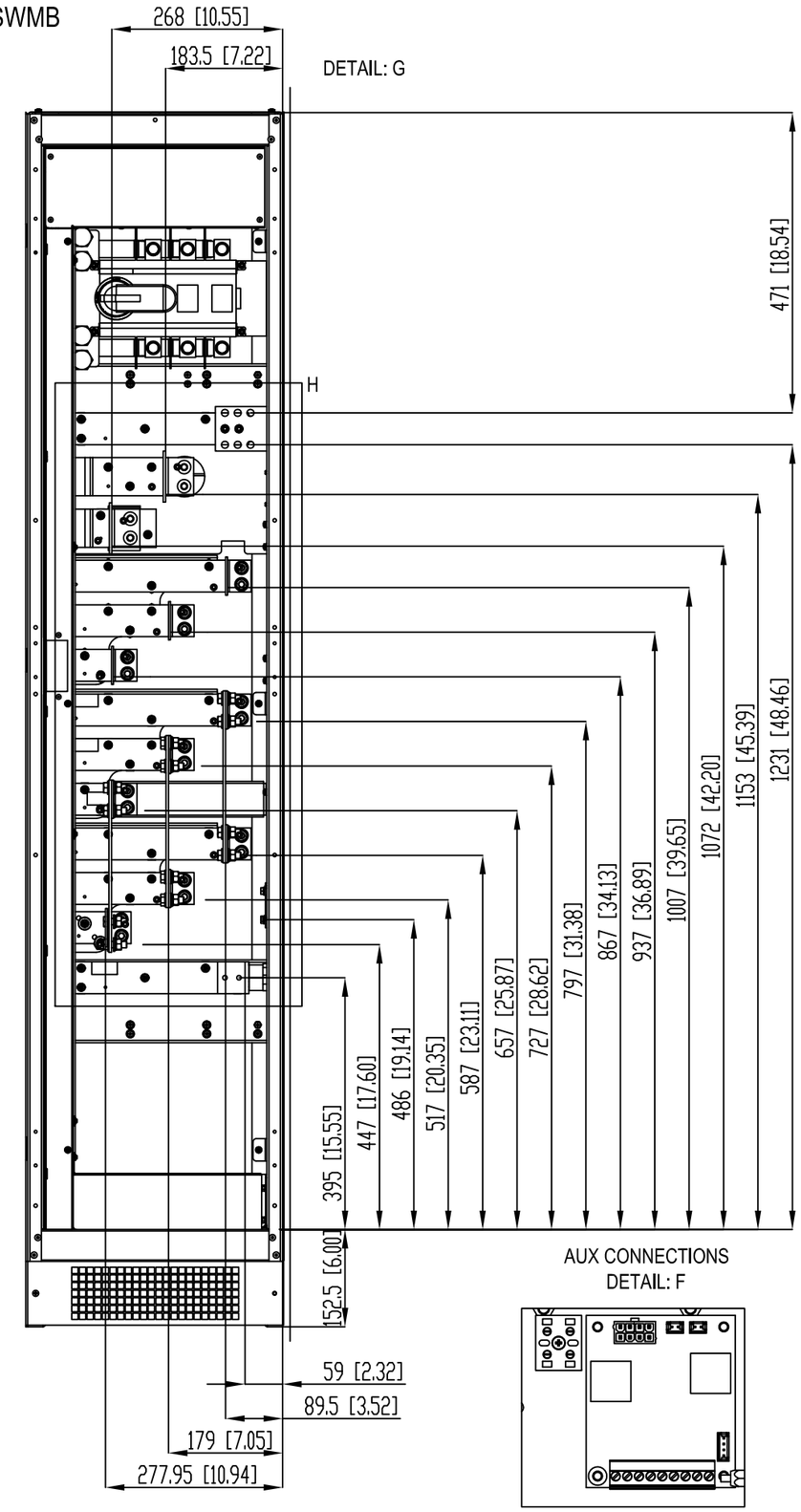


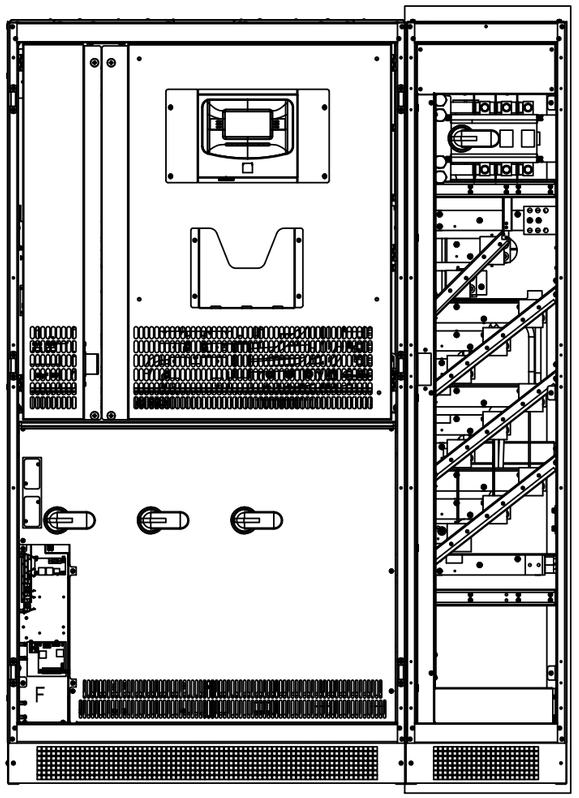
RPS	DRAW. No	REV.
	0MLMHTM16RUENIC	01
	PAG. 5 DI 10	

