GB

ritter & bader

cooling systems

Operating Manual
WK 9-08-00-1-R134a

ritter & bader GmbH • Adolf-Wolf-Str. 44 • D 89264 Weissenhorn
Phone +49 (0) 73 09 / 96 37 -0 • Fax +49 (0) 73 09 / 96 37 -17
eMail Doku@ritter-bader.com • www.ritter-bader.com

Table of contents

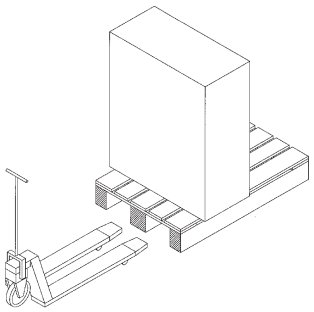
01. General - 02. Transport and installation

01. General

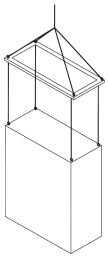
In order to ensure optimum performance of the unit and your safety, please read these Operating Instructions carefully before connecting or starting-up the unit, or changing preprogrammed settings. Keep these Operating Instructions in a safe place for reference purposes. ritter & bader GmbH accepts no liability for any errors contained in the Operating Instructions nor for damage related to the document or the information contained herein, not even if the possibility of such damage has been pointed out to rittter & bader GmbH. The purpose of this document is solely to provide information and instructions. ritter & bader GmbH reserves the right to change the technical data and other information contained in this document without prior notice. ritter & bader GmbH is under no obligation to update the information contained herein.

02. Transport and installation

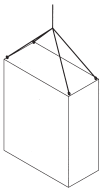
The manufacturer will not assume any liability for transport damages, e.g. owing to incorrect storage. In general, the water cooler should be stored and transported in accordance with its later installation. Avoid any vibration during transport. Apart from that, the plant will have to be made freeze-proof during transport and intermediate storage in winter (danger of freezing!). Installation will have to be made according to the customer‘s requirements on the site. ATTENTION: Do not lift the cooler without the transport rack! Drain the water from the tank!



☺ Correct



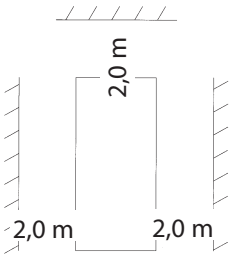
☹ False



03. Instructions

03.1 General instructions

- ❑ The plant is delivered ex works without filling or water additive.
- ❑ Install the plant in such a way that air intake and air outlet not be impeded and that exchange of filter be possible.
- ❑ Under certain circumstances, the air suction filter may have to be replaced once a week.
- ❑ The air intake area of the plant should not be within the hot-air range of another appliance (danger of cooling plant overheating).
- ❑ Accumulation of heat must be avoided. Please allow for sufficient distance between the cooler and other appliances, walls and ceiling.



- ❑ Please ensure sufficient fresh air supply. The system should be accessible at all times to maintenance personnel.
- ❑ Apply a water additive.
- ❑ As to the water quality, the manufacturer‘s motor data will have to be considered.
- ❑ Avoid dirty water, ãCooling Water“. (When aggressive water is used, e.g., well water, the cooling water must be tested in advanced).
- ❑ Recycling: Please contact manufacturer.
- ❑ The user should routine-check all safety components every 6 months and put the report to record.
- ❑ Not performing the service will result in a shorting of the warranty period to 12 months from manufacturing date; all service reports are to put to record.
- ❑ Please note: In the case of technical alterations or intervening without consulting the manufacturer the warranty lapses as does any liability

03. Instructions

03.2 Safety Instructions

- ❑ Attention: Surfaces of the cooling pipe and compressor are hot – burn hazard.
- ❑ Disconnect the mains supply for maintenance works and trouble-shooting, etc.
- ❑ Maintenance and servicing must not be performed but by authorized staff (electrician, frigorist).
- ❑ Incorrect operation and inappropriate use may cause malfunctions of the unit and accidents. In case of improper handling, warranty and liability claims may become extinct under certain circumstances.
- ❑ In case of malfunctions or problems, please contact the manufacturer or a sales agency.
- ❑ In general the pipes must not be loaded.

03.3 Warning Signs

The warning signs have the following meanings:

Risk of injury by running fans without protection against accidental contact

Danger by voltage

Automatic start of moving parts

Caution of hot surfaces.

03. Instructions

03.4 Functional description

The output of the water recooler WK 9-08-00-1-R134a is controlled via addition of cold water from the tank.

This allows precise controlling of the water temperature in the feed line.

The compressor switches off when a certain cold water temperature in the tank is achieved.

04. Putting into operation

04.1 Prior to putting into operation

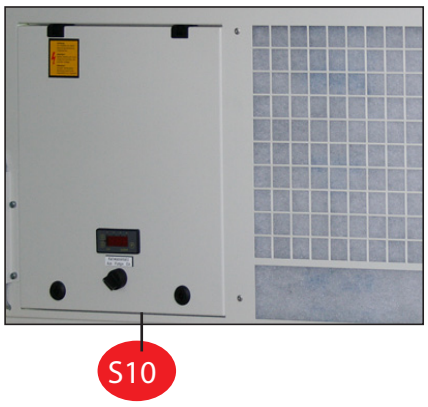
Before you put the plant into operation, please mind the following:

- ❑ Water cooler mounting: vertical installation, screwed onto the machine.
- ❑ Check actual nominal voltage and frequency and compare with data on the name plate.
- ❑ Do not turn the plant upside down nor tilt it.
- ❑ After mounting, the water cooler must not be switched on but after a waiting period of approx. 60 minutes.
- ❑ Upstream slide gates, if any, must be open.
- ❑ Ensure water circulation

04.2 Putting into operation

Before you put the plant into operation please mind the following:

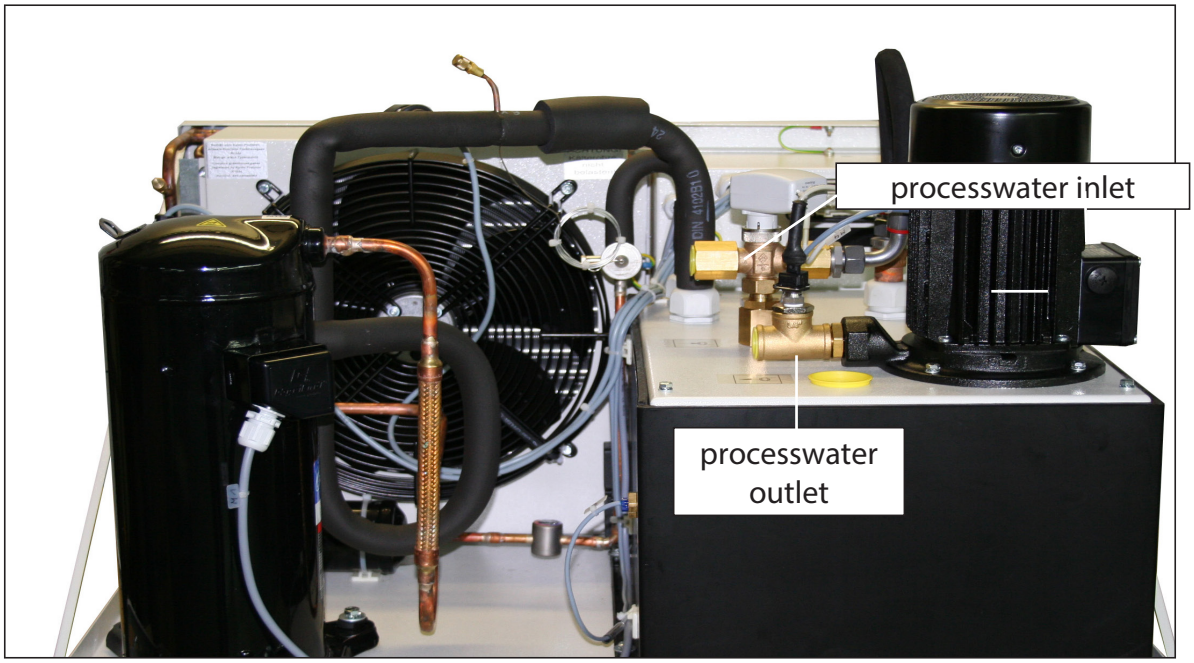
- ❑ Switch S10 must be set to ‚OFF' position.
- ❑ Switch off main power supply:
  + Main circuit off.
  + Pump out of operation.



