

## Final-Documents

**Hoi Tung**  
Order No. **NB07382-760JN**  
for  
**Jiangnan Shipyard**  
Hull No. **H2448-53**

Sauer Order-No. **41005785**

2x Main air compressor WP200  
1x Emergency air compressor WP45L

Revision	Changes	Date	Sign
0	initial issue	31-Mar-2009	BKL

**Technical Specification Sauer HP water-cooled compressor-unit WP 200**

 in design according attached drawing **413841A**

Fill up capacity (0 – 30 bar)	200.0	m3/h
Operation pressure:	30	bar
Speed:	1770	rpm
Required power:	38.0	kW
Stages / Cylinders:	2/2	
Cooling:	fresh water (max 38°C, 5 bar)	
Min. cooling water	50.0	l./min
Drive:	direct drive	
Heat dissipation:	34,2	kJ/sec
Max. ambient temperature:	+ 5°C up to + 55 ° C	
Permissible inclination each direction	22,5	°
Unit weight:	800	kgs
Noise level at 1 m distance:	89	dB(A)
Lub.oil content crankcase	11,5	ltr.

All capacity data with 5 % tolerance

**Regular Equipment:**

- Sturdy rigid and weight saving design with flanged motor
- no bedplate necessary
- flexible coupling, fully covered inside compressor flange
- air intake and silencing filter
- oil- and water separators after 1st and 2nd stage, mounted
- intercooler and final re cooler
- pressure oil lubrication with lifetime filtration by sieve
- resilient mounts for the unit
- flex. hp-hose for cooling water in-and outlet, drainage, air-outlet (mounted non return valve)
- all hoses type approved by class
- safety valves after each stage
- air thermometer after each stage, cooling water thermometer
- Oil pressure gauge, stage pressure and final pressure gauge, glycerine filled
- name plates (symbols) for all gauges and thermometers
- solenoid valves 230 V/50/60 Hz for automatic and periodic drainage of the separators
- starting relief integrated in condensate drain automation (unloaded start)
- oil pressure control switch for "alarm + stop"
- temperature switch at air outlet for supervision of compressor cooling, "alarm + stop"
- pressure switch start/stop, loose
- threephase motor size 225 S with suitable marine cable glands (brass)

rated output acc ISO B:	43.0	kW
speed:	1770	rpm
voltage/frequency:	440/60	V/Hz
frequency:	60	Hz
starting current:	abt. 460	A
nominal current:	abt. 70	A
efficiency/ starting time DOL	abt. 91	% / 2-3 sec
weight:	400	kg
protection/ ISO class	IP 55/ F	

**Additional Equipment for the 2 compressor unit (included):**

- spare part set "B+A" as per regulation BV
- junction box, incl. cabling from sensors
- automatic cooling water stop valve
- pressure gauges unit MPa
- flange connection for all hoses
- color Munsel 2.5G8/2

**Test and certificates:**

- test and certificate for the compressor as per regulation BV
- workstest for the motor
- certificate for motor

## 2 Compressor control panel for 2 compressor-unit WP200

Nominal motor rating	43 kW
Power supply	3x 440V / 60Hz
Isolation	IP54
Material	Steel
Labelling	English
Colour	Munsel 7.5G7/2

For wallmounting; with lockable front door and marine cable glands in a flanged base plate at the bottom, "fail-safe" wiring with following standard devices for the automatic and unattended operation of the compressor-unit according to the rules and regulations of the ship classification societies:

- automatically operated main contactor for direct-on-line starting (DOL)
- thermal overload relay with alarm and compressor shut-down
- control voltage internally transformed by built-in control voltage transformer 440V/230V with fuses
- hourmeter
- oil pressure supervision with alarm and compressor shut-down
- supervision of the compressor-cooling by monitoring the air temperature with alarm and compressor shut-down
- intermediate drainage of the compressor-stages each 15 min for 15sec
- start-stop relief arrangement
- selector switch for operation mode: "On - Off/Reset - Remote Start/Stop"
- signal lamps for "Operation", "Overload", "Air temperature" "**Power On**" and "Oil pressure"
- cage clamps for connecting power supply, motor, cooling water shut-off valve, drain valves and start/stop signal
- cage clamps for potential-free contacts "Operation", "Off" and "Collective fault"
- **Automatic time-delayed restart after blackout ("blackstart")**
- **Ammeter**

## 1 Lead / lag control box for selecting the starting sequence of compressors (delivered loose)

Isolation	IP54
Material	Steel
Labeling	English
Colour	Munsel 7.5G7/2

- selector switch for selecting the starting sequence of the compressor-units
- „stand by“ function by staggered pressure switch settings
- cage clamps for connecting pressure switches or equivalent start/stop signal

# ANLAGEN - DECKBLATT SYSTEM TITLE PAGE



## ANLAGE/SYSTEM

Kompressor-Anlage  
Compressor-System  
Kompressor 1  
compressor 1

Lackierung/varnishing Munsell 7.5B67/2

DATUM/DATE

18. Mär. 2009

BLATT/PAGE

1 - 10

VORSCHRIFT/RULES : Schiffsausrüstung

KLASSE/CLASS :

SPANNUNG/VOLTAGE : 440V / 60Hz

STEUERSP./CONTROL VOLTAGE : 230V 60Hz

LEISTUNG/POWER : 43 kW

NENNSTROM/NOMINAL CURRENT : 72 A

SCHUTZART/PROTECTION MODE :

## LIEFERANT SCHALTANLAGE/ SUPPLIER SWITCH CABINET

Uwe E. Zoller GmbH Elektrotechnik

BEARBEITER/SENIOR CLERK : Zielke

BESTELL-NR./ORDER NO. : 88478

KOMM. NR./SERIAL NO. : 1093380A

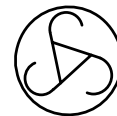
ZEICHN. NR./DRAWING NO. : S2008-11776 COM C1

CAD-DOKU. NR./CAD-DOCU. NO. : 1093380A/2.01

LIEFERTERMIN/DATE OF DELIVERY : 09. KW. 2009



**J. P. SAUER & SOHN**  
MASCHINENBAU GMBH



KOMM. NR./SERIAL NO. : 41005785A

SACHNUMMER/SUBJECT NO. : 043135

BAUJAHR/YEAR BUILT : 2009

BESCHRIFTUNG/LETTERING : deutsch/englisch

021 Diese Pläne sind mit dem CAE-System "EPLAN" erstellt worden. Änderungen können nur mit dem CAE-System mit Original-Parametern durchgeführt werden.

(C) 2009

=AL/2c

3

	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	
	Urspr.	43D0260D	Kompressor 1
Änderung	Datum	Name	compressor 1



Uwe E. Zoller GmbH  
Otto-Hahn-Strasse 9  
25337 Elmshorn  
Telefon (04121) 7 90 7-0  
Telefax (04121) 7 90 7-77  
Notdienst (0172) 7 46 85 07

1093380A

=COM

+C1

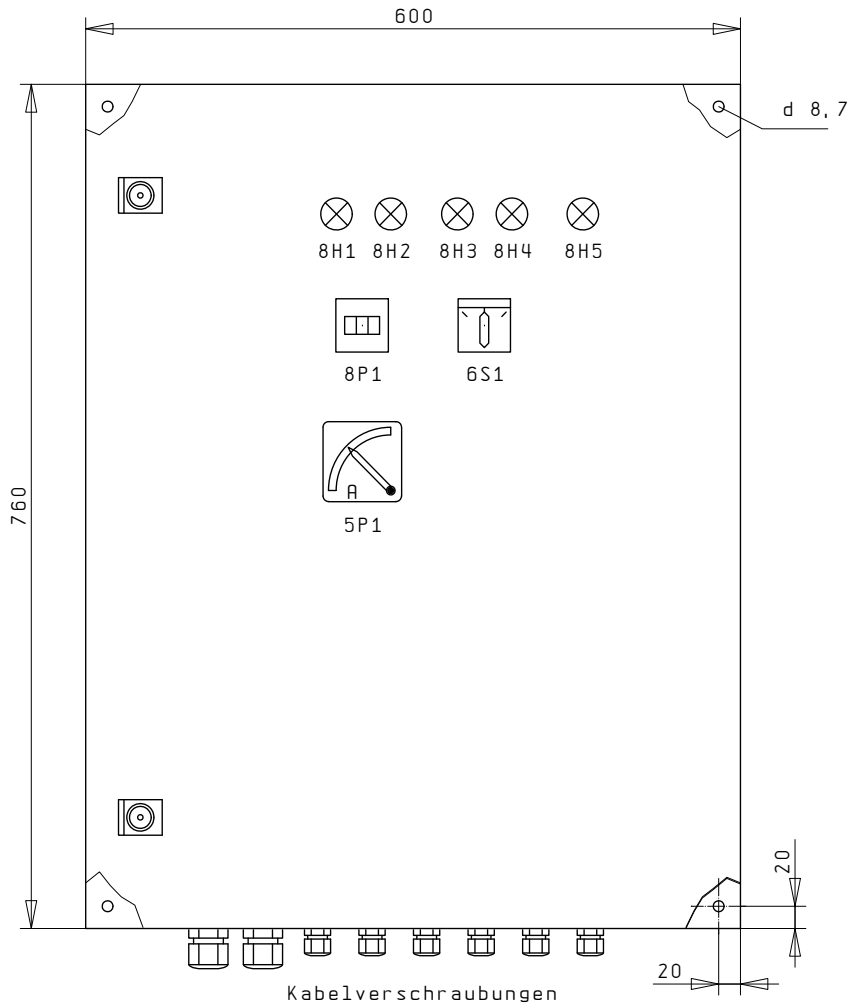
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S2008-11776 COM C1

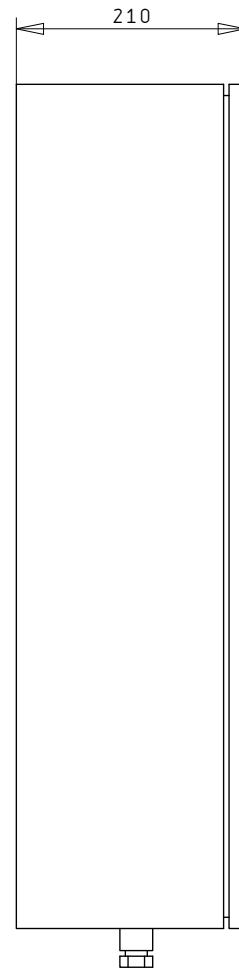
B1. 1

10 Bl.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Kabelverschraubungen  
 2x M50  
 7x M20  
 cable glands  
 2x M50  
 7x M20



Legende/legend:

- 5P1 = Amperemeter  
ammeter
- 6S1 = 1=Hand - 0=Aus/Reset - 2=Automatik  
1=manual - 0=off/reset - 2=automatic
- 8H1 = Betrieb (grün)  
operation (green)
- 8H2 = Überlast (rot)  
overload (red)
- 8H3 = Öldruck zu niedrig (rot)  
oil pressure too low (red)
- 8H4 = Drucklufttemperatur zu hoch (rot)  
pressure air temp. too high (red)
- 8H5 = Spannung vorhanden (blau)  
power on (blue)
- 8P1 = Betriebsstundenzähler  
running hour counter

1

AE 1076  
 Maßstab 1:5  
 scale 1:5

4

	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Maßblatt Schaltschrank
	Urspr.	43D0260D	Dimensional drawing Switch cabinet
Änderung	Datum	Name	



Uwe E. Zoller GmbH  
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1093380A	=COM
	+C1
	1093380A/2.01
S2008-11776 COM C1	B1. 3
	10 B1.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

X1=Leistungsteil, Steuerteil  
 power part, control part  
 X230=230V Verteilung  
 230V distribution

Fertigungsvorgaben  
 production defaults

halogenfreie Verkabelung halogenfree cabling	_____
halogenfreie Kabelkanäle halogenfree cable channels	_____
Lackierung varnishing	Munsell 7.5B67/2
Aderkennzeichnung wire marking	_____
Vorschrift specification	Schiffsausrüstung
Abnahme acceptance	_____
Triathlon Triathlon	✓
2 Erdungsbolzen auf der Montageplatte M8x35mm 2 earth bolt on the mounting plate M8x35mm	✓

=MSB [ X1=Einspeisung  
 input ]

3

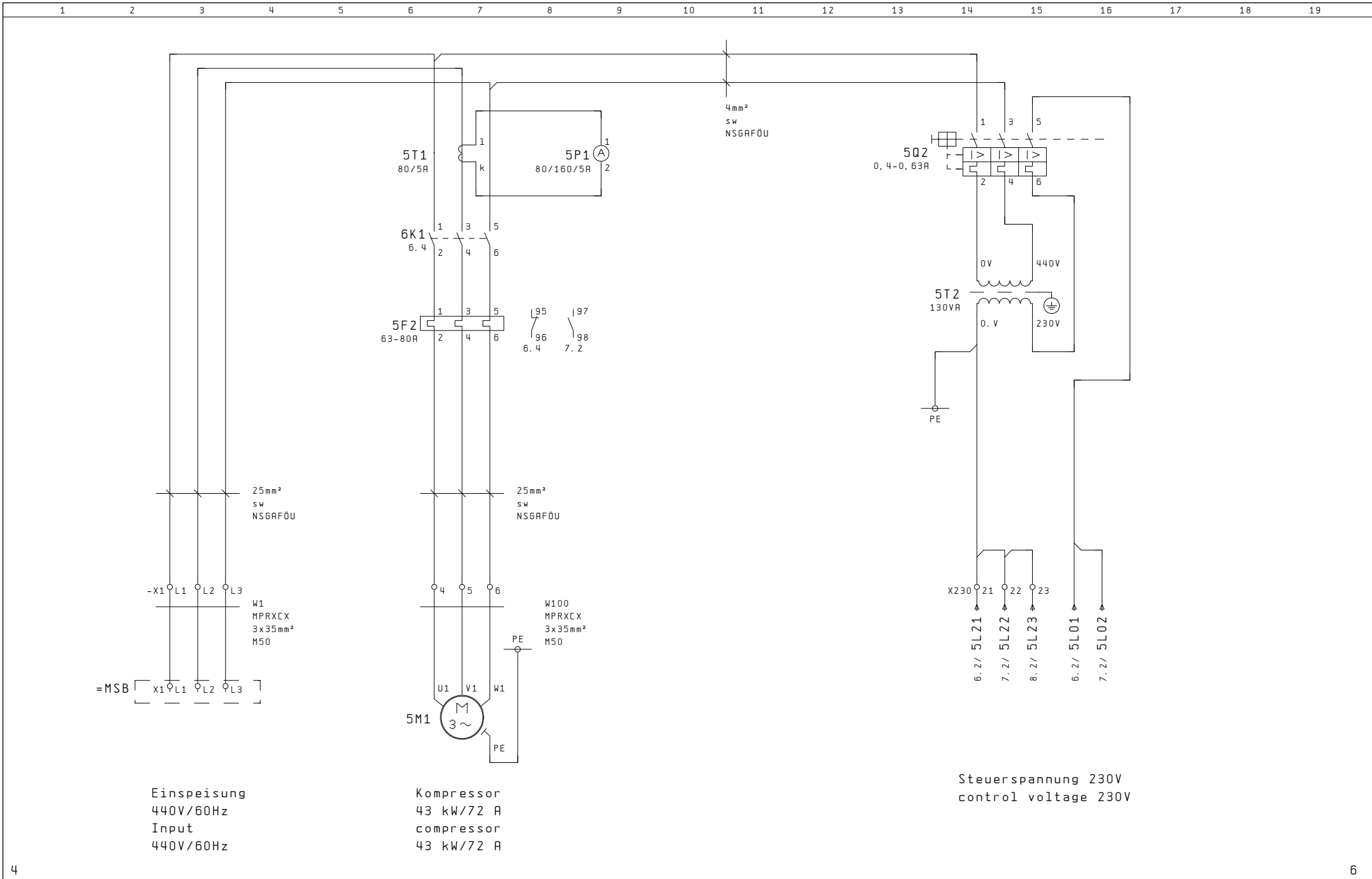
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	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Klemmleistenübersicht
	Urspr.	43002600	Terminal board survey
<b>Änderung</b>	<b>Datum</b>	<b>Name</b>	



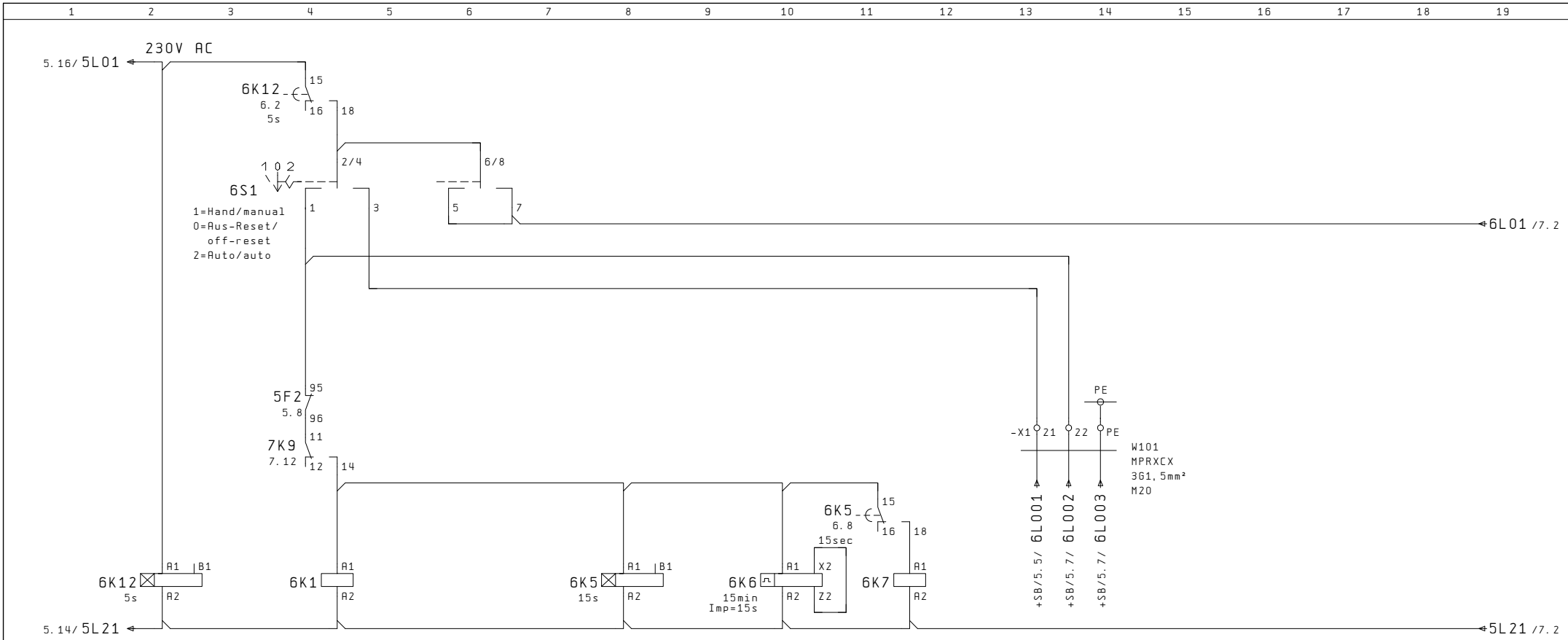
Uwe E. Zoller GmbH  
 Otto-Hahn-Strasse 9  
 25337 Elmshorn  
 Telefon (04121) 7 90 7-0  
 Telefax (04121) 7 90 7-77  
 Notdienst (0172) 7 46 85 07

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	1093380A/2.01
S2008-11776 COM C1	B1. 4
	10 B1.



		Datum	28. Jan. 2009	Kompressor-Anlage Compressor-System
		Bearb.	kwe	
		Gepr.	18. Mär. 2009	
		Urspr.	43D0260D	
Anderung	Datum	Name		Leistungsteil Power part

	Uwe E. Zoller GmbH Otto-Hahn-Strasse 9 25337 Elmshorn Telefon (04121) 7 90 7-0 Telefax (04121) 7 90 7-77 Notdienst (0172) 7 46 85 07	1093380A	=COM
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			1093380A/2.01
S2008-11776 COM C1		B1. 5	10 B1.



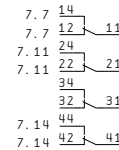
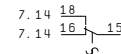
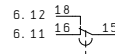
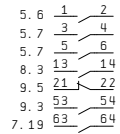
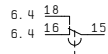
Wiederstart  
bei Blackout  
restart at  
black out

Haupt-  
schutz  
main  
contactor

Anfahrüberbrückung  
starting up  
bypass

Intervall-  
entwässerung  
interval  
drain

Vertauscherschrank  
selection box



	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Steuerteil
	Urspr.	43D0260D	Control part
Anderung	Datum	Name	



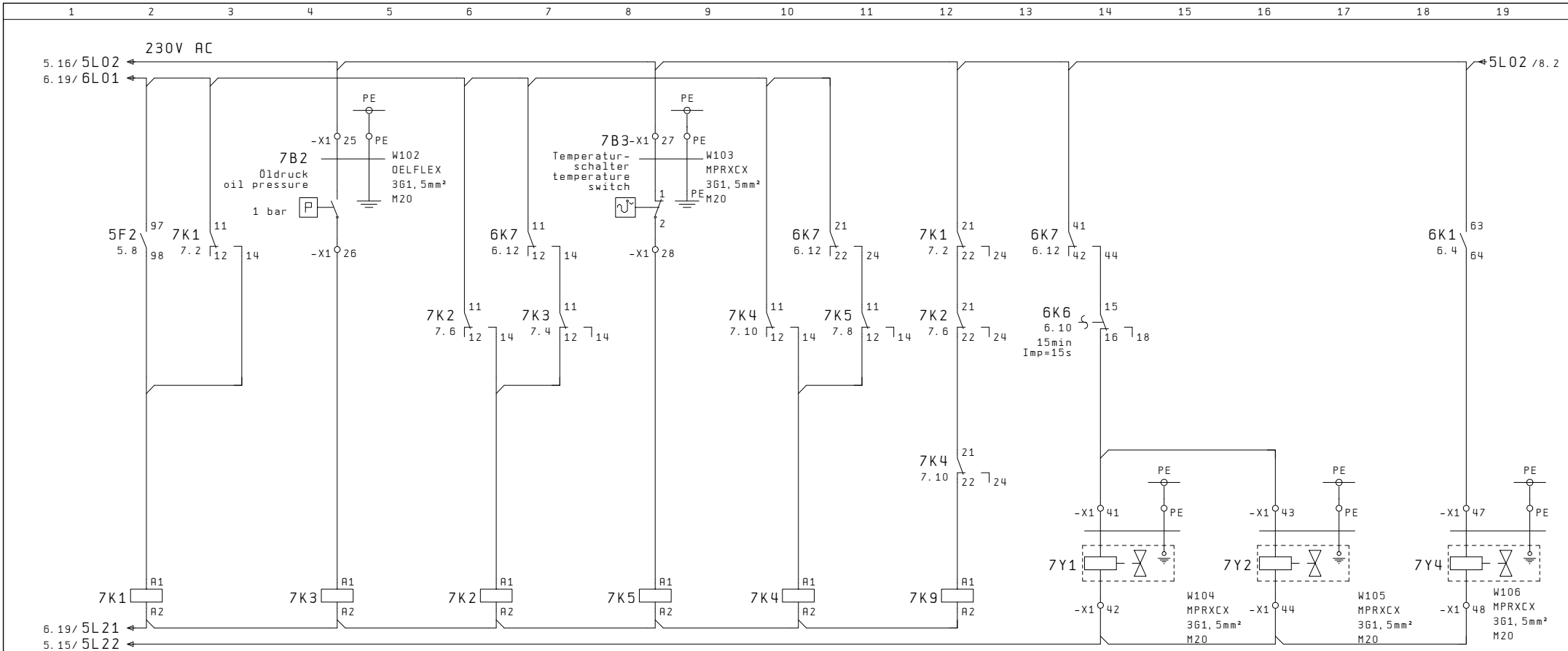
Uwe E. Zoller GmbH  
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1093380A

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+C1  
1093380A/2.01

S2008-11776 COM C1

B1. 6  
10 B1.



