

1 2 3 4

A



B

EXTERNAL MAINTENANCE BYPASS

20kW, 4-SWITCHES

C

Product number: P-105000044-004

D

E

METRIC



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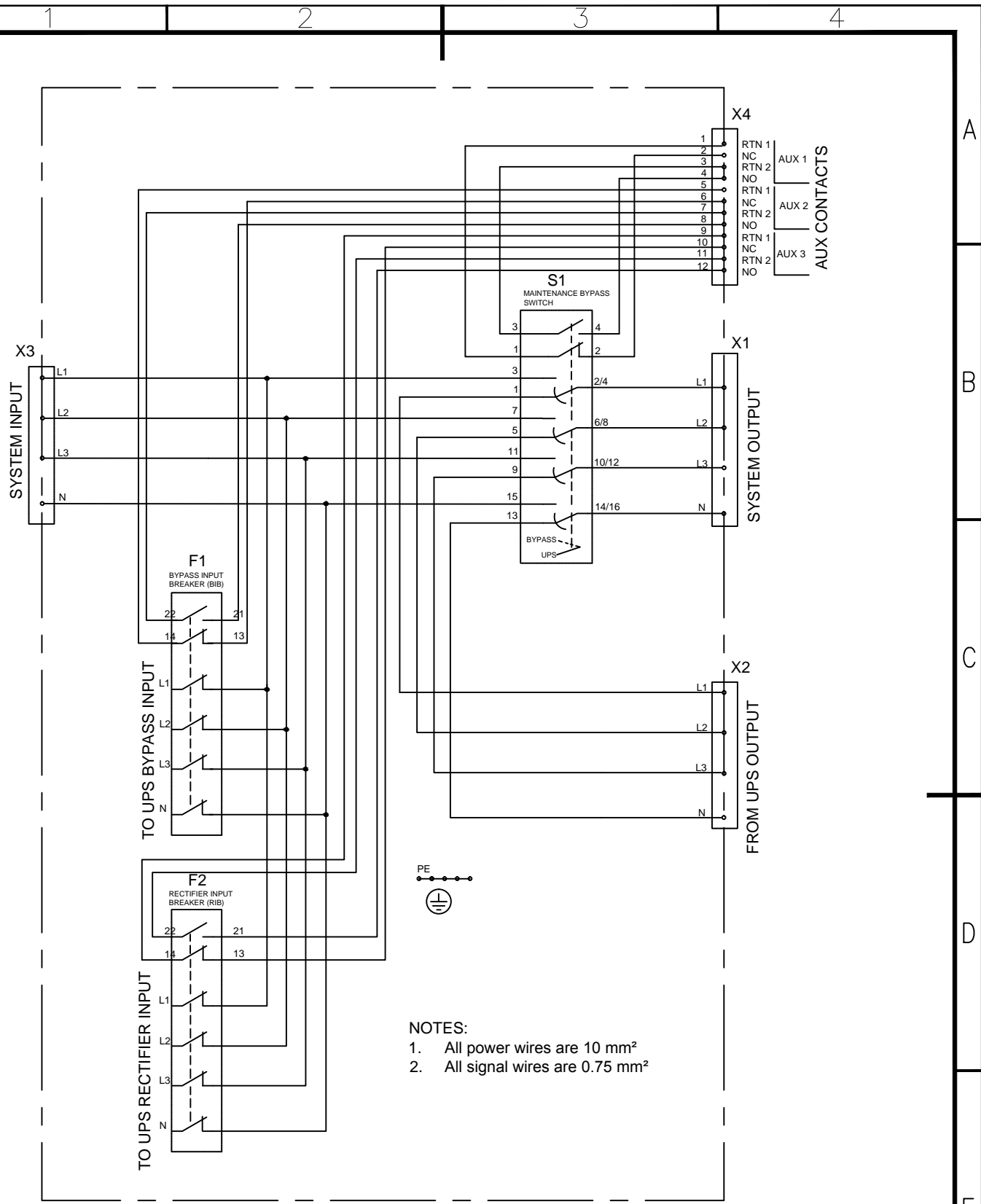
DESCRIPTION: EXTERNAL MBS 20kW, 4-SWITCHES

ORIGINATED: E5900083 /JP	13.05.2015	ECO:	NAME:	REVISION:	SIZE: A4
MODIFIED: E9917864/EY	18.09.2015	ECD-089242	P-105000044-004	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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- NOTES:
1. All power wires are 10 mm²
 2. All signal wires are 0.75 mm²