Attention!

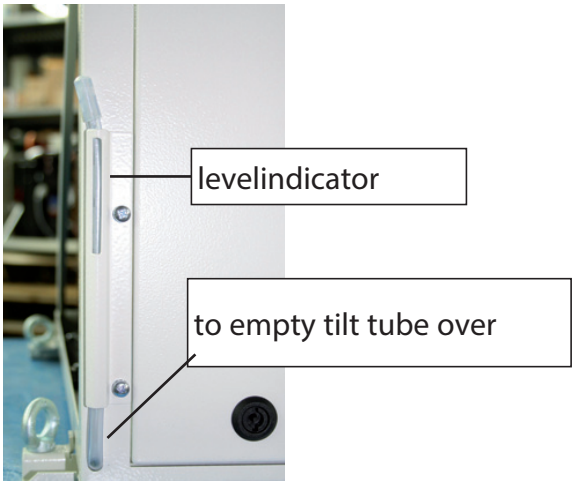
The condenser fan can automatically turn on where voltage applied.

04. Putting into operation



❑ Fill the tank (through filler socket):

+ Water circuit must be completely piped.
+ All slide gates and valves (except for the discharge valve) must be open.
+ The first filling of the reservoir should not exceed 90%.



04. Putting into operation

❑ Connect main circuit:

+ Connect power supply .
+ Change position of switch S10 from ‚OFF' to ‚Pump'.

Attention!

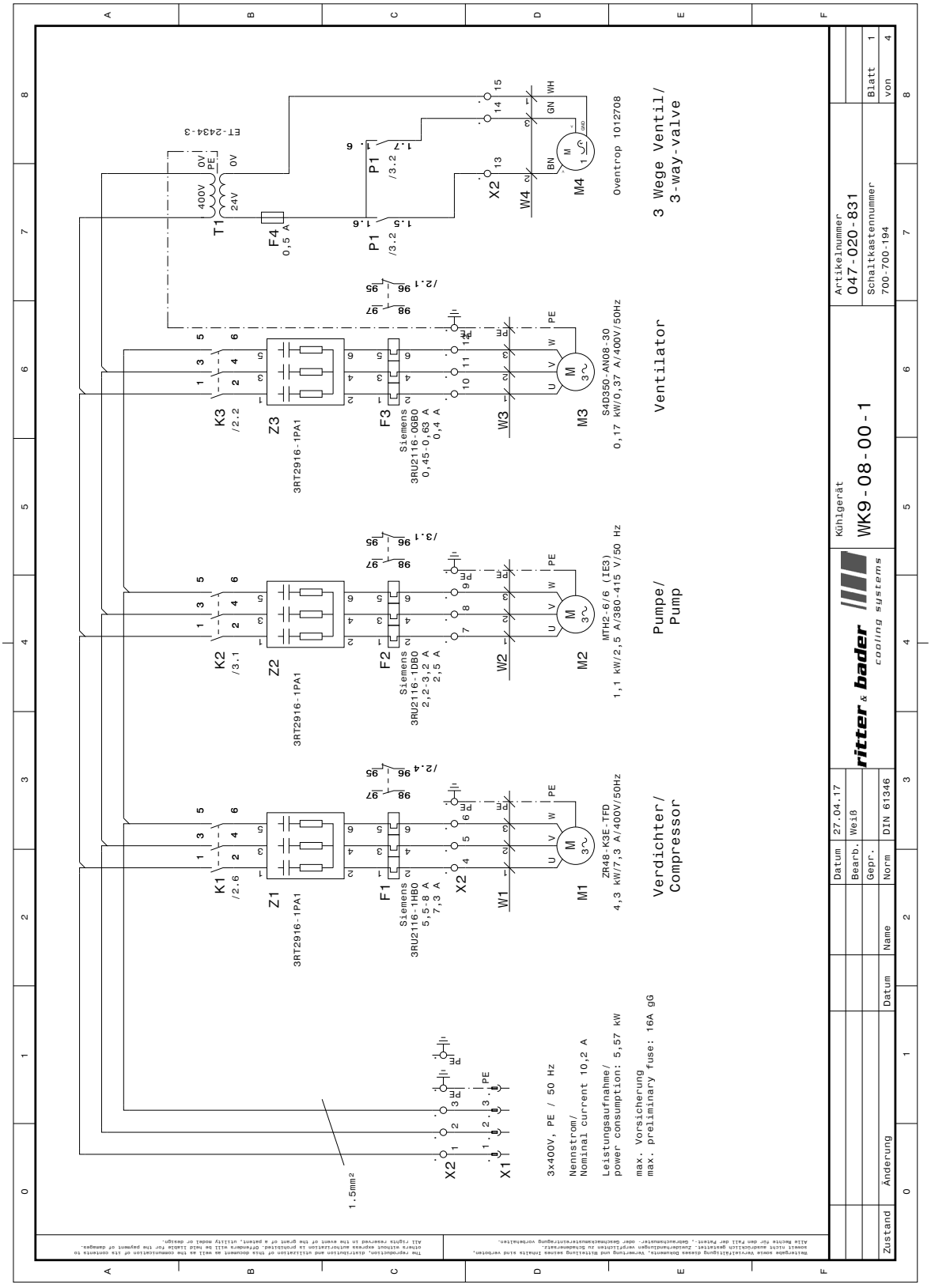
After connection of the main circuit, pay attention to the sense of rotation of the pump, the fan and the compressor. Incorrect sense of rotation may cause damage to the plant . Please mind wiring of L1, L2 and L3 in item ‚Wiring Diagram of Main Circuit`.

+ Water circuit is vented automatically.
+ Water level in the tank falls.
+ Allow for a minimum operating time of 10 minutes before setting switch S10 to ‚OFF' (complete venting of the waterbearing parts is required).

