Electrical Diagrams for Protection and control device for HV / MV substation – Multifunctional Feeder Protection MFP.

Edition	Date	List of modifications
01	06.12.2018	First emission
02	05.03.2026	Updating the company logo

SHEET	TITLE
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2	REVIEW LIST
3	LEGEND SYMBOLS
4	DC POWER SUPPLY
5	MV CIRCUIT BREAKER COMMAND
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7	DIGITAL INPUT
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9	CURRENT CIRCIUT
10	VOLTAGE CIRCUIT
11	GSTP101 – CONNECTORS
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13	LAYOUT (EXAMPLES)

REV.	MODIFICATIONS	DATA	SIGN.

DATA	
DRAWN	
VERIFIED	
APPROVED	

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
INDEX

ELECTRICAL DIAGRAMS STANDARD

GSTX101.DWG		SHEET	1 OF 13
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IDEA R. 2019

REVIEW	SHEET	OBJECT	DATE	RESPONSIBLE
	1			
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				DATA		MULTIFUNCTIONAL FEEDER PROTECTION (MFP)	ELECTRICAL DIAGRAMS STANDARD
				DRAWN		REVIEW LIST	
				VERIFIED			GSTX101.DWG — SHEET 2 OF 13
REV.	MODIFICATIONS	DATA	SIGN.	APPROVED			SERIAL CODE — N°DOC. GSTP101 — NEXT 3

ACRONYM	DESCRIPTION	SITE
52MT-CAX	52MT OPEN	+GSTP101
52MT-CCX	52MT CLOSED	+GSTP101
+C	LOCAL COMMANDS	+GSTP101
+TC	DISTANCE COMMANDS	+GSTP101
D.I.3(MT)	DIGITAL INPUT 3 (MT)	+GSTP101
D.I.4(MT)	DIGITAL INPUT 4 (MT)	+GSTP101
DIG.IN.1	DIGITAL INPUT 1 (MI)	+GSTP101
DIG.IN.2	DIGITAL INPUT 2 (MI)	+GSTP101
DIG.IN.4	DIGITAL INPUT 4 (MI)	+GSTP101
DIG.IN.5	DIGITAL INPUT 5 (MI)	+GSTP101
DIG.IN.6	DIGITAL INPUT 6 (MI)	+GSTP101

ACRONYM	DESCRIPTION	SITE
52MT-AX 1ST	OPENING COMMAND 52MT	+GSTP101
52MT-AX 2ND	OPENING COMMAND 52MT (2°TRIP)	+GSTP101
52MT-AX 3RD NC	OPENING COMMAND LOW DC (NC)	+GSTP101
52MT-AX 3RD NO	OPENING COMMAND LOW DC (NO)	+GSTP101
52MT-CX	CLOSING COMMAND 52MT	+GSTP101
LOCAL ALARM	LOCAL ALARM	+GSTP101
DIG.OUT.1	DIGITAL OUTPUT 1 (MO)	+GSTP101
DIG.OUT.2	DIGITAL OUTPUT 2 (MO)	+GSTP101
DIG.OUT.3	DIGITAL OUTPUT 3 (MO)	+GSTP101
DIG.OUT.4	DIGITAL OUTPUT 4 (MO)	+GSTP101
DIG.OUT.5	DIGITAL OUTPUT 5 (MO)	+GSTP101

CONNECTOR	SITE	DESCRIPTION
MA	+GSTP101	ANALOG INPUT – CURRENT
MI	+GSTP101	DIGITAL INPUTS
MJ	+GSTP101	PREDISPOSITIONS FOR ADDITIONAL DIGITAL INPUTS
MO	+GSTP101	DIGITAL OUTPUTS
MP	+GSTP101	POWER SUPPLY
MT	+GSTP101	CIRCUIT BREAKER CONTROL
MU	+GSTP101	PREDISPOSITIONS FOR ADDITIONAL DIGITAL OUTPUTS
MV	+GSTP101	ANALOG INPUT – VOLTAGE

TERMINAL BOARD	SITE	DESCRIPTION
QM	+RACK	MULTIFUNCTIONAL FEEDER PROTECTION (MFP)

REV.	MODIFICATIONS	DATA	SIGN.

