


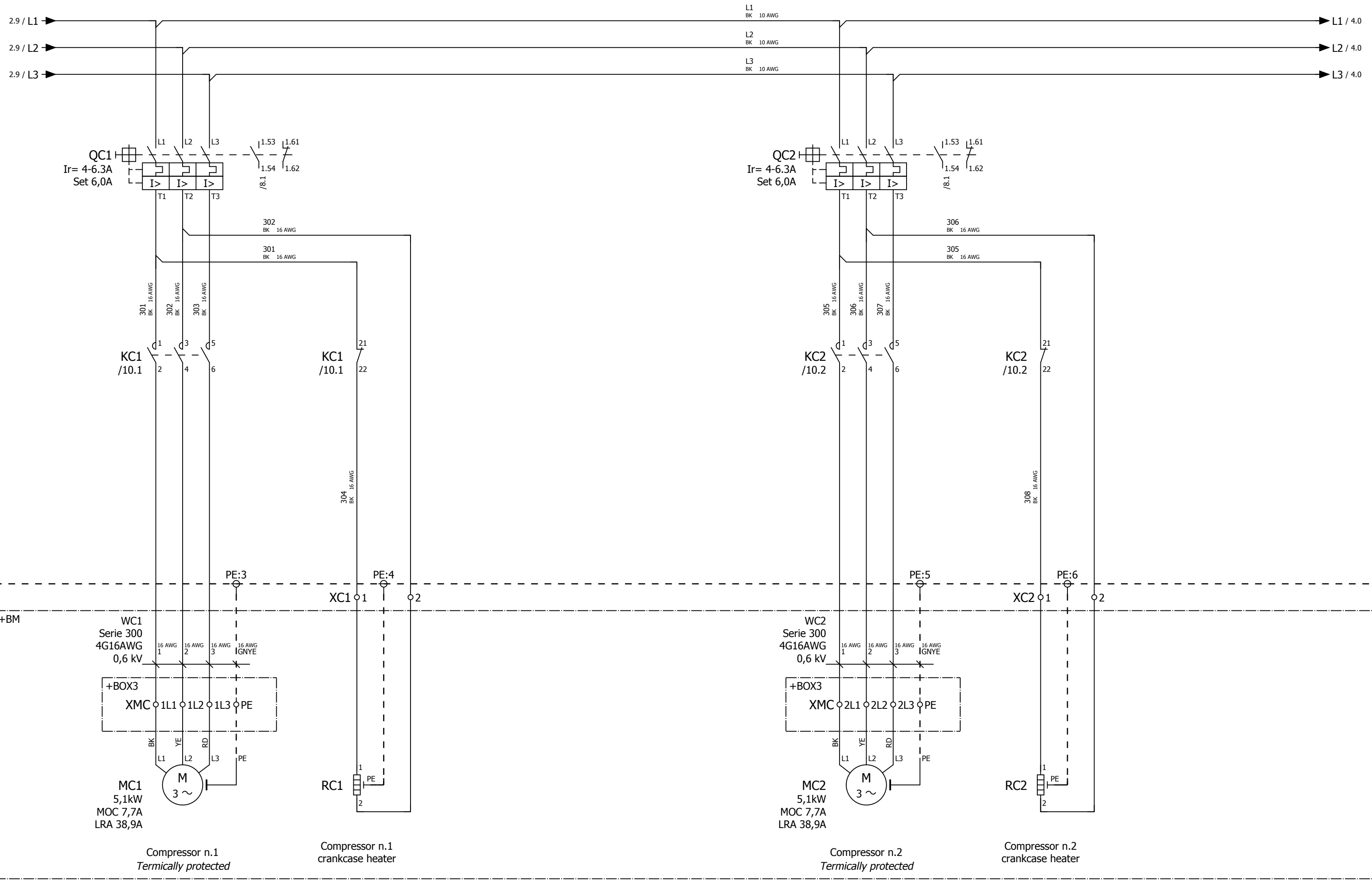
3ph/575V/60Hz+PE
 RCD Id=0,03A suggested

Minimum cable cross section
 4G10AWG

Maximum fuse protection
 aM25A

Auxiliary voltage Phase sequence relay

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			Author	A.Batistuta		Electrical diagram MWC 042 3/575V/60Hz		90MWC42QEP00		Of	20
			Verified	L.Fumis		Functional diagram		Notes		Scale	N.A.
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Author	A.Batistuta
Verified	L.Fumis
Approved	S.Mascellani



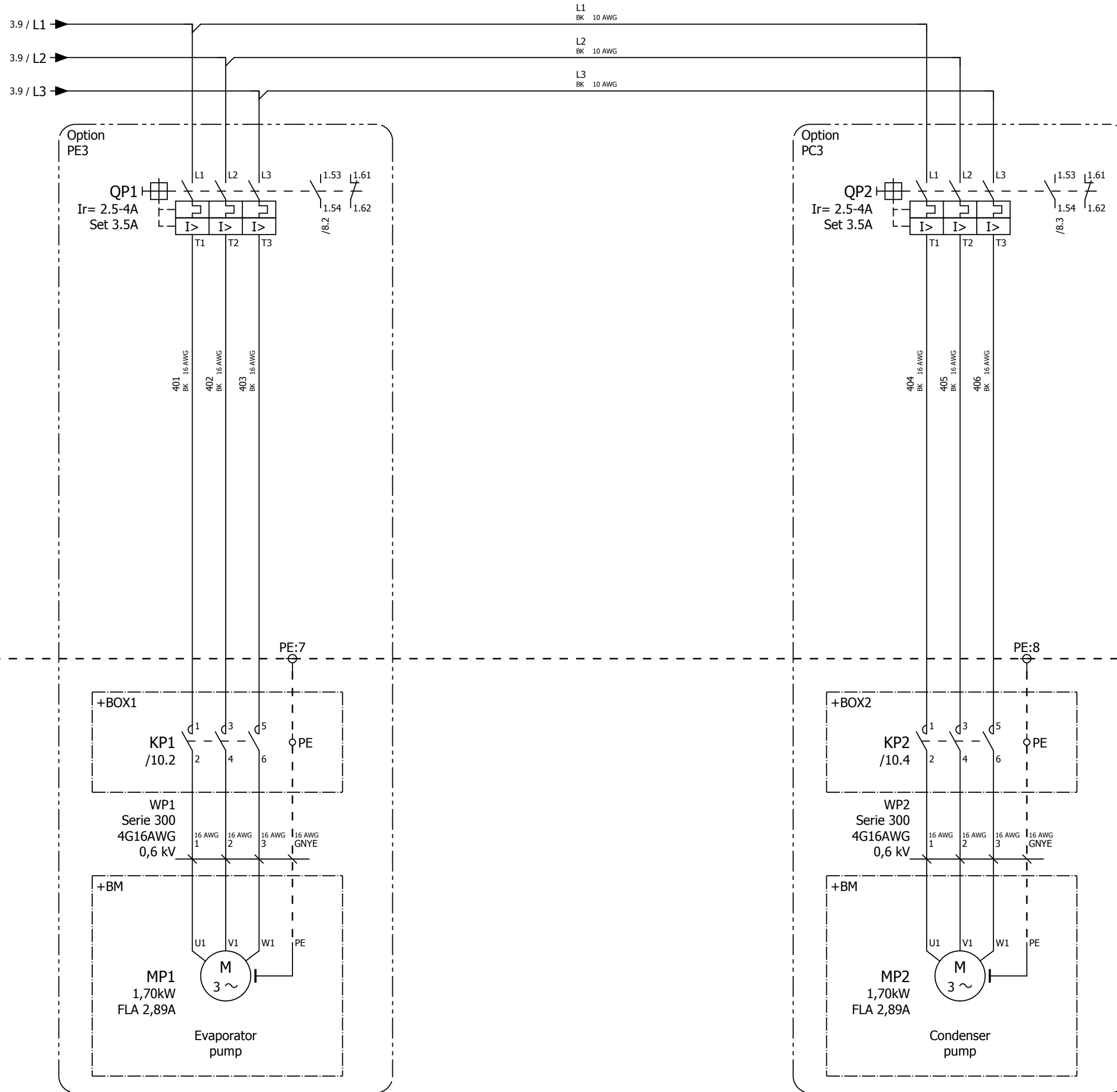
Title
Electrical diagram MWC 042 3/575V/60Hz
Functional diagram

