Danfoss Pre Programmed Controller MCX15B2 for IPS 8 Installation Guide

ENGINEERING
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Installation guide

Pre-programmed Controller MCX15B2 for IPS 8
Replacement of MCX controller

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Prior to disconnect and remove the old MCX controller it is important to depressurize the ammonia side of the purger unit by following these steps (see fig. 1)

1. Close all supply lines from the purge points of the ammonia system (**a**)
2. Restart the controller to force pump-down
3. Wait for 20 minutes

4. Stop the compressor and other connected devices by switching OFF:

IPS variants:
084H5001, IPS 8, CE, 230 V AC, 1ph, 50 Hz
084H5002, IPS 8, 230 V AC, 1ph, 60 Hz

4a) Operate QM1: Thermal magnetic miniature circuit breaker – See Fig. 2a

084H5003, IPS 8, UL 230 V AC, 1ph, 60 Hz

4b) Operate Thermal magnetic miniature circuit breakers – See Fig. 2b

11QF1
11QF2
11QF3
12QF4

5. Close the SVA shut-off valve in the drain line (located under the IPS8 (**b**))
6. Release the remaining system pressure to ambient pressure by opening the SNV drain valve (**c**). This can also be done by attaching a permanent magnet on the built-in Main Purge valve (YV1 – AKVA 10) valve, for forced opening.

Exchange of MCX15B2 controller
Switch OFF:

IPS variants:
084H5001, IPS 8, CE, 230 V AC, 1ph, 50 Hz
084H5002, IPS 8, 230 V AC, 1ph, 60 Hz

6a) Operate Thermal magnetic miniature circuit breaker – See Fig. 2a

QM2
QM3
QM4

084H5003, IPS 8, UL 230 V AC, 1ph, 60 Hz

6b) Operate Thermal magnetic miniature circuit breakers – See Fig. 2b

14QF5
14QF6
14QF9

6c) Release MCX15B2 controller. See Fig. 3
6d) Unplug all connectors upper level. See Fig. 3
6e) Unplug all connectors lower level. See Fig. 4
6f) Remove old MCX15B2 and install new MCX15B2 and replug all connectors again on both upper and lower level.

Setting of new MCX15B2 controller

IPS variants:
084H5001, IPS 8, CE, 230 V AC, 1ph, 50 Hz

084H5002, IPS 8, 230 V AC, 1ph, 60 Hz

Operate Thermal magnetic miniature circuit breaker – See Fig. 2a
QM4 – Power to MCX15B2 controller
084H5003, IPS 8, UL 230 V AC, 1ph, 60Hz
Operate Thermal magnetic miniature circuit breakers – See Fig. 2b
14QF9 – Power to MCX15B2 controller

1) Enter password 200 (Main screen\Start\Login\ and enter password).
2) Enter number of Purge point in question for the particular application (Main screen\Parameters\Unit config\Valve settings\ and enter the valve in Parameter V10, Max_PP).
3) See general IPS User Guide/Start Up instruction. The pre-programmed MCX15B2 (code number **084H5067**) is plug & play ready, and only where customer specific settings are applicable, these values must additional be entered into MCX15B2.

Switch ON again remaining Thermal magnetic miniature circuit breakers

IPS variants:
084H5001, IPS 8, CE, 230 V AC, 1ph, 50 Hz
084H5002, IPS 8, 230 V AC, 1ph, 60 Hz

