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EATON

EXTERNAL MAINTENANCE BYPASS 40kW, 4-SWITCHES

Product number: P-105000045-004

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D

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METRIC



THIRD ANGLE PROJECTION

EATON CORPORATION

DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-1994. SEE NOTES FOR TOLERANCES.

DESCRIPTION: EXTERNAL MBS 40kW, 4-SWITCHES

ORIGINATED: E5900083 /JP	12.05.2015	ECO:	NAME:	REVISION:	SIZE: A4
MODIFIED: E9917864/EY	18.09.2015	ECD-089242	P-105000045-004	002	NOT TO SCALE
CHECKED: E5900525/TMK		DOCUMENT TYPE:		STATE:	SHEET:
SAFETY:		AUTOCAD DRAWING		Release	1 OF 8
APPROVED: E5900525/TMK		Common sheet			

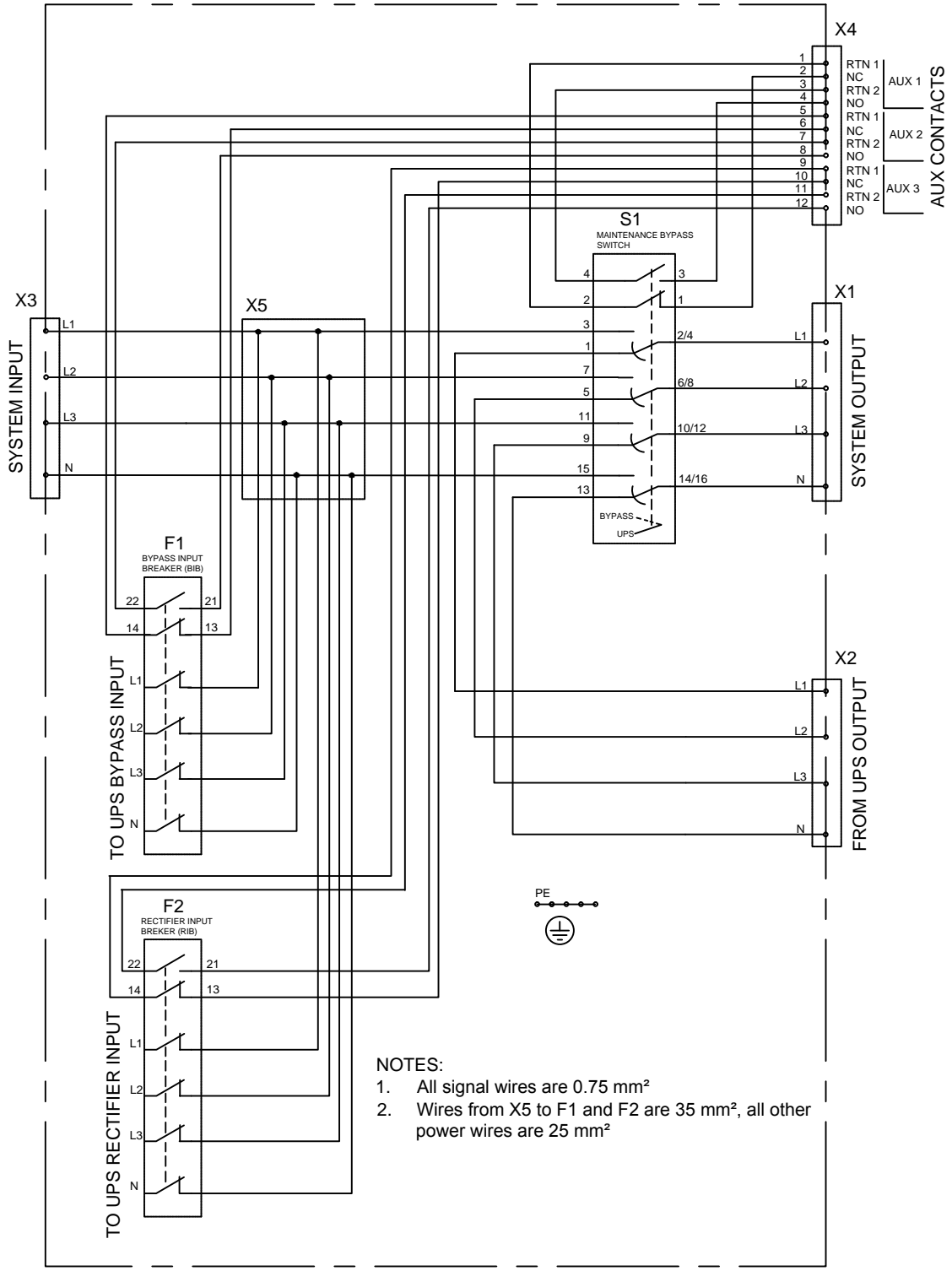
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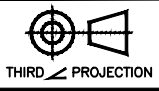
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1 2 3 4



