

KTI

Carl-Otto-Weg 14/2
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Tel. +49 (0)7347 - 9572 - 0

Projektname / project name / nom projet

cold water plant

Anlage/Gerät / plant/appliance / installation/appareil

CCWP.4-458-15K-50Hz-R134a-evi

Kommission / commission

Masa 6 - South of Spain
K22-00044

Hersteller
Producer
Fabricant

Elektromatic Speidel GmbH
Kirchenweg 9
88477 Schwendi
Tel. +49 (0)7353 - 987 - 0
Fax. +49 (0)7353 - 987-198

Auftrags-Nr.
Order No.
No. de commande

AF-1220231F01-S

Zeichnungs-Nr.
Drawing No.
No. de dessin

AF-1220231F01-S

Name
Name
Nom

Herr Schmucker

Datum
Date
Date

02.11.2022


project survey

KTI_IHV

plant	location	page	installation/function group	date	prepared
	01	1	cover sheet	02.11.2022	
	01	1.1	table of revision	30.11.2022	
	01	2	project survey	30.11.2022	
	01	2.1	project survey	30.11.2022	
	01	2.2	project survey	02.11.2022	
	01	3	place survey	02.11.2022	
	01	4	place survey	02.11.2022	
	01	5	incoming feeder	02.11.2022	
	01	6	control	02.11.2022	
	01	7	voltage control	02.11.2022	
	01	8	control voltage	02.11.2022	
	01	9	emergency stop relais	02.11.2022	
	01	10	plant on	02.11.2022	
	01	24	compressor W1.3	02.11.2022	
	01	25	compressor W1.3	02.11.2022	
	01	26	compressor W1.3	02.11.2022	
	01	27	compressor W1.3	02.11.2022	
	01	35	evaporative condenser FU	02.11.2022	
	01	38	water pump condenser	02.11.2022	
	01	41	water pump subcooling	02.11.2022	
	01	45	water pump cold water sand mill	02.11.2022	
	01	46	water pump cold water AL-plant	02.11.2022	
	01	47	water pump cooling water AL-plant	02.11.2022	
	01	48	water pump cold water batching plant	02.11.2022	
	01	49	water pump basin 1	02.11.2022	
	01	50	water pump basin 2	02.11.2022	
	01	84	motor ball valve	02.11.2022	
	01	85	CCWP control	02.11.2022	

1.1

2.1

modification		date	name	norm	Origin	KTI Balzheim elektromatic Speidel GmbH project survey cold water plant CCWP,4-458-15K-50Hz-R134a-evi		Masa 6 - South of Spain K22-00044		AF-1220231F01-S elektromatic speidel  AF-1220231F01-S		= + 01	page 2 of 67
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project survey

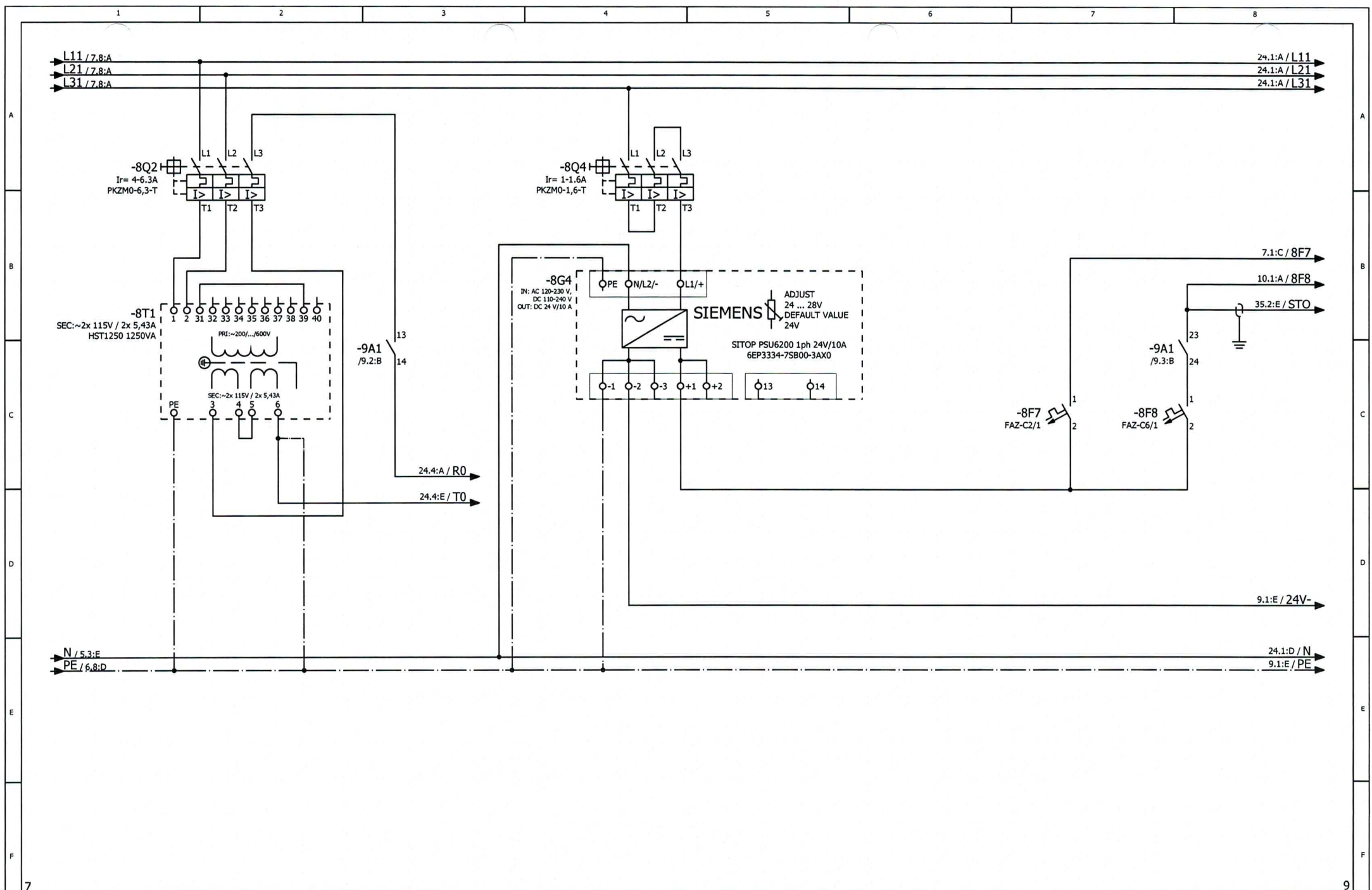
KTI_IHV

plant	location	page	installation/function group	date	prepared
	ASL	1	Parts list	02.11.2022	
	ASL	2	Parts list	02.11.2022	
	ASL	3	Parts list	02.11.2022	
	ASL	4	Parts list	02.11.2022	
	ASL	5	Parts list	02.11.2022	
	ASL	6	Parts list	02.11.2022	
	ASL	7	Parts list	02.11.2022	
	ASL	8	Parts list	02.11.2022	
	ASL	9	Parts list	02.11.2022	
	ASL	10	Parts list	02.11.2022	
	ASL	11	Parts list	02.11.2022	

2.1

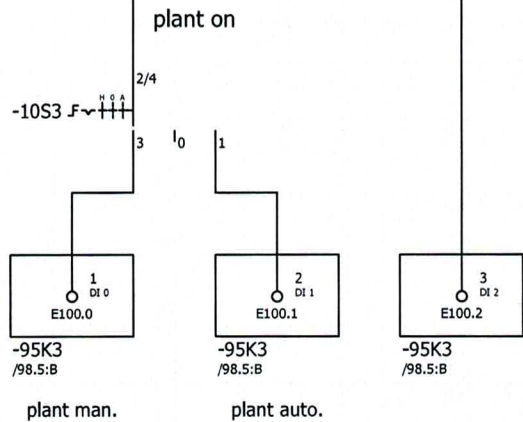
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			date	02.11.2022	KTI Balzheim	elektromatic Speidel GmbH	project survey cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	 AF-1220231F01-S	= + 01	page of	2.2 67
			prep.										
modification	date	name	check.	Herr Schmucker									
			norm	DIN/VDE	Origin								



7		date 02.11.2022		KTI Balzheim		elektromatic Speidel GmbH		control voltage cold water plant		Masa 6 - South of Spain		AF-1220231F01-S		=	
		prep.												+ 01	
		check. Herr Schmucker												page 8	
modification		date		name		norm DIN/VDE		Origin		CCWP.4-458-15K-50Hz-R134a-evi		K22-00044		elektromatic speidel AF-1220231F01-S of 67	

8F8 / 8.8:B ← → 95.1:E / 8F8



9

24

		date	02.11.2022		KTI Balzheim	elektromatic Speidel GmbH	plant on cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=		
		prep.								+ 01		
		check.	Herr Schmucker									
modification	date	name	norm	DIN/VDE	Origin				elektromatic speidel	AF-1220231F01-S	page of	10 67