Code
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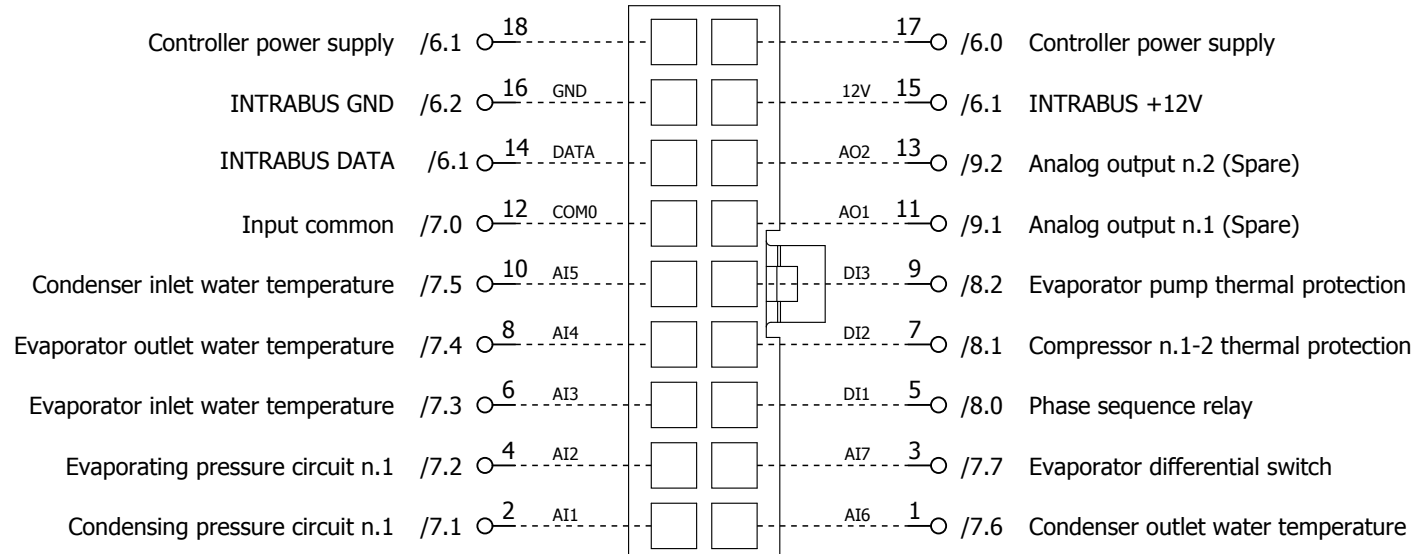


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 Functional diagram

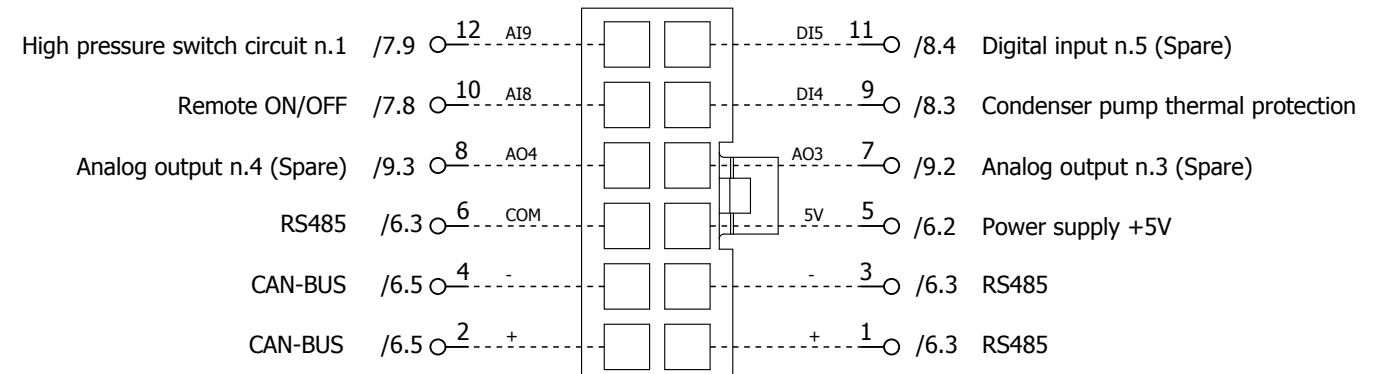
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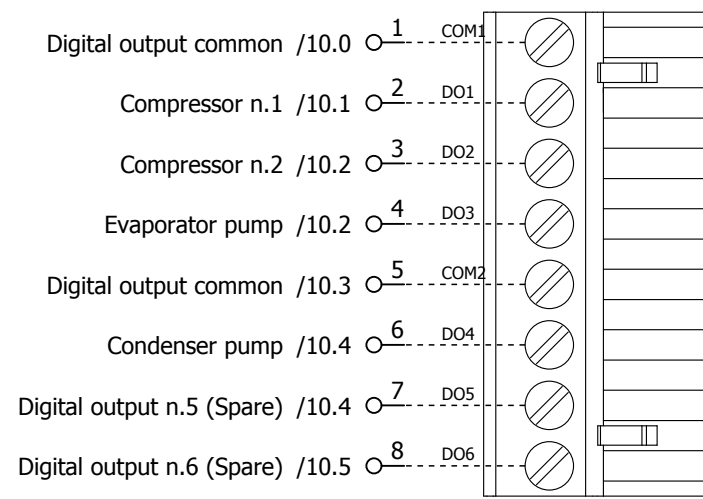
CON 1