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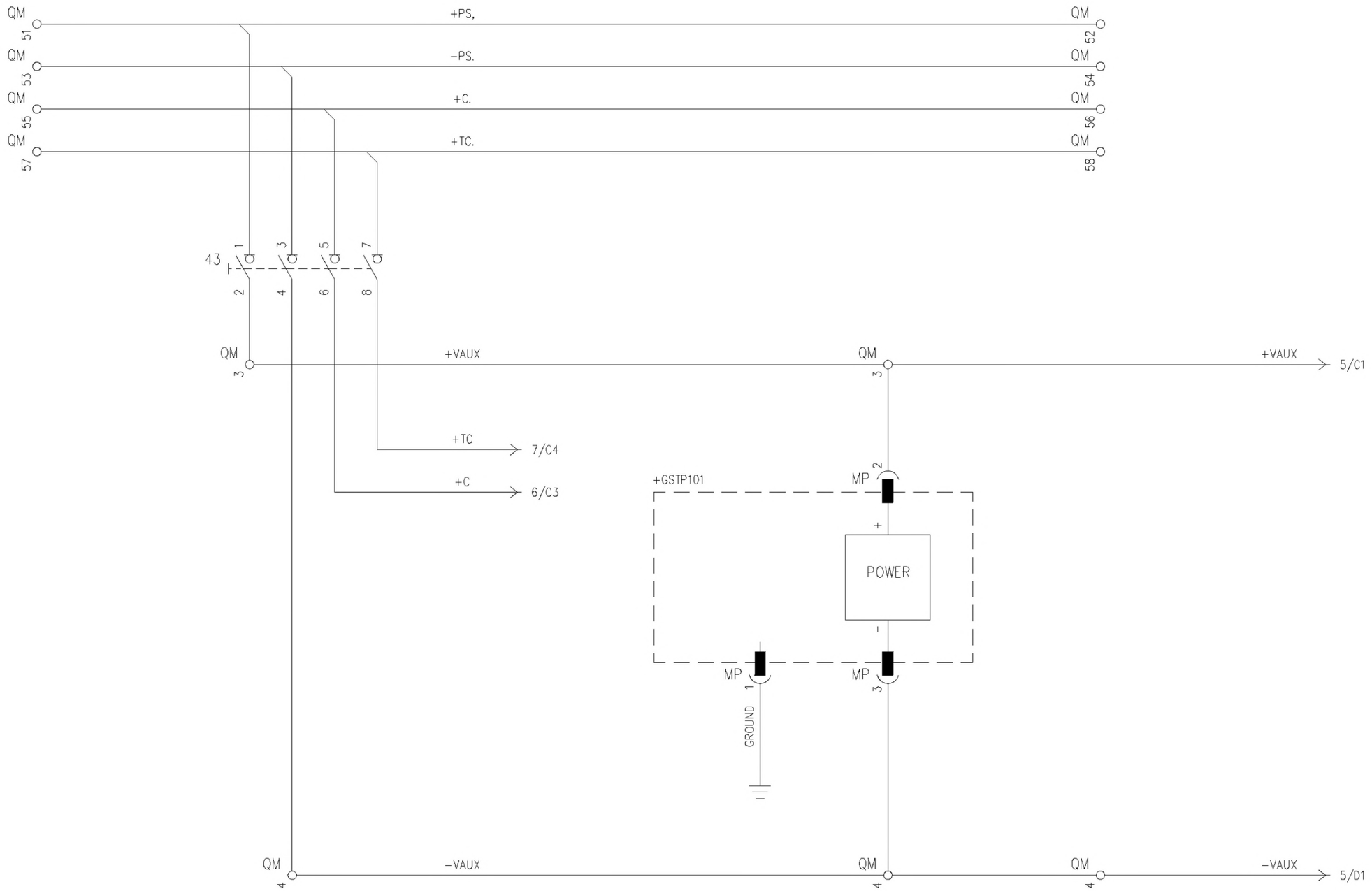
MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
LEGEND SYMBOLS

ELECTRICAL DIAGRAMS STANDARD

GSTX101.DWG		SHEET	3 OF 13
SERIAL CODE	N°DOC. GSTP101	NEXT	4

POWER SUPPLY DISCONNECTOR



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				VERIFIED	
REV.	MODIFICATIONS	DATA	SIGN.	APPROVED	

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
DC POWER SUPPLY

ELECTRICAL DIAGRAMS STANDARD

GSTX101.DWG		SHEET 4 OF 13
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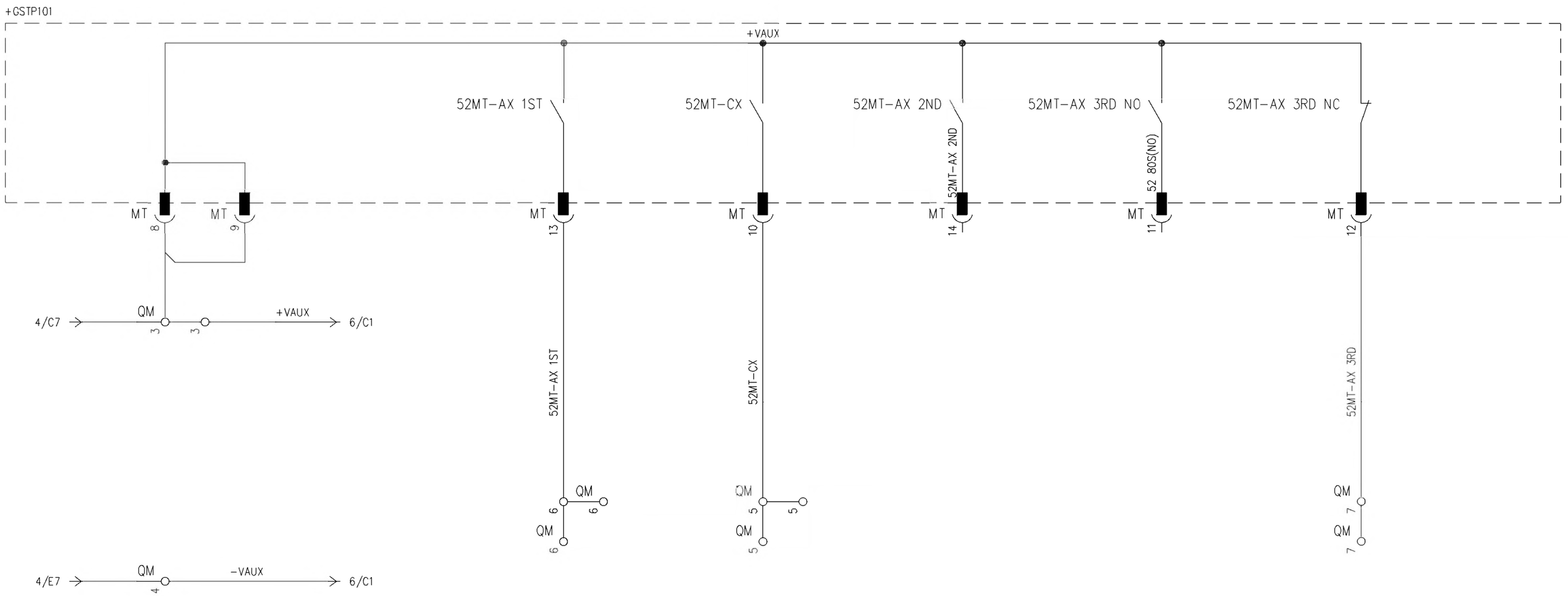
IDEA R. 2019

