




CFH - CFV

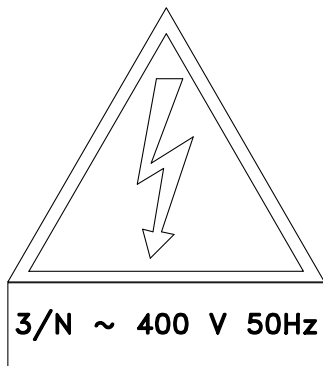
**Generatore di vapore
Steam boiler**

L.C.Z. -Parma-

				DATA	10/13			L.C.Z. srl	<i>L.C.Z. -Parma-</i> CFH1000/1250-12bar	QCFH24-3G	=	
				DISEGN.	LB			Parma ITALY				+
				VISTO	GP							FG. 1
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G			-	F.S. 2

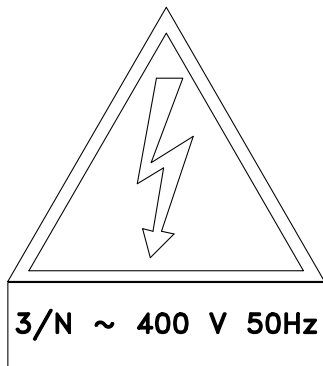
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3/N ~ 400 V 50Hz

English



3/N ~ 400 V 50Hz

Italiano

PROGETTO
BANCA DIS.
TIPICO

PROGETTO
BANCA DIS.
TIPICO


REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=	FG. 2
										Dati progetto Design data		+	F.S. 3

DESIGN	L.C.Z.	WORKING VOLTAGE	3/N ~ 400V 50Hz	NORMS	-	PROTECTIONS			
SERIAL	Steam boiler	CONTROL VOLTAGE	1/N~24V 50Hz						
JOB	-	SIGNALS VOLTAGE							
CLIENT	-	MAX CURRENT	19A	STRUCTURAL FEATURE	-				
THERMAL ROOM		MAX POWER	4.5KW	MAX CURRENT	icc KA				
		BOARD NUMBER	-	REMARKS	Protect the board in accordance with local norms				
		DATA	FIRME	CFH1000/1250-12bar L.C.Z. -Parma-					
		DIS.	10/13					LB	
		VISTO	10/13					LB	
		APPROV.	10/13	LB	QCFH24-3G				
									FOGLIO
00	First edition	10/13	LB					T.F.	22
REV.	MODIFICA	DATA	FIRME	SOST. DA	SOST. IL	FILE : QCFH24-3G			

PROGETTAZIONE	L.C.Z.	TENSIONE ESERCIZIO	3/N ~ 400V 50Hz	NORME	-	PROTEZIONI			
SERIE	Generatore di vapore	TENSIONE COMANDI	1/N~ 24V 50Hz						
COMMESSA	-	TENSIONE SEGNALI							
COMMITTENTE	-	CORRENTE MASSIMA	19A	CARATTERISTICHE	-	CARPENTERIA			
DESTINATARIO		POTENZA MASSIMA	4.5KW	CORRENTE	icc	MASSIMA KA			
		QUADRO NUMERO	-	NOTE	Proteggere a monte come prescritto da CEI 64/8 e da leggi vigenti nel paese di installazione				
		DATA	FIRME	CFH1000/1250-12bar L.C.Z. -Parma-					
		DIS.	10/13					LB	
		VISTO	10/13					LB	
		APPROV.	10/13	LB	QCFH24-3G				
									FOGLIO
00	Prima edizione	10/13	LB					T.F.	22
REV.	MODIFICA	DATA	FIRME	SOST. DA	SOST. IL	FILE : QCFH24-3G			



Fg/Sh	Descrizione	Description	N.Rev.	Modifica/Modify	Data/Date
1	PRESENTAZIONE	PRESENTATION	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
2	DATI PROGETTO	DESIG DATA	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
3	LISTA FOGLI	SHEETS LIST	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
4	RISERVA	RESERVED	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
5	POTENZA	POWER	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
6	POTENZA	POWER	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
7	POTENZA POMPA	POWER PUMP	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
8	ALIMENTAZIONE AUSILIARI	AUXILIARIES POWER SUPPLY	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
9	POTENZA BRUCIATORE	POWER BURNER	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
10	CONTROLLO PRESSIONE	PRESSURE CONTROLLER	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
11	CONTROLLO TEMPERATURA FUMI	FLUE TEMPERATURE CONTROLLER	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
12	CONTROLLO TEMPERATURA SERPENTINO	BOILER TEMPERATURE CONTROL	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
13	SICUREZZE	SAFETIES	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
14	SICUREZZE	SAFETIES	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
15	SICUREZZE BRUCIATORE	SAFETIES BURNER	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
16	COMANDI BRUCIATORE	BURNER CONTROL	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
17	CONTROLLO POMPA	PUMP CONTROL	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
18	INGRESSI MODULO LOGICO	INPUT PLC	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
19	INGRESSI MODULO LOGICO	INPUT PLC	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
20	SEGNALAZIONI	SIGNALING	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
21	SEGNALAZIONI	SIGNALING	00 -	PRIMA EDIZIONE FIRST EDITION	10/13
22	RISERVA	RESERVED	00 -	PRIMA EDIZIONE FIRST EDITION	10/13

				DATA	10/13		L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=				
				DISEGN.	LB								+	
				VISTO	GP									
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G			-	F.S. 4		

0 1 2 3 4 5 6 7 8 9

A

A

B

B

C

C

D


D

E

E

F

F

				DATA	10/13		L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=				
				DISEGN.	LB								+	
				VISTO	GP									
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G			FG. 4 F.S. 5			