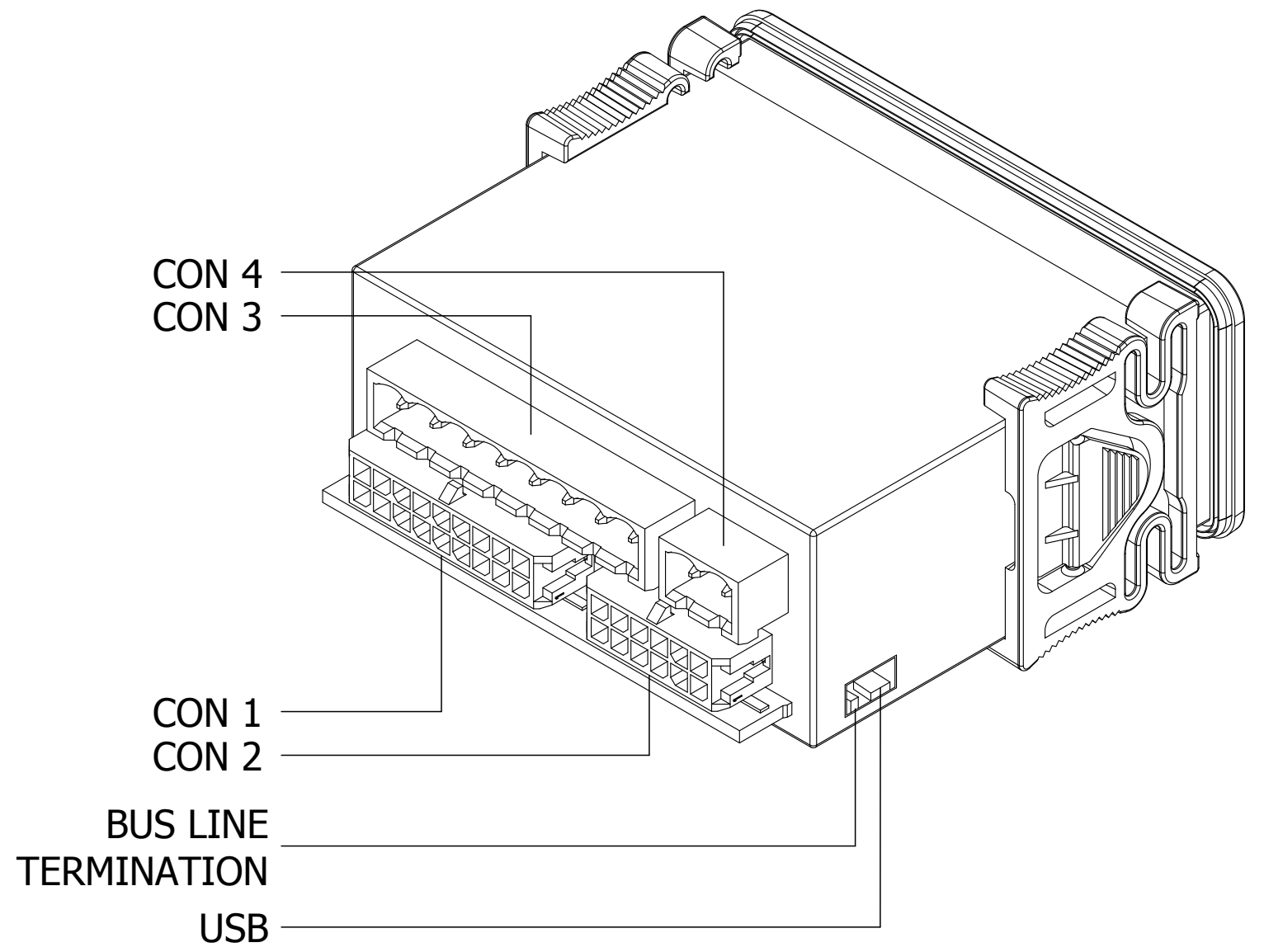
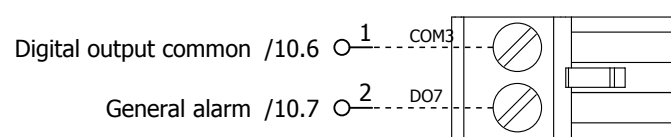
CON 2