- NOTES:
1. All signal wires are 0.75 mm²
 2. Wires from X5 to F1 and F2 are 35 mm², all other power wires are 25 mm²

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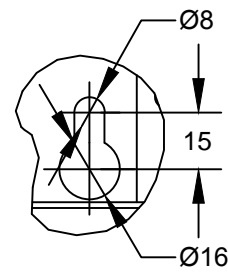
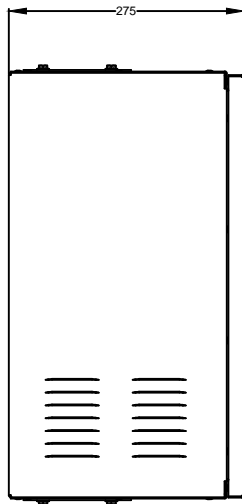
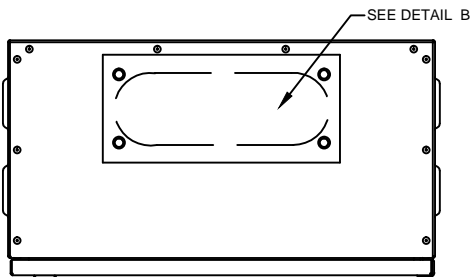
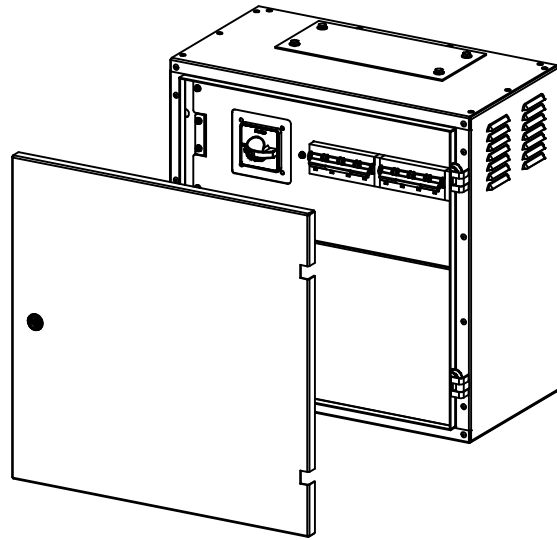
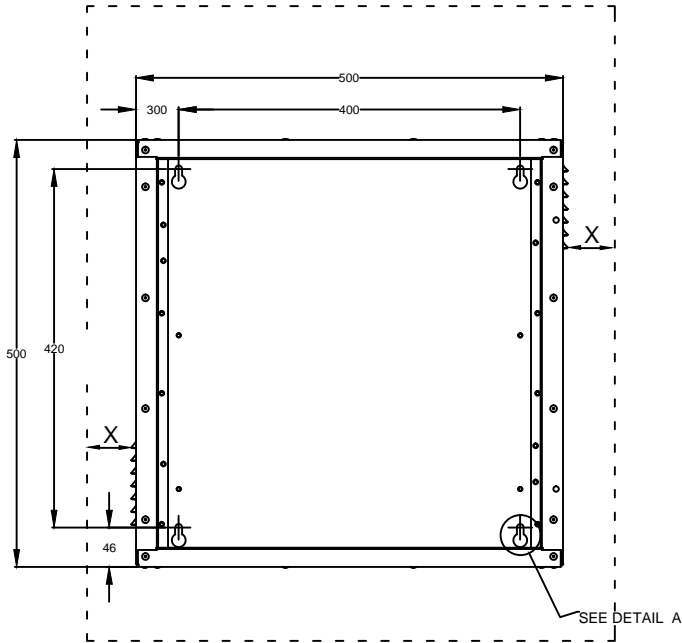
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ORIGINATED: E5900525 /TMK	22.04.2015	ECO:	NAME:	REVISION:	SIZE: A4
MODIFIED: E9917864/EY	18.09.2015	ECO-089242	P-105000045-004	002	NOT TO SCALE
CHECKED: E5900525/TMK		DOCUMENT TYPE:		STATE:	SHEET:
SAFETY:		AUTOCAD DRAWING		Release	2 OF 8
APPROVED: E5900525/TMK		Switchgear diagram			

