





 SepidDasht Steel Co.	 MSE	SepidDasht Steel Complex Steel Making Plant Project	 FOOLAD PAYA	 MCC- CERI	 YAMU	 KDD
Doc. Title : Inquiry for Complementary Modifications on Cranes Feeding Disconnecter Switches			PAGE: 1 of 7		Date: May. 2020	
Doc. No. :			REV: 0			
CLIENT NO:			Vendor Doc. No: S01-04-E4-200-EQ-0801			
						 YAMU

Inquiry for Complementary Modifications on Cranes Disconnecter Switches

For Purchasing

0	May. 2020	Issued for Purchasing	K.Radmand	K.Radmand	H.A.Taemeh
<i>Rev.</i>	<i>Date</i>	<i>Description</i>	<i>Prepared by</i>	<i>Reviewed by</i>	<i>Approved by</i>















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1 General

This Inquiry covers the minimum requirements for Complementary Modifications on Cranes Disconnecter Switches. The SUPPLIER shall be responsible to guarantee component construction and system performance in accordance with codes, standards, this specification and attached drawings.

Note: The annexed documents must be considered.

2 Scope of supply

Pos	Description	Unit	Quantity	Tag No.
1	New Panel with 1000A CB (including shunt trip +one Extra shunt trip for existing panel) *	SET	2	=C9.AA40+AA10 =C9.AA40+AB10
2	Adding one 400A CB (including shunt trip) in existing Maintenance DS panel *	SET	8	=C9.BA40+BA10 =C9.BA40+BB10 =C9.CA40+CA10 =C9.CA40+CB10 =C9.CA40+CC10 =C9.CA40+CD10 =C9.DA30+DA10 =C9.DA40+DB10

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3	Adding Shunt trip for 1600A CB in existing Main DS panel *	SET	1	=C9.AA30+AA10
4	Adding Shunt trip for 630A CB in existing Main DS panel *	SET	4	=C9.BA30+BA10 =C9.CA30+CA10 =C9.CA30+CC10 =C9.DA40+DA10
*refer to attached drawings.				








3 Site Conditions

The equipment has to be designed based on the following site conditions:

- Minimum absolute temperature -26 °C
- Maximum temperature inside bays 60°C
- Relative max. humidity 82%
- Elevation 2200 m above sea level

4 Technical Requirements

- All Circuit breakers brand and order no. shall be considered same as existing ones.
- The panel required specifications are stated in technical specification and SLD.
- The minimum degree of protection afforded by the electrical equipment enclosures shall be as a minimum IP55.
- The Supplier shall provide anti condensation heaters. Anti-condensation heaters shall be suitable for 230V, 50 Hz, single-phase.
- Non detachable nameplate (s) of black-white-black shall be installed on top of panel board. These nameplates shall at least contain the following information:

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- a) Panel Tag Number.
- b) Panel Description and Type.
- c) Supply Voltage.

5 Documentation

Vendor shall create the electrical documentation for the complete scope of supply, in different stages, according to below table.

SL No.	Description	For Tendering	Before Manufacturing	Final Book
		Copies	Copies	Copies
1	Copy of all inquiry documents (stamped & signed)	H	S	_____
2	Deviation List	H	_____	_____
3	Wiring diagrams	_____	S	H+S
4	General arrangement drawings with overall dimensions of panels	S	_____	_____
5	Dimensional ,layout & arrangement	_____	S	H+S
6	Material list of all used equipment (supplier & Tech. catalogue, Part no., to be mentioned)	S	S	H+S
7	Spare parts list with individual prices	S	_____	_____
8	Test (type test) certificates	H	_____	H+S
9	Routine test reports	_____	_____	H+S
10	Manufacturing time schedule	S	_____	_____
11	Packing list & transportation documents	_____	_____	H+S

S: Soft Copy; H: Hard Copy,

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6 Inspection and Testing

1.1.1 General

The electrical equipment shall be subjected for inspection during manufacturing and testing by the Purchaser or his appointed agent. The Supplier shall provide access for such inspection and testing whenever required.

Testing program shall be submitted to the Purchaser prior to testing taking place.

1.1.2 Testing







The following inspection/tests are required as a minimum, in accordance with the relevant IEC Publications.

- Functional testing
- Insulation test.
- Checking of data and compliance with specifications and data sheets
- Visual check of all equipment items, check of tightness of all joints, glands and terminations.
- Test of protection relays (where applicable).
- Test of all instruments.

All tests shall be recorded and included in the overall test report.

7 Reference Documents

- S01-04-E4-010-ST-0801 Electrical Data
- S01-04-E4-000-TF-0809 Standardization of Electrical Documents and Software Programs
- S01-04-E4-000-TF-0807 Electrical Item Designation
- S01-04-E4-000-TF-0810 Identification and Labeling for Electrical Equipment

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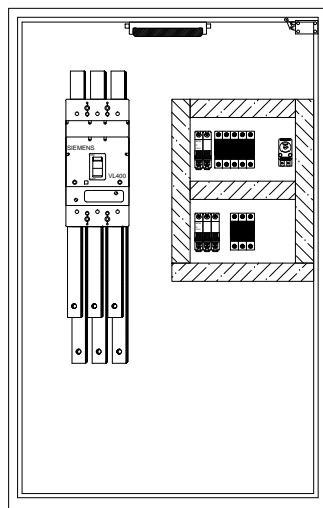