Motor  
Überlast  
motor  
overload

Öldruck  
zu niedrig  
oil  
pressure too low

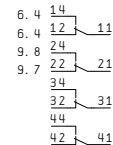
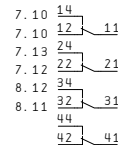
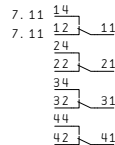
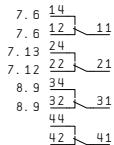
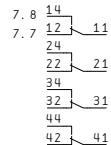
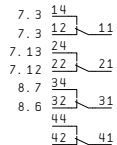
Druckluft-  
temperatur  
pressure air  
temperature

Kompressor  
Störung  
compressor  
fault

Entwässerungs-  
ventil 1  
drain  
valve 1

Entwässerungs-  
ventil 2  
drain  
valve 2

Kühlwasser-  
ventil  
cooling water  
valve



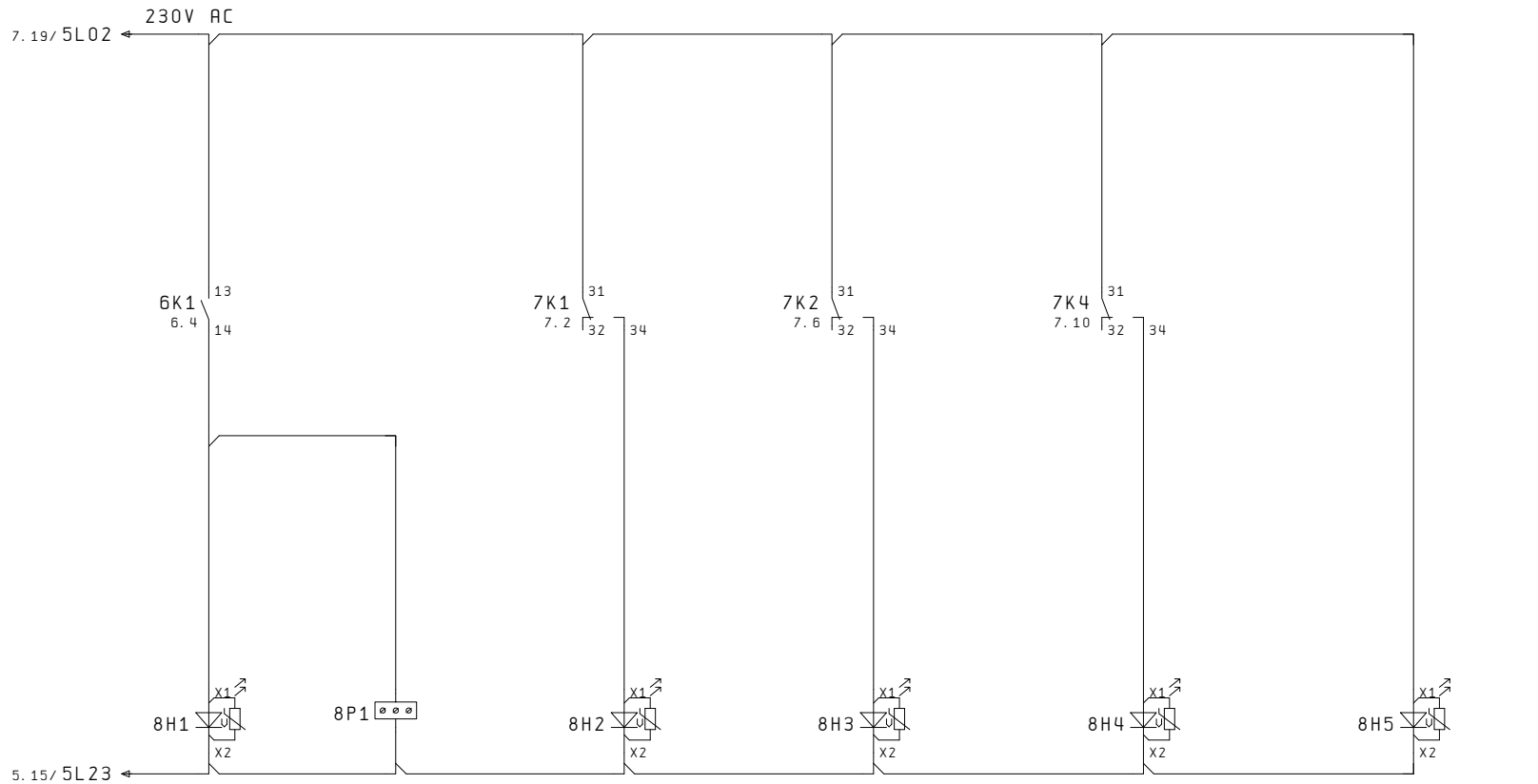
Datum	28. Jan. 2009	Kompressor-Anlage
Bearb.	kwe	Compressor-System
Gepr.	18. Mär. 2009	Steuerteil
Urspr.	43D0260D	Control part
Anderung	Datum	Name



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1093380A	=COM
	+C1
	1093380A/2.01
S2008-11776 COM C1	B1. 7
	10 B1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Betrieb  
operation

Betriebs-  
stundenzähler  
running  
hour counter

Überlast  
overload

Öldruck  
zu niedrig  
oil pressure  
too low

Druckluft-  
temperatur  
pressure air  
temperature

Spannung vorhanden  
power on

7

9

Datum	28. Jan. 2009	Kompressor-Anlage Compressor-System
Bearb.	kwe	
Gepr.	18. Mär. 2009	
Urspr.	43D0260D	
Meldeleuchten pilot lamps		
Änderung	Datum	Name



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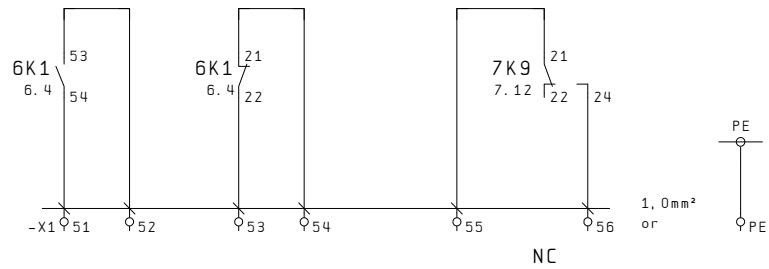
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+C1  
1093380A/2.01

S2008-11776 COM C1

B1. 8  
10 B1.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Betrieb aus Sammelalarm  
 operation off common alarm

8

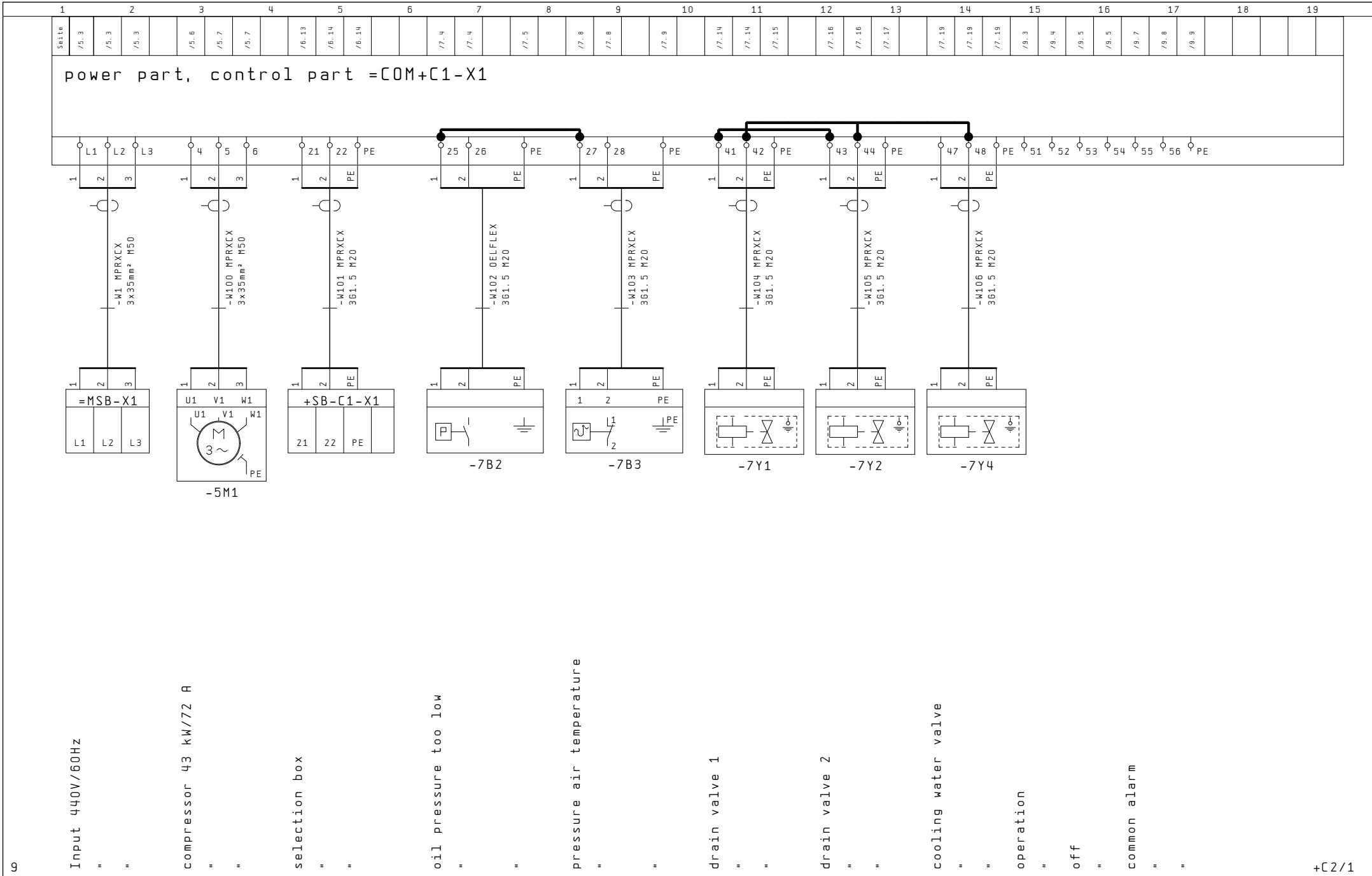
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	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Potentialfreie Kontakte
	Urspr.	43002600	Potentialfree contacts
<b>Änderung</b>	<b>Datum</b>	<b>Name</b>	



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1093380A	=COM
	+C1
	1093380A/2.01
S2008-11776 COM C1	B1. 9
	10 B1.



g	Input 440V/60Hz		
	"		
	"		
	Compressor 43 kW/72 A		
	"		
	"		
	selection box		
	"		
	"		
	oil pressure too low		
	"		
	"		
	pressure air temperature		
	"		
	"		
	drain valve 1		
	"		
	"		
	drain valve 2		
	"		
	"		
	cooling water valve		
	"		
	"		
	operation		
	"		
	off		
	"		
	"		
	common alarm		
	"		
	"		

Datum	17. Mär. 2009	Kompressor-Anlage Compressor-System power part, control part
Bearb.	kwe	
Gepr.	18. Mär. 2009	
Urspr.	43D0260D	
Anderung	Datum	Name

**zoller**

Uwe E. Zoller GmbH  
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Notdienst (0172) 7 46 85 07

1093380A	=COM
	+C1
	1093380A/2.01
S2008-11776 COM C1	B1. 10
	10 B1.

+C2/1

# ANLAGEN - DECKBLATT SYSTEM TITLE PAGE



ANLAGE/SYSTEM

Kompressor-Anlage  
Compressor-System  
Kompressor 2  
compressor 2

Lackierung/varnishing Munsell 7.5B67/2

DATUM/DATE  
 18. Mär. 2009

BLATT/PAGE  
 1 - 10

VORSCHRIFT/RULES : Schiffsausrüstung

KLASSE/CLASS :

SPANNUNG/VOLTAGE : 440V / 60Hz

STEUERSP./CONTROL VOLTAGE : 230V 60Hz

LEISTUNG/POWER : 43 kW

NENNSTROM/NOMINAL CURRENT : 72 A

SCHUTZART/PROTECTION MODE :

LIEFERANT SCHALTANLAGE/  
SUPPLIER SWITCH CABINET

Uwe E. Zoller GmbH Elektrotechnik

BEARBEITER/SENIOR CLERK : Zielke

BESTELL-NR./ORDER NO. : 88478

KOMM. NR./SERIAL NO. : 1093380A

ZEICHN. NR./DRAWING NO. : S2008-11776 COM C2

CAD-DOKU. NR./CAD-DOCU. NO. : 1093380A/2.01

LIEFERTERMIN/DATE OF DELIVERY : 09. KW. 2009



**J. P. SAUER & SOHN**  
MASCHINENBAU GMBH



KOMM. NR./SERIAL NO. : 41005785A

SACHNUMMER/SUBJECT NO. : 043135

BAUJAHR/YEAR BUILT : 2009

BESCHRIFTUNG/LETTERING : deutsch/englisch

021 Diese Pläne sind mit dem CAE-System "EPLAN" erstellt worden. Änderungen können nur mit dem CAE-System mit Original-Parametern durchgeführt werden.

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3

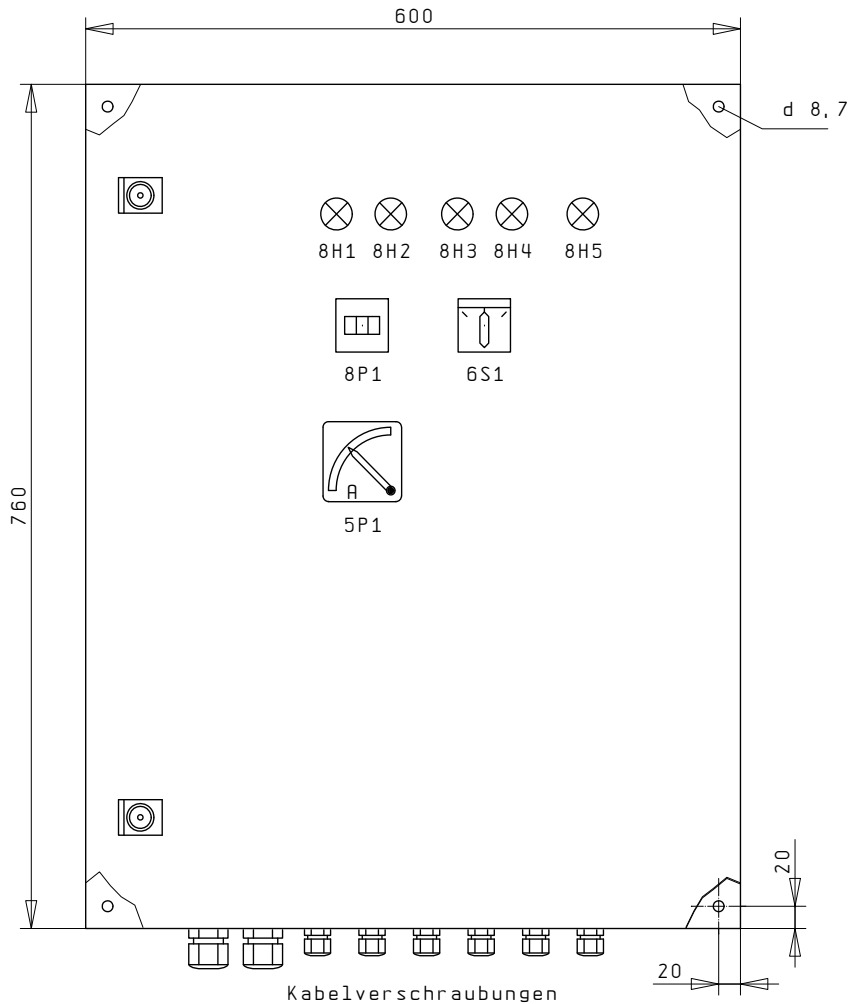
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	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	
	Urspr.	43D0260D	Kompressor 2
Änderung	Datum	Name	compressor 2



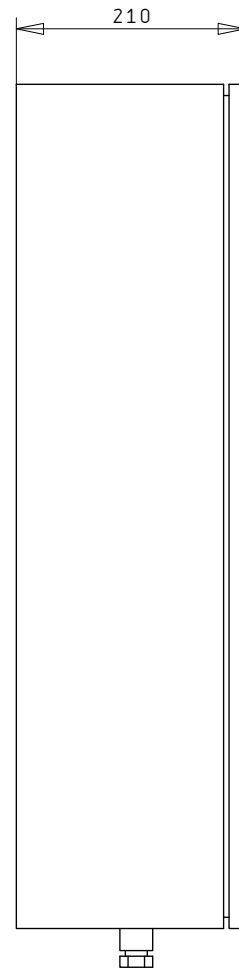
Uwe E. Zoller GmbH  
Otto-Hahn-Strasse 9  
25337 Elmshorn  
Telefon (04121) 7 90 7-0  
Telefax (04121) 7 90 7-77  
Notdienst (0172) 7 46 85 07

1093380A	=COM
	+C2
	1093380A/2.01
S2008-11776 COM C2	B1. 1
	10 Bl.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Kabelverschraubungen  
 2x M50  
 7x M20  
 cable glands  
 2x M50  
 7x M20



Legende/legend:

- 5P1 = Amperemeter  
ammeter
- 6S1 = 1=Hand - 0=Aus/Reset - 2=Automatik  
1=manual - 0=off/reset - 2=automatic
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- 8H2 = Überlast (rot)  
overload (red)
- 8H3 = Öldruck zu niedrig (rot)  
oil pressure too low (red)
- 8H4 = Drucklufttemperatur zu hoch (rot)  
pressure air temp. too high (red)
- 8H5 = Spannung vorhanden (blau)  
power on (blue)
- 8P1 = Betriebsstundenzähler  
running hour counter

1

AE 1076  
 Maßstab 1:5  
 scale 1:5

4

	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Maßblatt Schaltschrank
	Urspr.	43D0260D	Dimensional drawing Switch cabinet
Änderung	Datum	Name	



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 Notdienst (0172) 7 46 85 07

1093380A	=COM
	+C2
	1093380A/2.01
S2008-11776 COM C2	B1. 3
	10 B1.

X1=Leistungsteil, Steuerteil  
 power part, control part  
 X230=230V Verteilung  
 230V distribution

Fertigungsvorgaben  
 production defaults

halogenfreie Verkabelung halogenfree cabling	_____
halogenfreie Kabelkanäle halogenfree cable channels	_____
Lackierung varnishing	Munsell 7.5B67/2
Aderkennzeichnung wire marking	_____
Vorschrift specification	Schiffsausrüstung
Abnahme acceptance	_____
Triathlon Triathlon	✓
2 Erdungsbolzen auf der Montageplatte M8x35mm 2 earth bolt on the mounting plate M8x35mm	✓

=MSB [ X1=Einspeisung  
 input ]

3

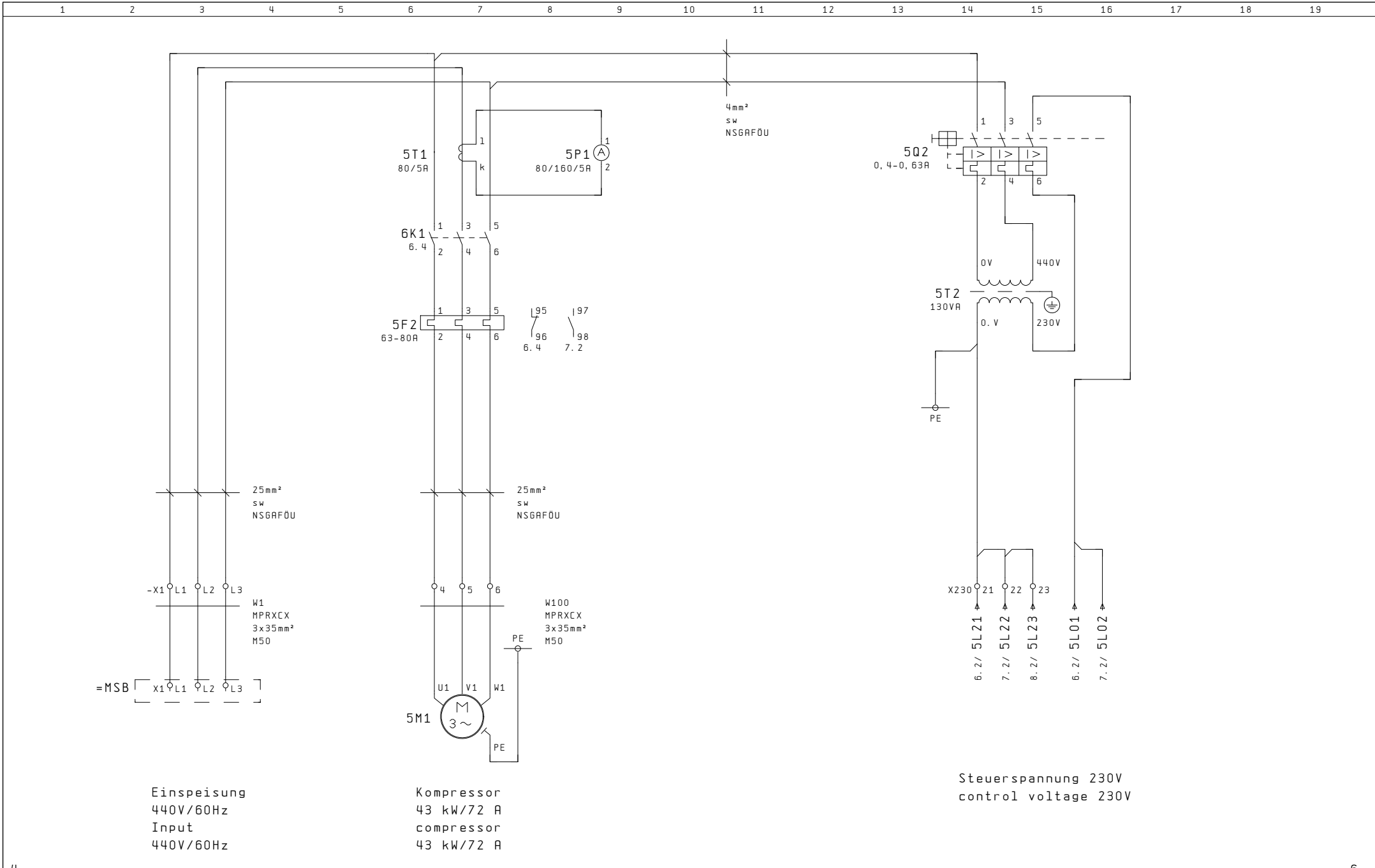
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	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Klemmleistenübersicht
	Urspr.	4300260D	Terminal board survey
<b>Änderung</b>	<b>Datum</b>	<b>Name</b>	



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1093380A	=COM
	+C2
	1093380A/2.01
S2008-11776 COM C2	B1. 4
	10 B1.