1

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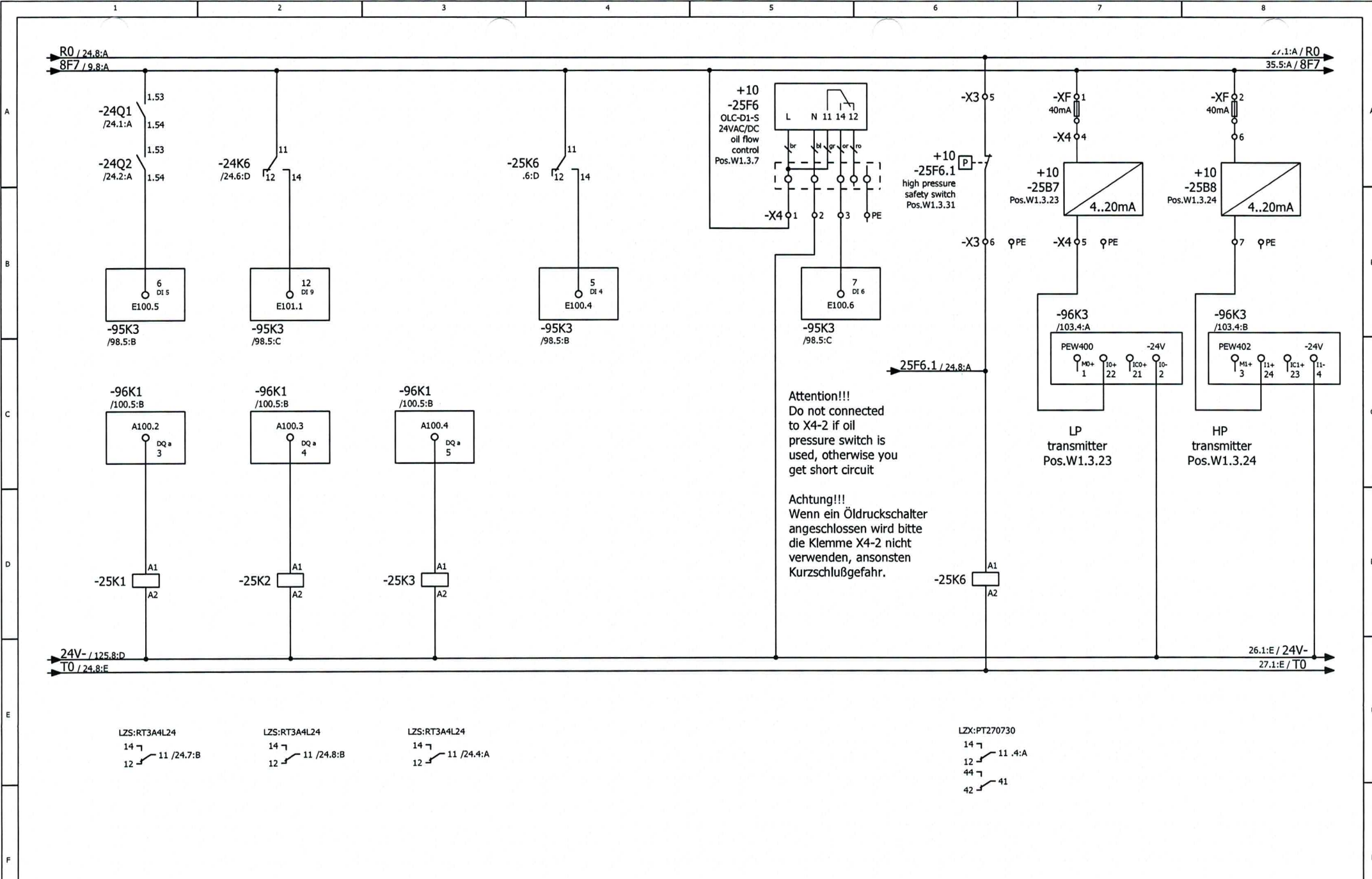
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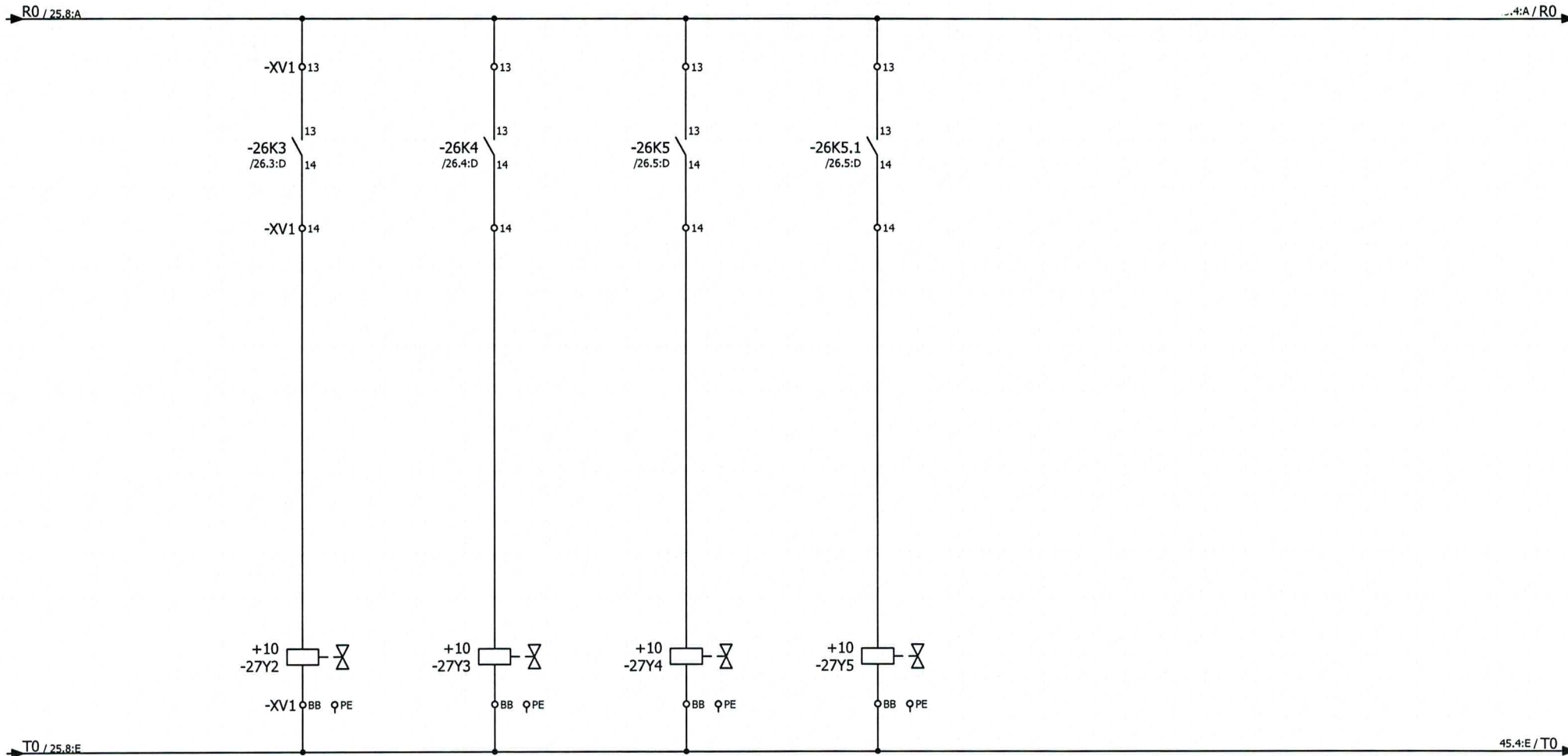
LZS:RT3A4L24
14 ↗ 11 /24.7:B
12 ↘

LZS:RT3A4L24
14 ↗ 11 /24.8:B
12 ↘

LZS:RT3A4L24
14 ↗ 11 /24.4:A
12 ↘

LZX:PT270730
14 ↗ 11 .4:A
12 ↘ 41
44 ↗
42 ↘

24										26	
modification	date	name	norm	date	02.11.2022	prep.		check.	Herr Schmucker	Origin	
				KTi Balzheim		elektromatic Speidel GmbH		compressor W1.3 cold water plant CCWP.4-458-15K-50Hz-R134a-evi		Masa 6 - South of Spain K22-00044	
								AF-1220231F01-S		=	
								elektromatic speidel		AF-1220231F01-S	
										page 25 of 67	



+10
-27Y2

+10
-27Y3

+10
-27Y4

+10
-27Y5

-XV1 BB PE

BB PE

BB PE

BB PE

-XV1 13

-26K3 /26.3:D

-XV1 14

13

-26K4 /26.4:D

14

13

-26K5 /26.5:D

14

13

-26K5.1 /26.5:D

14

solenoid valve
capacity control 50%
CR1
Pos.W1.3.6.1

solenoid valve
capacity control 75%
CR2
Pos.W1.3.6.2

solenoid valve
capacity control 25%
CR3
Pos.W1.3.6.3

solenoid valve
capacity control 100%
CR4
Pos.W1.3.6.4

compressor W1.3

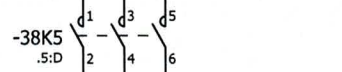
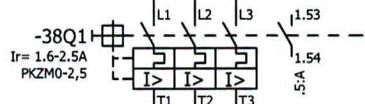
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modification		date		name		norm DIN/VDE		Origin		elektromatic speidel		AF-1220231F01-S		page 27 of 67			

L11 / 35,5:A
 L21 / 35,5:A
 L31 / 35,5:A

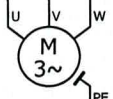
41.1:A / L11
 41.1:A / L21
 41.1:A / L31

8F7 / 35,8:A

41.4:A / 8F7



-X1 07 08 09 PE

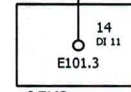
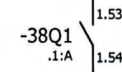


+10
 -38M2
 0,75KW 2,3A
 Pos.W19.1

water pump condenser

24V- / 35,5:E

41.4:E / 24V-



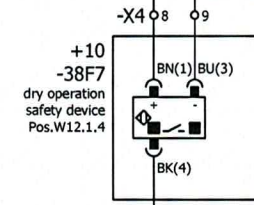
-95K3
 /98.5:D



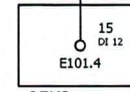
-96K1
 /100.5:D



-38K5



-X4 010 PE



-95K3
 /98.5:D

DILM7-01(24VDC)-PI

- 1 2 .1:C
- 3 4 .2:C
- 5 6 .2:C
- 21 22 /9.4:C

35

41

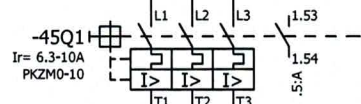
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prep.												+ 01	
check. Herr Schmucker												page 38	
norm DIN/VDE		Origin				CCWP.4-458-15K-50Hz-R134a-evi		K22-00044		elektromatic speidel AF-1220231F01-S		of 67	

