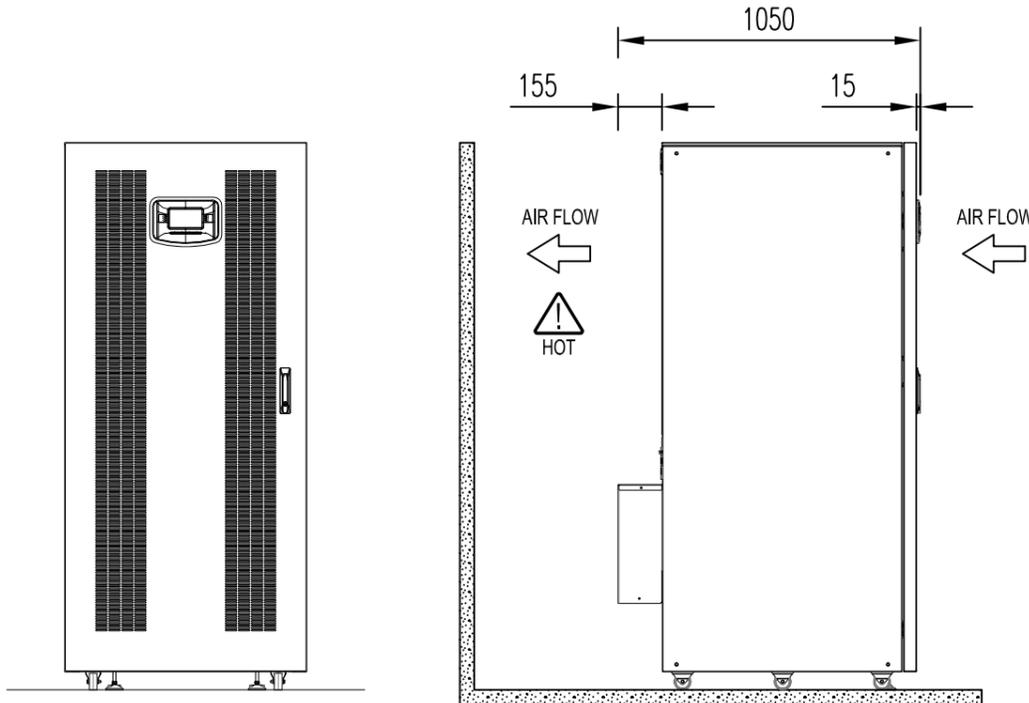


INSTALLATION INSTRUCTIONS

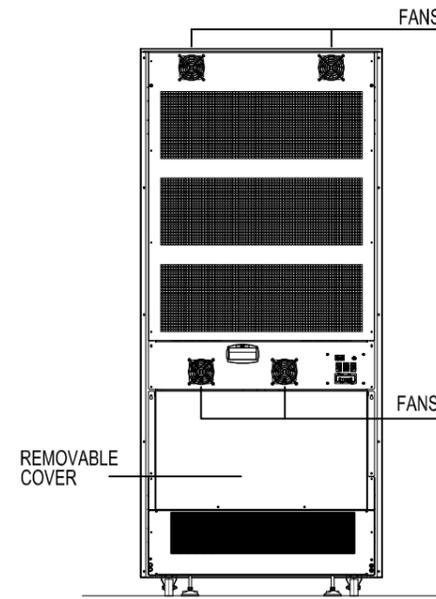
READ "SAFETY MANUAL" AND "USER MANUAL" BEFORE STARTING THE UPS INSTALLATION

LAYOUT INFORMATION

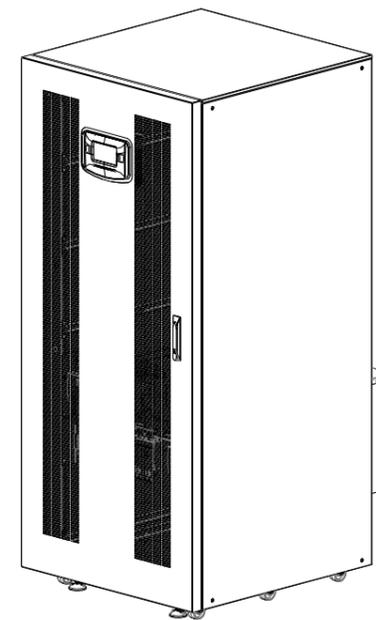


FRONT VIEW

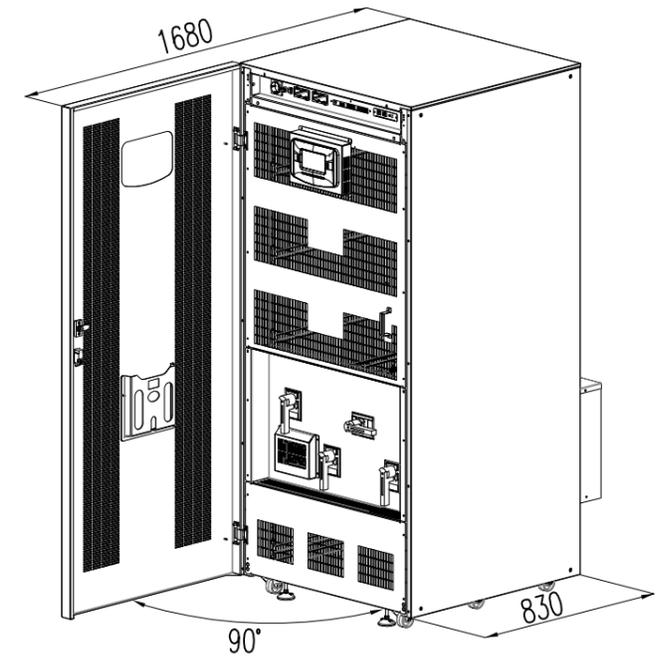
SIDE VIEW



REAR VIEW

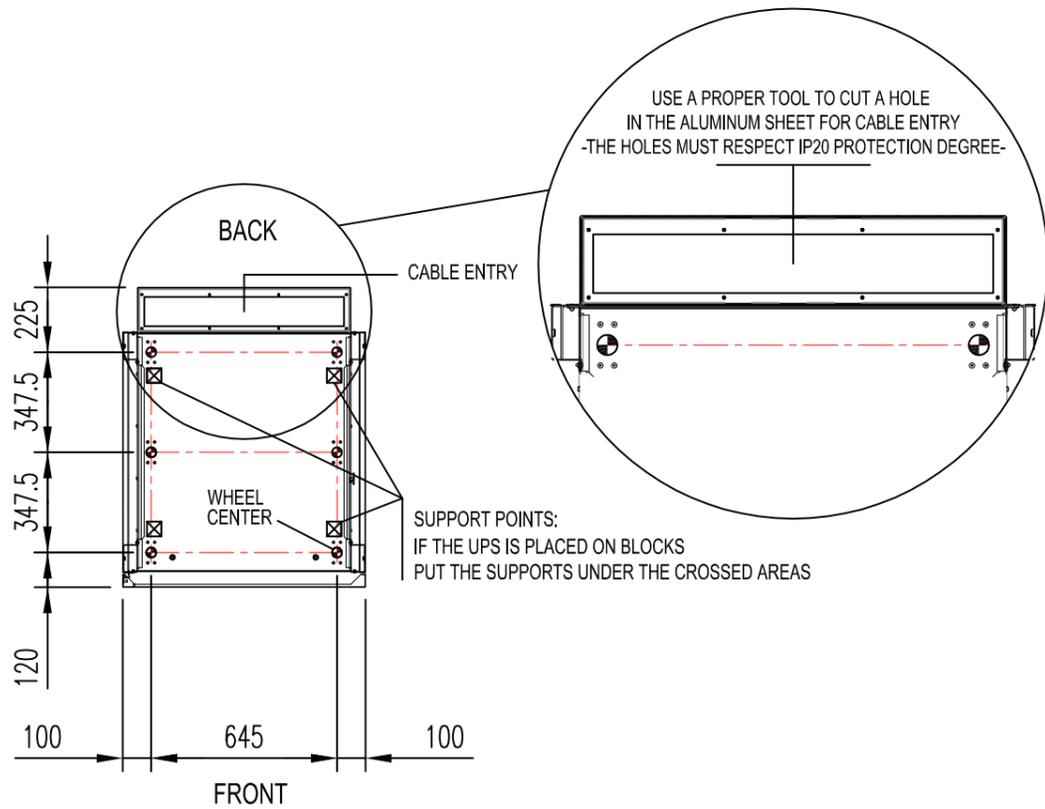


PERSPECTIVE VIEW

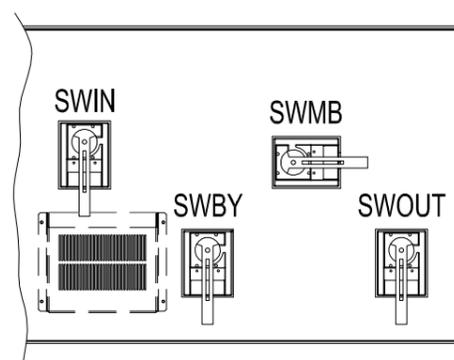


PERSPECTIVE VIEW WITH OPEN DOOR

NOTE: 1000mm MINIMUM FRONT DISTANCE TO THE WALL (RECOMMENDED 1500mm)



BOTTOM VIEW



MAIN INFORMATION			
Type		ST 160	ST 200
Power	kVA / kW	160 / 160	200 / 200
Operating temperature	°C	0 - 40	
Max relative humidity in operation	%	90 % (without condensation)	
Max installation height		1000m at nominal power (-1% power for every 100m above 1000m) max 4000m	
Power Loss@load 100% (1)	kW	6,9	9,3