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

A

A

B

B

C

C

D

D


E

E

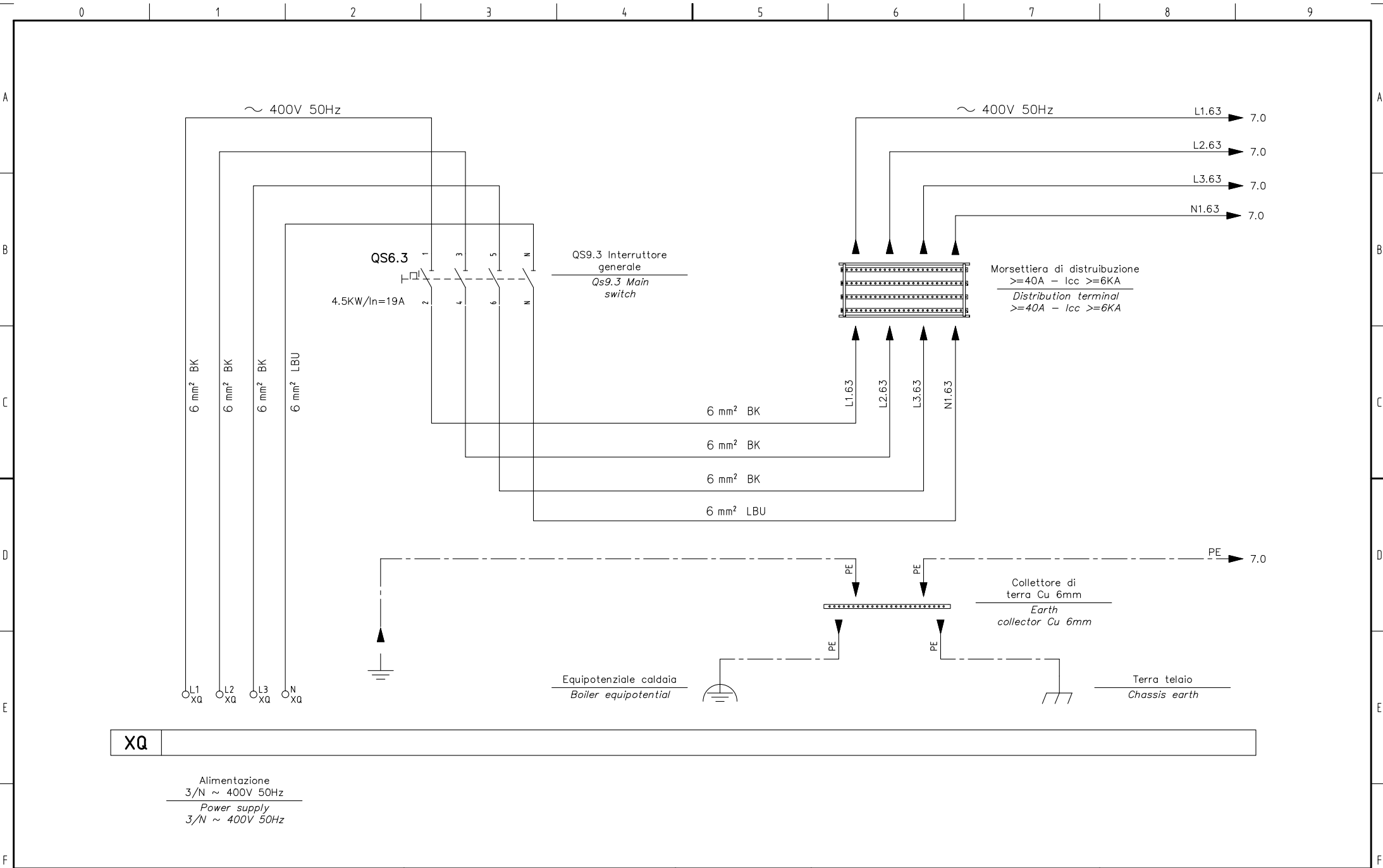
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F

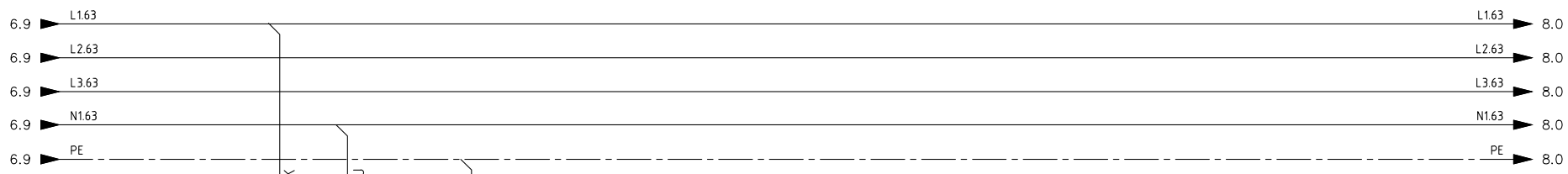
Potenza

				DATA	10/13		L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=				
				DISEGN.	LB								+	
				VISTO	GP									
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Potenza Power	-	FG. 5 F.S. 6			

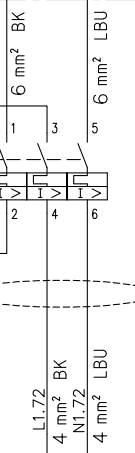
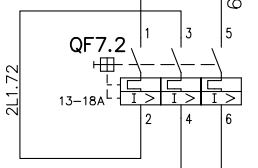
0 1 2 3 4 5 6 7 8 9



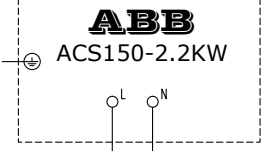
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				DISEGN.	LB			Parma ITALY	CFH1000/1250-12bar			+	
				VISTO	GP				Ingresso potenza			FG. 6	
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Power supply		-	F.S. 7	
0		1				2	3	4	5	6	7	8	9



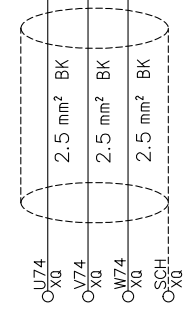
**TWISTARE I
FILI**



IN7.4




2.5 mm² GNYE

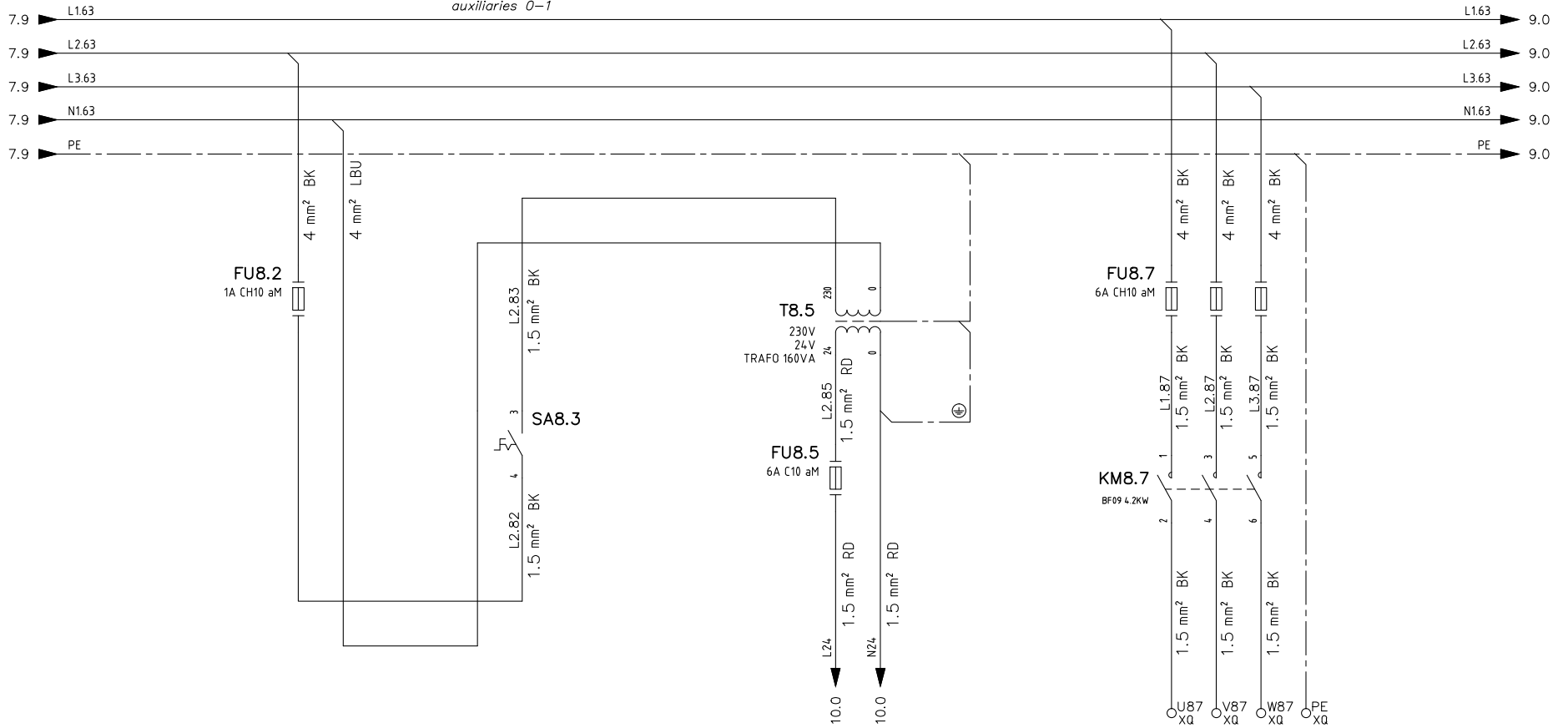


XQ

Potenza pompa
2.2KW 3~230V 50Hz
Pump power supply
2.2KW 3~230V 50Hz

				DATA	10/13			L.C.Z. srl	L.C.Z. -Parma-	QCFH24-3G	=	
				DISEGN.	LB			Parma ITALY	CFH1000/1250-12bar			+
				VISTO	GP				Potenza pompa			FG. 7
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Power pump		-	F.S. 8