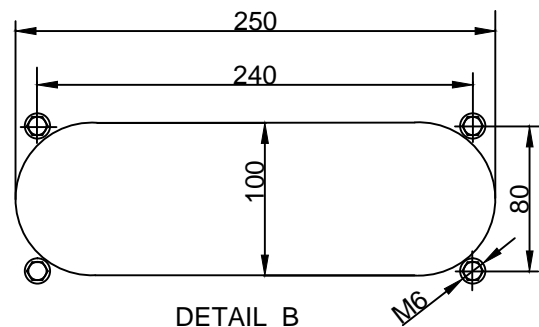
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X = clearance at both sides of cabinet min. 50mm



DETAIL A
SCALE 1:2



DETAIL B

METRIC



THIRD ANGLE PROJECTION

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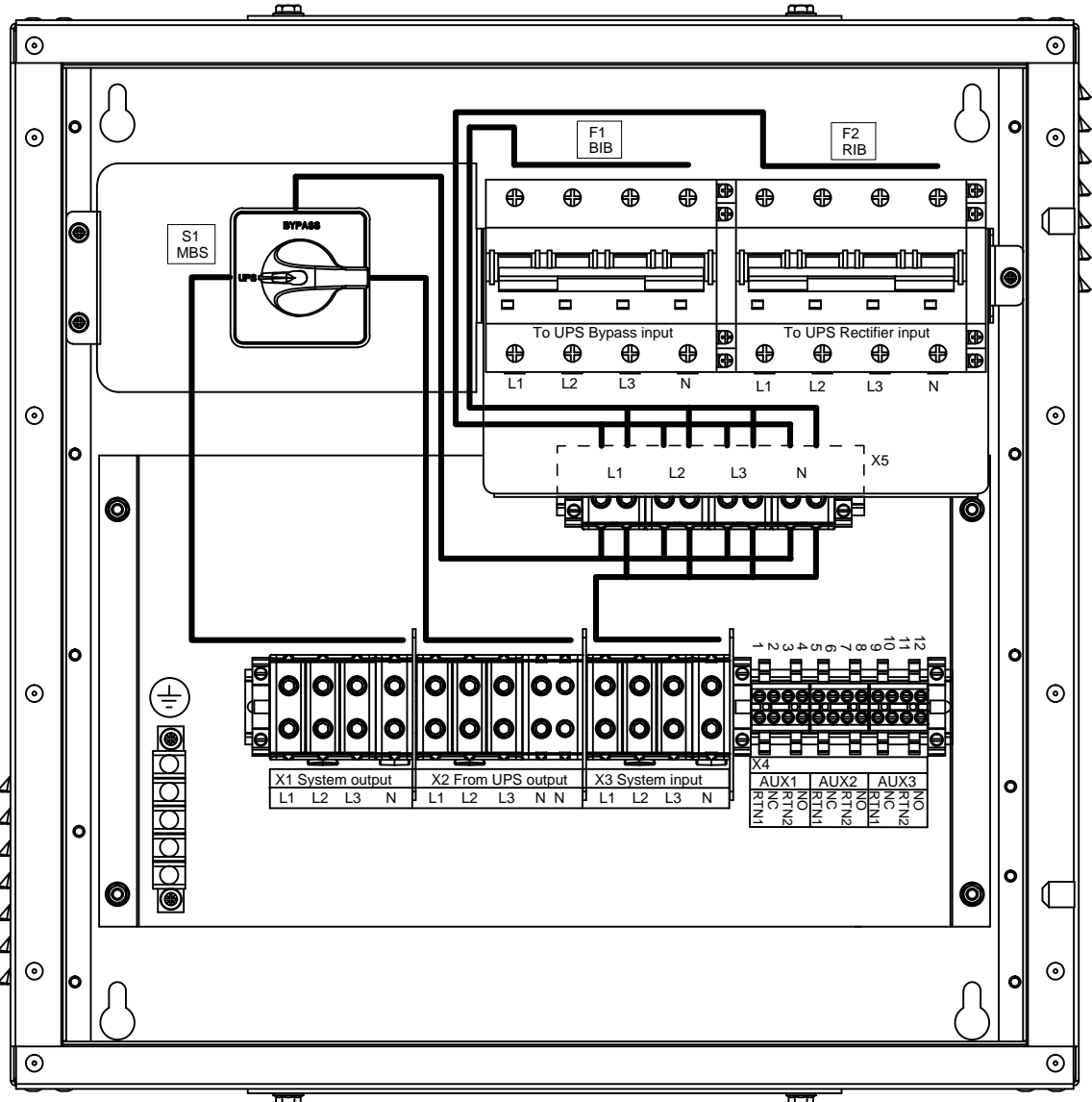
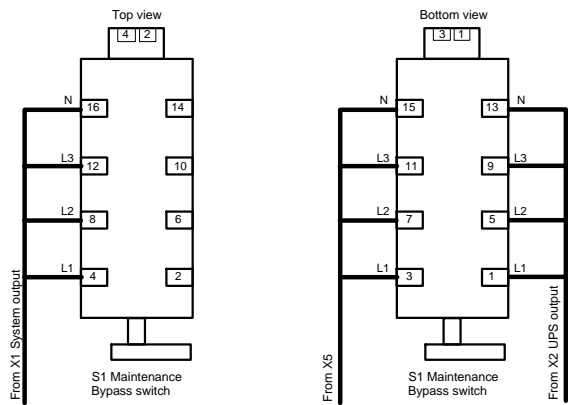
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SAFETY:		AUTOCAD DRAWING	Release	3 OF 8	
APPROVED: E5900525/TMK		Dimension diagram			