4

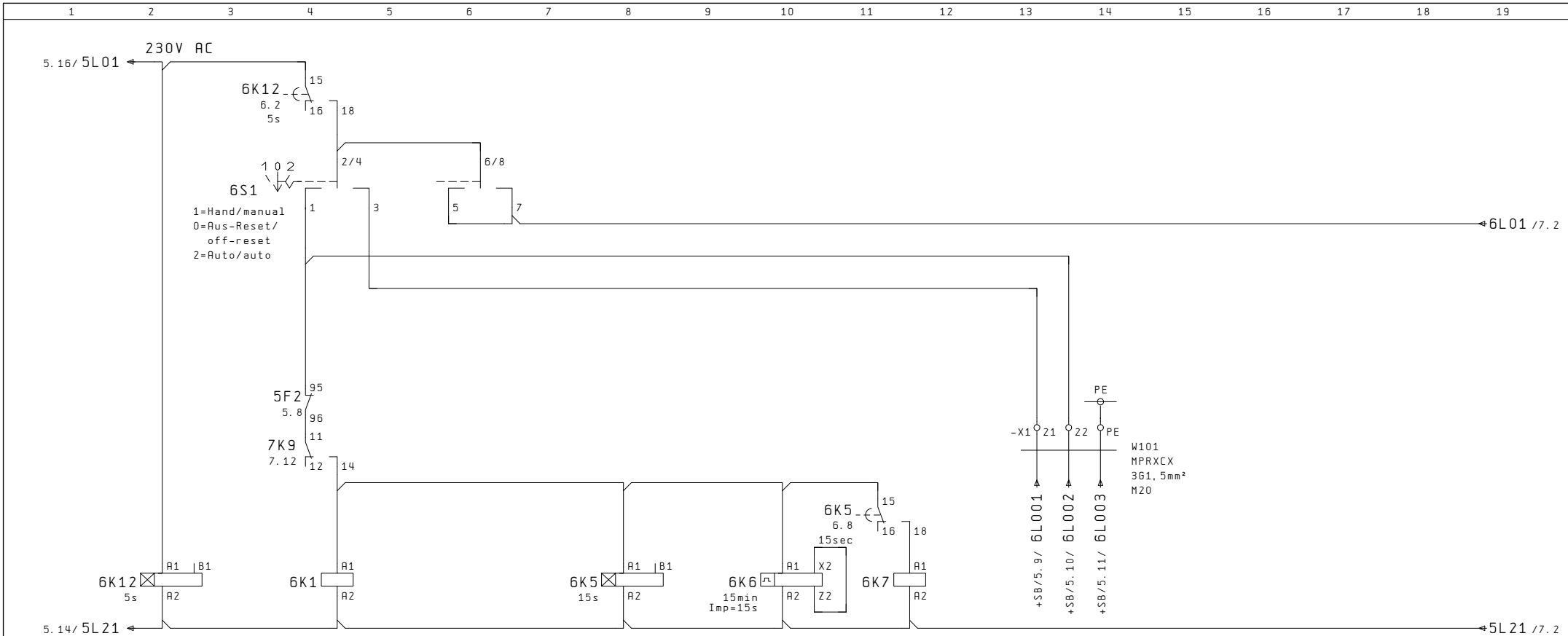
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	Datum	28. Jan. 2009	Kompressor-Anlage Compressor-System
	Bearb.	kwe	
	Gepr.	18. Mär. 2009	
	Urspr.	43D0260D	
Anderung	Datum	Name	Leistungsteil Power part

**zoller**

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1093380A	=COM
	+C2
	1093380A/2.01
S2008-11776 COM C2	B1. 5
	10 B1.



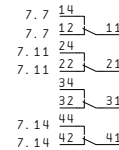
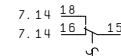
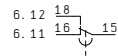
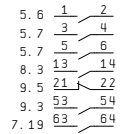
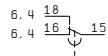
Wiederstart  
bei Blackout  
restart at  
black out

Haupt-  
schütz  
main  
contactor

Anfahrüberbrückung  
starting up  
bypass

Intervall-  
entwässerung  
interval  
drain

Vertauscherschrank  
selection box



Datum	28. Jan. 2009	Kompressor-Anlage
Bearb.	kwe	Compressor-System
Gepr.	18. Mär. 2009	Steuerteil
Urspr.	43D0260D	Control part
<b>Änderung</b>	<b>Datum</b>	<b>Name</b>



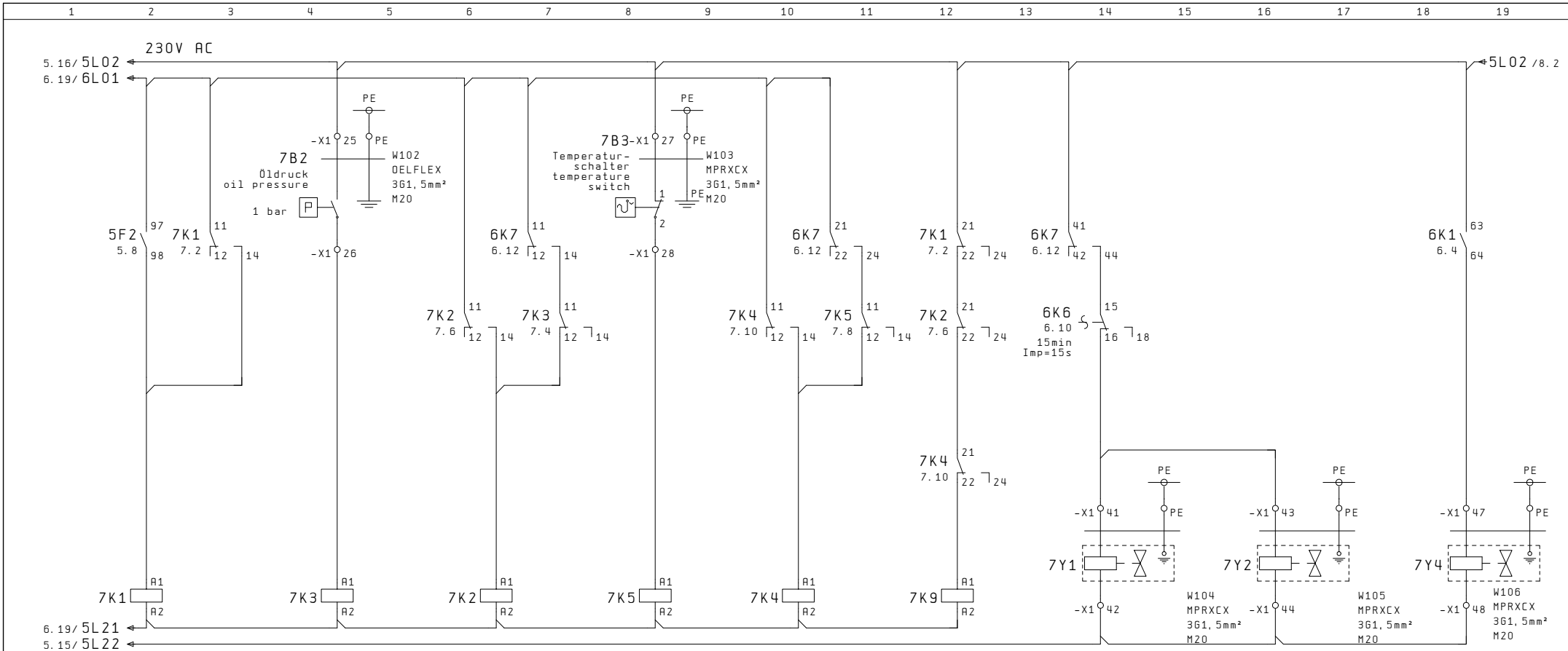
Uwe E. Zoller GmbH  
Otto-Hahn-Strasse 9  
25337 Elmshorn  
Telefon (04121) 7 90 7-0  
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=COM  
+C2  
1093380A/2.01

S2008-11776 COM C2

B1. 6  
10 B1.



Motor  
Überlast  
motor  
overload

Öldruck  
zu niedrig  
oil  
pressure too low

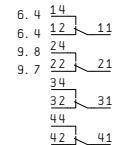
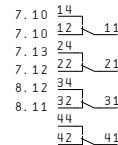
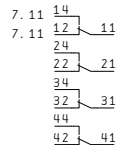
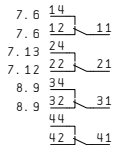
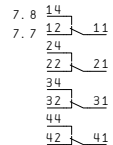
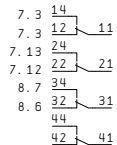
Druckluft-  
temperatur  
pressure air  
temperature

Kompressor  
Störung  
compressor  
fault

Entwässerungs-  
ventil 1  
drain  
valve 1

Entwässerungs-  
ventil 2  
drain  
valve 2

Kühlwasser-  
ventil  
cooling water  
valve



Datum	28. Jan. 2009	Kompressor-Anlage Compressor-System
Bearb.	kwe	
Gepr.	18. Mär. 2009	
Urspr.	43D0260D	
Steuerteil Control part		
Anderung	Datum	Name



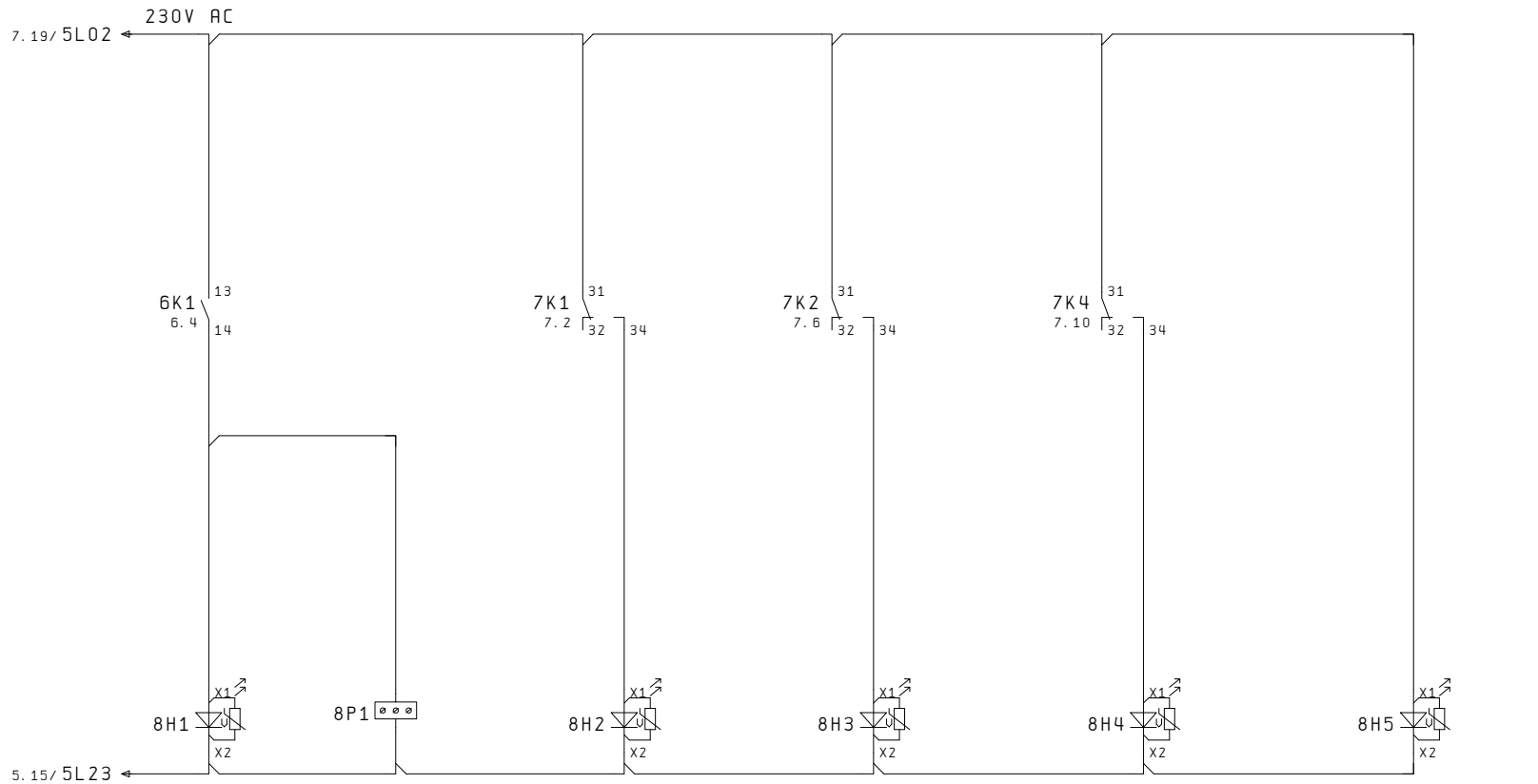
Uwe E. Zoller GmbH  
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25337 Elmshorn  
Telefon (04121) 7 90 7-0  
Telefax (04121) 7 90 7-77  
Notdienst (0172) 7 46 85 07

1093380A

=COM
+C2
1093380A/2.01
B1. 7
10 B1

S2008-11776 COM C2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Betrieb  
operation

Betriebs-  
stundenzähler  
running  
hour counter

Überlast  
overload

Öldruck  
zu niedrig  
oil pressure  
too low

Druckluft-  
temperatur  
pressure air  
temperature

Spannung vorhanden  
power on

7

9

Datum	28. Jan. 2009	Kompressor-Anlage Compressor-System
Bearb.	kwe	
Gepr.	18. Mär. 2009	
Urspr.	43D0260D	
Meldeleuchten pilot lamps		
Änderung	Datum	Name



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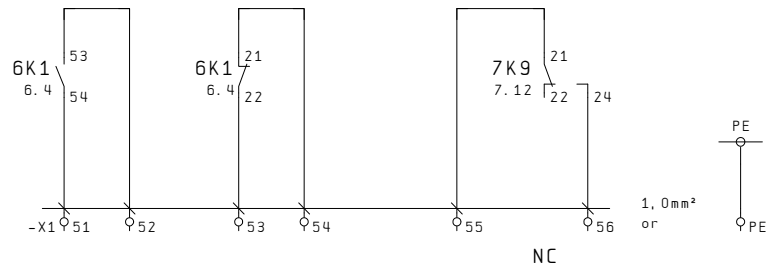
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1093380A/2.01

S2008-11776 COM C2

B1. 8  
10 B1.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Betrieb aus Sammelalarm  
 operation off common alarm

8

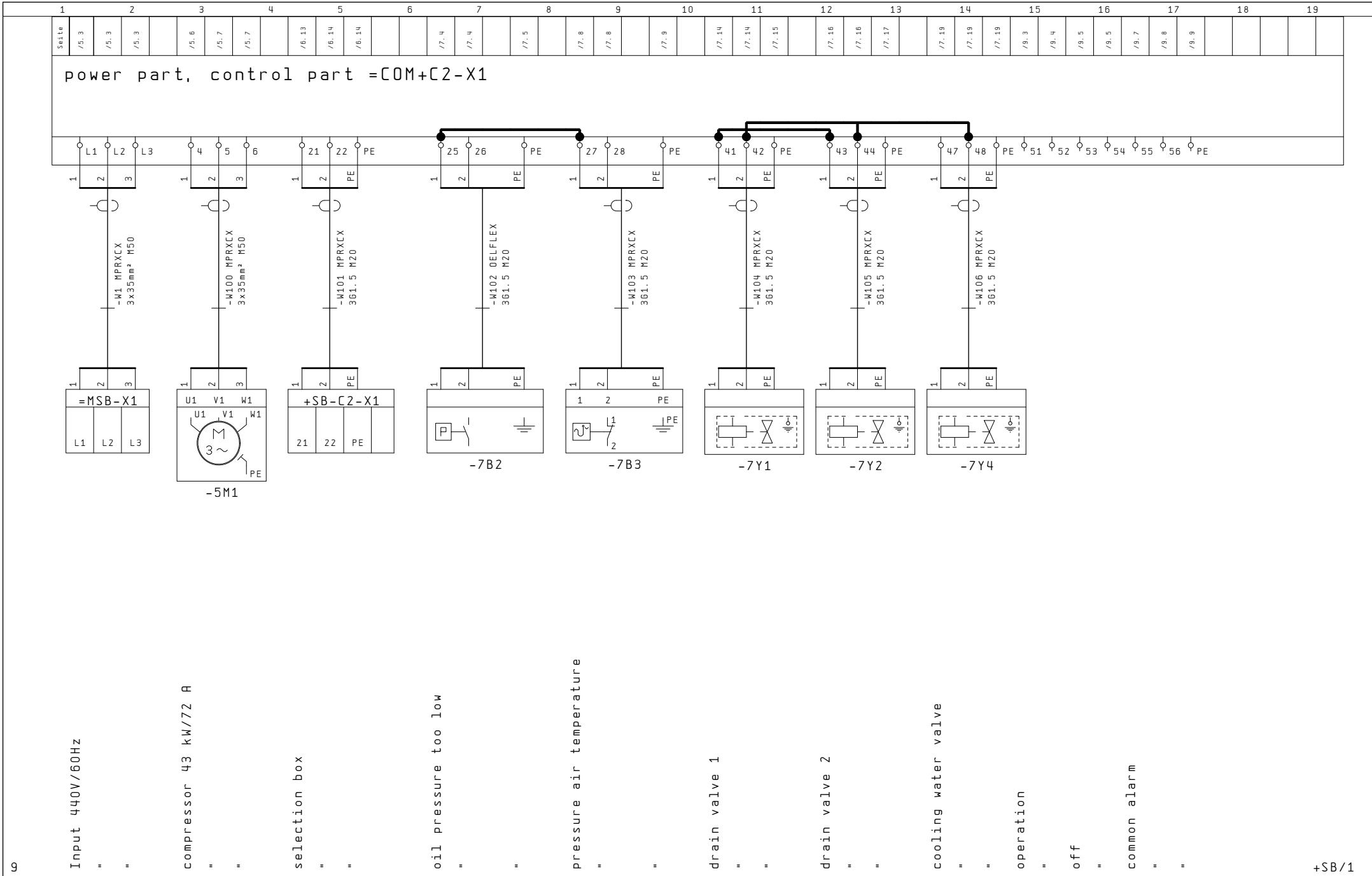
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	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Potentialfreie Kontakte
	Urspr.	43002600	Potentialfree contacts
Anderung	Datum	Name	



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1093380A	=COM
	+C2
	1093380A/2.01
S2008-11776 COM C2	B1. 9
	10 B1.



g	Input 440V/60Hz		
	"		
	"		
	Compressor 43 kW/72 A		
	"		
	selection box		
	"		
	"		
	oil pressure too low		
	"		
	"		
	pressure air temperature		
	"		
	"		
	drain valve 1		
	"		
	"		
	drain valve 2		
	"		
	"		
	cooling water valve		
	"		
	"		
	operation		
	"		
	off		
	"		
	common alarm		
	"		
	"		+SB/1

Datum	17. Mär. 2009	Kompressor-Anlage
Bearb.	kwe	Compressor-System
Gepr.	18. Mär. 2009	
Urspr.	43D0260D	power part, control part

**zoller**

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1093380A	=COM
	+C2
	1093380A/2.01
S2008-11776 COM C2	B1. 10
	10 B1.

# ANLAGEN - DECKBLATT SYSTEM TITLE PAGE



## ANLAGE/SYSTEM

Kompressor-Anlage  
Compressor-System  
Vertauscherschrank  
selection box

Lackierung/varnishing Munsell 7.5B67/2

DATUM/DATE

18. Mär. 2009

BLATT/PAGE

1 - 8

VORSCHRIFT/RULES : Schiffsausrüstung

KLASSE/CLASS :

SPANNUNG/VOLTAGE : 440V / 60Hz

STEUERSP./CONTROL VOLTAGE : 230V 60Hz

LEISTUNG/POWER :

NENNSTROM/NOMINAL CURRENT :

SCHUTZART/PROTECTION MODE :

## LIEFERANT SCHALTANLAGE/ SUPPLIER SWITCH CABINET

Uwe E. Zoller GmbH Elektrotechnik

BEARBEITER/SENIOR CLERK : Zielke

BESTELL-NR./ORDER NO. : 88478

KOMM. NR./SERIAL NO. : 1093380A

ZEICHN. NR./DRAWING NO. : S2008-11776 COM SB

CAD-DOKU. NR./CAD-DOCU. NO. : 1093380A/2.01

LIEFERTERMIN/DATE OF DELIVERY : 09. KW. 2009



**J. P. SAUER & SOHN**  
MASCHINENBAU GMBH



KOMM. NR./SERIAL NO. : 41005785A

SACHNUMMER/SUBJECT NO. : 036465

BAUJAHR/YEAR BUILT : 2009

BESCHRIFTUNG/LETTERING : deutsch/englisch

021 Diese Pläne sind mit dem CAE-System "EPLAN" erstellt worden. Änderungen können nur mit dem CAE-System mit Original-Parametern durchgeführt werden.

(C) 2009

+C2/10

3

Änderung	Datum	Name	
	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Vertauscherschrank
	Urspr.	43D0260D	selection box



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1093380A

=COM

+SB

1093380A/2.01

S2008-11776 COM SB

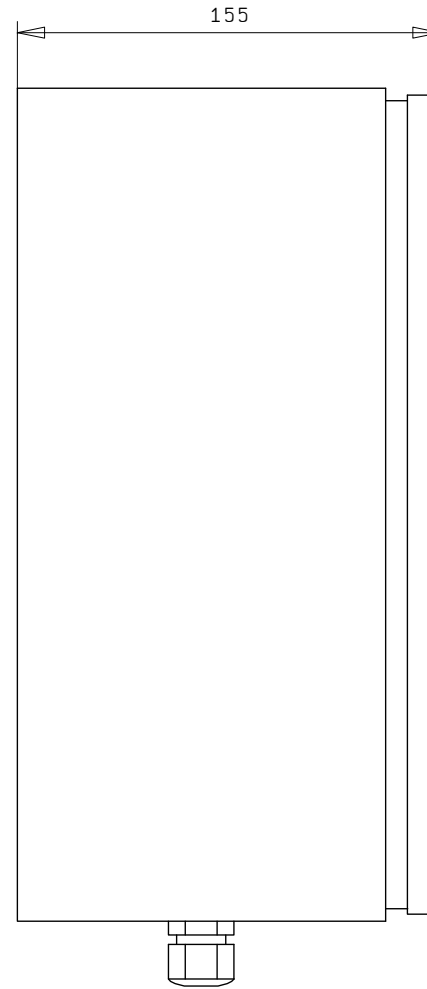
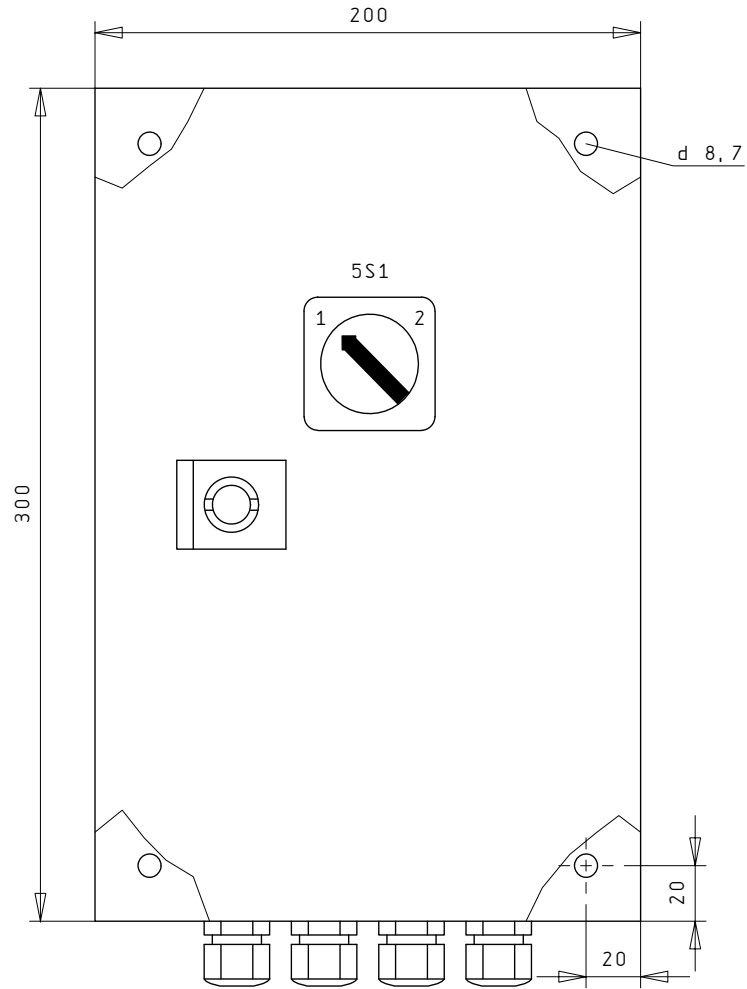
B1. 1

8 B1.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

Legende/legend:

5S1 = 1 - Kompressor 1 Führungskompressor      2 - Kompressor 2 Führungskompressor  
 Kompressor 2 Folgekompressor      —      Kompressor 1 Folgekompressor  
 compressor 1 guiding compressor      compressor 2 guiding compressor  
 compressor 2 succeeding compressor      compressor 1 succeeding compressor



Kabelverschraubungen  
 4x M20  
 cable glands  
 4x M20

AE 1035  
 Maßstab 1:2  
 scale 1:2

1

	Datum	28. Jan. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Maßblatt Schaltschrank
	Urspr.	43D0260D	dimensional drawing switch cabinet
<b>Änderung</b>	<b>Datum</b>	<b>Name</b>	



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1093380A	=COM
	+SB
	1093380A/2.01
S2008-11776 COM SB	B1. 3
	8 B1.