	kcal / h	5933	7997
	B.T.U. / h	23544	31733
Power Loss@load 50%	kW	3,6	4,4
	kcal / h	3095	3783
	B.T.U. / h	12284	15013
Net Dimension W x D x H	mm	840 x 1050 x 1900	
Shipping Dimension W x D x H	mm	1010 x 1145 x 2085	
Net Weight	Kg	450	460
Shipping Weight	Kg	490	500
Air Flow	m ³ / h	3500	
Current dispersed to ground (2)	mA	< 300	
Degree of protection		IP 20	

(1) 3.97 B.T.U. / h = 1 kcal / h

(2) The load leakage current is added to the one of the UPS on the ground protection conductor

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	REPLACE: OMNMSTM16NPENIA			PAG.1 di 5

NOTE: In order to make improvements, the manufacturer reserves the right to modify the product described at any moment and without notice

TITLE: SATURN 160-200 DRW EN

POWER CONNECTION INFORMATION



WARNING

INPUT AC LINE CONNECTION - SINGLE LINE

INPUT LINE 3PH + N + PE			
UPS Size	kW	160	200
Max current	A	316	385
Max admitted neutral current	A	400	400
Size of protection device (plant)	A	320	400
Terminal (L1, L2, L3) or (L1By, L2By, L3By)	type	AL bar	
Width	mm	30	
N x Hole diameter / bolt	mm	1x10,5 / M10	
Terminal neutral (N)	type	AL bar	
Width	mm	60	
N x Hole diameter / bolt	mm	2x10,5 / M10	
Earthing terminal	type	AL bar	
Hole Number / bolt	mm	4 / M8	

INPUT AC LINE CONNECTION - DUAL SEPARATED LINE (Remove the bars connecting input mains - bypass line)

INPUT LINE 3PH + N + PE			
UPS Size	kW	160	200
Max current	A	316	385
Max admitted neutral current	A	400	400
Size of protection device (plant)	A	320	400
Terminal (L1, L2, L3)	type	AL bar	
Width	mm	30	
N x Hole diameter / bolt	mm	1x10,5 / M10	
Terminal neutral (N)	type	AL bar	
Width	mm	60	
N x Hole diameter / bolt	mm	2x10,5 / M10	
Earthing terminal	type	AL bar	
Hole Number / bolt	mm	4 / M8	

