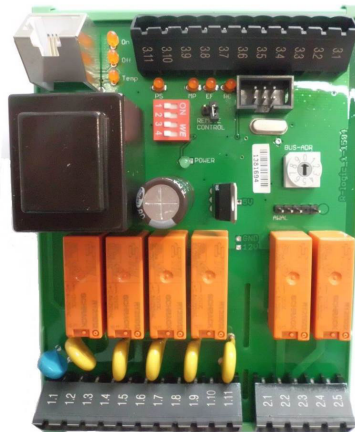


Instruction Manual



RENNERlogic



Please read carefully before commissioning and follow instructions. Keep in a safe place for future use.

RENNER GmbH Kompressoren
Emil-Weber Str. 32
D-74363 Gueglingen
Tel: +49 (0)7135 931 93 0
Fax: +49 (0)7135 931 93 50
info@renner-kompressoren.de
www.renner-kompressoren.de

English Version V 12 / 2015
Software Version V 3.03

EN

Table of contents

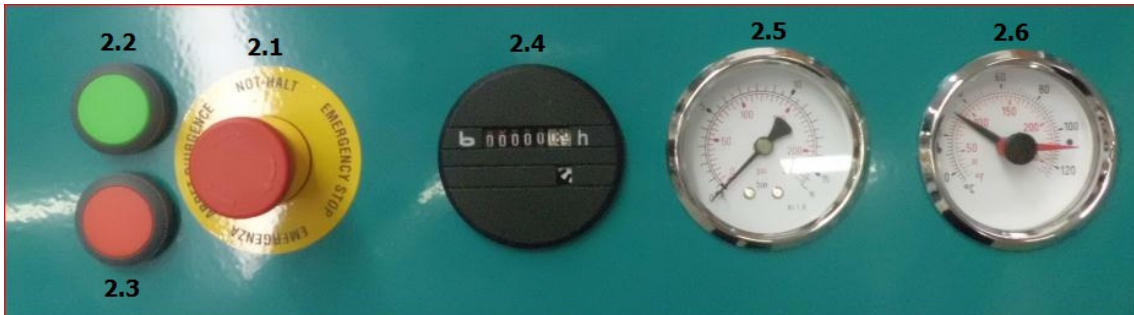
1	Safety guidelines	3
2	Control elements, display	4
3	Times	6
4	Features / options	7
4.1	External On / Off	7
4.2	Messages	7
4.3	External fault	7
4.4	Automatic re-start	7
4.5	RS 485 BUS	8
5	Faults	9
6	Technical specifications	10
7	Software history	12
8	Wiring diagrams	13

1 Safety guidelines

**PLEASE MAKE SURE TO READ THE FOLLOWING INSTRUCTION MANUAL
BEFORE STARTING UP THE CONTROLLER!**

1. The controller may only be started up, connected and maintained by trained specialist staff.
2. RENNER reserves the right to make changes, additions or improvements to this product (hardware and software). This does not confer an obligation to update equipment already delivered.

2 Control elements, display



2.1 EMERGENCY STOP

- If activated: the machine stops immediately
- Turn to the right to unlock
- The machine will only start again once the ON button is pressed

2.2 ON button

- Starts the machine
- Reset button after faults

2.3 OFF button

- Machine starts soft stop
- The machine will only re-start once the ON button is pressed again
- If the OFF button is pressed during the start-up period the machine will stop immediately

Status display (Blink-Codes LED)

Operating mode	Green LED (ON button)	Red LED (OFF button)
Standby (pressure reached)	Permanent on	Off
Run-on time	Blinking 2s	Off
Soft-stop time	Off	Blinking 1s
Re-start time	Permanent on	Blinking 0,5s
Over temperature	Blinking 2s	Blinking 0,5s
motor protection	Blinking 0,5s	Blinking 2s
External fault	Permanent on	Permanent on
Compressor Off	Off	Permanent on

2.4 Operating hours counter

- Counts the number of hours operated by the compressor

2.5 Pressure gauge

- Displays the pressure

2.6 Remote display thermostat

- Operating temperature or overtemperature

3 Times

Various start-up (star-delta) or run-on times are available in the RENNERlogic controller.