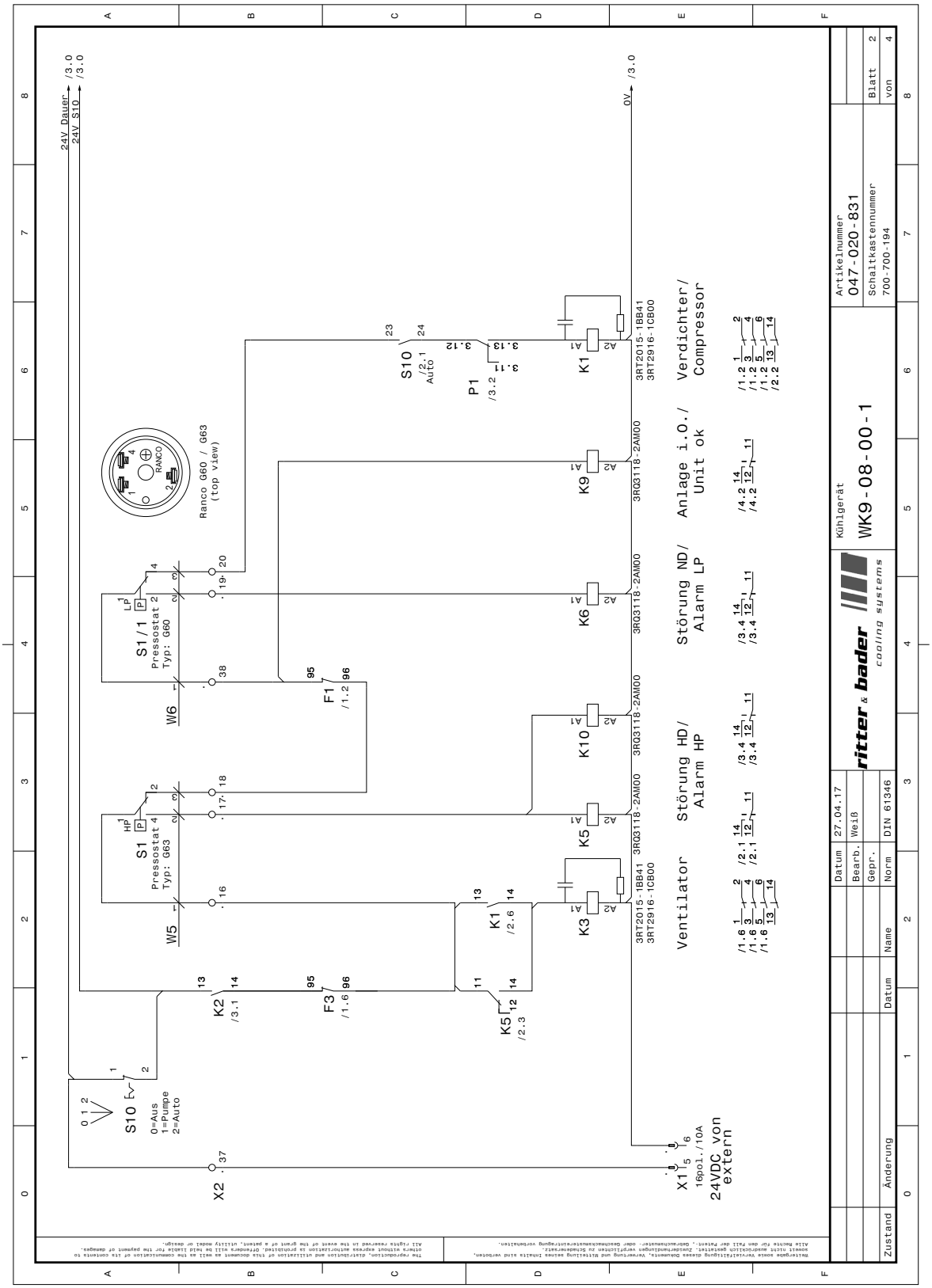
❑ Automatic operation:
+ Set switch S10 to ‚Automatic'

❑ Plant ready for operation:
+ Lack of water, air bubbles or obstruction of the plant may cause failures (volume flow and cooling system).
+ External reset is possible by switching the control voltage off and on without having to change the position of switch S10.