SA8.3 Abilita
ausiliari 0-1
SA8.3 Board
auxiliaries 0-1



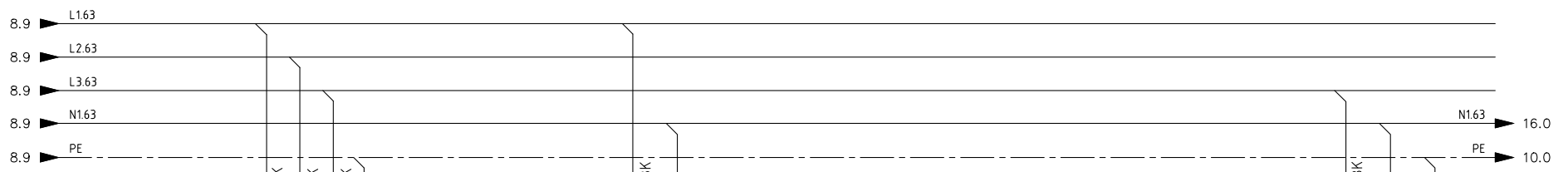
XQ

Alimentazione
ausiliari 24V AC
Board auxiliaries
power supply 24V AC

Alimentazione
pompa anticavitatione
Uncavitation pump
supply

REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar Alimentazione ausiliari Auxiliaries power supply	QCFH24-3G	=	FG. 8
												+	F.S. 9





FU9.2
10A CH10 aM

FU9.4
4A CH10 aM

FU9.8
1A CH10 aM

KM9.4
BF09 / 4.2KW

EV9.8

XQ

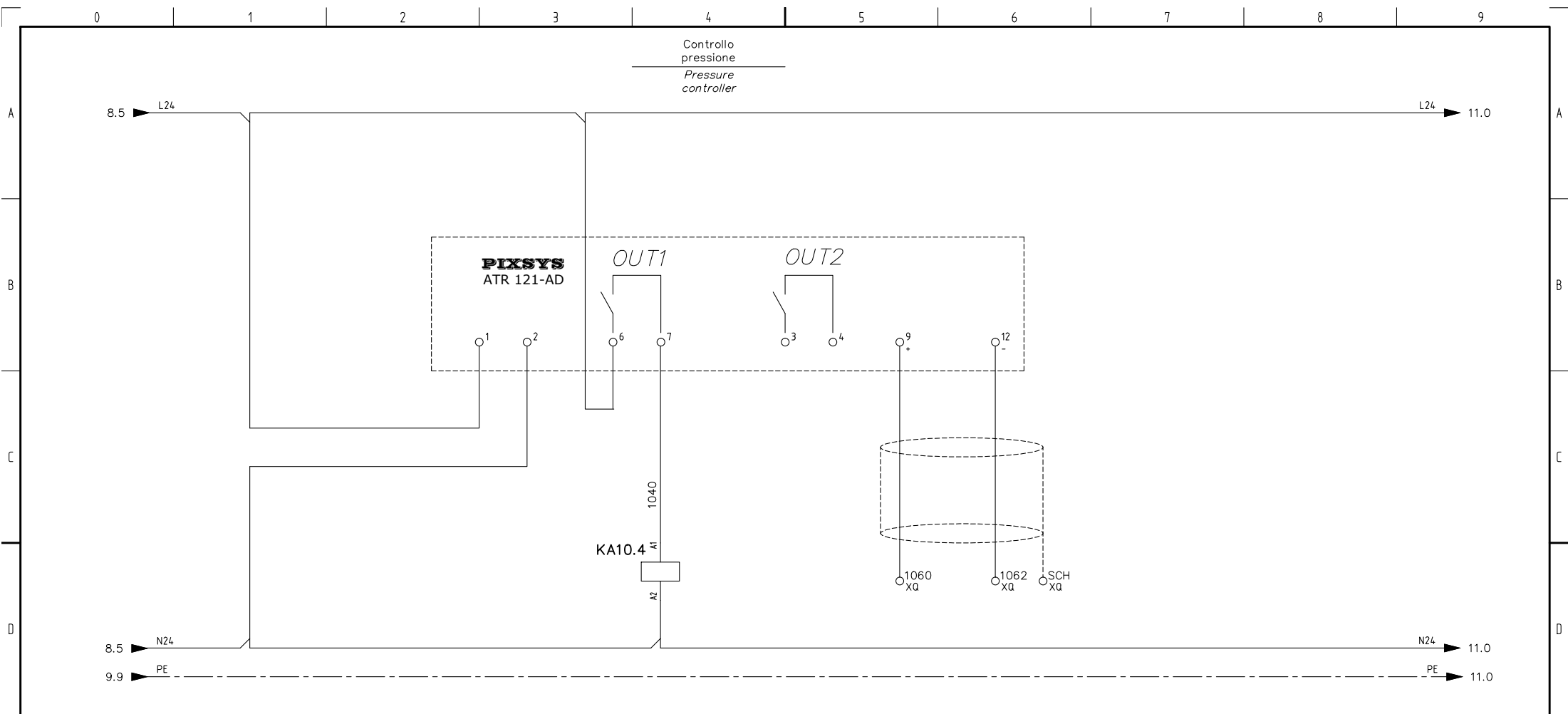
Alimentazione ventilatore
bruciatore 3~400V 50Hz MAX 1.5KW
*Burner fan power
supply 3~400V 50Hz MAX 1.5KW*

Alimentazione ausiliari
bruciatore 1/N~230V 50Hz MAX 0.5KW
*Burner auxiliaries power
supply 1/N~230V 50Hz MAX 0.5KW*

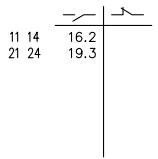
EV9.8 Ventilatore
quadro
*EV9.8 Board
fan*

REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=	FG. 9
										Potenza bruciatore <i>Burner power supply</i>		+	F.S. 10






