EV3B94

Controller for DHW heat pump heaters





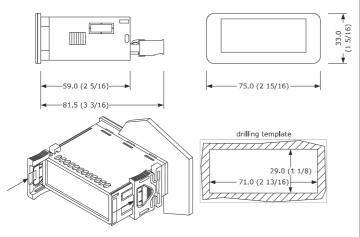


EN ENGLISH

- power supply 115... 230 VAC
- DHW tank upper and lower probe, evaporator probe (PTC/NTC/Pt 1000)
- photovoltaic, HP and multi-purpose digital input (see i0)
- compressor relay 16 A res. @ 250 VAC
- alarm buzzer.

1 MEASUREMENTS AND INSTALLATION

Measurements in mm (inches). To be fitted to a panel, snap-in brackets provided.



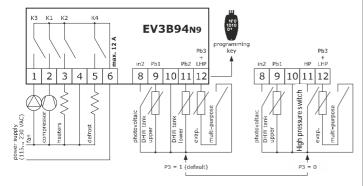
INSTALLATION PRECAUTIONS

- the thickness of the panel must be between 0.8 and 2.0 mm (1/32 and 1/16 in);
- ensure that the working conditions are within the limits stated in the TECHNICAL SPECIFICATIONS section:
- do not install the device close to heat sources, equipment with a strong magnetic field, in places subject to direct sunlight, rain, damp, excessive dust, mechanical vibrations or shocks;
- in compliance with safety regulations, the device must be installed properly to ensure adequate protection from contact with electrical parts. All protective parts must be fixed in such a way as to need the aid of a tool to remove them.

2 ELECTRICAL CONNECTION



- N.B.
- use cables of an adequate section for the current running through them.
- to reduce any electromagnetic interference locate the power cables as far away as possible from the signal cables.



PRECAUTIONS FOR ELECTRICAL CONNECTION

- if using an electrical or pneumatic screwdriver, adjust the tightening torque;
- if the device is moved from a cold to a warm place, humidity may cause condensation to form inside. Wait for about an hour before switching on the power;
- make sure that the supply voltage, electrical frequency and power are within the set limits. See the section TECHNICAL SPECIFICATIONS;
- disconnect the power supply before carrying out any type of maintenance;
- do not use the device as a safety device;
- for repairs and for further information, contact the EVCO sales network

3 FIRST-TIME USE

- Carry out the installation following the instructions given in the section MEASUREMENTS AND INSTALLATION.
- Power up the device as set out in the section ELECTRICAL CONNECTION: an internal test will start up.

The test normally takes a few seconds; when it is finished the display will switch off.

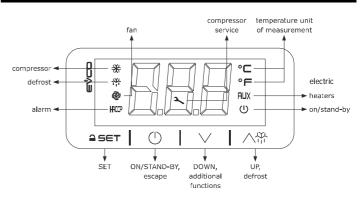
. Configure the device as shown in the section Setting configuration parameters.

	Recommended configuration parameters for first-time use:						
PAR.	DEF.	PARAMETER	MIN MAX.				
SP1	SP1 55.0 setpoint in economy mode		r3 r4				
SP2	65.0 setpoint in comfort mode		r1 r2				
PO	1	type of probe	0 = PTC 1 = NTC				
			2 = Pt 1000				
P2	o	temperature measurement unit	0 = °C 1 = °F				
P3	1	enabled probes	0 = DHW tank upper probe + high pressure input 1 = DHW tank upper and lower probe				
d1	2	type of defrost	0 = electric 1 = hot gas 2 = compressor stopped 3 = hot gas balancing the pressure				

Then check that the remaining settings are appropriate; see the section CONFIGURA-TION PARAMETERS.

- Disconnect the device from the mains.
- Make the electrical connection as shown in the section ELECTRICAL CONNECTION without powering up the device.
- 6. Power up the device.

USER INTERFACE AND MAIN FUNCTIONS



4.1 Switching the device on/off

1. Touch the ON/STAND-BY key for 4 s.

If the device is switched on, the display will show the P5 value ("DHW tank upper temperature" defaulth: if the display shows an alarm code, see the section ALARMS.

default);	; if the display shows an alarm code, see the section ALARMS.			
LED	ON	OFF	FLASHING	
1XI	compressor switched	compressor switched	- compressor protection active	
727	on	off	- setpoint being set	
*	- defrost active	-	-	
@	fans switched on	fans switched off	-	
НАССР	alarm active	-	-	
2	compressor mainte- nance request	-	-	
°C/°F	temperature display	-	-	
AUX	heaters switched on	heaters switched off	-	
Û	device switched off	device switched on	-	

When 30s have elapsed without the keys being pressed, the display will show the "Loc" label and the keypad will lock automatically.