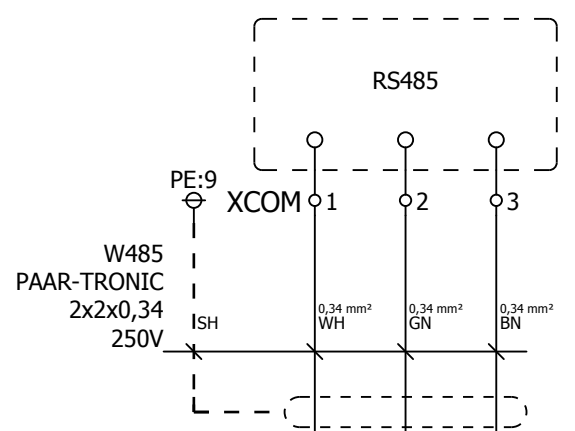


CON 3

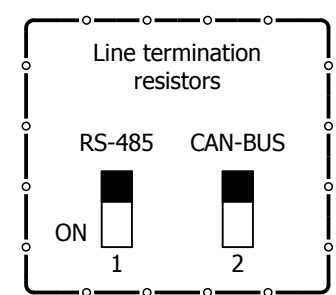


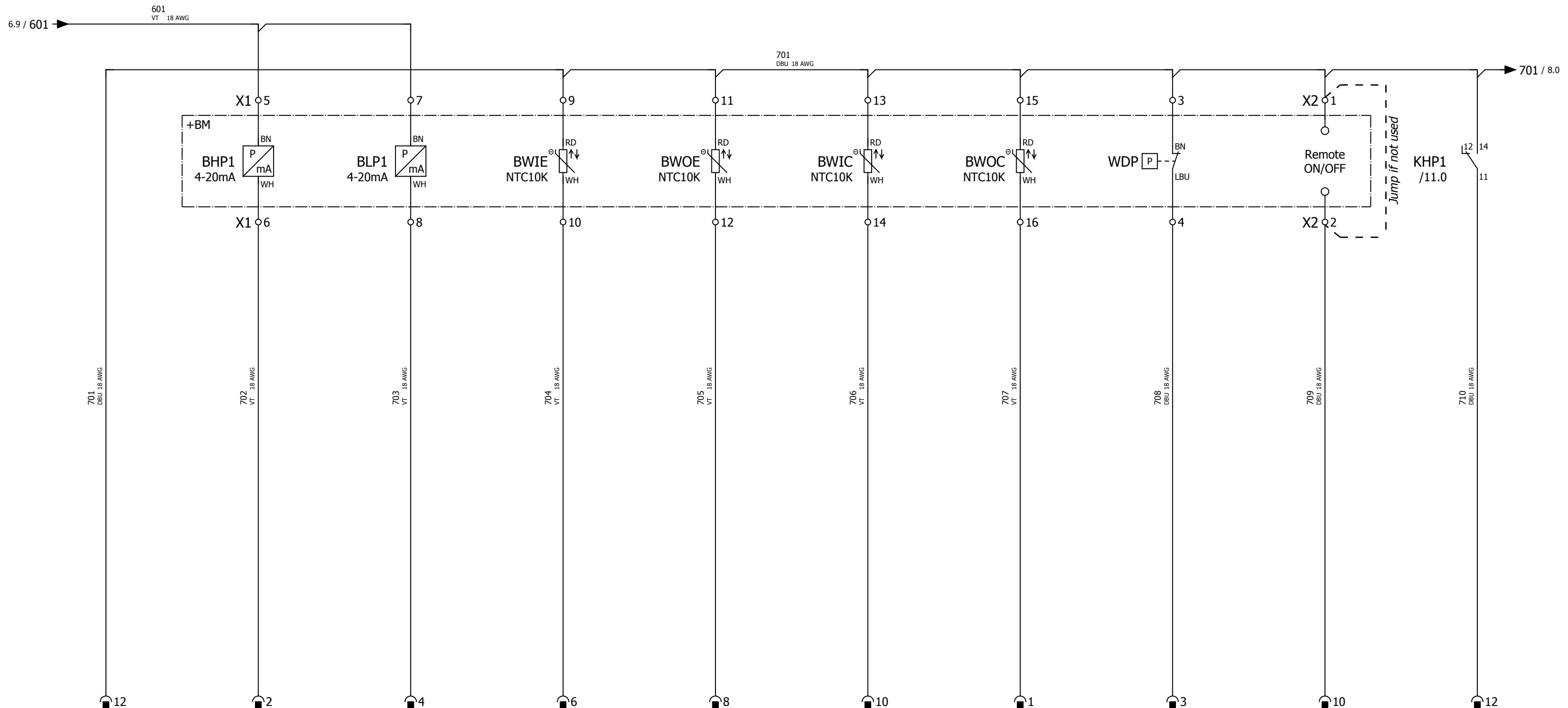
CON 4





17	18	14	15	16	5	6	3	1	4	2
	DATA	12V	GND		5V	COM	-	+	-	+
A1										
CON 1	CON 1				CON 2	CON 2			CON 2	
/5.3	/5.1				/5.3	/5.1			/5.1	
Controller power supply	INTRABUS DATA				Power supply +5V	RS485			CAN-BUS	





12	2	4	6	8	10	1	3	10	12
COM0	AI1	AI2	AI3	AI4	AI5	AI6	AI7	AI8	AI9
A1									
CON 1	CON 1	CON 1	CON 1	CON 1	CON 1	CON 1	CON 1	CON 2	CON 2
/5.1	/5.1	/5.1	/5.1	/5.1	/5.1	/5.3	/5.3	/5.1	/5.1
Input common	Condensing pressure circuit n.1	Evaporating pressure circuit n.1	Evaporator inlet water temperature	Evaporator outlet water temperature	Condenser inlet water temperature	Condenser outlet water temperature	Evaporator differential switch	Remote ON/OFF	High pressure switch circuit n.1

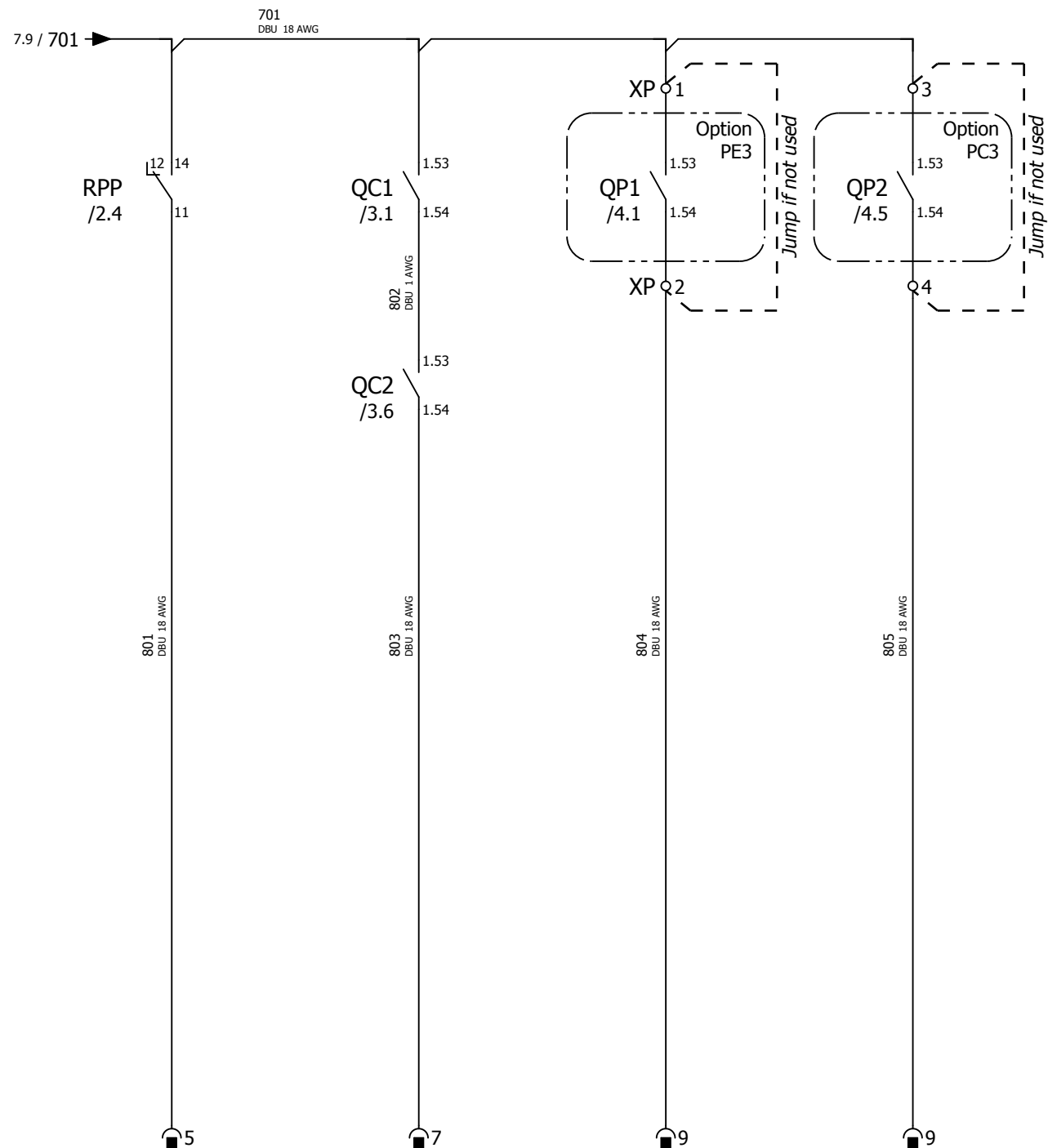
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Title
Electrical diagram MWC 042 3/575V/60Hz
Functional diagram

