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Application Engineering Europe

ZX CONDENSING UNITS – QUICK INSTALLATION GUIDE

1. Install the condensing unit according to Application Guidelines C6.1.6 "Outdoor Condensing Units – ZX Range".
2. Prefill the unit with refrigerant and set all valves into the operating position.
3. Set up the unit controller (XMC25D) for the required application.

***NOTE:* If a room thermostat is used to control the solenoid valve, only parameters C01 and C02 (cut-in/cut-out pressures) must be adjusted to perform a pumpdown. The value of parameter D29 must be lower than C02 to avoid the low-pressure alarm.**

***NOTE:* The liquid line in ZXLE units must be insulated to avoid air moisture condensation and lack of performance.**

***NOTE:* During the charging process on ZXLE units, the liquid line (outlet of the unit) temperature must be observed. The charging is sufficient when the liquid line temperature does not decrease significantly anymore and when the subcooling reaches approximately 25-35K.**

The XMC25D controller provides 2 programming levels:

- **Pr1** with direct access
- **Pr2** protected with a password (intended for experts)

Explanation of LED functionalities:

LED	Mode	Function
	On	Compressor 1 enabled
	Flashing	Anti-short cycle delay enabled
	On	Condensing fans enabled
	On	Bar display
	Flashing	Programming mode
	On	PSI display
	Flashing	Programming mode
	On	When browsing the service menu
	Flashing	In fast access menu
	On	When browsing the alarm menu
	Flashing	A new alarm occurred
	On	An alarm is occurring
	On	Digital unloader solenoid On
	On	In defrost
	On	Evaporator fans - Liquid line solenoid valve On

How to program the "Pr1" parameters:

Access pre-program level	SET + ▽	Press simultaneously for about 3 seconds to access the pre-programming level. The message **rtC** (real time clock) is displayed.
Access program level	△ or ▽	Press the **Up** or **Down** key until the message **Par** is displayed.
Access Pr1	SET	Press the **SET** button to enter the program level. First parameter **C01** is displayed.
Select item	△ or ▽	Select the parameter or submenu using the arrows.
Show value	SET	Press the **SET** button.

Modify	▲ or ▼	Use the arrows to modify the value.
Confirm and store	SET	Press the **SET** button: the value will blink for 3 seconds, then the display will show the next parameter.
EXIT	SET + ▲	Press simultaneously to exit the programming mode, or wait for 30 seconds (MTO) without pressing any key.

When entering the programming level for the first time the display will show the **rtC** (real time clock) label.

- Press SET to access parameters N01/02/03/04/05 to adjust time & date. For further details see the condensing unit application guidelines, section 2.11, "Parameters level 1 – Required settings".
- Press ▲ or ▼ to change from the **rtC** label to the **Par** label, in order to access the programming level 1.
- Press SET: the parameters of programming level 1 can be changed.

The following "Pr1" parameters must be verified before commissioning:

Parameter	Description	Unit	Factory settings	Comments
C01	Compressor cut-in pressure setpoint	[bar*]	4.0	Not used for Digital ZXDE
C02	Compressor cut-out pressure setpoint	[bar*]	2.0	Not used for Digital ZXDE
C07	Refrigerant selection for regulation	[-]	R404A	R22, R407A, R407F, R507, R448A, R449A, R134a, R407C
C16	Digital compressor setpoint	[bar*]	3.3	Not used for ZXME & ZXLE
C17	Proportional band for compressor regulation	[bar*]	2.0	Not used for ZXME & ZXLE
C21	Cycle time for digital compressor	[sec]	10	Not used for ZXME & ZXLE
C24	Minimum capacity for digital compressor	[%]	20	Not used for ZXME & ZXLE
C25	Maximum capacity for digital compressor	[%]	100	Not used for ZXME & ZXLE
D29	Low-pressure alarm value (from S/N 16EZ08855M onwards)	[bar*]	0.5	Required value
E39	Condenser setpoint	[°C]	35.0	
E46	Regulation band of variable fan	[°C]	10.0	
N01	Current minute	[-]	[-]	
N02	Current hour	[-]	[-]	
N03	Day of the month	[-]	[-]	
N04	Month	[-]	[-]	
N05	Year	[-]	[-]	
T18	Access to Pr2 level	[-]	[-]	Password: 3 2 1

** Pressures are always relative*

Adjustable discharge pressure limitation: The controller has dedicated parameters to provide the possibility of adjustable discharge pressure cut-out.

Parameter	Description	Factory settings	Recommended settings
E58	Condenser temperature / Pressure threshold for high alarm	27	Required value
E61	Condenser temperature / Pressure threshold for alarm recovery	23	Required value

***NOTE:* This guide is for quick installation purposes. For detailed instructions, please refer to Application Guidelines C6.1.6 "Outdoor Condensing Units – ZX Range".**