The times can be changed as follows by setting the individual dip switches:

- Determination of the run-on time

DIP 1	DIP 2	Time
0	0	120 sec.
1	0	180 sec.
0	1	240 sec.
1	1	360 sec.

Standard: 180s

- Determination of the start-up time (star-delta)

DIP 3	DIP 4	Time
0	0	3 sec.
1	0	6 sec.
0	1	9 sec.
1	1	12 sec

Standard up to 9kW: 3s

Standard from 11kW: 6s

- Soft stop time: 90sec fixed

- Re-start delay time: 90sec fixed

(For the “Automatic re-start after power failure” option, please see section 4.4)

4 Features / options

4.1 External ON/OFF

- A standard feature of the “RENNERlogic controller” is the “Remote ON/OFF” option
- In order to access this option, the jumper on the RENNERlogic must be plugged on both pins
- As soon as the jumper is plugged on, the ON button on the compressor is deactivated and is only active as a reset button after faults

A push-to-lock OFF switch must be used for the external ON/OFF switch (switch closed = ON / switch open = OFF)

4.2 Messages

- 1 floating contact is available for the standby and fault messages
- Standby: Contacts 2.1 and 2.2 closed (max. 250V/2A)
- Fault message: if there is no fault, contacts 2.4 and 2.5 are closed (max. 250V/2A)
- The same voltages must be connected to the relay outputs (no mixed circuit)

4.3 External fault

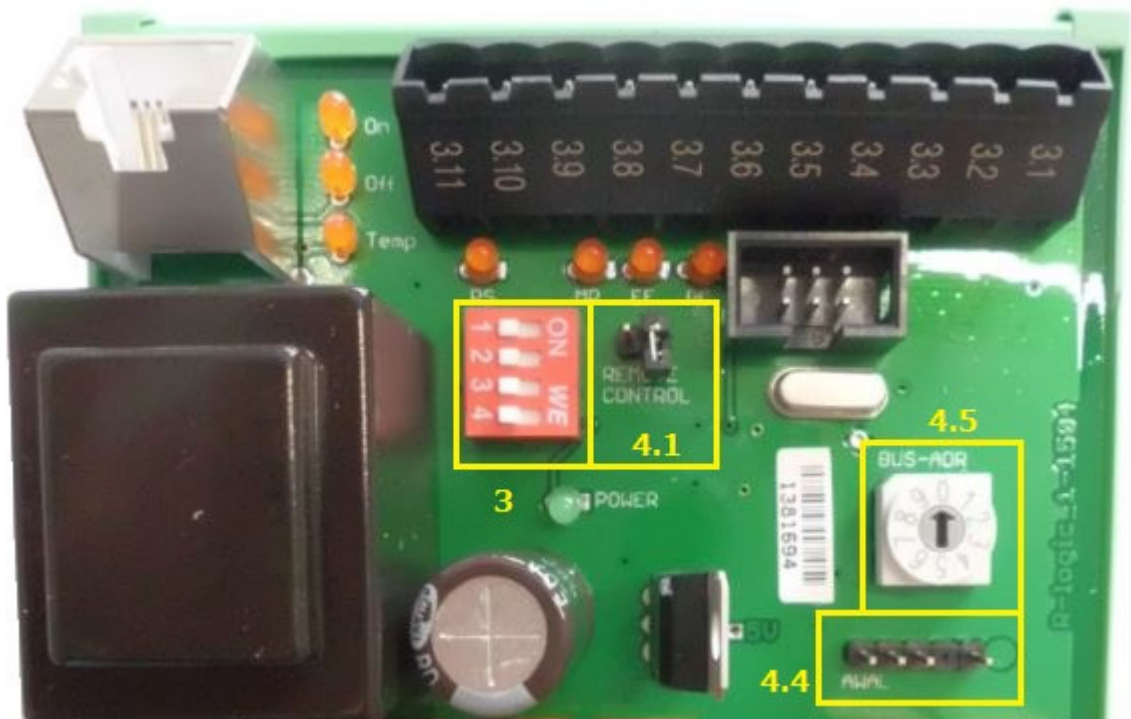
- It is possible to switch the compressor off immediately and without delay if externally fitted monitoring devices are faulty
- For the “NC” contact input connection, please see the wiring diagram
- This input is already preset for the option “Rotation direction control”.