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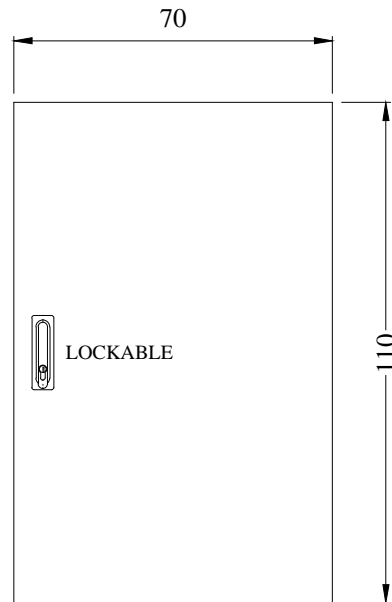
8 Appendices

- 400A Maintenance Disconnecter Switch - Layout, Single Line Diagram & Schematic Diagram
- 1000A Maintenance Disconnecter Switch - Single Line Diagram & Schematic Diagram
- 630A Main Disconnecter Switch - Single Line Diagram & Schematic Diagram
- 1600A Main Disconnecter Switch - Single Line Diagram & Schematic Diagram

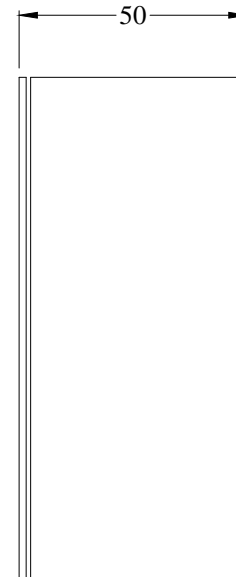
- NOTES:
- 1) WALL, SURFACE MOUNTED
 - 2) PANEL DIMENSIONS:
1100/700/500 mm (H/W/D)
 - 3) THE THICKNESS OF PLATES:
FRAME: 2mm
 - 4) COLOR OF BODY: RAL 7032
 - 5) THICKNESS OF COLOR: 80 micron
 - 6) DEGREE OF PROTECTION: IP55
 - 7) INCOMING : FROM BOTTOM
 - 8) OUTGOING : FROM BOTTOM
 - 9) QUANTITY : 8



