SFC

SFC VSS
0,37-7,5 kW

FUMEX
PURE ADVANTAGE

General

This manual is a quick aid for easy programming of the frequency converter together with the rotary switch **SFC VSS** and shall not be seen as a complete product manual.

Function

All programming is executed on the keys at the front display **Fig. 1**. The jog dial (1) is used for navigating the menus and to select or confirm information. The ESC key (2) quits a menu/parameter or clears and reverts the value. The front panel is opened via button (3).
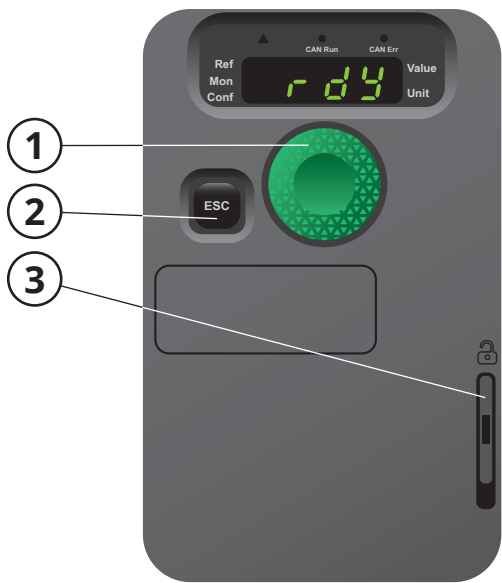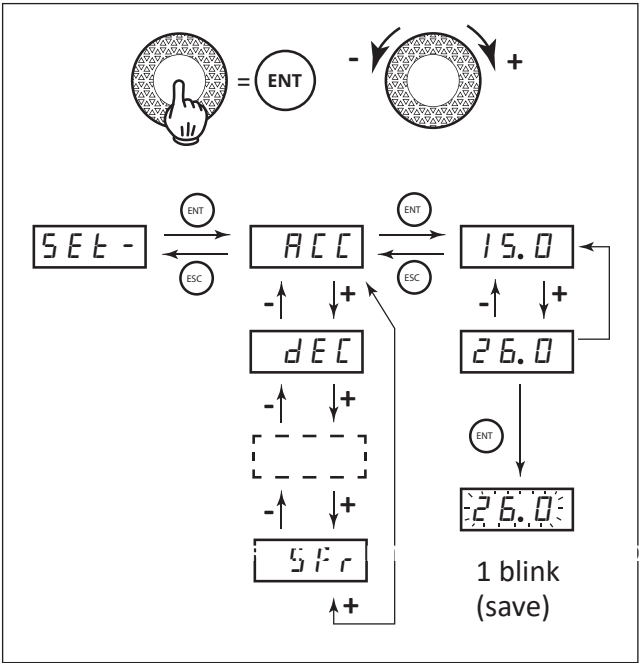
Fig. 1

Parameter choice

Fig. 2

Electrical wiring

The supply voltage is connected to terminal (6) **Fig 3**. The supply cable for the fan motor is connected to terminal (7). The start signal from the rotary system is wired between DI1, DI3 and +24 at terminal (8).
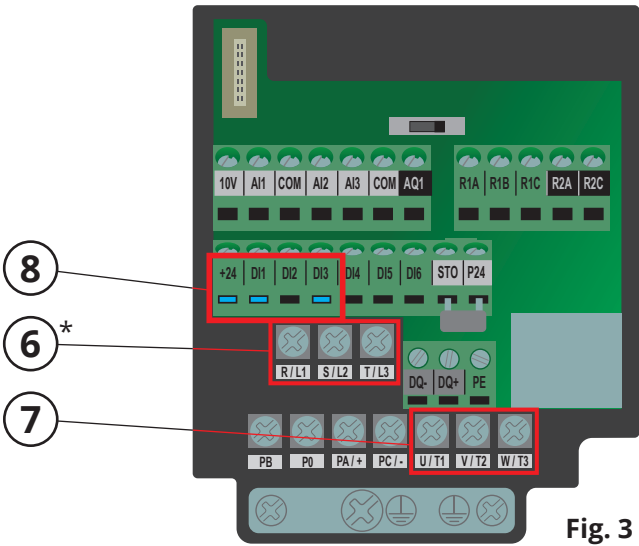
Fig. 3

* When the supply is 1 phase, the terminals are marked "R/L1" and "S/L2/N"

When the supply 3 phase, the terminals are marked "R/L1", "S/L2" and "T/L3".

Wiring diagram

FB fan motor 3 phase **230 V**/400 V (D connection)

SFC xxx-1/xx
Frequency converter

230 V N1~

PE
R / L1
S / L2/
N

PE
U / T1
V / T2
W / T3

M

FB xxx-3
Fan

FB fan motor 3 phase 230 V/**400 V** (Y connection)