4.2 Unlocking the keypad

Touch a key for 1 s: the display will show the label "UnL".

4.3 Setting the setpoint Economy

Check that the keypad is not locked.

1.	ASET	Touch the SET key: the display will show the label "SP1".
2.	_ SET	Touch the SET key.
3.	√ ₩ •	Touch the UP or DOWN keys within 15s to set the value within the limits r3 and r4 (default "40 55").
4.	≙SET	Touch the SET key (or take no action for 15s).
5.	I 🕛 I	Touch the ON/STAND-BY key.

4.4 Setting the Comfort setpoint

Check that the keypad is not locked.

	1.	≙ SET		Touch the SET key: the display will show the label "SP1
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2.	√	Touch the UP or DOWN key to select the label "SP2".
3.	≙SET	Touch the SET key.
4.	₹	Touch the UP or DOWN keys within 15s to set the value within the limits r1 and r2 (default "40 70").
5.	≙SET	Touch the SET key (or take no action for 15s).
6.		Touch the ON/STAND-BY key.

Setting the overboost activation threshold

Check that the keypad is not locked.

1.	≙SET	Touch the SET key: the display will show the label "SP1".
2.	₹	Touch the UP or DOWN key to select the label "SP3".
3.	≙ SET	Touch the SET key.
4.	ζ Λ₩ •	Touch the UP or DOWN keys within 15s to set the value within
4.	V	the limits 10 and r2 (default "10 70").
5.	aset	the limits 10 and r2 (default *10 70*). Touch the SET key (or take no action for 15s).

Activating manual defrost 4.6

Check that the keypad isn't locked and that the anti-legionella and overboost functions aren't active

△帶 Touch the UP key for 4s.

If P4 = 1 or 2 (default), defrost is activated provided that the evaporator temperature is lower than the d2 threshold.

4.7 Silencing the alarm buzzer (if u9 = 1)

Touch a key.

FUNCTIONS AND LOAD OPERATIONS

Economy

- compressor on if DHW tank lower temperature < "SP1 setpoint r0 differential" and off if DHW tank lower temperature > "SP1 setpoint"
- fans on if compressor on
- heaters switched off in normal operation (on if needed during defrost)

Comfort

- compressor on if DHW tank lower temperature < "SP5 setpoint r0 differential" and off if DHW tank lower temperature > "SP5 setpoint"
- fans on if compressor on
- heaters on, with a single probe configured (P3 = 0), if DHW tank upper temperature < "SP2 - r6 threshold - r7 differential" and off if DHW tank upper temperature > "SP2 r6 threshold"
- heaters on, with two probes configured (P3 = 1), if DHW tank upper temperature < "SP2 - r0 differential" and off if DHW tank upper temperature > "SP2".

It activates at "H0 intervals", provided that DHW tank lower temperature > "SP1 setpoint" and > "SP2 setpoint"

- compressor switched off
- fans switched off
- heaters switched on until DHW tank upper temperature > "H1 threshold" and then for "H3 time".

Overboost

It activates in manual mode, provided that DHW tank upper and lower temperature < "SP3 threshold"

compressor, fans and heaters on until DHW tank upper temperature > "SP1 setpoint".

5.5 Defrostina

It activates with evaporator temperature < "d17 threshold" for "d18 time" or in manual mode. provided that the anti-legionella and overboost functions are not active

- compressor switched on if d1 = 1defrost relay active if d1 = 1 or 2
- fans switched on if d1 = 2
- heaters switched on to prevent too high temperature drop in the storage tank

5.6 Photovoltaic system

It activates with photovoltaic input active

operation as in comfort mode, except for "SP2 setpoint" which becomes "SP6 setpoint".

5.7 Green

It activates with multi-purpose input active and DHW tank upper and lower temperature > "SP8 setpoint"

- compressor switched off
- fans switched off
- heaters switched off

This function is used to prevent the water freezing. It is activated when tank upper tempera ture < "SP7 setpoint" - "r0 differential" and this function is deactivated when tank upper tem perature > "SP7 setpoint"

heaters are switched on

This function can be active only if the controller is in stand-by.

Pre opening hot gas defrost valve

This function is used to balance the pressure at the compressor start-up, and it is activated on-Iy if "d1" = 3.