L11 / 41.2:A
L21 / 41.2:A
L31 / 41.2:A

46.1:A / L11
46.1:A / L21
46.1:A / L31

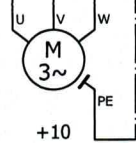
R0 / 27.8:A
8F7 / 41.8:A

46.4:A / R0
46.4:A / 8F7



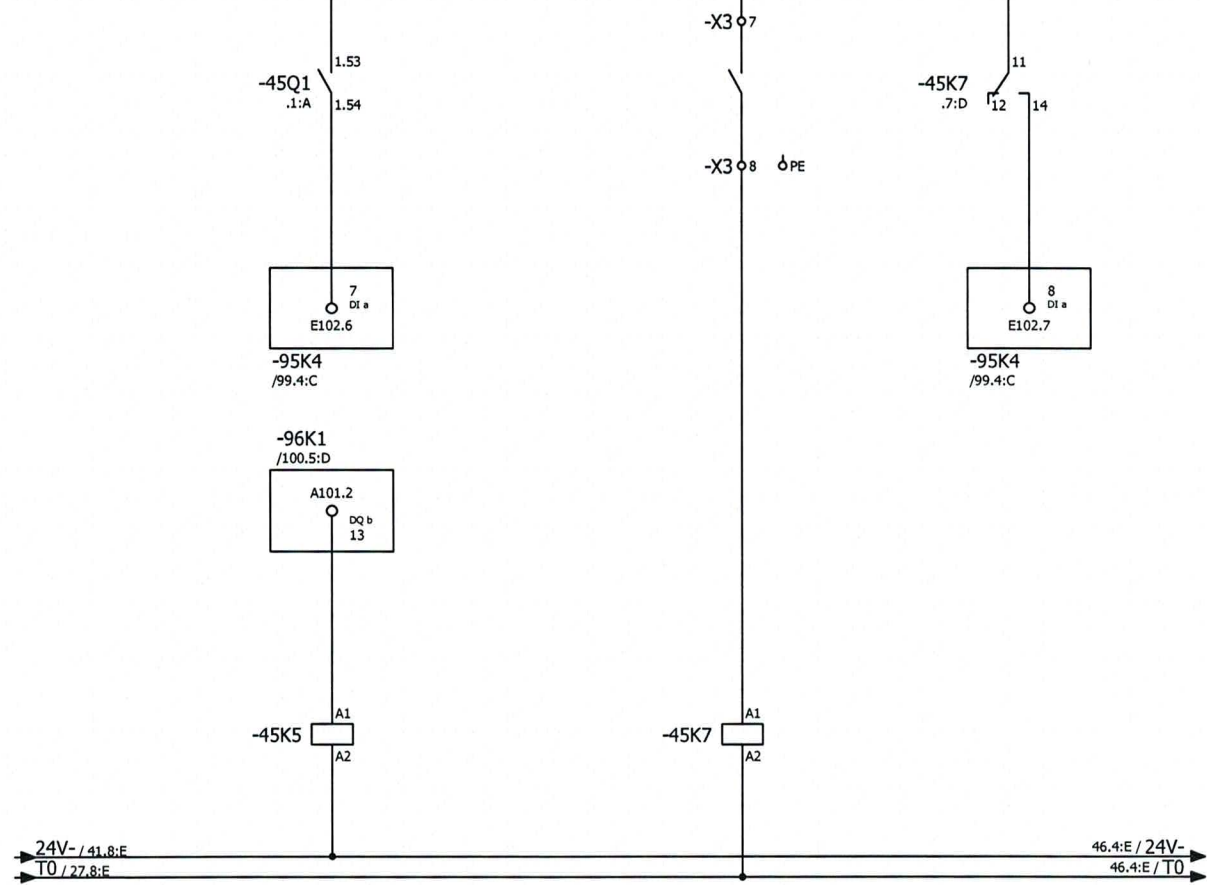
PE / 41.2:D
46.1:D / PE

-X1 13 14 15 PE



+10
-45M2
4,0KW 6,33A
Pos.W19.7

water pump cold water sand mill

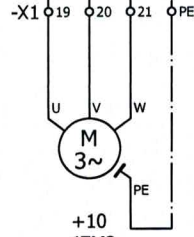
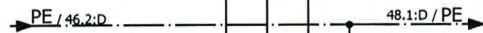
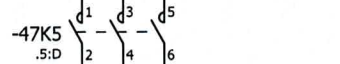
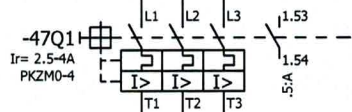
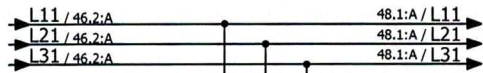


DILM12-01(24VDC)
1 2 1:C
3 4 2:C
5 6 2:C
21 22 /9,4:C

LZX:PT270730
14 11 .8:A
12 44
42 41

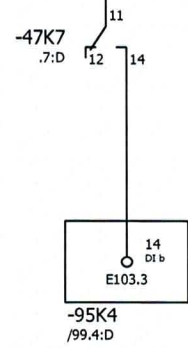
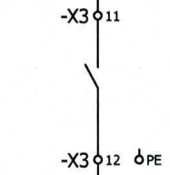
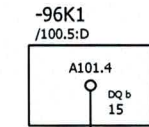
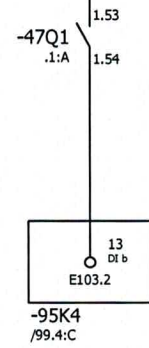
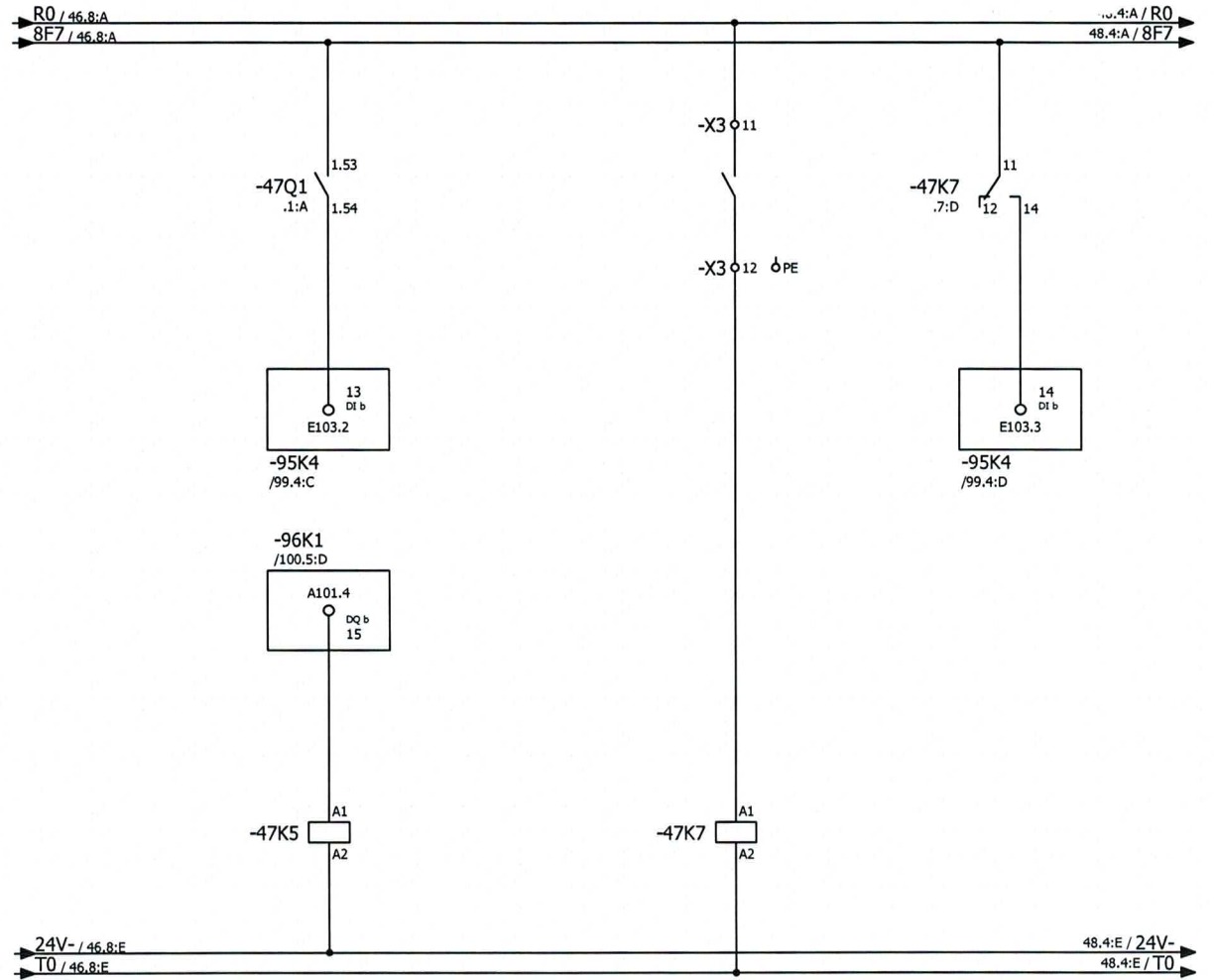
water demand
cold water sand mill

41		date 02.11.2022		KTI Balzheim		elektromatic Speidel GmbH		water pump cold water sand mill cold water plant CCWP.4-458-15K-50Hz-R134a-evi		Masa 6 - South of Spain K22-00044		AF-1220231F01-S		= + 01		page 45 of 67	
modification	date	name	norm	check.	Origin							elektromatic speidel	AF-1220231F01-S				