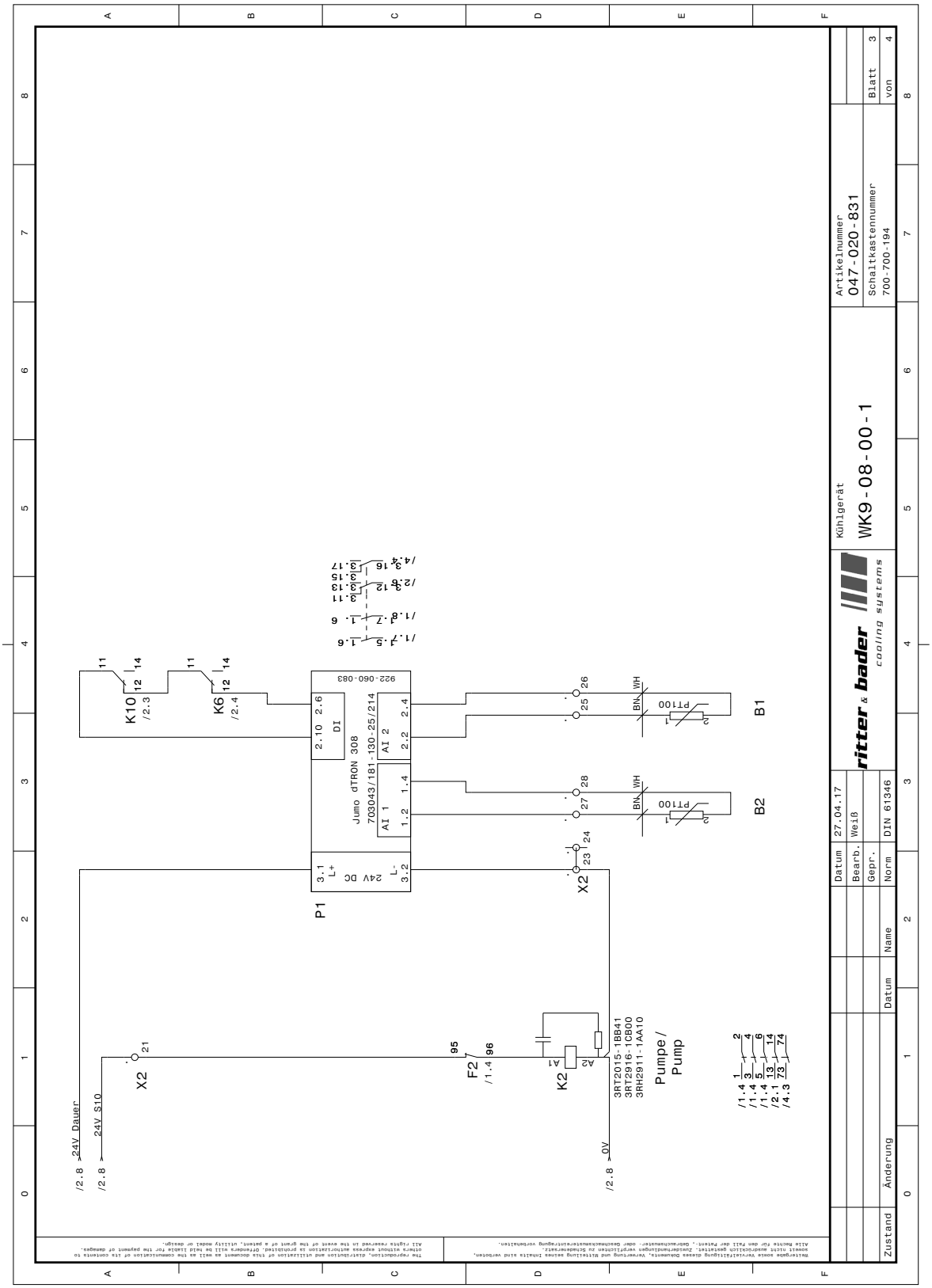
05. Wiring diagram of main circuit



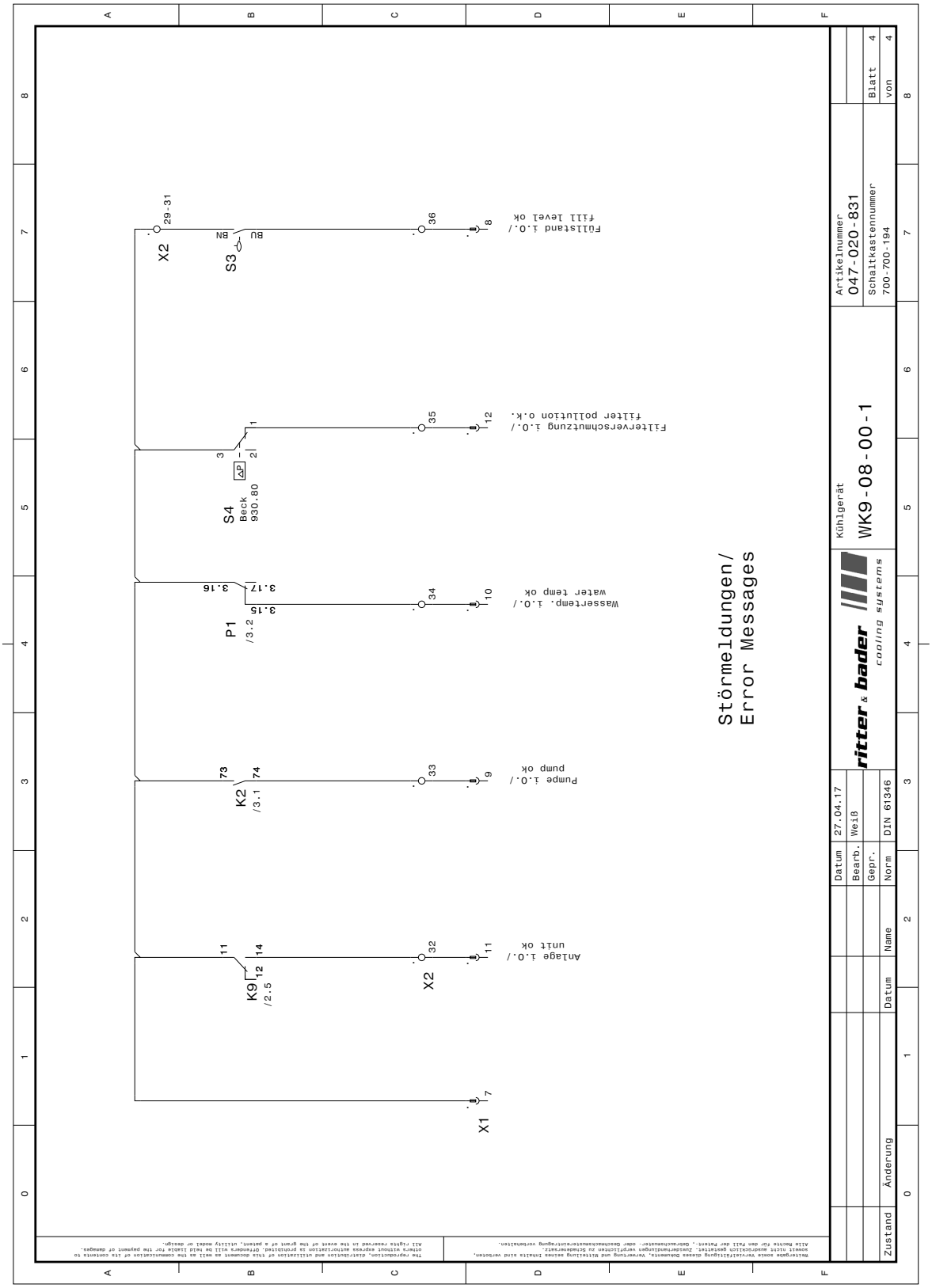
06. Wiring diagram of control circuit



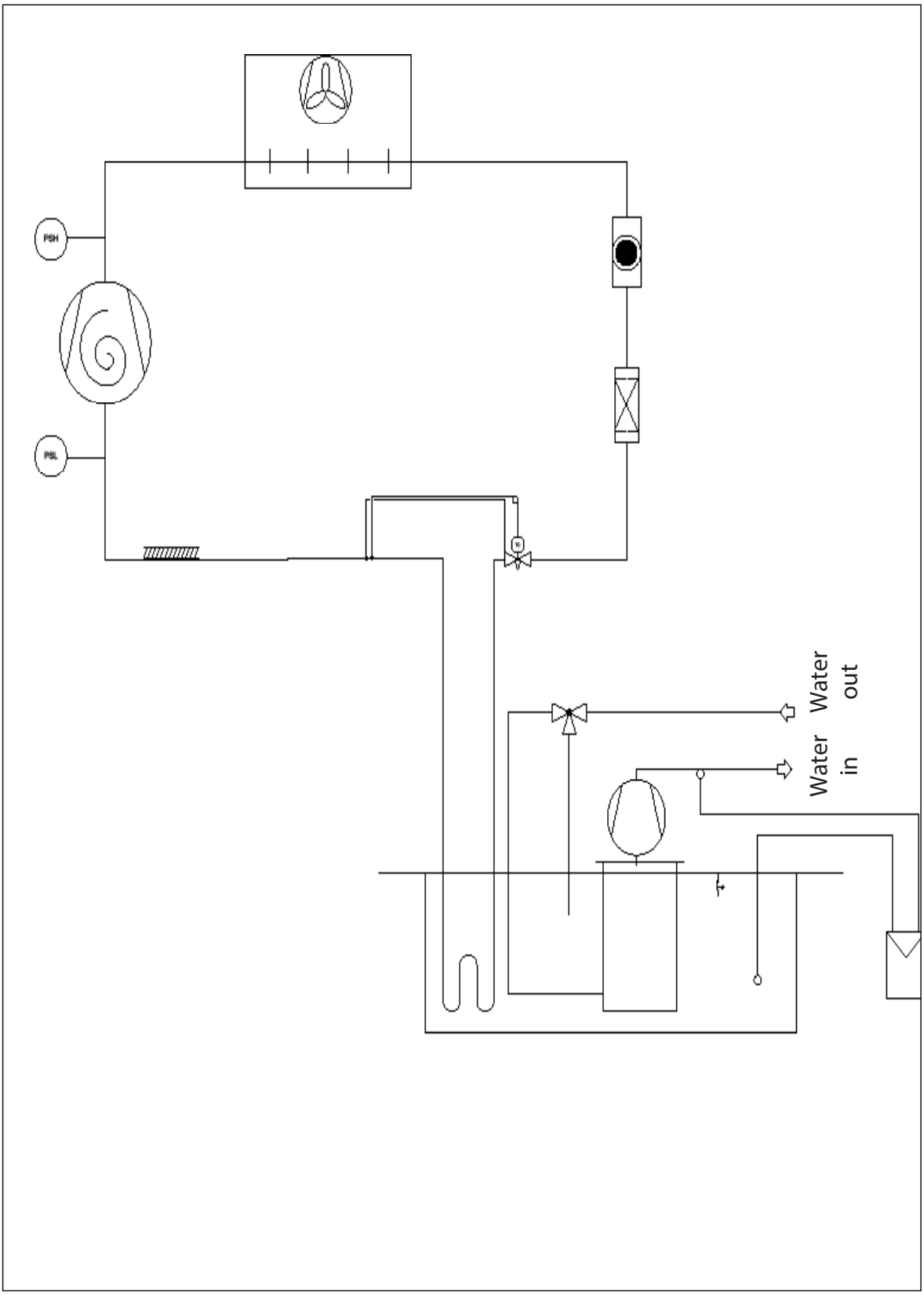
06. Wiring diagram of control circuit



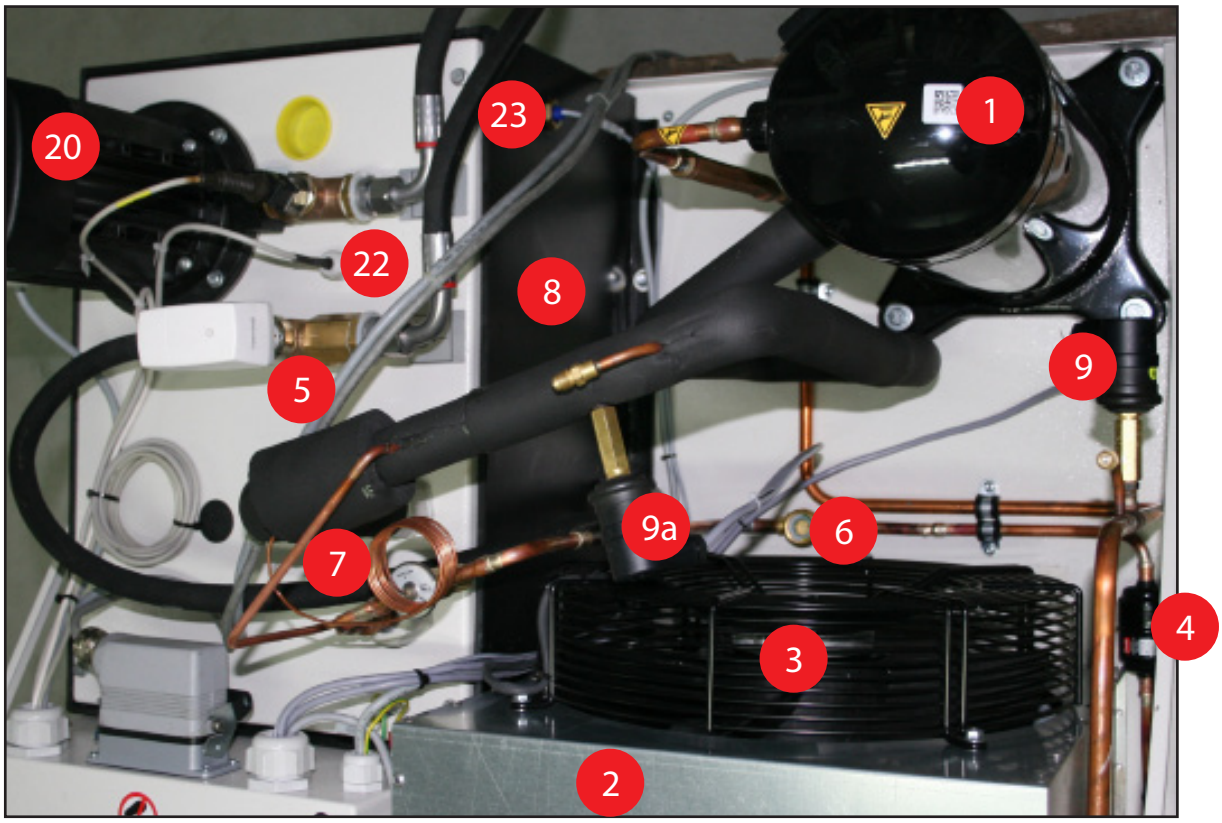
07. Wiring diagram of monitoring circuit



08. Pipe connection plan



09. Structural Components



10. Parts list

Item	Pos.	Designation	Type	Manufact.	Article N°
M1	1	Compressor	ZR48K3ETFD522	Copeland	940-001-310
	2	Condenser	WK9-08	KFL	940-002-323
M3	3	Capacitor Ventor	S4D350	EBM	922-001-213
	4	Dryer	DML 033s	Danfoss	940-010-1055
Y1	5	Three-way-valve	DN 15 1/2“	WS	940-011-216
	6	Sight glas	10 mm sol.	Castel	940-010-004
	7	E-Valve	TLEX 3,5	Honeywell	940-010-253
	8	Evaporator coil	WK9-08-00-1	CBS	940-002-032
		Pressostat			
S1	9	High pressure HP	G63P3047-650	Ranco	940-011-007
S1-1	9a	Low pressure LP	G60H1115-650	Ranco	922-008-103
M2	20	Pump	MTH 2-6/6	Grundfos	941-005-302
B1		Temperatur sensor	Protective guide sensor Ø 6x150	Kritec	922-004-150
B2	22	Temperatur sensor	Screw in sensor PT100 Screw M10 x 1	Jumo	922-004-253