This function switch on the defrost output "i11" seconds before the start-up of the compressor, this occurs every time the compressor started, even if there is no defrost request.

5.10 Fan operation

The fan operates depending on the active function, normally C12 second before the switch on of the compressor. There are some exceptions:

- defrost: in case of hot gas (d1=1) compressor is active but fan is off. In case of compressor stop (d1=2) compressor is off but fan is active
- alarms: in case of LHP compressor is off but fan is active.

ADDITIONAL FUNCTIONS

Activating/deactivating comfort operation in manual mode

Check t	Check that the keypad is not locked.			
1.		✓ 	Touch the DOWN key for 1 s: the display will show a code.	
2.	√		Touch the UP or DOWN key within 15s to select a label.	
	COD.	DESCRIPTION	DN	
	Auto	activates co	mfort operation	
	ECO	deactivates	comfort operation	
3.	1 = 5	5 €T	Touch the SET key.	
4.		D	Touch the ON/STAND-BY key (or take no action for 60s) to exit the procedure. $ \\$	

6 1 Activating the overboost function

Check that the keypad isn't locked

OTTOCK L	oneck that the keypad isn't locked.			
1.	V	Touch the DOWN key for 1 s: the display will show a code.		
2.	√	Touch the UP or DOWN key within 15s to select "ObS".		
3.	≙SET	Touch the SET key.		
4.	I () I	Touch the ON/STAND-BY key (or take no action for 60s) to exit the procedure.		

6.2 Displaying the operating mode

ı | | _

Check that the keypad is not locked.

11

1.	[V	Touch the DOWN key: the display will show a code.
	COD.	DESCRIPTION	ON
	ECO	economy	
	ObS	overboost	
	Auto	comfort	
	Anti	anti-legione	ella; if flashing, DHW tank lower temperature > "SP1 setpoint" and
		> "SP2 setp	point"
	dEFr	defrost	
	in2	photovoltai	c function
2.	1 (1) I	Touch the ON/STAND-BY key (or take no action for 60s) to exit
۷.			the procedure.

6.3 Displaying/deleting compressor functioning hours

Check that the keypad is not locked.

	1.	^#		Touch the DOWN key for 1 s: the display will show a code.
	2.	₹		Touch the UP or DOWN key within 15s to select a label.
ľ		COD. DESCRIPTION		ON
		СН	display com	pressor working hours in hundreds
L		rCH	delete com	pressor working hours
	3.	≙SET		Touch the SET key.
	4.	√		Touch the UP or DOWN key to set *149* (to select rCH).
	5.	≙SET		Touch the SET key.
ľ	6.	IOI		Touch the ON/STAND-BY key (or take no action for 60s) to exit the procedure.

	1-	The procedure.
7	SETTINGS	
7.1	Setting configurat	ion parameters
1.	_ SET	Touch the SET key for 4 s: the display will show the label "PA".
2.	aset	Touch the SET key.
3.	√	Touch the UP or DOWN key within 15s to set the PAS value (default "-19").
4.	aset	Touch the SET key (or take no action for 15s): the display will show the label "SP".
5.	₹	Touch the UP or DOWN key to select a parameter.
6.	aset	Touch the SET key.
7.	₹	Touch the UP or DOWN key within 15s to set the value.
8.	aset	Touch the SET key (or take no action for 15s).
	ASET	Touch the SET key for 4s (or take no action for 60s) to exit the

procedure.

7.2 Restoring factory settings (default)

- check that the factory settings are appropriate; see the section CONFIGURATION PARAMETERS.

1.	aset	Touch the SET key for 4 s: the display will show the label "PA".
2.	≙SET	Touch the SET key.
3.	√	Touch the UP or DOWN key within 15s to set "149".
4.	≙SET	Touch the SET key (or take no action for 15s): the display will show the label "dEF".
5.	≙SET	Touch the SET key.
6.	√	Touch the UP or DOWN key within 15s to set "1".
7.	aset	Touch the SET key (or take no action for 15 s): the display will show "" flashing for 4 s, after which the device will exit the procedure.
8.	Disconnect the dev	ice from the power supply.
9.	≙SET	Touch the SET key for 1s before action 6 to exit the procedure