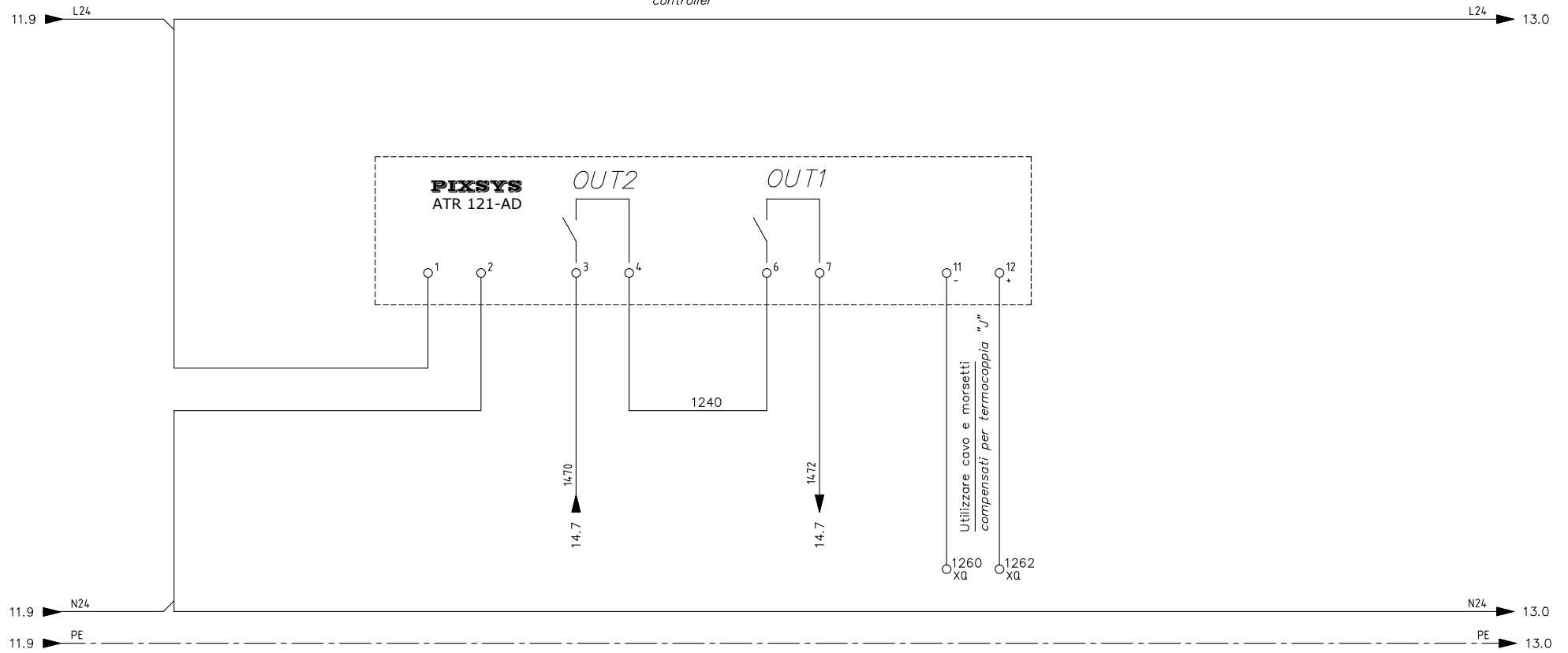
XQ



Trasmettitore
di pressione 4-20mA
Pressure
transmitter 4-20mA

				DATA	10/13			L.C.Z. srl	L.C.Z. -Parma-	QCFH24-3G	=	
				DISEGN.	LB			Parma ITALY	CFH1000/1250-12bar			+
				VISTO	GP				Controllo pressione			FG. 10
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Pressure controller		-	F.S. 11

Controllo massima
temperatura serpentino
*Coil temperature
controller*



XQ

Termocoppia
tipo J
*Coil
thermocouple J*

REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=	
				VISTO	GP					Controllo temperatura serpentino <i>Boiler temperature controller</i>		-	FG. 12
				DATA	10/13								F.S. 13