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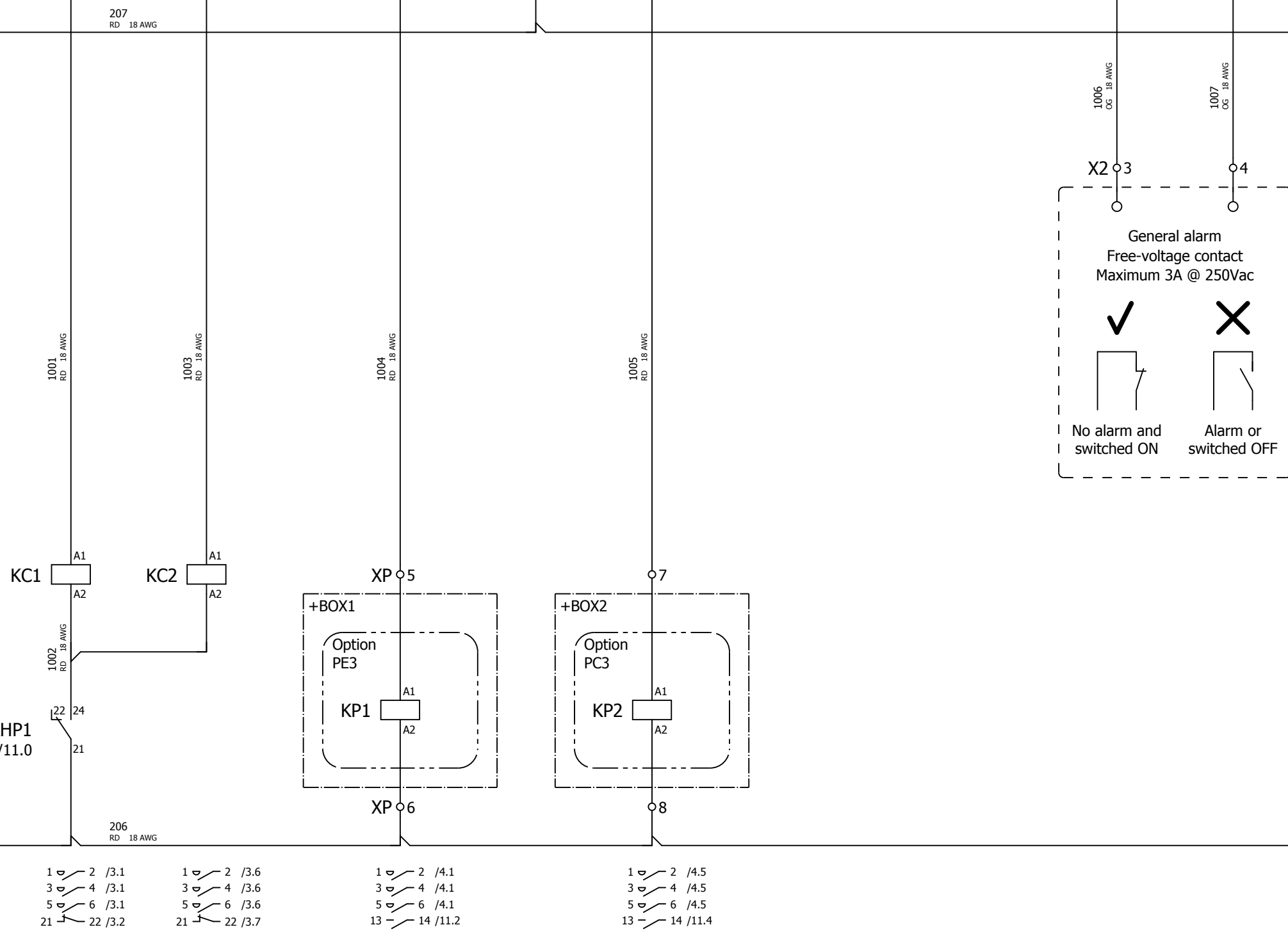
DI1	DI2	DI3	DI4	DI5
A1				
CON 1	CON 1	CON 1	CON 2	CON 2
/5.3	/5.3	/5.3	/5.3	/5.3
Phase sequence relay	Compressor n.1-2 thermal protection	Evaporator pump thermal protection	Condenser pump thermal protection	Digital input n.5 (Spare)

Analog output n.1 (Spare)	Analog output n.2 (Spare)	Analog output n.3 (Spare)	Analog output n.4 (Spare)
/5.3	/5.3	/5.3	/5.1
CON 1	CON 1	CON 2	CON 2
A1			
AO1	AO2	AO3	AO4
↙11	↙13	↙7	↙8

Compressor n.1		Compressor n.2		Evaporator pump		Condenser pump		Digital output n.5 (Spare)		Digital output n.6 (Spare)		General alarm	
/5.1		/5.1		/5.1		/5.1		/5.1		/5.1		/5.1	
CON 3		CON 3		CON 3		CON 3		CON 3		CON 3		CON 4	
A1													
COM1	DO1	DO2	DO3	COM2	DO4	DO5	DO6	COM3	DO7				