CART ISO_A3

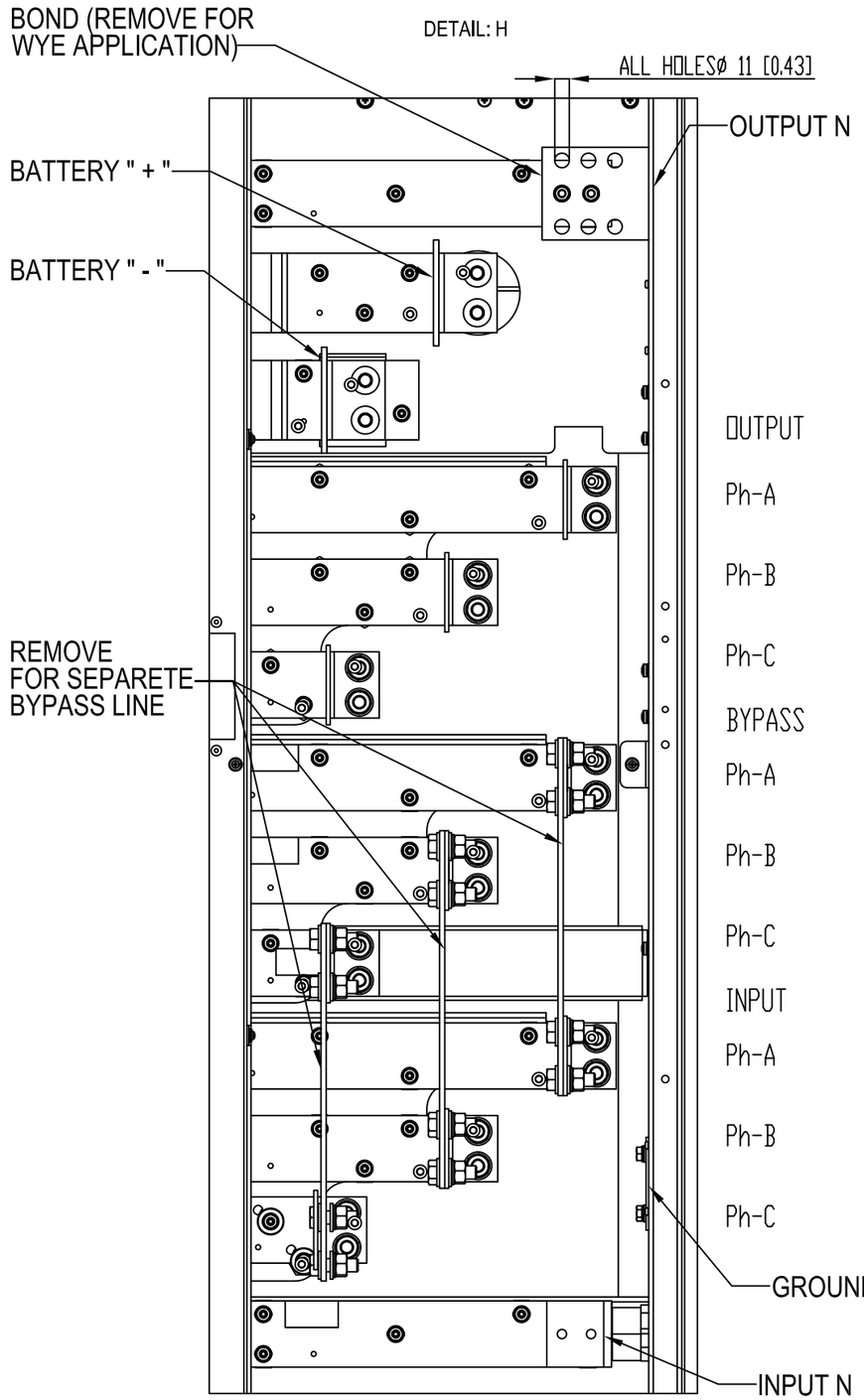
MASTER HP- UL - Series W TCE







AUX CONNECTIONS
DETAIL: F



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

RPS

DRAW. No	REV.
0MLMHTM16RUENIC	01
PAG. 6 DI 10	

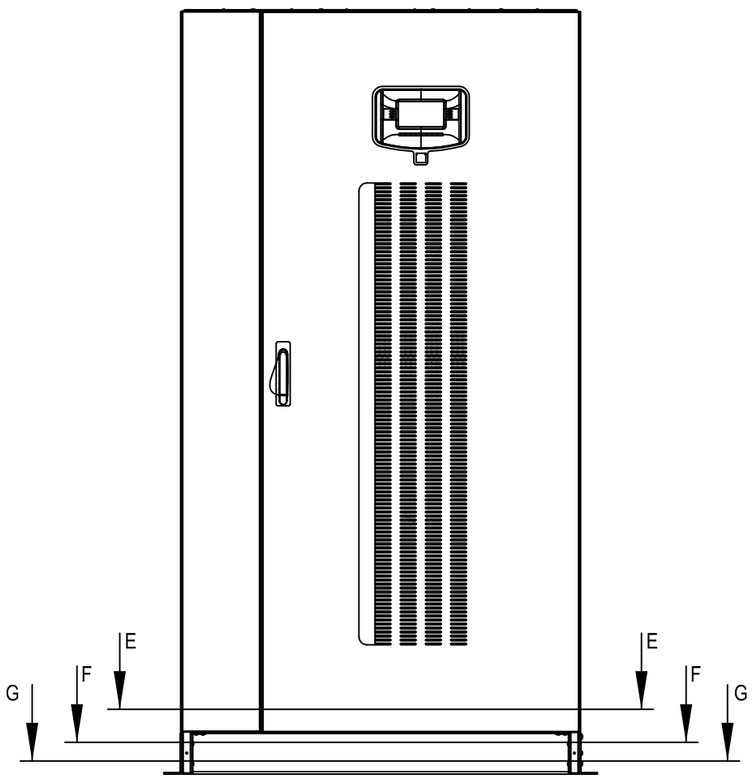
CART ISO_A3