INTERNAL VIEW



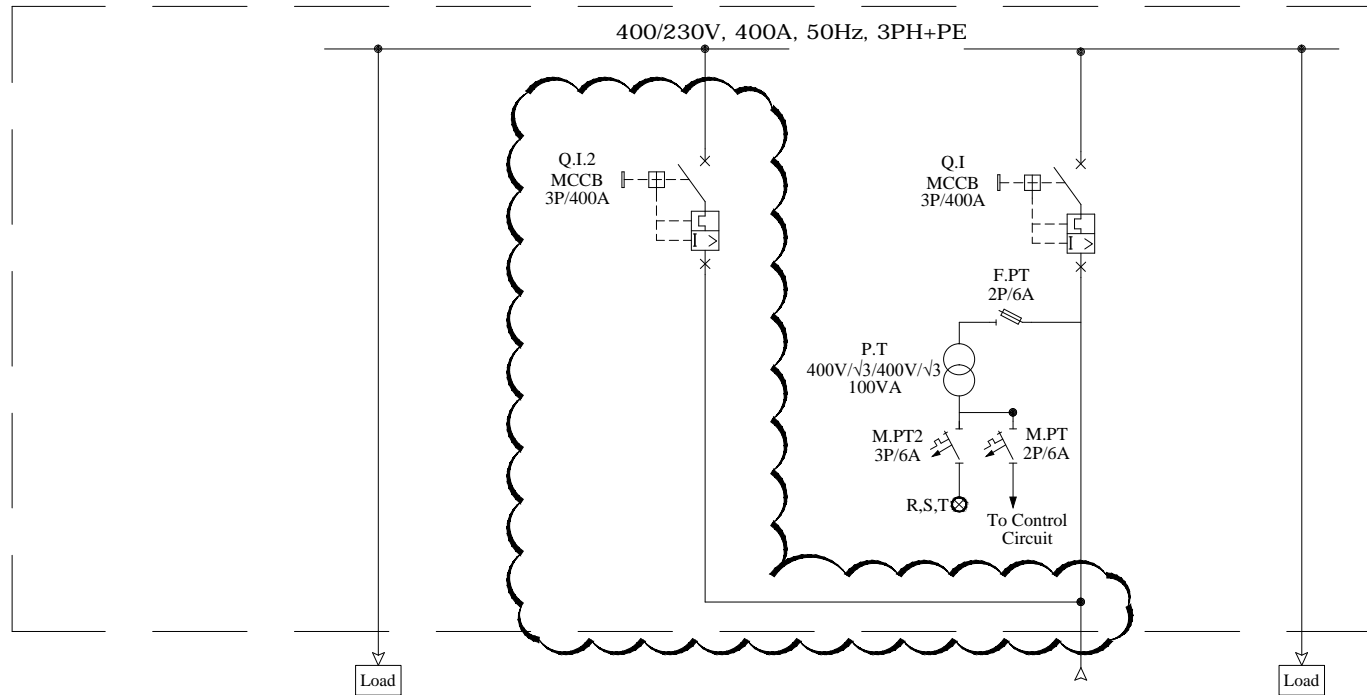
FRONT VIEW



SIDE VIEW



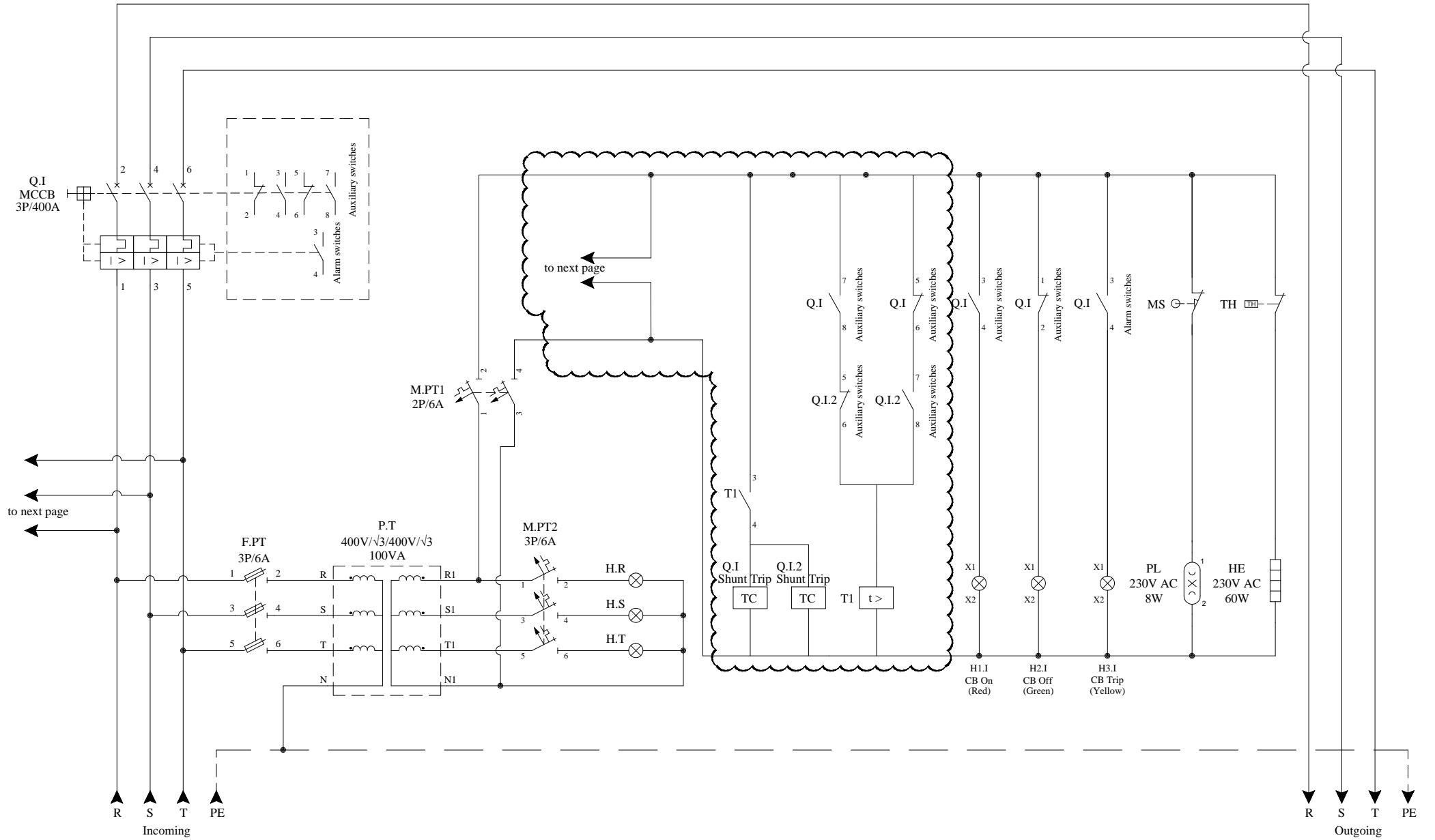
400 A Maintenance DS
SINGLE LINE DIAGRAM



Feeder No.		Outgoing	Incoming	Incoming	Outgoing
Description		Outgoing	Incoming	Incoming	Outgoing
Incoming/Outgoing	Up/Down	Down	Down	Down	Down
Line No.		-	-	-	-
Rated Power	[KW]	-	-	-	-
Rated Current	[A]	-	-	-	-
Circuit Breaker	Manufacturer / Type / Order	-	Siemens / MCCB / 3VL4740-1DC36-0AA0	Siemens / MCCB / 3VL4740-1DC36-0AA0	-
	No. of Poles / Rated	-	3P / 400A / 55kA	3P / 400A / 55kA	-
Over Load	Rating [A]	-	0.4In ~ 1xIn	0.4In ~ 1xIn	-
	Order	-	Built In	Built In	-
Contactor	Manufacturer / Type / Order	-	-	-	-
	Rated Power / Current [KW]/[A]	-	-	-	-
Fuse	Manufacturer / Type / Order	-	-	Fuse Disconnecter 3P - 32A - ETI	-
	Rated [A]	-	-	Cylindrical Fuse 2A - ETI	-
C.T / P.T	Manufacturer / Type	-	-	-	-
	Rated / Class / Burden	-	-	P.T: 400V/230V - 100VA - Zafar Industrial Co.	-
Ammeter	Manufacturer / Size	-	-	-	-
	Current / Class	-	-	-	-
Drive/Soft Starter	Manufacturer / Type / Order	-	-	-	-
	Rated Power [KW]	-	-	-	-
Protection Relay	Manufacturer / Type / Order	-	Thermal Magnet Trip Unit Built In	Thermal Magnet Trip Unit Built In	-
	Ansi Code	-	LI	LI	-
Terminal (Size)		-	-	-	-
Cable (Size)	[mm ²]	2x 2x3x 1x240 mm ²	-	2x3x 1x240 mm ²	2x 2x3x 1x240 mm ²

