

1 2 3 4

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EXTERNAL MBS 20kW

Product number: P-105000044-002

D
E

METRIC



EATON CORPORATION



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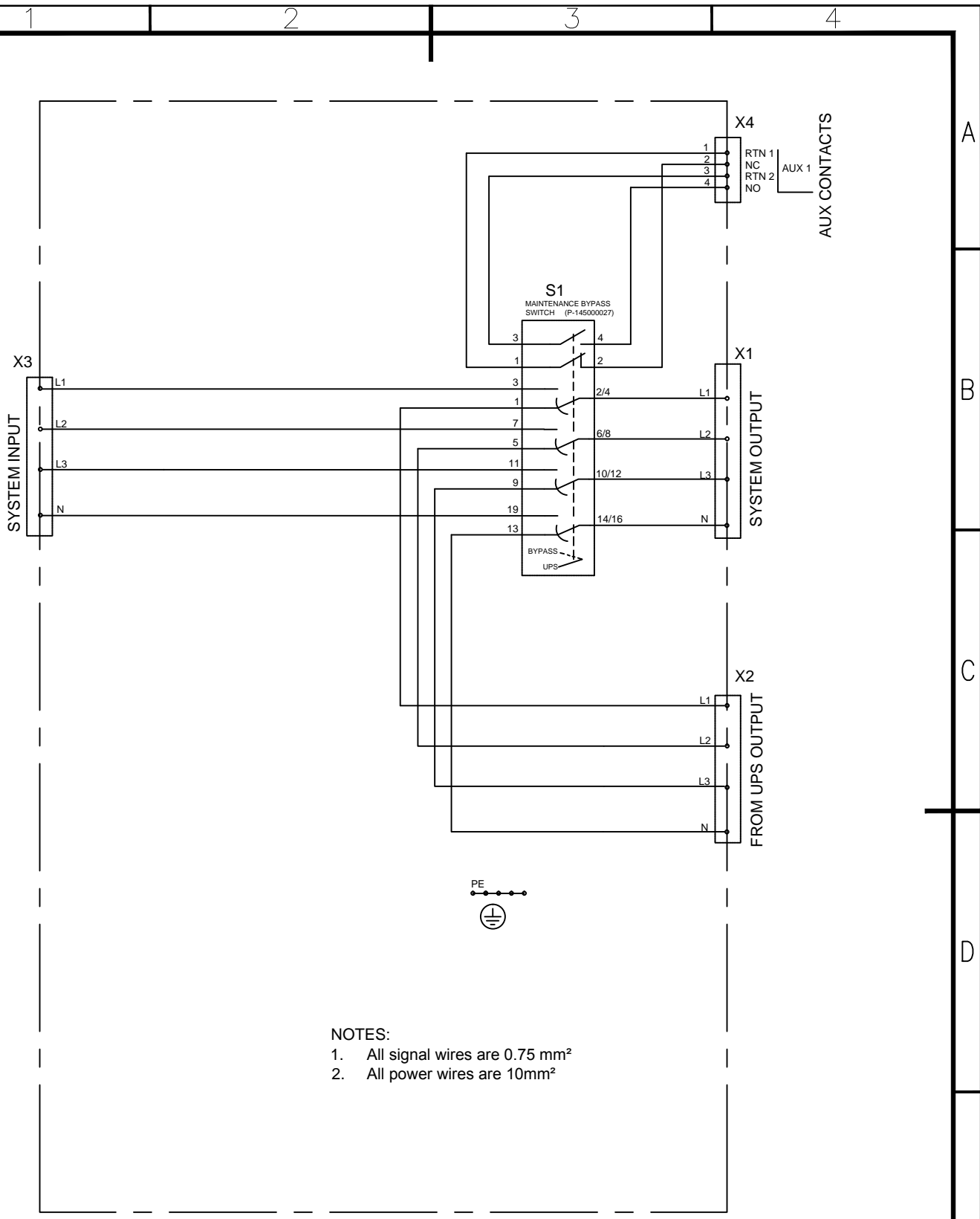
DESCRIPTION: EXTERNAL MBS 20kW

