Honker EZ1X Temperature Controller User Manual

**EZ1X TEMPERATURE CONTROLLER
USER MANUAL**

EZ11RXC EZ12RXC EZ12DRXC

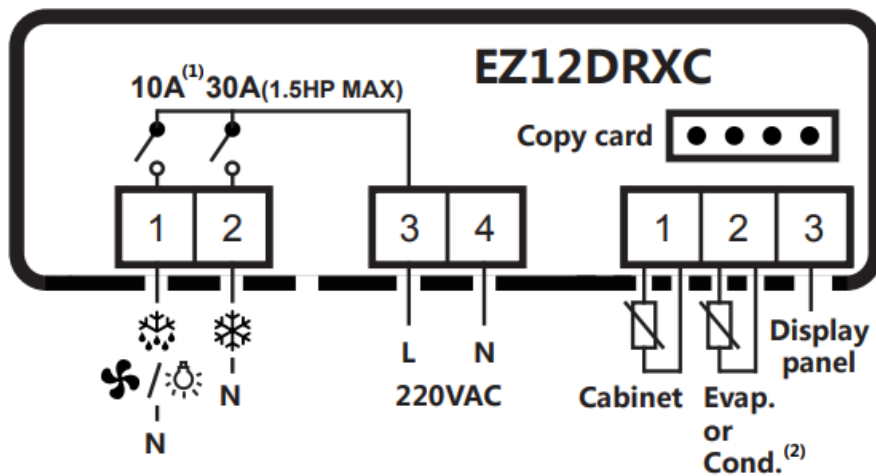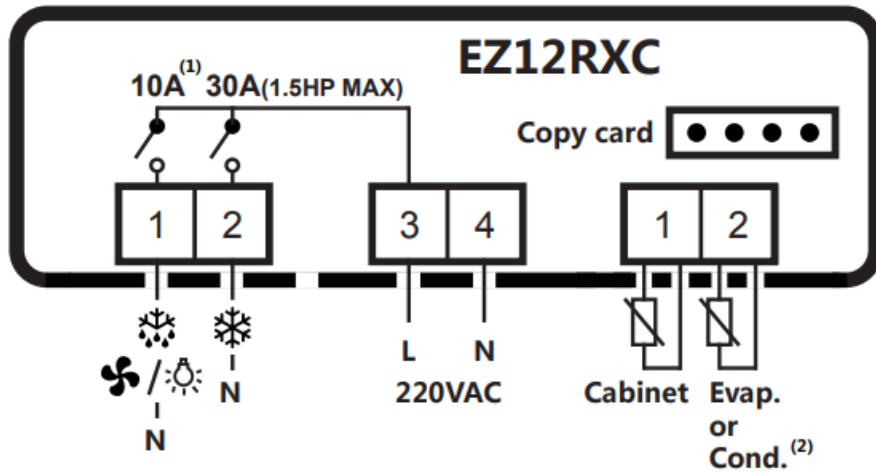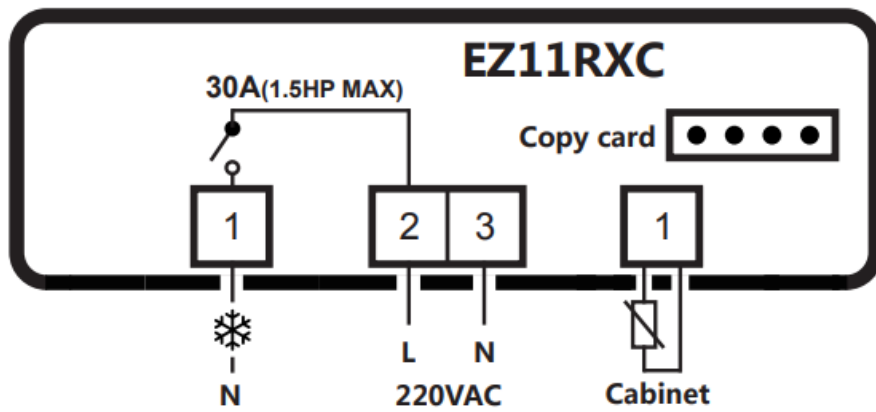Please read this manual before using the product.