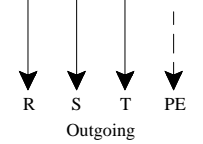
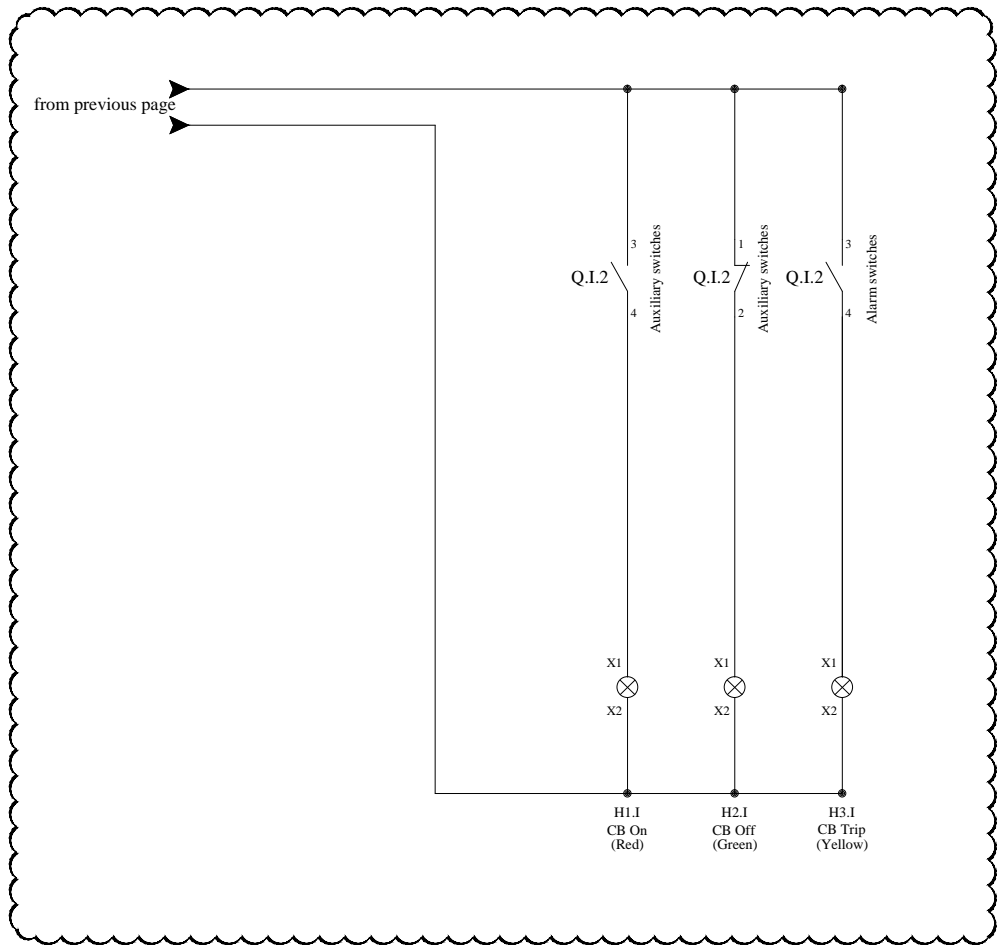
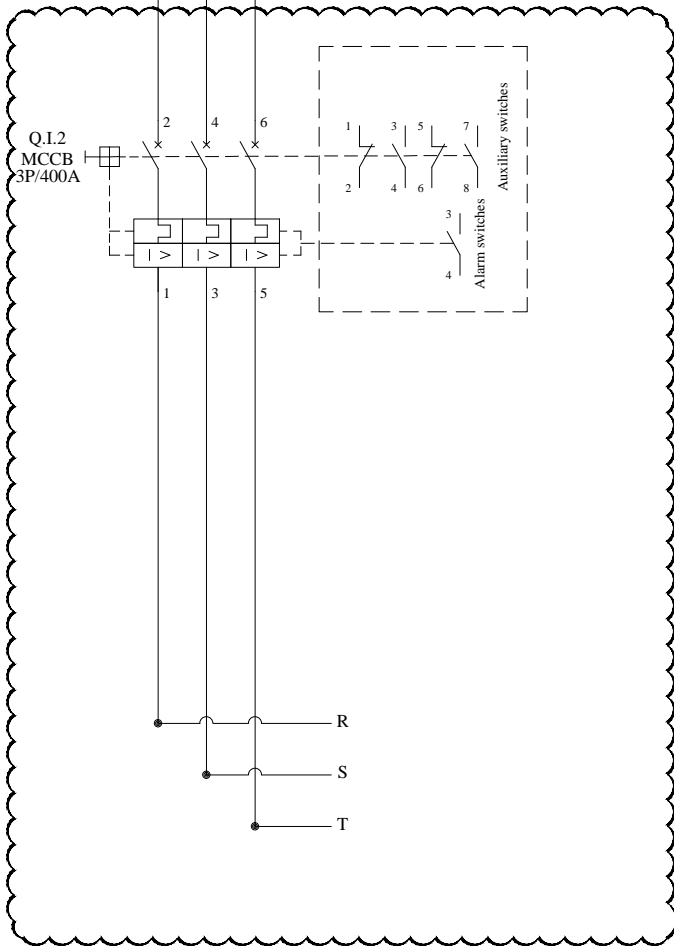
400 A Maintenance DS
SINGLE LINE DIAGRAM