ORIGINATED: E5900083 /JP	15.05.2015	ECO:	NAME:	REVISION:	SIZE: A4
MODIFIED: E5900083/JP	20.11.2015	ECD-092408	P-110000473-002	001	NOT TO SCALE
CHECKED: E5900525/TMK		DOCUMENT TYPE:		STATE:	SHEET:
SAFETY:		AUTOCAD DRAWING		Release	1 OF 8
APPROVED: E5900096/JE		Common sheet			

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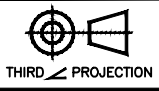
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- NOTES:
1. All signal wires are 0.75 mm²
 2. All power wires are 10mm²

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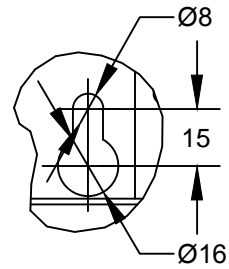
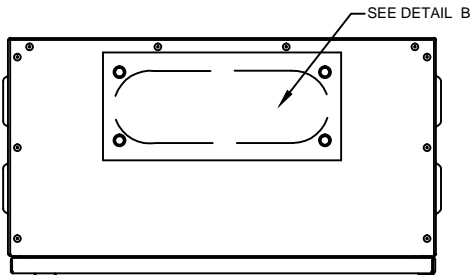
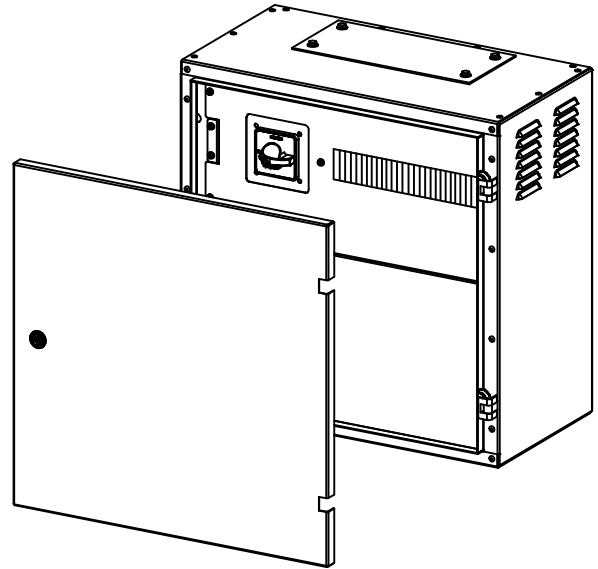
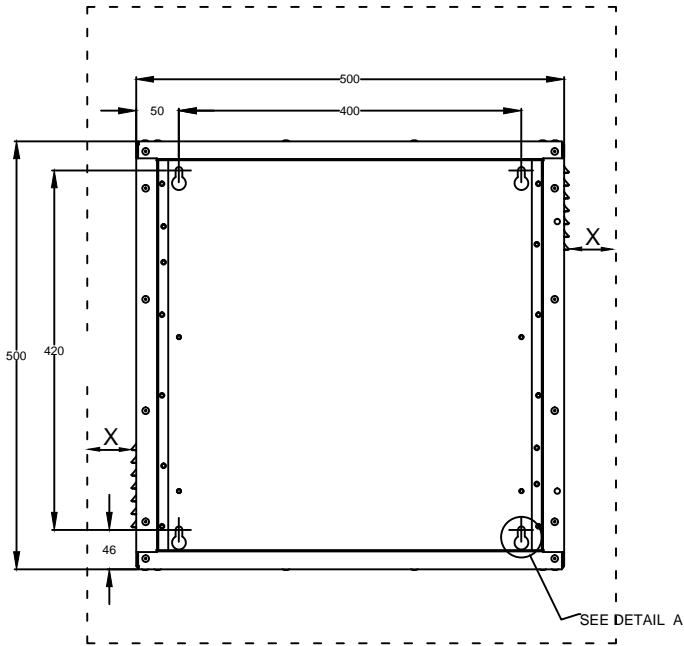
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SAFETY:		AUTOCAD DRAWING		Release	2 OF 8
APPROVED: E5900096/JE		Switchgear diagram			