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

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

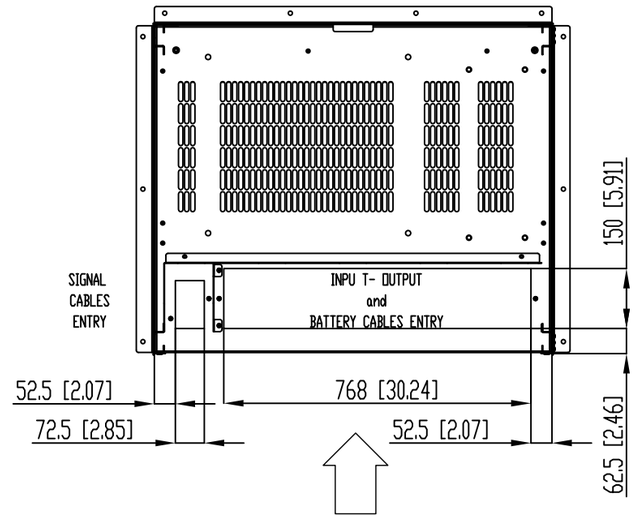
SEISMIC CRITERIA:
Sds (g) = 2.00 z/h = 1.0 Ip = 1.5 (ROOF LEVEL OR BELOW)
Sds (g) = 2.50 z/h = 0.0 Ip = 1.5 (GROUND LEVEL OR BELOW)