Contents

DIMENSIONS AND CUT OUT
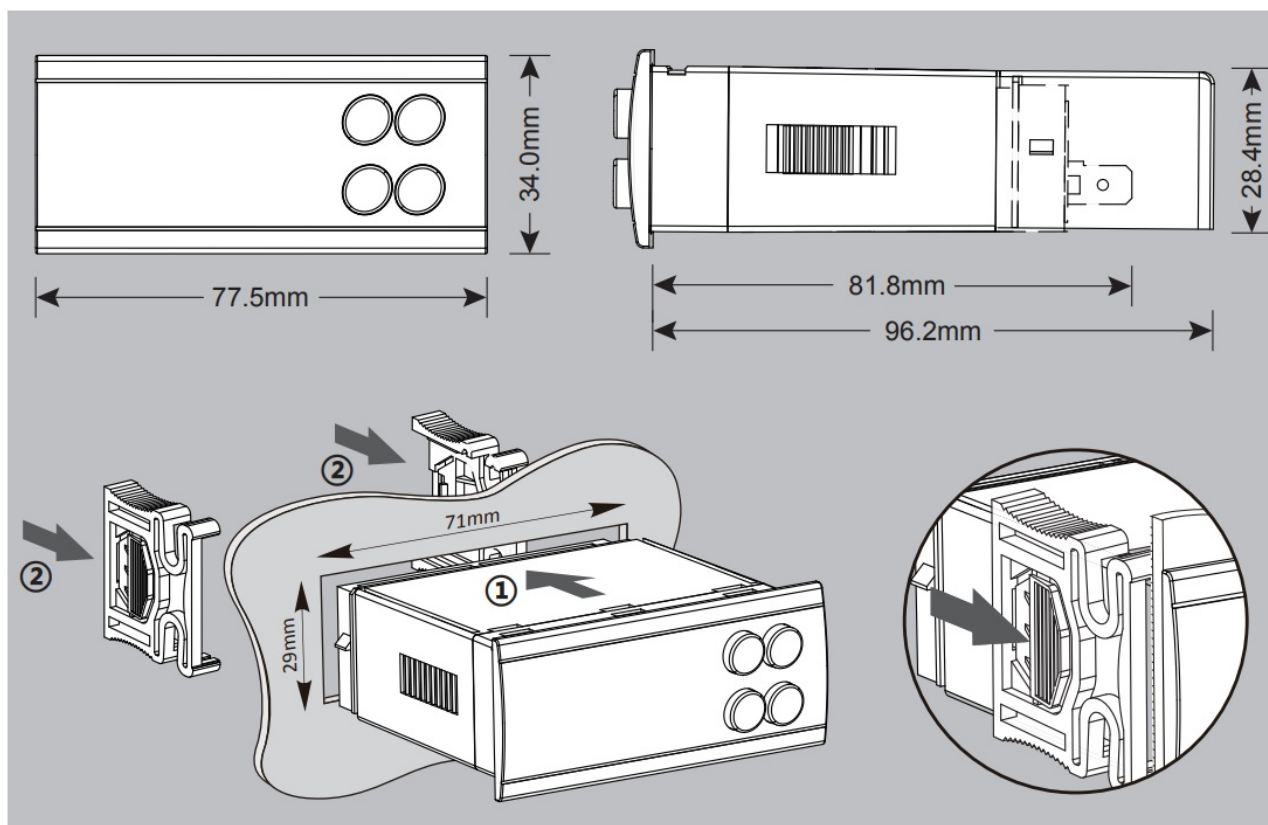
Installation Precautions

- Do not place the equipment near heat sources, strong magnetic equipment, or in places exposed to direct sunlight, rain, humidity, dust, or mechanical vibration.