INPUT BYPASS LINE 3PH + N + PE			
UPS Size	kW	160	200
Max current	A	260	326
Max admitted neutral current	A	400	400
Size of protection device (plant)	A	320	400
Terminal (L1By, L2By, L3By)	type	AL bar	
Width	mm	30	
N x Hole diameter / bolt	mm	1x10,5 / M10	
Terminal neutral (N) ⁽¹⁾	type	AL bar	
Width	mm	60	
N x Hole diameter / bolt	mm	2x10,5 / M10	
Earthing terminal ⁽²⁾	type	AL bar	
Hole Number / bolt	mm	4 / M8	

(1) The neutral terminal is the same for input mains and bypass line

(2) The Earthing terminal is the same for all connections

-THE INPUT OUTPUT AND PROTECTIVE EARTHING CONDUCTORS MUST BE SIZED FOLLOWING RATED VOLTAGE AND CURRENT, SHOWN IN THE TABLES BELOW, AND ACCORDING TO DOMESTIC REGULATIONS AND CURRENT STANDARDS

-THE PROTECTIVE EARTHING CONDUCTOR (PE) MUST BE CONNECTED FIRST BEFORE TO PROCEED CONNECTING INPUT / OUTPUT CABLES

BATTERY DC INPUT

(The PE conductor from battery cabinet must be connected at the UPS earthing terminal only)

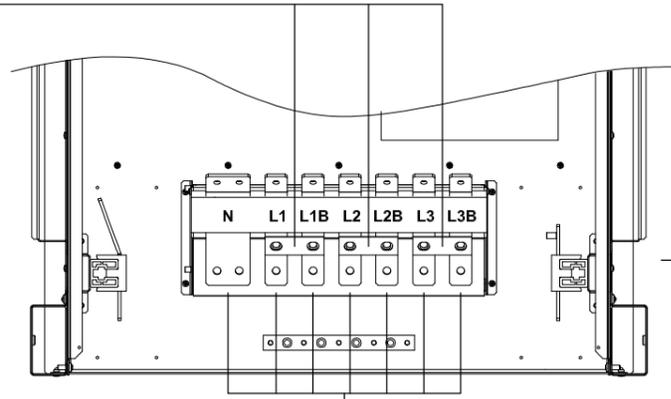
BATTERY INPUT (+), (-), N + PE			
UPS Size	kW	160	200
Rated current @ nominal battery voltage	A	360	450
Rated current @ end of discharge voltage	A	455	565
Max size of battery string protection device: gL / gG fuse type aR fuse type		2 x Ah (battery capacity) 2,5 x Ah (battery capacity)	
Absolutely max size of battery string protection device	A	400	500
Terminal (+), (-)	type	AL bar	
Width	mm	60	
N x Hole diameter / bolt	mm	1x10,5 / M10	
Terminal neutral (N)	type	AL bar	
Width	mm	55	
N x Hole diameter / bolt	mm	1x10,5 / M10	
Earthing terminal ⁽²⁾	type	AL bar	
Hole Number / bolt	mm	4 / M8	

OUTPUT AC LINE CONNECTION

OUTPUT LINE 3PH + N + PE			
UPS Size	kW	160	200
Rated current	A	237	296
Output protection (recommended values for selectivity) Normal fuses (gL - gG) Thermal magnetic switches (C curve)		In / 4 In / 4	
Terminal (L1, L2, L3)	type	AL bar	
Width	mm	30	
N x Hole diameter / bolt	mm	1x10,5 / M10	
Terminal neutral (N)	type	AL bar	
Width	mm	60	
N x Hole diameter / bolt	mm	2x10,5 / M10	
Earthing terminal	type	AL bar	
Hole Number / bolt	mm	4 / M8	