+10
-47M2
1,5KW 3,17A
Pos.W19.9

water pump cooling water AL-plant

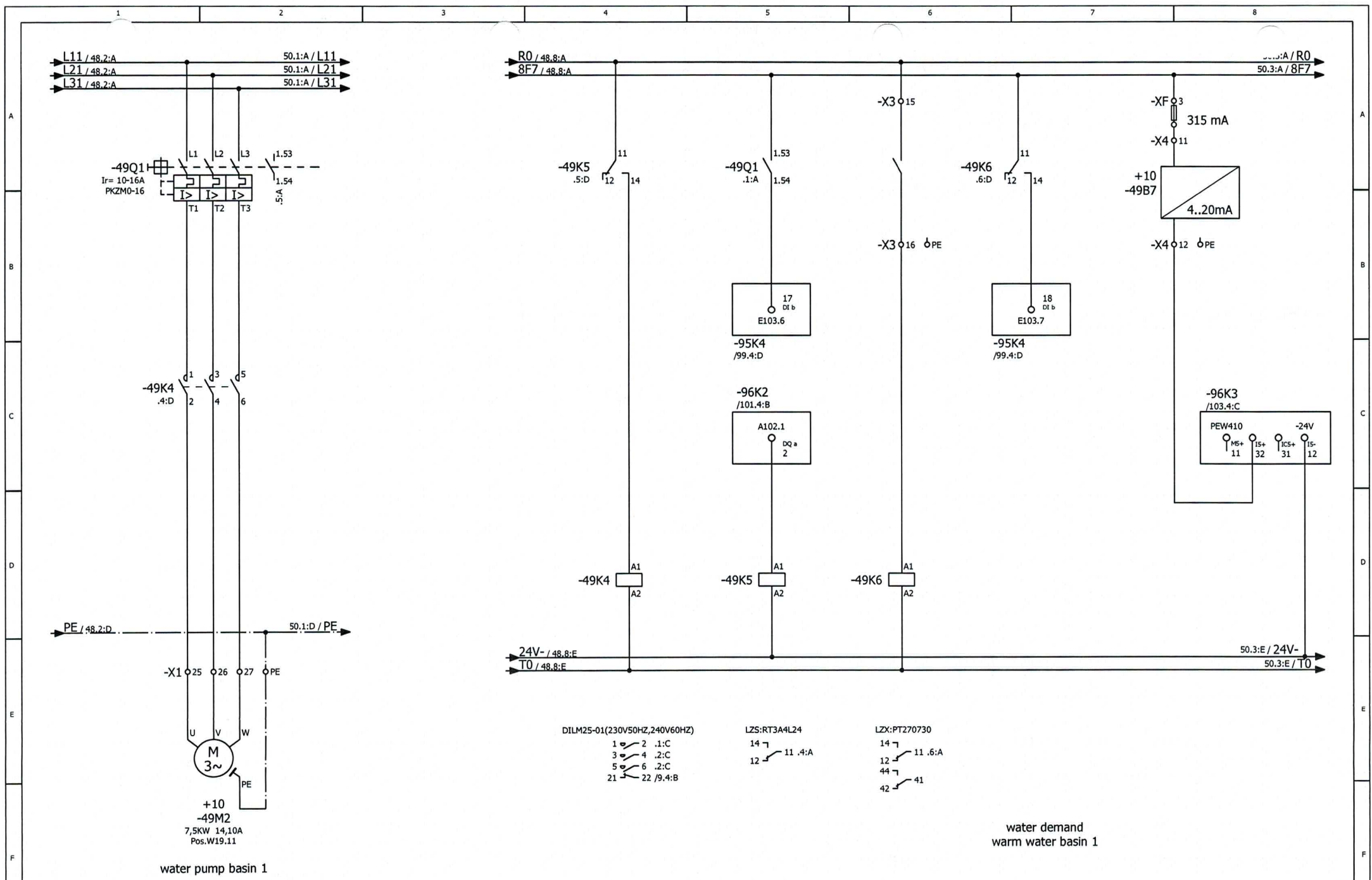


DILM7-01(24VDC)-PI
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3 4 .2:C
5 6 .2:C
21 22 /9.4:B

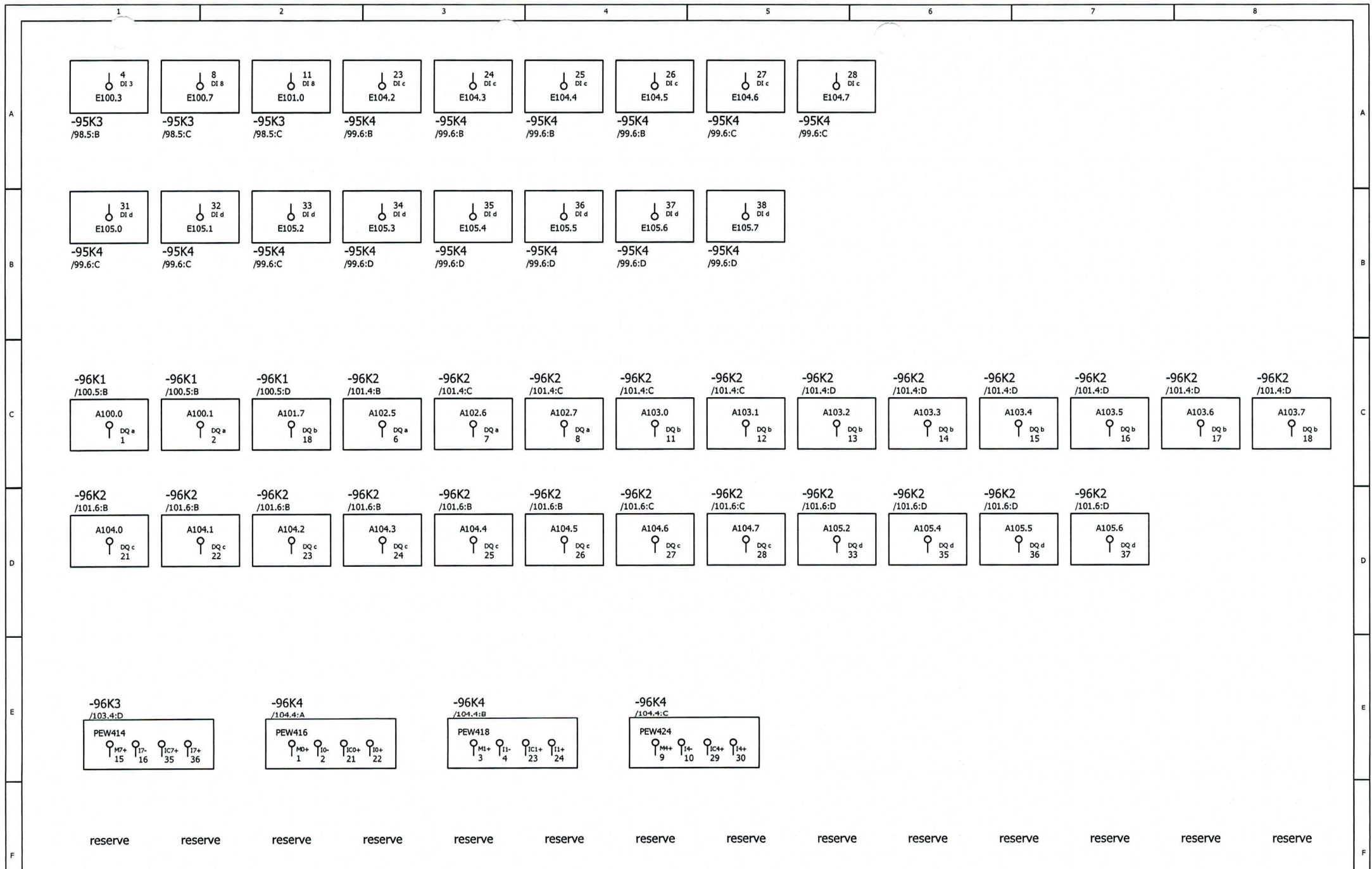
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14 11 .8:A
12 41
44 41
42 41

water demand
cooling water AL-plant

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prep.												elektromatic speidel		+ 01	
check.		Herr Schmucker										AF-1220231F01-S		page 47	
norm		DIN/VDE		Origin										of 67	



modification		date	name	norm	date	02.11.2022	prep.	Herr Schmucker	check.	Herr Schmucker	DIN/VDE	Origin	KTJ Balzheim	elektromatic Speidel GmbH	water pump basin 1 cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	AF-1220231F01-S	page 49	of 67
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85

92

		date	02.11.2022	KTI Balzheim	elektromatic Speidel GmbH	I/O reserve cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=		
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modification	date	name	norm	DIN/VDE	Origin			elektromatic speidel	AF-1220231F01-S	page of	91 67

1

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4

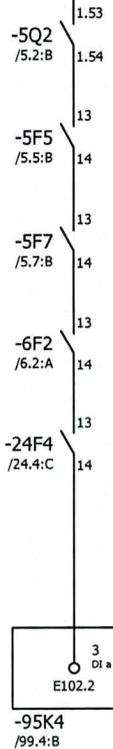
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6

7

8

8F7 / 92.8:A 94.1:A / 8F7



A
B
C
D
E
F

A
B
C
D
E
F

92

94

			date	02.11.2022	KTI Balzheim	elektromatic Speidel GmbH	fuse control cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=			
			prep.									+ 01	
			check.	Herr Schmucker									page
modification	date	name	norm	DIN/VDE	Origin				elektromatic speidel		AF-1220231F01-S	page	93
												of	67

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4

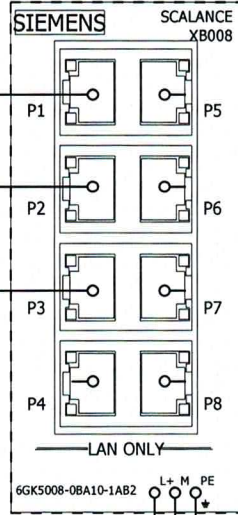
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8

-97K3



35.3:B / P1

95.3:F / P2

95.3:F / P3

8F7 / 96.8:E
 24V- / 96.8:E
 PE / 95.8:E

109.1:A / 8F7
 110.6:E / 24V-
 109.1:E / PE

96

98

			date	02.11.2022	KTI Balzheim	elektromatic Speidel GmbH	switch cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=		
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modification	date	name	norm	DIN/VDE	Origin				elektromatic speidel	AF-1220231F01-S	page	97
											of	67