SFC xxx-3/xx
Frequency converter

400 V 3~

PE
R / L1
S / L2
T / L3

PE
U / T1
V / T2
W / T3

M

FB xxx-3
Fan

DI1   DI3   +24

2 NC 1   4 NO 3

SFC VSS
Rotary switch (0-1-2)
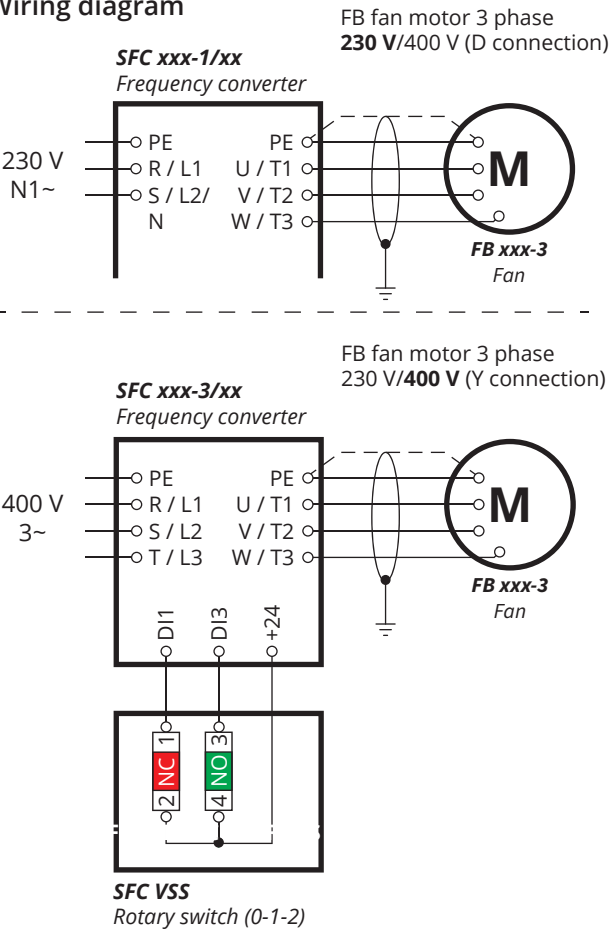
Programming

Program all parameters as per the programming guide, see page 3. Start from the top (and go down) accordingly. During the programming, the fan must not receive any start signal. This means that DI1, DI3 and +24 (8) cannot be a closed circuit.

Note! The green parameters can be changed, to optimise current system. The red parameters can be found on the motor. The blue parameter "*L SP*" indicates selected lowest fequency (step 1), and parameter "*SP2*" indicates selected maximum frequency (step 2).

			PROGRAMMING GUIDE			
Menu	**Submenu**	**Parameter**	**Function**	**Factory settings**	**Recommended value**	**Chosen value**
ConF	*FULL*	-	Access to configuration	-	-	
drC-	*CLL*	-	Variable torque	*Std*	*UFg*	
SIn-	-	*bFr*	Motor frequency (Hz)	*50*	Varies	
SIn-	-	*UnS*	Nominal motor voltage (V)	-	Varies	
SIn-	-	*FrS*	Nominal motor frequency (Hz)	*50.0*	Varies	
SIn-	-	*nCr*	Nominal motor current (A)	-	Varies	
SIn-	-	*nSP*	Nominal motor speed (rpm)	*1400*	Varies	
SIn-	-	*ACC*	Acceleration (s)	*3.0*	*5.0*	
SIn-	-	*dEC*	Retardation (s)	*3.0*	*5.0*	
SIn-	-	*LSP*	Min. frequency (Hz), N.B.! Not lower than 15	*0.0*	*15.0 - 50.0*	
SIn-	-	*HSP*	Max. frequency (Hz)	*50.0*	*50.0*	
SIn-	-	*ItH*	Thermal motor protection (A) = motor current	-	Varies	
FUn-	*PSS-*	*PS2*	Activates logical input LI3 = Terminal DI3	*nO*	*L I3*	
FUn-	*PSS-*	*SP2*	Pre-set speed, N.B.! Not lower than *LSP*	*10.0*	*40.0*	
drC-	*ASY-*	*nPC*	Motor parameter choice	*nPr*	*COS*	
drC-	*ASY-*	*COS*	Motor's Cos Phi	-	Varies	
drC-	-	*SFr*	Switch frequency (kHz)**	*4.0*	*16*	
I_O-	-	*tCC*	2 wire type	*trn*	*LEL*	
FUn-	*Stt-*	*Stt*	Stop type	*Stt*	*nSt*	
FLt-	*FLr-*	*FLr*	Soft restart	*nO*	*YES*	

** Only to be changed when there is unusual noise from the motor.

Default reset

When resetting to the factory settings, please proceed as below:

If the display doesn't show *rdY*, press **ESC** until it does. Enter menu *ConF* and select parameter *FCS-*. Change the value from *FCS I* to *Fry-*, confirm with **ENT**. Change *ALL ⅃⅃* to *ALL''* by pressing **ENT**. Go back one step in the menu with **ESC** and change from *Fry-* to *bFS*. Press **ENT** and change *nO* to *YES* by pressing and holding **ENT** for 5 s.

The frequency converter will now have the initial factory settings and is ready for programming again.

Troubleshooting

Troubleshooting when power is on, should only be performed by an authorised electrician.

Information that makes it easier to identify occurred problems that are easy to solve can be found in the troubleshooting guide. Always go through trouble shooting guide before contacting FUMEX.

TROUBLESHOOTING GUIDE		
Symptom	**Probable cause**	**Recommended measure**
1. Programming failure.	DI1 and +24 are closed.	Remove wiring.
	The parameters are not programmed in the correct order.	Program the parameters, as per the programming guide from the top to the bottom.
2. The system does not work.	The wiring is not done as per the wiring diagram.	Check the wiring.
3. Performance loss of the fan.	Wrong rotation direction of the fan.	Check rotation direction.