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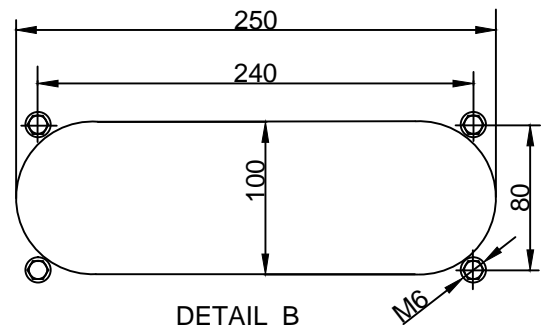
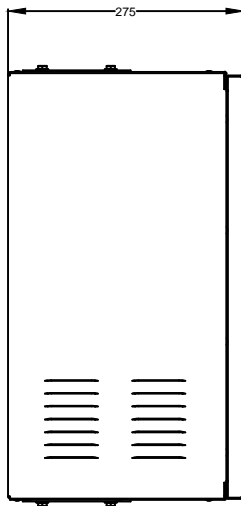
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X = clearance at both sides of cabinet min. 50mm



DETAIL A



DETAIL B

METRIC



THIRD ANGLE PROJECTION

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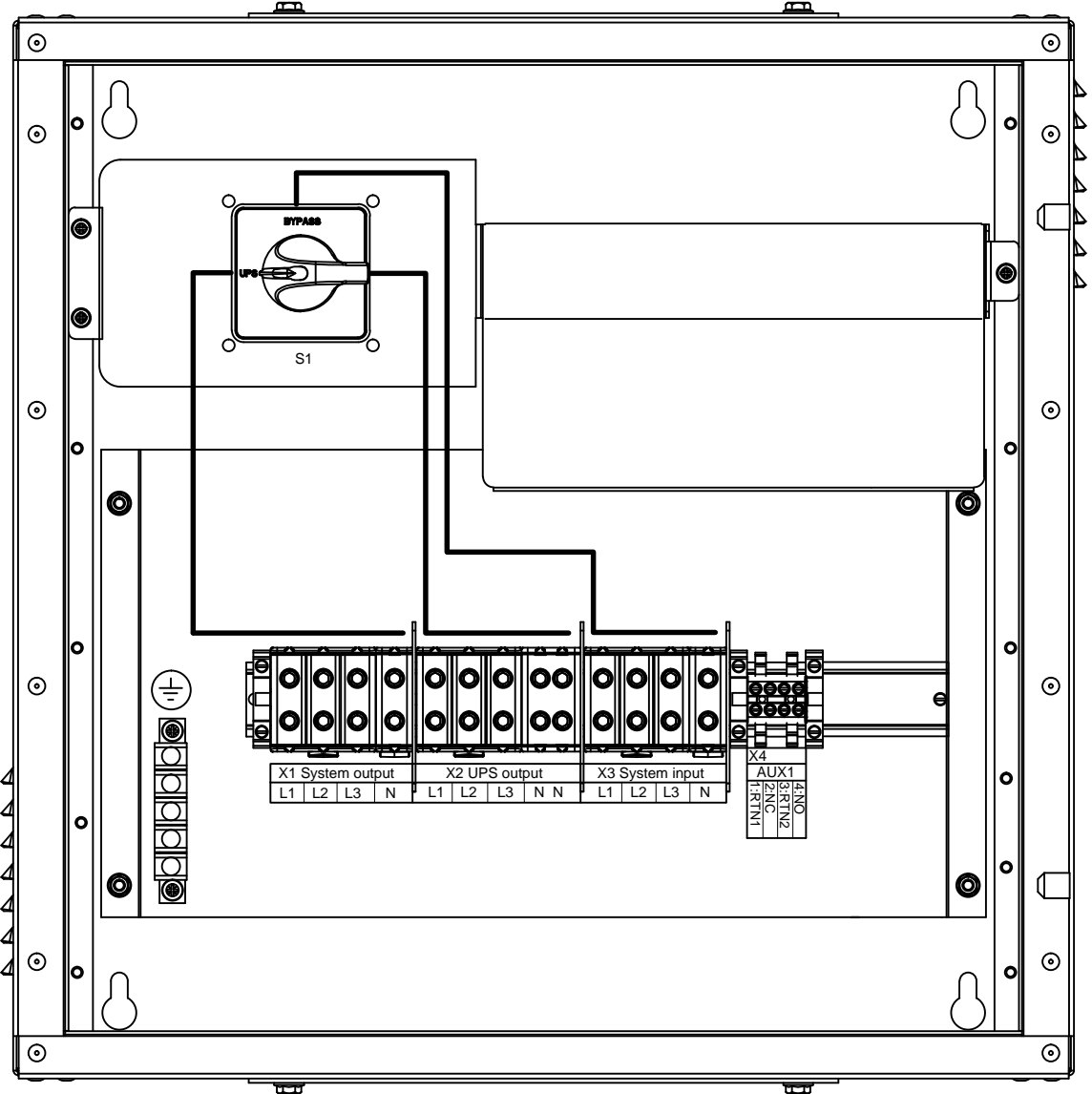
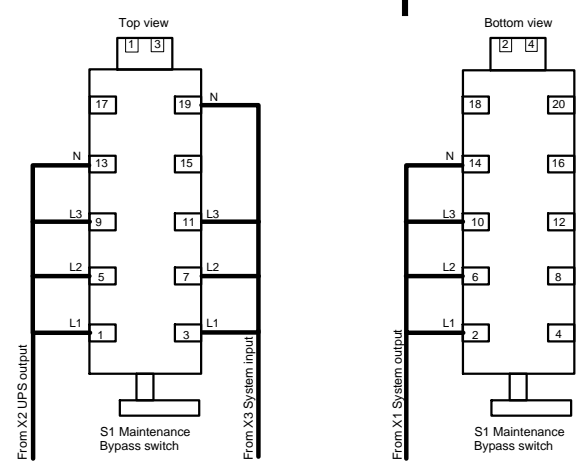
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SAFETY:		AUTOCAD DRAWING		Release	3 OF 8
APPROVED: E5900096/JE		Dimension diagram			