4.4 Automatic re-start (AWAL)

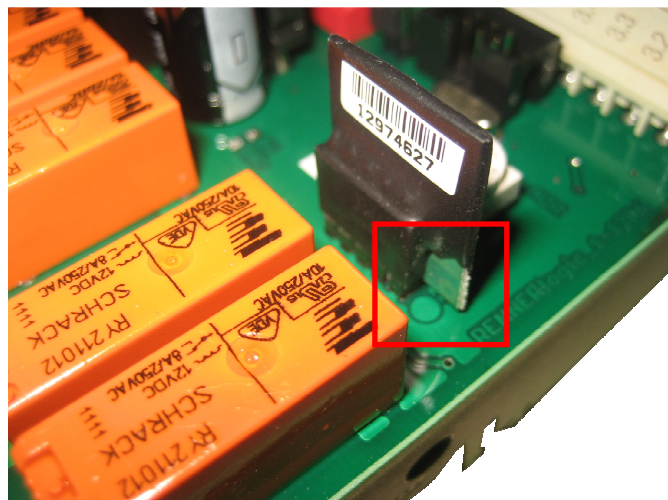
- The function “Automatic re-start” is activated when an optionally available additional module is plugged on
- The polarity is marked by a dot on the printed circuit board and a dot on the additional module (the markings must fit)
- AWAL starts the compressor only if the power supply was disrupted
- AWAL starts with a delay of 90sec (this period cannot be changed)
- The start-up with “AWAL” is signalled with the status display flashing rapidly

4.5 RS 485 BUS

- For the machine to be operated, the BCD rotary coding switch must be set to a value (1....9) (the LED on the circuit board is continuously illuminated)
- The position of "0" is only used for configuration or updating purposes. No bus operation is possible in this position (LED on the circuit board flashes)



4.4



5 Faults

Description of the fault	Possible reason	Remedy
Incorrect direction of rotation of the motor	Incorrect rotary field	Swap 2 phases in the electrical supply line
Machine does not start	Is there power? Emergency off reset? BCD selector switch at position "0"? Motor protective relay triggered? Overtemperature? Remote jumper ON/OFF plugged on? Direction of rotation monitoring or external fault?	Establish power supply Pull out emergency off Set selector switch to position 1...9 Check motor protective relay Press blue button Checking oil level Cleaning oil cooler Check temperature If the jumper is plugged on only the external switch is active Check phase sequence relay or input
Compressor does not go into the load cycle	Pressure switch OK? RENNERlogic output? Solenoid valve, control unit?	Check pressure switch Measure output of RENNERlogic Check solenoid valve, control unit

6 Technical specifications

Printed circuit board:

Power supply:	230 V AC; +/- 10%
Frequency:	50/60 Hz
Power consumption:	max. 4 VA
Internal protection measures:	protection against excess voltage
External protective measures:	Controller must be appropriately safeguarded externally with overcurrent protection (fuse).

Relays, floating contacts:

Switching voltage:	AC max. 253 V AC
Switching voltage:	DC not applicable
Current load rating:	AC max. 2 A AC (cos Phi = 1)
Current load rating:	DC not applicable
Mechanical switching cycles:	1,000,000 cycles

LED output:

Terminal 3.1:	LED anode
Terminal 3.2:	LED cathode
Voltage approx:	12 V DC
Current load rating (max):	30 mA

Contact inputs:

Supply voltage:	5 V DC
Reference ground:	GND

Measurements: 128 x 95 x 52 mm (L x W x D)

Protection class: IP 00

The controller must be installed in a control cabinet or closed housing. Operations are prohibited without a suitable housing! The safeguards against contact and moisture are only realized when integrated in a housing

7 Software history

Version	Date	Name	Description
V 1.00	28/01/2013	PE	Introduction of the series
V 1.01	20/02/2013	PE	Revision: AWAL only starts up after reset
V 1.02	04/07/2013	PE	Change in date format (RS 485 BUS)
V 1.07	07/02/2014	PE	Delay the fault signal (rotation monitoring)
V3.03	25/08/2015	PE	Hardware change of the RENNERlogic (Panel connection)

