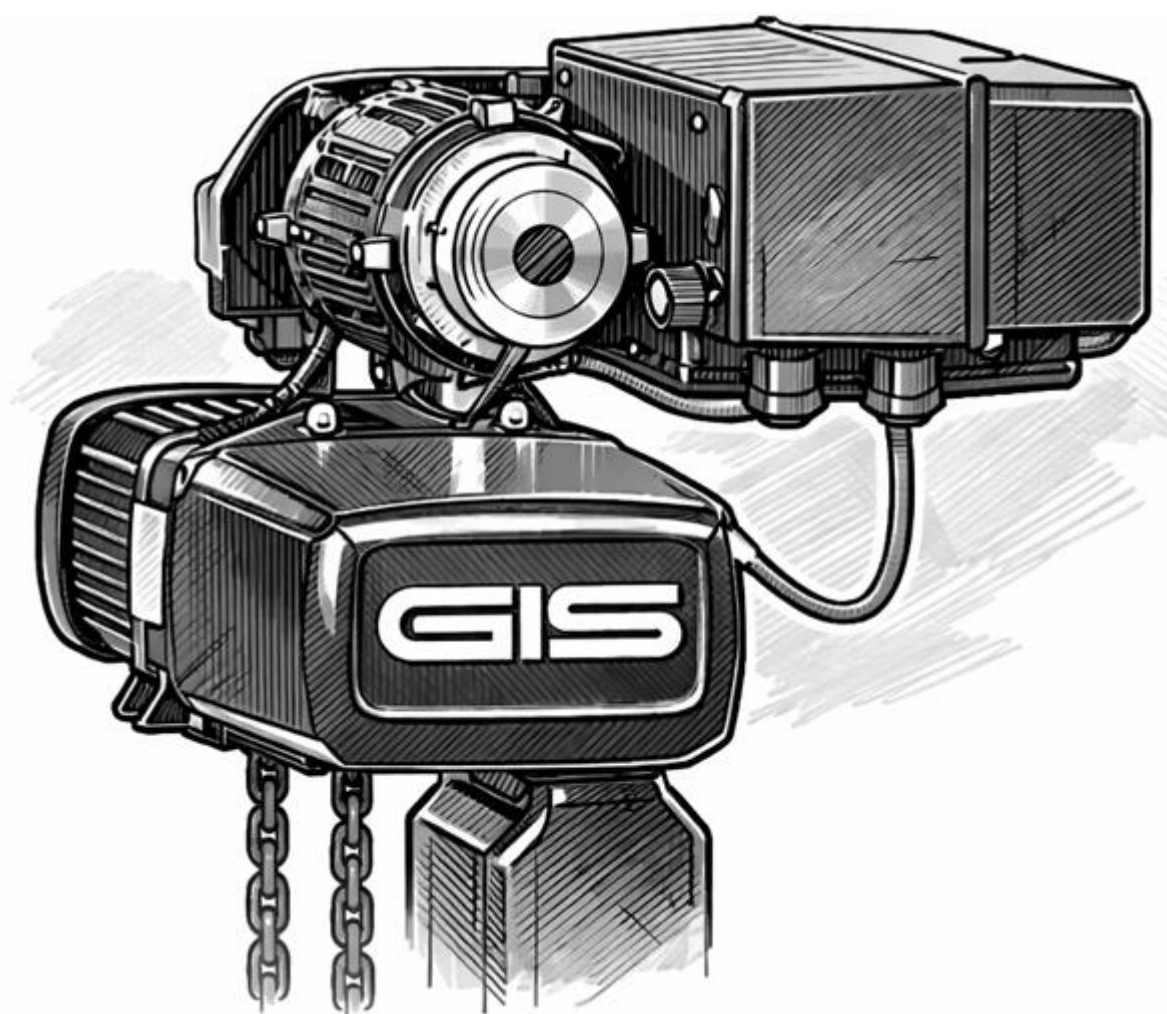


Quick setting guide GIS FU SAKB/GMF (Vacon 20)