FRONT VIEW



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

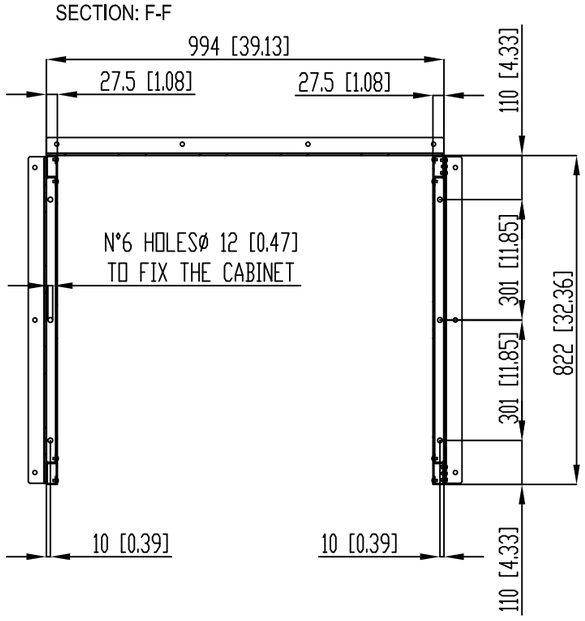
SECTION: E-E



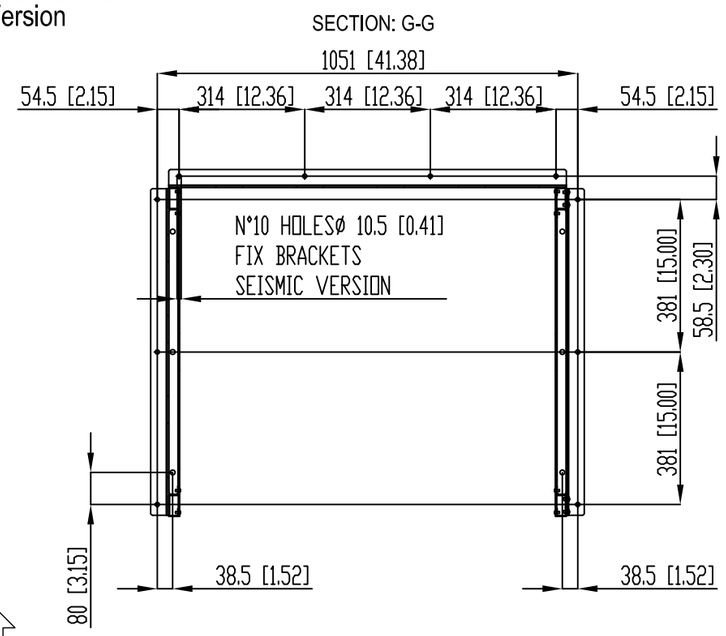
FRONT

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

SECTION: F-F



SECTION: G-G



FRONT

RPS

DRAW. No	REV.
0MLMHTM16RUENIC	01
PAG. 7 DI 10	

CART ISO_A3

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

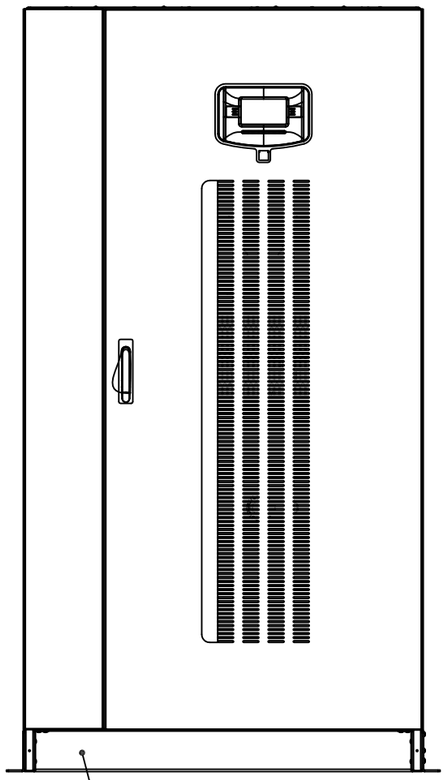
THE MASTER HP-UL UPS IS OSHPD SPECIAL SEISMIC CERTIFICATION APPOVED AND IS IBC COMPLIANT (IBC 2006, 2009, 2012 AND 2015)

SEISMIC CRITERIA:

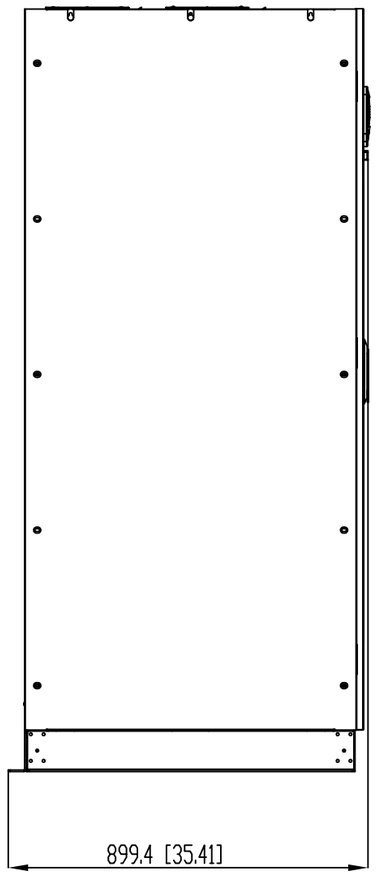
S_{DS} (g) = 2.00 z/h = 1.0 Ip = 1.5 (ROOF LEVEL OR BELOW)