1

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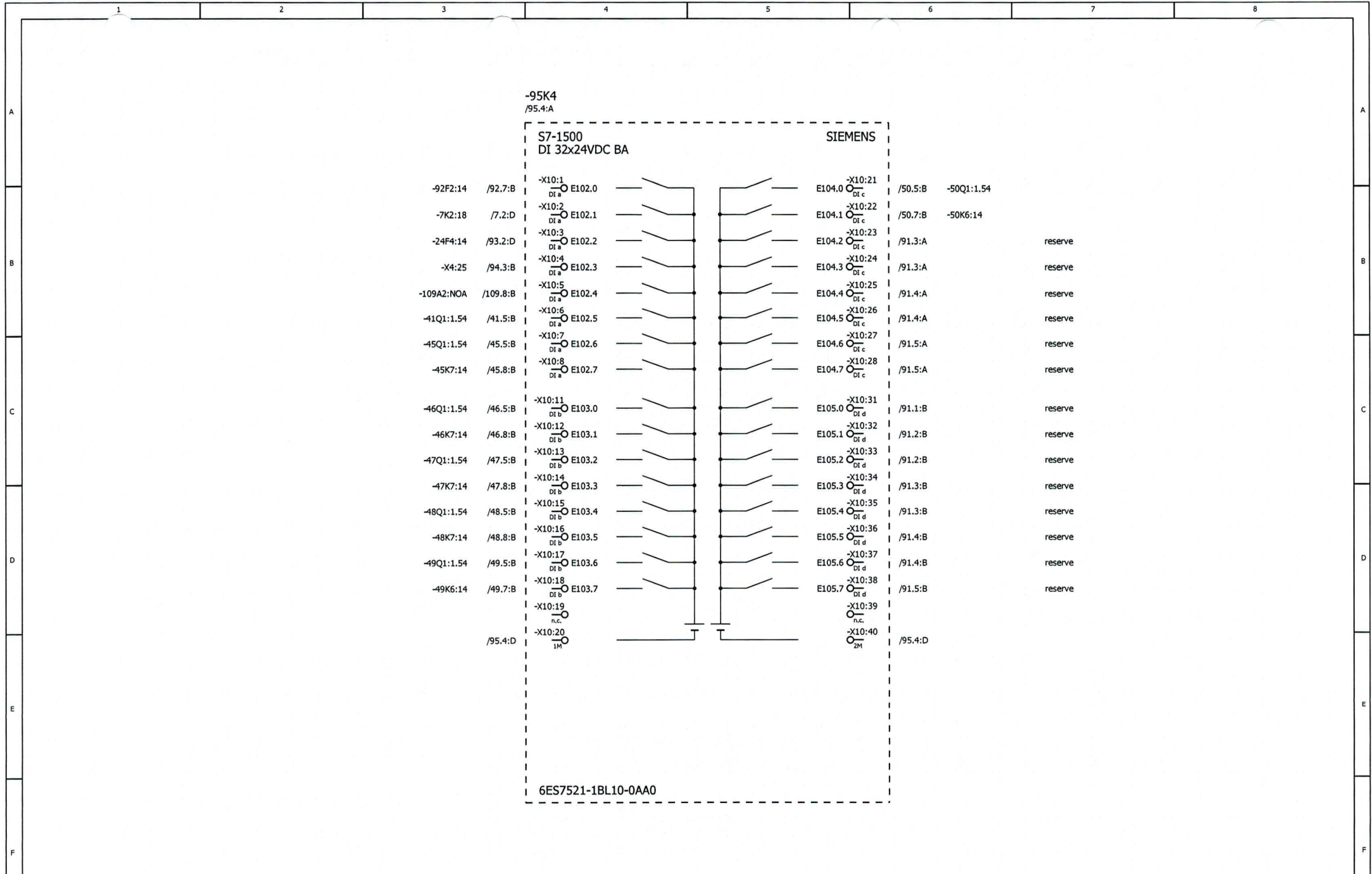
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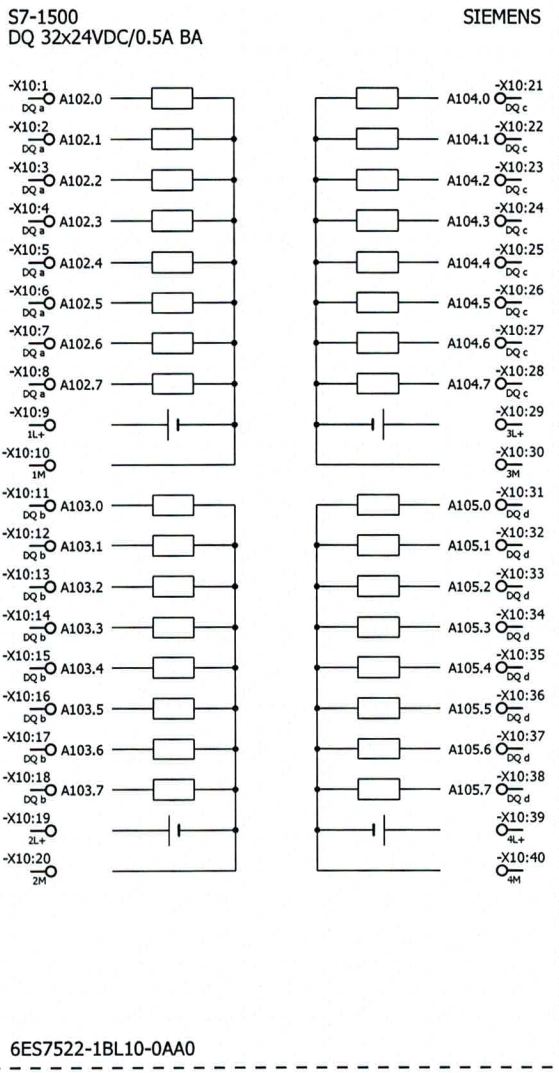
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8



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		prep.										elektromatic speidel		AF-1220231F01-S	
modification		date		name		norm		DIN/VDE		Origin				page 99 of 67	

-96K2
/96.2:A



1	2	3	4	5	6	7	8
A							
B							
C							
D							
E							
F							

modification	date	name	date	02.11.2022	KT Balzheim	elektromatic Speidel GmbH	PLC overview cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=	
			prep.						elektromatic speidel	+ 01	page 101
			check.	Herr Schmucker	Origin				AF-1220231F01-S		of 67
			norm	DIN/VDE							

1	2	3	4	5	6	7	8
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-96K4
/96.4:A

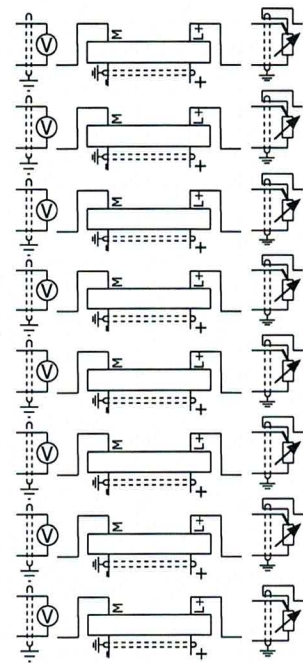
S7-1500
AI 8xU/I/RTD/TC ST

SIEMENS

reserve

reserve

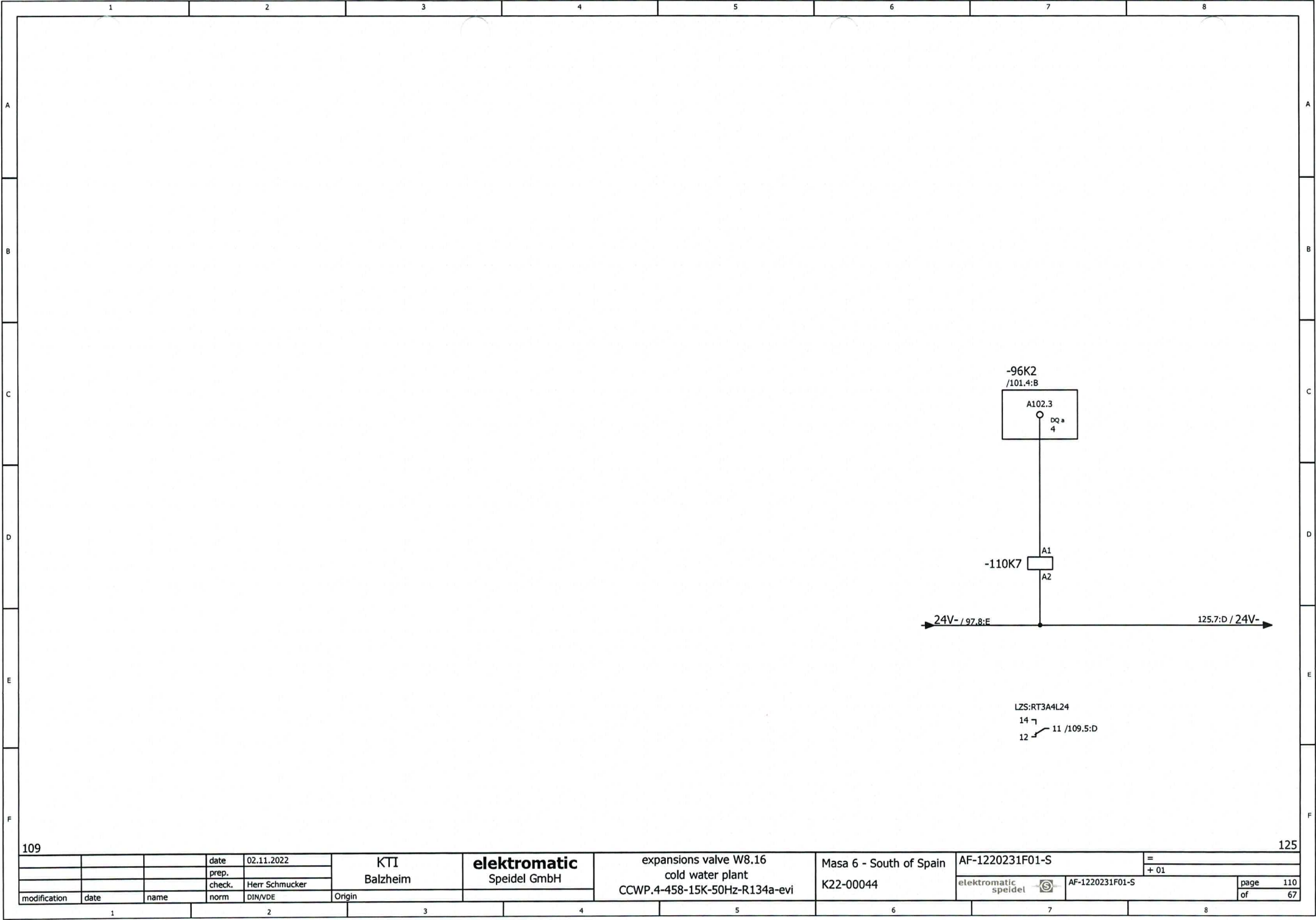
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	/91.3:E	-X10:3 MI-	PEW418
	/91.3:E	-X10:4 II-	PEW418
-X6:4	/85.2:C	-X10:5 MO+	PEW420
-X6:5	/85.3:C	-X10:6 IO-	PEW420
-X6:7	/85.3:C	-X10:7 MO+	PEW422
-X6:8	/85.3:C	-X10:8 IO-	PEW422
	/91.4:E	-X10:9 MI+	PEW424
	/91.4:E	-X10:10 II+	PEW424
-X6:10	/85.5:C	-X10:11 MO+	PEW426
-X6:11	/85.5:C	-X10:12 IO-	PEW426
	/85.8:C	-X10:13 MO+	PEW428
-24V	/85.8:C	-X10:14 IO-	PEW428
	/85.6:C	-X10:15 MO+	PEW430
-24V	/85.7:C	-X10:16 IO-	PEW430
		-X10:17 n.c.	
	/96.4:D	-X10:18 MANA	
		-X10:19 n.c.	
		-X10:20 n.c.	