OPENING COMMAND 52MT | CLOSING COMMAND 52MT | OPENING COMMAND 52MT (2°TRIP) | OPENING COMMAND LOW DC (NO) | OPENING COMMAND LOW DC (NC)



REV.	MODIFICATIONS	DATA	SIGN.		
				DATA	
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				APPROVED	

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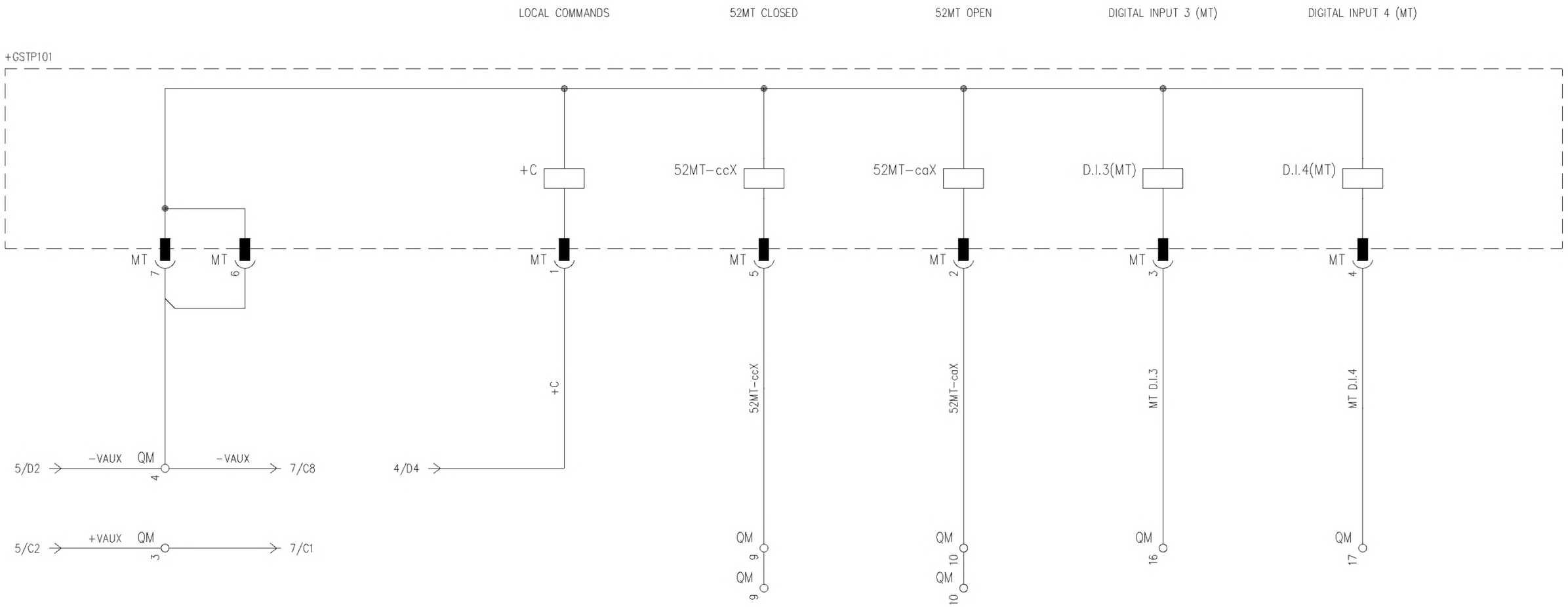
MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
MV CIRCUIT BREAKER COMMAND

ELECTRICAL DIAGRAMS STANDARD

GSTX101.DWG		SHEET	5 OF 13
SERIAL CODE	N°DOC. GSTP101	NEXT	6

IDEA R. 2019



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REV.	MODIFICATIONS	DATA	SIGN.	APPROVED	

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
MV CIRCUIT BREAKER POSITIONS

