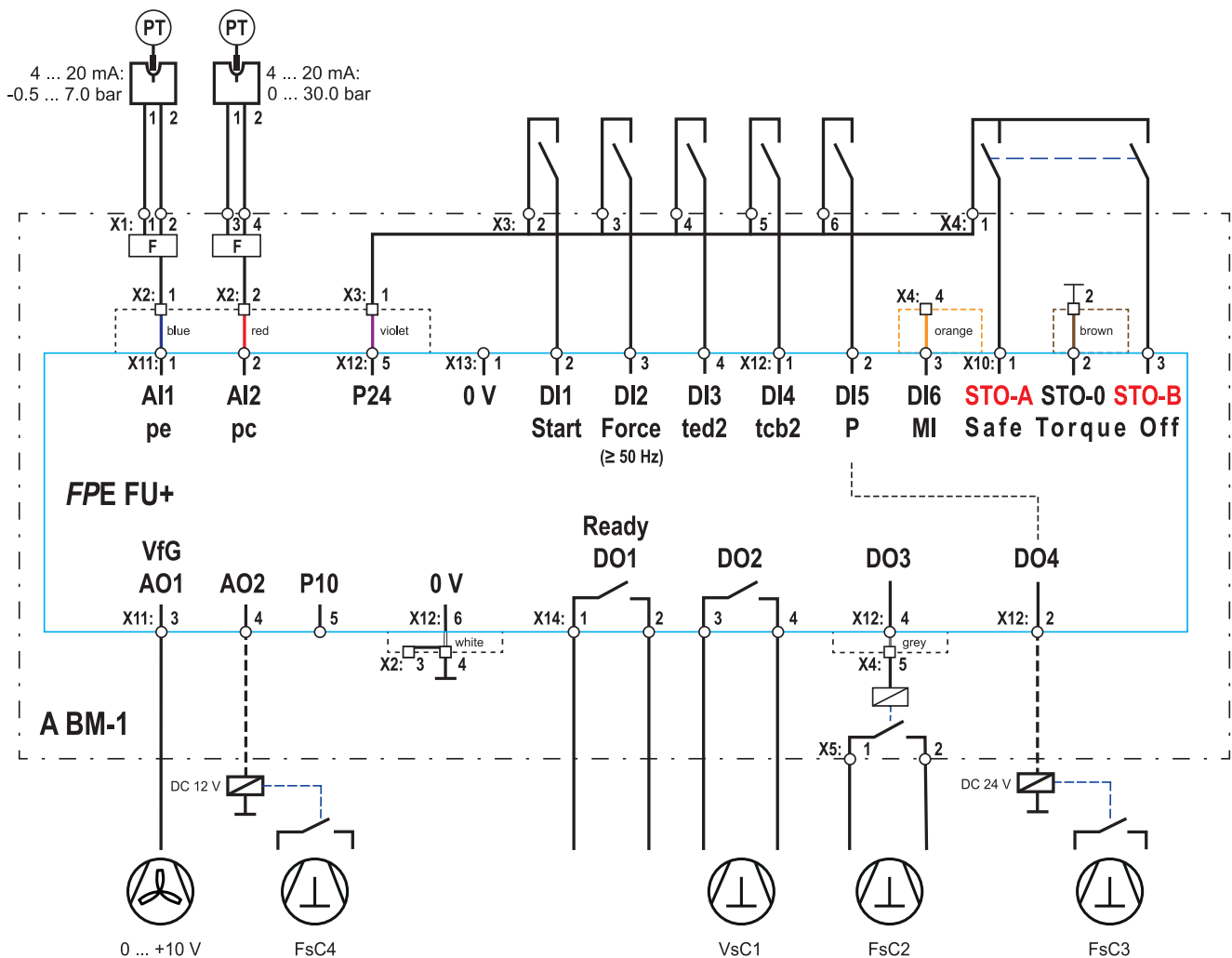


FrigoPack® E FU+/12 Quick-Start Guide for classic control Refrigeration Inverters with integrated pressure control (FrigoSoft 1.7)



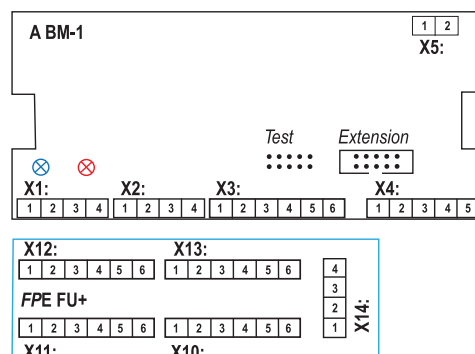
Warning: This is an abbreviated and customized version with recommendations for a first setup of this product. Please refer to the document "Planning Guide *FrigoPack® E FU+/12*" for detailed information.