400/230V, 400A, 50Hz, 3PH+PE

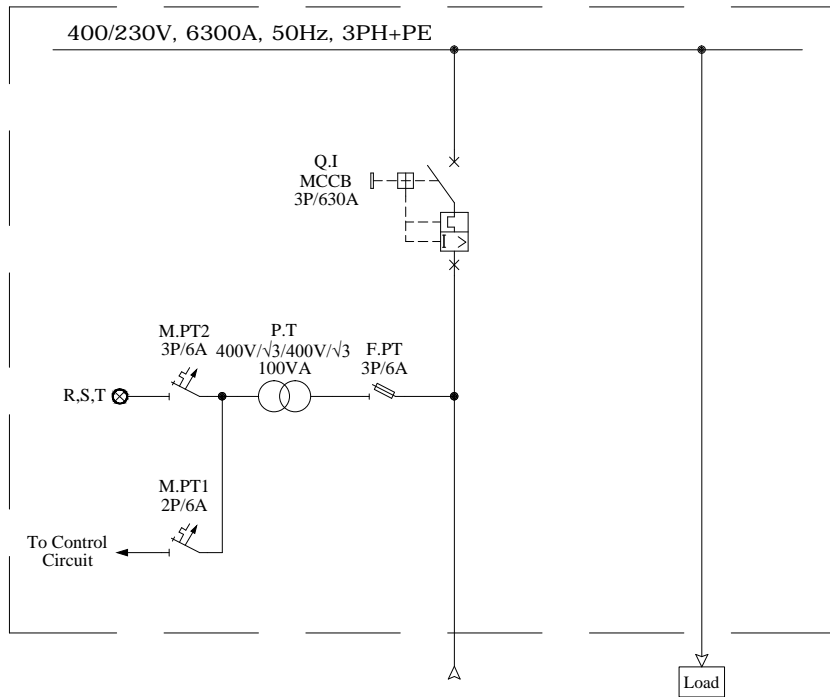


400 A Maintenance DS
SCHEMATIC DIAGRAM-1

400/230V, 400A, 50Hz, 3PH+PE



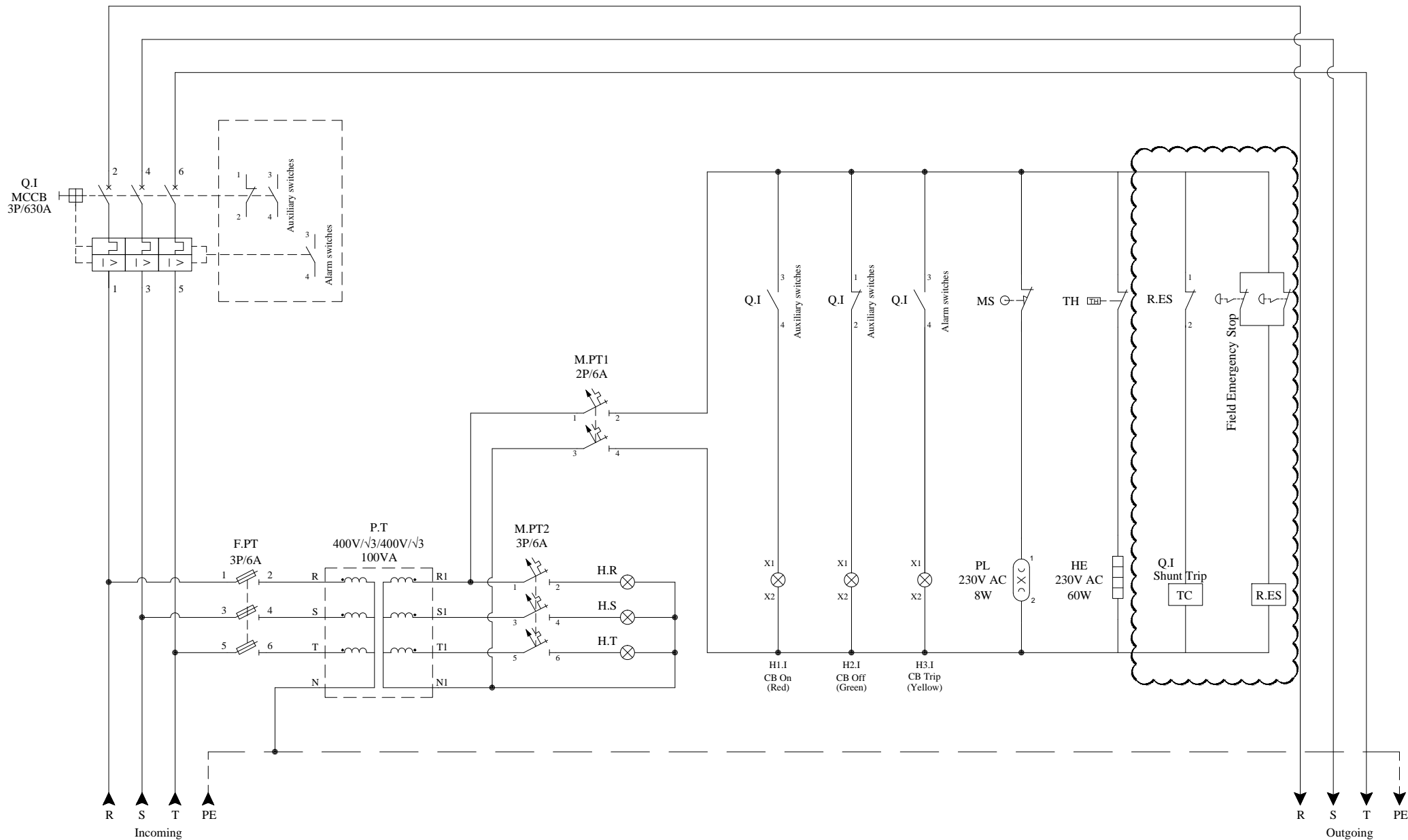
400 A Maintenance DS
SCHEMATIC DIAGRAM-2