ELECTRICAL DIAGRAMS STANDARD

GSTX101.DWG		SHEET	6 OF 13
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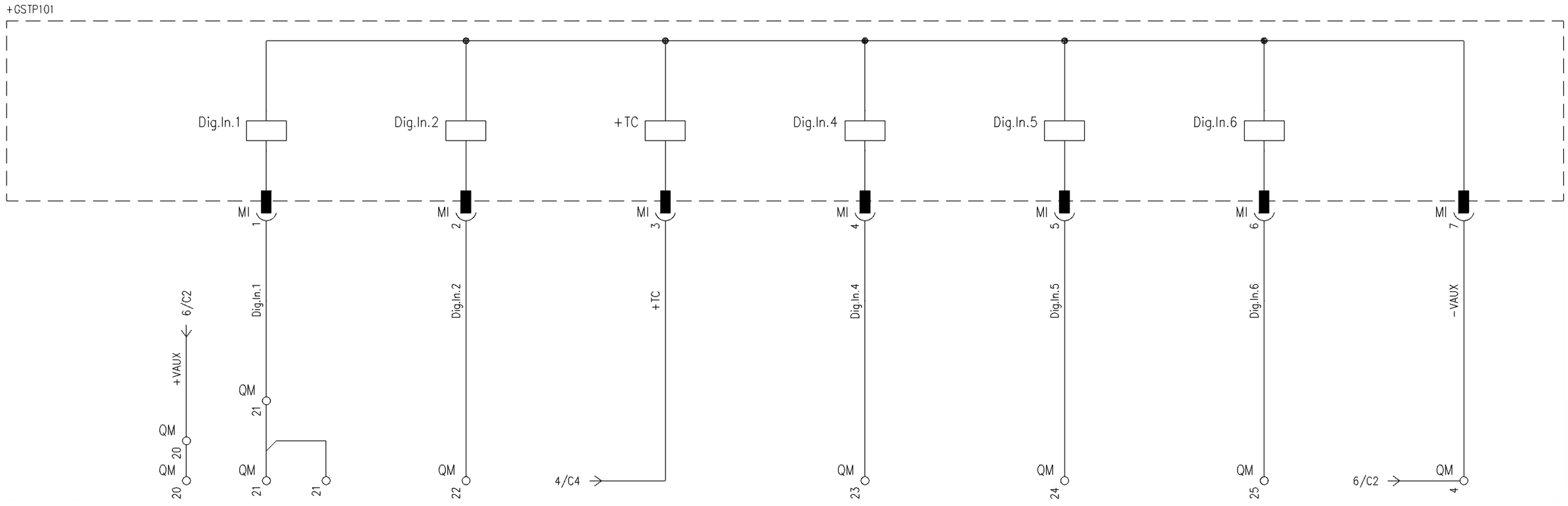

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				VERIFIED	
				APPROVED	

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
DIGITAL INPUT

ELECTRICAL DIAGRAMS STANDARD

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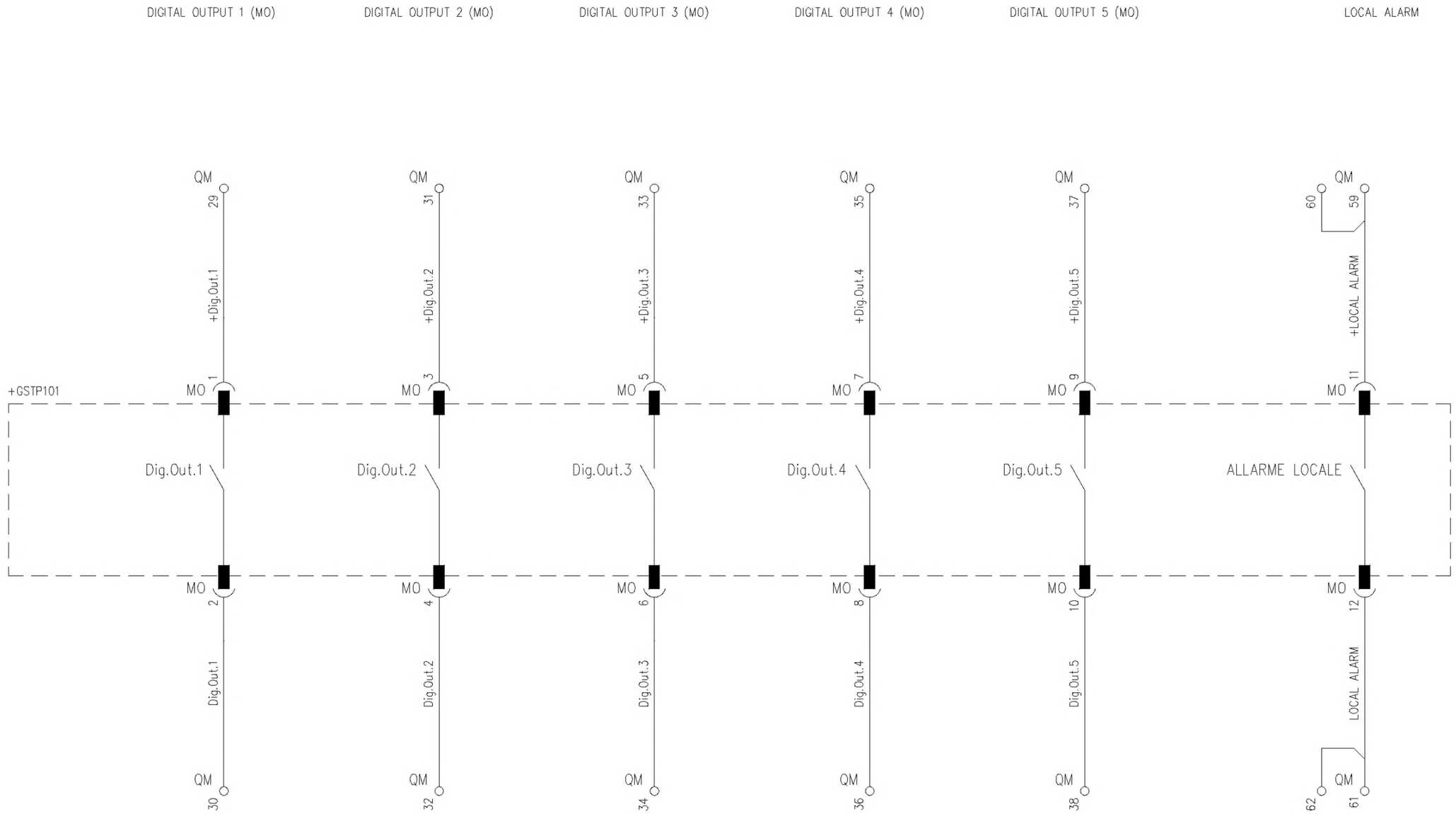
IDEA R. 2019