QM1
QM2
QM3

084H5003, IPS 8, UL 230 V AC, 1ph, 60 Hz

11QF1
11QF2
11QF3
12QF4
14QF5
14QF6

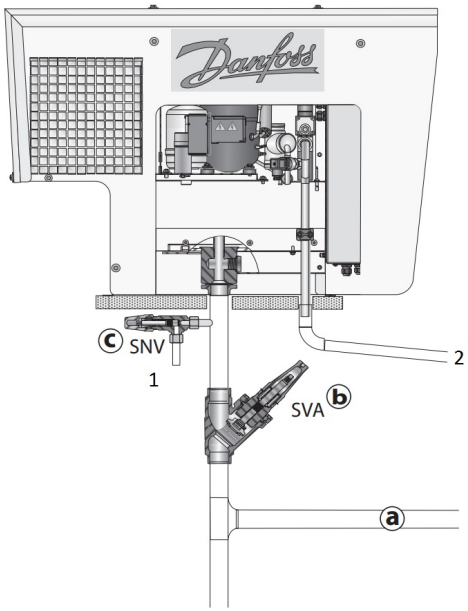


Fig.1

1. NH_3 bypass for draining purger
2. Purge line to water tank

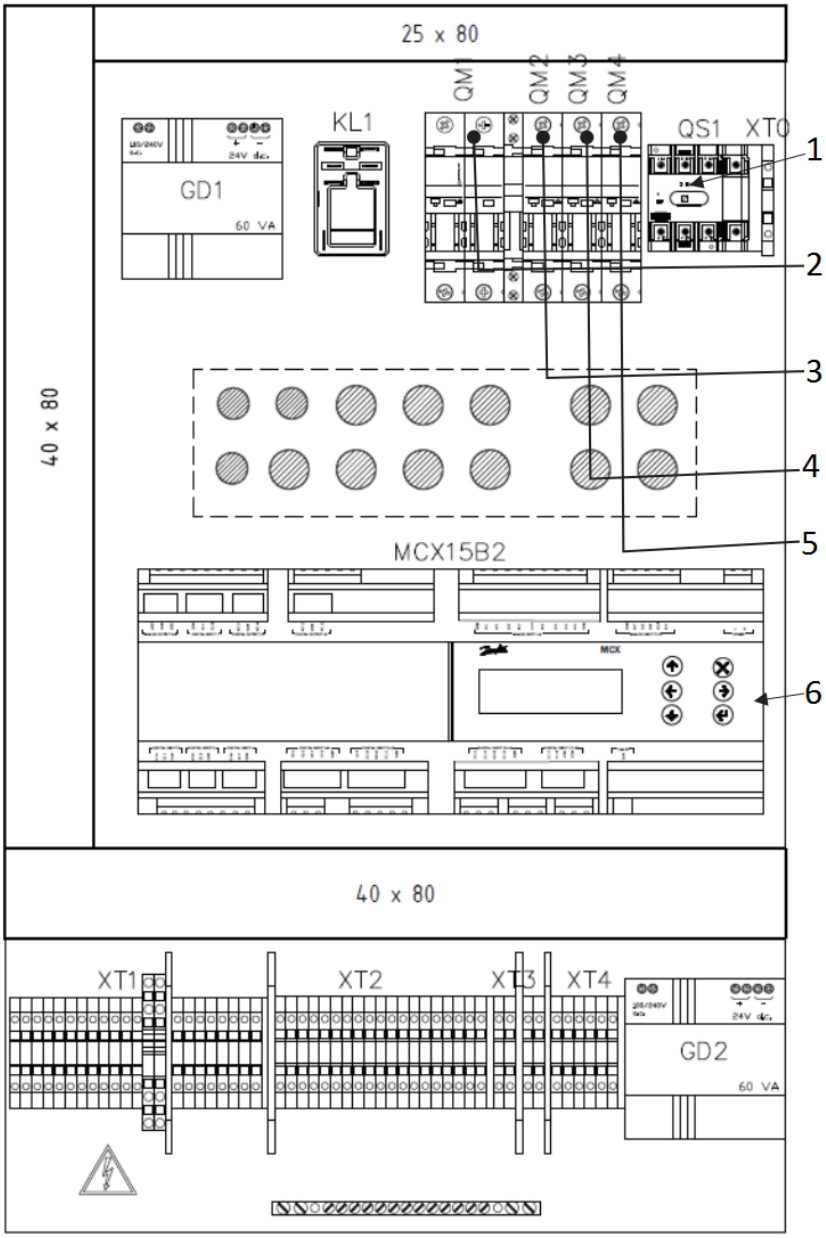
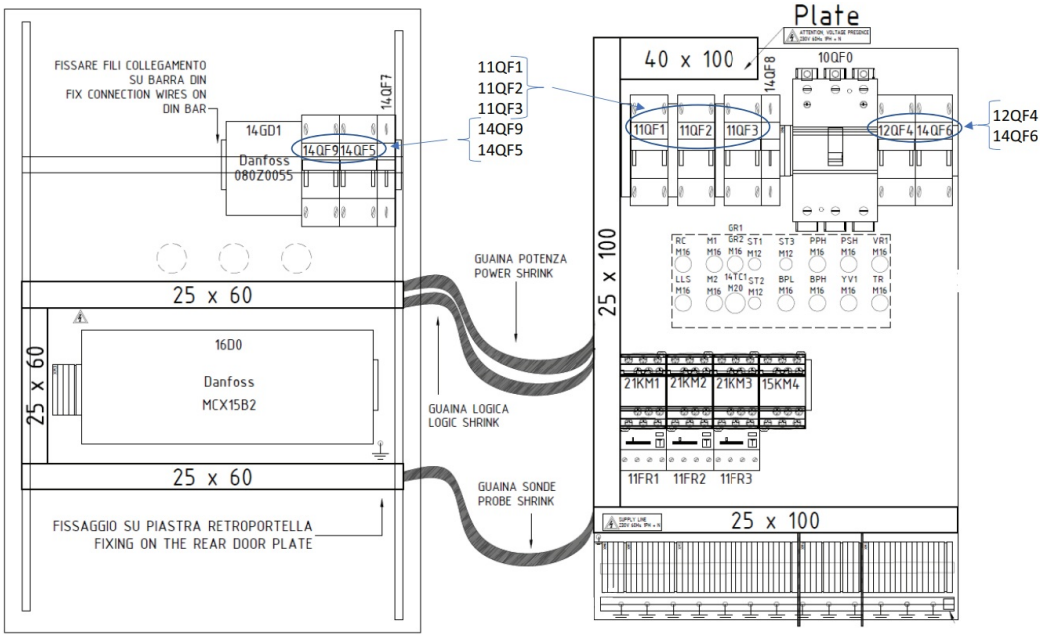