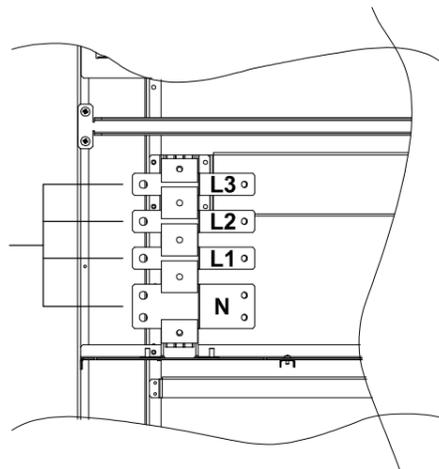
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	VARIATION: ADDED SPLIT BACK GRID AND CABLE ENTRY PLATE			OMNMSTM16NPENIB
	REPLACE: OMNMSTM16NPENIA			PAG.2 di 5
NOTE: In order to make improvements, the manufacturer reserves the right to modify the product described at any moment and without notice			TITLE: SATURN 160-200 DRW EN	

REMOVE JUMPERS
FOR DUAL INPUT

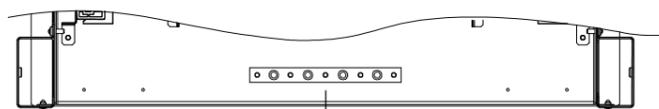


INPUT LINE
(N / L1 / L1B / L2 / L2B / L3 / L3B)
see detail «A»

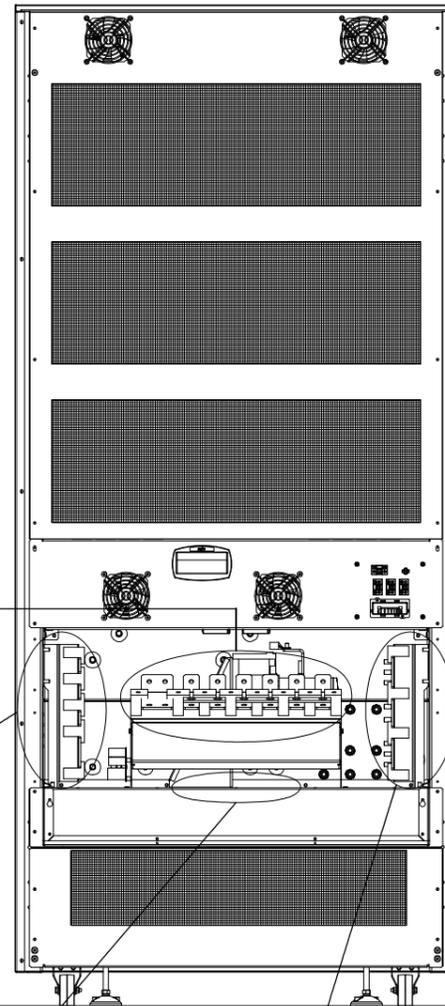
OUTPUT LINE
(L3 / L2 / L1 / N)
see detail «A»