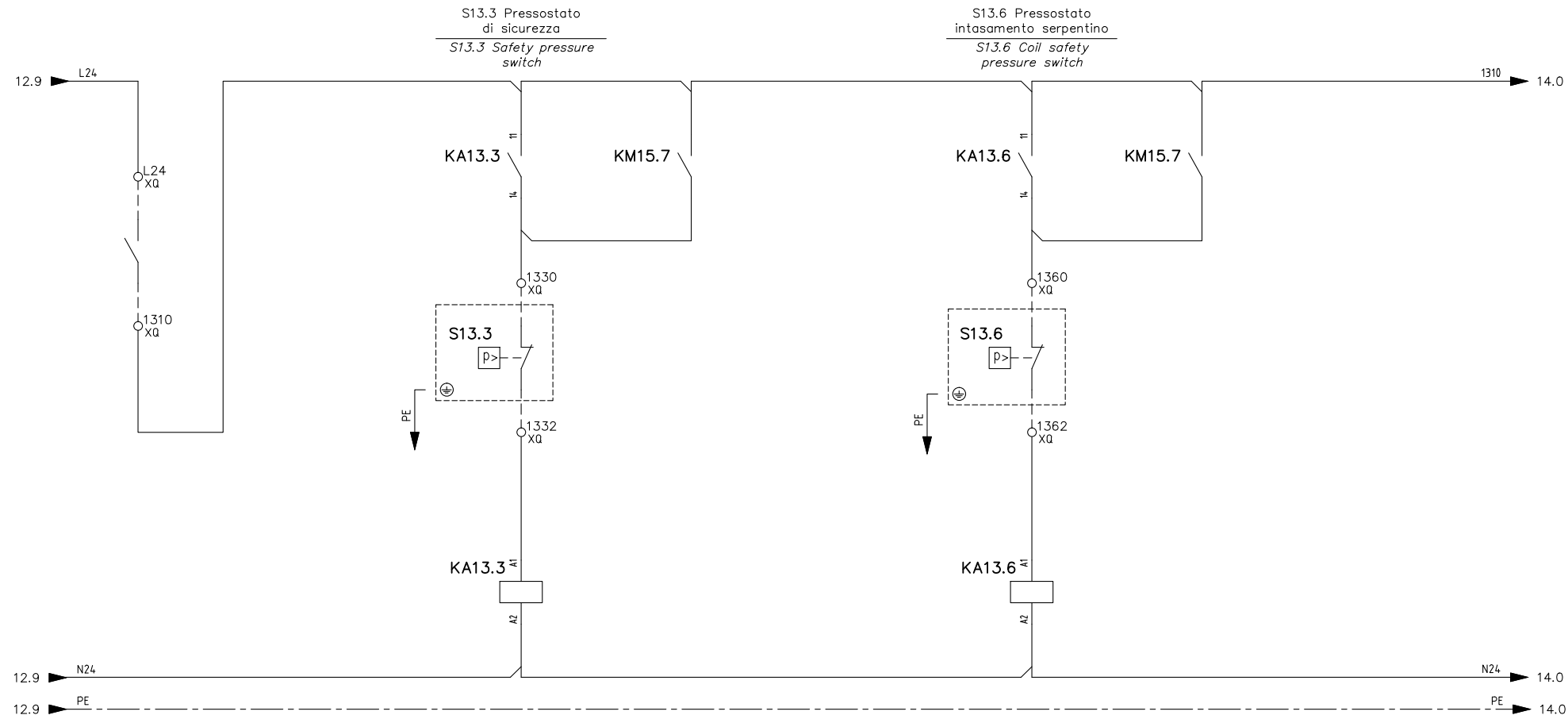
0 1 2 3 4 5 6 7 8 9

A
B
C
D
E
F

A
B
C
D
E
F

0 1 2 3 4 5 6 7 8 9

A
B
C
D
E
F



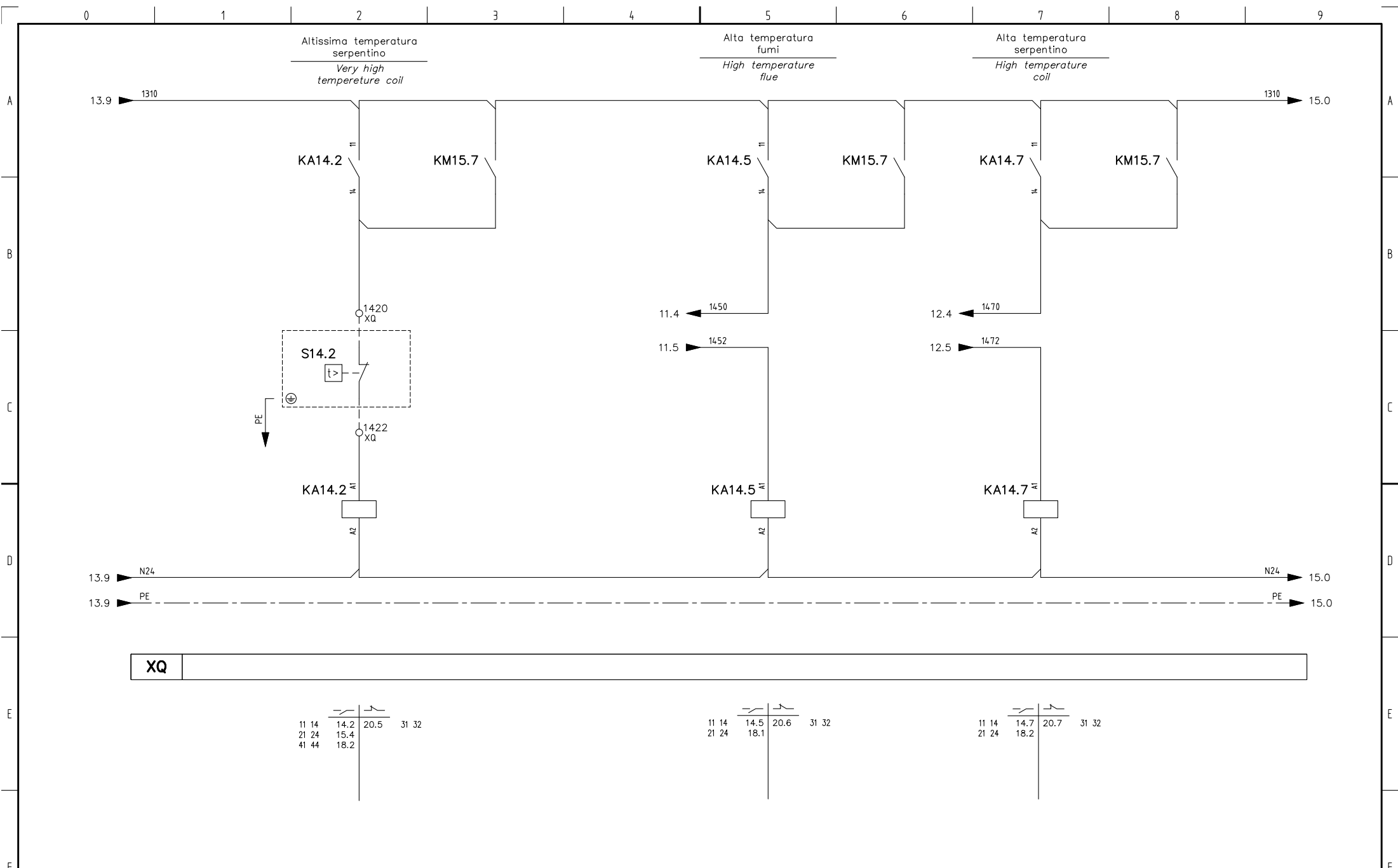
XQ

11	14	13.3	20.3	31	32
21	24	15.2			
41	44	18.6			

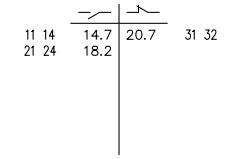
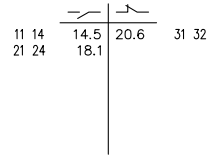
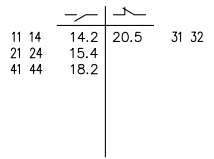
11	14	13.6	20.4	31	32
21	24	15.4			
41	44	18.7			


REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	Sicurezze Safeties	QCFH24-3G	= +	FG. 13 F.S. 14
0		1				3	4	5	6	7	8	9		

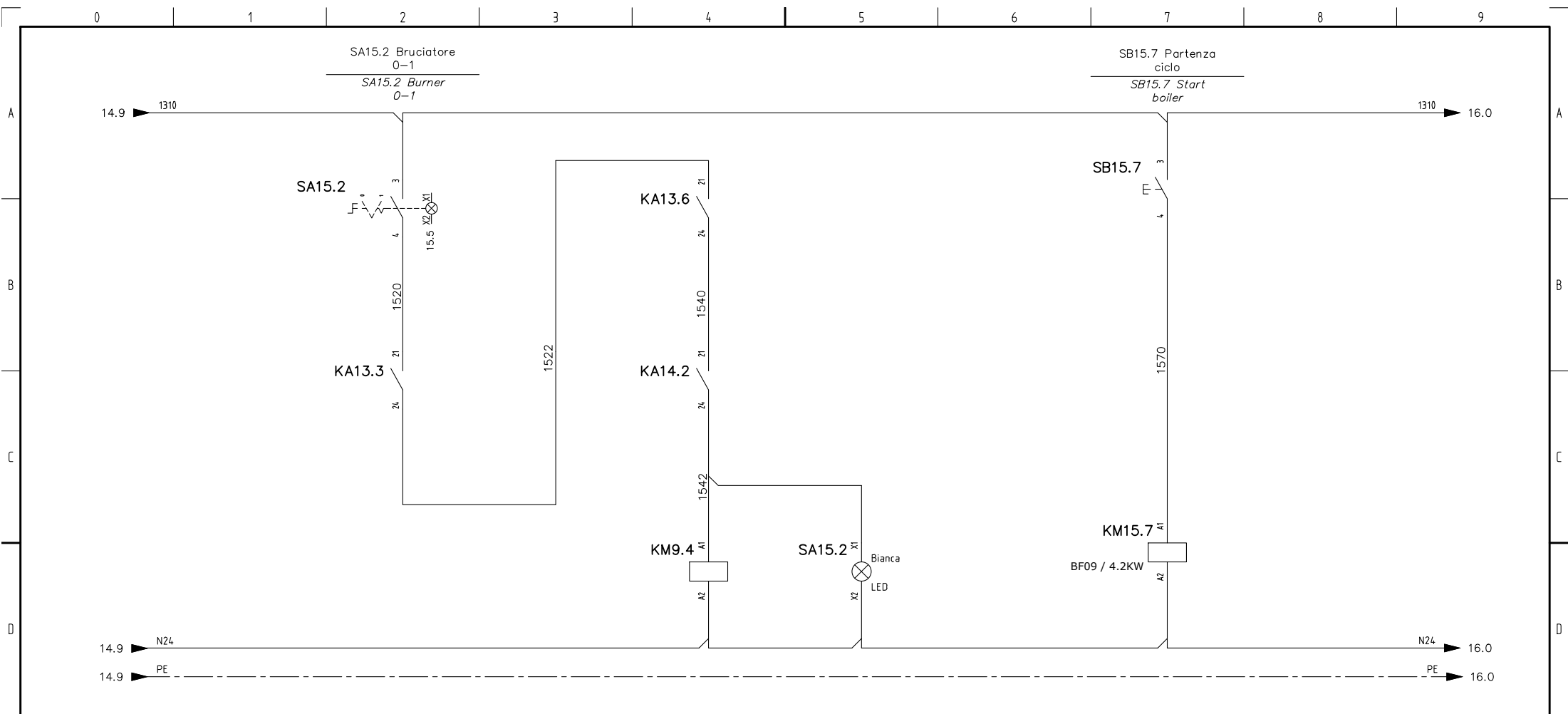
0 1 2 3 4 5 6 7 8 9



XQ



				DATA	10/13			L.C.Z. srl	L.C.Z. -Parma- CFH1000/1250-12bar Sicurezze Safeties	QCFH24-3G	=	
				DISEGN.	LB			Parma ITALY			+ =	
				VISTO	GP						FG. 14	
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G			-	F.S. 15