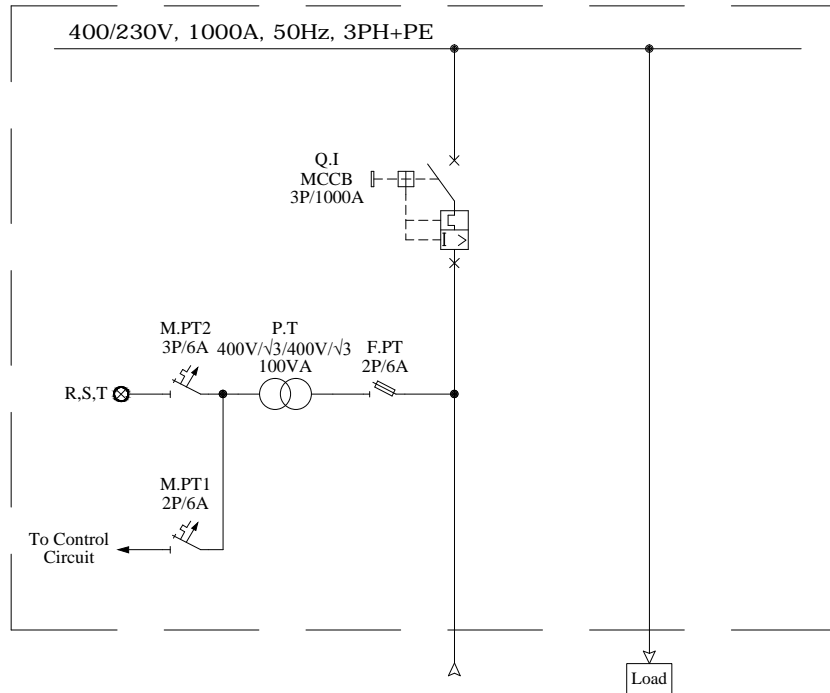
Feeder No.	Incoming	Outgoing
Description	Incoming	Outgoing
Incoming/Outgoing	Up/Down	Down/Up
Line No.	-	-
Rated Power [KW]	-	-
Rated Current [A]	-	-
Circuit Breaker	Manufacturer / Type / Order	Siemens / MCCB / 3VL5763-1DC36-0AA0
	No. of Poles / Rated	3P / 630A / 55kA
Over Load	Rating [A]	0.4In ~ 1xIn
	Order	Built In
Contactor	Manufacturer / Type / Order	-
	Rated Power / Current [KW]/[A]	-
Fuse	Manufacturer / Type / Order	Fuse Disconnecter 3P - 32A - ETI
	Rated [A]	Cylindrical Fuse 2A - ETI
C.T / P.T	Manufacturer / Type	-
	Rated / Class / Burden	P.T: 400V/230V - 100VA - Zafar Industrial Co.
Ammeter	Manufacturer / Size	-
Voltmeter	Current / Class	-
Drive/Soft Starter	Manufacturer / Type / Order	-
	Rated Power [KW]	-
Protection Relay	Manufacturer / Type / Order	Thermal Magnet Trip Unit Built In
	Ansi Code	LI
Terminal (Size)	-	-
Cable (Size) [mm ²]	2x3x 1x240 mm ²	1x (6x1x240 mm ²)