PEW416	-X10:21 IO+	/91.2:E
PEW416	-X10:22 IO+	/91.3:E
PEW418	-X10:23 IO+	/91.4:E
PEW418	-X10:24 IO+	/91.4:E
PEW420	-X10:25 IO+	/85.3:C -X6:6
PEW420	-X10:26 IO+	/85.3:C
PEW422	-X10:27 IO+	/85.4:C -X6:9
PEW422	-X10:28 IO+	/85.4:C
PEW424	-X10:29 IO+	/91.5:E
PEW424	-X10:30 IO+	/91.5:E
PEW426	-X10:31 IO+	/85.6:C -X6:12
PEW426	-X10:32 IO+	/85.6:C
PEW428	-X10:33 IO+	/85.8:C
PEW428	-X10:34 IO+	/85.8:C -X4:23
PEW430	-X10:35 IO+	/85.6:C
PEW430	-X10:36 IO+	/85.6:C -X4:18
	-X10:37 n.c.	
	-X10:38 n.c.	
	-X10:39 n.c.	
	-X10:40 n.c.	

6ES7531-7QF00-0AB0

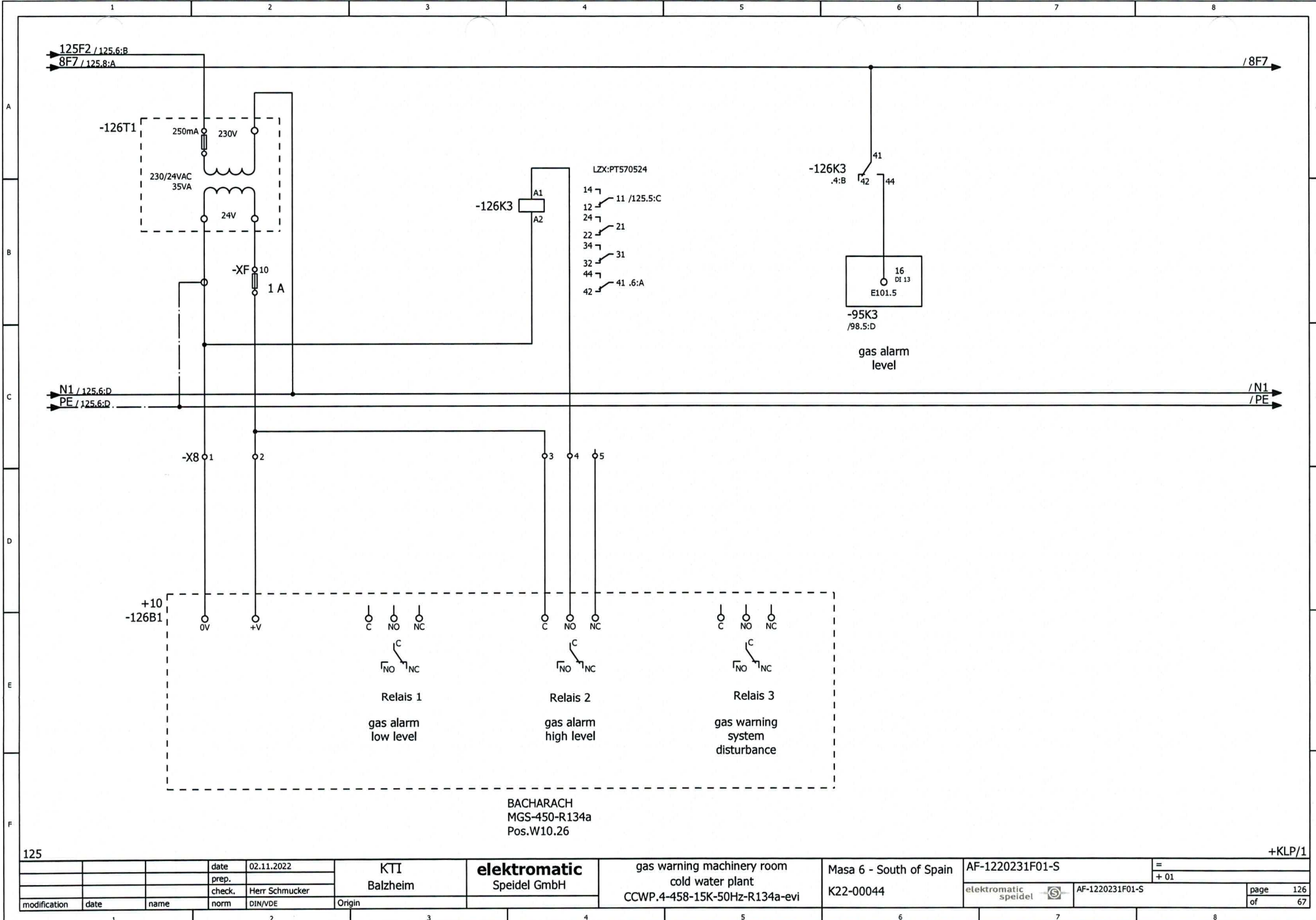
		date 02.11.2022		KTI Balzheim	elektromatic Speidel GmbH	PLC overview cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=	
		prep.							+ 01	
		check. Herr Schmucker								
modification	date	name	norm	DIN/VDE	Origin			elektromatic speidel	AF-1220231F01-S	page 104 of 67



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			date	02.11.2022	KTI Balzheim	elektromatic Speidel GmbH	expansions valve W8.16 cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=	
			prep.								
modification	date	name	check.	Herr Schmucker					elektromatic speidel		AF-1220231F01-S
			norm	DIN/VDE	Origin						page 110 of 67



BACHARACH
MGS-450-R134a
Pos.W10.26

125			date	02.11.2022	KTI	elektromatic	gas warning machinery room	Masa 6 - South of Spain	AF-1220231F01-S	=	+ KLP/1
			prep.		Balzheim	Speidel GmbH	cold water plant			+ 01	
			check.	Herr Schmucker			CCWP.4-458-15K-50Hz-R134a-evi	K22-00044	elektromatic speidel	AF-1220231F01-S	page 126
modification	date	name	norm	DIN/VDE	Origin						of 67

Terminal strip

cable marking		terminal strip = +01-X1					cable marking				
cable type		target external	connection	terminal marking	bridge	target internal	connection	cable type		page/path	material type
		+10-24M2	U1	1	.	-24K7	2			/24.1:E	UKH 50
		+10-24M2	V1	2	.	-24K7	4			/24.1:E	UKH 50
		+10-24M2	W1	3	.	-24K7	6			/24.1:E	UKH 50
		+10-24M2	PE	PE		-X2	PE:1			/24.2:E	USLKG 50
		+10-24M2	U2	4	.	-24K8	2			/24.2:E	UKH 50
		+10-24M2	V2	5	.	-24K8	4			/24.2:E	UKH 50
		+10-24M2	W2	6	.	-24K8	6			/24.3:E	UKH 50
		+10-38M2	U	7	.	-38K5	2			/38.1:E	PTI 4
		+10-38M2	V	8	.	-38K5	4			/38.2:E	PTI 4
		+10-38M2	W	9	.	-38K5	6			/38.2:E	PTI 4
		+10-38M2	PE	PE		-X0	PE:1			/38.2:E	PTI 4-PE
		+10-41M2	U	10	.	-41K5	2			/41.1:E	PTI 4
		+10-41M2	V	11	.	-41K5	4			/41.2:E	PTI 4
		+10-41M2	W	12	.	-41K5	6			/41.2:E	PTI 4
		+10-41M2	PE	PE						/41.2:E	PTI 4-PE
		+10-45M2	U	13	.	-45K5	2			/45.1:E	PTI 4
		+10-45M2	V	14	.	-45K5	4			/45.2:E	PTI 4
		+10-45M2	W	15	.	-45K5	6			/45.2:E	PTI 4
		+10-45M2	PE	PE						/45.2:E	PTI 4-PE
		+10-46M2	U	16	.	-46K5	2			/46.1:E	PTI 4
		+10-46M2	V	17	.	-46K5	4			/46.2:E	PTI 4
		+10-46M2	W	18	.	-46K5	6			/46.2:E	PTI 4
		+10-46M2	PE	PE						/46.2:E	PTI 4-PE
		+10-47M2	U	19	.	-47K5	2			/47.1:E	PTI 4
		+10-47M2	V	20	.	-47K5	4			/47.2:E	PTI 4
		+10-47M2	W	21	.	-47K5	6			/47.2:E	PTI 4
		+10-47M2	PE	PE						/47.2:E	PTI 4-PE
		+10-48M2	U	22	.	-48K5	2			/48.1:E	PTI 4
		+10-48M2	V	23	.	-48K5	4			/48.2:E	PTI 4
		+10-48M2	W	24	.	-48K5	6			/48.2:E	PTI 4
		+10-48M2	PE	PE						/48.2:E	PTI 4-PE
		+10-49M2	U	25	.	-49K4	2			/49.1:E	PTI 4
		+10-49M2	V	26	.	-49K4	4			/49.2:E	PTI 4
		+10-49M2	W	27	.	-49K4	6			/49.2:E	PTI 4
		+10-49M2	PE	PE						/49.2:E	PTI 4-PE
										terminal total	42