Relais Ausgänge / relay outputs / sorties relais max. 2A 230V

max. 250V/2A

max. 250V/2A

RENNERlogic

Line



Y

D

Valve

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

1.10

1.11

2.1

2.2

2.3

2.4

2.5

3X0,75

Bereit Meldung
Ready
prêt

Störmeldung
Fault
erreur



keine Störung 2.4 - 2.5
no fault 2.4 - 2.5
aucune perturbation 2.4 - 2.5

-K1M
A1
A2
-A1/1.2 /4.0

-MV1
A1
A2

Netzschütz
main contactor
contacteur de reseau

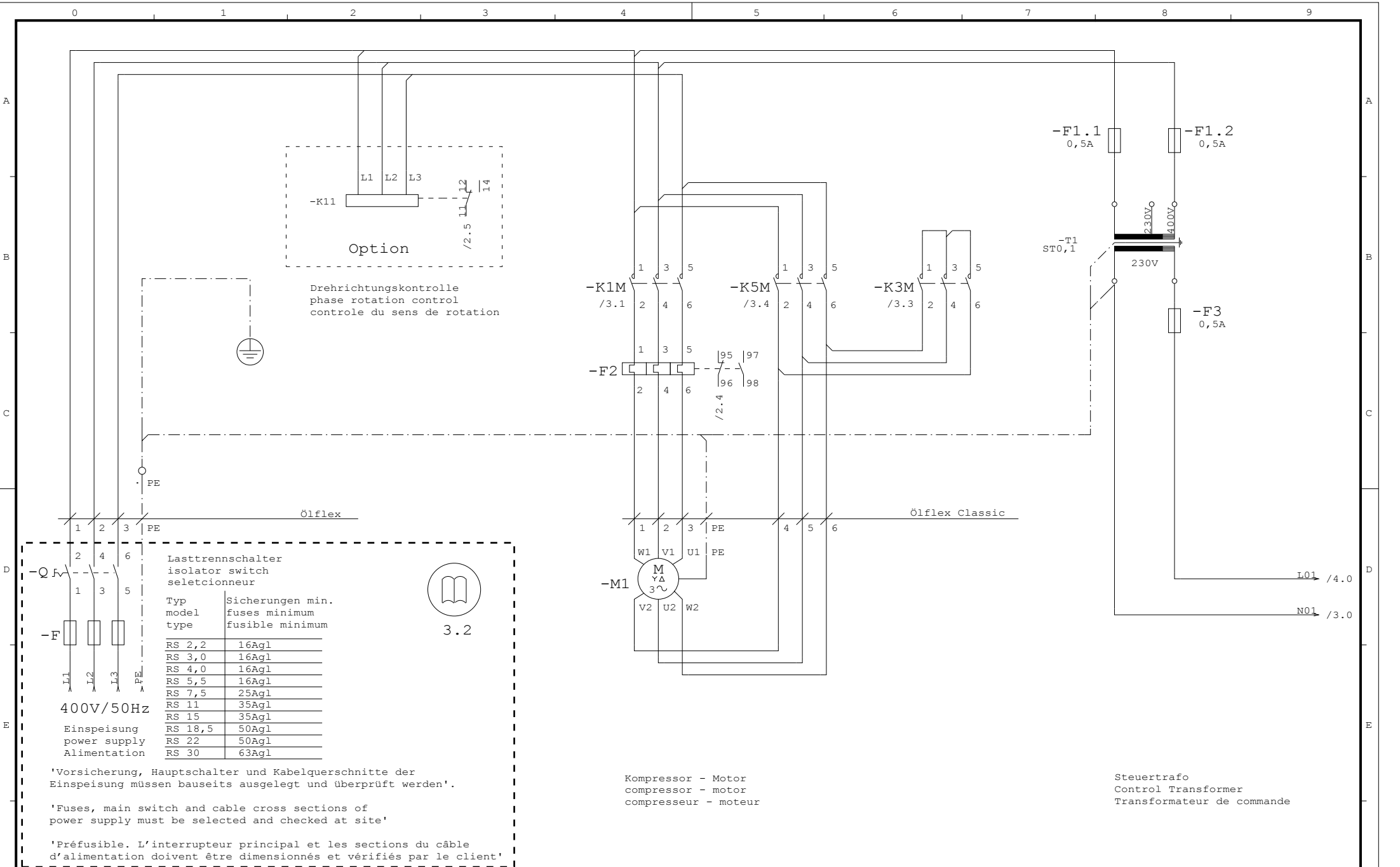
Magnetventil
solenoid valve
electrovanne