S3	23	Level switch	KR-M12KB170	Pulsotronic	941-011-107
		Filter pad	WK 9	ritter+bader	919-090-0253

10. Parts list

Item	Description	Type	Manufact.	Article N°
F1	Therm. overcurrent relay	3RU2116-1HB0	Siemens	922-070-440
F2	Therm. overcurrent relay	3RU2116-1DB0	Siemens	922-070-444
F3	Therm. overcurrent relay	3RU2116-0GB0	Siemens	922-070-436
F4	Fuse	T500mA	ESKA	922-070-396
F4	Fuse holder-Terminal	8WH2000-1GG08	Siemens	922-070-257
K2	Aux. contact block	3RH2911-1AA10	Siemens	922-070-466-01
K3,K1,K2	Relay	3RT2015-1BB41	Siemens	922-070-460
K3,K1,K2	RC-circuit	3RT2916-1CB00	Siemens	922-070-509
K5,K10 K6,K9	Coupler	3RQ3118-2AM00	Siemens	922-070-499-00
P1	Temperature controller	dTRON 308	Jumo	922-060-083
S4	Pressure guard	930.80321411	Beck	922-008-104
S10	Switch	switch (0-Pump-Auto)	Siemens	922-070-610
T1	Transformer 400 V AC/24V AC	ET-2434-3	Auhorn	922-070-075
Z1,Z2,Z3	RC-circuit	3RT2916-1PA1	Siemens	922-070-509-0

11. Controller: description

The dTron 308 controller of the manufacturer Jumo is installed in the WK9-08-00-1-R134a. Please take the instructions on operating the controller from the enclosed manufacturer's operating instructions.