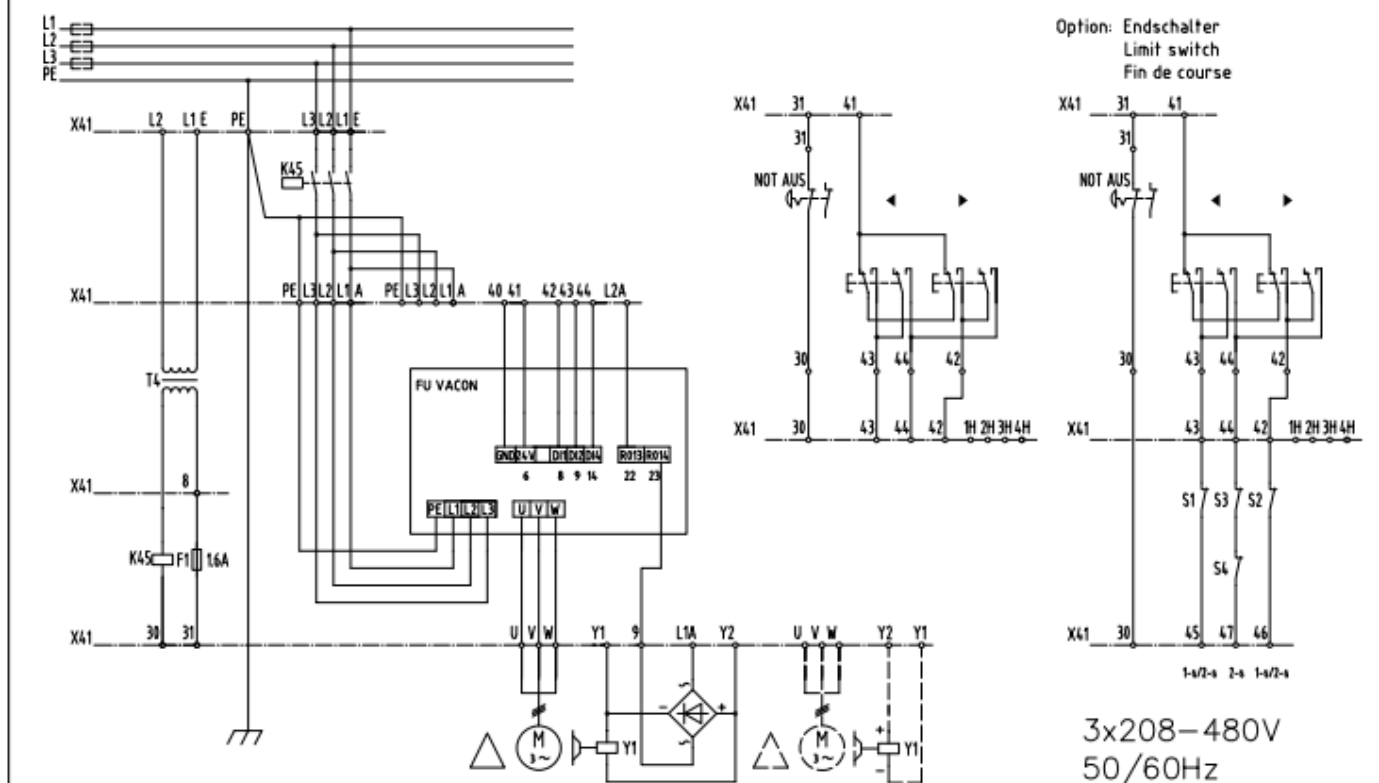
Elektrische Fahrwerke/Electrical trolleys/Chariots électrique SAKB/GMF

Schützensteuerung
Contactor control
Commande par contacteurs

2 Geschwindigkeiten mit Not-Aus
2 speeds with emergency stop
2 vitesses avec marche-arrêt

3 Ph

9249.9515.3



Code	Parameter / Paramètre	Min	Max	Werkeinstellung / Factory setting / Préréglage
P3.4	Festdrehzahl 0 / Preset speed 0 / Vitesse constante 0	10	40	15.00
P3.5	Festdrehzahl 1 / Preset speed 1 / Vitesse constante 1	40	87	87.00
P4.2	Beschleunigungszeit / Acceleration time / Temp d'accélération	0.2	10	2.00
P4.3	Bremszeit / Deceleration time / Temp de décélération	0.2	10	2.00

Terminal	Signal	Factory preset	Description
22	R01 NO	Relay out 1	Active = RUN ^{P1}
23	R01 CM		
24	R02 NC	Relay out 2	Active = FAULT ^{P1}
25	R02 CM		
26	R02 NO		

Table 6.2: Vacon 20 General purpose application default I / O configuration and connections for control board
^{P1} = Programmable function, see parameter lists and descriptions, chapters 8 and 9.

I/O relays and controls

for controller connections use
schematics above

Terminal	Signal	Factory preset	Description
3	GND	I / O signal ground	
6	24 Vout	24 V output for DI's	±20%, max. load 50 mA
7	DI_C	Digital Input Common	Digital Input Common for DI1-DI6
8	DI1	Digital input 1	Start forward ^{P1}
9	DI2	Digital input 2	Start reverse ^{P1}
10	DI3	Digital input 3	Fault reset ^{P1}
14	DI4	Digital input 4	Preset speed B0 ^{P1}
15	DI5	Digital input 5	Preset speed B1 ^{P1}
16	DI6	Digital input 6	External Fault ^{P1}