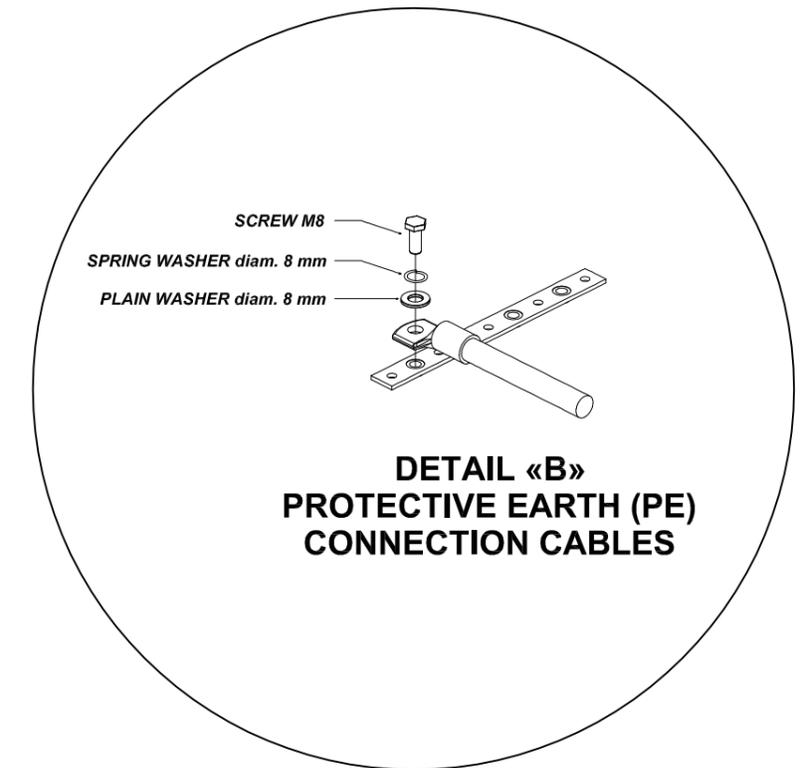
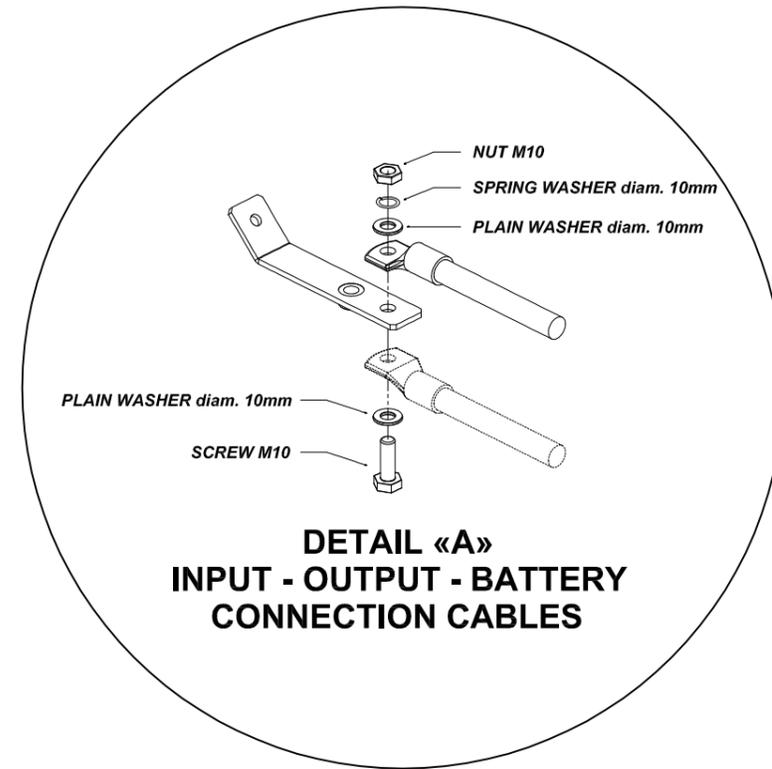
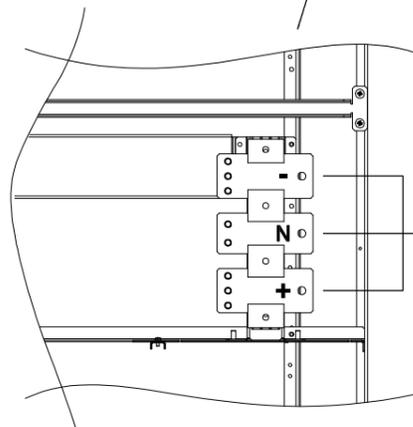
PROTECTIVE EARTH (PE)
see detail «B»