2.6 / 207 → 207 / 11.0

2.6 / 206 → 206 / 11.0

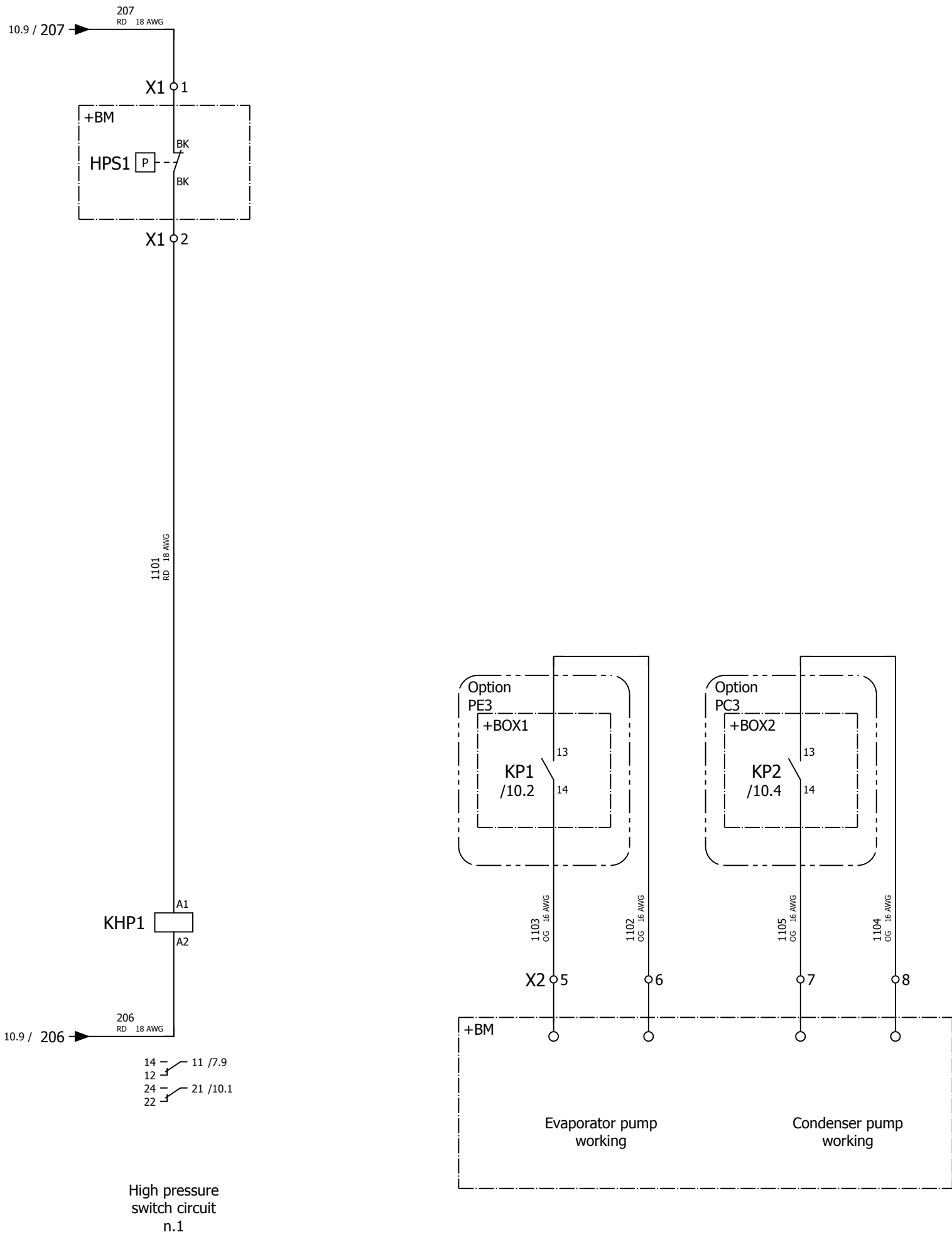


General alarm
Free-voltage contact
Maximum 3A @ 250Vac

✓
No alarm and switched ON

✗
Alarm or switched OFF

- | | | | |
|------------|------------|-------------|-------------|
| 1 2 /3.1 | 1 2 /3.6 | 1 2 /4.1 | 1 2 /4.5 |
| 3 4 /3.1 | 3 4 /3.6 | 3 4 /4.1 | 3 4 /4.5 |
| 5 6 /3.1 | 5 6 /3.6 | 5 6 /4.1 | 5 6 /4.5 |
| 21 22 /3.2 | 21 22 /3.7 | 13 14 /11.2 | 13 14 /11.4 |



High pressure switch circuit n.1

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Terminals diagram

Description	Terminal strip +QE-X1										Cross reference Sheet/Coloumn	
	Cable name	Cable type	Field side element	Pin	Terminal	Bridge	Control panel side element	Pin	Wire number	Wire color		Cable type
High pressure switch circuit n.1			+BM-HPS1	BK	1	.	-A1	5	207	Red		/11.0
High pressure switch circuit n.1			+BM-HPS1	BK	2	.	-KHP1	A1	1101	Red		/11.0
Evaporator differential switch			+BM-WDP	BN	3	┌	-X2		701	Dark blue		/7.7
Evaporator differential switch			+BM-WDP	LBU	4	└	-A1	3	708	Dark blue		/7.7
Condensing pressure circuit n.1			+BM-BHP1	BN	5	┌	-A1	15	601	Violet		/7.1
Condensing pressure circuit n.1			+BM-BHP1	WH	6	└	-A1	2	702	Violet		/7.1
Evaporating pressure circuit n.1			+BM-BLP1	BN	7	┌						/7.2
Evaporating pressure circuit n.1			+BM-BLP1	WH	8	└	-A1	4	703	Violet		/7.2
Evaporator inlet water temperature			+BM-BWIE	RD	9	┌	-A1	12	701	Dark blue		/7.3
Evaporator inlet water temperature			+BM-BWIE	WH	10	└	-A1	6	704	Violet		/7.3
Evaporator outlet water temperature			+BM-BWOE	RD	11	┌						/7.4
Evaporator outlet water temperature			+BM-BWOE	WH	12	└	-A1	8	705	Violet		/7.4
Condenser inlet water temperature			+BM-BWIC	RD	13	┌						/7.5
Condenser inlet water temperature			+BM-BWIC	WH	14	└	-A1	10	706	Violet		/7.5
Condenser outlet water temperature			+BM-BWOC	RD	15	┌						/7.6
Condenser outlet water temperature			+BM-BWOC	WH	16	└	-A1	1	707	Violet		/7.6

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Electrical diagram MWC 042 3/575V/60Hz
Terminals diagram

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Terminals diagram

Description	Terminal strip +QE-XC1										Cable name		Cross reference Sheet/Coloumn
	Cable name	Cable type	Field side element	Pin	Terminal	Bridge	Control panel side element	Pin	Wire number	Wire color	Cable type		
Compressor n.1 crankcase heater			+BM-RC1	1	1	,	-KC1	22	304	Black		/3.2	
Compressor n.1 crankcase heater			+BM-RC1	2	2	,	-QC1	T2	302	Black		/3.3	