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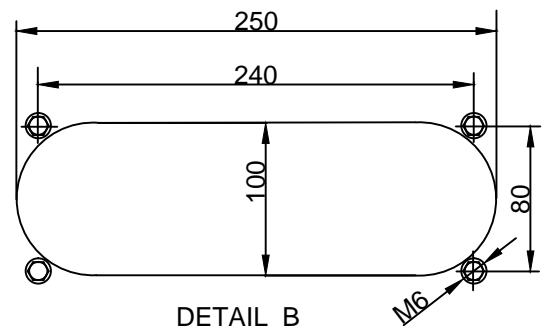
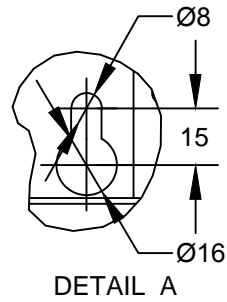
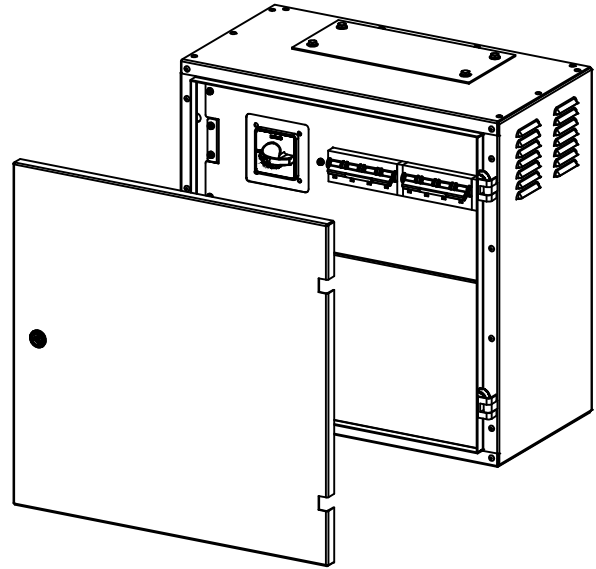
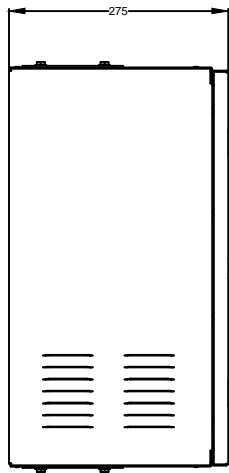
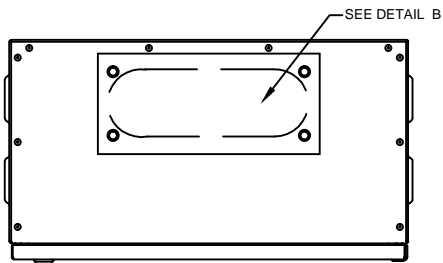
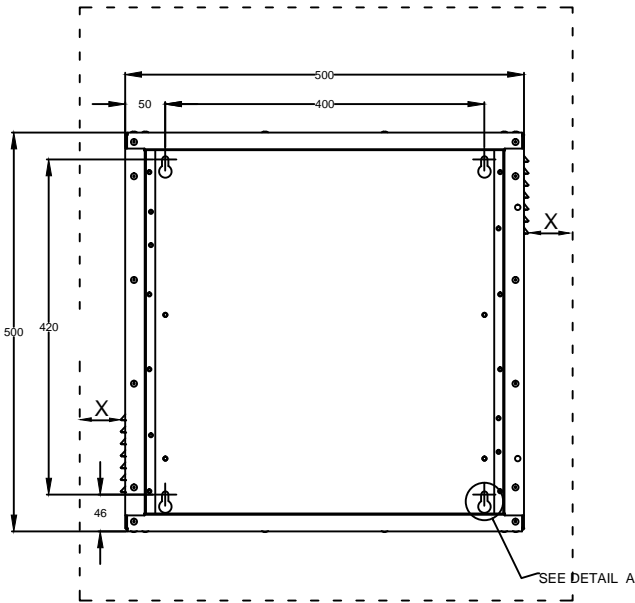
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SAFETY:		AUTOCAD DRAWING		Release	2 OF 8
APPROVED: E5900525/TMK			Switchgear diagram		