4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

C1-X1=Kompressor 1  
compressor 1  
C2-X1=Kompressor 2  
compressor 2  
X0=Druckschalter  
pressure switch

Fertigungsvorgaben  
production defaults

halogenfreie Verkabelung halogenfree cabling	_____
halogenfreie Kabelkanäle halogenfree cable channels	_____
Lackierung varnishing	RAL 7035
Aderkennzeichnung wire marking	_____
Vorschrift specification	Schiffsausrüstung
Abnahme acceptance	_____
Triathlon Triathlon	✓
2 Erdungsbolzen auf der Montageplatte M6x35mm 2 earth bolt on the mounting plate M6x35mm	_____

3

5

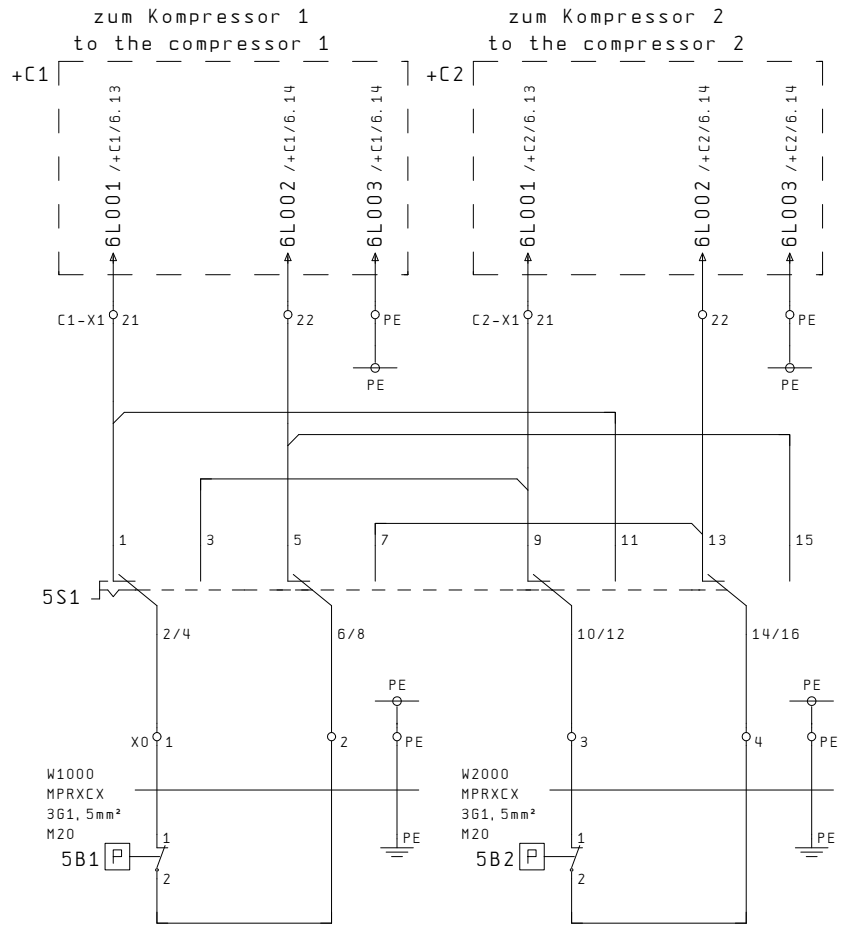
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	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	Klemmleistenübersicht
	Urspr.	43002600	terminal board survey
<b>Anderung</b>	<b>Datum</b>	<b>Name</b>	



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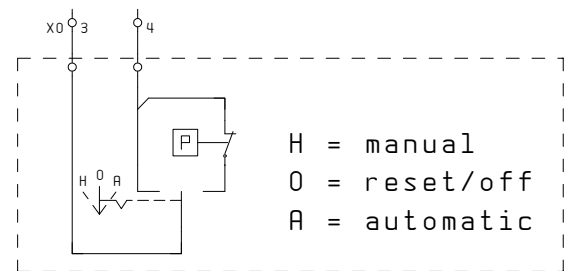
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	+SB
S2008-11776 COM SB	1093380A/2.01
	B1. 4
	8 B1.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Druckschalter 1  
pressure switch 1

Druckschalter 2  
pressure switch 2



H = manual  
O = reset/off  
A = automatic

Alternative:  
for remote control of compressor

Compressor is either  
manually controlled  
or by pressure switch.  
Installation of  
mode switch in ECR.

4

6

	Datum	28. Jan. 2009
	Bearb.	kwe
	Gepr.	18. Mär. 2009
	Urspr.	43D0260D
Anderung	Datum	Name

Kompressor-Anlage  
Compressor-System

Vertauschung  
selection

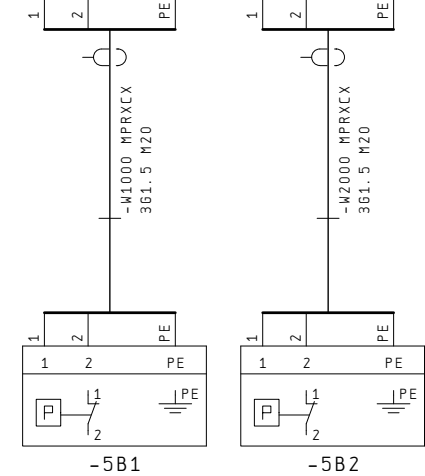
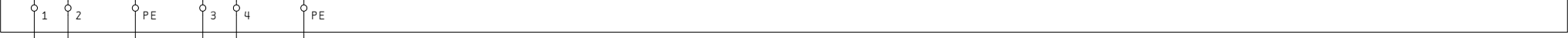


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1093380A	=COM
	+SB
	1093380A/2.01
S2008-11776 COM SB	B1. 5
	8 B1.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----

pressure switch = COM+SB-X0



pressure switch 1  
 =  
 =  
 pressure switch 2  
 =  
 =

5			
---	--	--	--

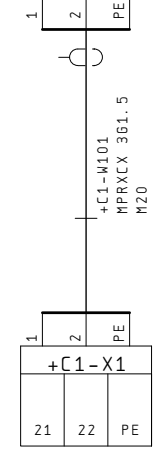
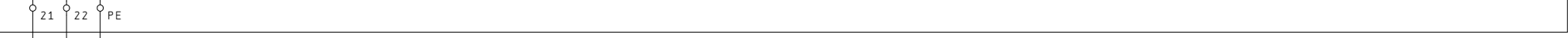
Datum	17. Mär. 2009	Kompressor-Anlage
Bearb.	kwe	Compressor-System
Gepr.	18. Mär. 2009	
Urspr.	4300260D	pressure switch
Anderung	Datum	Name

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 Telefax (04121) 7 90 7-77  
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1093380A	=COM
	+SB
	1093380A/2.01
S2008-11776 COM SB	B1. 6
	8 B1.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----

compressor 1 =COM+SB-C1-X1



6 to the compressor 1 = -

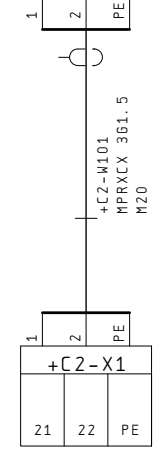
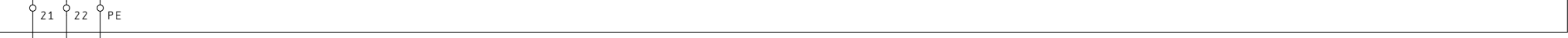
Datum	17. Mär. 2009	Kompressor-Anlage Compressor-System compressor 1	
Bearb.	kwe		
Gepr.	18. Mär. 2009		
Urspr.	43002600		
Anderung	Datum	Name	

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1093380A	=COM
	+SB
S2008-11776 COM SB	1093380A/2.01
	B1. 7
	8 B1.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----

compressor 2 =COM+SB-C2-X1



7  
to the compressor 2  
=

	Datum	17. Mär. 2009	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	18. Mär. 2009	
	Urspr.	43002600	compressor 2
Anderung	Datum	Name	



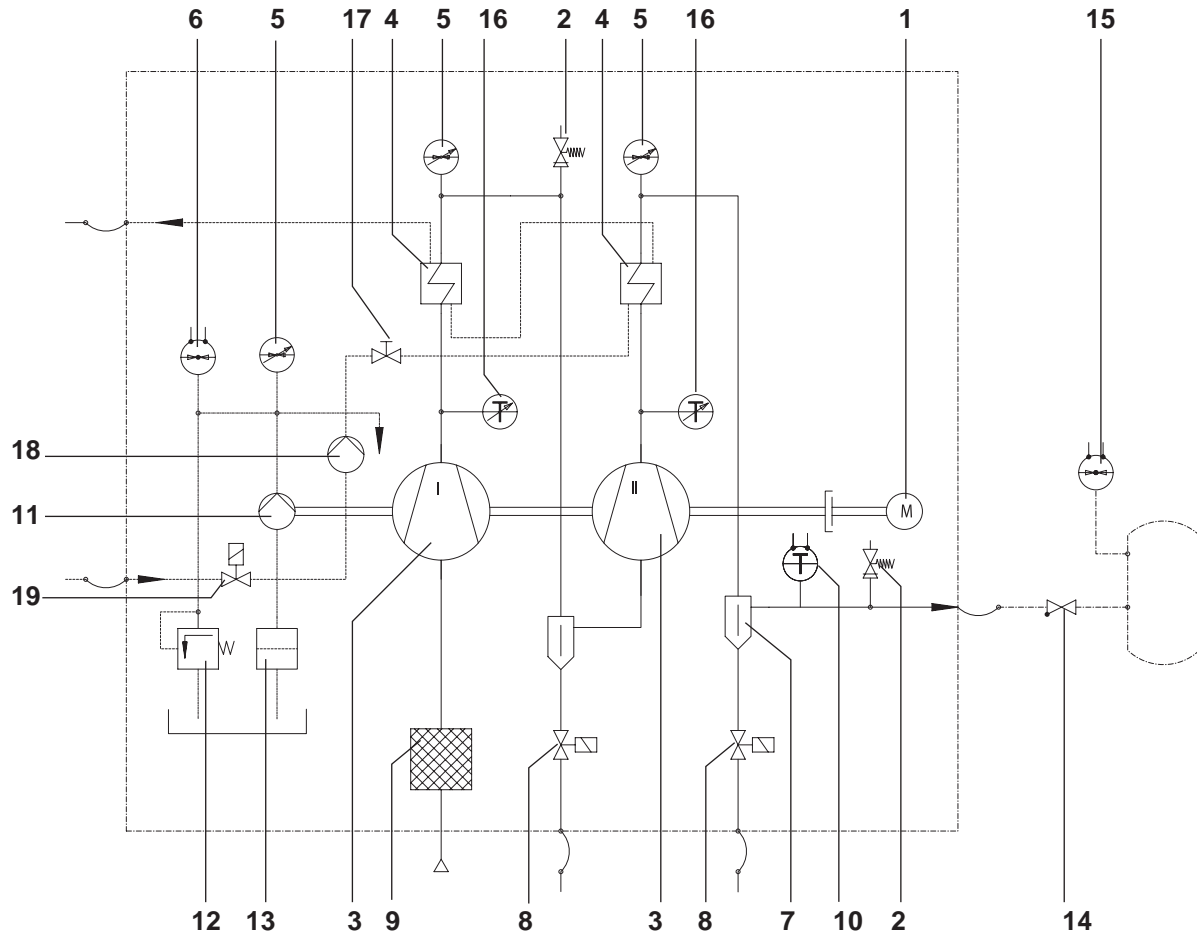
Uwe E. Zoller GmbH  
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Telefax (04121) 7 90 7-77  
Notdienst (0172) 7 46 85 07

1093380A	=COM
	+SB
	1093380A/2.01
S2008-11776 COM SB	B1. 8
	8 B1.



# P&I-Diagram WP200/240

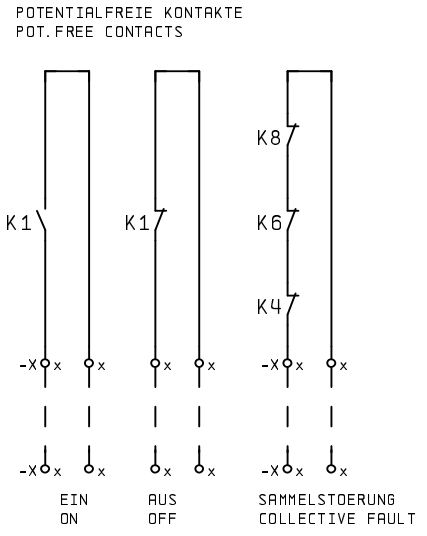
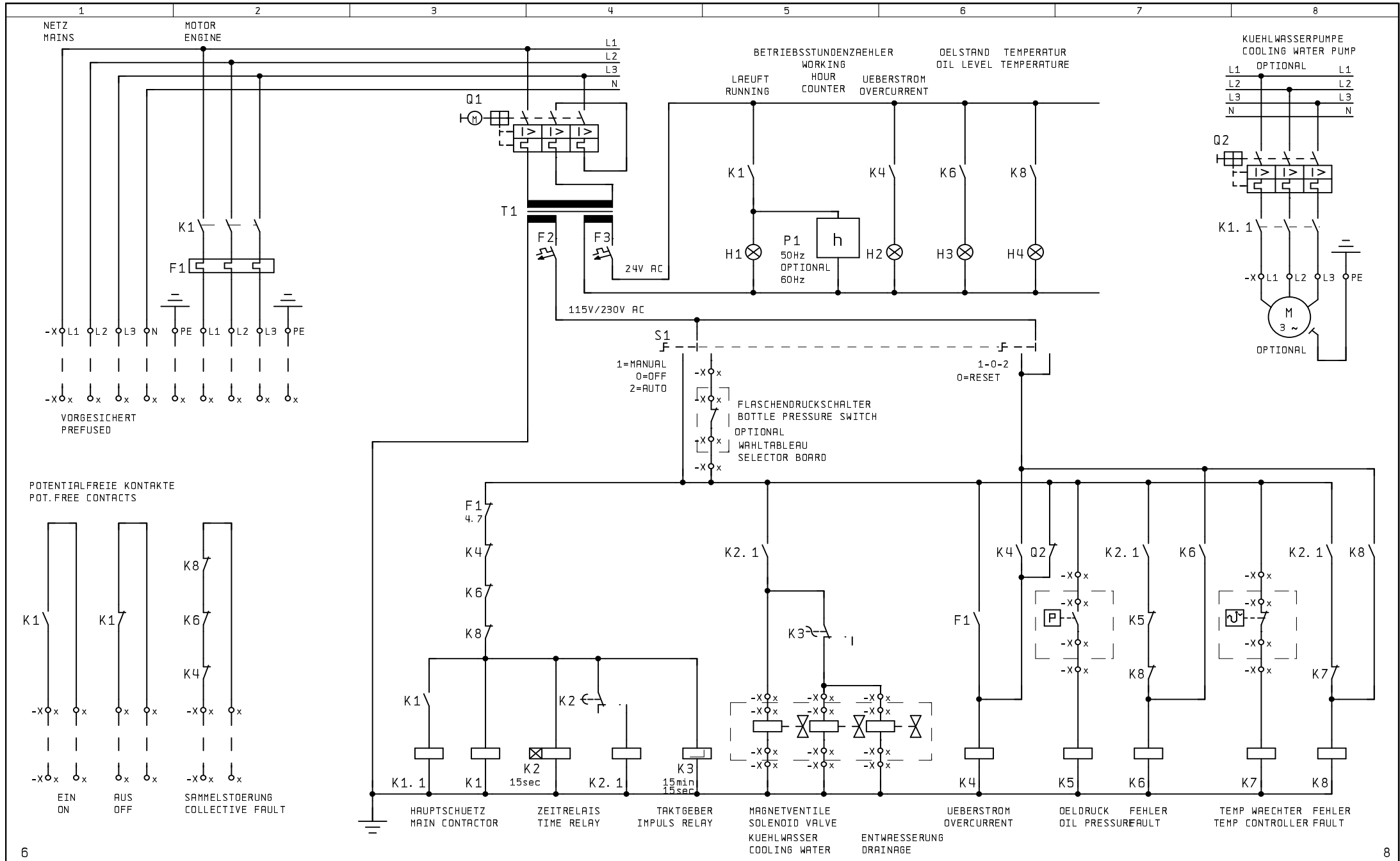
## - Compressed air system plan and cooling water plan



Item	Name
1	Drive motor
2	Safety valve
3	Compressor stage
4	Intercooler and aftercooler
5	Pressure gauge
6	Oil pressure switch
7	Separator
8	Solenoid valve
9	Air filter/silencer
10	Temperature switch
11	Oil pump
12	Overpressure valve
13	Oil filter

# Technical Specifications

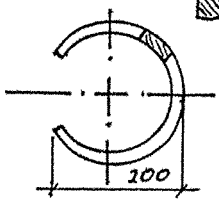
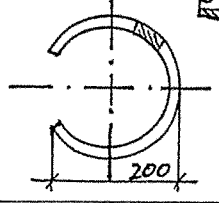
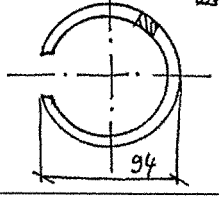
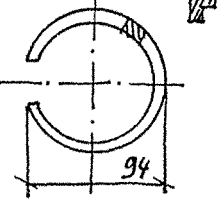
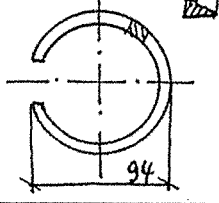
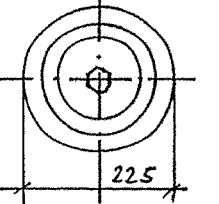
Item	Name
14	Non-return valve
15	Bottle pressure switch
16	Thermometer
17	Hand valve
18	Cooling water pump (optional)
19	Cooling water stop valve

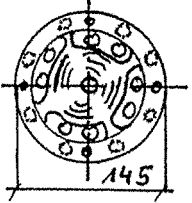
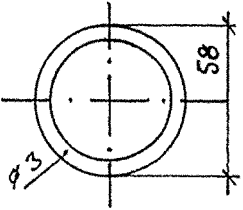
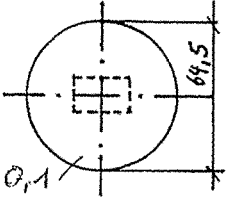
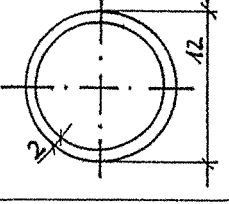
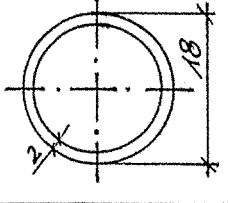
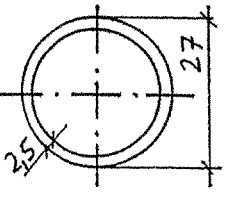
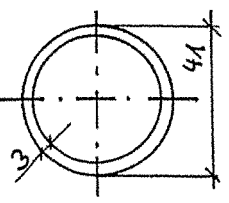


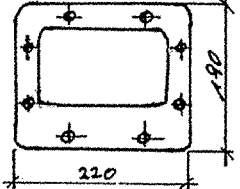
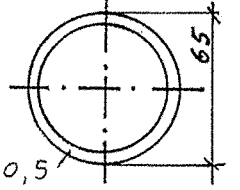
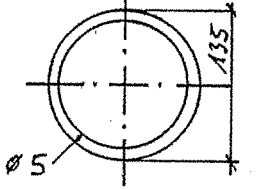
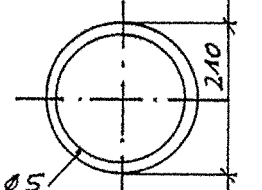
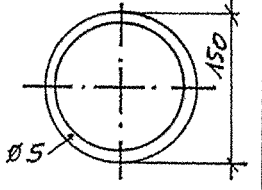
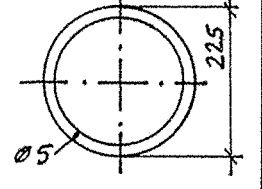
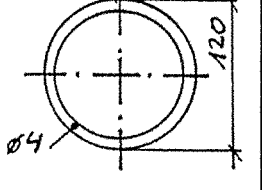
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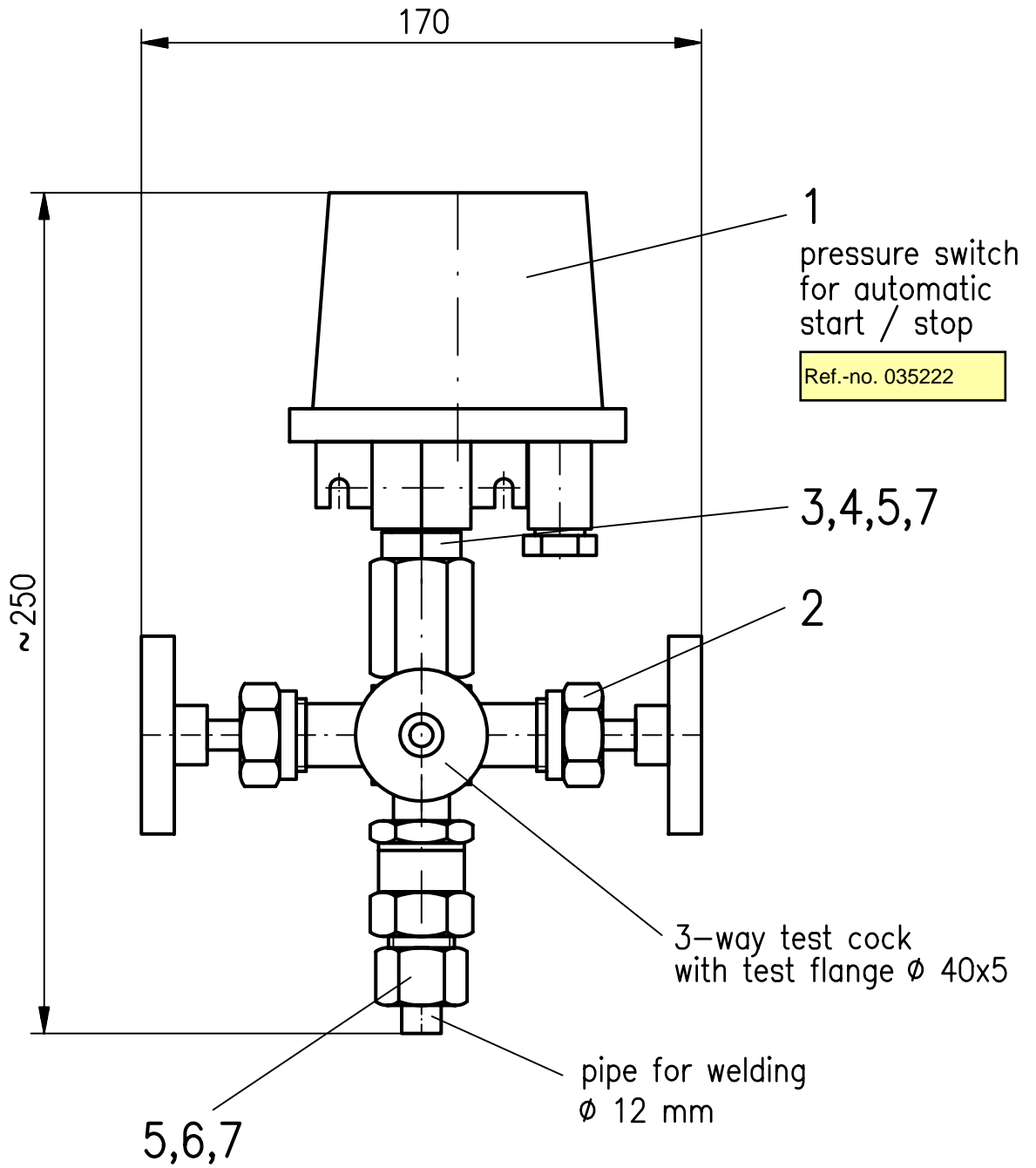
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		Datum	19.04.04	PRINZIPSCHALTBI principle diagram	Kunden-Nummer : Bestell-Nummer : D	Blatt : sheet : 7				
		Bearb.	DOH / PRA							
		Gepr.								
Anderung	Datum	Name	Norm	Ursprf.	Ers. f.	Ers. d.	Prinz_2W_op	Zeichnungs-Nummer : PRINZIP1	Sach-Nummer :	Ges. Bl.: Tot. sh.: 10