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

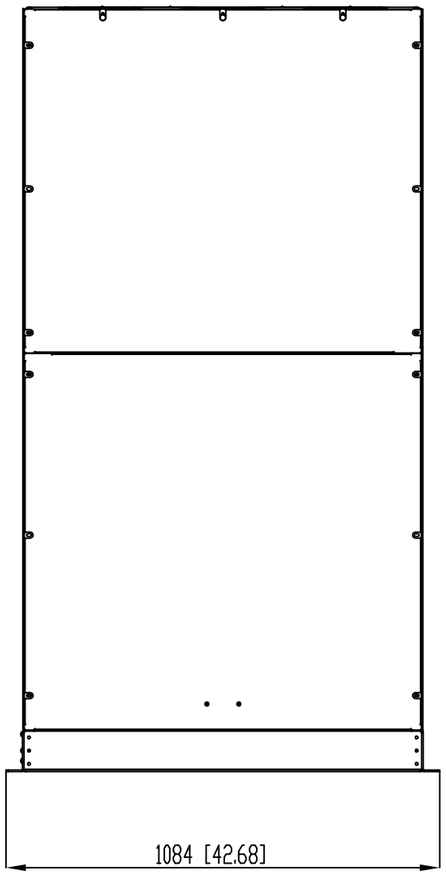
FRONT VIEW

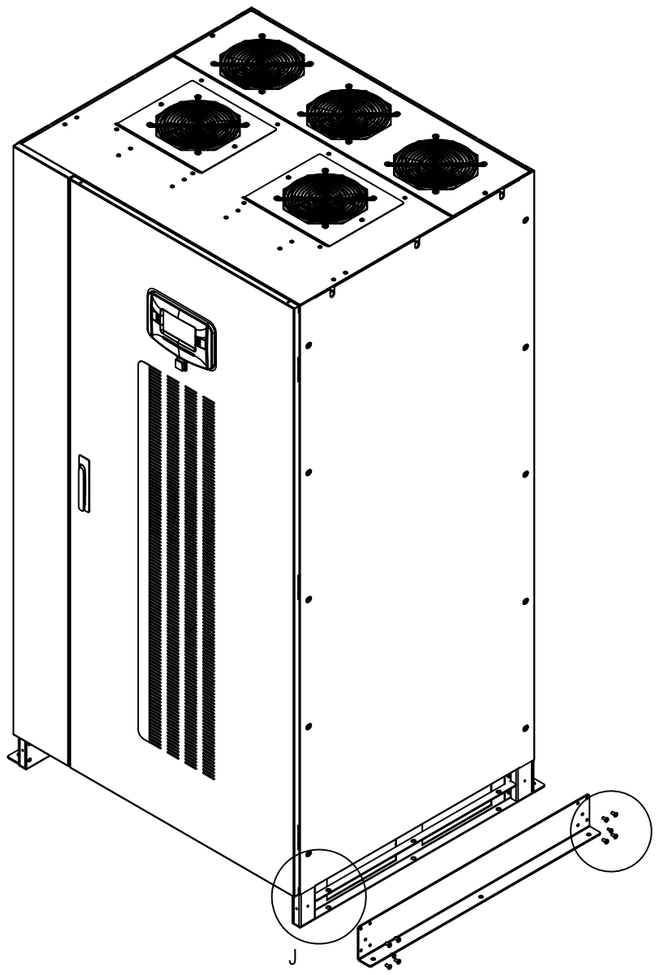


LEFT SIDE VIEW

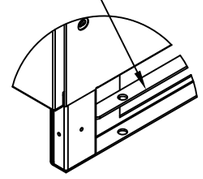


REAR VIEW





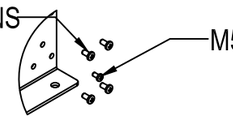
INSERT FLAT FIXING
SUPPORT ON BOTH SIDES