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



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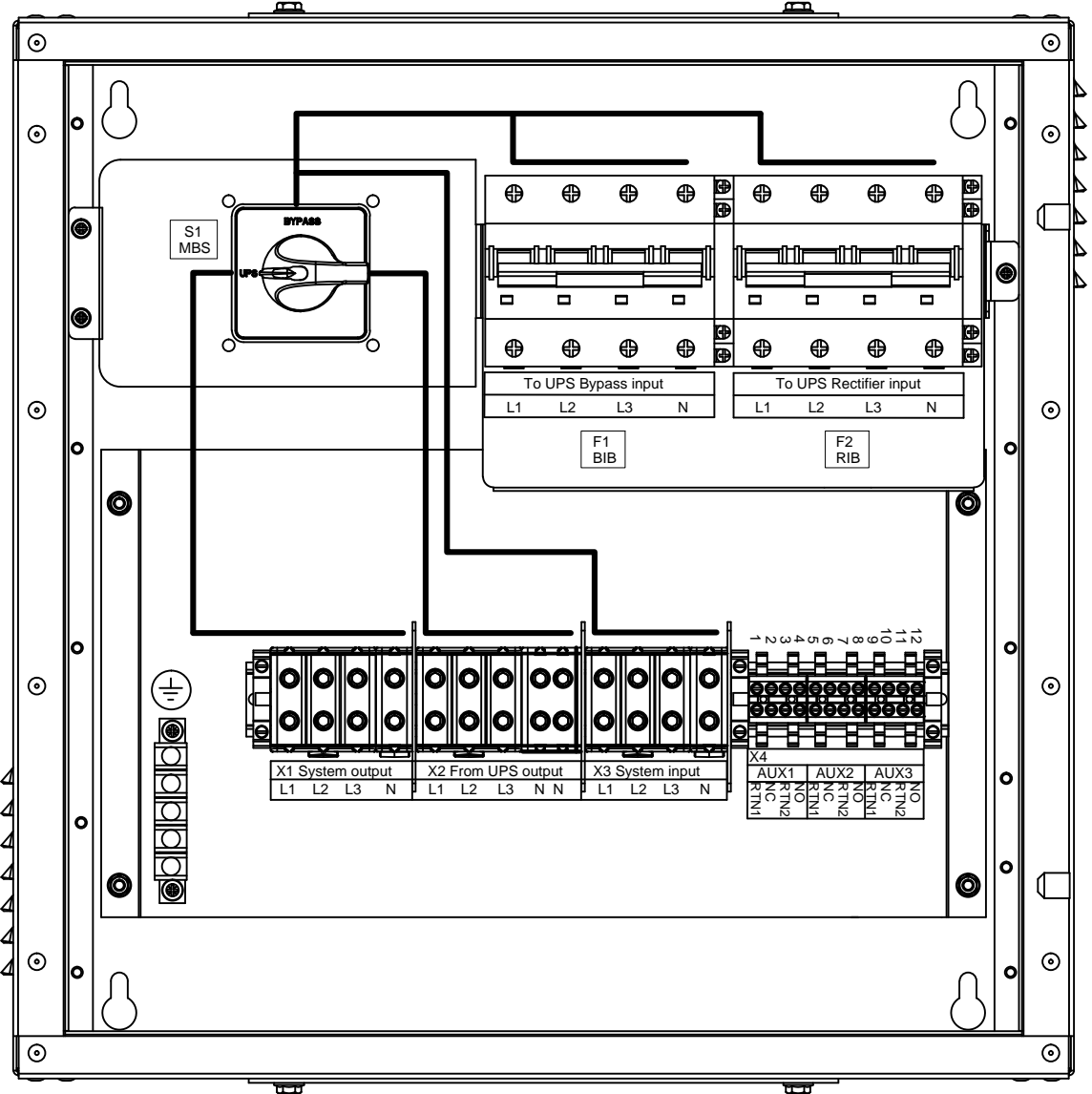
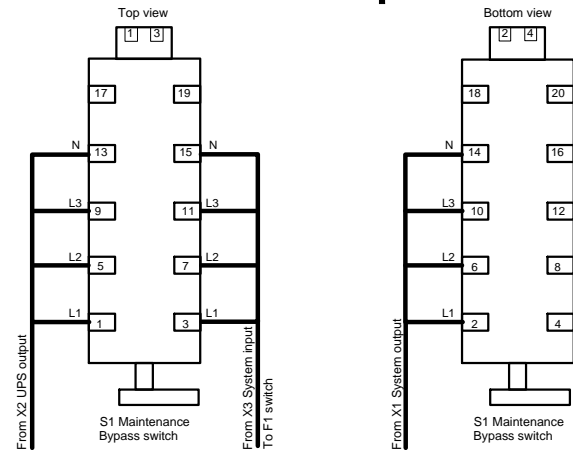
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SAFETY:		AUTOCAD DRAWING		Release	3 OF 8
APPROVED: E5900525/TMK		Dimension diagram			