XQ

SA15.2 Bruciatore alimentato
SA15.2 Burner supply

13.4
13.7
14.3
14.6
14.8
18.3

REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar Sicurezze bruciatore Burner safeties	QCFH24-3G	=	FG. 15
												+	F.S. 16

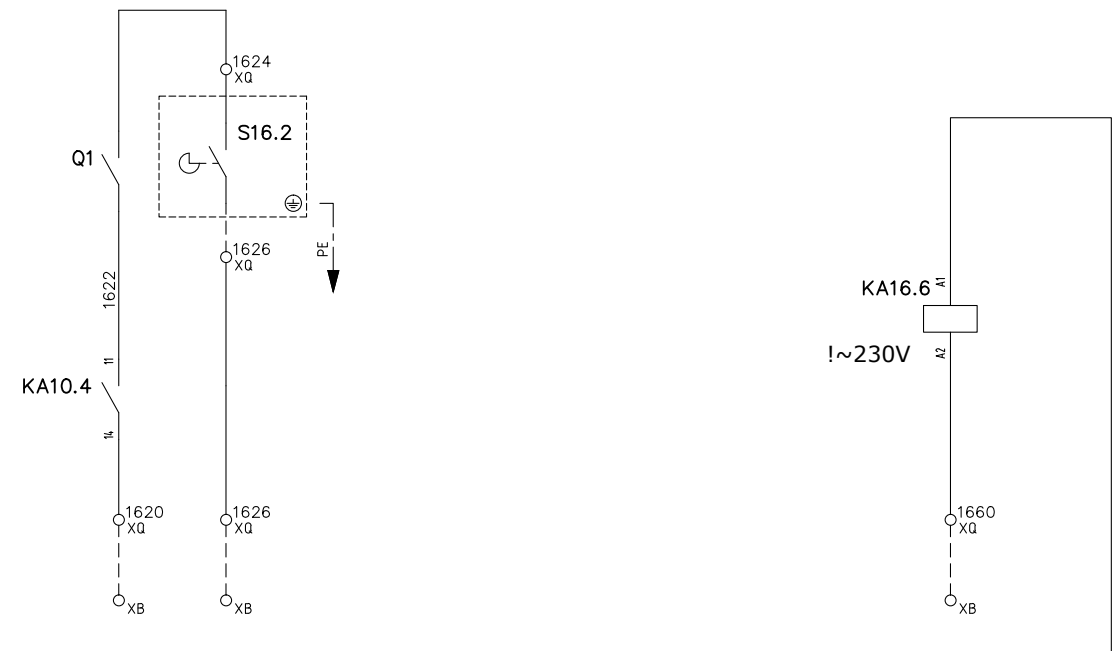


0 1 2 3 4 5 6 7 8 9

S16.2 Finecorsa
controlavaggio
S16.2 Limit-switch
coil

Blocco
bruciatore
Burner
lock-out

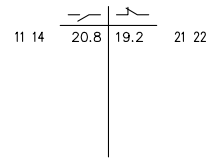
15.9 ← 1310 → 17.0




9.9 → N1.63
15.9 → N24 → 17.0
15.9 → PE → 17.0

XQ

ON/OFF
bruciatore
ON/OFF
burner



				DATA	10/13			L.C.Z. srl	L.C.Z. -Parma-	QCFH24-3G	=
				DISEGN.	LB			Parma ITALY	CFH1000/1250-12bar		+
				VISTO	GP				Comandi bruciatore		FG. 16
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Comandi bruciatore		F.S. 17

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

IN7.5 Inverter
pompa
IN7.5 Pump
inverter

Blocco
inverter
Inverter
lock-out

16.9 1310 18.0

Q2

IN7.4

ABB
ACS150-2.2KW

+24

DI1

+10V

AI

GND

GND

COM

NO

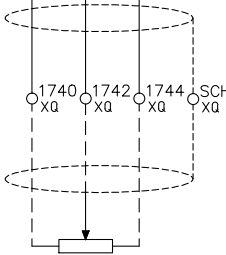
COM

1750

1710

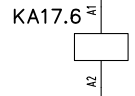
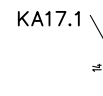
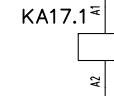
1720