DETAIL: J

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

M6 SCREWS IN ALL OTHER LOCATIONS



DETAIL: K

RPS	DRAW. No	REV.
	0MLMHTM16RUENIC	01
	PAG. 8 DI 10	

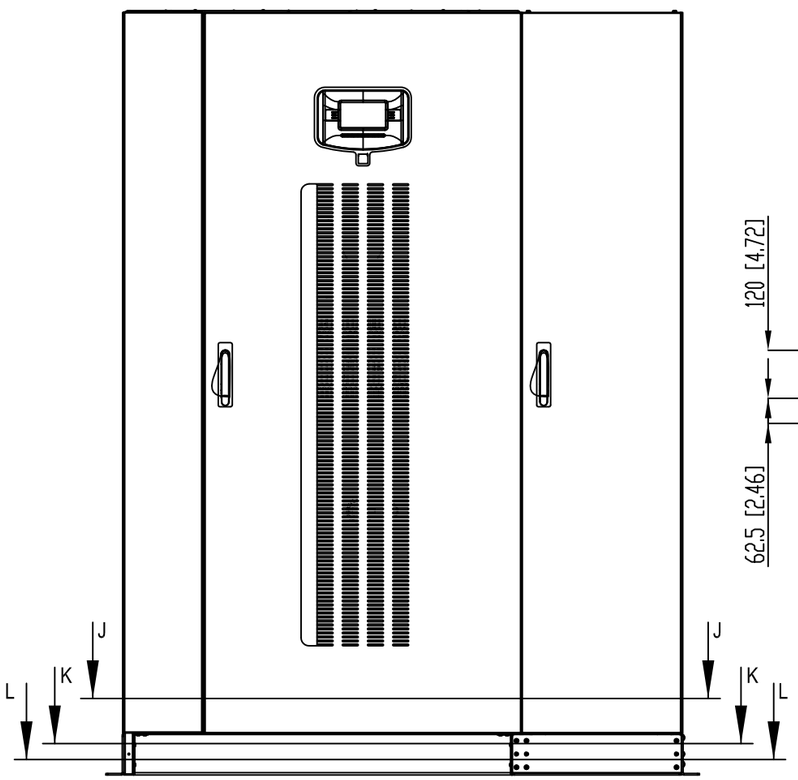
CART ISO_A3

MASTER HP- UL - Series W TCE -Seismic Version

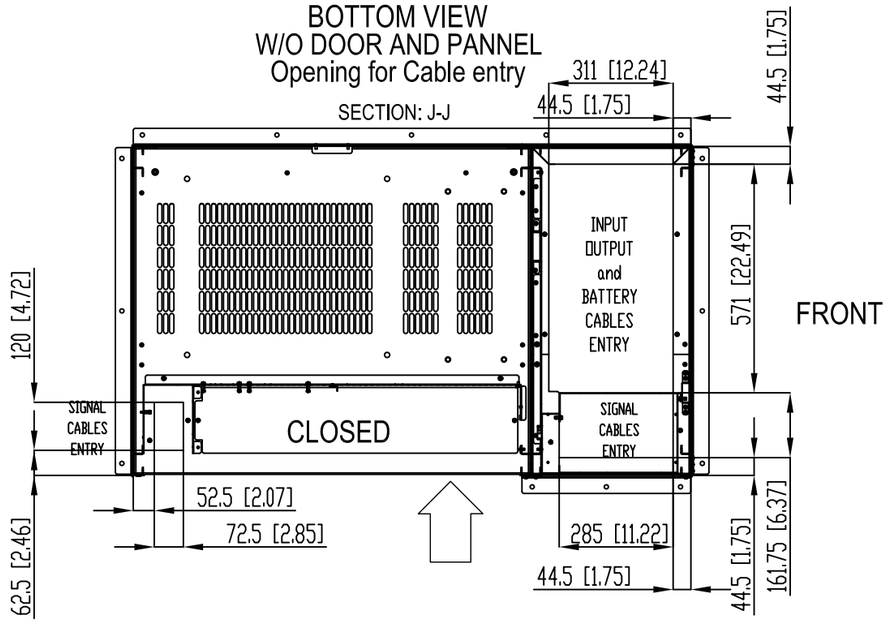
THE MASTER HP-UL UPS IS OSHPD SPECIAL SEISMIC CERTIFICATION APPOVED AND IS IBC COMPLIANT (IBC 2006, 2009, 2012 AND 2015