9.	-	5 E 1	I	beforehand.					
7	CONF	CONFIGURATION PARAMETERS							
	No.	PAR.	DEF.	SETPOINT	MIN MAX.				
	1	SP1	55.0	setpoint in economy mode	r3 r4				
	2	SP2	65.0	setpoint in comfort mode	r1 r2				
	3	SP3	45.0	overboost activation threshold	10 °C/°F r2				
	4	SP5	55.0	heat pump switch-off threshold	r1 SP2				
	5	SP6	75.0	photovoltaic system setpoint	40 100 °C/°F				
	6	SP7	5.0	setpoint in antifreeze mode	0 40 °C/°F				
	7	SP8 SP9	40.0	setpoint in green mode	0 100 °C/°F				
	8 9	SPA	-7.0 -25	cold evaporator alarm threshold evaporator failure alarm thresh-	-25 25 °C/°F -50 25 °C/°F				
	,	317	-23	old	-30 23 C/ 1				
	No.	PAR.	DEF.	ANALOGUE INPUTS	MIN MAX.				
	10	CA1	0.0	DHW tank upper probe offset	-25 25 °C/°F				
	11	CA2	0.0	DHW tank lower probe offset	-25 25 °C/°F				
	12	CA3	0.0	evaporator probe offset	-25 25 °C/°F				
	13	PO	1	type of probe	O = PTC 1 = NTC				
					2 = Pt 1000				
	14	P1	1	enable decimal point °C	0 = no 1 = yes				
	15	P2	0	temperature measurement unit	0 = °C 1 = °F				
	16	P3	1	enabled probes	0 = DHW tank upper probe				
					+ high pressure input				
					1 = DHW tank upper and				
\circ					lower probe				
	17 P4		2	evaporator probe function	0 = disabled (defrost every d18 minutes)				
					1 = defrost activation and				
					defrost end				
					2 = defrost activation				
	18	P5	0	value displayed	0 = DHW tank upper tem-				
					perature				
					1 = setpoint in comfort				
					mode				
					2 = DHW tank lower tem-				
					perature 3 = evaporator temperature				
	19	P8	5	display refresh time	0 250 s: 10				
	No.	PAR.	DEF.	REGULATION	MIN MAX.				
	20	r0	3.0	setpoint differential	1 30 °C/°F				
	21	r1	40.0	minimum setpoint in comfort	10 °C/°F r2				
				mode					
	22	r2	70.0	maximum setpoint in comfort	r1 100 °C/°F				
				mode					
_	23	r3	40.0	minimum setpoint in economy	10 °C/°F r4				
*	0.4			mode	0 100 00/05				
•	24	r4	55.0	maximum setpoint in economy mode	r3 100 °C/°F				
	25	r5	0	enable setpoint blocking in	0 = no 1 = yes				
	25	'3	"	economy and comfort modes	0 = 110 1 = yes				
				heater threshold in comfort					
	26	r6	15.0	mode	0 50 °C/°F				
	27	r7	15.0	heater threshold differential in	1 30 °C/°F				
				comfort mode					
	No.	PAR.	DEF.	COMPRESSOR	MIN MAX.				
	28	CO	5	compressor on delay from pow-	0 240 min				
				er-on					
	29	C1	5	minimum time between two	0 240 min				
E	20	CO	F	power-ons of compressor	0 240 min				
U	30	C2	5	minimum compressor-off time	0 240 min				
	31	C3 C10	400	minimum compressor-on time compressor hours for mainte-	0 240 s 0 999 h x 100				
	52	nance		l '	0 = disabled				
	33	C11	120	interval for cold evaporator con-	0 999 min				
				trol					