Terminal strip

terminal strip
=+01-X2

cable marking

cable marking

cable type

cable type

target external

connection

terminal marking

bridge

target internal

connection

page/path

material type

+10-9S1	11	1		-9A1	9	/9.1:E	PT 1,5/S-TWIN
+10-9S1	12	2		-9A1	7	/9.1:E	PT 1,5/S-TWIN
+10-9S1	21	3		-9A1	7	/9.2:E	PT 1,5/S-TWIN
+10-9S1	22	4		-9A1	7	/9.2:E	PT 1,5/S-TWIN
		PE				/9.2:E	PT 1,5/S-TWIN-PE
		5				/9.3:E	PT 1,5/S-TWIN
		6				/9.3:E	PT 1,5/S-TWIN
		7				/9.3:E	PT 1,5/S-TWIN
		8				/9.3:E	PT 1,5/S-TWIN
		PE				/9.3:E	PT 1,5/S-TWIN-PE
		9				/9.4:E	PT 1,5/S-TWIN
		10			-9S7	12	/9.4:E
		11		-9S7	22	/9.4:E	PT 1,5/S-TWIN
		12		-9S7	22	/9.4:E	PT 1,5/S-TWIN
		PE		-X1	PE:2	/9.5:E	PT 1,5/S-TWIN-PE


terminal total 15

Parts list

KTI_AST

device tag placement	quantity	designation	type number part number	manufacturer	1=delivery 2=supply
+01-1-Cabinet +01/5.8:F	1	VX SE free-standing enclosure system VX SE free-standing enclosure system, Sheet steel, Width/height/depth: 1600 x 1800 x 400, Number of doors: 2, IP 55, NEMA	VX.5842600 RIT.5842600	RIT	
+01-1-Cabinet +01/5.8:F	1	Base/plinth corner piece with base/plinth trim panels, front and rear, VX Base/plinth corner piece, with base/plinth trim panel, front and rear, H: 200 mm, for W: 1600 mm, sheet steel	VX.8640026 RIT.8640026	RIT	
+01-1-Cabinet +01/5.8:F	1	Base/plinth trim panels, side, sheet steel, optimised design, 200 mm VX Base/plinth trim panel, side, H: 200 mm, for D: 400 mm, sheet steel	VX.8640041 RIT.8640041	RIT	
+01-1-Cabinet +01/5.8:F	1	Circuit diagram pocket insulating material, DIN A4	SPT4 ETN.SPT4	ETN	
+01-1-Cabinet +01/5.8:F	6	SV Busbar support, 3-pole, 60 mm bar centre distance SV Busbar support, 3-pole, 60 mm bar centre distance, for busbar WH: 12x5-30x10 mm	SV.9340000 RIT.9340000	RIT	
+01-1-Cabinet +01/5.8:F	2	RiLine60 base tray L=1100mm, packs of 2 for flat rail system For contact hazard protection on the rear	SV.9340130 RIT.9340130	RIT	
+01-1-Cabinet +01/5.8:F	1	SV Cover section, L: 700 mm SV Cover section, L: 700 mm	SV.9340200 RIT.9340200	RIT	
+01-1-Cabinet +01/5.8:F	2	RiLine60 end cover for SV 9340.000/010 packs of 2	SV.9340070 RIT.9340070	RIT	
+01-1-Cabinet +01/5.8:F	1	Connection adaptor 63A, 690V 3-pole, bottom outlet, max. 16 mm ² RiLine60 3-polig	SV.9342210 RIT.9342210	RIT	
+01-1-Cabinet +01/5.8:F	1	Power terminal block	PLC-ESK GY PXC.2966508	PXC	
+01-1-Cabinet +01/5.8:F	2	Separating plate	PLC-ATP BK PXC.2966841	PXC	
+01-1-Cabinet +01/5.8:F	2	Busbar support 2-pole	01356 WOE.01356	WOE	
+01-1-Cabinet +01/5.8:F	2	Conductor connection clamps f. round conduct. 70-185mm ² /lam. Cu clamping area: 22.5x20mm (f. E-Cu 10mm)	SV.3459500 RIT.3459500	RIT	
+01-1-Cabinet +01/5.8:F	3	Conductor connection clamps f. round conduct. 16-50mm ² /lam. Cu clamping area: 10.5mmx11mm (f. E-Cu 10mm)	SV.3457500 RIT.3457500	RIT	
+01-1-Cabinet +01/5.8:F	1	Conductor connection clamps f. round conduct. 2.5-16mm ² /lam. Cu clamping area: 8x8mm (for E-Cu 10mm)	SV.3456500 RIT.3456500	RIT	
+01-1-Cabinet +01/5.8:F	2	Ground modular terminal block	USLKG 35 PXC.0444019	PXC	
+01-X0	1	Terminal strip (equipped according to terminal diagram)	Allg. Klemmleiste Allg. Klemmleiste	ELEKTROMATIC	
+01-X1	1	Terminal strip (equipped according to terminal diagram)	Allg. Klemmleiste Allg. Klemmleiste	ELEKTROMATIC	

+KLP/11

modification	date	name	date	02.11.2022	KTI Balzheim	elektromatic Speidel GmbH	Parts list cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S elektromatic speidel  AF-1220231F01-S	= + ASL	page of	1 67
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1

2

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Parts list

KTI_AST


device tag placement	quantity	designation	type number part number	manufacturer	1=delivery 2=supply
+01-5Q2 +01/5.2:B	1	Standard auxiliary contact, 1N/O, flush mounting, screw connection	NHI-E-10-PKZ0 ETN.NHI-E-10-PKZ0	ETN	
+01-5S7 +01/5.7:C	1	Enclosure internal thermostat Enclosure internal thermostat, 230 V, 1~	TRW60 RUH.TRW60	RUH	
+01-6F2 +01/6.2:A	1	Over current switch, 16A, 1p, B-Char, AC	FAZ-B16/1 ETN.FAZ-B16/1	ETN	
+01-6F2 +01/6.2:A	1	Auxiliary contact, for FAZ, PKNM, 1N/O+1N/C, 0.5HP	FAZ-XHIN11 ETN.FAZ-XHIN11	ETN	
+01-7K2 +01/7.2:B	1	Phase monitoring relay, multi-function, 2W, 300-500V50/60Hz	EMR6-AW500-D-1 ETN.EMR6-AW500-D-1	ETN	
+01-7K2 +01/7.2:B	1	sealable cover	EMR6-PH22 ETN.EMR6-PH22	ETN	
+01-7Q2 +01/7.2:A	1	Motor-protective circuit-breaker, 3p, Ir=0.1-0.16A, screw connection	PKZM0-0,16 ETN.PKZM0-0,16	ETN	
+01-7Q2 +01/7.2:A	1	OM adaptor 25A, 690V, AWG 12 45x208mm, TS45C RiLine60 3-polig	SV.9340310 RIT.9340310	RIT	
+01-8F7 +01/8.7:C	1	Over current switch, 2A, 1p, C-Char, AC	FAZ-C2/1 ETN.FAZ-C2/1	ETN	
+01-8F8 +01/8.8:C	1	Over current switch, 6A, 1p, C-Char, AC	FAZ-C6/1 ETN.FAZ-C6/1	ETN	
+01-8G4 +01/8.4:B	1	SITOP PSU6200 1ph 24V/10A SITOP PSU6200	6EP3334-7SB00-3AX0 SIE.6EP3334-7SB00-3AX0	SIE	
+01-8Q2 +01/8.2:A	1	Transformer-protective circuit-breaker, 3p, Ir=4-6.3A, screw connection	PKZM0-6,3-T ETN.PKZM0-6,3-T	ETN	
+01-8Q2 +01/8.2:A	1	OM adaptor 25A, 690V, AWG 12 45x208mm, TS45C RiLine60 3-polig	SV.9340310 RIT.9340310	RIT	
+01-8Q4 +01/8.4:A	1	Transformer-protective circuit-breaker, 3p, Ir=1-1.6A, screw connection	PKZM0-1,6-T ETN.PKZM0-1,6-T	ETN	
+01-8Q4 +01/8.4:A	1	SV OM adaptor, 32 A, 690 V, 3-pole, tension spring clamp 1,5-6 mm ² SV OM adaptor, 32 A, 690 V, 3-pole, tension spring clamp 1,5-6 mm ² , WH: 45x208 mm, support rail TS 45C	SV.9340510 RIT.9340510	RIT	
+01-8T1 +01/8.1:B	1	Universal control transformer with UL/cUL	HST1250 1250VA HAM.HST1250	HAB	
+01-9A1 +01/9.1:B	1	Safety relay emergency stop/protective door, 24VDC/AC, 3 enabling paths	ESR5-NO-31-24VAC-DC ETN.ESR5-NO-31-24VAC-DC	ETN	
+01-9K8 +01/9.8:D	1	Relay interface module 1W, 8A/250V	LZS:RT3A4L24 SIE.LZSRT3A4L24	SIE	

2		date 02.11.2022		KTI Balzheim		elektromatic Speidel GmbH		Parts list cold water plant CCWP.4-458-15K-50Hz-R134a-evi		Masa 6 - South of Spain K22-00044		AF-1220231F01-S		= + ASL			
modification		date		name		norm		DIN/VDE		Origin		elektromatic speidel 		AF-1220231F01-S		page 3 of 67	

Parts list

KTI_LAST


device tag placement	quantity	designation	type number part number	manufacturer	1-delivery 2-supply
+01-24Q2 +01/24.2:A	1	Circuit-breaker, 3p, 125A	NZMB2-M125 ETN.NZMB2-M125	ETN	
+01-24Q2 +01/24.2:A	1	Contact element, 1N/O, front mount, screw connection	M22-AK10 ETN.M22-AK10	ETN	
+01-24Q2 +01/24.2:A	2	Protection against contact with a finger, IP2X, 3p, size 2	NZM2-XIPK ETN.NZM2-XIPK	ETN	
+01-24Q2 +01/24.2:A	1	Circuit-breaker component adaptor SV Circuit-breaker component adaptor, 250 A, 690 V, 3-pole, cable outlet bottom, with connection straps	SV.9345610 RIT.9345610	RIT	
+01-25K1 +01/25.1:D	1	Relay interface module 1W, 8A/250V	LZS:RT3A4L24 SIE.LZSRT3A4L24	SIE	
+01-25K2 +01/25.2:D	1	Relay interface module 1W, 8A/250V	LZS:RT3A4L24 SIE.LZSRT3A4L24	SIE	
+01-25K3 +01/25.3:D	1	Relay interface module 1W, 8A/250V	LZS:RT3A4L24 SIE.LZSRT3A4L24	SIE	
+01-25K6 +01/25.6:D	1	Relay, plug-in, 2 pole, 12 A , mechanical indicator, 230 VAC	LZX:PT270730 SIE.LZXPT270730	SIE	
+01-25K6 +01/25.6:D	1	Inscription label 26 MM for RT relays	LZS:PT17040 SIE.LZSPT17040	SIE	
+01-25K6 +01/25.6:D	1	Plug-in relay couplers 4W	LZS:PT78740 SIE.LZSPT78740	SIE	
+01-25K6 +01/25.6:D	1	Relay rotating bracket	LZS:PT17024 SIE.LZSPT17024	SIE	
+01-26K3 +01/26.3:D	1	Relay Module	PLC-RSC- 24DC/ 1/ACT PXC.2966210	PXC	
+01-26K4 +01/26.4:D	1	Relay Module	PLC-RSC- 24DC/ 1/ACT PXC.2966210	PXC	
+01-26K5 +01/26.5:D	1	Relay Module	PLC-RSC- 24DC/ 1/ACT PXC.2966210	PXC	
+01-26K5.1 +01/26.5:D	1	Relay Module	PLC-RSC- 24DC/ 1/ACT PXC.2966210	PXC	
+01-35Q2 +01/35.2:A	1	Short-circuit protective breaker, 3p, im=448A	PKM0-32 ETN.PKM0-32	ETN	
+01-35Q2 +01/35.2:A	1	Standard auxiliary contact, 1N/O, flush mounting, screw connection	NHI-E-10-PKZ0 ETN.NHI-E-10-PKZ0	ETN	
+01-35Q2 +01/35.2:A	1	OM adaptor 25A, 690V, AWG 12 45x208mm, TS45C RiLine60 3-polig	SV.9340310 RIT.9340310	RIT	