0. FrigoPack® E FU+/12 Connections



Top:
Diagram of control connections of
FrigoPack® E FU+/12

Bottom:
Terminal designations of
FrigoPack® E FU+/12 and
base module BM-1



VsC1: Variable speed Compressor 1
FsC2: Fixed speed Compressor 2

1. Basic information on first set-up

Ensure that all recommendations for compliance to mounting, electrical safety, EMC and UL regulations have been adhered to.

1.1 Pressure transmitters

Warning: Only use approved pressure transmitters!

This refrigeration application is preset for use with the following **Huba Control** pressure transducers:

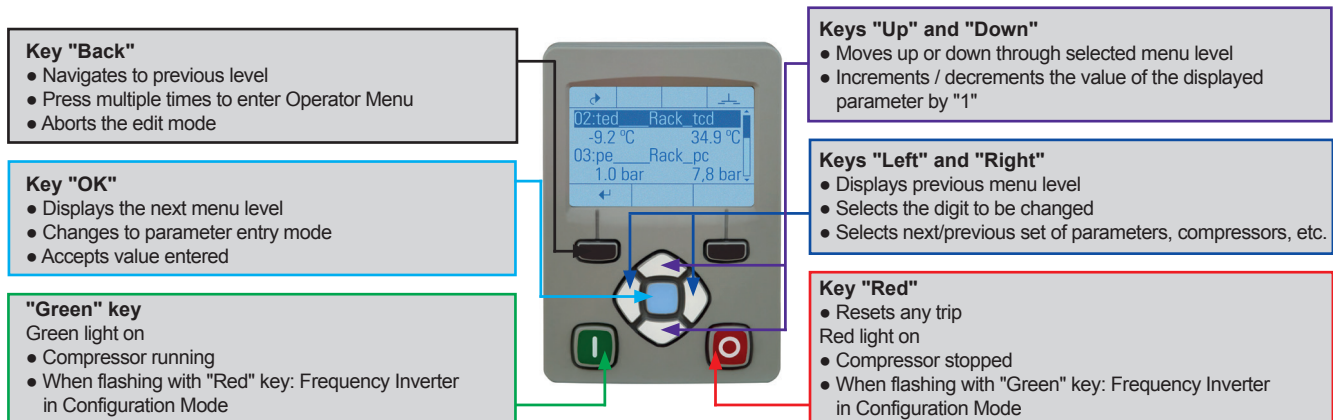
Low Pressure pe: -0.5 ... 7.0 bar A REFR-P-TRANSD-LP7N+PL	High Pressure pc: 0 ... 30 bar A REFR-P-TRANSD-HP30N+PL
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For alternative pressure transmitters and pressure ranges refer to Parameter SP0, p. 6 of Planning Guide.

1.2 Recommendations

- It is important to ensure that an interlocked contactor is fitted between the Refrigeration Inverter and the compressor if a parallel bypass connection is used.
- In particular ensure that two isolated contacts of a relay are connected to the Safe-Torque-Off inputs of **FrigoPack® FU+** Refrigeration Inverter: STO-A (Terminal X10:1) / STO-B (Terminal X10:3).
- Remove start command (cable to terminal X13:2)
- Connect main power supply
- Verify that the blue LED for suction pressure lights on module BM-1. If not, then check if the wiring of the pressure transmitter is correct.
- If a discharge pressure transmitter is used, then verify that the red LED lights on module BM-1. If not, then check if the wiring of the pressure transmitter is correct.
- Measure the pressures with a refrigeration pressure gauge. Verify that the pressures indicated in menu OPERATION at parameter 03: pe_RACK_pc agree with these external measurements.