	34	C12	60	compressor-on delay from fan	0 240 s
	35	C13	20	on for cold evaporator control compressor-on delay from green	0 240 min
		multi-purpose input reset			
	36	C14	20	compressor-on consecutive time	-1 240 min -1 = disabled
	No.	PAR.	DEF.	for evaporator failure control DEFROST	MIN MAX.
	37	d1	2	type of defrost	0 = electric
					1 = hot gas
					2 = compressor stopped 3 = hot gas balancing the
					pressure
	38	d2	3.0	defrost end threshold	-50 50 °C/°F
۵	39	d3	30	defrost duration	0 99 min 0 = defrost disabled
					If P4 = 1, maximum duration
					default 0 in map 3 of
					EV3B94N9PXRX01 and EV3B94N9VXRX01
	40	d17	-2.0	evaporation threshold for defrost	-50 50 °C/°F
				interval count	
	41	d18	30	defrost interval	0 240 min 0 = manual only
	No.	PAR.	DEF.	ALARMS	MIN MAX.
	42	A0	0	select value for low temperature	0 = DHW tank upper tem-
				alarm	perature 1 = DHW tank lower tem-
					perature
					2 = evaporator temperature
	43	A1 A2	10.0	low temperature alarm threshold	0 50 °C/°F 0 = disabled
	44	HZ.	"	low temperature alarm type	1 = absolute
	45	А3	0	select value for high tempera-	0 = DHW tank upper tem-
				ture alarm	perature
					1 = DHW tank lower tem- perature
80					2 = evaporator temperature
	46	A4	90.0	high temperature alarm thresh-	0 199 °C/°F default 75.0 in
				old	EV3B94N9PXRX01 and
					EV3B94N9VXRX01
	47	A5	0	high temperature alarm type	0 = disabled 1 = absolute
	48	A6	120	high temperature alarm delay	0 240 min
				from power-on	
	49	A7	15	high/low temperature alarm de- lay	0 240 min
	50	A11	2.0	high/low temperature alarm re-	1 30 °C/°F
		DAD	DEE	set differential	AMAL MANY
(3)	No. 51	PAR. FO	DEF.	enable fan	MIN MAX. 0 = no 1 = yes
	No.	PAR.	DEF.	ANTI-LEGIONELLA	MIN MAX.
	52	HO	30	anti-legionella interval	0 99 d (days)
5	53	H1	70.0	anti-legionella thermal threshold	0 = none 10 199 °C/°F
	54	H3	2	anti-legionella thermal threshold	0 240 min
	N- DAD			maintenance duration	0 = function disabled
	No. 55	PAR.	DEF.	DIGITAL INPUTS multi-purpose input function	MIN MAX. 0 = disabled
		10		matti parpose inpat ranetion	1 = pressure switch
			_		2 = green
	56	i2	0	compressor-on delay from pres- sure switch alarm reset	0 120 min
	57	i3	0	enable photovoltaic system	0 = no 1 = yes
	58	i4	1	photovoltaic system input acti-	0 = with contact closed
	59	i5	1	vation high pressure input activation	1 = with contact open 0 = with contact closed
- 1				- Francisco	1 = with contact open
	60	i8	3	number of pressure switch	0 15
	61	i9	240	alarms for unit blocked alarm counter reset time for pressure	0 = disabled 1 999 min
				switch alarms	
	62	i10	24	pressure switch alarm delay	0 240 sx10
	63	i11	60	from compressor-on time pre opening hot gas defrost	0 240 s
				valve	
	64	i12	0	fan off during pressure switch/unit blocked alarm	0 = no 1 = yes default 1 in
				Switch/unit blocked didiffi	EV3B94N9PXRX01 and
					EV3B94N9VXRX01
	No. 65	PAR. u0	DEF.	DIGITAL OUTPUTS enable relay K2 and relay K4 in-	MIN MAX. 0 = no (defrost on K2)
			L.	version	1 = yes (defrost on K4)
	65	u9	1	enable alarm buzzer	0 = no 1 = yes
9	ALARI	MS			
9	41 7 417	VIS			

CODE	DESCRIPTION				RESET	TO CORRECT
Pr1	DHW	tank	upper	probe	automatic	- check P0
	alarm					- check probe integrity
Pr2	DHW	tank	lower	probe	automatic	- check electrical connection
	alarm					

Pr3	evaporator probe alarm	automatic			
AL	low temperature alarm	automatic	check A0, A1 and A2		
AH	high temperature alarm	automatic	check A3, A4 and A5		
LHP	pressure switch/unit	automatic/	- switch the device off and on		
	blocked alarm	manual	- check i0, i8 and i9		
HP	high pressure alarm	manual	- switch the device off and on		
			- check P3		
FiL	compressor maintenance	automatic	check C10		
	alarm		by silencing the buzzer you delete th		
			compressor functioning hours		
UtL	evaporator failure alarm	manual	- switch the device off and on		
			- check SPA and C14		