1730



RP17.4

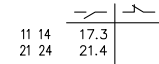
1760



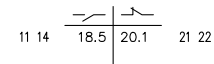
16.9 N24 18.0

16.9 PE 18.0

XQ

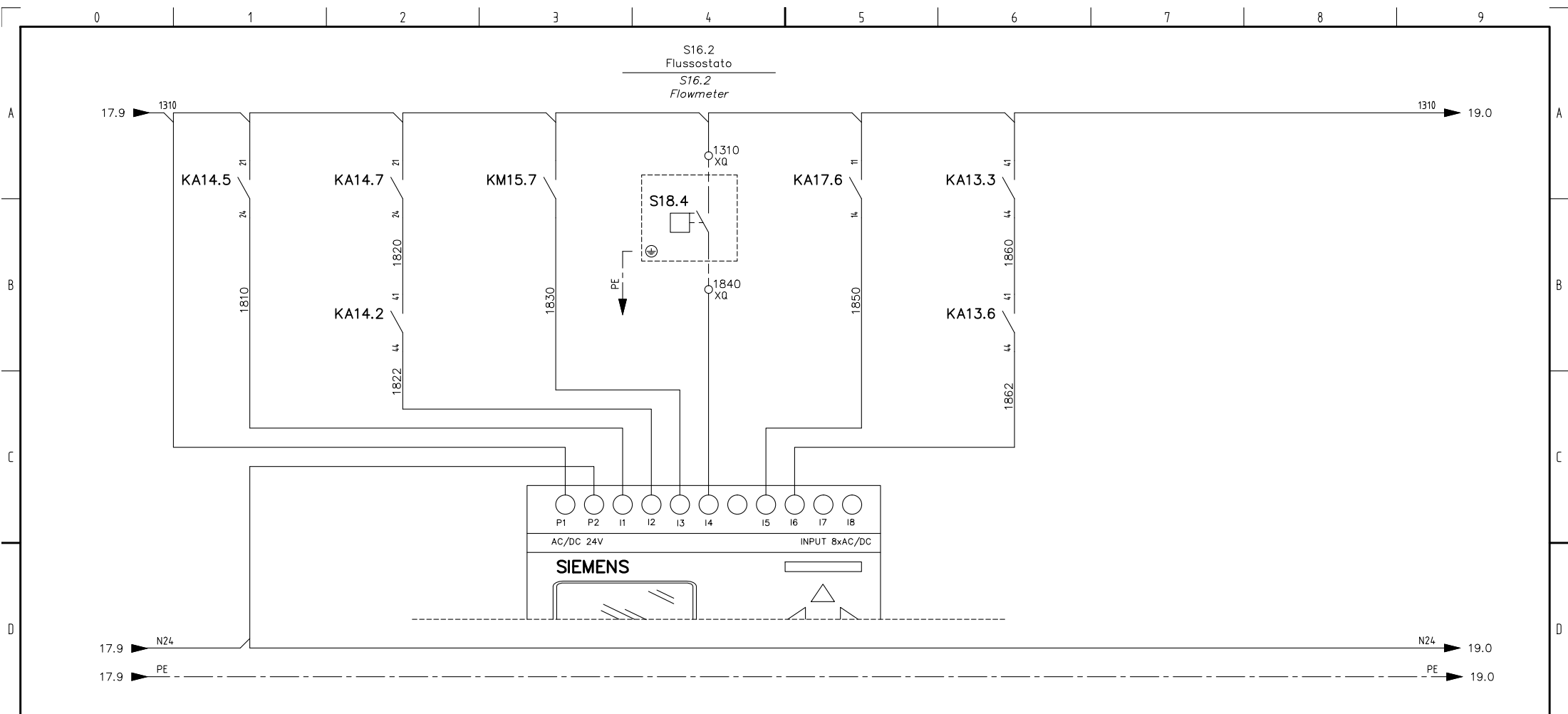


RP17.4 Potenziometro
bruciatore
RP17.4 Burner
potentiometer




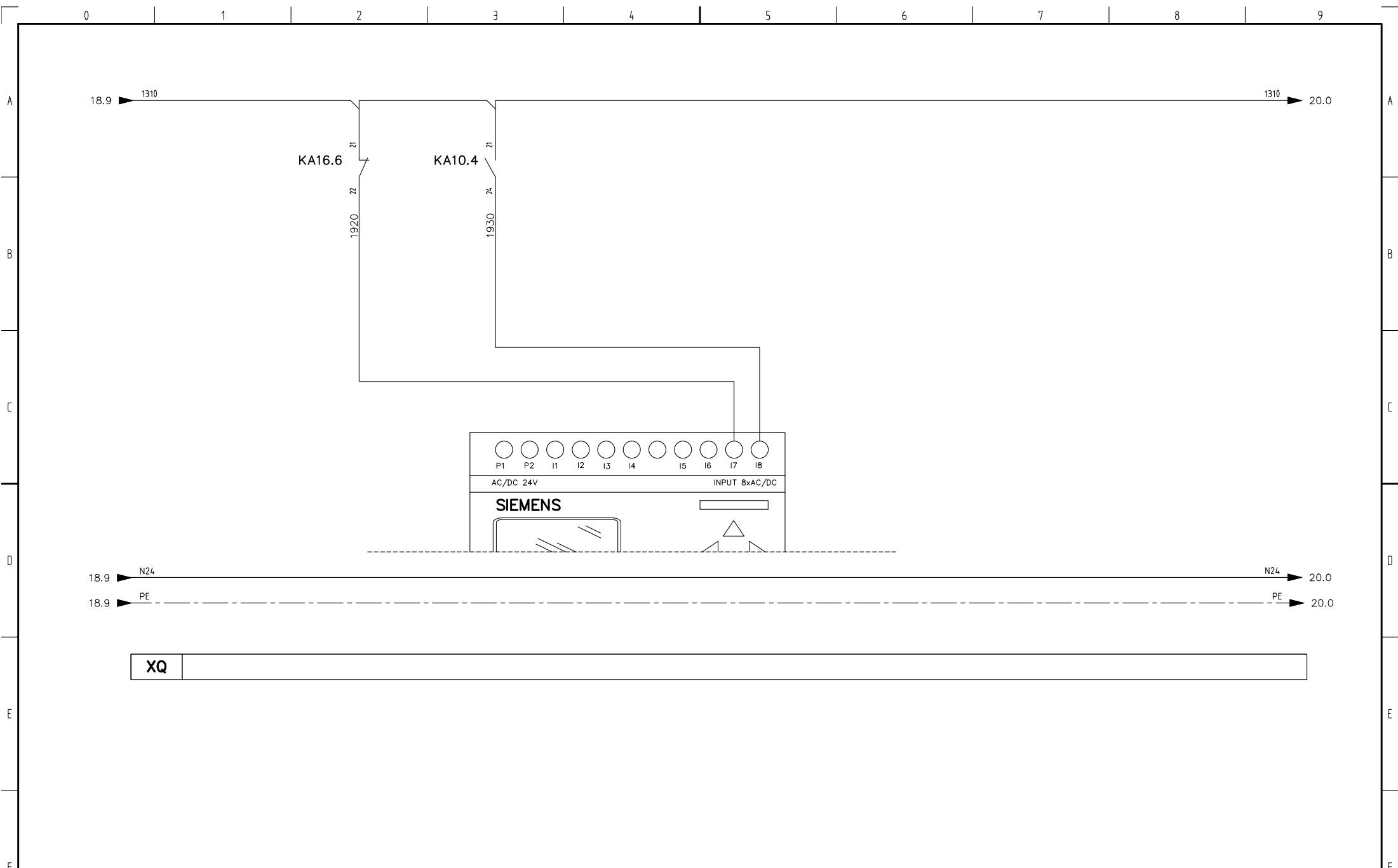
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				DISEGN.	LB			Parma ITALY	CFH1000/1250-12bar			+
				VISTO	GP				Controllo pompa			FG. 17
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Controllo pompa		-	F.S. 18
									Pump control			