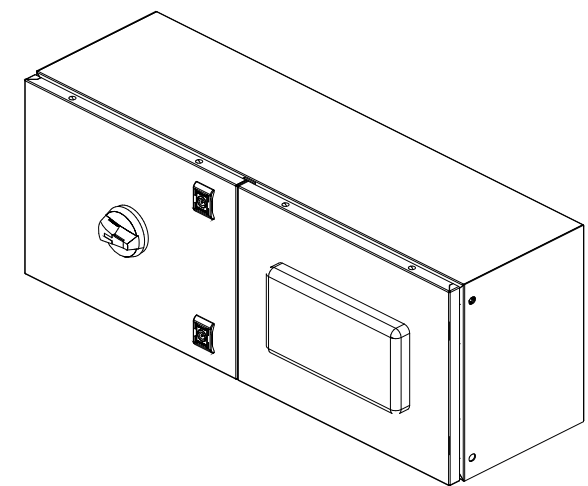
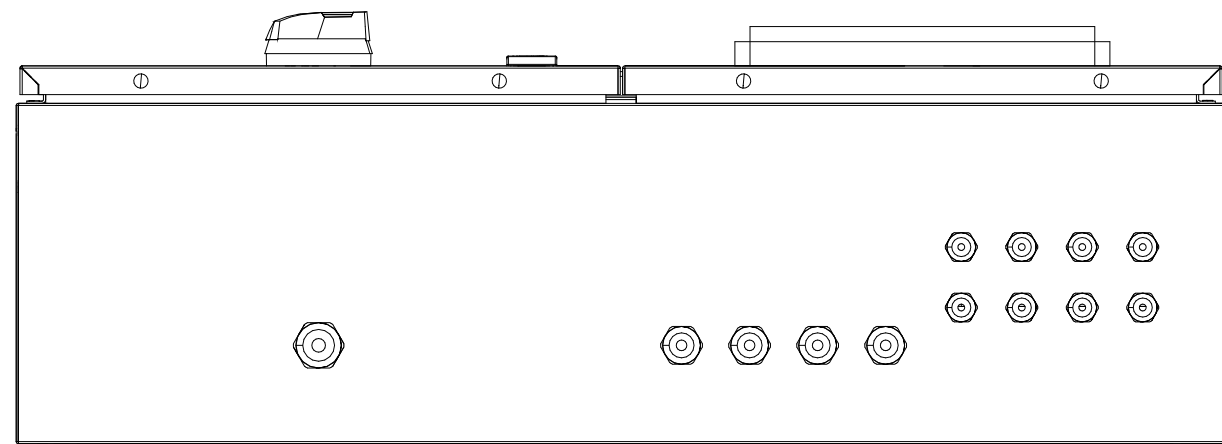
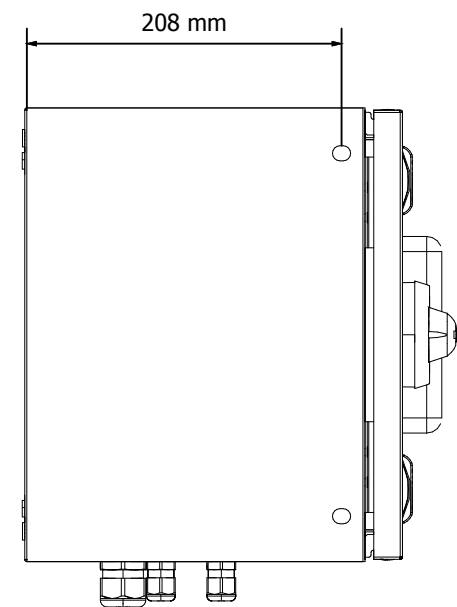
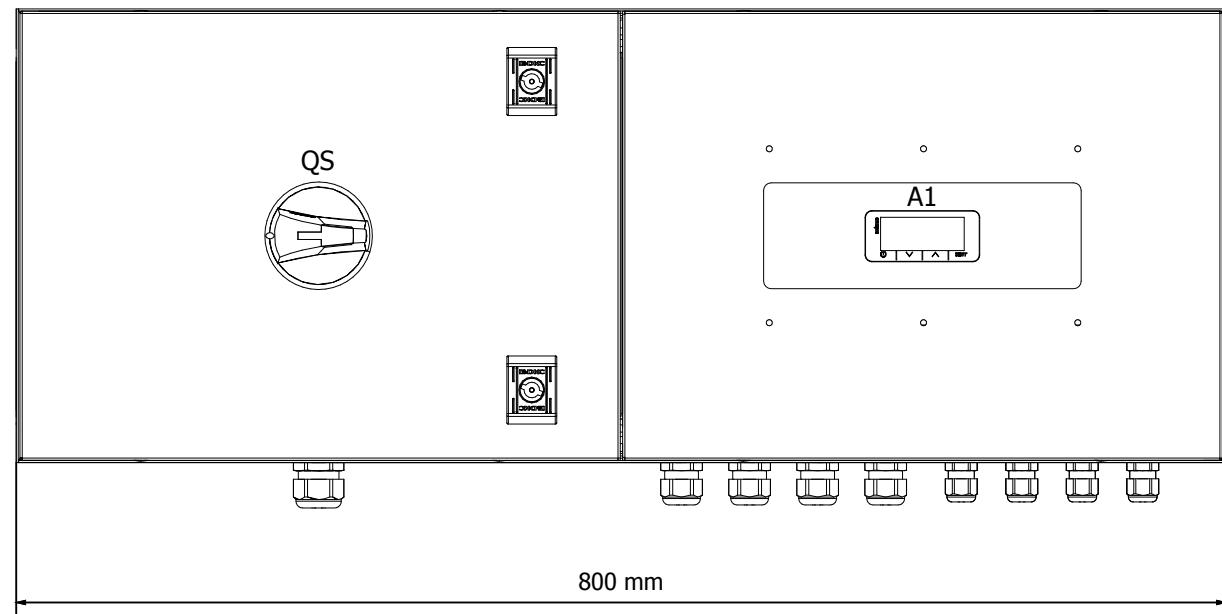
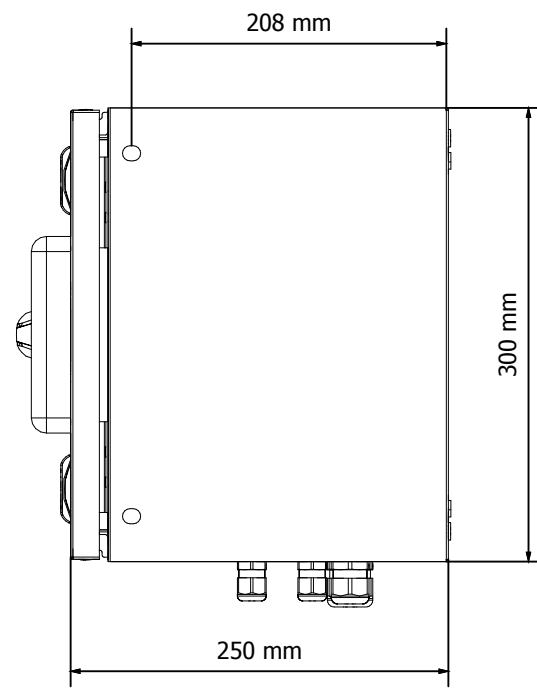
Terminals diagram

Description	Terminal strip +QE-XC2											Cable type	Cross reference Sheet/Coloumn
	Cable name	Cable type	Field side element	Pin	Terminal	Bridge	Control panel side element	Pin	Wire number	Wire color	Cable name		
Compressor n.2 crankcase heater			+BM-RC2	1	1	,	-KC2	22	308	Black		/3.7	
Compressor n.2 crankcase heater			+BM-RC2	2	2	,	-QC2	T2	306	Black		/3.7	



Terminals diagram

Description	Cable name Terminal strip +QE-XCOM							Cable name W485	Cable type PAAR-TRONIC	Cross reference Sheet/Coloumn
	Field side element	Pin	Terminal	Bridge	Control panel side element	Pin	Wire number			
RS485			1	,	-A1	6		White	WH	/6.3
RS485			2	,	-A1	3		Green	GN	/6.3
RS485			3	,	-A1	1		Brown	BN	/6.3