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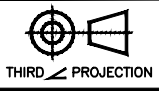
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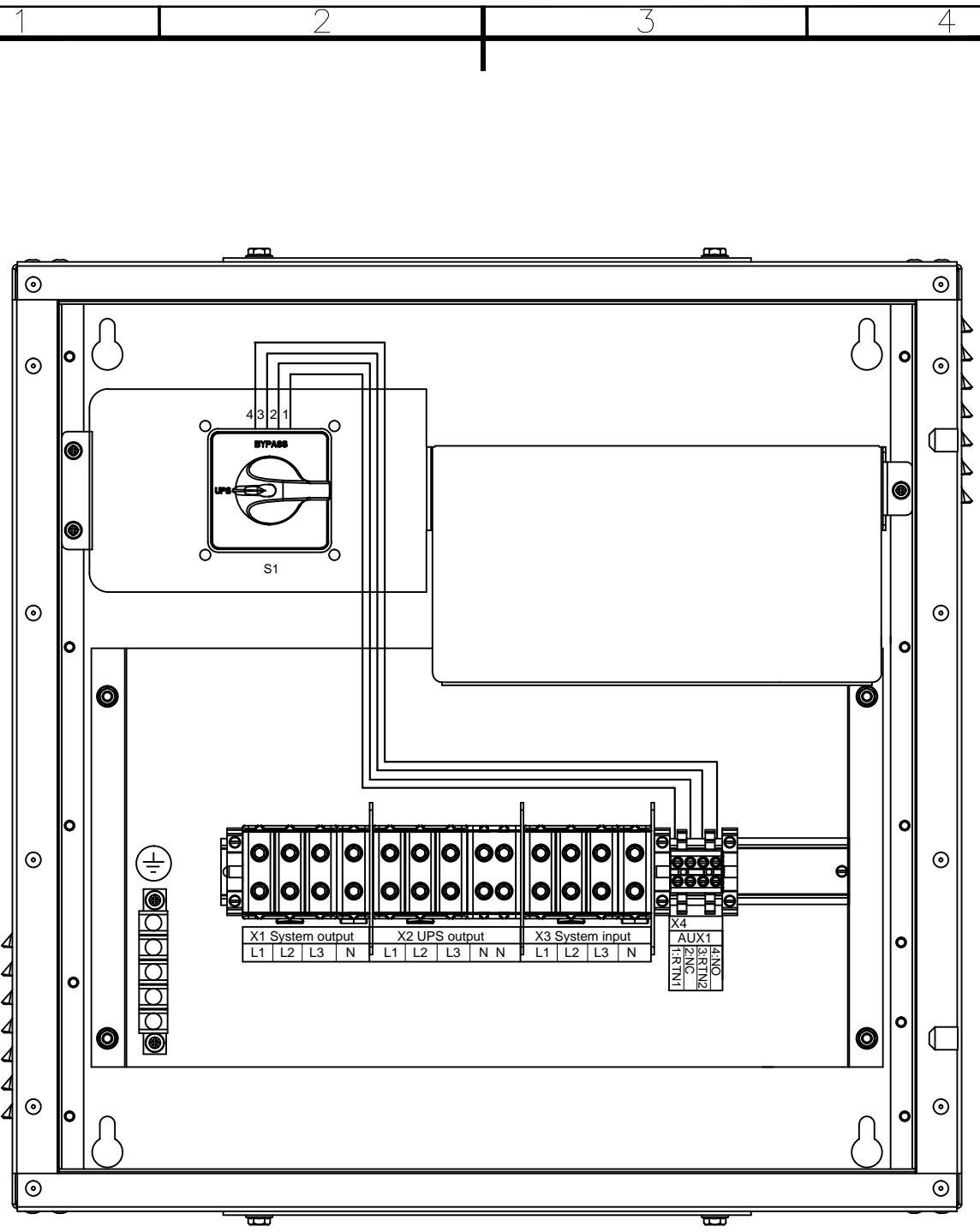
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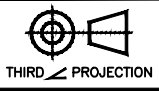
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SAFETY:		AUTOCAD DRAWING		Release	4 OF 8
APPROVED: E5900096/JE		Component layout and power wiring diagram			