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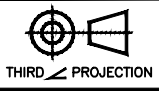
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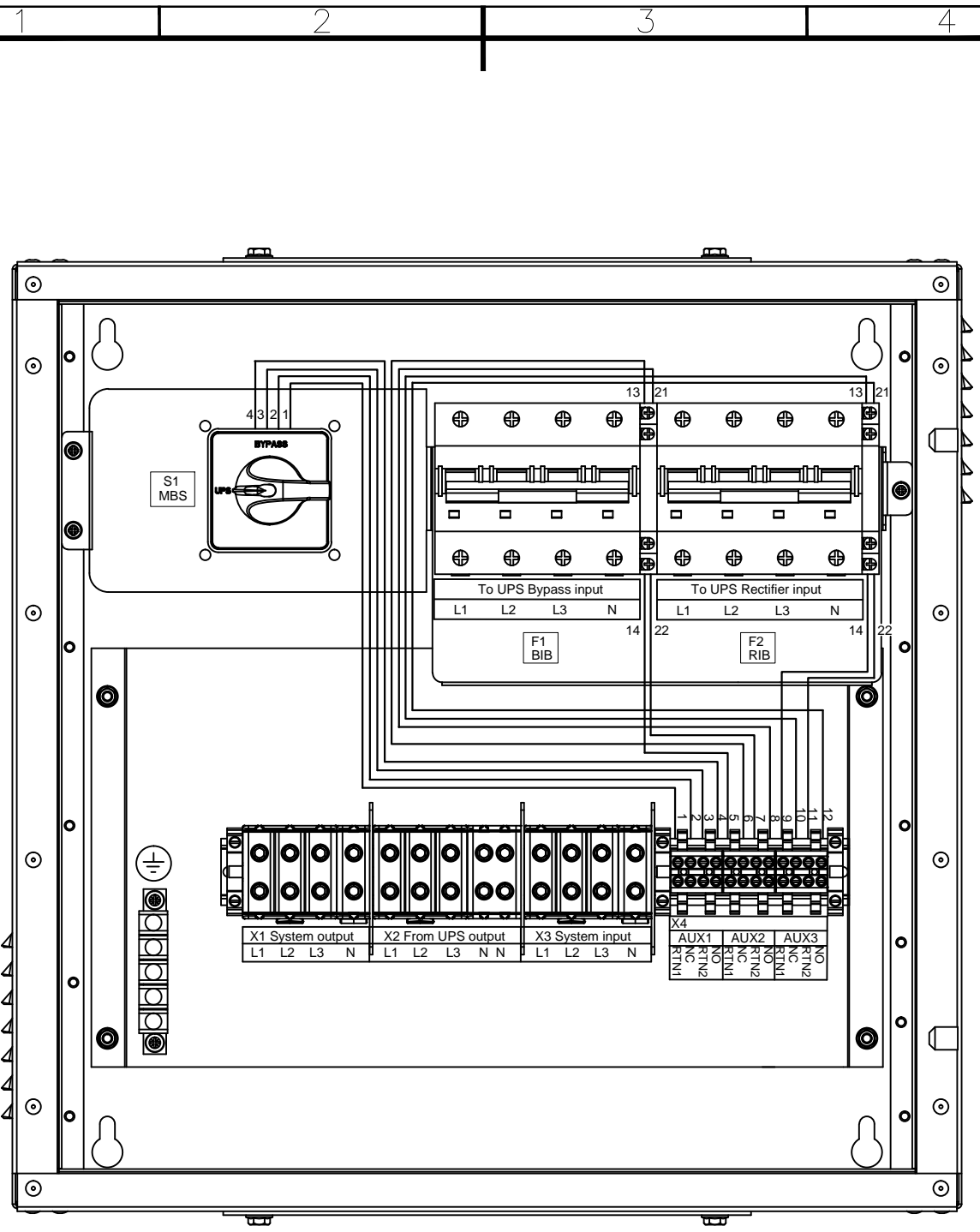
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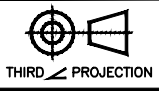
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CHECKED: E5900525/TMK		DOCUMENT TYPE:		STATE:	SHEET: 4 OF 8
SAFETY:		AUTOCAD DRAWING		Release	
APPROVED: E5900525/TMK		Component diagram			

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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

TYPE PLATE, SAMPLE

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

- | | | |
|--------------------------|-----------|-------------------------------------|
| 1. Nominal Voltage | U_n | <u>380/400/415</u> V |
| 2. Nominal Current | I_{nA} | <u>30/29/28</u> A |
| 3. Maximum Current | I_{max} | <u>36</u> A |
| 4. Nominal Frequency | f_n | <u>50/60</u> Hz |
| 5. Operating Temperature | T | <u>max +40</u> °C |
| 6. Current capability | | |
| Thermal | I_{cc} | <u>10</u> kA *) |
| Dynamical | I_{pk} | <u> </u> kA |
| 7. Power dissipation | P | <u> </u> W |
| 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"/> |