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

FRONT VIEW

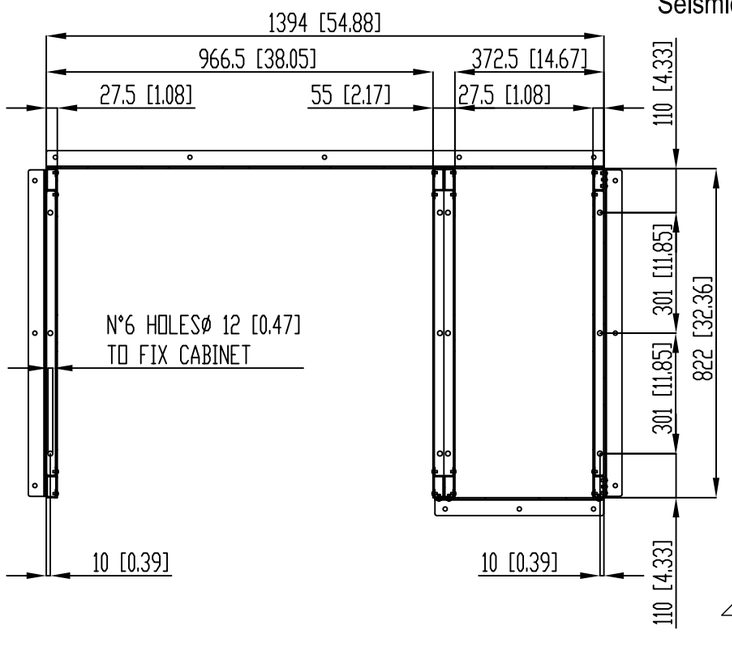


BOTTOM VIEW
W/O DOOR AND PANNEL
Opening for Cable entry

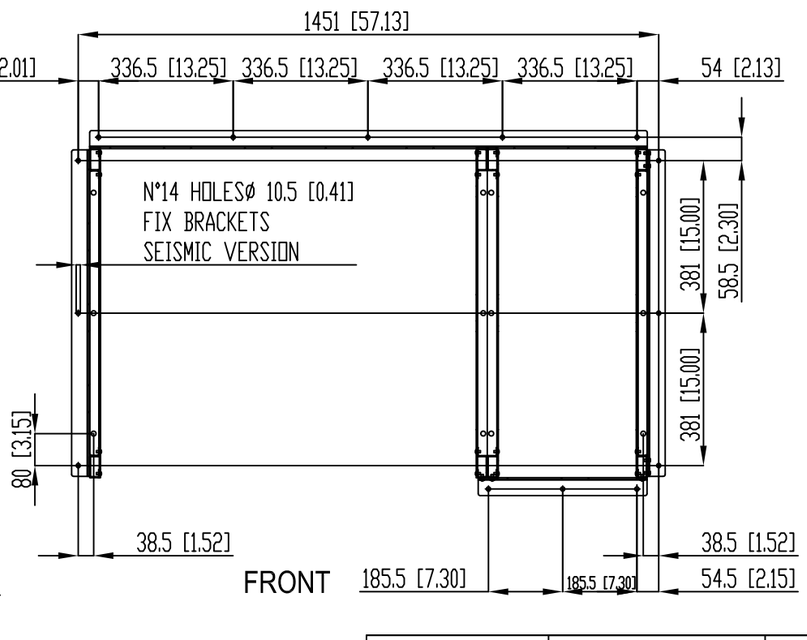


BOTTOM VIEW
W/O DOOR AND PANNEL
Bearing surface of cabinet
Seismic Version

SECTION: K-K



SECTION: L-L



RPS	DRAW. No	REV.
	0MLMHTM16RUENIC	01
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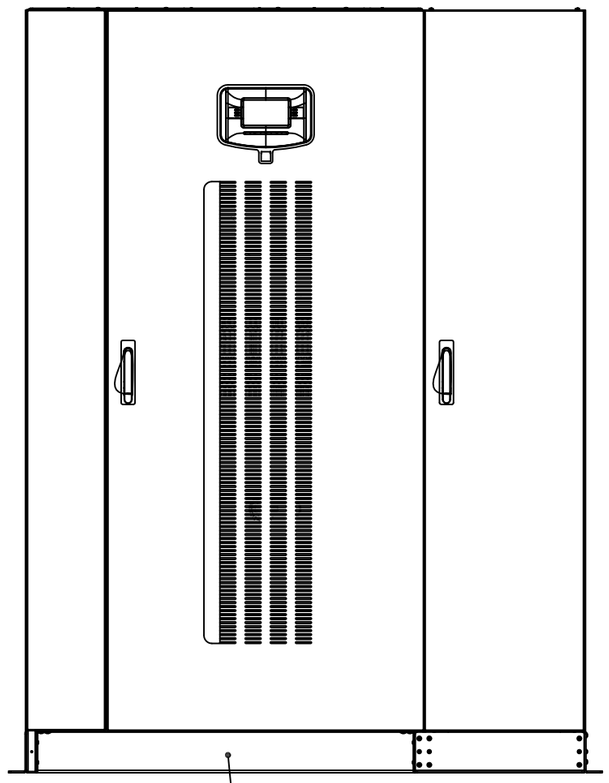
CART ISO_A3

MASTER HP- UL - Series W TCE -Seismic Version

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

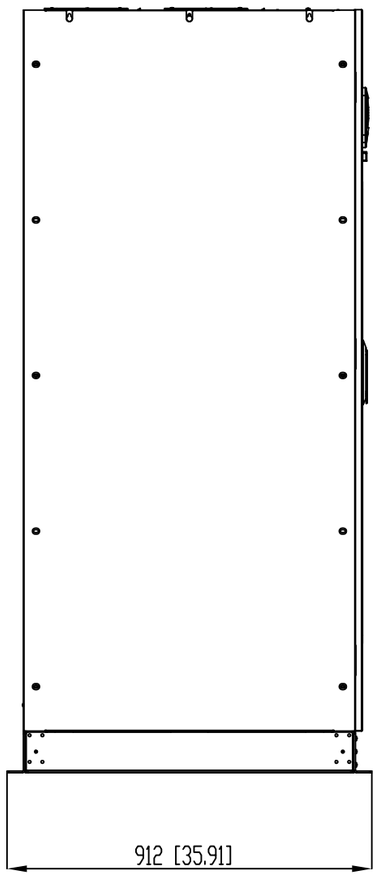
SEISMIC CRITERIA:
S_{DS} (g) = 2.00 z/h = 1.0 Ip = 1.5 (ROOF LEVEL OR BELOW)
S_{DS} (g) = 2.50 z/h = 0.0 Ip = 0.0 (GROUND LEVEL OR BELOW)