12. Technical data

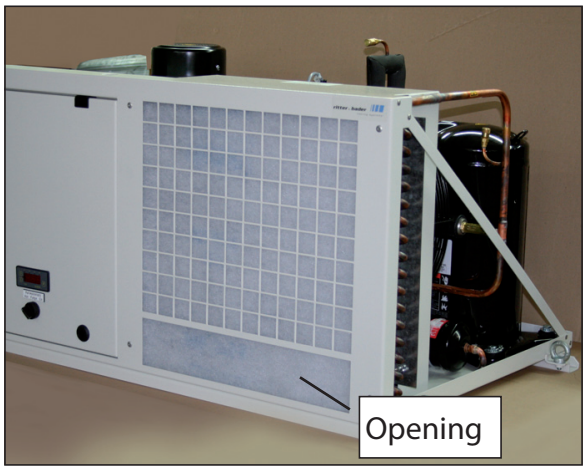
Cooling capacity	7,5 kW
Power consumption	5.57 kW
Rated voltage 50 Hz	400 VAC (+/-10%)
Control voltage	24 VDC
Rated current	10.2 A
Starting current	5-6 times rated current
Weight (without)	ca. 130 kg
Design (wxhxd)	900 x 480 x 750 mm
Max. admissible operating pressure of water HP- Refrigerant agent LP- Refrigerant agent	 10 bar 23.5 bar 1.5 bar
Pipe connection	3/4" Out / 3/4" In
Pump	40 l/min T 4 bar
Temperature display	digital actual/set value
Tank volume	approx. 50 l
Refrigerant agent	R 134a
Filling weight refrigerant agent CO_2-Equivalent	1.5 kg 2,15 t
Protective system EN 60529 (DIN 40050)	IP 54
Article number	047-020-831

13. Exchange of filter

13.1 Exchange of filter

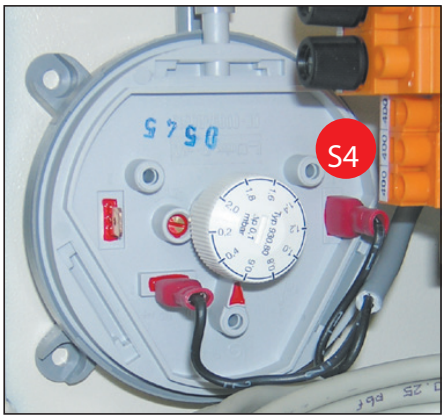
To change the filter pad remove through opening!

Only filter pads, which have been approved in writing by the manufacturer, are permitted. (see 10.parts list)



13.2 Information on changing the filter!

Note: the filter pad at the air inlet must be changed before severe contamination occurs. Reduced airflow results in reduced plant output, and in the long run can result in the destruction of the compressor!!



The filter pad contamination can be set at the vacuum-controlled diaphragm box. This vacuum-controlled diaphragm box matches the ambient pressure with the vacuum, which is produced by the fans. By adjusting the setting margin, the sensitivity can be adjusted to the degree of contamination

14. Cooling water

The cooling water serves for cooling electric motors and for air conditioning switch cabinets in semi-open cooling circuits.

14.1 Frost and corrosion protection

As to our cooling and heating systems with semi-open water circuits, we recommend to apply corrosion inhibiting cooling water additives, such as Varidos FSK (Nalco Deutschland GmbH) or other additives of the same properties, to ensure an optimum frost and corrosion protection of the cooling system. The concentration must amount to 20 - 25 % by volume. Thus, frost protection down to a temperature of -10°C will be ensured and chemical reaction of the additives, which might occur at a lower concentration, will be prevented.

14.2 Preventing algae and myxobacteria

In semi-open cooling water circuits, the cooling water will come into contact with atmospheric oxygen or approx. 9 mg/l of O2 will be dissolved in the water at a water temperature of 20°C. This involves the risk of formation of algae and myxobacteria, which will gradually clog the filter. Thus, the water flow will be impeded and cooling of the machines and of the switch cabinet will no longer be ensured. To avoid this, a further additive should be applied with systems of that kind.

In case you apply both additives (frost and corrosion protection / biocide), please make sure that they are compatible. For safety reasons, both agents should be fabricated by the same manufacture, and their combination should be approved.

Note!

There must not any metals with widely differing voltage potentials, such as aluminium (-1.7 V) and copper (+0.36 V), be directly connected in the water circuit

14. Cooling water

There must not be any copper chips in the cooling water, as these might settle down on the aluminium, thus causing galvanic corrosion.

The cooling water used must have the following properties:

❑	Total hardness	GH	< 20° d*
❑	Hardness due to carbonates	KH	< 20° d*[1)]
		$K_{S4,3}$	< 7 mol/m³
❑	Chlorides	Cl	< 250 g/m³
❑	Sulphates	SO_4^{-2}	< 240 g/m³
❑	Iron	Fe	< 0,2 g/m³
❑	Manganese	Mn	< 0,05 g/m³
❑	Suspended matter	-	< 0,05 g/m³
❑	ph values	-	< 7-9[2)]
❑	Electric conductivity	LF	< 2000 uS/cm
❑	Colonizing units	KBE	< 1000 ml

* German measuring unit

1) Additives feign a higher CH/$C_{S4.3}$ value.

2) If using aluminium, the optimum pH value amounts to 7.5 - 8.5.

When aggressive water is used, e.g., well water, the cooling water must be tested in advanced. The laboratory Nalco Deutschland GmbH Fax +49 (0) 73 45 / 92 97 94 will send you a package for water samples if required.

The manufacturer will accept no liability for damage which occurs as a result of non-adherence to the values.

Once a year, the cooling water should be exchanged completely.

15. Error messages

Error messages	Possible cause	Item no. in Operating M.
Level	Water level in the tank too low	09 Strucutral Component
	Float switch in the tank defective	09 Strucutral Component
	Cable break	
Water temperature	Controller incorrectly set	16 Reglereinstellung
	Controller malfunction	10 Stückliste
	Controller sensor defective or cable break	09 Strucutral Component
Cooling unit	Condenser soiled	09 Strucutral Component
	HP pressostat defective	09 Strucutral Component
	Ventilator Overcurrent relay	
Pressostat HP	Ventialtor defective	09 Strucutral Component

Remedy
Check water level in the tank and, if necessary, top up through filler socket Check water level by level indicator. Mind concentration of additives.
Check float switch and replace it, if necessary (in case of correct water level, the contact will be closed). Mind installing position, switch opens downward.
Check cable and replace it, if necessary.
Check controller parameters.
Exchange controller.
Check sensor or cable.
Clean condenser.
To be repaired by manufacturer.
Check settings
Replace ventilator

15. Error messages

Error Messages	Possible Cause	Item no. in Operating M.
Cooling unit Thermal overcurrent switch for compressor	Compressor defective Voltage variations	09 Structural Components 12 Technical Data, nominal voltage
Filter pad soiled	Air filter soiled Condenser soiled Differ. pressure control device incorrectly set or defective	13 Exchange Filter 09 Structural Components 09 Structural Components
Pump Therm.-Überstrom Schutzschalter Pumpe	 Pump defective	 09 Structural Components 12 Technical Data

Remedy
Have compressor checked by manufacturer.
Check supply voltage and compare it to the voltage stated on the name plate.
Clean filter pad or replace it.
Clean condenser. Check cable connection. Check setting (12. Exchange of filter)
Have pump checed by manufacturer . Check supply voltage.