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SAFETY:		AUTOCAD DRAWING		Release	5 OF 8
APPROVED: E5900096/JE		Control wiring Diagram			

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A TECHNICAL SPECIFICATION

STANDARD IEC/EN 61439-2

MAINS TN-S, 5W/3P+N+PE, 380/400/415VAC 3~

- 1. Nominal Voltage U_n 380/400/415 V
- 2. Nominal Current I_{nA} 30/29/28 A
- 3. Maximum Current I_{max} 36 A
- 4. Nominal Frequency f_n 50/60 Hz
- 5. Operating Temperature T max +40 °C
- 6. Current capability
 - Thermal I_{cc} 10 kA *)
 - Dynamical I_{pk} _____ kA
- 7. Power dissipation P _____ W
- 8. Electrical Wiring AC
 - L1
 - L2
 - L3
 - N
 - PE
 - PEN

TYPE PLATE, SAMPLE

80

EATON

EXT MBS 20kW

PART Nr: P-105000044-002 Rev:003

SERIAL Nr: 2761000100 1545

MAINS: TN-S CLASS: IP21

Un: 380/400/415V WEIGHT: 22kg

InA: 30 /29 /28A

fn: 50/60Hz

Icc: 10kA

IEC61439-2

Made in Finland

58

B CONSTRUCTION OF SWITCHGEAR

- 1. Enclosure Class IP 21
 - Outfield location
 - Interior location
- 2. Installation
 - Surficial
 - Wall mounting
 - Floor mounting
- 3. Additional door
 - Lock-up
- 4. Color
 - Common color RAL7035
 - Custom color Eaton dwg
- 5. Cabling entry 164700509-001
 - Top entry
 - Bottom entry
 - Conduit flange of cable
- 6. Material specification
 - Cable material 90°C, H07V2-K
 - Cable U/Uo 450/750
 - Cover material _____
 - Other demand _____
- 7. Handle location Door handle
 - _____
 - _____
 - _____
 - _____

Note !