EMC 2014/30/EU Classification of the control device according to protection from electrical shock Power supply 115 230 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 3.2 VA insulated Earthing methods for the control device none Rated impulse-withstand voltage Over-voltage category II. Software class and structure A. Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: KTY 81-121 (990 \(\Omega \) @ 25 °C, 77 °F) Measurement field: Resolution: NTC probes Sensor type: Measurement field: Resolution: 0.1 °C (1 °F). Pt 1000 Measurement field: Resolution: O.1 °C (1 °F). Resolution: O.1 °C (1 °F).							compre	ssor functioning hours	
Purpose of the control device Construction of the control device Donstruction of the control device Construction of the control device Container Category of heat and fire resistance D. Measurements 75.0 x 33.0 x 59.0 mm (2 15/16 x 1 5/16 x 2 5/16 in) with riked screw terminal blocks Mounting methods for the control device Degree of protection provided by the covering Connection method Connection method Connection method Connection method Maximum permitted length for connection cables power supply: 10 m (32.8 ft) digital inputs: 10 m (32.8 ft) digital inputs: 10 m (32.8 ft) digital inputs: 10 m (32.8 ft) Coperating temperature From 0 to 55 °C (from -13 to 158 °F) Corpolation Conpolation of the control device EMC 2014/30/EU	UtL	L evaporator failure alarm manual			- switch the device off and on				
Purpose of the control device built-in electronic device built-in electronic device built-in electronic device back, self-extinguishing. Category of heat and fire resistance D. Measurements 75.0 x 33.0 x 59.0 mm (2 15/16 x 1 5/16 x 2 5/16 in) with riked screw terminal blocks of the control device built-in fixed screw terminal blocks of the control device built-in fixed screw terminal blocks of the control device built-in fixed screw terminal blocks of the control device built-in fixed screw terminal blocks for wires up to 2.5 fixed screw terminal blocks for wires up to 2.5 mm² (on request). Maximum permitted length for connection cables power supply: 10 m (32.8 ft) digital outputs: 10 m (32.8 ft) from 0 to 55 °C (from 31 to 158 °F) Operating temperature From 0 to 55 °C (from 32 to 131 °F) Storage temperature From 0 to 55 °C (from 32 to 131 °F) Storage temperature From 0 to 55 °C (from 32 to 131 °F) Operating humidity relative humidity without condensate from 10 to 90% Compliance: ROHS 2011/65/EC WEEE 2012/19/EU REACH (EC) Regulation no. 1907/2006 EMC 2014/30/EU LVD 2014/35/EU Classification of the control device according to lass II according to standard EMC EN 60/300.1 §2.7.5. Power supply 11. Software class and structure A. Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: KTR 81-121 (990 Q @ 25 °C, 77 °F) Measurement field: from -50 to 150 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Prover supply: none Provection: 0.1 °C (1 °F). Prover of digital input (high pressure input) Dry contact Contact type: 90 Fore 25 °C (77 °F) Measurement field: from -40 to 15 °C (from -40 to 221 °F) Prover supply: none Provection: 0.1 °C (1 °F). Prover supply: none Provection: 0.1 °C (1 °F). Prover supply: none Provection: 0.1 °C (1 °F). Power supply: none Provection: 0.1 °C		1			- check SPA and C14				
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Measurements							self-ext	inguishing.	
75.0 x 33.0 x 59.0 mm (2 15/16 x 1 5/16 x 2 5/16 in) with fixed screw terminal blocks Mounting methods for the control device or to be fitted to a panel, snap-in brackets provided Degree of protection provided by the covering in 125 (front) Connection method fixed screw terminal blocks for wires up to 2.5 mm² (provided) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) Maximum permitted length for connection cables power supply: 10 m (32.8 ft) MEEC 2014/30/EU REACH (EC) Regulation no. 1907/2006 EMC 2014/35/EU REACH (EC) Regulation no. 1907/2006 EMC 2014/35/EU REACH (EC) Regulation no. 1907/2006 LVD 2014/35/EU REACH (EC) Regulation no. 1907/2006 REACH (EC) Regulation no. 1907/2006 In 2073-19 32.7 5. Power supply: 115 230 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 3.2 VA Insulated no. 1907/2006 EMC 2014/35/EU REACH (EC) Regulation no. 1907/2006 Resolution: 2.5 KV Over-voltage category III. Maximum permitted length for control device according to standard EMC EN (50730-13 Ex) Resolu				tance		D.			
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vided Degree of protection provided by the covering IP65 (front)	5/16 ir	n) with fi	ixed screw termi	nal blo	ocks	3 3/1	6 in) with	n plug-in screw terminal blocks	
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Connection method						vided			