 **Vorsicht Fremdspannung!!!**
Attention external Voltage
Attention tension perturbatrice 

/1.4 1 2
/1.4 3 4
/1.4 5 6
/1.4 13 14

				Datum	03.11.15	RS-B/PRO RENNERlogic_2,2 - 4,0_d	RENNER GmbH Emil-Weber-Str. 32 D-74363 Güglingen	03112015/1	=
				Bearb.	Echle				+
				Gepr.					
Zust.	Änderung	Datum	Name	Norm	Urspr.	Ers. f.	Ers. d.	112015	Blatt 3 von 4Bl.

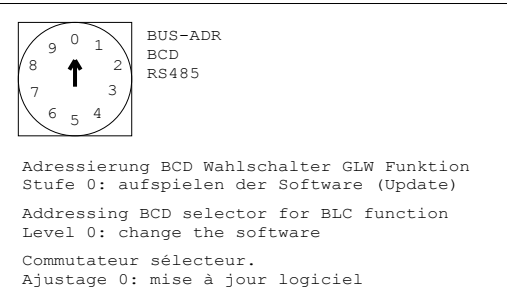
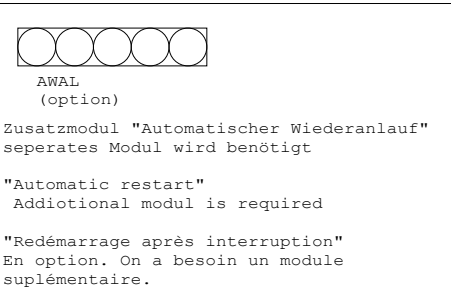
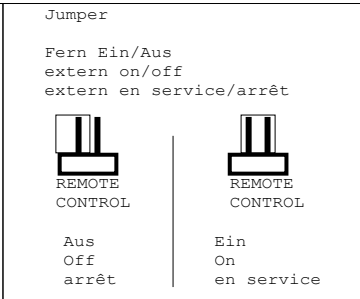
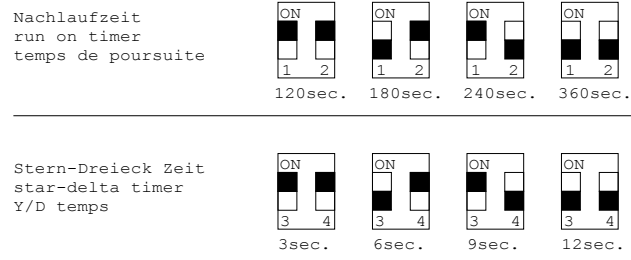
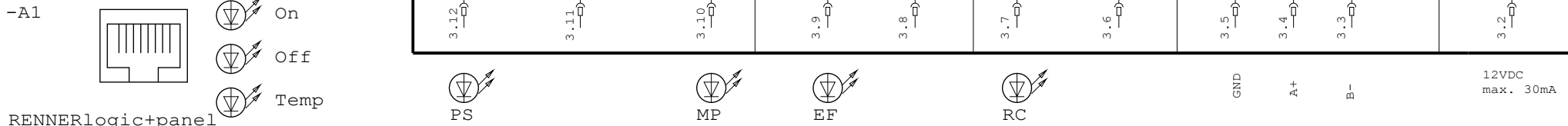
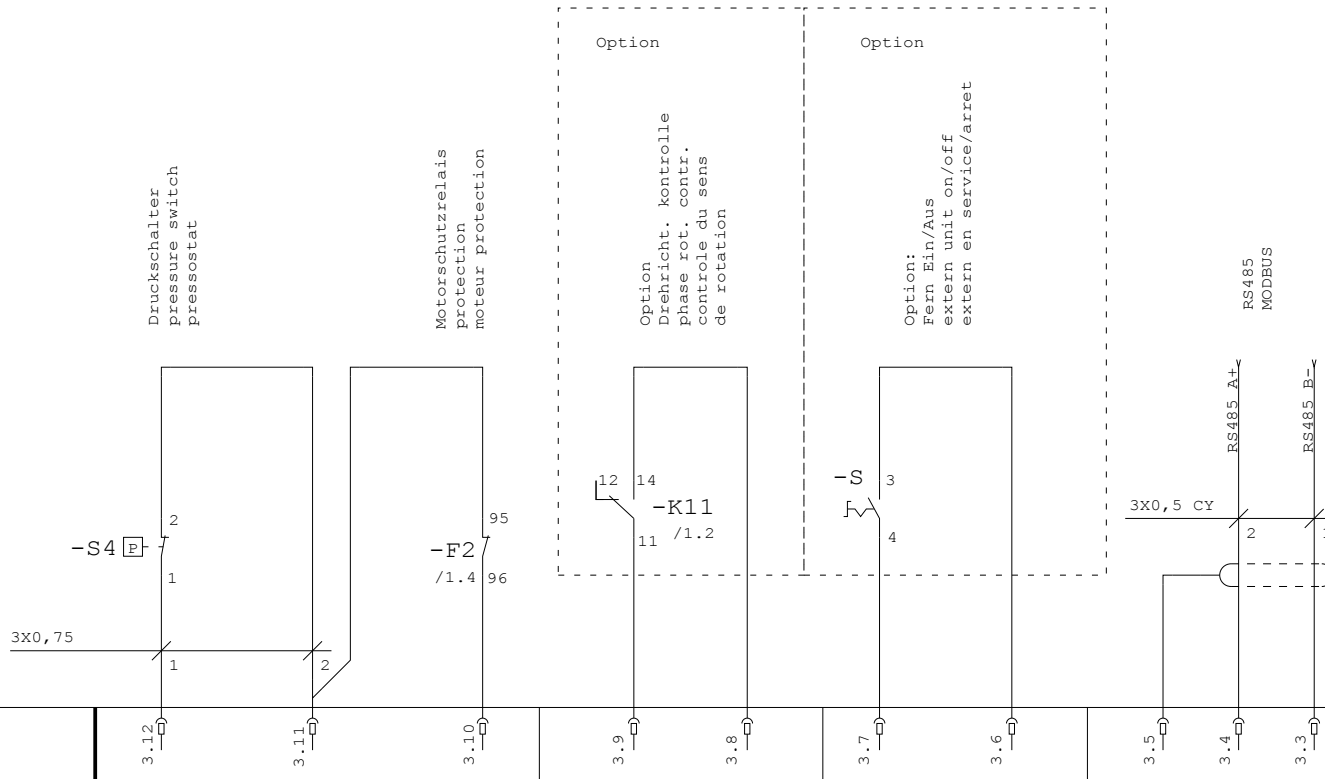
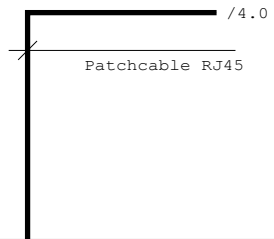