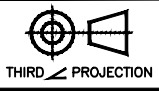
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MODIFIED: E9917864/EY	18.09.2015	ECO-089242	P-105000045-004	002	NOT TO SCALE
CHECKED: E5900525/TMK		DOCUMENT TYPE:		STATE:	SHEET:
SAFETY:		AUTOCAD DRAWING		Release	
APPROVED: E5900525/TMK		Component diagram			

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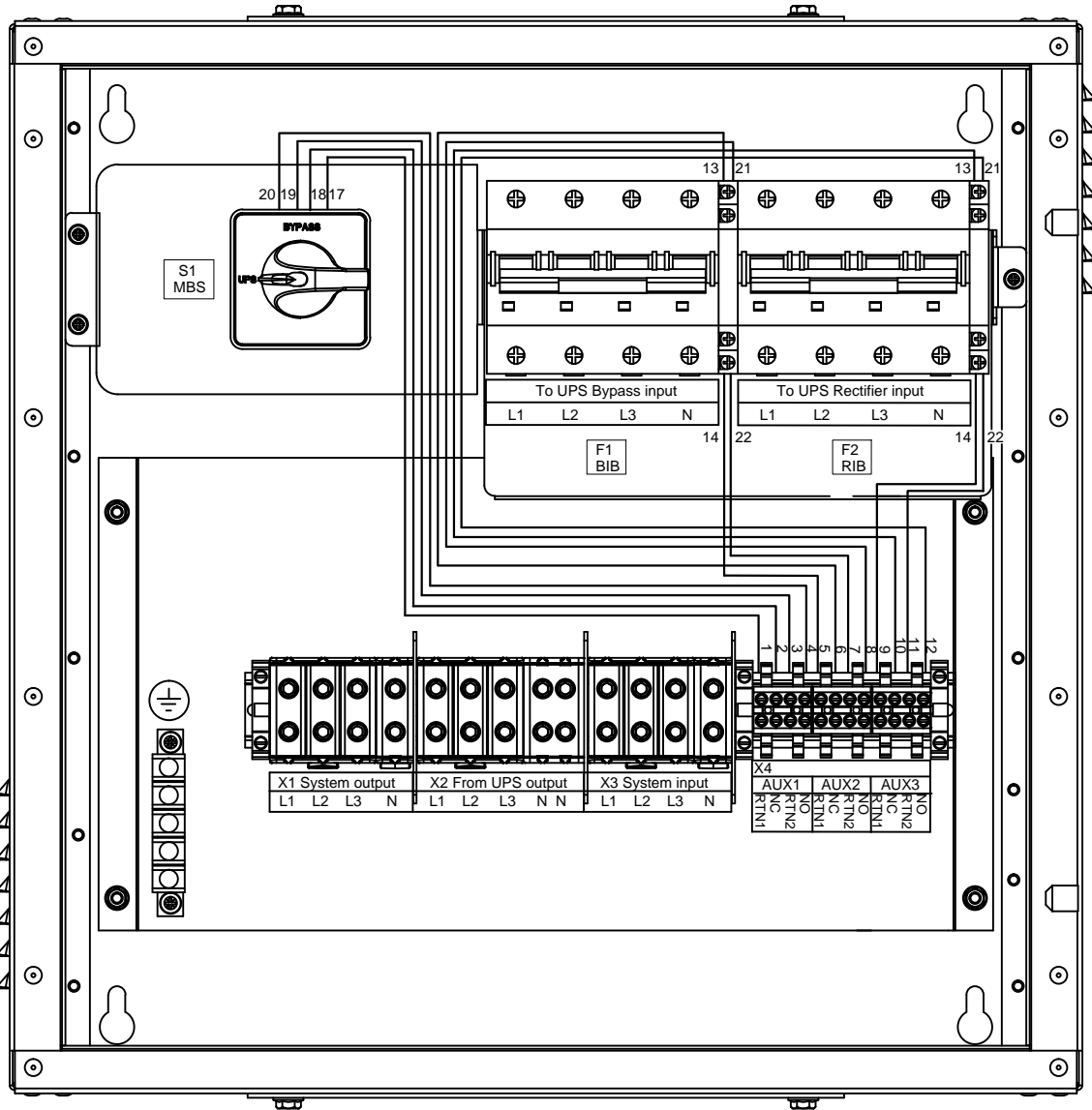
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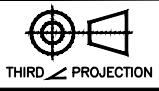
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MODIFIED: E9917864/EY	18.09.2015	ECO-089242	P-105000045-004	002	NOT TO SCALE
CHECKED: E5900525/TMK		DOCUMENT TYPE:		STATE:	SHEET:
SAFETY:		AUTOCAD DRAWING		Release	5 OF 8
APPROVED: E5900525/TMK		Control wiring Diagram			

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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 | <u>380/400/415 V</u> |
| 2. Nominal Current | I_{nA} | <u>61/58/56 A</u> |
| 3. Maximum Current | I_{max} | <u>72 A</u> |