0 1 2 3 4 5 6 7 8 9



XQ

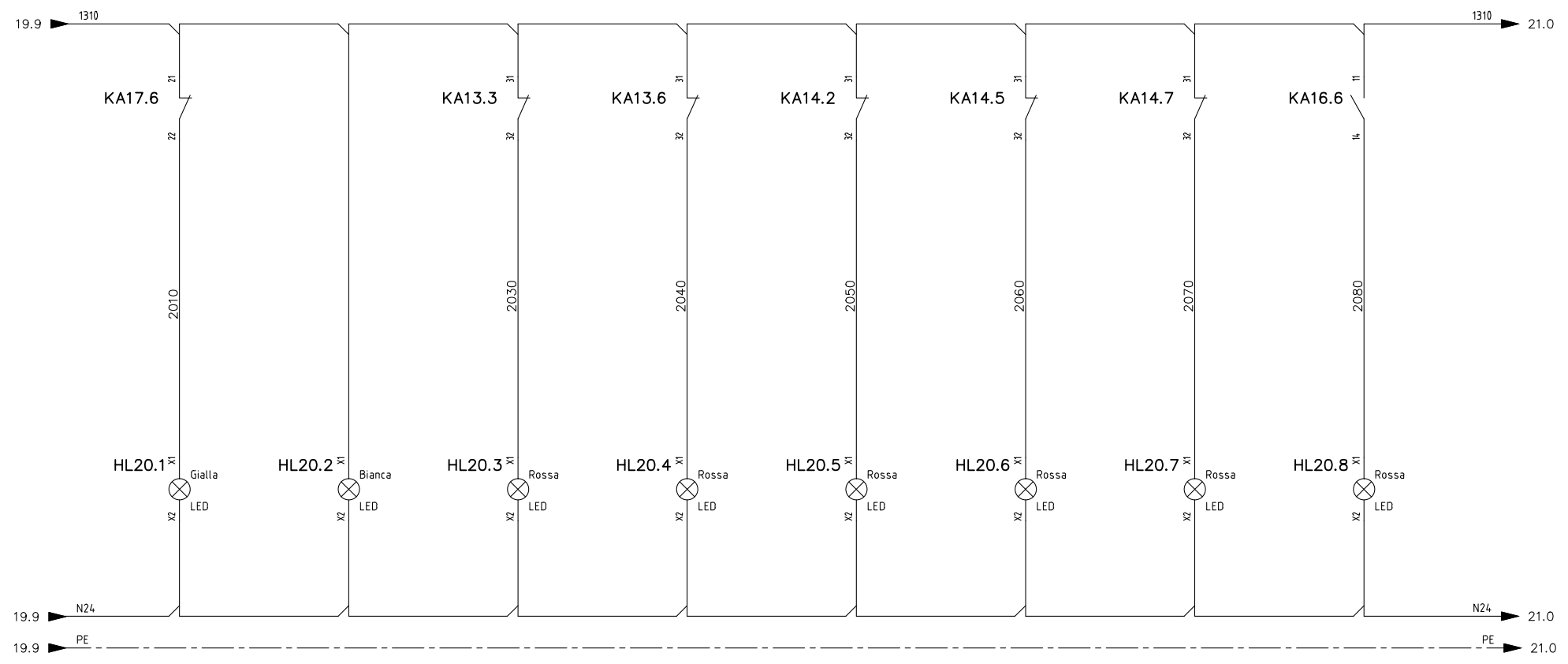
				DATA	10/13			L.C.Z. srl	L.C.Z. -Parma-	QCFH24-3G	=	
				DISEGN.	LB			Parma ITALY	CFH1000/1250-12bar			+
				VISTO	GP				Ingressi modulo logico			
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Ingressi modulo logico		-	F.S. 19
									PLC input			



				DATA	10/13			L.C.Z. srl	L.C.Z. -Parma-	QCFH24-3G	=	
				DISEGN.	LB			Parma ITALY	CFH1000/1250-12bar			+
				VISTO	GP				Ingressi modulo logico			FG. 19
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Ingressi modulo logico		-	F.S. 20

0 1 2 3 4 5 6 7 8 9

A
B
C
D
E
F

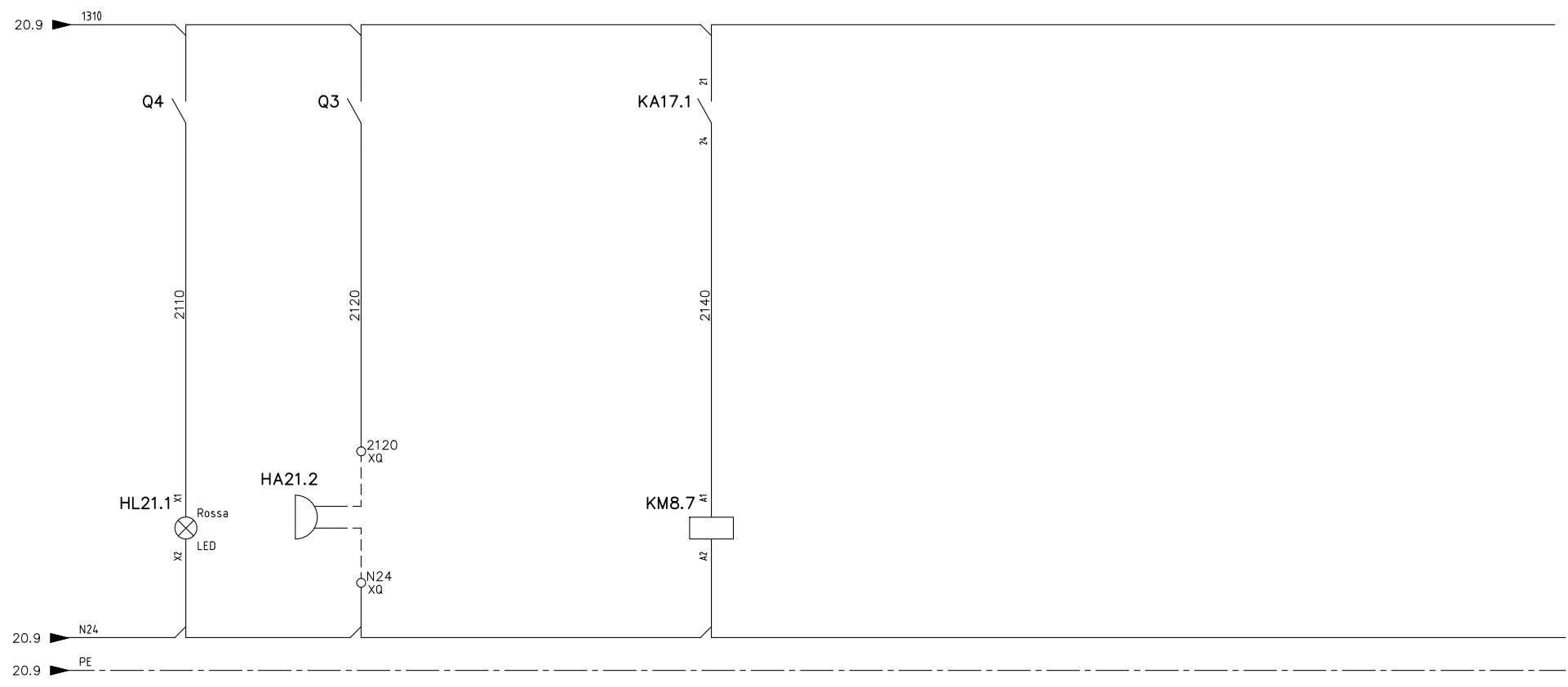


XQ

- HL20.1 Blocco inverter
HL20.1 Inverter lock-out
- HL20.2 Presenza tensione
HL20.2 Board power supply
- HL20.3 Allarme pressione di sicurezza
HL20.3 Boiler high pressure
- HL20.4 Allarme intasamento serpentino
HL20.4 Coil high pressure
- HL20.5 Allarme altissima temperatura
HL20.5 Very high boiler temperature
- HL20.6 Allarme fumi temperatura
HL20.6 Flue high temperature
- HL20.7 Allarme alta temperatura
HL20.7 High boiler temperature
- HL20.8 Blocco bruciatore
HL20.8 Burner lock-out

DATA	10/13		L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=	+					
DISEGN.	LB											
VISTO	GP											
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	Segnalazioni <i>Signaling</i>			FG. 20 F.S. 21

0 1 2 3 4 5 6 7 8 9



XQ	
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HL21.1 Allarme
mancanza acqua
HL21.1 *Wantage*
water

Consenso pompa
anticavitazione
Consensus pump
uncavitation

REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G	L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=	
										Segnalazioni <i>Signaling</i>		+	
													FG. 21
													F.S. 22

0 1 2 3 4 5 6 7 8 9

A

A

B

B

C

C

D


D

E

E

F

F

				DATA	10/13		L.C.Z. srl Parma ITALY	L.C.Z. -Parma- CFH1000/1250-12bar	QCFH24-3G	=				
				DISEGN.	LB								+	
				VISTO	GP									
REV.	MODIFICA	DATA	FIRMA	APPR.	GP	SOST. IL :	SOST. DA :	FILE : QCFH24-3G			FG. 22 F.S. -			

0 1 2 3 4 5 6 7 8 9