WP200/ WP240		Reserveteilliste spare parts list			Sach-Nr. 064 007	Ä.I d
Seite/page 1 von/of 3		Reserveteile "B+A"			Code-Nr. 2 - 0009	
Pos. Item	Stckz. Qty.	Benennung Designation	Sach-Nr. Ref.No.	Bemerkungen remarks		
-	-	Reserveteile "B + A" spare parts range "B + A"	064 007			
1	2	Rechteckring R-ring	002 716			
2	1	Gleichfasenring G-ring	035 962			
3	2	Rechteckring R-ring	033 220			
4	1	Nasenring N-ring	034 213			
5	1	Ölschlitzring S-ring	033 221			
7	1	Konzentrisches Ventil concentric valve	037 134			

WP200/ WP240		Reserveteilliste spare parts list			Sach-Nr. 064 007	Ä.I d
Seite/page 2 von/of 3		Reserveteile "B+A"			Code-Nr. 2 - 0009	
Pos. Item	Stckz. Qty.	Benennung Designation	Sach-Nr. Ref.No.	Bemerkungen remarks		
8	1	Lamellenventil lamellar valve	036 959			
9	1	RD-Ring o-ring	035 970			
10	1	Brechplatte bursting plate	061 942			
11	1	Dichtring gasket	003 493			
12	2	Dichtring gasket	005 001			
13	10	Dichtring gasket	005 009			
14	15	Dichtring gasket	005 023			

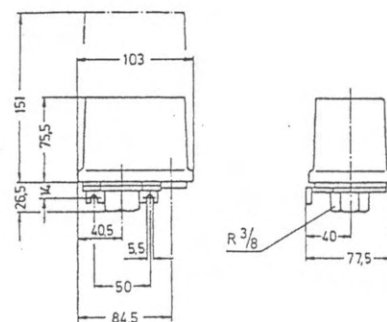
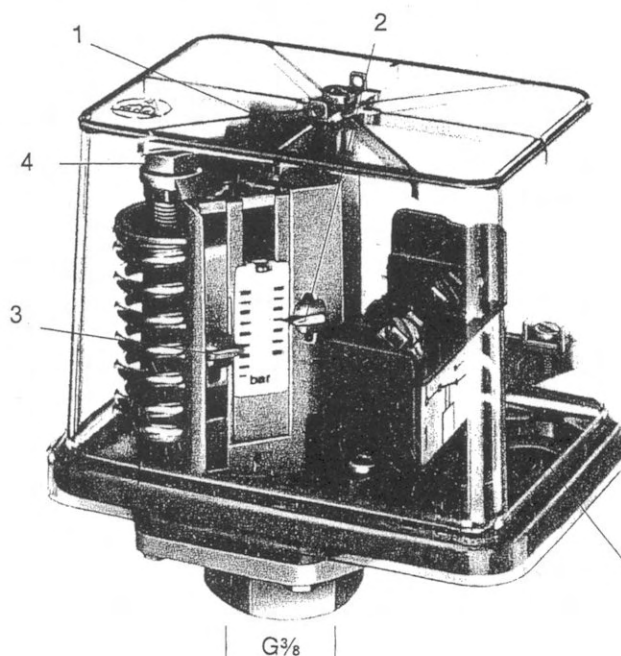
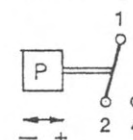
WP200/ WP240		Reserveteilliste spare parts list			Sach-Nr. 064 007	Ä.I d
Seite/page 3 von/of 3		Reserveteile "B+A"			Code-Nr. 2 - 0009	
Pos. Item	Stckz. Qty.	Benennung Designation	Sach-Nr. Ref.No.	Bemerkungen remarks		
15	2	Dichtung packing	063 748			
16	1	Dichtung packing	051 530			
17	4	RD-Ring o-ring	030 131			
18	4	RD-Ring o-ring	036 962			
19	1	RD-Ring o-ring	036 963			
20	1	RD-Ring o-ring	030 912			
21	1	RD-Ring o-ring	037 151			



—	—	—	Lft.Nr.	Kanten gratfrei bis 0.3 mm gebrochen								
—	—	—	Fertiggewicht (kg)	Freimaßtoleranz nach WN 1340-1								
—	—	—	Modell-Nr.	Für diese Unterlage wird jegl.Rechtsschutz in Anspruch genommen				b	ungeändert ins CAD übernommen	5739	03.07.2003	Sukiennik
—	—	—						Index	Änderung	Änd.Nr.	Datum	Name
—	—	—	Werkstoff	2003	bearb.	gepr.	Freigabe	 <b>J.P.SAUER &amp; SOHN</b> <b>MASCHINENBAU GMBH</b> 				
a	5704	07.03.03	Rohteil (Code- u.Sach-Nr.)	Datum	03.07.		09.07.					
Index	Änd.Nr.	Datum	Name	Sukiennik		Sukiennik						
Frühere Änderungen			Maßstab	1:2				Code-Nr. <b>2-0137</b>				
			<b>Druckschalter mit Prüfventil</b>				Sach-Nr. <b>063026 E</b>					
			bottle pressure switch with test valve				Ers.f. Zchnng.gl.Nr.v.03.93				Blatt 1	
							Ers.d.				1 Bl.	

C:00007356

## Flaschendruckschalter Bottle Pressure Switch


 Anschlußbild  
 connection diagram


Zuerst mit Einstellschraube 1 den oberen Schalt-  
 druck einstellen.  
 Anzeige durch Zeiger 2.  
 Danach mit Einstellschraube 4 den unteren Schalt-  
 druck einstellen —  
 der obere Schalt-  
 druck bleibt dabei  
 unverändert.  
 Anzeige durch Zeiger 3.  
 Genauere Einstellung durch Vergleich  
 mit Manometer.

### Technische Daten

Nennbetriebsstrom: 6 A bei 220 V AC 11  
 Schutzart: IP 65

### Einbauhinweis :

Der Druckschalter ist am Druckbehälter  
 anzuschließen ( Vermeidung von Pulsation )

First set upper switching-pressure by  
 means of adjusting screw 1.  
 Pointer 2 will indicate.  
 Then set lower switching-pressure by  
 means of adjusting screw 4 —  
 the upper switching-pressure remaining  
 unchanged.  
 Pointer 3 will indicate.  
 Precise adjustment by manometric  
 comparison.

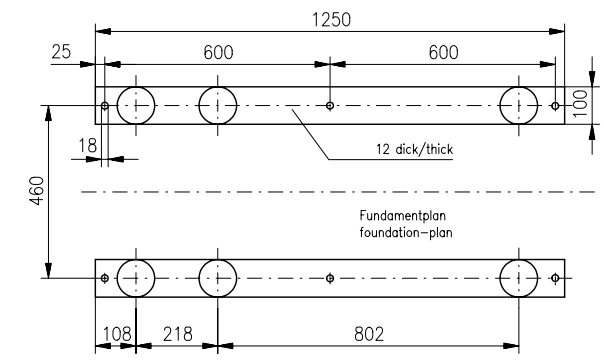
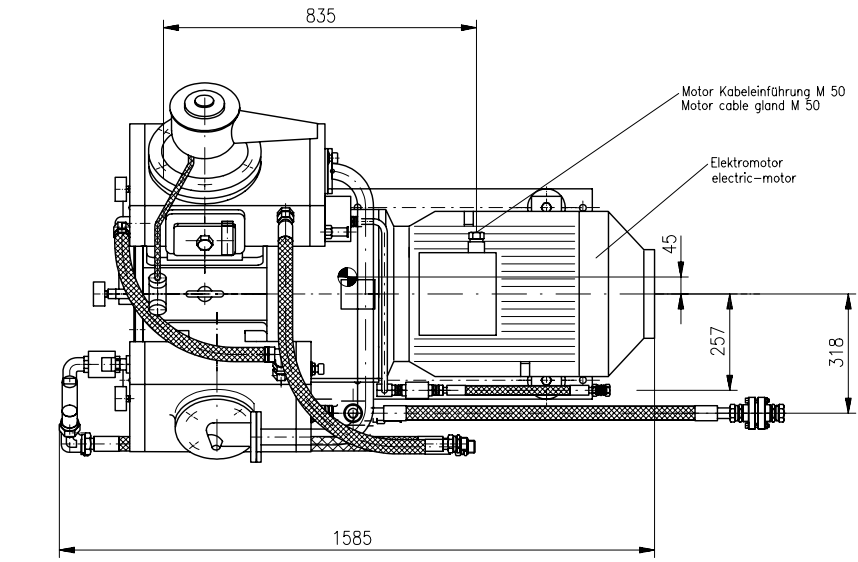
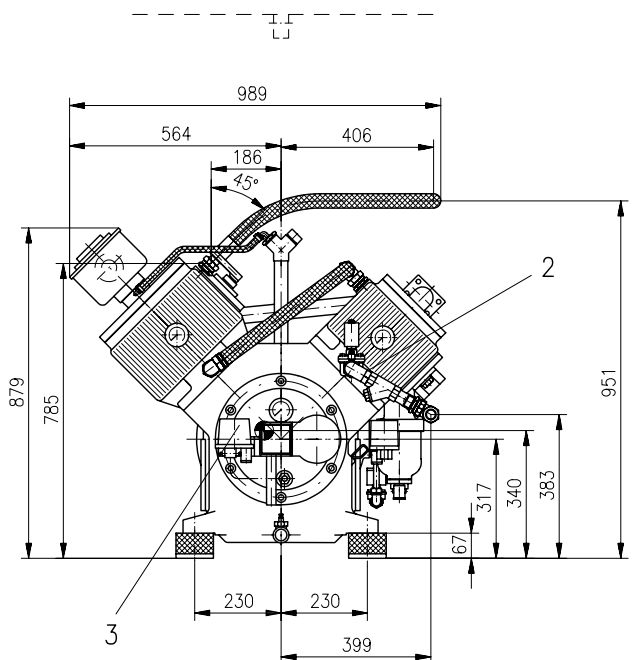
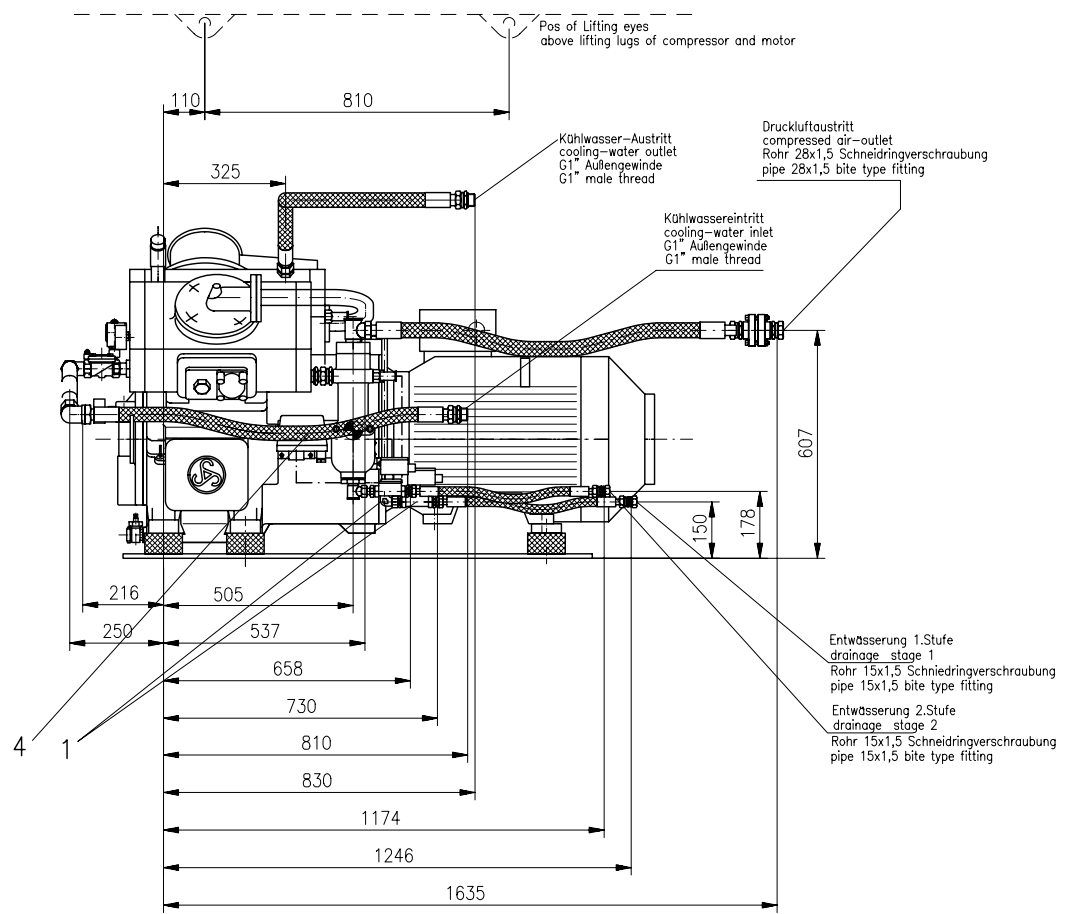
### Technical Data:

Rated service current: 6 A at 220 V AC 11  
 Protection class: IP 65

### Advice for installation :

The pressure switch must be installed on the  
 pressure vessel ( to avoid pulsation )

Pos. Item	Stck. Qty.	Benennung Designation		Bestell-Nr. Reference No.
-	1	Flaschendruckschalter bottle pressure switch	1 - 16 bar	035 221
-	1	Flaschendruckschalter bottle pressure switch	2 - 32 bar	035 222
-	1	Flaschendruckschalter bottle pressure switch	8 - 60 bar	035 223



### Instrument list

Position Item	Benennung Designation	Elektr. Daten Electr. Data	Einstellung Setpoint	Hinweise Remarks
1	Entwässerungsventil Drain valve Kondensatablaß Condensate release	Anzugsleistung/ Pick-up power: 30VA Halteleistung/ Holding power: 8W 220-240V 50/60Hz Magnetventil Solenoid valve	Stromlos offen Currentless open	Anfahrtlastung 15s Zwischenentwässerung alle 15min 15s Starting relief 15s Periodic drainage every 15min 15s
2	Kühlwasserabsperrentil Cooling water shut-off valve Kühlwasserstrom bei Stillstand sperren Shut-off CW-flow at standstill	Anzugsleistung/ Pick-up power: 30VA Halteleistung/ Holding power: 8W Magnetventil Solenoid valve	Stromlos geschlossen Currentless closed	
3	Öldrucküberwachung Oil-pressure supervision Not - aus Shut - off	Max. Schaltstrom/ Max. switching current: 6A / 220V Wechsler Change-over contact	Öffnet bei 1bar fallend Opens at 1bar decreasing  Ab Werk eingestellt Set at factory	Anfahrüberbrückung nötig ca. 15sec Starting bridge required ca. 15sec
4	Temperaturüberwachung Temperature supervision Abschaltung Shut-off	Max. Schaltstrom/ Max. Amperage 6A / 220V Wechsler Change-over contact	Öffnet bei 80°C steigend Opens at 80°C increasing  Ab Werk eingestellt Set at factory	

### Loses Zubehör/Loose supply

Pos	Benennung Designation	Sach-Nr. Ref-No	siehe Pls. refer to	im Lieferumfang included in supply
1	Druckschalter pressure switch	035 222	extra sheet	X
2	Reserveteilsatz "B+A" spare parts range "B+A"	064 007	extra sheet	X
3	Kompressorsteuerung Compressor control	043 135	extra sheet	X
4	Vertauschung Lead/Lag Box	036 465	extra sheet	X

Achtung: Installationshinweise beachten  
Attention: Installation instructions to be followed  
Mindestens 300 mm Abstand zur nächsten Wand einhalten  
Maintenance spaces: Keep at least 300 mm distance to the next wall

Suppl.No.	Break edges up to 0,3 mm						
Weight (kg)	800	Dimensional variation accord. to WN 1340-1					
Model-No.	For this paper all rights will be assumed		Index	Revision	Rev.No	Date	Name
Material	2004 prepared	approved	Freigebe				
Raw part (Part- or Code-No.)	Date 27.10.	Name Sakernik		Code-No.			
Scale 1:10	Compr. Arrangement WP 200 - 100			Part-No.	413547A B		
	Main Air Compressor			Repl. for	Sheet 1		
				Repl. by	1 SH		

**Technical Specification Sauer Compressor Unit Type WP 45 L**

 as per attached drawing **413841B**

Fill-up-Capacity:	60,0	m <sup>3</sup> /h
Operation pressure:	30	bar
Max. operation pressure:	40	bar
Speed:	1770	rpm
Required power:	11,5	kW
Stages / Cylinders:	2 / 2	
Cooling:	air-cooled	
Heat dissipation:	12,7	kJ/sec
Drive:	direct drive	
Ambient temperature up to:	+ 5 - + 55°	C
Permissible inclination each direction	22,5	°
Unit weight:	318	kgs
Noise level at 1 m distance:	88	dB(A)
Lub.oil content crankcase	1,6	ltr.

All capacity data with 5 % tolerance

**Standard Equipment:**

- Sturdy rigid and weight saving design with flanged motor
- no bedplate necessary
- flexible coupling, fully covered inside compressor flange
- air intake and silencing filter
- oil- and water separator after 1<sup>st</sup> and 2<sup>nd</sup> stage, mounted
- intercoolers and final re cooler
- splasch oil lubrication
- crankshaft driven cooling air fan with integrated flywheel
- resilient mounts for the unit
- flex. hp-hose for drainage and air-outlet (mounted non return valve)
- all hoses type approved by class
- safety valves after each stage
- final pressure gauge, glycerine filled, with name plates (symbols)
- solenoid valve 230 V/50/60 Hz for automatic drainage
- pressure switch start/stop, loose
- threephase electrical motor size 160M with suitable marine cable glands,(brass)

rated output acc ISO B:	13,0	kW
speed:	1770	rpm
voltage/frequency:	440/60	V/Hz
starting current:	abt. 151	A
nominal current:	abt 22,5	A
efficiency/ starting time	abt.90	%/ 1-2 sec
weight:	abt 111	kg
protection/ISO class	IP 55/ F	

**Additional Equipment for the compressor unit (included):**

- spare part set "B+A" as per regulation BV
- junction box, incl. cabling from sensors
- oil level control
- pressure gauges unit MPa
- flange connection for all hoses
- color Munsel 2.5G8/2

**Test and certificates:**

- test and certificate for the compressor as per regulation BV
- workstest for the motor
- certificate for motor

### 1 Compressor control panel for 1 compressor-unit WP45L

Nominal motor rating	13 kW
Power supply	3x 440V / 60Hz
Isolation	IP54
Material	Steel
Labelling	English
Colour	Munsel 7.5G7/2

For wall mounting; with lockable front door and marine cable glands in a flanged base plate at the bottom, "fail-safe" wiring with following standard devices for the automatic and unattended operation of the compressor-unit according to the rules and regulations of the ship classification societies:

- automatically operated main contactor for star delta start
- thermal overload relay with alarm and compressor shut-down
- control voltage internally transformed by built-in control voltage transformer 440V/230V with fuses
- hourmeter
- start-Stop relief arrangement
- selector switch for operation mode: "On - Off/Reset - Remote Start/Stop"
- signal lamps for "Operation" , "Power On" and "Overload", "Oil level"
- cage clamps for connecting power supply, motor, drain valves and start/stop signal
- cage clamps for potential-free contacts "Operation", "Off" and "Collective fault"
- **Automatic time-delayed restart after blackout ("*blackstart*")**
- **Ammeter**

**PROJEKT - DECKBLATT**  
**PROJECT TITLE PAGE**



PROJEKT/PROJECT  
 Kompressor-Anlage  
 Compressor-System

VORSCHRIFT/RULES : Schiffsausrüstung  
 KLASSE/CLASS :

Lackierung/varnishing Munsell 7.5B67/2

DATUM/DATE  
 19. Apr. 2008

SEITEN/PAGES  
 18

LIEFERANT SCHALTANLAGE/  
SUPPLIER SWITCH CABINET

Uwe E. Zoller GmbH Elektrotechnik



KOMM. NR. /SERIAL NO. : 41005785B  
 SACHNUMMER/SUBJECT NO. : 043244  
 BAUJAHR/YEAR BUILT : 2008  
 BESCHRIFTUNG/LETTERING : deutsch/englisch

BEARBEITER/SENIOR CLERK : Zielke  
 BESTELL-NR./ORDER NO. : 78218  
 KOMM. NR. /SERIAL NO. : 1072209B  
 ZEICHN. NR./DRAWING NO. : S2008-10802 AL  
 CAD-DOKU. NR./CAD-DOCU. NO. : 1072209B/2. 01  
 LIEFERTERMIN/DATE OF DELIVERY : 26. KW. 2008

Diese Pläne sind mit dem CAE-System "EPLAN" erstellt worden. Änderungen können nur mit dem CAE-System mit Original-Parametern durchgeführt werden.

021  
 (C) 2003

	Datum	04. Jan. 2008	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	19. Apr. 2008	Projektdeckblatt
	Urspr.	13S0181S	Project title page
Änderung	Datum	Name	



Uwe E. Zoller GmbH  
 Otto-Hahn-Strasse 9  
 25337 Elmshorn  
 Telefon (04121) 7 90 7-0  
 Telefax (04121) 7 90 7-77  
 Notdienst (0172) 7 46 85 07

1072209B	=AL
	+
	1072209B/2. 01
S2008-10802 AL	B1. 1
	Za B1.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

## Inhaltsverzeichnis List of contents

ZLR0162D/04. Mar. 1993

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=AL/2	Inhaltsverzeichnis list of contents		07. Jul. 2008	kwe
=AL/2a	Inhaltsverzeichnis list of contents		07. Jul. 2008	kwe
=COM+C1/1	Kompressor compressor	13 kW	07. Jul. 2008	kwe
=COM+C1/3	Maßblatt Schaltschrank Dimensional drawing Switch cabinet		07. Jul. 2008	kwe
=COM+C1/4	Klemmleistenübersicht Terminal board survey		07. Jul. 2008	kwe
=COM+C1/5	Leistungsteil Power part		07. Jul. 2008	kwe
=COM+C1/6	Steuerteil Control part		07. Jul. 2008	kwe
=COM+C1/7	Steuerteil Control part		07. Jul. 2008	kwe
=COM+C1/8	Meldeleuchten pilot lamps		07. Jul. 2008	kwe
=COM+C1/9	Potentialfreie Kontakte Potentialfree contacts		07. Jul. 2008	kwe
=COM+C1/10	Leistungsteil, Steuerteil power part, control part		07. Jul. 2008	kwe
=COM+C1/11	Stückliste part list		07. Jul. 2008	kwe
=COM+C1/12	Stückliste part list		07. Jul. 2008	kwe
=COM+C1/13	Stückliste part list		07. Jul. 2008	kwe

1

2a

		Datum	04. Jan. 2008	Kompressor-Anlage Compressor-System		Uwe E. Zoller GmbH Otto-Hahn-Strasse 9 25337 Elmshorn Telefon (04121) 7 90 7-0 Telefax (04121) 7 90 7-77 Notdienst (0172) 7 46 85 07	1072209B	=AL
		Bearb.	kwe					+
		Gepr.	07. Jul. 2008					1072209B/2.01
		Urspr.	13S0181S					B1. 2
Änderung	Datum	Name		Inhaltsverzeichnis list of contents			S2008-10802 AL	Za B1.



# ANLAGEN - DECKBLATT SYSTEM TITLE PAGE



## ANLAGE/SYSTEM

Kompressor-Anlage  
Compressor-System  
Kompressor  
compressor

Lackierung/varnishing Munsell 7.5B67/2

DATUM/DATE

19. Apr. 2008

BLATT/PAGE

1 - 16

VORSCHRIFT/RULES : Schiffsausrüstung

KLASSE/CLASS :

SPANNUNG/VOLTAGE : 440V / 60Hz

STEUERSP./CONTROL VOLTAGE : 230V 60Hz

LEISTUNG/POWER : 13 kW

NENNSTROM/NOMINAL CURRENT : 24 A

SCHUTZART/PROTECTION MODE :

## LIEFERANT SCHALTANLAGE/ SUPPLIER SWITCH CABINET

Uwe E. Zoller GmbH Elektrotechnik

BEARBEITER/SENIOR CLERK : Zielke

BESTELL-NR./ORDER NO. : 78218

KOMM. NR./SERIAL NO. : 1072209B

ZEICHN. NR./DRAWING NO. : S2008-10802 COM C1

CAD-DOKU. NR./CAD-DOCU. NO. : 1072209B/2.01

LIEFERTERMIN/DATE OF DELIVERY : 26. KW. 2008



**J. P. SAUER & SOHN**  
MASCHINENBAU GMBH



KOMM. NR./SERIAL NO. : 41005785B

SACHNUMMER/SUBJECT NO. : 043244

BAUJAHR/YEAR BUILT : 2008

BESCHRIFTUNG/LETTERING : deutsch/englisch

021 Diese Pläne sind mit dem CAE-System "EPLAN" erstellt worden. Änderungen können nur mit dem CAE-System mit Original-Parametern durchgeführt werden.