FRONT VIEW

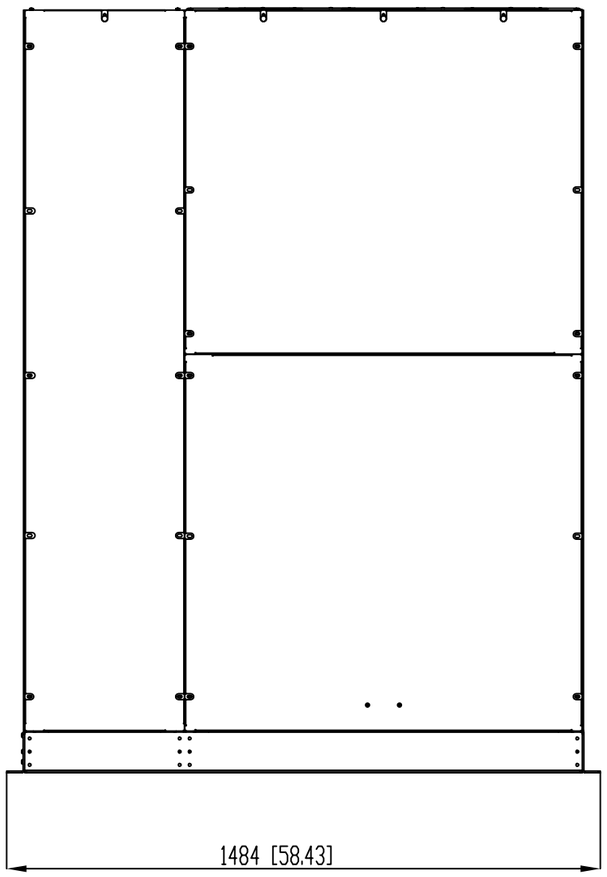


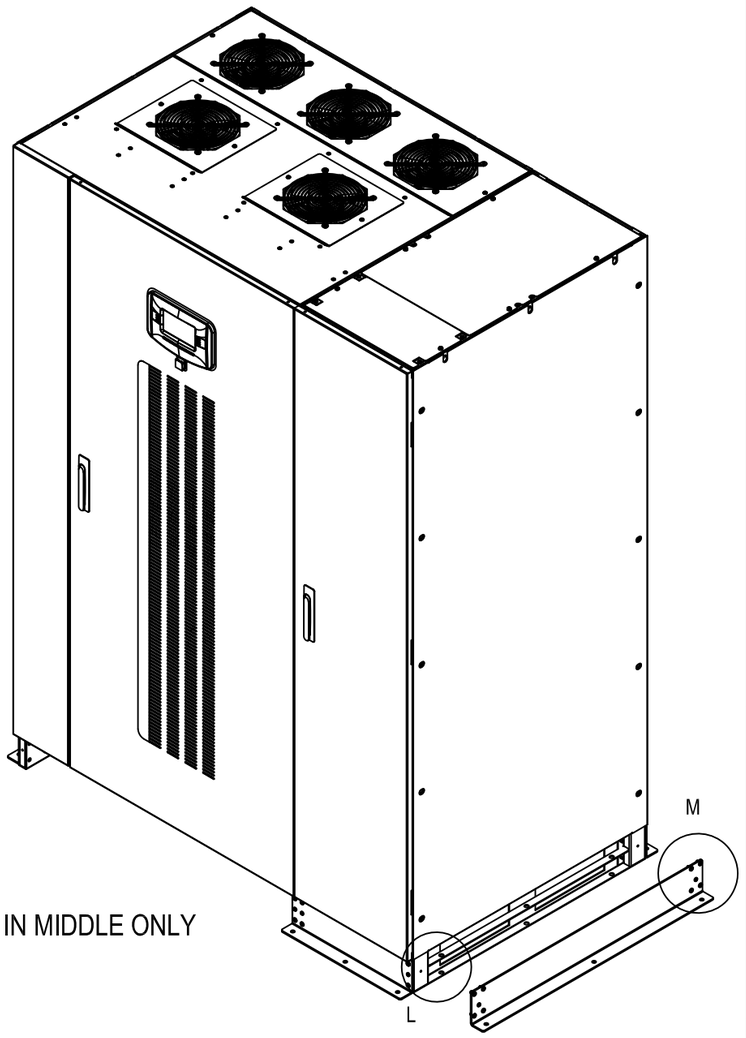
THIS FRONT AREA
MUST BE OPENED;
NO SEISMIC BRACKET

LEFT SIDE VIEW

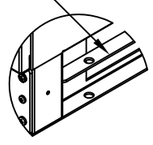


REAR VIEW





INSERT FLAT FIXING
SUPPORT ON BOTH SIDES

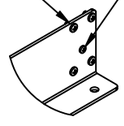


DETAIL: L

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.
	0MLMHTM16RUENIC	01
	PAG. 10 DI 10	

CART ISO_A3