- 1. Back-up fuse required for system input 40A gG
- 2. For external wiring use wire with temperature class min +90°C
- 3. _____
- 4. _____
- 5. _____

C CUSTOMER ELECTRICAL INFORMATION

- 1. MAINS
 - TN-C-S
 - TN-S
 - IT
- 2. LOAD POWER
 - S _____ kVA
 - P _____ kW
 - p.f. _____

METRIC

THIRD ANGLE PROJECTION

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SAFETY:		AUTOCAD DRAWING		Release	6 OF 8
APPROVED: E5900096/JE		General information			

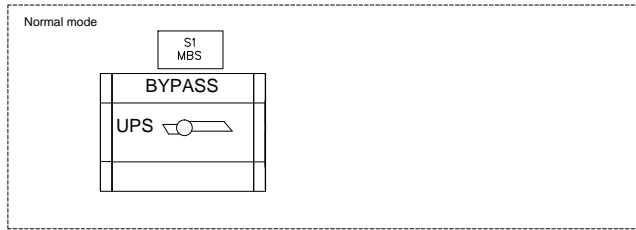
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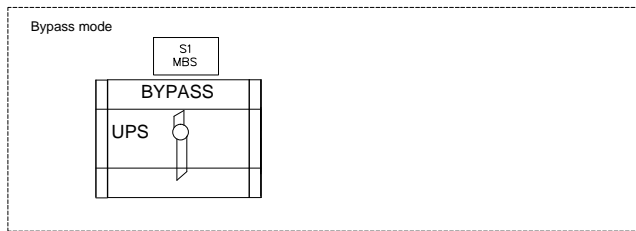
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Turn UPS from NORMAL MODE to MECHANICAL BYPASS

1. The start position is following:



2. Use UPS display to turn the UPS on internal static bypass mode. Remember to verify the transfer before proceeding the next step.
3. Turn the MBS (S1) to bypass position to bypass UPS:



4. Use UPS display to turn UPS OFF
5. Turn the UPS Battery Breaker (CB1) if not automatically tripped and UPS Rectifier Input Switch (S1) to OFF position.
6. Use the external isolators to isolate the UPS rectifier input and bypass input before maintaining the UPS.

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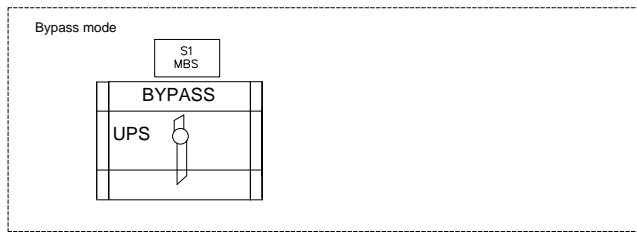
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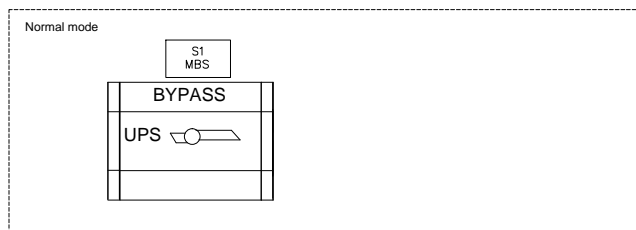
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Turn UPS from MECHANICAL BYPASS to NORMAL MODE

1. The start position is following:



2. Use the external isolators to restore bypass and rectifier feed to the UPS.
3. Turn the UPS Battery Breaker (CB1) and UPS Rectifier Input Switch (S1) to ON position.
4. Use UPS display to transfer the UPS to static bypass and give "Start Module" command to start the UPS(s) to "ready "-state.
 - Make sure the UPS is not displaying any alarms or notices.
 - You may verify the output voltage from the meters screen of the display.
5. Turn the MBS (S1) to UPS position to switch the output to UPS:



6. Use UPS display to transfer the UPS to normal mode (Give "Go Online"- command in the "Controls"-menu). Verify the UPS is running in "Normal"-mode, green LED is lit, status is displayed "Online" and no alarms are present.

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