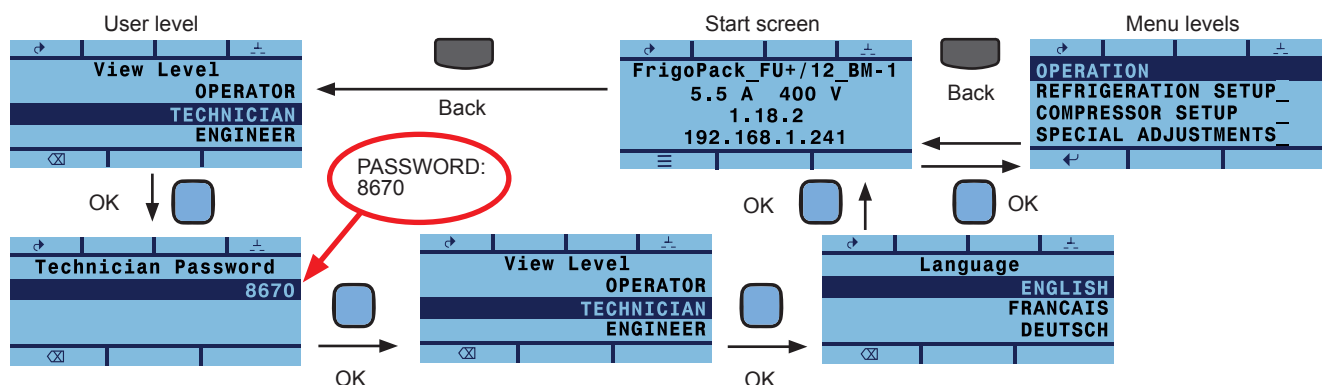
1.3 Keypad functionality



1.4 Menus - Selection of user level for first set-up

To start commissioning, the user level **TECHNICIAN** must be enabled. The steps shown below have to be followed. Press key "Back" several times to access the menu "View Level".

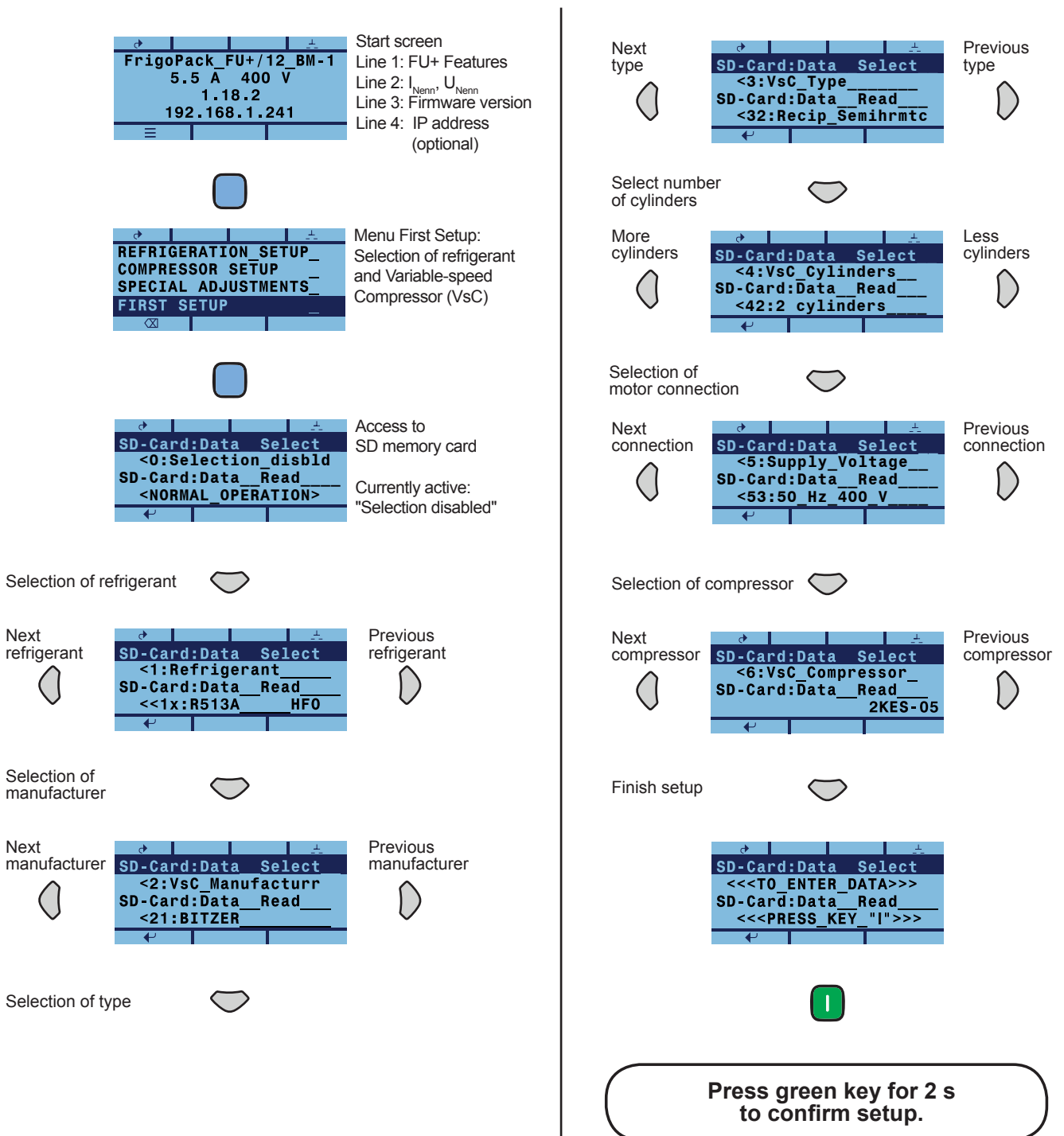
Password for user level **TECHNICIAN**: **8670**. The level is then activated for 10 minutes.