Fig.2a

1. QS1: Main switch; IPS panel
2. QM1: Thermal magnetic miniature circuit breaker; Compressor, Condenser, Extraction Air Fan, Crankcase Heater
3. QM2: Thermal magnetic miniature circuit breaker; 24 V DC for MCX15B2 I/O, Front panel lights and Main Purge valve (YV1)
4. QM3: Thermal magnetic miniature circuit breaker; Field connected solenoid coils
5. QM4: Thermal magnetic miniature circuit breaker; 230 V AC to MCX15B2 controller
6. MCX15B2 controller

Rear of the door



11QF1: Compressor
11QF2: Fan
11QF3: Condenser
12QF4: Heater
14QF5: 24 DC for I/0, Front panel lights and Main Purge valve (YV1)
14QF6: Field connected solenoids
14QF9: Power supply MCX15B2

Fig. 2b

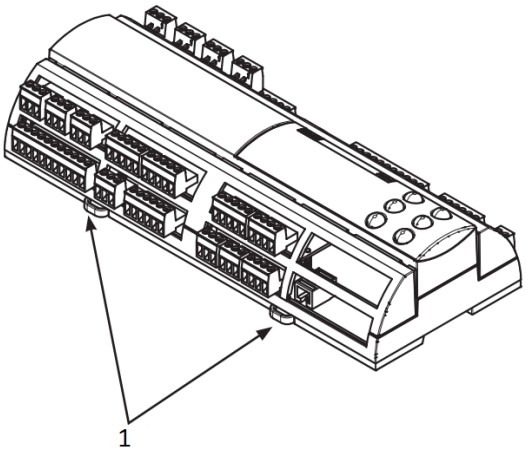


Fig. 3

1. Rail lock: Pull to release controller from suspension rail

Unplug all connections with wires connected and re-plug in the same sockets of the new controller

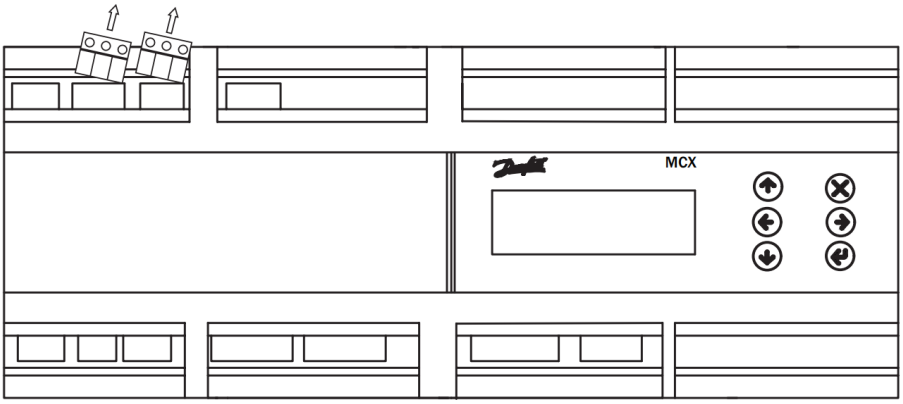


Fig. 4 . Controller Upper level

Unplug all connections with wires connected and re-plug in the same sockets of the new controller

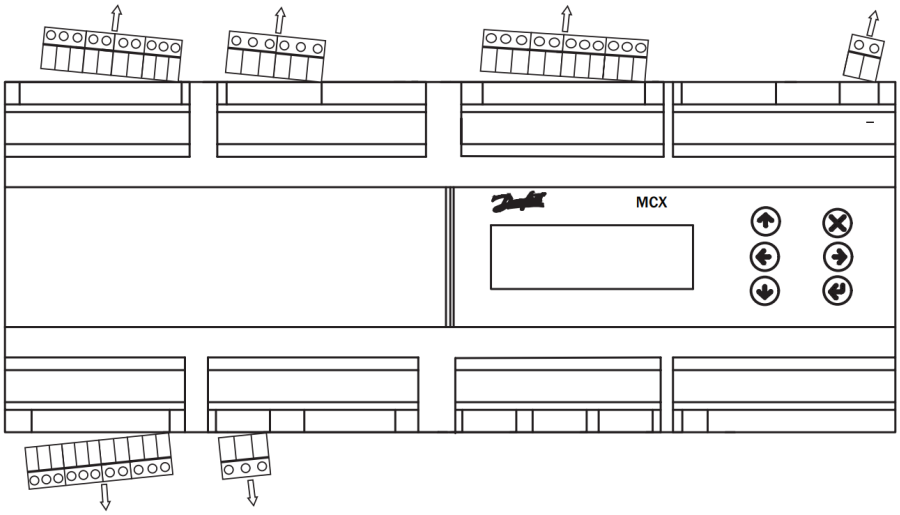


Fig. 5 Controller Lower level

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Documents / Resources

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