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				DRAWN		DIGITAL OUTPUT	
				VERIFIED			GSTX101.DWG — SHEET 8 OF 13
REV.	MODIFICATIONS	DATA	SIGN.	APPROVED			SERIAL CODE — N°DOC. GSTP101 — NEXT 9

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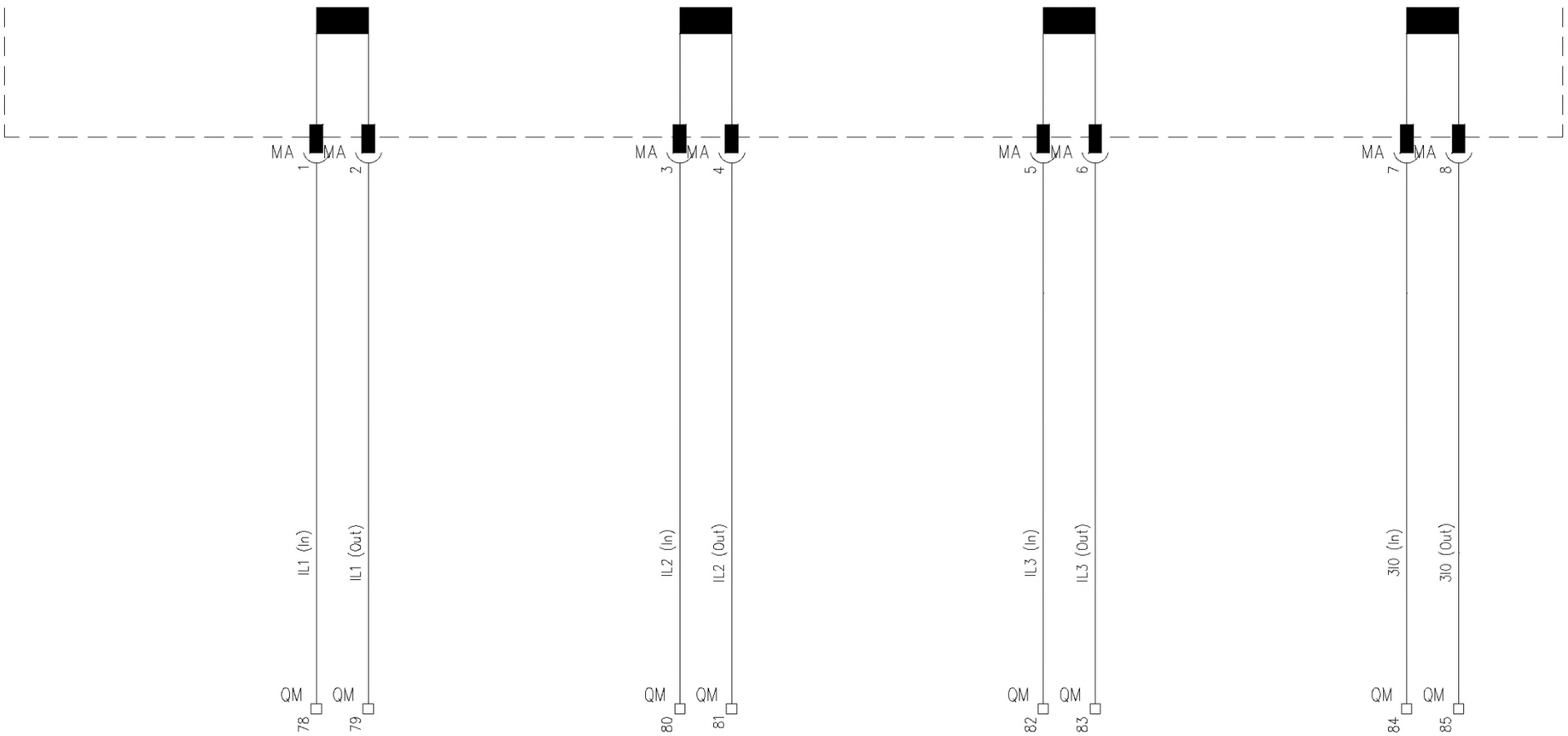
IDEA R. 2019