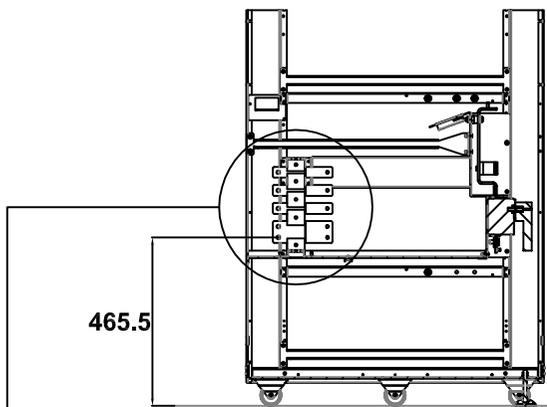
POWER CONNECTION DETAILS



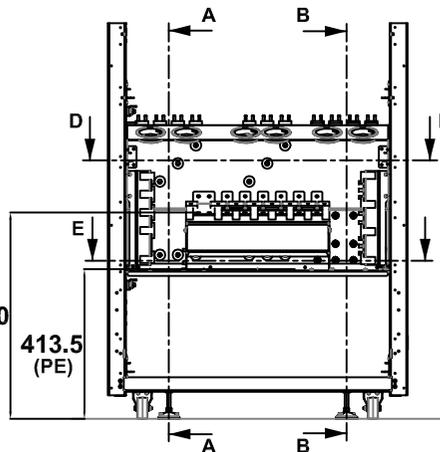
BATTERY LINE
(- / N / +)
see detail «A»



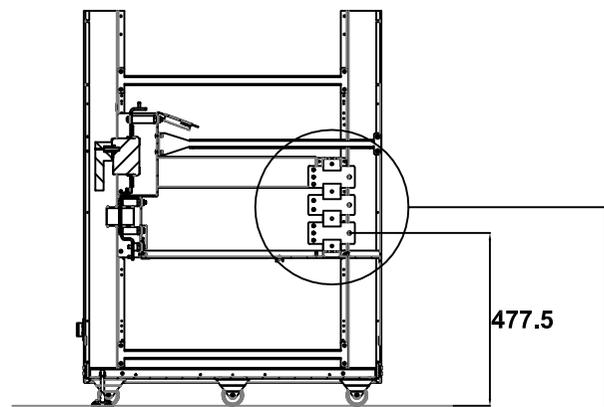
GTEC	EDIT. M.CHECCHINATO	APPR. N.DEGANI	DATA:24/07/2015	DRAW. No
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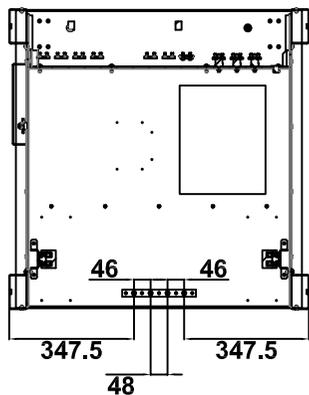
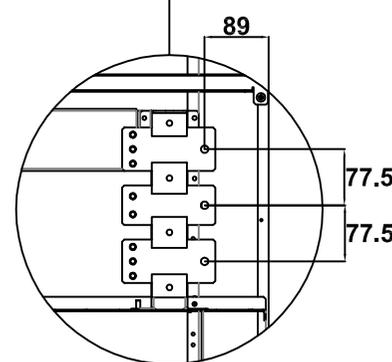
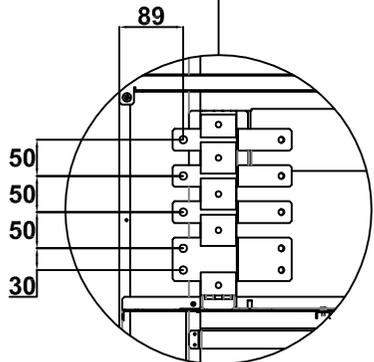
SECTION A-A



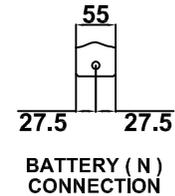
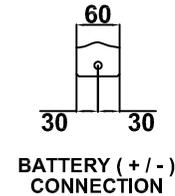
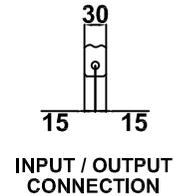
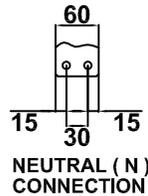
SECTION D-D