CONNECTIONS

EZ11RXC

30A(1.5HP MAX)

Copy card

| 1 | | 2 | 3 | | 1 |

❄ N

L N
220VAC

Cabinet

EZ12RXC

10A(1) 30A(1.5HP MAX)

Copy card

| 1 | 2 | | 3 | 4 | | 1 | 2 |

❄ ❄
🌀/💡 N

N

L N
220VAC

Cabinet Evap.
or
Cond.(2)

EZ12DRXC

10A(1)30A(1.5HP MAX)

Copy card

| 1 | 2 | | 3 | 4 | | 1 | 2 | 3 |

❄ ❄
🌀/💡 N

N

L N
220VAC

Cabinet Evap.
or
Cond.(2)

Display
panel

Note (1): The second relay;
Note (2): The second probe;

FRONT PANEL AND COMMANDS
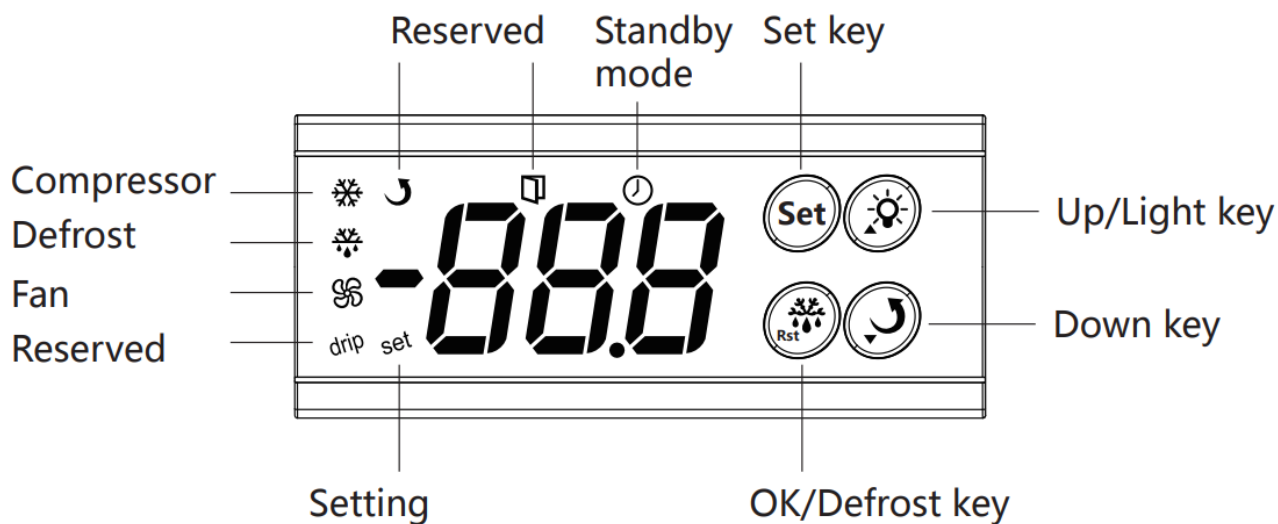
Set key | Set

- Press and release to enter the interface for changing the setpoint
- Press and hold for 3 seconds to enter the manger parameter interface
- Switch menu and parameter interface

OK/Defrost key |

- View the temperature of the second probe
- Save the parameters and exit
- Press and hold this key for 3 seconds to start/terminate defrosting

Up/Light key |

- Scrolled up the values or parameters
- Turn on or turn off the lights (only valid for EZ12 series and Pr=2)
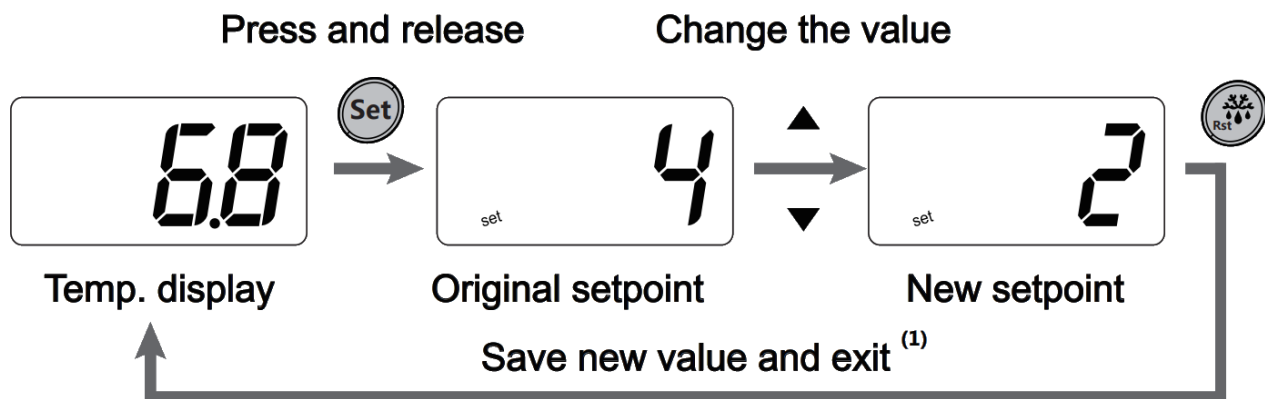
Down key |