| 4. Nominal Frequency | f_n | <u>50/60 Hz</u> |
| 5. Operating Temperature | T | <u>max +40 °C</u> |
| 6. Current capability | | |
| Thermal | I_{cc} | <u>10 kA *</u> |
| Dynamical | I_{pk} | <u> kA</u> |
| 7. Power dissipation | P | <u> W</u> |
| 8. Electrical Wiring AC | | |
| | L1 | <input checked="" type="checkbox"/> |
| | L2 | <input checked="" type="checkbox"/> |
| | L3 | <input checked="" type="checkbox"/> |
| | N | <input checked="" type="checkbox"/> |
| | PE | <input checked="" type="checkbox"/> |
| | PEN | <input type="checkbox"/> |

TYPE PLATE, SAMPLE

EATON	
EXTERNAL MBS 40kW, 4-SWITCHES	
Part Nr: <u>P-105000045-004</u>	Rev: <u>002</u>
Serial Nr: <u>00001</u>	Date: <u>05/2015</u>
MAINS: <u>TN-S</u>	WEIGHT: <u>26 kg</u>
CLASS: <u>IP21</u>	
U_n <u>380/400/415 V</u>	
I_{nA} <u>61/58/56 A</u>	
f_n <u>50/60 Hz</u>	
I_{cc} <u>10 kA</u>	
IEC61439-2	Made in EU

CONSTRUCTION OF SWITCHGEAR

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

Note !