+GSTP101



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				VERIFIED	
REV.	MODIFICATIONS	DATA	SIGN.	APPROVED	

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
CURRENT CIRCIUT

ELECTRICAL DIAGRAMS STANDARD

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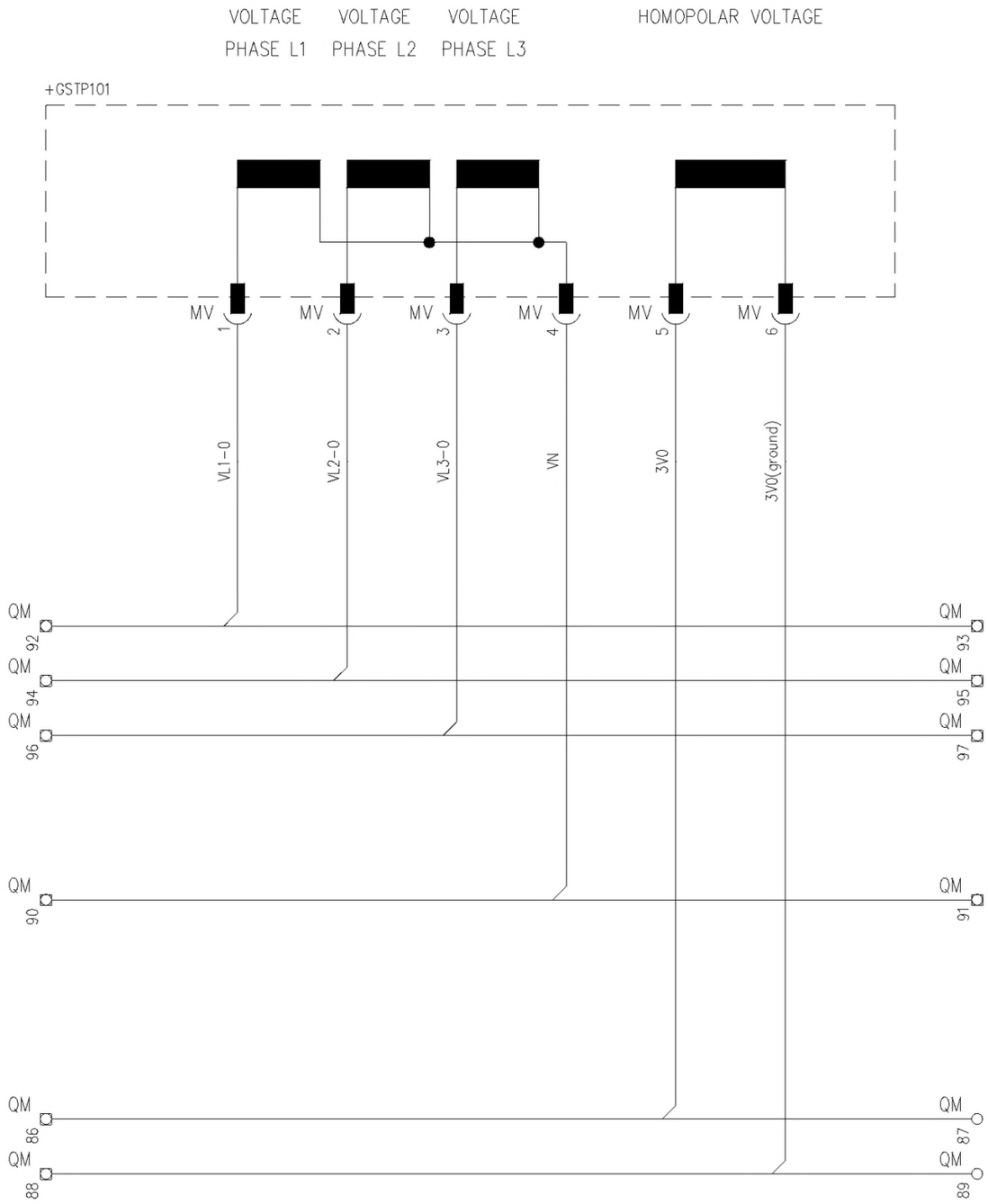
IDEA R. 2019



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				VERIFIED	
REV.	MODIFICATIONS	DATA	SIGN.	APPROVED	

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
VOLTAGE CIRCUIT

ELECTRICAL DIAGRAMS STANDARD

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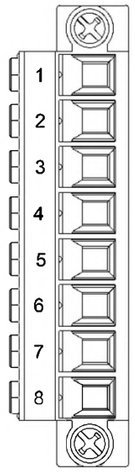
IDEA R. 2019

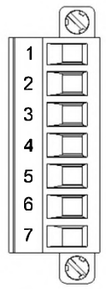
+GSTP101
MA
ANALOG INPUT – CURRENT

WIRE	SECTION	DESTINATION	PIN	JOINT	POSITION
IL1 (In)		QM: 78	1		9/B2
IL1 (Out)		QM: 79	2		9/B2
IL2 (In)		QM: 80	3		9/B3
IL2 (Out)		QM: 81	4		9/B3
IL3 (In)		QM: 82	5		9/B5
IL3 (Out)		QM: 83	6		9/B5
3I0 (In)		QM: 84	7		9/B6
3I0 (Out)		QM: 85	8		9/B6



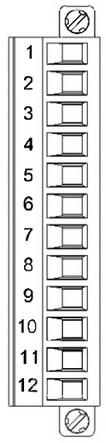
+GSTP101
MI
DIGITAL INPUTS

WIRE	SECTION	DESTINATION	PIN	JOINT	POSITION
Dig.In.1		QM: 21	1		7/B2
Dig.In.2		QM: 22	2		7/B3
+TC		43: 8	3		7/B4
Dig.In.4		QM: 23	4		7/B5
Dig.In.5		QM: 24	5		7/B6
Dig.In.6		QM: 25	6		7/B7
–VAUX		QM: 4	7		7/B8