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EXTERNAL MBS 20kW, 4-SWITCHES

Part Nr: <u>P-105000044-004</u>	Rev: <u>002</u>
Serial Nr: <u>00001</u>	Date: <u>05/2015</u>

MAINS: TN-S
CLASS: IP21 WEIGHT: 26 kg

U_n <u>380/400/415</u> V	I_{nA} <u>30/29/28</u> A
f_n <u>50/60</u> Hz	I_{cc} <u>10</u> kA

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 | | <input checked="" type="checkbox"/> |
| 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 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 | <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> |

METRIC	 THIRD ANGLE PROJECTION	EATON CORPORATION	
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SAFETY:		AUTOCAD DRAWING		Release	6 OF 8
APPROVED: E5900083/TMK		General information			

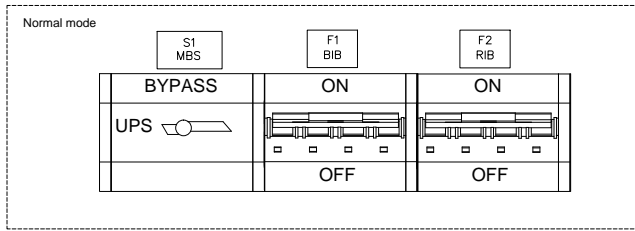
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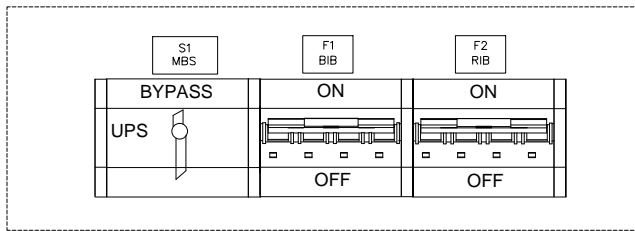
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Turn UPS from NORMAL MODE to MECHANICAL BYPASS

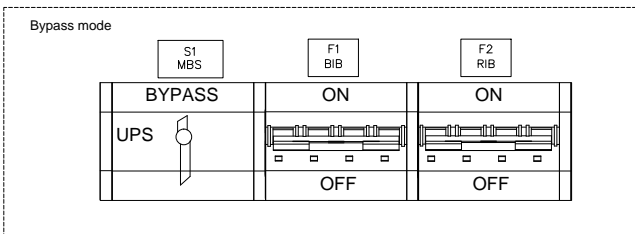
1. The start position is following:



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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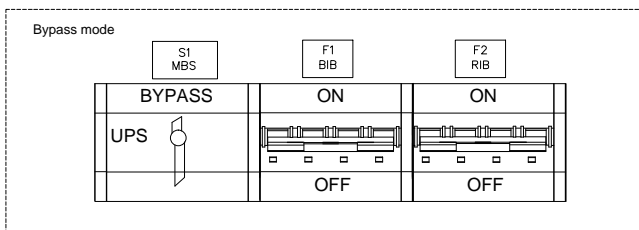
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APPROVED: E5900525/TMK		Operating Instructions			

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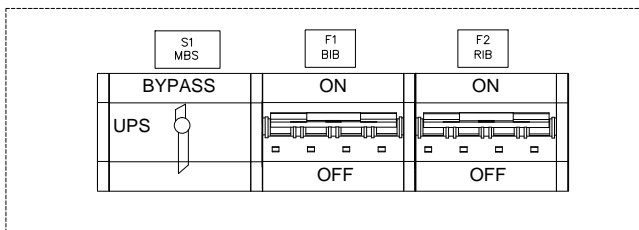
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Turn UPS from MECHANICAL BYPASS to NORMAL MODE

1. The start position is following:



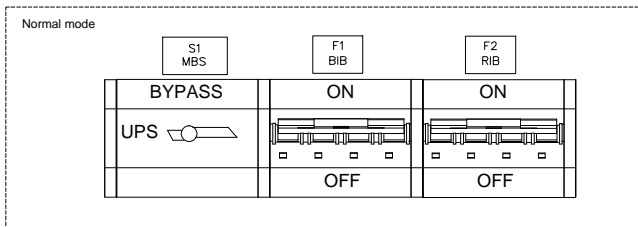
2. Turn ON the BIB (F1) and RIB (F2) to connect Bypass and rectifier input to UPS:



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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