Datum 24.08.15		RS-B/PRO RENNERlogic_2,2 - 30		RENNER GmbH Emil-Weber-Str. 32 D-74363 Güglingen		24082015		=	
Bearb. Echle								+	
Gepr.								Blatt 1	
Zust.	Änderung	Datum	Name	Norm	Urspr.	Ers. f.	Ers. d.	082015	von 4Bl.



Digital Eingänge Digital inputs Entrées numériques
 Nur potentialfreie Kontakte anschliessen / connect potentialfree contacts only /
 seulement contacts secs



Datum		24.08.15		RS-B/PRO RENNERlogic_2,2 - 30		RENNER GmbH Emil-Weber-Str. 32 D-74363 Güglingen		24082015		=	
Bearb.		Echle						082015		+	
Gepr.										Blatt 2	
Zust.	Änderung	Datum	Name	Norm	Urspr.	Ers. f.	Ers. d.			von 4Bl.	



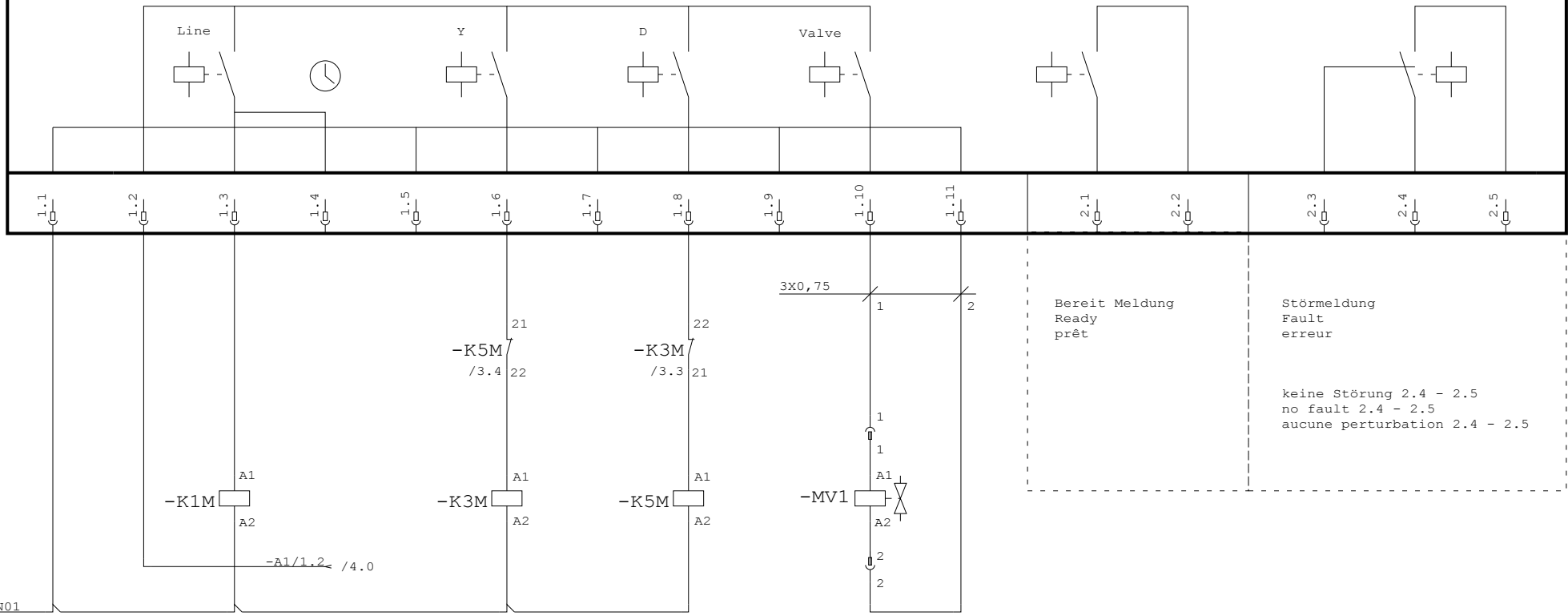
Relais Ausgänge / relay outputs / sorties relais max. 2A 230V

max. 250V/2A

max. 250V/2A

RENNERlogic

-A1



Bereit Meldung
Ready
prêt

Störmeldung
Fault
erreur

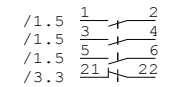
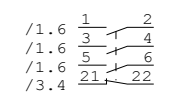
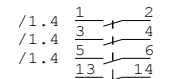
keine Störung 2.4 - 2.5
no fault 2.4 - 2.5
aucune perturbation 2.4 - 2.5

Netzschütz
main contactor
contacteur de reseau

Sternschütz
star contactor
contacteur étoile

Dreieckschütz
delta contactor
contacteur triangle

Magnetventil
solenoid valve
electrovanne



Vorsicht Fremdspannung!!!
Attention external Voltage
Attention tension perturbatrice

				Datum	24.08.15	RS-B/PRO RENNERlogic_2,2 - 30	RENNER GmbH				=
				Bearb.	Echle		Emil-Weber-Str. 32				+
				Gepr.			D-74363 Güglingen				
Zust.	Änderung	Datum	Name	Norm		Urspr.	Ers. f.	Ers. d.			Blatt 3
											von 4Bl.



24082015

082015

Blatt 3
von 4Bl.