1. Back-up fuse required for system input 80A 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 | <input type="checkbox"/> |
| | TN-S | <input checked="" type="checkbox"/> |
| | IT | <input type="checkbox"/> |
| 2. LOAD POWER | S | <u> </u> kVA |
| | P | <u> </u> kW |
| | p.f. | <u> </u> |

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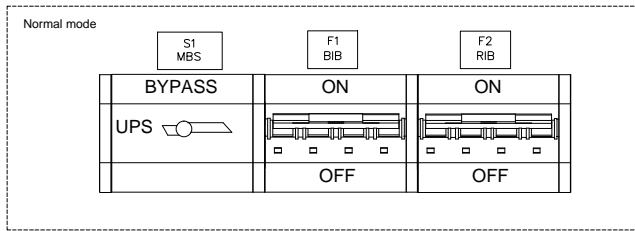
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MODIFIED: E9917864/EY	18.09.2015	ECO-089242	P-105000045-004	002	NOT TO SCALE
CHECKED: E5900525/TMK		DOCUMENT TYPE:		STATE:	SHEET:
SAFETY:		AUTOCAD DRAWING		Release	6 OF 8
APPROVED: E5900525/TMK		General information			

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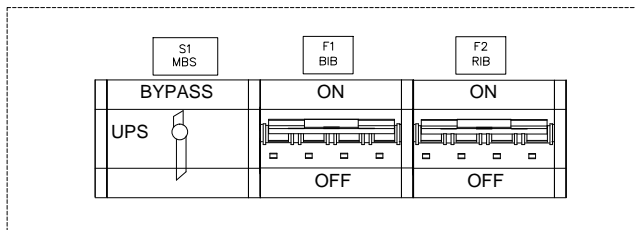
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Turn UPS from NORMAL MODE to MECHANICAL BYPASS

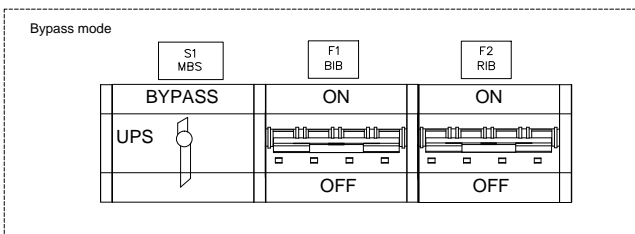
1. The start position is following:



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. Turn OFF the BIB (F1) and RIB (F2) to disconnect UPS from bypass and rectifier input.



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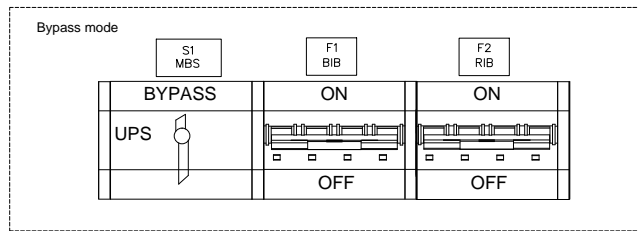
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SAFETY:		AUTOCAD DRAWING	Release	7 OF 8	
APPROVED: E5900525/TMK		Operating Instructions			

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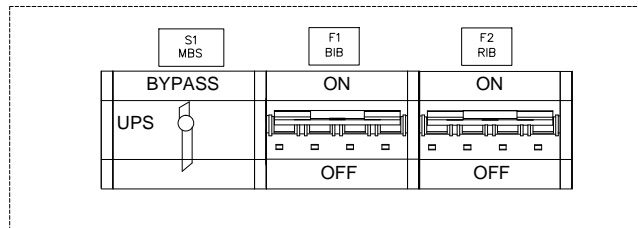
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Turn UPS from MECHANICAL BYPASS to NORMAL MODE

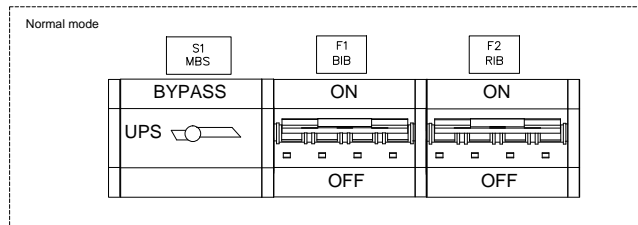
- The start position is following:



- Turn ON the BIB (F1) and RIB (F2) to connect Bypass and rectifier input to UPS:



- Turn the UPS Battery Breaker (CB1) and UPS Rectifier Input Switch (S1) to ON position.
- 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.
- Turn the MBS (S1) to UPS position to switch the output to UPS:



- 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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