4		date 02.11.2022		KTI Balzheim		elektromatic Speidel GmbH		Parts list cold water plant CCWP.4-458-15K-50Hz-R134a-evi		Masa 6 - South of Spain K22-00044		AF-1220231F01-S		= + ASL		page 5 of 67	
modification		date		name		norm		DIN/VDE		Origin		elektromatic speidel 		AF-1220231F01-S			

Parts list

KTI_AST

device tag placement	quantity	designation	type number part number	manufacturer	1=delivery 2=supply
+01-45Q1 +01/45.1:A	1	OM adaptor 25A, 690V, AWG 12 45x208mm, TS45C RiLine60 3-polig	SV.9340310 RIT.9340310	RIT	
+01-46K5 +01/46.5:D	1	Contactora, 3 pole, 380 V 400 V 3 kW, 1 NC, 24 V DC, DC operation, Push in terminals	DILM7-01(24VDC)-PI ETN.DILM7-01(24VDC)-PI	ETN	
+01-46K7 +01/46.7:D	1	Relay, plug-in, 2 pole, 12 A , mechanical indicator, 230 VAC	LZX:PT270730 SIE.LZXPT270730	SIE	
+01-46K7 +01/46.7:D	1	Relay retating bracket	LZS:PT17024 SIE.LZSPT17024	SIE	
+01-46K7 +01/46.7:D	1	Inscription label 26 MM for RT relays	LZS:PT17040 SIE.LZSPT17040	SIE	
+01-46K7 +01/46.7:D	1	Plug-in relay couplers 4W	LZS:PT78740 SIE.LZSPT78740	SIE	
+01-46Q1 +01/46.1:A	1	Motor-protective circuit-breaker, 3p, Ir=2.5-4A, screw connection	PKZM0-4 ETN.PKZM0-4	ETN	
+01-46Q1 +01/46.1:A	1	Standard auxiliary contact, 1N/O, flush mounting, screw connection	NHI-E-10-PKZ0 ETN.NHI-E-10-PKZ0	ETN	
+01-46Q1 +01/46.1:A	1	OM adaptor 25A, 690V, AWG 12 45x208mm, TS45C RiLine60 3-polig	SV.9340310 RIT.9340310	RIT	
+01-47K5 +01/47.5:D	1	Contactora, 3 pole, 380 V 400 V 3 kW, 1 NC, 24 V DC, DC operation, Push in terminals	DILM7-01(24VDC)-PI ETN.DILM7-01(24VDC)-PI	ETN	
+01-47K7 +01/47.7:D	1	Relay, plug-in, 2 pole, 12 A , mechanical indicator, 230 VAC	LZX:PT270730 SIE.LZXPT270730	SIE	
+01-47K7 +01/47.7:D	1	Relay retating bracket	LZS:PT17024 SIE.LZSPT17024	SIE	
+01-47K7 +01/47.7:D	1	Inscription label 26 MM for RT relays	LZS:PT17040 SIE.LZSPT17040	SIE	
+01-47K7 +01/47.7:D	1	Plug-in relay couplers 4W	LZS:PT78740 SIE.LZSPT78740	SIE	
+01-47Q1 +01/47.1:A	1	Motor-protective circuit-breaker, 3p, Ir=2.5-4A, screw connection	PKZM0-4 ETN.PKZM0-4	ETN	
+01-47Q1 +01/47.1:A	1	Standard auxiliary contact, 1N/O, flush mounting, screw connection	NHI-E-10-PKZ0 ETN.NHI-E-10-PKZ0	ETN	
+01-47Q1 +01/47.1:A	1	OM adaptor 25A, 690V, AWG 12 45x208mm, TS45C RiLine60 3-polig	SV.9340310 RIT.9340310	RIT	
+01-48K5 +01/48.5:D	1	Contactora, 3p+1N/C, 4kW/400V/AC3	DILM9-01(24VDC) ETN.DILM9-01(24VDC)	ETN	

6		date 02.11.2022		KTI Balzheim		elektromatic Speidel GmbH		Parts list cold water plant		Masa 6 - South of Spain		AF-1220231F01-S		=		8	
		prep. check.		Herr Schmucker				CCWP.4-458-15K-50Hz-R134a-evi		K22-00044		elektromatic speidel 		AF-1220231F01-S		+ ASL	
modification		date		name		norm		DIN/VDE		Origin				page 7		of 67	
1		2		3		4		5		6		7		8			


Parts list

KTI_AST

device tag placement	quantity	designation	type number part number	manufacturer	1=delivery 2=supply
+01-50K6 +01/50.6:D	1	Relay, plug-in, 2 pole, 12 A , mechanical indicator, 230 VAC	LZX:PT270730 SIE.LZXPT270730	SIE	
+01-50K6 +01/50.6:D	1	Relay retating bracket	LZS:PT17024 SIE.LZSPT17024	SIE	
+01-50K6 +01/50.6:D	1	Inscription label 26 MM for RT relays	LZS:PT17040 SIE.LZSPT17040	SIE	
+01-50K6 +01/50.6:D	1	Plug-in relay couplers 4W	LZS:PT78740 SIE.LZSPT78740	SIE	
+01-50Q1 +01/50.1:A	1	Motor-protective circuit-breaker, 3p, Ir=10-16A, screw connection	PKZM0-16 ETN.PKZM0-16	ETN	
+01-50Q1 +01/50.1:A	1	Standard auxiliary contact, 1N/O, flush mounting, screw connection	NHI-E-10-PKZ0 ETN.NHI-E-10-PKZ0	ETN	
+01-50Q1 +01/50.1:A	1	OM adaptor 25A, 690V, AWG 12 45x208mm, TS45C RiLine60 3-polig	SV.9340310 RIT.9340310	RIT	
+01-84K7 +01/84.7:D	1	Relay interface module 1W, 8A/250V	LZS:RT3A4L24 SIE.LZSRT3A4L24	SIE	
+01-92F2 +01/92.2:A	1	Over current switch, 6A, 1p, C-Char, AC	FAZ-C6/1 ETN.FAZ-C6/1	ETN	
+01-92F2 +01/92.2:A	1	Auxiliary contact, for FAZ, PKNM, 1N/O+1N/C, 0.5HP	FAZ-XHIN11 ETN.FAZ-XHIN11	ETN	
+01-92K7 +01/92.7:D	1	Contactora, 3 pole, 380 V 400 V 3 kW, 1 NC, 24 V DC, DC operation, Push in terminals	DILM7-01(24VDC)-PI ETN.DILM7-01(24VDC)-PI	ETN	
+01-94K5 +01/94.5:D	1	Relay interface module 1W, 8A/250V	LZS:RT3A4L24 SIE.LZSRT3A4L24	SIE	
+01-94K6 +01/94.6:D	1	Relay interface module 1W, 8A/250V	LZS:RT3A4L24 SIE.LZSRT3A4L24	SIE	
+01-94S2 +01/94.2:A	1	Illuminated pushbutton actuator, flush, red, momentary	M22-DL-R ETN.M22-DL-R	ETN	
+01-94S2 +01/94.2:A	1	LED element, red, front mount, 85-264VAC	M22-LED230-R ETN.M22-LED230-R	ETN	
+01-94S2 +01/94.2:A	1	Contact element, 1N/O, front mount, screw connection	M22-AK10 ETN.M22-AK10	ETN	
+01-95K2 +01/95.2:A	1	CPU 1511-1PN, 150KB PROGRAM, 1MB DATA SIMATIC, S7-1500	6ES7511-1AK02-0AB0 SIE.6ES7511-1AK02-0AB0	SIE	
+01-95K3 +01/95.3:A	1	S7-1500, DI 16x24VDC HF SIMATICDI 16x24VDC HF	6ES7521-1BH00-0AB0 SIE.6ES7521-1BH00-0AB0	SIE	

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modification		date	name	norm	DIN/VDE	Origin	KTI Balzheim		elektromatic Speidel GmbH		Parts list cold water plant CCWP.4-458-15K-50Hz-R134a-evi		Masa 6 - South of Spain K22-00044		AF-1220231F01-S elektromatic speidel  AF-1220231F01-S		=		+ ASL		page of		9 67	

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Parts list

KTL_AST

device tag placement	quantity	designation	type number part number	manufacturer	1=delivery 2=supply
+01-126K3 +01/126.4:B	1	Plug-in relay couplers 4W	LZS:PT78740 SIE.LZSPT78740	SIE	
+01-126K3 +01/126.4:B	1	Relay retating bracket	LZS:PT17024 SIE.LZSPT17024	SIE	
+01-126T1 +01/126.1:A	1	transformer 230/24AC / 35VA	TRADRFE240 CAR.TRADRFE240	CAR	

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		date	02.11.2022		KTI Balzheim	elektromatic Speidel GmbH	Parts list cold water plant CCWP.4-458-15K-50Hz-R134a-evi	Masa 6 - South of Spain K22-00044	AF-1220231F01-S	=
		prep.							+ ASL	
modification	date	name	check.	Herr Schmucker					elektromatic speidel 	AF-1220231F01-S
		norm	DIN/VDE	Origin			of	67		