(C) 2003

=AL/2a

3

	Datum	04. Jan. 2008	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	19. Apr. 2008	
	Urspr.	13S0181S	Kompressor
Änderung	Datum	Name	compressor



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Notdienst (0172) 7 46 85 07

1072209B

=COM

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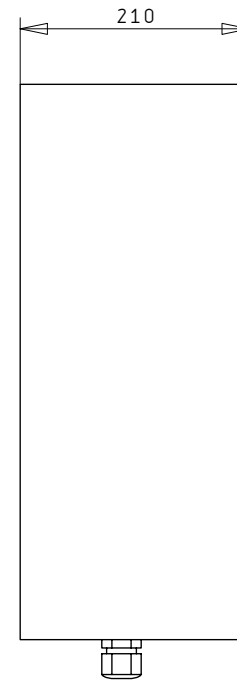
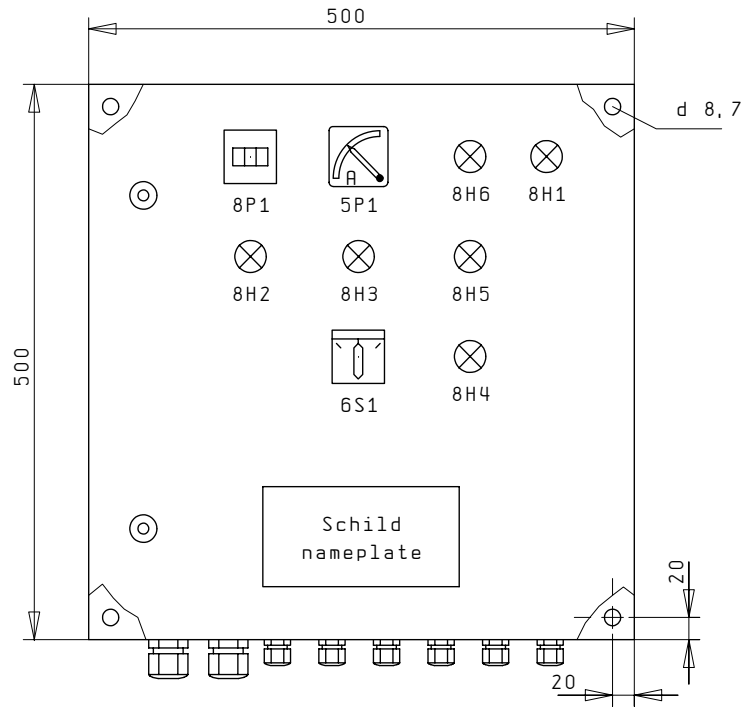
1072209B/2.01

S2008-10802 COM C1

B1. 1

16 Bl.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



**Legende/legend:**

- 5P1 = Amperemeter  
Ammeter
- 6S1 = 1=Hand - 0=Aus/Reset - 2=Automatik  
1>manual - 0=off/reset - 2=automatic
- 8H1 = Betrieb (grün)  
operation (green)
- 8H2 = Überlast (rot)  
overload (red)
- 8H3 = Ölstand zu niedrig (rot)  
oil level too low (red)
- 8H4 = Drucklufttemperatur zu hoch (rot)  
pressure air temp. too high (red)
- 8H5 = Notgenerator ein (grün)  
emergency generator on (green)
- 8H6 = Spannung vorhanden (blau)  
power on (blue)
- 8P1 = Betriebsstundenzähler  
running hour counter

- Kabelverschraubungen  
 1x M32  
 3x M25  
 6x M20  
 cable glands  
 1x M32  
 3x M25  
 6x M20

Schild: 180x120  
 nameplate: 180x120

**ATTENTION:**

When emergency generator is on, aux. air compressor can be started after the override switch is switched on in emergency switchboard.

AE 1050  
 Maßstab 1:5  
 scale 1:5

1

	Datum	04. Jan. 2008	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	19. Apr. 2008	
	Urspr.	13S0181S	Maßblatt Schaltschrank
<b>Änderung</b>	<b>Datum</b>	<b>Name</b>	<b>Dimensional drawing Switch cabinet</b>



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 Telefax (04121) 7 90 7-77  
 Notdienst (0172) 7 46 85 07

1072209B	=COM
	+C1
	1072209B/2.01
S2008-10802 COM C1	B1. 3
	16 B1.

4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

X1=Leistungsteil, Steuerteil  
power part, control part

X230=230V Verteilung  
230V distribution

=ESB [ ]

=MSB [ X1=Einspeisung  
input ]

Fertigungsvorgaben  
production defaults

halogenfreie Verkabelung halogenfree cabling	_____
halogenfreie Kabelkanäle halogenfree cable channels	_____
Lackierung varnishing	Munsell 7.5B67/2
Aderkennzeichnung wire marking	_____
Vorschrift specification	Schiffsausrüstung
Abnahme acceptance	_____
Triathlon Triathlon	✓
2 Erdungsbolzen auf der Montageplatte M6x35mm 2 earth bolt open the mounting plate M6x35mm	✓

3

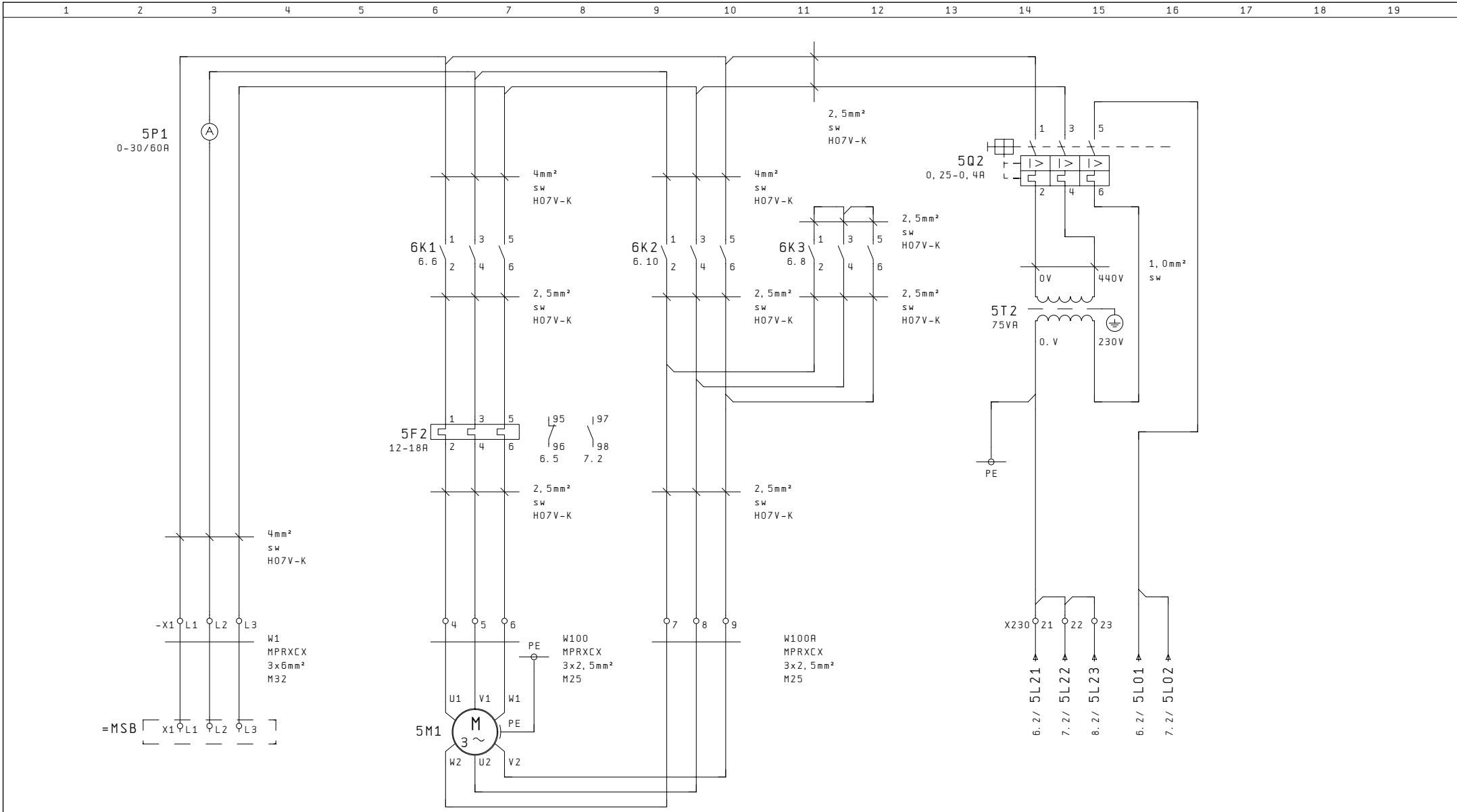
5

	Datum	04. Jan. 2008	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	19. Apr. 2008	
	Urspr.	13S0181S	Klemmleistenübersicht
Anderung	Datum	Name	Terminal board survey



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1072209B	=COM
	+C1
	1072209B/2.01
S2008-10802 COM C1	B1. 4
	16 B1.



Einspeisung  
440V/60Hz  
input  
440V/60Hz

Kompressor  
13 kW/23 A  
compressor  
13 kW/23 A

Steuerspannung 230V  
control voltage 230V

4

6

	Datum	04. Jan. 2008
	Bearb.	kwe
	Gepr.	25. Jun. 2008
	Urspr.	13S0181S
Anderung	Datum	Name

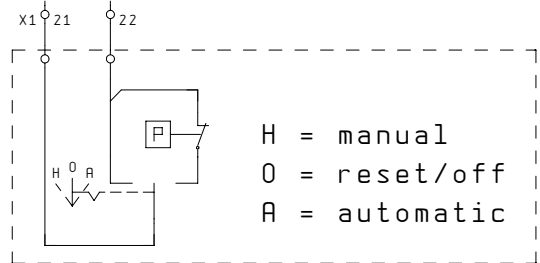
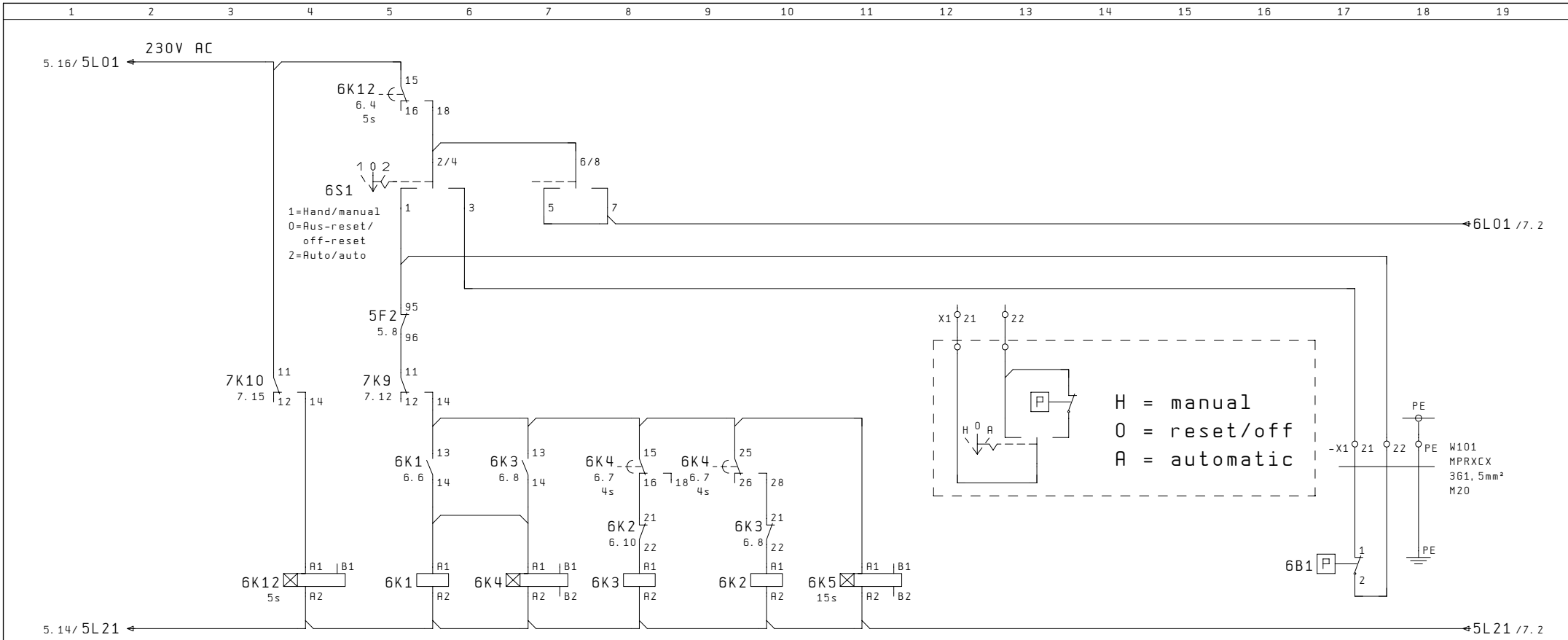
Kompressor-Anlage  
Compressor-System

Leistungsteil  
Power part



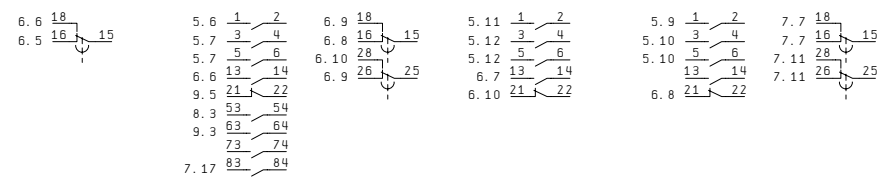
Uwe E. Zoller GmbH  
Otto-Hahn-Strasse 9  
25337 Elmshorn  
Telefon (04121) 7 90 7-0  
Telefax (04121) 7 90 7-77  
Notdienst (0172) 7 46 85 07

1072209B	=COM
	+C1
	1072209B/2.01
S2008-10802 COM C1	B1. 5
	16 B1.



Wiederstart bei Blackout restart at black out      Haupt-schütz main contactor      Stern star      Dreieck delta      Druckschalter pressure switch

Alternative:  
for remote control of compressor  
Compressor is either manually controlled or by pressure switch.  
Installation of mode switch in ECR.



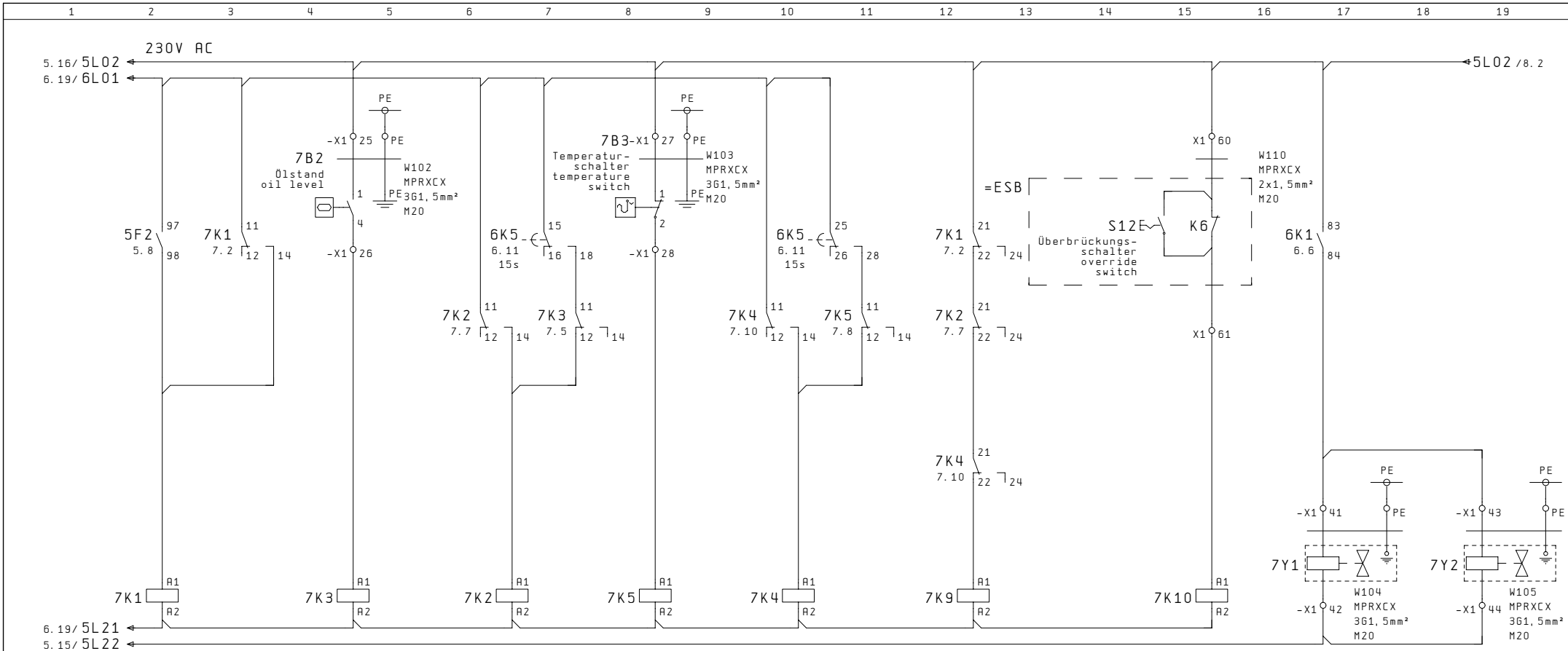
Datum	04. Jan. 2008	
Bearb.	kwe	
Gepr.	25. Jun. 2008	
Urspr.	13S0181S	
Anderung	Datum	Name

Kompressor-Anlage  
Compressor-System  
Steuerteil  
Control part



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1072209B	=COM
	+C1
	1072209B/2.01
S2008-10802 COM C1	B1. 6
	16 B1



Motor  
Überlast  
motor  
overload

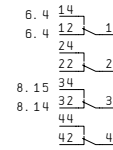
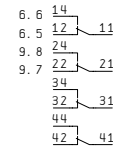
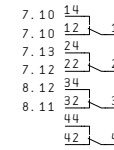
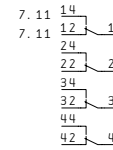
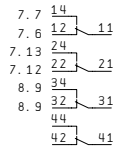
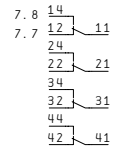
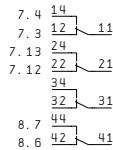
Ölstand  
zu niedrig  
oil level  
too low

Druckluft-  
temperatur  
pressure air  
temperature

Kompressor  
Störung  
compressor  
fault

Entwässerungs-  
ventil 1  
drain  
valve 1

Entwässerungs-  
ventil 2  
drain  
valve 2



6

8

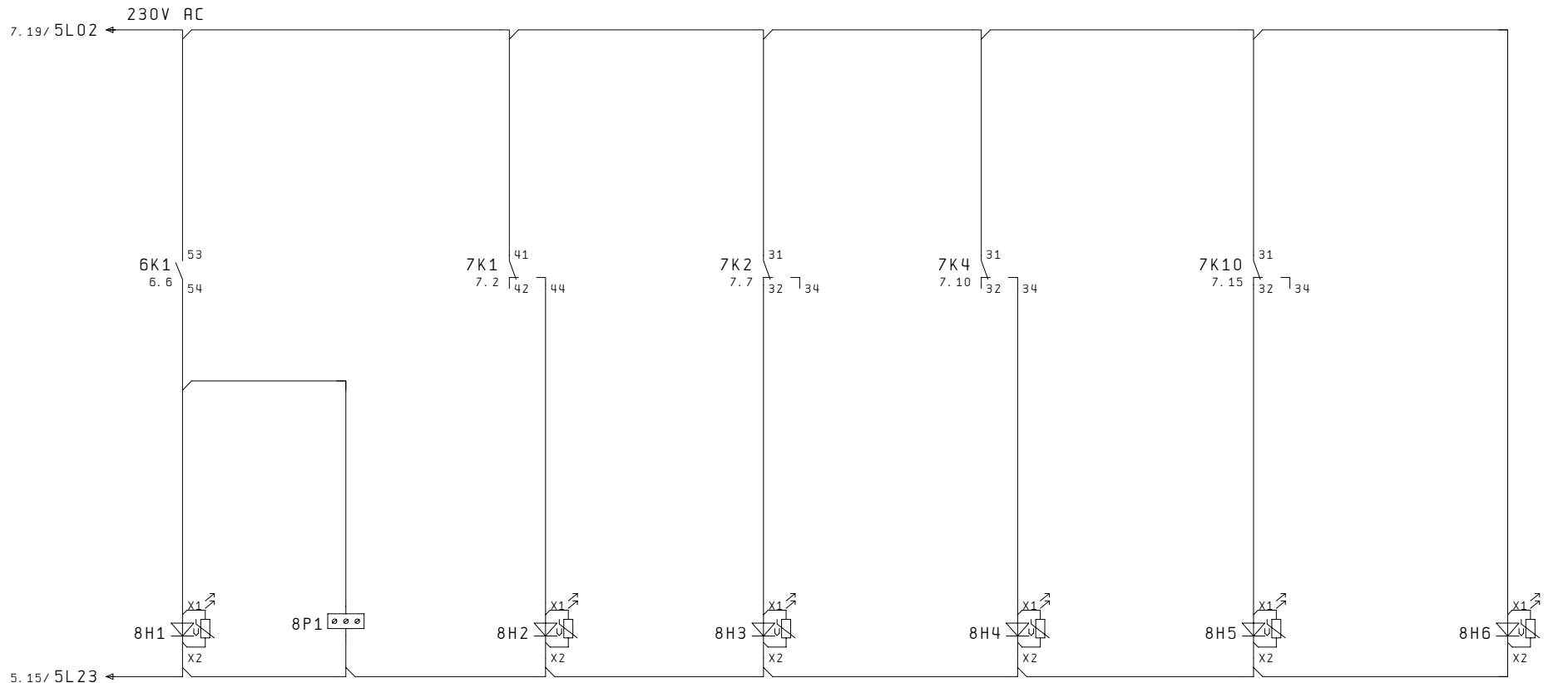
	Datum	04. Jan. 2008	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	25. Jun. 2008	Steuerteil
	Urspr.	13S0181S	Control part
Anderung	Datum	Name	



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1072209B	=COM
	+C1
	1072209B/2.01
S2008-10802 COM C1	B1. 7
	16 B1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Überlast  
overload

Betriebs-  
stundenzähler  
running  
hour counter

Überlast  
overload

Ölstand  
zu niedrig  
oil level  
too low

Druckluft-  
temperatur  
pressure air  
temperature

Notgenerator  
Ein  
emergency  
generator  
on

Spannung  
vorhanden  
power  
on

7

9

Datum	04. Jan. 2008	Kompressor-Anlage Compressor-System
Bearb.	kwe	
Gepr.	19. Apr. 2008	
Urspr.	13S0181S	
Meldeleuchten pilot lamps		
Änderung	Datum	Name



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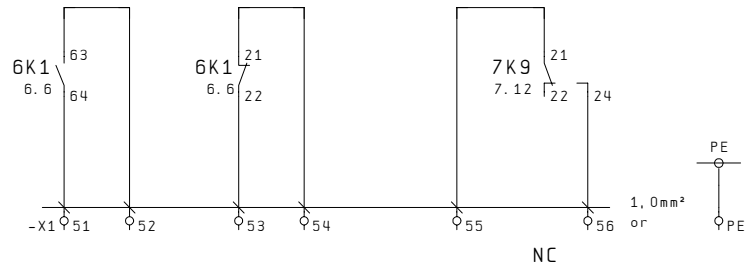
1072209B