2. First set-up

2.1 Selection of refrigerant and Variable-speed Compressor (VsC)

For setting up this inverter it is first of all necessary to select the refrigerant and Variable-speed Compressor (VsC1) used. Compressor selection is made in several steps (manufacturer, type (e.g. semihermetic piston comp.), number of cylinders, motor connection, compressor ID).

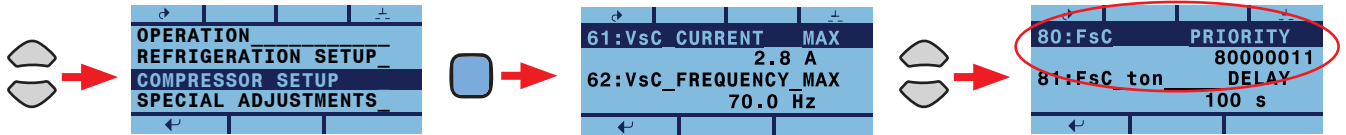


After pressing the green key for 2 s menu "First Setup" can be left with the "Back" key.

2.2 Setting of number of fixed-speed compressors (FsC) in the rack system

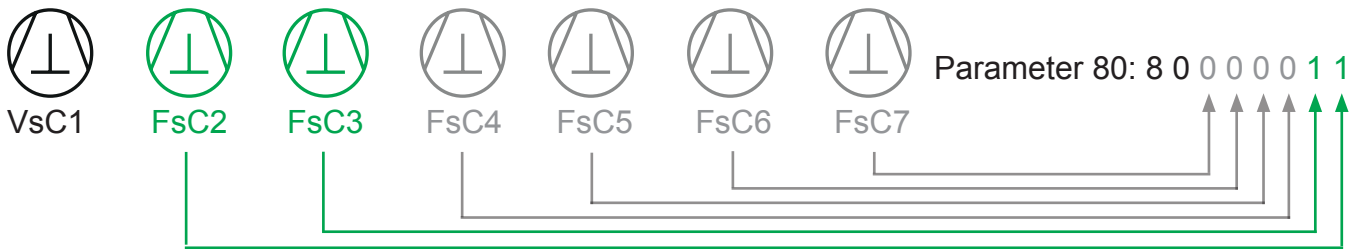
The number of fixed-speed compressors (FsCs) has to be set in the next step. (If there is only one compressor, please skip to 2.3). Go to menu COMPRESSOR SETUP.(You may also check VsC settings in this menu.)

Go to parameter **80:FsC PRIORITY CNTRL** for setting the number of fixed-speed compressors.



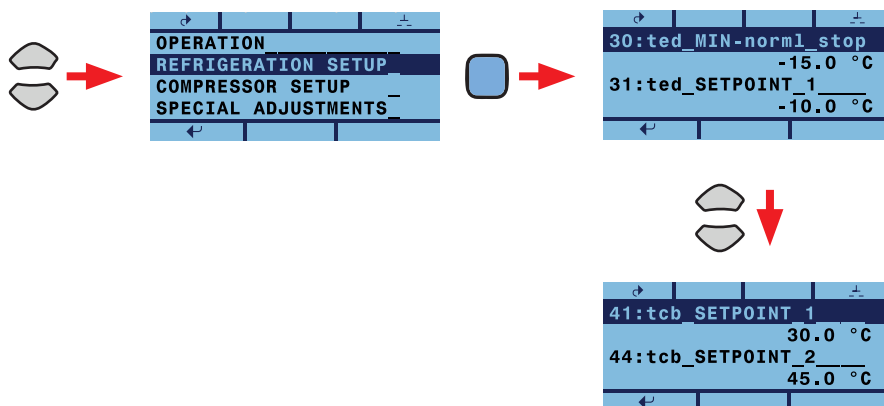
Press key „OK“ to enter the parameter input window. Skip to next digit with arrow keys „Left“ and „Right“ . Change value of digit with arrow keys „Up“ and „Down“ . Every digit „1“ corresponds to a FsC in the rack system, as shown below. The value of parameter 80 entered has to be confirmed with key „OK“.

Example: In a rack system with one Variable-speed Compressor (VsC1) and two Fixed-speed Compressors (FsC2 & FsC3) parameter 80 has to be set to: 80000011



2.3 Entering Setpoints

Select menu "REFRIGERATION SETUP" for entering setpoints. Use keys as described in 2.2 for setting the relevant parameters.



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Connect start command (cable to terminal X13:2) to start the system!