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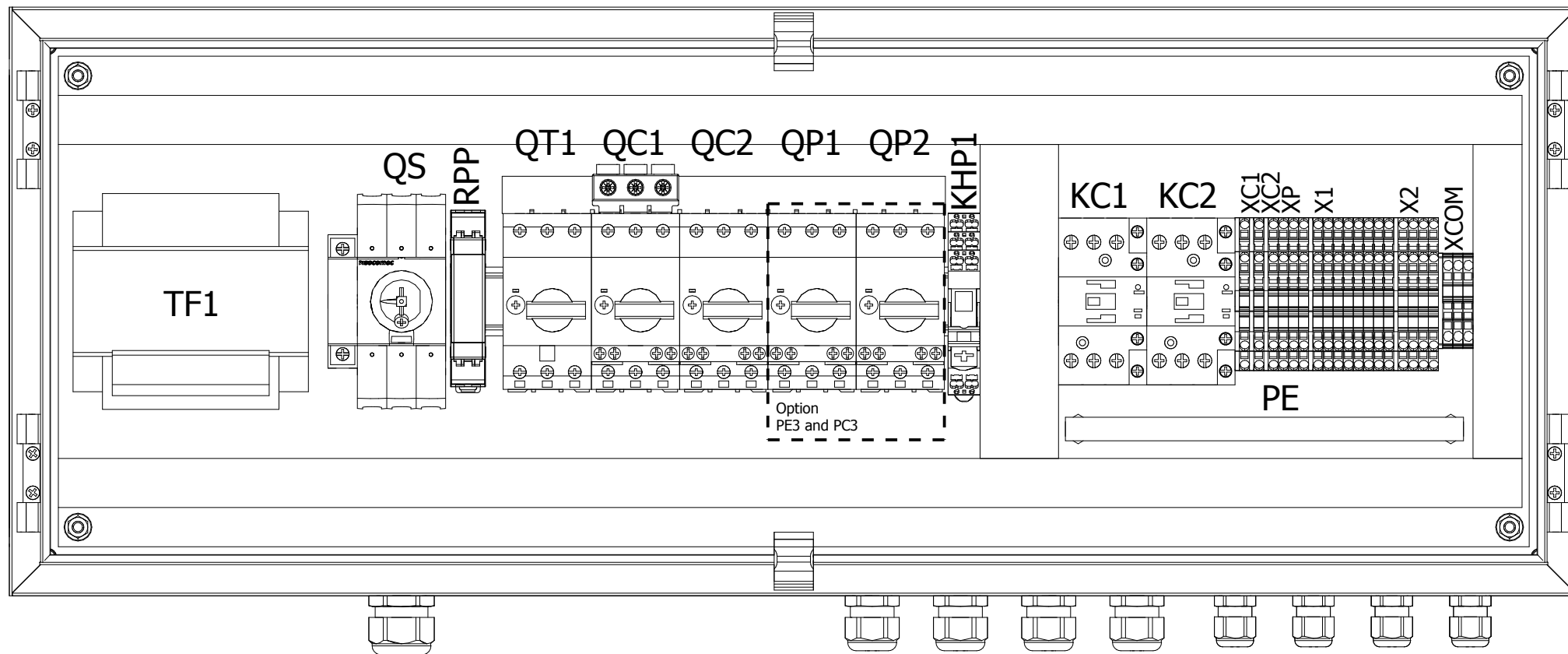


Title
 Electrical diagram MWC 042 3/575V/60Hz
 Electrical board layout

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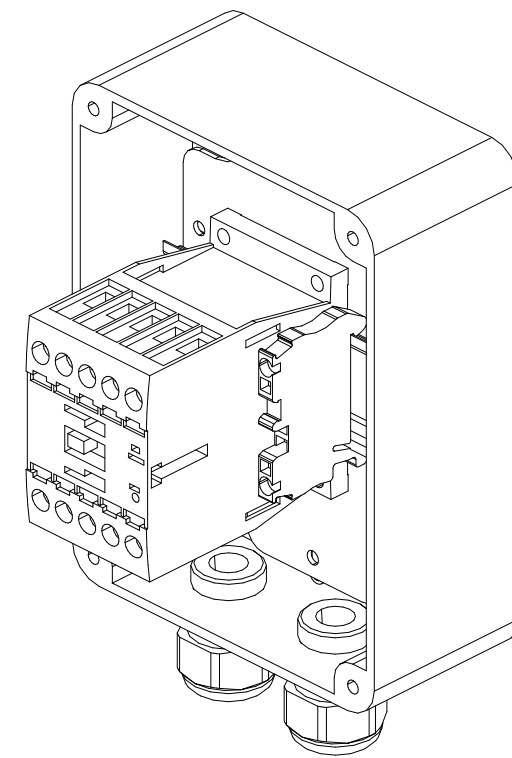
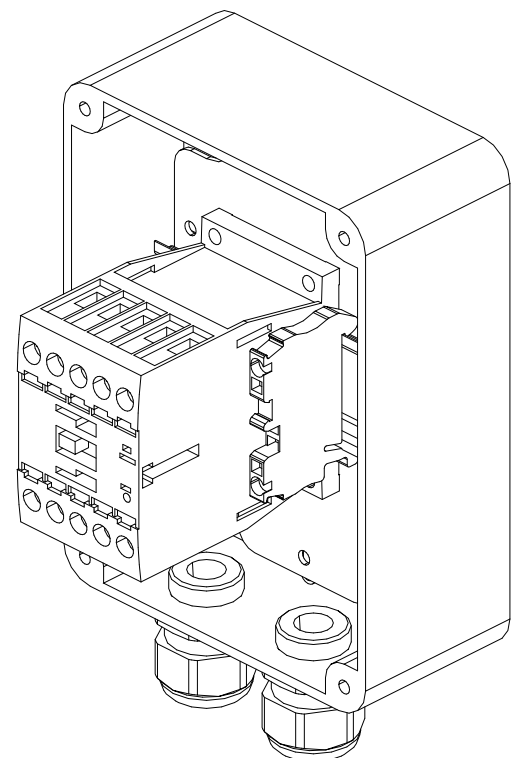
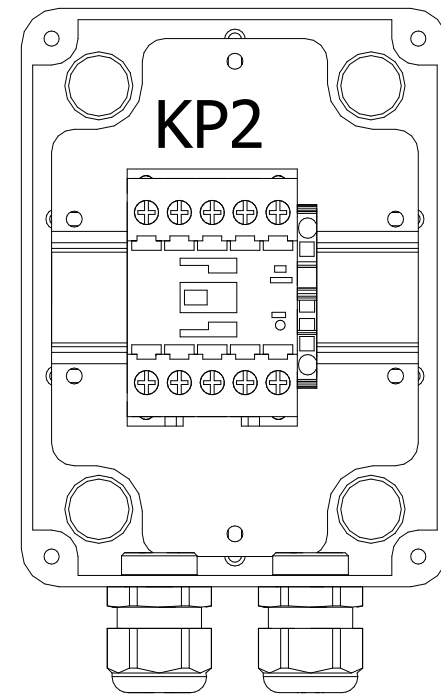
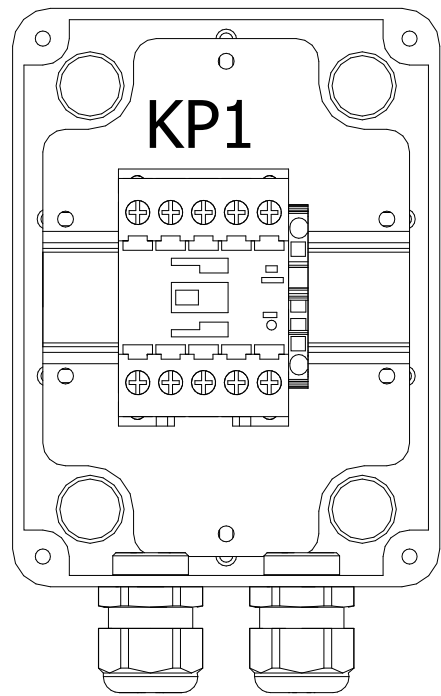
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BOX1

BOX2



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			Author	A.Batistuta
			Date	06/11/2017



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Electrical board layout

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