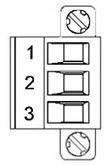
+GSTP101
MO
DIGITAL OUTPUTS

WIRE	SECTION	DESTINATION	PIN	JOINT	POSITION
+Dig.Out.1		QM: 29	1		8/C2
Dig.Out.1		QM: 30	2		8/D2
+Dig.Out.2		QM: 31	3		8/C3
Dig.Out.2		QM: 32	4		8/D3
+Dig.Out.3		QM: 33	5		8/C4
Dig.Out.3		QM: 34	6		8/D4
+Dig.Out.4		QM: 35	7		8/C5
Dig.Out.4		QM: 36	8		8/D5
+Dig.Out.5		QM: 37	9		8/C6
Dig.Out.5		QM: 38	10		8/D6
+LOCAL ALARM		QM: 59	11		8/C8
LOCAL ALARM		QM: 61	12		8/D8



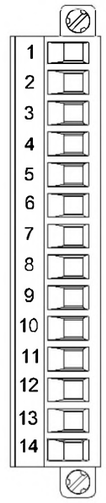
+GSTP101
MP
POWER SUPPLY

WIRE	SECTION	DESTINATION	PIN	JOINT	POSITION
GROUND			1		4/E5
+VAUX		QM: 3	2		4/D5
–VAUX		QM: 4	3		4/E5



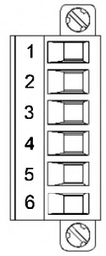
+GSTP101
MT
CIRCUIT BREAKER CONTROL

WIRE	SECTION	DESTINATION	PIN	JOINT	POSITION
+C		43: 6	1		6/B3
52MT–caX		QM: 10	2		6/B5
MT D.I.3		QM: 16	3		6/B6
MT D.I.4		QM: 17	4		6/B7
52MT–ccX		QM: 9	5		6/B4
–VAUX			6		6/B2
–VAUX		QM: 4	7		6/B1
+VAUX		QM: 3	8		5/B1
+VAUX			9		5/B2
52MT–CX		QM: 5	10		5/B4
52 80S(NO)			11		5/B6
52MT–AX 3RD		QM: 7	12		5/B7
52MT–AX 1ST		QM: 6	13		5/B3
52MT–AX 2ND			14		5/B5



+GSTP101
MV
ANALOG INPUT – VOLTAGE

WIRE	SECTION	DESTINATION	PIN	JOINT	POSITION
VL1–0		QM: 92	1		10/B5
VL2–0		QM: 94	2		10/B5
VL3–0		QM: 96	3		10/B5
VN		QM: 90	4		10/B6
3V0		QM: 86	5		10/B6
3V0(ground)		QM: 88	6		10/B7



REV.	MODIFICATIONS	DATA	SIGN.

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
GSTP101 – CONNECTORS

ELECTRICAL DIAGRAMS STANDARD

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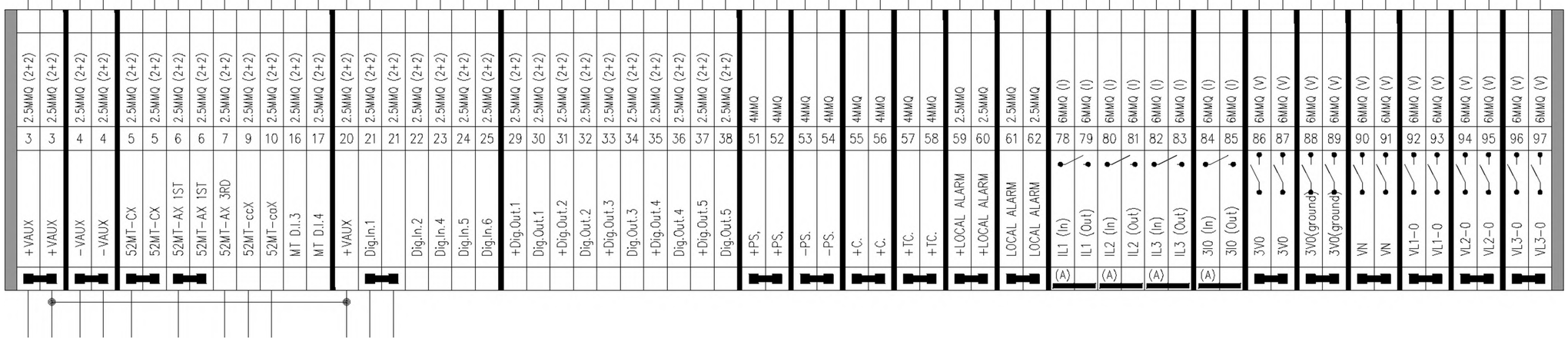
IDEA R. 2019

QM

+RACK
MULTIFUNCTIONAL FEEDER PROTECTION (MFP)



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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
TERMINAL BOARD