fixed screw terminal blocks for wires up to 2.5 mm² (on request). Maximum permitted length for connection cables power supply: 10 m (32.8 ft) digital inputs: 10 m (32.8 ft) digital input (50.8 ft) digital input (50.8 ft) digital inputs: 10 m (32.8 ft) digital inputs: 10 m (32.8 ft) digital inputs: 10 m (32.8 ft) digital input (50.8 ft) digital inputs: 10 m (32.8 ft) digital input (50.8 ft) digital inputs: 10 m (32.8 ft) digital input (50.8 ft) d				by the	covering	IP65	(front)		
mm² (on request). Maximum permitted length for connection cables power supply: 10 m (32.8 ft) analogue inputs: 10 m (32.8 ft) digital inputs: 10 m (32.8 ft) digital outputs: 10 m (32.8 ft) Operating temperature From 0 to 55 °C (from 13 to 158 °F) Storage temperature from -25 to 70 °C (from -13 to 158 °F) Operating humidity relative humidity without condensate from 10 to 90% Pollution status of the control device 2. Compliance: WEEE 2012/19/EU REACH (EC) Regulation no. 1907/2006 EMC 2014/30/EU LVD 2014/35/EU Classification of the control device according to protection from electrical shock LVD 2014/35/EU Classification of the control device according to protection from electrical shock 60730-1 §2.7.5. Power supply 115 230 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 3.2 VA insulated Earthing methods for the control device and evaporation probe in the control device and evaporation probes in the control device and evaporator probes	Conne	ction me	thod						
Maximum permitted length for connection cables	fixed s	crew ter	minal blocks for	wires	up to 2.5	1			
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Departing temperature	power	supply:	10 m (32.8 ft)			analo	gue inpu	ts: 10 m (32.8 ft)	
Storage temperature from -25 to 70 °C (from -13 to 158 °F) Operating humidity relative humidity without condensate from 10 to 90% Poilution status of the control device 2. Compliance: REACH (EC) Regulation no. 1907/2006 EMC 2011/65/EC WEEE 2012/19/EU REACH (EC) Regulation no. 1907/2006 EMC 2014/30/EU LVD 2014/35/EU Classification of the control device according to protection from electrical shock 60730-1 §2.7.5. Power supply 115 230 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 3.2 VA insulated Earthing methods for the control device none none Rated impulse-withstand voltage 2.5 KV Over-voltage category II. Software class and structure A. Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: KTY 81-121 (990 Ω @ 25 °C, 77 °F) Measurement field: from -50 to 150 °C (from -58 to 302 °F) Resolution: 0.1 °C (1 °F). Pt 1000 Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Protection: none	digital	inputs:	10 m (32.8 ft)			digita	outputs	: 10 m (32.8 ft).	
Pollution status of the control device 2.	Operat	ing tem	perature			From	0 to 55 °	°C (from 32 to 131 °F)	
10 to 90%	Storag	e tempe	rature			from	-25 to 70) °C (from -13 to 158 °F)	
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Compliance: RoHS 2011/65/EC						10 to	90%		
RoHS 2011/65/EC WEEE 2012/19/EU REACH (EC) Regulation no. 1907/2006 EMC 2014/30/EU LVD 2014/35/EU Classification of the control device according to protection from electrical shock class II according to standard EMC EN 60730-1 §2.7.5. Power supply 115 230 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 3.2 VA insulated Earthing methods for the control device none none Rated impulse-withstand voltage 2.5 KV Over-voltage category II. Software class and structure A. Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: KTY 81-121 (990 Ω @ 25 °C, 77 °F) Measurement field: from -50 to 150 °C (from -58 to 302 °F) Resolution: 0.1 °C (1 °F). NTC probes Sensor type: B3435 (10 K□Ω @ 25 °C, 77 °F) Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Pt 1000 Measurement field: from -100 to 650 °C (from -148 to 999 °F) Probes Resolution: 0.1 °C (1 °F). Objital inputs 2 dry contact (photovoltaic and multipurpose input)	Pollutio	on status	s of the control of	device		2.			
1907/2006	Compli	iance:							
LVD 2014/35/EU	RoHS 2	2011/65	/EC	WEE	2012/19/	⁄EU		REACH (EC) Regulation no.	
Classification of the control device according to protection from electrical shock Power supply 115 230 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 3.2 VA insulated Earthing methods for the control device Rated impulse-withstand voltage Over-voltage category II. Software class and structure Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: Measurement field: Resolution: O.1 °C (1 °F). Pt 1000 Probes Resolution: O.1 °C (1 °F). Pt 1000 Probes Resolution: O.1 °C (1 °F). Pt 1000 Probes Contact type: Resolution: O.1 °C (1 °F). Digital inputs Contact type: Provection: One. Contact type: Provection: Can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 5 A res. @ 250 VAC Relay K2 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Displays Custom display, 3 digit, with function icons						1907/2006			