16. Parameter table

File info header:

Device name:	dTRON300	Creation date:	05.07.2005
Device SW version:	192.03.xx	Date of change:	15.11.2013
VDN:		Program version:	3.04 J

Short info:	F\BE_Projekte\047\020\831
Programmer:	Ritter
Type code:	WK9-08-00-1
Job:	Grob MN
Extra info:	

Hardware:

Device type:
703042/43 JUMO dTRON 308 (H/Q)

Variations:
Default

Type code:
70304X/XXX-130-XX/214,XXX

Slots:

Expansion slot 1:	Analog input
Expansion slot 2:	2 x relay output
Expansion slot 3:	Not fitted

Extra codes:
Math

Analog inputs (InP):

Analog input 1 (InP1):

Sensor type (SEnS):	Resistance thermometer (2-wire)
Linearization (Lin):	KTY 11/6
Measurement offset (OFFS):	0.000 Ohm
Filter time constant (dF):	0.6 s
Correction for KTY at 25 °C:	2000 Ohm

Analog input 2 (InP2):

Sensor type (SEnS):	Resistance thermometer (2-wire)
Linearization (Lin):	Pt100 DIN
Measurement offset (OFFS):	0.000 Ohm
Filter time constant (dF):	0.6 s

Globals (In12:

Temperature unit (Unit):	°C
Supply frequency:	50 Hz
Sampling cycle time (CycL):	250 ms

Controller (Cntr):

Configuration:

Controller type (CtyP):	Modulating controller
Control action (CAct):	Inverse
Manual mode (InHA):	not locked
Manual output level (HAnd):	101 %
Range output level (rOut):	0 %
Start of setpoint limiting (SPL):	-1999
End of setpoint limiting (SPH):	9999

16. Parameter table

Inputs:	
Controller process value (CPr):	Analog input 2
External setpoint (ESP):	Setpoint 1
External setpoint (ESP):	without correction
Output level feedback (FEEd):	Switched off
Self-optimization:	
Method (tyPt):	Oscillation
Self-optimization (InHt):	locked
Controller output 1 (Ot1):	Relay
Controller output 2 (Ot2):	Relay

Generator (Pro):

Globals:	
Function (Fnct):	Fixed-setpoint controller
Basic status:	
Control contacts:	
SK 1:	OFF
SK 2:	OFF
SK 3:	OFF
SK 4:	OFF

Limit comparators (LC):

1. Limit comparator (LC1):	
Function (Fnct):	lk 3
Limit value (AL):	3.000
Differential (HySt):	2.000
Hysteresis function:	Asymmetrical left
Action (AcrA):	Absolute
Range response (AcrA):	Lk off
Acknowledgement (AcnL):	none
Switch-on delay (tOn):	0 s
Switch-off delay (tOFF):	5 s
Pulse time (tPuL):	0 s
Lk actual value (LCPr):	Analog input 1
Lk setpoint (LCSP):	Setpoint 1
2. Limit comparator (LC2):	
Function (Fnct):	no function
3. Limit comparator (LC3):	
Function (Fnct):	no function
4. Limit comparator (LC4):	
Function (Fnct):	lk 2
Limit value (AL):	12.50
Differential (HySt):	1.000
Hysteresis function:	Symmetrical
Action (AcrA):	Absolute
Range response (AcrA):	Lk off
Acknowledgement (AcnL):	none
Switch-on delay (tOn):	0 s
Switch-off delay (tOFF):	0 s
Pulse time (tPuL):	0 s
Lk actual value (LCPr):	Analog input 2
Lk setpoint (LCSP):	Setpoint 4

Outputs (OutP):

Binary outputs (OutL):

Programmer:	Ritter	Document:	WK9-08-00-1_CBS Verdamp
Device name:	dTRON300	Date created:	05.07.2005
Device SW version:	192.03.xx	Date of change:	15.11.2013
Program SW version:	3.04 J	Page/All pages:	2/5

16. Parameter table

Function Binary output 1 (Out1):	Logic 1
Function Binary output 2 (Out2):	4. Limit comparator
Function Binary output 3 (Out3):	Switched off
Function Binary output 4 (Out4):	Switched off
Function Binary output 6 (Out6):	1. Controller output
Function Binary output 9 (Out9):	2. Controller output

Analog outputs (OutA):
No analog output available

Logic functions (binF):

Binary inputs:

Binary input 1:	
Function (bin1):	Start timer 1
Additional functions:	none
Binary input 2:	
Function (bin2):	none
Additional functions:	none

Limit comparators:

1.Limit comparator :	
Function (LC1):	none
Additional functions:	none
2.Limit comparator :	
Function (LC2):	none
Additional functions:	none
3.Limit comparator :	
Function (LC3):	none
Additional functions:	none
4.Limit comparator :	
Function (LC4):	none
Additional functions:	none

Timer:

Timer 1:	
Function (tF1):	none
Additional functions:	none
Timer 2:	
Function (tF2):	none
Additional functions:	none

Logic:

Logic channel 1:	
Function (Lo1):	none
Additional functions:	none
Logic channel 2:	
Function (Lo2):	none
Additional functions:	none

Control contacts:

Control contact 1:	
Function (CC1):	none
Additional functions:	none
Control contact 2:	
Function (CC2):	none
Additional functions:	none
Control contact 3:	
Function (CC3):	none
Additional functions:	none
Control contact 4:	

Programmer:	Ritter	Document:	WK9-08-00-1_CBS Verdamp
Device name:	dTRON300	Date created:	05.07.2005
Device SW version:	192.03.xx	Date of change:	15.11.2013
Program SW version:	3.04 J	Page/All pages:	3/5

16. Parameter table

Function (CC4):	none
Additional functions:	none
other:	
Tolerance band signal:	
Function (TolS):	none
Additional functions:	none
Program end signal:	
Function (PrES):	none
Additional functions:	none
Text display:	
Static text:	ALRT

Display (diSP)/ Operation:

Globals

Function (upper display) (diSU):	Analog input 2
Function (lower display) (diSL):	Analog input 1
Function (16-segment display) (diS3):	Temperature unit
Brightness (briG):	0
Decimal point (dEcP):	***.*
Time-out (tOut):	180 s
Level inhibit:	Operating, parameter and configuration levels

User data

Parameter:	Name:	Value:
1		Switched off
2		Switched off
3		Switched off
4		Switched off
5		Switched off
6		Switched off
7		Switched off
8		Switched off

Timer (tFct):

Timer 1 (tF1):

Function (Fnct):	Signal is inactive (mm:ss)
Timer value (t):	05:00 mm:ss
Tolerance band (toLt):	0.000

Timer 2 (tF2):

Function (Fnct):	no function
Timer value (t):	00:00 hh:mm
Tolerance band (toLt):	0.000

Interfaces (IntF):