=COM  
+C1  
1072209B/2.01

S2008-10802 COM C1

B1. 8  
16 B1.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



Betrieb aus Sammelalarm  
 operation off common alarm

8

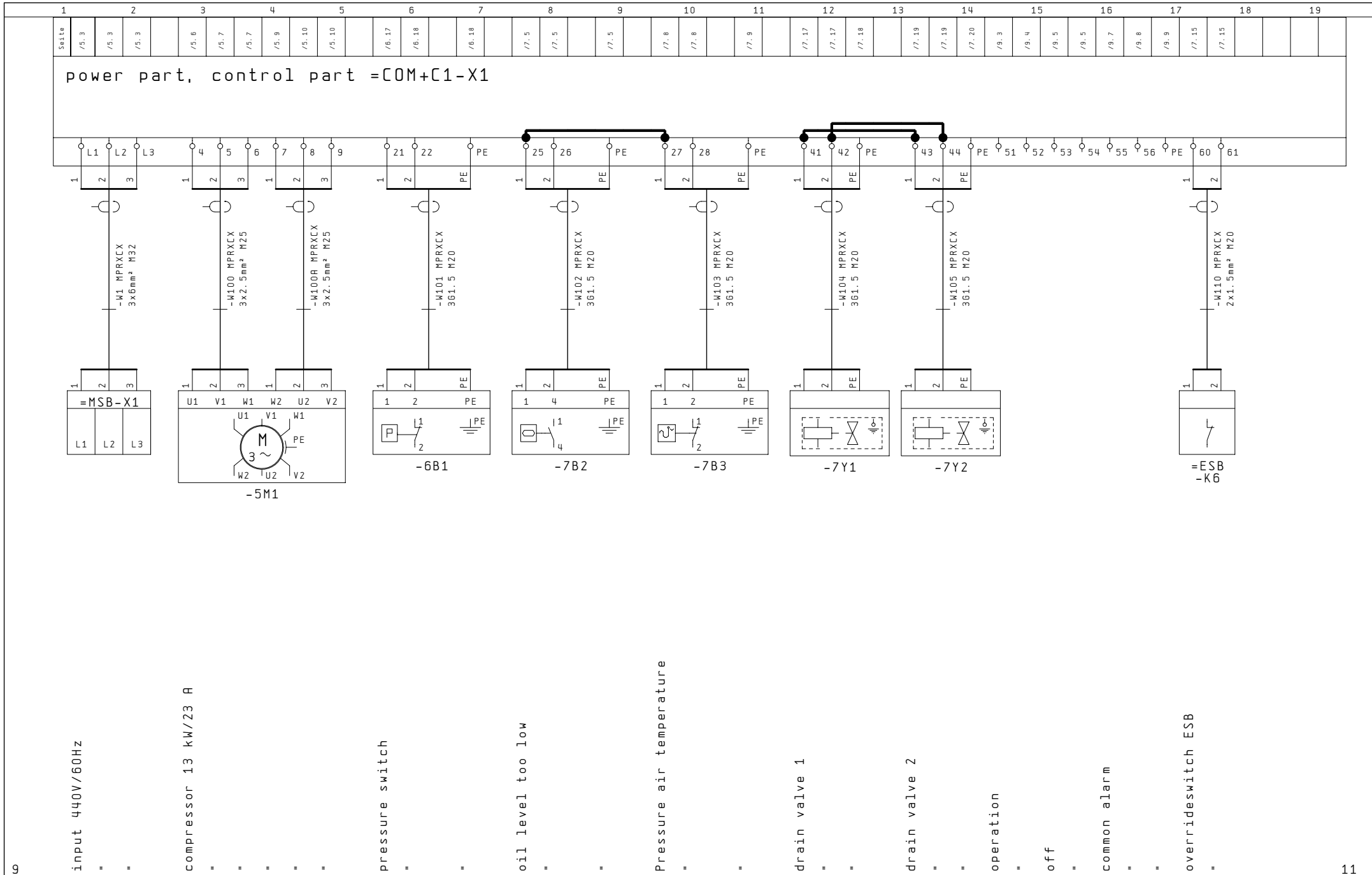
10

	Datum	04. Jan. 2008	Kompressor-Anlage
	Bearb.	kwe	Compressor-System
	Gepr.	19. Apr. 2008	Potentialfreie Kontakte
	Urspr.	13S0181S	Potentialfree contacts
Anderung	Datum	Name	



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1072209B	=COM
	+C1
	1072209B/2.01
S2008-10802 COM C1	B1. 9
	16 B1.



Anderung	Datum	Name

Datum	04. Jan. 2008	Kompressor-Anlage Compressor-System  power part, control part
Bearb.	kwe	
Gepr.	19. Apr. 2008	
Urspr.	13S0181S	

**zoller**

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1072209B	=COM
	+C1
S2008-10802 COM C1	1072209B/2.01
	B1. 10
	16 B1.

**part list**

indication on drawing page / path	quantity	specification	article number type number	producer
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	1.000 pcs	RE switch cabinet	3800 1050500 RE 1050500	Rittal
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	1.000 pcs	SZ door closing preventer	3800 2519000 SZ 2519000	Rittal
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	1.000 pcs	cable gland M32 x 1,5	3200 65020 EMSKV-EMV-Z 32	Wiska
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	1.000 pcs	EMC locknut M32x1,5	3200 63214 EMMU-EMV 32	Wiska
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	6.000 pcs	cable gland M20 x 1,5	3200 65018 EMSKV-EMV-Z 20	Wiska
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	6.000 pcs	EMC locknut M20x1,5	3200 63212 EMMU-EMV 20	Wiska
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	3.000 pcs	cable gland M25 x 1,5	3200 65019 EMSKV-EMV-Z 25	Wiska
=COM+C1-MON1 =COM+C1/4.2 Montagematerial	3.000 pcs	EMC locknut M25x1,5	3200 63213 EMMU-EMV 25	Wiska
=COM+C1-SCHI =COM+C1/4.2 Montagematerial	1.000 pcs	label 180x120mm	4210 PVCH50 PVC 180x120 5-zeilig	Schilder Expr
=COM+C1-X1 =COM+C1/5.3	3.000 pcs	terminal PDU 6/10	2070 1896140000 PDU 6/10	Weidmüller
=COM+C1-X1 =COM+C1/5.3	24.000 pcs	terminal PDU 2.5/4/3AN	2070 1896120000 PDU 2.5/4/3AN	Weidmüller

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12

	Datum	07. Jul. 2008	Kompressor-Anlage Compressor-System  part list
	Bearb.	kwe	
	Gepr.	07. Jul. 2008	
	Urspr.	13S0181S	
Änderung	Datum	Name	



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1072209B	=COM
	+C1
S2008-10802 COM C1	1072209B/2.01
	B1. 11
	16 B1.

## part list

indication on drawing page / path	quantity	specification	article number type number	producer
=COM+C1-X1 =COM+C1/5.3	6.000 pcs	earth terminal PPE 2.5/4/3AN	2070 1896200000 PPE 2.5/4/3AN	Weidmüller
=COM+C1-X1 =COM+C1/5.3	1.000 pcs	end cover PAP PDU6/10	2070 1896330000 PAP PDU6/10	Weidmüller
=COM+C1-X1 =COM+C1/5.3	2.000 pcs	end stop ZEW	2070 9540000000 ZEW 35	Weidmüller
=COM+C1-X1 =COM+C1/5.3	1.000 pcs	end cover PAP 2.5/4/3AN	2070 1896480000 PAP 2.5/4/3AN	Weidmüller
=COM+C1-X230 =COM+C1/5.14	3.000 pcs	terminal PDU 2.5/4/3AN	2070 1896120000 PDU 2.5/4/3AN	Weidmüller
=COM+C1-X230 =COM+C1/5.14	1.000 pcs	end cover PAP 2.5/4/3AN	2070 1896480000 PAP 2.5/4/3AN	Weidmüller
=COM+C1-X230 =COM+C1/5.14	2.000 pcs	end stop ZEW	2070 9540000000 ZEW 35	Weidmüller
=COM+C1-5F2 =COM+C1/5.6	1.000 pcs	motor protection relay 12,00-18,00A	4500 LRD-21 LRD-21	Schneider Ele
=COM+C1-5P1 =COM+C1/5.3	1.000 pcs	ammeter 0-30/60A direct with red mark in ship style	4840 AME072KDZS006 EQ 72K	Weigel Meßger
=COM+C1-5Q2 =COM+C1/5.14	1.000 pcs	motor protection switch 0,25-0,4A	4500 GV2-ME03 GV2-ME03	Schneider Ele
=COM+C1-5T2 =COM+C1/5.14	1.000 pcs	transformer, 75VA, pr.: 380/400/440V/60Hz sk I: 230V-75VA	4512 ST00754W01 ST 0,075	ELTRA

11

13

		Datum	07. Jul. 2008	Kompressor-Anlage	 Uwe E. Zoller GmbH Otto-Hahn-Strasse 9 25337 Elmshorn Telefon (04121) 7 90 7-0 Telefax (04121) 7 90 7-77 Notdienst (0172) 7 46 85 07	1072209B	=COM
		Bearb.	kwe	Compressor-System		+C1	
		Gepr.	07. Jul. 2008	part list		1072209B/2.01	
		Urspr.	13S0181S			B1. 12	
Änderung	Datum	Name				S2008-10802 COM C1	16 B1.

## part list

indication on drawing page / path	quantity	specification	article number type number	producer
=COM+C1-6K1 =COM+C1/6.6	1.000 pcs	contactor, AC3/380V-7,5kW 18A 230V 50/60Hz, aux. contacts: 1NO+1NC	4500 LC1-D18P7 LC1-D18P7	Schneider Ele
=COM+C1-6K1 =COM+C1/6.6	1.000 pcs	auxiliary switch block 4NO	4500 LAD-N40 LAD-N40	Schneider Ele
=COM+C1-6K2 =COM+C1/6.10	1.000 pcs	contactor, AC3/380V-7,5kW 18A 230V 50/60Hz, aux. contacts: 1NO+1NC	4500 LC1-D18P7 LC1-D18P7	Schneider Ele
=COM+C1-6K3 =COM+C1/6.8	1.000 pcs	contactor, AC3/380V-5,5kW 12A 230V 50/60Hz, aux. switch: 1NO+1NC	4500 LC1-D12P7 LC1-D12P7	Schneider Ele
=COM+C1-6K4 =COM+C1/6.7	1.000 pcs	time relay star-delta on-delay 2C 24V, 42-48VDC / 24V, 42-48V, 110-240VAC (function: Qt)	4500 RE7-YA12BU RE7-YA12BU	Schneider Ele
=COM+C1-6K5 =COM+C1/6.11	1.000 pcs	time relay on-delay 2C 24V, 42-48VDC / 24V, 42-48V, 110-240VAC (function: A)	4500 RE7-TP13BU RE7-TP13BU	Schneider Ele
=COM+C1-6K12 =COM+C1/6.4	1.000 pcs	time relay on-delay 1C 24VDC / 24V, 110-240VAC (function: A)	4500 RE7-TL11BU RE7-TL11BU	Schneider Ele
=COM+C1-6S1 =COM+C1/6.5	1.000 pcs	operating resolution	4500 KDC-1H KDC-1H	Schneider Ele
=COM+C1-6S1 =COM+C1/6.5	1.000 pcs	switch block, 2pole	4500 K1D-002U K1D-002U	Schneider Ele
=COM+C1-6S1 =COM+C1/6.5	1.000 pcs	identification plate 1-0-2	4500 KZ1-8451 KZ1-8451	Schneider Ele
=COM+C1-7K1 =COM+C1/7.2	1.000 pcs	relay 4 changer coilvoltage 230VAC	4548 MY4IN 230AC(S) MY4IN 230AC(S)	Omron Electro

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		Datum	07. Jul. 2008	Kompressor-Anlage	 Uwe E. Zoller GmbH Otto-Hahn-Strasse 9 25337 Elmshorn Telefon (04121) 7 90 7-0 Telefax (04121) 7 90 7-77 Notdienst (0172) 7 46 85 07	1072209B	=COM
		Bearb.	kwe	Compressor-System		+C1	
		Gepr.	07. Jul. 2008	part list		1072209B/2.01	
		Urspr.	13S0181S			B1. 13	
Anderung	Datum	Name				S2008-10802 COM C1	16 B1.

## part list

indication on drawing page / path	quantity	specification	article number type number	producer
=COM+C1-7K1 =COM+C1/7.2	1.000 pcs	socle for relay	4548 PYF14A-N PYF14A-N	Omron Electro
=COM+C1-7K1 =COM+C1/7.2	1.000 pcs	holder	4548 PYC-E1 PYC-E1	Omron Electro
=COM+C1-7K2 =COM+C1/7.7	1.000 pcs	relay 4 changer coilvoltage 230VAC	4548 MY4IN 230AC(S) MY4IN 230AC(S)	Omron Electro
=COM+C1-7K2 =COM+C1/7.7	1.000 pcs	socle for relay	4548 PYF14A-N PYF14A-N	Omron Electro
=COM+C1-7K2 =COM+C1/7.7	1.000 pcs	holder	4548 PYC-E1 PYC-E1	Omron Electro
=COM+C1-7K3 =COM+C1/7.5	1.000 pcs	relay 4 changer coilvoltage 230VAC	4548 MY4IN 230AC(S) MY4IN 230AC(S)	Omron Electro
=COM+C1-7K3 =COM+C1/7.5	1.000 pcs	socle for relay	4548 PYF14A-N PYF14A-N	Omron Electro
=COM+C1-7K3 =COM+C1/7.5	1.000 pcs	holder	4548 PYC-E1 PYC-E1	Omron Electro
=COM+C1-7K4 =COM+C1/7.10	1.000 pcs	relay 4 changer coilvoltage 230VAC	4548 MY4IN 230AC(S) MY4IN 230AC(S)	Omron Electro
=COM+C1-7K4 =COM+C1/7.10	1.000 pcs	socle for relay	4548 PYF14A-N PYF14A-N	Omron Electro
=COM+C1-7K4 =COM+C1/7.10	1.000 pcs	holder	4548 PYC-E1 PYC-E1	Omron Electro

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		Datum	07. Jul. 2008	Kompressor-Anlage Compressor-System  part list		Uwe E. Zoller GmbH Otto-Hahn-Strasse 9 25337 Elmshorn Telefon (04121) 7 90 7-0 Telefax (04121) 7 90 7-77 Notdienst (0172) 7 46 85 07	1072209B	=COM
		Bearb.	kwe					+C1
		Gepr.	07. Jul. 2008					1072209B/2.01
		Urspr.	13S0181S					B1. 14
Änderung	Datum	Name					S2008-10802 COM C1	16 B1.

part list

indication on drawing page / path	quantity	specification	article number type number	producer
=COM+C1-7K5 =COM+C1/7.8	1.000 pcs	relay 4 changer coilvoltage 230VAC	4548 MY4IN 230AC(S) MY4IN 230AC(S)	Omron Electro
=COM+C1-7K5 =COM+C1/7.8	1.000 pcs	socle for relay	4548 PYF14A-N PYF14A-N	Omron Electro
=COM+C1-7K5 =COM+C1/7.8	1.000 pcs	holder	4548 PYC-E1 PYC-E1	Omron Electro
=COM+C1-7K9 =COM+C1/7.12	1.000 pcs	relay 4 changer coilvoltage 230VAC	4548 MY4IN 230AC(S) MY4IN 230AC(S)	Omron Electro
=COM+C1-7K9 =COM+C1/7.12	1.000 pcs	socle for relay	4548 PYF14A-N PYF14A-N	Omron Electro
=COM+C1-7K9 =COM+C1/7.12	1.000 pcs	holder	4548 PYC-E1 PYC-E1	Omron Electro
=COM+C1-7K10 =COM+C1/7.15	1.000 pcs	relay 4 changer coilvoltage 230VAC	4548 MY4IN 230AC(S) MY4IN 230AC(S)	Omron Electro
=COM+C1-7K10 =COM+C1/7.15	1.000 pcs	socle for relay	4548 PYF14A-N PYF14A-N	Omron Electro
=COM+C1-7K10 =COM+C1/7.15	1.000 pcs	holder	4548 PYC-E1 PYC-E1	Omron Electro
=COM+C1-8H1 =COM+C1/8.3	1.000 pcs	pilot lamp green with LED-module 230V	4500 XB5-AVM3 XB5-AVM3	Schneider Ele
=COM+C1-8H1 =COM+C1/8.3	1.000 pcs	limiter 230V for LED module	4500 ZBZ-VM ZBZ-VM	Schneider Ele

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16

	Datum	07. Jul. 2008	Kompressor-Anlage Compressor-System  part list
	Bearb.	kwe	
	Gepr.	07. Jul. 2008	
	Urspr.	13S0181S	
Anderung	Datum	Name	



Uwe E. Zoller GmbH  
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Notdienst (0172) 7 46 85 07

1072209B

=COM  
+C1  
1072209B/2.01

S2008-10802 COM C1

B1. 15  
16 B1.

## part list

indication on drawing page / path	quantity	specification	article number type number	producer
=COM+C1-8H2 =COM+C1/8.7	1.000 pcs	pilot lamp red with LED-module 230V	4500 XB5-AVM4 XB5-AVM4	Schneider Ele
=COM+C1-8H2 =COM+C1/8.7	1.000 pcs	limiter 230V for LED module	4500 ZBZ-VM ZBZ-VM	Schneider Ele
=COM+C1-8H3 =COM+C1/8.9	1.000 pcs	pilot lamp red with LED-module 230V	4500 XB5-AVM4 XB5-AVM4	Schneider Ele
=COM+C1-8H3 =COM+C1/8.9	1.000 pcs	limiter 230V for LED module	4500 ZBZ-VM ZBZ-VM	Schneider Ele
=COM+C1-8H4 =COM+C1/8.12	1.000 pcs	pilot lamp red with LED-module 230V	4500 XB5-AVM4 XB5-AVM4	Schneider Ele
=COM+C1-8H4 =COM+C1/8.12	1.000 pcs	limiter 230V for LED module	4500 ZBZ-VM ZBZ-VM	Schneider Ele
=COM+C1-8H5 =COM+C1/8.14	1.000 pcs	pilot lamp green with LED-module 230V	4500 XB5-AVM3 XB5-AVM3	Schneider Ele
=COM+C1-8H5 =COM+C1/8.14	1.000 pcs	limiter 230V for LED module	4500 ZBZ-VM ZBZ-VM	Schneider Ele
=COM+C1-8H6 =COM+C1/8.17	1.000 pcs	pilot lamp blue with LED-module 230V	4500 XB5-AVM6 XB5-AVM6	Schneider Ele
=COM+C1-8H6 =COM+C1/8.17	1.000 pcs	limiter 230V for LED module	4500 ZBZ-VM ZBZ-VM	Schneider Ele
=COM+C1-8P1 =COM+C1/8.4	1.000 pcs	running hour counter 220V 60Hz	4620 UWZ48220V60HZ taxxo 112	Grässlin Fein

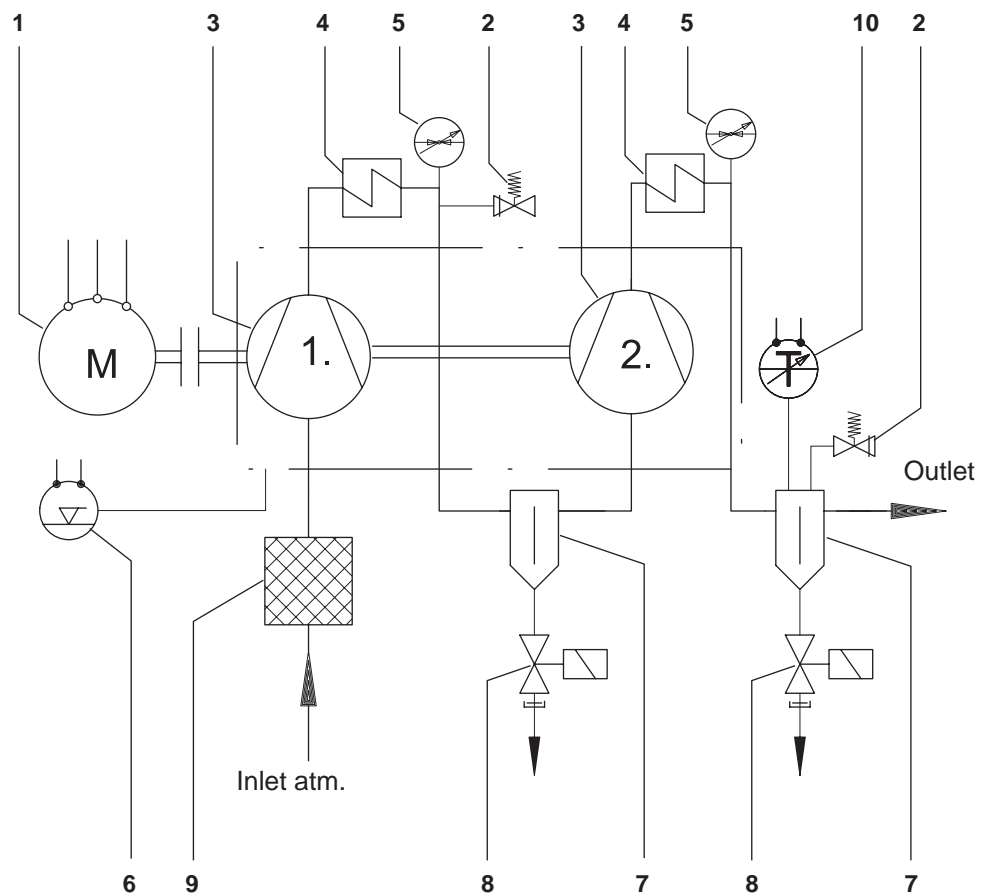
15

		Datum	07. Jul. 2008	Kompressor-Anlage	 Uwe E. Zoller GmbH Otto-Hahn-Strasse 9 25337 Elmshorn Telefon (04121) 7 90 7-0 Telefax (04121) 7 90 7-77 Notdienst (0172) 7 46 85 07	1072209B	=COM
		Bearb.	kwe	Compressor-System		+C1	
		Gepr.	07. Jul. 2008	part list		1072209B/2.01	
		Urspr.	13S0181S			B1. 16	
Änderung	Datum	Name				S2008-10802 COM C1	B1. 16