630 A Main DS
SINGLE LINE DIAGRAM

400/230V, 630A, 50Hz, 3PH+PE



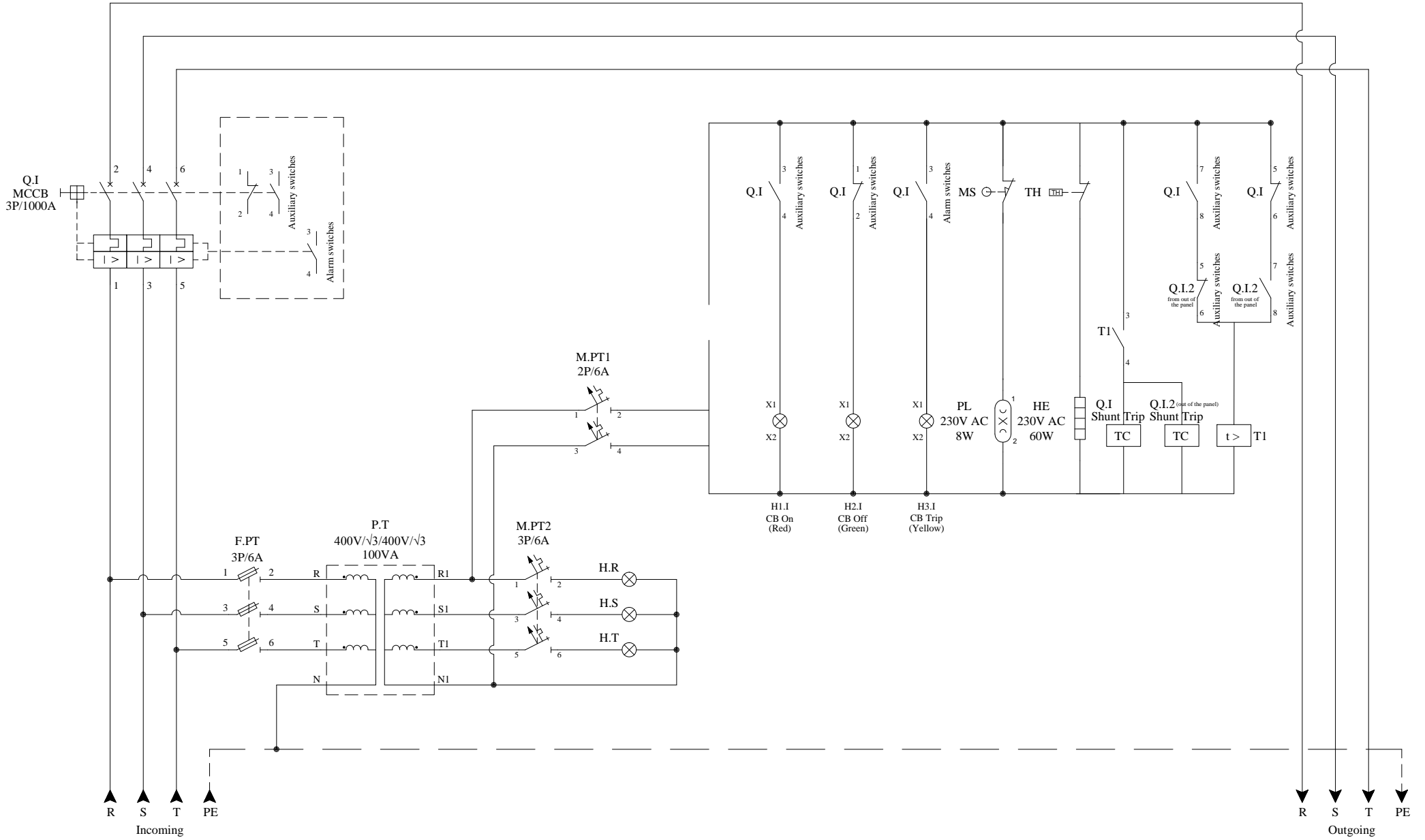
630 A Main DS
SCHEMATIC DIAGRAM



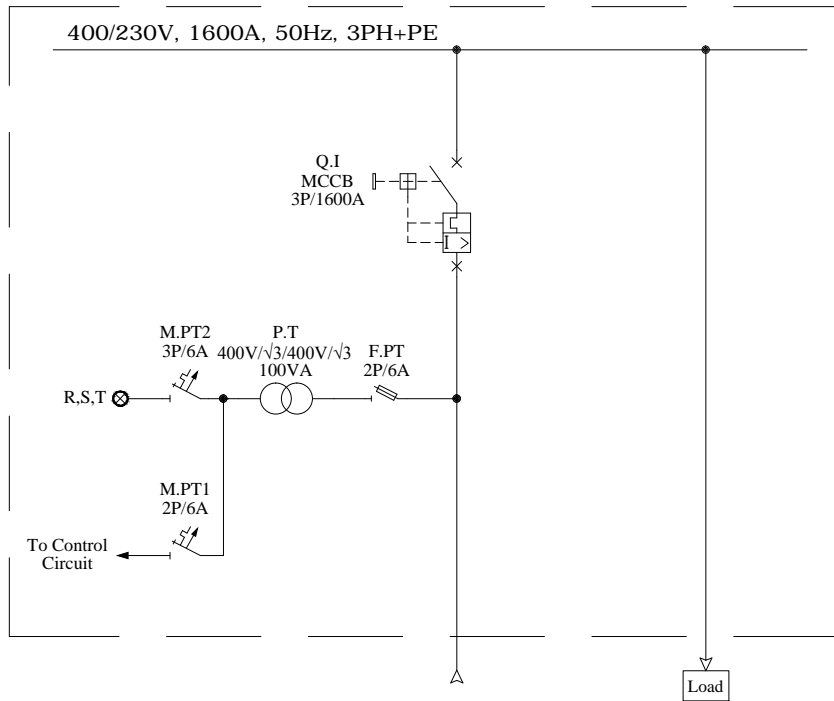
Feeder No.	Incoming	Outgoing
Description	Incoming	Outgoing
Incoming/Outgoing	Up/Down	Down
Line No.	-	-
Rated Power	[KW]	-
Rated Current	[A]	-
Circuit Breaker	Manufacturer / Type / Order	Siemens / MCCB / 3VL7710-1AE36-0AA0
	No. of Poles / Rated	3P / 1000A / 55kA
Over Load	Rating [A]	0.4In ~ 1xIn
	Order	Built In
Contactor	Manufacturer / Type / Order	-
	Rated Power / Current [KW]/[A]	-
Fuse	Manufacturer / Type / Order	Fuse Disconnecter 3P - 32A - ETI
	Rated [A]	Cylindrical Fuse 2A - ETI
C.T / P.T	Manufacturer / Type	-
	Rated / Class / Burden	P.T: 400V/230V - 100VA - Zafar Industrial Co.
Ammeter	Manufacturer / Size	-
Voltmeter	Current / Class	-
Drive/Soft Starter	Manufacturer / Type / Order	-
	Rated Power [KW]	-
Protection Relay	Manufacturer / Type / Order	Thermal Magnet Trip Unit Built In
	Ansi Code	LI
Terminal (Size)	-	-
Cable (Size)	[mm ²]	3x3x1x240 mm2 Or 2x3x1x240 mm2