- Scrolled down the values or parameters

Combination key | Set +
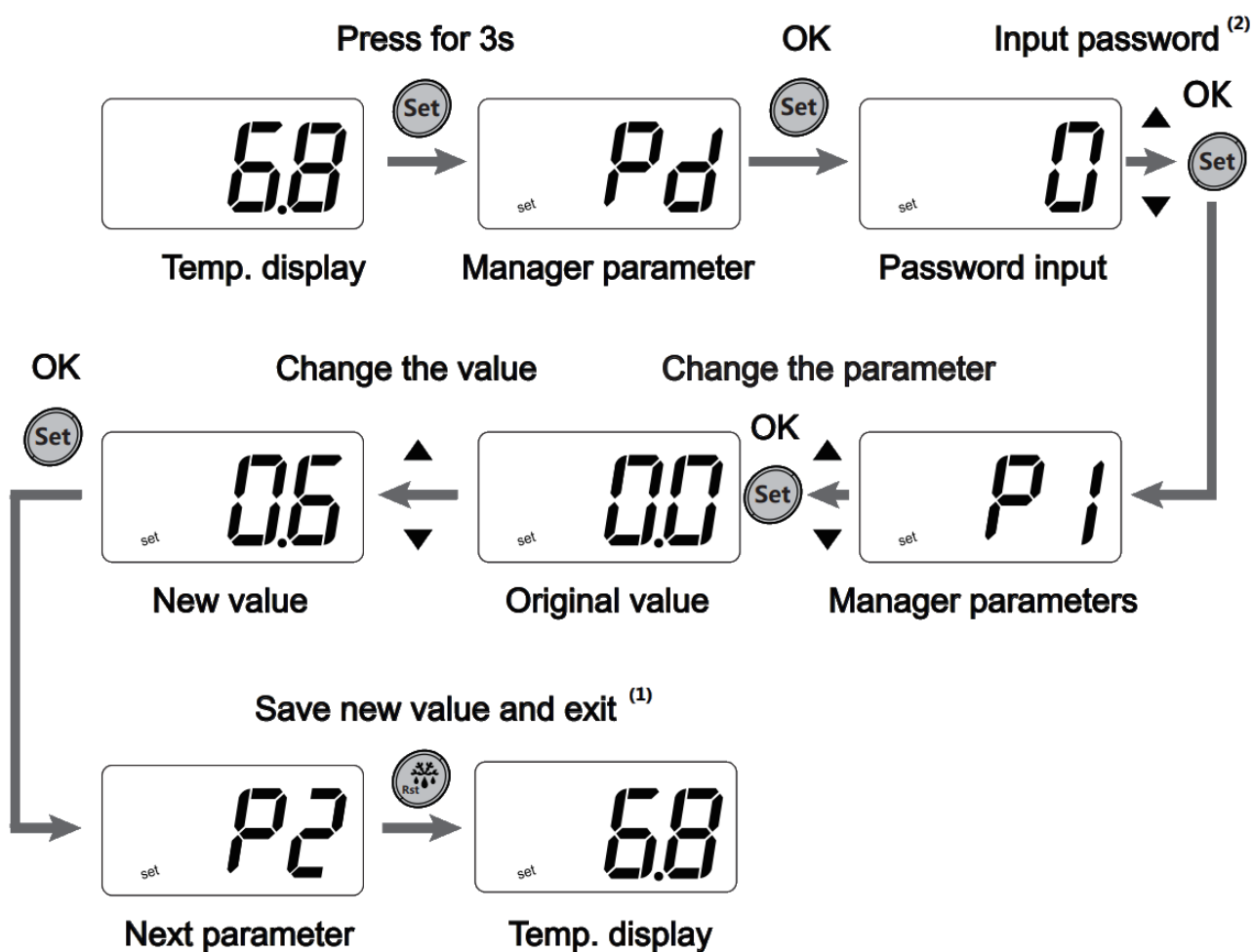
- In power-on mode, press and hold the set key and the OK/defrost key for 3 seconds, the controller enters the standby mode;
- In standby mode, press and hold the set key and the OK /defrost key for 3 seconds, the controller restarts.