ELECTRICAL DIAGRAMS STANDARD

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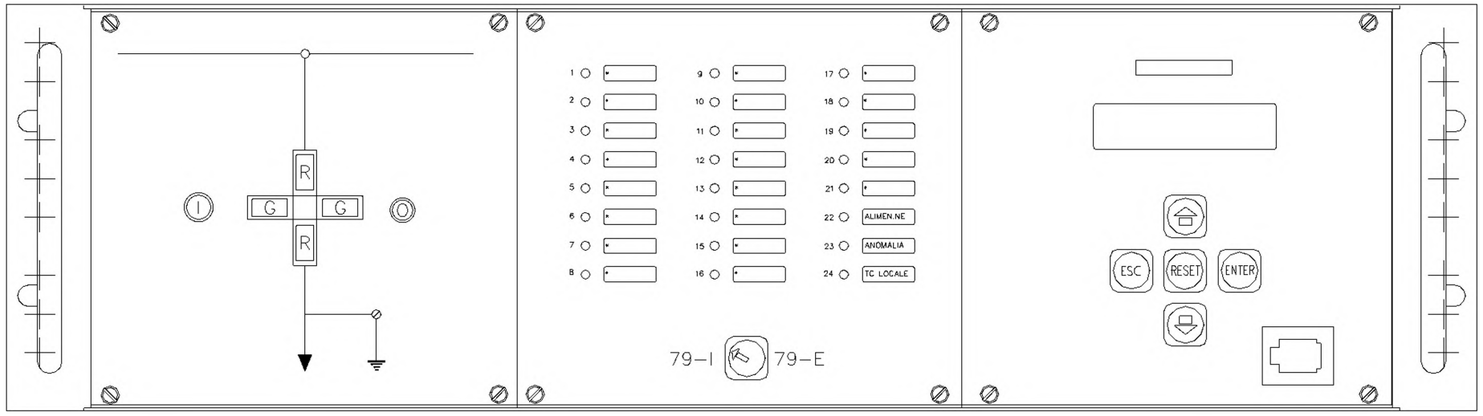

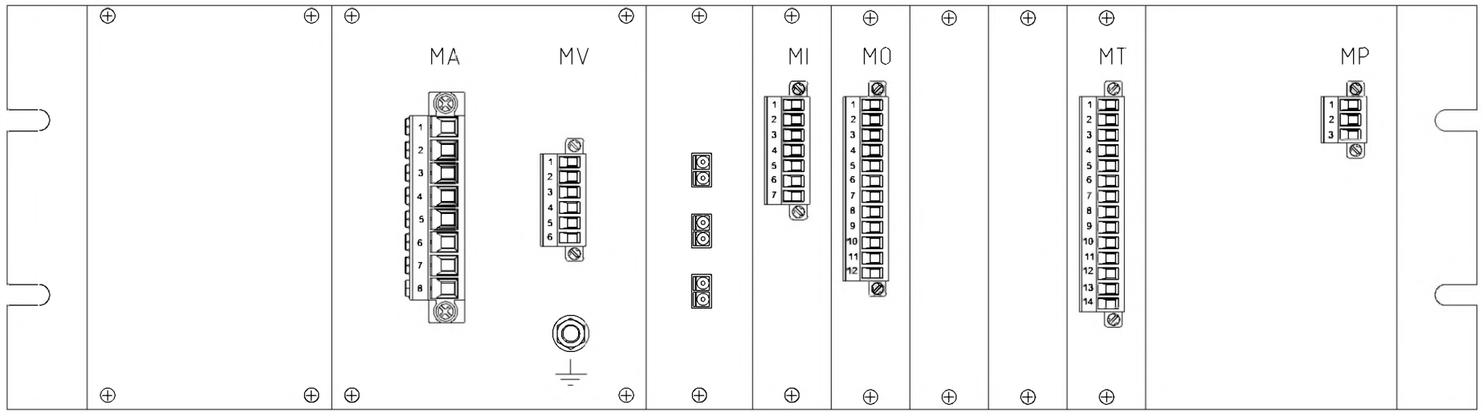

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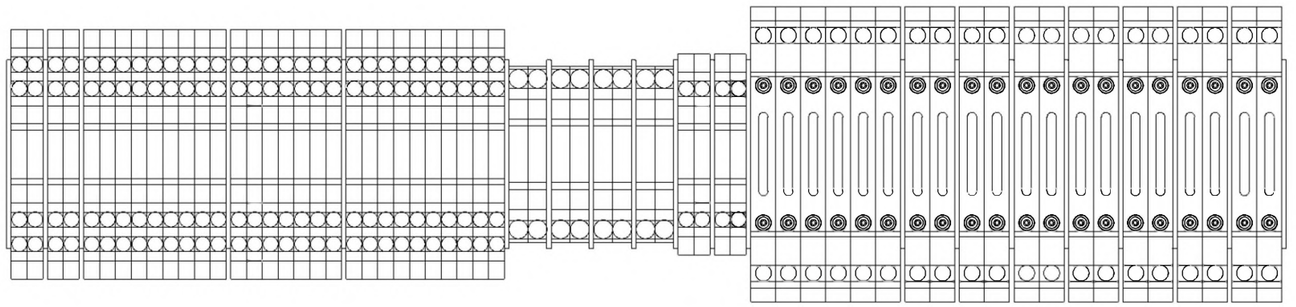

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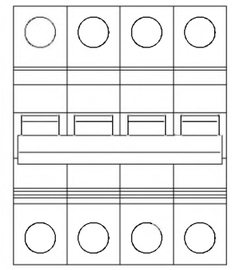

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MULTIFUNCTIONAL FEEDER PROTECTION (MFP)
LAYOUT (EXAMPLES)

ELECTRICAL DIAGRAMS STANDARD

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