1000 A Maintenance DS
SINGLE LINE DIAGRAM

400/230V, 1000A, 50Hz, 3PH+PE



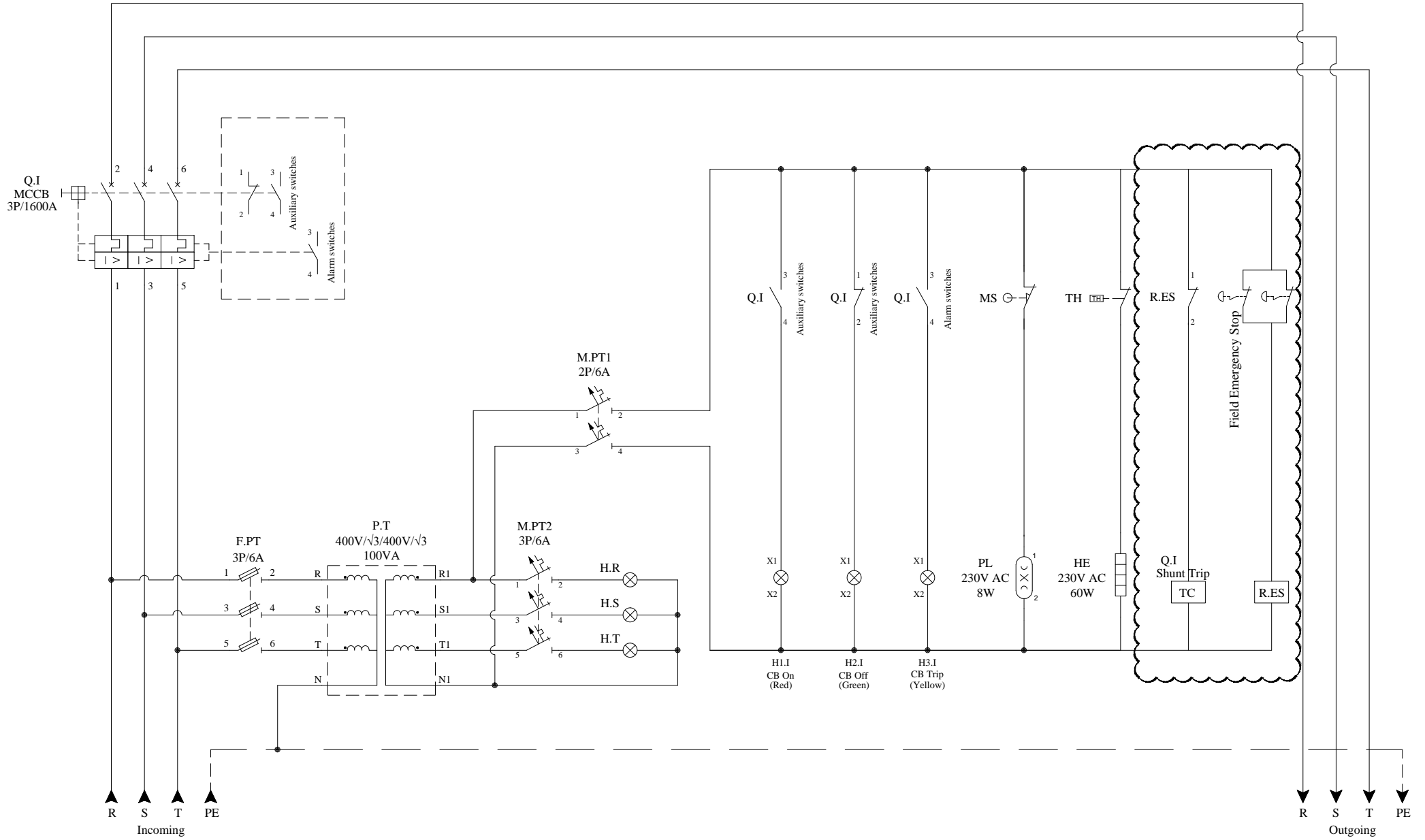
1000 A Maintenance DS
SCHEMATIC DIAGRAM



Feeder No.	Incoming	Outgoing
Description	Incoming	Outgoing
Incoming/Outgoing	Up/Down	Down
Line No.	-	-
Rated Power	[KW]	-
Rated Current	[A]	-
Circuit Breaker	Manufacturer / Type / Order	Siemens / MCCB / 3VL8716-1AE30-0AE0
	No. of Poles / Rated	3P / 1600A / 55kA
Over Load	Rating [A]	0.4xIn ~ 1xIn
	Order	Built In
Contactor	Manufacturer / Type / Order	-
	Rated Power / Current [KW]/[A]	-
Fuse	Manufacturer / Type / Order	Fuse Disconnecter 3P - 32A - ETI
	Rated [A]	Cylindrical Fuse 2A - ETI
C.T / P.T	Manufacturer / Type	-
	Rated / Class / Burden	P.T: 400V/230V - 100VA - Zafar Industrial Co.
Ammeter	Manufacturer / Size	-
Voltmeter	Current / Class	-
Drive/Soft Starter	Manufacturer / Type / Order	-
	Rated Power [KW]	-
Protection Relay	Manufacturer / Type / Order	Thermal Magnet Trip Unit Built In
	Ansi Code	LI
Terminal (Size)	-	-
Cable (Size)	[mm ²]	4x3x 1x240 mm2

1600 A Main DS
SINGLE LINE DIAGRAM

400/230V, 1600A, 50Hz, 3PH+PE



1600 A Main DS
SCHEMATIC DIAGRAM