Table 6.3: DI Sink Type, remove jumper J500 and connect the wire using table 6.3

8.1 Quick setup parameters (Virtual menu, shows when par. 17.2 = 1)

Code	Parameter	Min	Max	Unit	Default	ID	Note
P1.1	Motor nominal voltage	180	690	V	Varies	110	Check rating plate on the motor.
P1.2	Motor nominal frequency	30,00	320,00	Hz	50,00 / 60,00	111	Check rating plate on the motor.
P1.3	Motor nominal speed	30	20000	rpm	1440 / 1720	112	Default applies for a 4-pole motor.
P1.4	Motor nominal current	0,2 x I _{Nunit}	2,0 x I _{Nunit}	A	I _{Nunit}	113	Check rating plate on the motor.
P1.5	Motor cos Φ [Power Factor]	0,30	1,00		0,85	120	Check rating plate on the motor.
P1.7	Current limit	0,2 x I _{Nunit}	2,0 x I _{Nunit}	A	1,5 x I _{Nunit}	107	Maximum motor current
P1.15	Torque boost	0	1		0	109	0 = Not used 1 = Used
P2.1	Remote control place 1 selection	0	2		0	172	0 = I / O terminal 1 = Fieldbus 2 = Keypad
P2.2	Start function	0	1		0	505	0 = Ramp 1 = Flying start
P2.3	Stop function	0	1		0	506	0 = Coasting 1 = Ramp
P3.1	Min frequency	0,00	P3.2	Hz	0,00	101	Minimum freq reference
P3.2	Max frequency	P3.1	320,00	Hz	50,00 / 60,00	102	Maximum freq reference
P3.3	Remote Control Place 1 frequency reference selection	1	Varies		7	117	1 = Preset speed 0 2 = Keypad 3 = Fieldbus 4 = AI1 5 = AI2 6 = PID 7 = AI1+ AI2 8 = Motor potentiometer 9 = Pulse train / Encoder 10 = AIE1 11 = Temperature input 1 12 = Temperature input 2 13 = Temperature input 3 Note: Pay attention to DI/Encoder switch position when set with 9 = Pulse train / Encoder

Motor settings.

P1.1	400
P1.2	50
P1.3	1940
P1.4	0,6
P1.5	0,75
P1.7	1,5
P1.15	1

P3.1	10	min freq. threshold set for motor, don't change
P3.2	87	max freq. threshold set for motor, don't change
P3.3	1	set control for remote I/O

Code	Parameter	Min	Max	Unit	Default	ID	Note
P3.4	Preset speed 0	P3.1	P3.2	Hz	5,00	180	Preset speed 0 is used as frequency reference when P3.3 = 1
P3.5	Preset speed 1	P3.1	P3.2	Hz	10,00	105	Activated by digital inputs
P3.6	Preset speed 2	P3.1	P3.2	Hz	15,00	106	Activated by digital inputs
P3.7	Preset speed 3	P3.1	P3.2	Hz	20,00	126	Activated by digital inputs
P4.2	Acceleration time 1	0,1	3000,0	s	3,0	103	Acceleration time from 0 Hz to maximum frequency.
P4.3	Deceleration time 1	0,1	3000,0	s	3,0	104	Deceleration time from maximum frequency to 0 Hz.
P6.1	AI1 Signal range	0	1		0	379	0 = 0 - 100% 1 = 20% - 100% 20% is the same as 2 V minimum signal level.
P6.5	AI2 Signal range	0	1		0	390	0 = 0 - 100% 1 = 20% - 100% 20% is the same as 2 V or 4 mA minimum signal level.
P14.1	Automatic reset	0	1		0	731	0 = Disable 1 = Enable
P17.2	Parameter conceal	0	1		1	115	0 = All parameters visible 1 = Only quick setup parameter group visible

P3.4	min10	max40	15.00
P3.5	min40	max87	87

P4.2	2	acceleration ramp in seconds
P4.3	2	deceleration ramp in seconds

Table 8.1: Quick setup parameters

ALTERATIONS

Remote control setting parameters to check

incase you have no drive from button controller

P2.1	0	Remote control	(default)
P2.5	0	Remote control	(default)
P3.3	7	AI1+ AI2	(default)

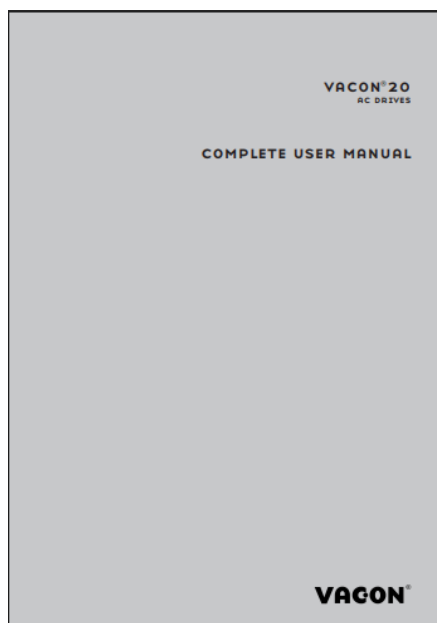
RELAY OUT 2

Duplicate relay to work as 2nd independent control for brake or run signal.

connections 25, 26. (table 6.2)

P8.1	2	run
(P8.1 default	3	fault)

For more detailed information of setting up the frequency inverter check vacon user manual.



<https://files.danfoss.com/download/Drives/Vacon%2020%20Complete%20Manual-DPD00716H1-UK.pdf>