⚠ **Danger:** Before performing any type of maintenance, cut off the electrical connection,Do not maintain in standby mode to avoid electric shock!

Change setpoint

Press and release → Change the value

| Temp. display | Original setpoint | New setpoint |

Save new value and exit [1]

Change other parameters(manager parameters)

Press for 3s → OK → Input password [2] → OK

| Temp. display | Manager parameter | Password input |

OK → Change the value → Change the parameter → OK

| New value | Original value | Manager parameters |

Save new value and exit [1]

| Next parameter | Temp. display |

Note(1): In the process of changing the shutdown temperature or changing other parameters, if there is no key operation for more than 15 seconds, the controller will automatically save the value and exit ;
Note(2): The default password is 55 ;

PARAMETERS

	No.	Label	Default	Description	Range
	0	SP	4℃	Set point	r1 r2
	1	Pd	0	Password input [1]	0 255
	2	P1	0.0℃	First probe calibration [2]	-10.0℃(-20℉) 10.0℃(20℉)
	3	P2	0.0℃	Second probe calibration [2]	-10.0℃(-20℉) 10.0℃(20℉)
	4	PP	1	Second probe function	0: disable 1:Evap. 2:Cond.
	5	Pr	0	Second relay function [3]	0:defrost 1:fan 2:light
	6	Pu	1	Temperature unit [4]	0:℉ 1:℃
	7	Pt	0	Display delay [5]	0~90(unit:10s), 0:disable
	8	P7	1	Set point unlock [6]	0:disable 1:enable
	9	POF	1	Standby mode function	0:disable 1:enable
	10	PAS	55	Password setting	0~255, 0:no password
	11	rd	4.0℃	Differential	0.5℃(1℉) 10.0℃(20℉)
	12	r1	-2℃	Minimum Set point	-50℃(-58℉) St
	13	r2	8℃	Maximum Set point	St 85℃(185℉)
	14	c1	0	minimum compressor off time	0 30 min
	15	cF	1	Comp. operating mode with faulty probe	0:always Off 1:ON-OFF as prog. c4/c5
	16	c4	10	Comp. Off time with faulty probe	5 60 min
	17	c5	20	Comp. On time with faulty probe	5 60 min
	18	di	2	Interval between def. cycles [7]	0 90 h, 0:defrost
	19	dt	12℃	Defrost termination temp. [8]	0 ℃(32 ℉) 50 ℃(122 ℉)
	20	dP	30	Maximum length for defrost [8]	1 90 min
	21	F0	0	Fan operating mode	0:continuous mode 1:continuous mode,Off during def. 2:runs with comp.,On during def. 3:runs with comp.,Off during def.
	22	A1	-10℃	Minimum temperature alarm	-50℃(-58℉) A6
	23	A2	30℃	Maximum temperature alarm	A5 85℃(185℉)
	24	Ad	180	Temperature alarm delay	0 240 min
	25	cdH	58℃	Condenser High temp. alarm	30℃(86℉) 90℃(194℉)
	26	cdP	70℃	Condenser High temp. protect	30℃(86℉) 90℃(194℉)
	27	cdd	5℃	Cond. High temp. differential	1℃(2℉) 15℃(30℉)

Note (1): The Default password is 55, and the user can cancel or modify the password through the parameter PAS;

Note (2): Display temperature = cabinet temperature probe temperature + first probe calibration P1, the display temperature is also used for compressor ON-OFF control;

Note (3): This parameter is only valid for the product model (EZ12/EZ12D series) that supports the second relay (10A relay in the wiring diagram);

Note (4): If you need to change the temperature unit, all you need to do is change the Pu parameter and save it. The controller automatically converts the corresponding temperature parameter;

Note (5): When the cabinet temperature rises, the cabinet temperature display needs to delay Pt time every time 1℃ or 1℉ is updated (if Pt=2, the delay time is 20 seconds);