SECTION B-B

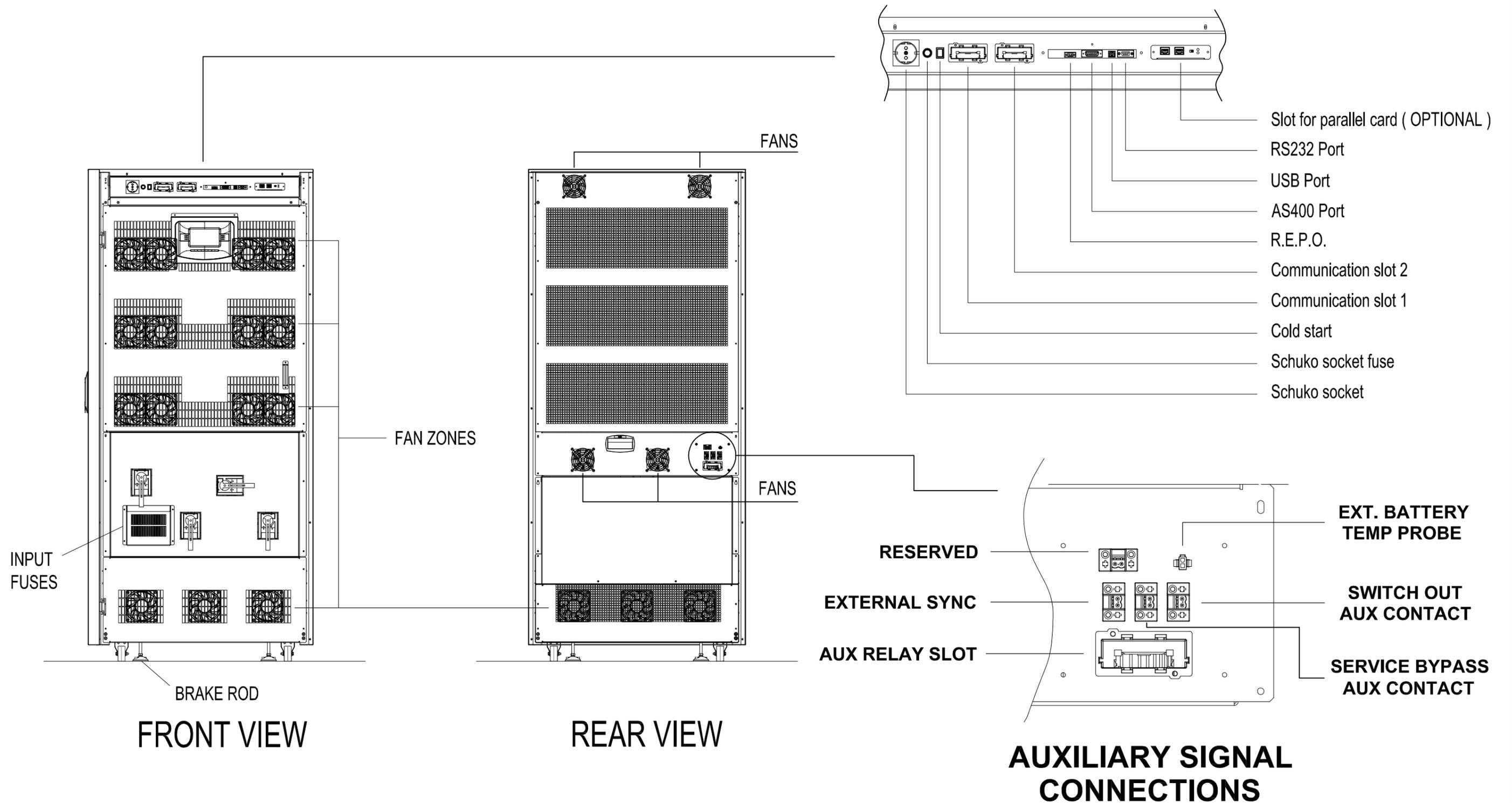


SECTION E-E (PE)



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	REPLACE: OMNMSTM16NPENIA			PAG.4 di 5
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SIGNAL CONNECTIONS and COMMUNICATION DETAILS



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	VARIATION: ADDED SPLIT BACK GRID AND CABLE ENTRY PLATE			OMNMSTM16NPENIB
	REPLACE: OMNMSTM16NPENIA			PAG.5 di 5
NOTE: In order to make improvements, the manufacturer reserves the right to modify the product described at any moment and without notice			TITLE: SATURN 160-200 DRW EN	