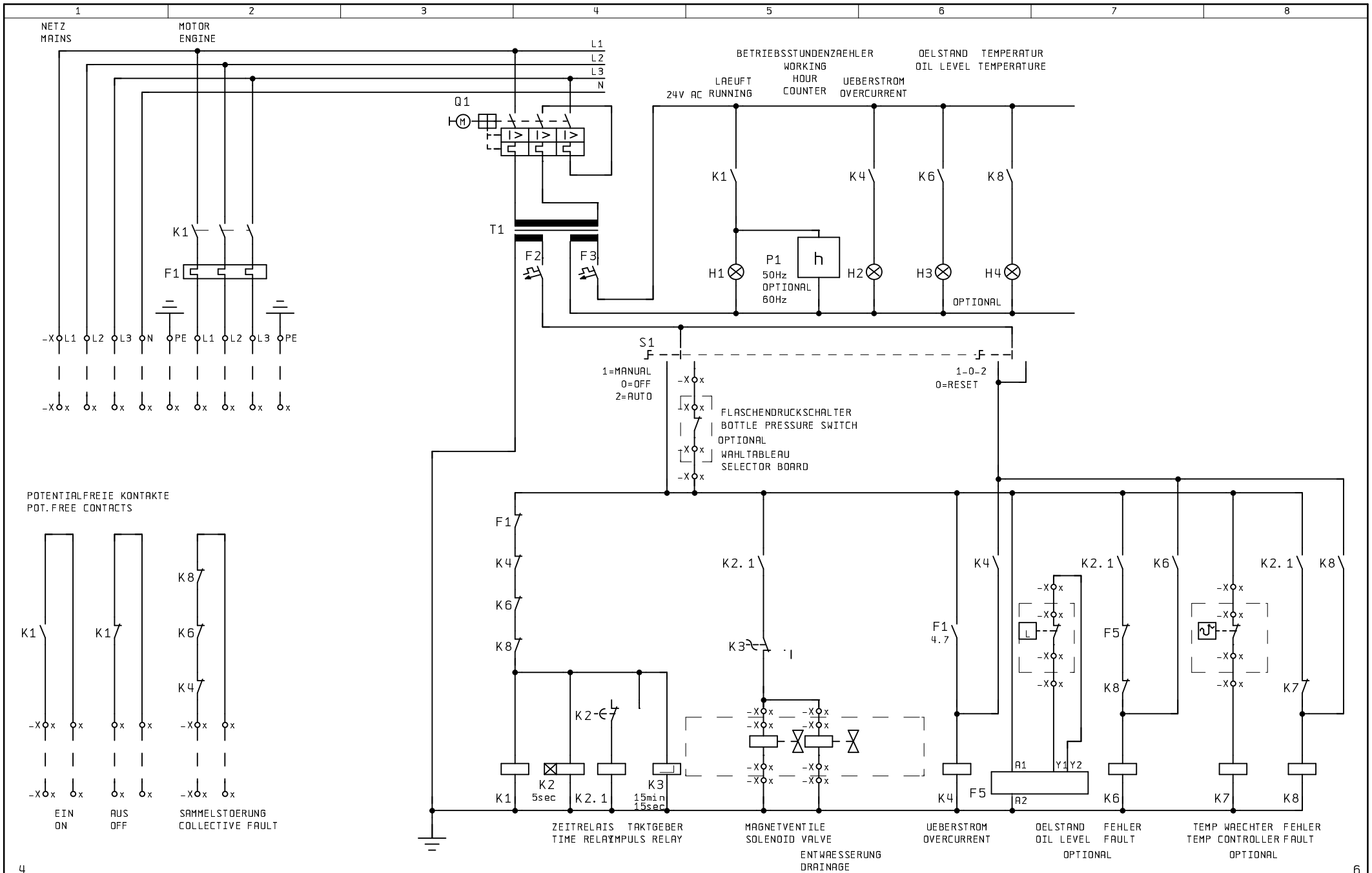


## P&I Diagram WP 45L & WP65L

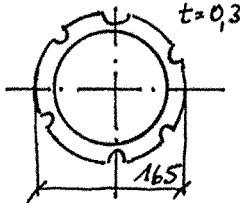
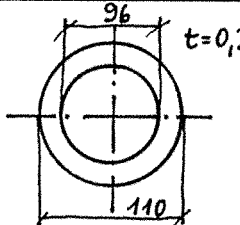
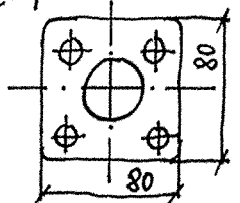
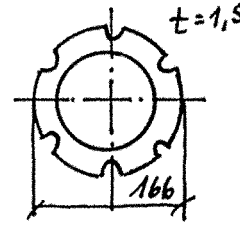
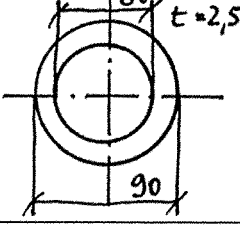
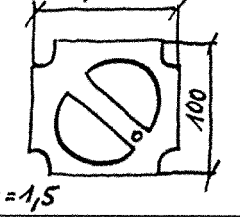
### 4.2 Compressed air system plan

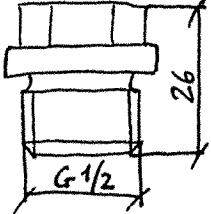
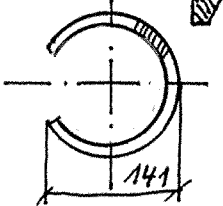
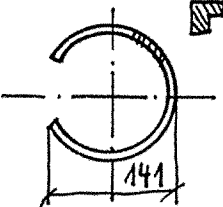
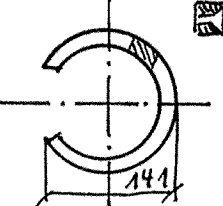
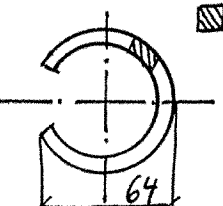
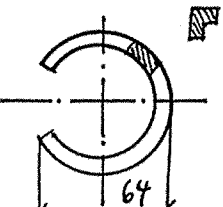
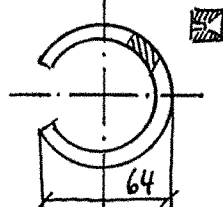


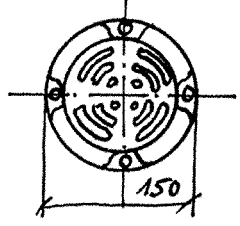
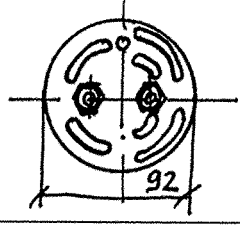
Item	Name
1	Drive motor
2	Safety valve
3	Compressor stage
4	Intercooler and aftercooler
5	Pressure gauge
6	Oil level switch (optional)
7	Condensate separator
8	Drain valve (for operation with electric motor: solenoid valve; for operation with diesel engine: hand valve)
9	Intake filter
10	Temperature switch (optional)

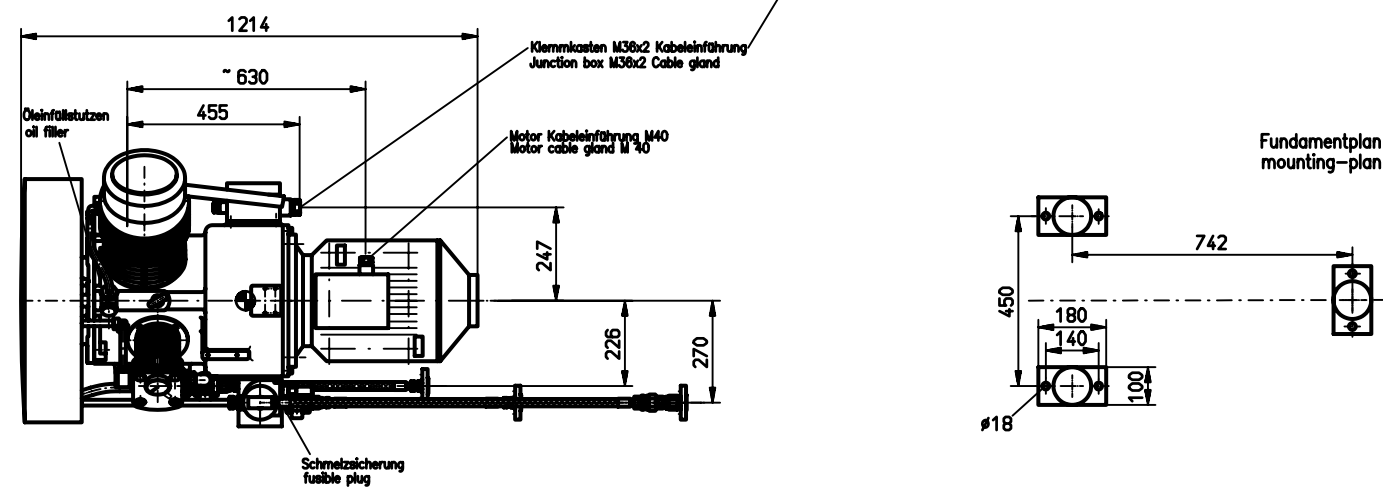
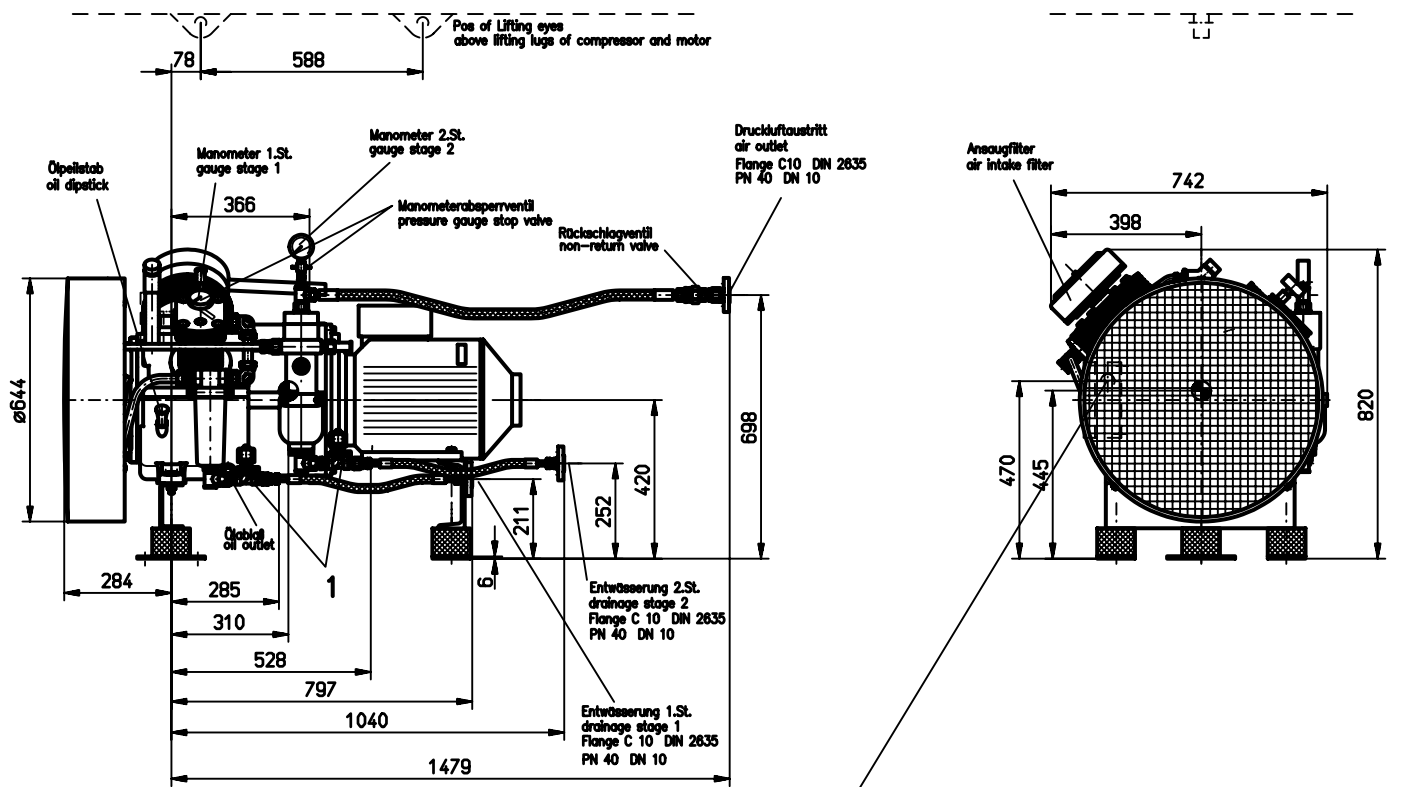


4		6									
Datum	25.02.2003	PRINZIPSCHALTBILD	Kunden-Nummer : B								
Bearb.	DOH / SEL	principle diagram									
Gepr.											
Änderung	Datum	Name	Norm	Urspr.	Ers. f.	Ers. d.	Princ_2L_2	Bestell-Nummer	B	Blatt sheet	5
								Zeichnungs-Nummer	PRINZIP1	Ges. Bl. tot. sh.	10
								Sach-Nummer			

WP 65 L WP 45 L		Reserveteilliste spare parts list		Sach-Nr. 064 392	Ä.I
Seite/page von/of	1 3			Code-Nr. 2 - 0009	
Pos. Item	Stckz. Qty.	Benennung Designation	Sach-Nr. Ref.No.	Bemerkungen remarks	
-	-	Reserveteile "B+A" spare parts range B+A	064 392		
1	2	Dichtung packing	064 048		
2	2	Dichtung packing	064 049		
3	2	Dichtung packing	064 050		
4	2	Dichtung packing	063 059		
5	2	Dichtring gasket	056 235		
6	2	Dichtung packing	064 051		

WP 65 L WP 45 L		Reserveteilliste spare parts list		Sach-Nr. <b>064 392</b>	Ä.I.
Seite/page von/of	2 3			Code-Nr. <b>2 - 0009</b>	
Pos. Item	Stckz. Qty.	Benennung Designation	Sach-Nr. Ref.No.	Bemerkungen remarks	
8	1	Schmelzsicherung fusible plug	060 342		
10	1	Minutenring M-ring	012 512		
11	1	Nasenring N-ring	031 901		
12	1	Gleichfasenring G-ring	031 902		
13	2	Rechteckring R-ring	031 541		
14	1	Nasenring N-ring	002 548		
15	1	Ölschlitzring S-ring	031 542		

WP 65 L WP 45 L		Reserveteilliste spare parts list		Sach-Nr. <b>064 392</b>	Ä.I.
Seite/page von/of	3 3			Code-Nr. <b>2 - 0009</b>	
Pos. Item	Stckz. Qty.	Benennung Designation	Sach-Nr. Ref.No.	Bemerkungen remarks	
17	1	Lamellenventil lammellar valve	037 157		
18	1	Lamellenventil lammellar valve	037 158		



### Instrument list

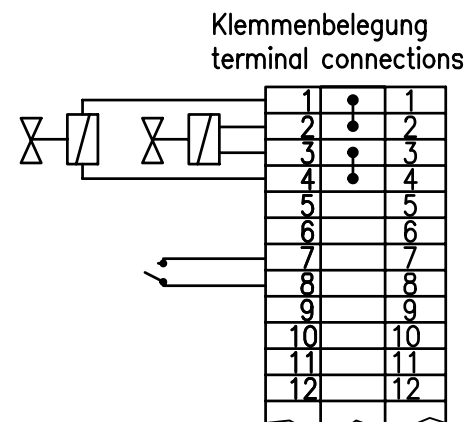
Position Item	Benennung Designation	Elektr. Daten Electr. Data	Einstellung Setpoint	Hinweise Remarks
1	Entwässerungsventil Drain valve Kondensatablaß Condensate release	Anzugsleistung/ Pick-up power: 30VA Halteleistung/ Holding power: 8W 220-240V 50-60Hz Magnetventil Solenoid valve	Stromlos offen Currentless open	Anfahrtlastung 15s Zwischenentwässerung alle 15min 15s Starting relief 15s Periodic drainage every 15min 15s
2	Ölstandswächter oil level switch Abschaltung Shut-off	Max. Schaltstrom 0,5A/220V Max. Amperage 0,5A/220V Wechsler Change-over contact	Ab Werk eingestellt Set at factory	

### Loses Zubehör/Loose supply

Pos	Benennung Designation	Sach-Nr. Ref-No	siehe Pls. refer to	im Lieferumfang included in supply
1	Druckschalter pressure switch	035 222	extra sheet	X
2	Reserveteilsatz "B+A" spare parts range "B+A"	064 392	extra sheet	X
3	Kompressorsteuerung Compressor control	043 244	extra sheet	X

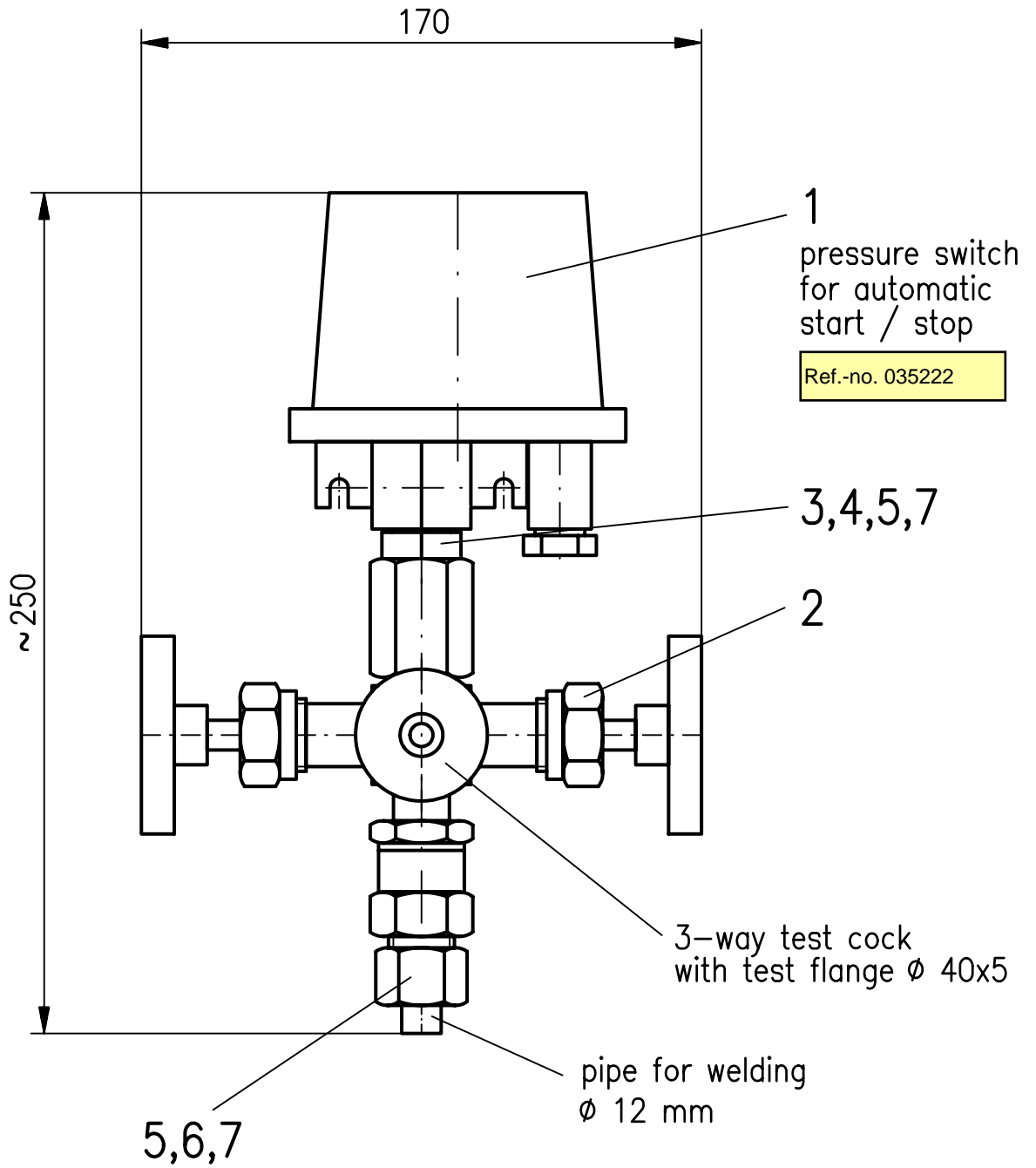
### Klemmenplan/Junction Box



Entwässerungsventile  
drainage valves  
stromlos offen  
currentless open  
Ölstandswächter  
oil level switch



Achtung: Installationshinweise beachten  
Attention: Installation instructions to be followed  
Mindestens 300 mm Abstand zur nächsten Wand einhalten  
Maintenance spaces: Keep at least 300 mm distance to the next wall

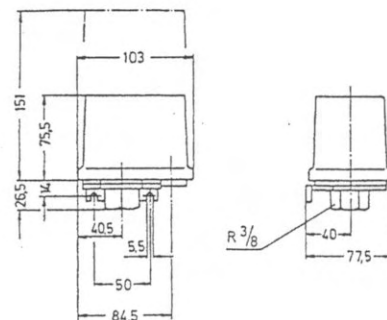
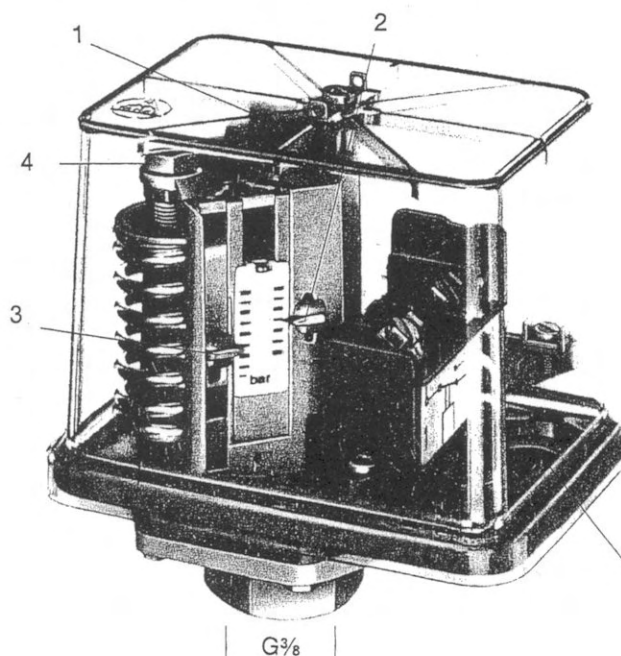
Suppl.No.	Break edge up to 0.3 mm				
Weight (kg)	318.00	Dimensional variation accord. to DIN 1340-1			
Model-No.	For this paper all rights will be assumed	Index	Revision	Date	Name
Material	2005 prepared	approved	Freigebe		
Part (Part-nr. Code-No.)	Date 13.04.	Name	Revisio	Code-No.	
Scale 1:10	Compr.-Arrangement WP 45L - 300		Part-No.	413841B	
	Emergency Compressor		Repl./or	1 Sh.	



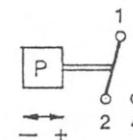
—	—	—	Lft.Nr.	Kanten gratfrei bis 0.3 mm gebrochen								
—	—	—	Fertiggewicht (kg)	Freimaßtoleranz nach WN 1340-1								
—	—	—	Modell-Nr.	Für diese Unterlage wird jegl.Rechtsschutz in Anspruch genommen				b	ungeändert ins CAD übernommen	5739	03.07.2003	Sukiennik
—	—	—						Index	Änderung	Änd.Nr.	Datum	Name
—	—	—	Werkstoff	2003	bearb.	gepr.	Freigabe	 <b>J.P.SAUER &amp; SOHN</b> <b>MASCHINENBAU GMBH</b> 				
a	5704	07.03.03		Datum	03.07.		09.07.					
Index	Änd.Nr.	Datum	Rohteil (Code- u.Sach-Nr.)	Name	Sukiennik		Sukiennik					
Frühere Änderungen			Maßstab	1:2				Code-Nr. <b>2-0137</b>				
			<b>Druckschalter mit Prüfventil</b>				Sach-Nr. <b>063026 E</b>					
			bottle pressure switch with test valve				Ers.f. Zchnng.gl.Nr.v.03.93				Blatt 1	
							Ers.d.				1 Bl.	

C:00007356

## Flaschendruckschalter Bottle Pressure Switch


 Anschlußbild  
 connection diagram

Pg 13,5



Zuerst mit Einstellschraube 1 den oberen Schaltdruck einstellen.  
 Anzeige durch Zeiger 2.  
 Danach mit Einstellschraube 4 den unteren Schaltdruck einstellen — der obere Schaltdruck bleibt dabei unverändert.  
 Anzeige durch Zeiger 3.  
 Genauere Einstellung durch Vergleich mit Manometer.

### Technische Daten

Nennbetriebsstrom: 6 A bei 220 V AC 11  
 Schutzart: IP 65

### Einbauhinweis :

Der Druckschalter ist am Druckbehälter anzuschließen ( Vermeidung von Pulsation )

First set upper switching-pressure by means of adjusting screw 1.  
 Pointer 2 will indicate.  
 Then set lower switching-pressure by means of adjusting screw 4 — the upper switching-pressure remaining unchanged.  
 Pointer 3 will indicate.  
 Precise adjustment by manometric comparison.

### Technical Data:

Rated service current: 6 A at 220 V AC 11  
 Protection class: IP 65

### Advice for installation :

The pressure switch must be installed on the pressure vessel ( to avoid pulsation )

Pos. Item	Stck. Qty.	Benennung Designation		Bestell-Nr. Reference No.
<del>1</del>	<del>1</del>	<del>Flaschendruckschalter bottle pressure switch</del>	<del>1 - 16 bar</del>	<del>035 221</del>
-	1	Flaschendruckschalter bottle pressure switch	2 - 32 bar	035 222
<del>1</del>	<del>1</del>	<del>Flaschendruckschalter bottle pressure switch</del>	<del>3 - 60 bar</del>	<del>035 223</del>