Note (6): If P7=0, it is not allowed to adjust the set point; if POF=0, it is forbidden to enter the standby mode;

Note (7): The defrost time interval refers to the interval between the end of the last defrost and the start of the next defrost;

Note (8): At the beginning of defrosting, if the temperature of the evaporator probe (if second probe and PP=1) ≥ the defrosting termination temperature dt, the defrosting will not be performed this time;

During the defrosting process, if the evaporator probe temperature ≥ defrost termination temperature dt, the defrosting will be terminated ;

If the defrosting process lasts for the longest defrosting time dP, the temperature of the evaporator probe is still smaller than the defrost termination temp. the defrosting is terminated;

If the evaporator probe is not activated (PP=0 or 2) or malfunction (E2), the dt parameter is invalid, and each defrost is executed according to Maximum length for defrost;

Note (9): Parameter modification will not be notified.

ALARM SIGNALLING

Code	Description	Alarm activation conditions	Alarm release conditions
E1	Cabinet probe fault	Wrong probe is used or the probe is disconnect ted or short-circuite d	Use the correct type of probe and connect correctly and reliably
E2	Evap. probe fault		
E3	Cond. probe fault		
rH	High temp. alarm	Cabinet probe temp.≥A2 last longer than Ad time	Cabinet probe temp. A2
rL	Low temp. alarm	Cabinet probe temp.≤A1 last longer than Ad time	Cabinet probe temp. A1
cH	Cond. high temp. alarm	Cond. probe temp.≥cdH last longer than 30 mins	Cond. probe temp.≤ cdH-cdd
cP	Cond. high temp. protecti ons	Cond. probe temp.≥cdP	Cond. probe temp.≤ cdP-cdd last longer than 15 mins
dEF	Defrost is progress	/	/
Loc	Set point lock	Attemp to modify the setpoint when P7=0	Disappear automatically
rSt	Parameters reset successfully	/	/

Note (1): If the second probe is not connected, but the parameter PP is set to 1 (evaporator) or 2 (condenser), the E2 fault code (evaporator probe fault) or E3 fault code (condenser probe) will appear. At this time, you only need to set the parameter PP to 0 to solve the fault;

Note (2): When the condenser high temperature alarms, only the fault code cH is displayed, and the output is not affected. The fault code will be automatically cleared after meeting the alarm release conditions;

Note (3): In addition to displaying the fault code cP when the condenser is under high temperature protection, the compressor, defrost heating wire, and fan are forced to shut down; the compressor, defrost heating wire, and fan return to normal control after meeting the fault removal conditions. But the fault code cP cannot be cleared
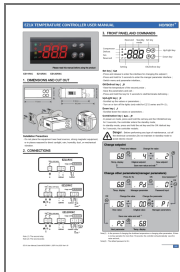
automatically, it can only be cleared by a) powering off and then powering on the controller or b) first entering standby mode and then powering on.

TECHNICAL DATA

Material	Front panel: PC Housing: ABS (UL94-V0) Waterproof cover: ABS (optional) (UL94-V0)
Dimensions	Front panel 77.5×34.0mm
Installation size	71×29mm
Protection	Frontal IP64
Power supply	220VAC±10% 50/60Hz(EZ1xx2 series) or 110VAC±10% 50/60Hz(EZ1xx1 series) or 12VAC/VDC±5%(EZ1xx12 series)
Power consumption	3.0VA max
Display mode	three-digit digital tube (red/white/blue optional)
Resolution	0.1℃
measurement range	-50℃ 90℃
measurement accuracy	-40℃ 50℃ ±1℃, the rest ±2℃
Input signal	2 NTC temperature probes
Relay	Compressor relay: 30A/240VAC normally open output, can directly drive single-phase 1.5HP compressor The second relay: 10A/240VAC normally open output (can be configured by Pr parameter used as a defrost heater, fan or light relay)
Operating temperature	0℃ 55℃
Storage temperature	-25℃ 75℃
Relative humidity	20% 85%(no condensation)

Documents / Resources

Honker EZ1X Temperature Controller [pdf] User Manual
EZ1X, EZ1X Temperature Controller, Temperature Controller, Controller

References

- **User Manual**