Only Setup interface available

Controller parameters:

Parameter set 1:

Proportional band	Pb1:	6.000	Pb2:	0.000
Derivative time	dt:	0 s		
Reset time	rt:	55 s		
Cycle time	Cy1:	20.0 s	Cy2:	20.0 s
Contact spacing	db:	0.0		
Differential	Hys1:	1.0	Hys2:	1.0
Stroke time	TT:	60 s		
Working point	Y0:	0 %		

Programmer:	Ritter	Document:	WK9-08-00-1_CBS Verdamp
Device name:	dTRON300	Date created:	05.07.2005
Device SW version:	192.03.xx	Date of change:	15.11.2013
Program SW version:	3.04 J	Page/All pages:	4/5

16. Parameter table

Output limiting	Y1:	100 %	Y2:	0 %
Parameter set 2:				
Proportional band	Pb1:	12.00	Pb2:	0.000
Derivative time	dt:	0 s		
Reset time	rt:	120 s		
Cycle time	Cy1:	20.0 s	Cy2:	20.0 s
Contact spacing	db:	0.0		
Differential	Hys1:	1.0	Hys2:	1.0
Stroke time	TT:	75 s		
Working point	Y0:	0 %		
Output limiting	Y1:	100 %	Y2:	0 %

Setpoints:

Setpoint 1 (SP 1):	22.00
Setpoint 2 (SP 2):	0.000
Setpoint 3 (SP 3):	0.000
Setpoint 4 (SP 4):	22.50

Math / logic:

Math / logic 1

Function:	Logic formula
Formula:	LK1 & TI1

Math / logic 2

Function:	no function

Processing time: 1 msec

Customized linearization:

Type of customized linearization: Calibration points
no table entered!

Undocumented parameters:

Bit parameter:

Parameters 1:	OFF	Parameters 25:	OFF
Parameters 2:	OFF	Parameters 26:	OFF
Parameters 3:	OFF	Parameters 27:	OFF
Parameters 4:	OFF	Parameters 28:	OFF
Parameters 5:	OFF	Parameters 29:	OFF
Parameters 6:	OFF	Parameters 30:	OFF
Parameters 7:	OFF	Parameters 31:	OFF
Parameters 8:	OFF	Parameters 32:	OFF
Parameters 9:	OFF	Parameters 33:	OFF
Parameters 10:	OFF	Parameters 34:	OFF
Parameters 11:	OFF	Parameters 35:	OFF
Parameters 12:	OFF	Parameters 36:	OFF
Parameters 13:	OFF	Parameters 37:	OFF
Parameters 14:	OFF	Parameters 38:	OFF
Parameters 15:	OFF	Parameters 39:	OFF
Parameters 16:	OFF	Parameters 40:	OFF
Parameters 17:	OFF	Parameters 41:	OFF
Parameters 18:	OFF	Parameters 42:	OFF
Parameters 19:	OFF	Parameters 43:	OFF
Parameters 20:	OFF	Parameters 44:	OFF
Parameters 21:	OFF	Parameters 45:	OFF
Parameters 22:	OFF	Parameters 46:	OFF
Parameters 23:	OFF	Parameters 47:	OFF

Programmer:	Ritter	Document:	WK9-08-00-1_CBS Verdamp
Device name:	dTRON300	Date created:	05.07.2005
Device SW version:	192.03.xx	Date of change:	15.11.2013
Program SW version:	3.04 J	Page/All pages:	5/5

16. Parameter table

Parameters 24:	OFF	Parameters 48:	OFF

Integer parameter:

Parameters 1:	0x0000	Parameters 2:	0

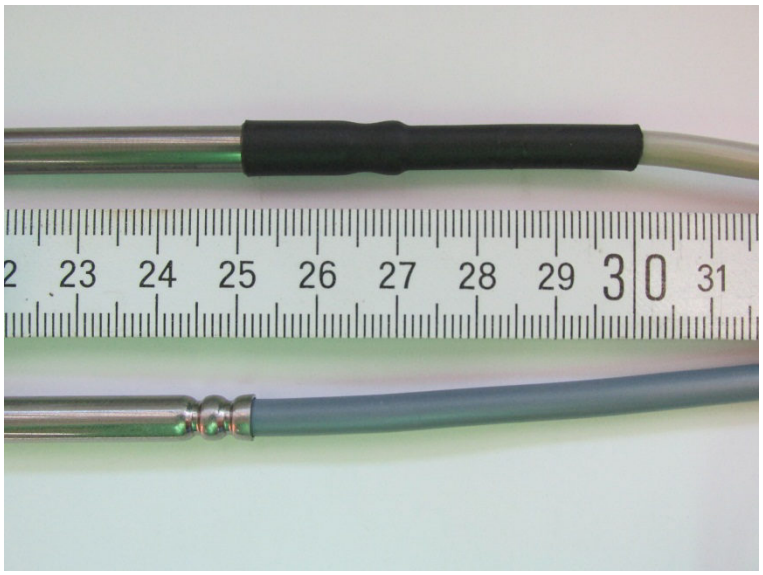
File info text:

Neuprogrammierung am 12.11.2013 Ritter Festwert 22°C

Programmer:	Ritter	Document:	WK9-08-00-1_CBS Verdamp
Device name:	dTRON300	Date created:	05.07.2005
Device SW version:	192.03.xx	Date of change:	15.11.2013
Program SW version:	3.04 J	Page/All pages:	6/6

17. Installation of temperature sensor

In units WK9-08-00-X we use two types of temperature sensor. There is a slight difference in their total length. The similarly total length is 250mm.



picture 1

picture 2 (Kritec)

picture 3 (Jumo)

Correct installation of the temperature sensor:

The sensor has to be installed like documented on the pictures.

18. Declaration of Incorporation

Declaration of Incorporation

according to EC directive 2006/42/EC on machinery (Annex II B)

The manufacturer:

ritter & bader GmbH

Herewith we declare, that the partly completed machinery described below

product denomination::	Wasserrückkühler
Fabrikat:	ritter & bader GmbH
machinery / serial number:	
model/type::	WK9-08-00-1 R134a

is complying with the following essential requirements of the Machinery Directive2006/42/EC compare Annex "List of complied requests according to Annex I of the Machinery Directive2006/42/EC"

In addition the partly completed machinery is in conformity with the EC Directives 2006/95/EC relating to electrical equipment

The partly completed machinery must not be put into service until the final machinery into which it is to be Incorporated or a component, has been declared in conformity with the provisions of all relevant directives.

The following harmonised norms were applied:

EN 60204-1:2006	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2005 (modified))

We declare that the relevant technical documentation for this product is compiled in accordance with part B of Annex VII. In case of reasonable request this documentation can be transferred via e-mail to a national authority.

Name and address of the person authorised to compile the relevant technical documentation:
Franz Ritter
Adolf-Wolf-Straße 44
89264 Weißenhorn

Place: Weißenhorn
Date: [illegible]

ritter & bader GmbH
Adolf-Wolf-Str. 44 • 89264 Weißenhorn
Tel.0 73 09/96 37-0 • Fax 0 73 09/96 37-17
mail@ritter-bader.com

(Signature)
Franz Ritter

Comply with technical modifications essential for progress. rb 2017/10/13