to protection from electrical shock 60730-1 §2.7.5. Power supply 115 230 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 3.2 VA insulated Earthing methods for the control device none Rated impulse-withstand voltage 2.5 KV Over-voltage category II. Software class and structure A. Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: KTY 81-121 (990 Ω @ 25 °C, 77 °F) Measurement field: from -50 to 150 °C (from -58 to 302 °F) Resolution: 0.1 °C (1 °F). NTC probes Sensor type: B3435 (10 K□Ω @ 25 °C, 77 °F) Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Pt 1000 Measurement field: from -100 to 650 °C (from -148 to 999 °F) Probes Resolution: 0.1 °C (1 °F). Digital inputs 2 dry contact (photovoltaic and multipurpose input) Dry contact Contact type: 5 VDC, 1.5 mA Power supply: none Protection: none. Other inputs	EMC 20	014/30/	EU			LVD 2014/35/EU			
Power supply	Classif	ication o	of the control d	evice	according	class II according to standard EMC EN			
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Earthing methods for the control device none Rated impulse-withstand voltage 2.5 KV Over-voltage category II. Software class and structure A. Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: KTY 81-121 (990 \(\Omega \) 25 °C, 77 °F) Measurement field: from -50 to 150 °C (from -58 to 302 °F) Resolution: 0.1 °C (1 °F). NTC probes Sensor type: B3435 (10 K \(\Omega \) 25 °C, 77 °F) Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Pt 1000 Measurement field: from -100 to 650 °C (from -148 to 999 °F) Resolution: 0.1 °C (1 °F). Digital inputs 2 dry contact (photovoltaic and multipurpose input) Dry contact 2 dry contact (photovoltaic and multipurpose input) Dry contact 5 VDC, 1.5 mA Power supply: none Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Displays custom display, 3 digit, with function icons	Power	supply				115 230 VAC (+10% -15%), 50/60 Hz (±3			
Rated impulse-withstand voltage Over-voltage category Software class and structure Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: Measurement field: Resolution: NTC probes Sensor type: Measurement field: Resolution: NTC probes Sensor type: Measurement field: Resolution: O.1 °C (1 °F). Measurement field: Resolution: O.1 °C (1 °F). Pt 1000 Probes Resolution: O.1 °C (1 °F). Pt 1000 Probes Resolution: O.1 °C (1 °F). Digital inputs Contact type: Power supply: Power supply: None. Other inputs Contact type: Protection: Other inputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) Relay K2 SPST, 16 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Displays Custom display, 3 digit, with function icons						Hz), r	nax. 3.2	VA insulated	
Software class and structure	Earthir	ng metho	ods for the contr	ol dev	ice	none			
Software class and structure Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: Measurement field: Resolution: NTC probes Sensor type: Measurement field: Resolution: NTC probes Sensor type: Measurement field: Resolution: O.1 °C (1 °F). Measurement field: Resolution: O.1 °C (1 °F). Pt 1000 Measurement field: Resolution: O.1 °C (1 °F). Pt 1000 Probes Resolution: O.1 °C (1 °F). Digital inputs Contact type: Power supply: Protection: Other inputs Can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) Relay K2 SPST, 8 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons	Rated	impulse-	withstand voltag	ge		2.5 K	V		
Analogue inputs 2 for PTC, NTC or Pt 1000 probes (DHW tank upper probe and evaporator probe) PTC probes Sensor type: Measurement field: Resolution: NTC probes NTC probes Sensor type: Measurement field: Resolution: O.1 °C (1 °F). Sensor type: Measurement field: Resolution: O.1 °C (1 °F). Measurement field: Resolution: O.1 °C (1 °F). Pt 1000 Probes Resolution: O.1 °C (1 °F). Digital inputs Contact type: Power supply: Protection: Other inputs Contact type: Sensor type: Power supply: Protection: Other inputs A with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) Relay K2 SPST, 8 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Displays Custom display, 3 digit, with function icons	Over-v	oltage c	ategory			11.			
upper probe and evaporator probe) PTC probes Sensor type: KTY 81-121 (990 Ω @ 25 °C, 77 °F) Measurement field: from -50 to 150 °C (from -58 to 302 °F) Resolution: 0.1 °C (1 °F). NTC probes Sensor type: B3435 (10 K□Ω @ 25 °C, 77 °F) Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Pt 1000 Measurement field: from -100 to 650 °C (from -148 to 999 °F) Probes Resolution: 0.1 °C (1 °F). Digital inputs 2 dry contact (photovoltaic and multipurpose input) Dry contact Contact type: 5 VDC, 1.5 mA Power supply: none Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Fan relay (K4) SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Type 1 Additional features of Type 1 or Type 2 actions Custom display, 3 d	Softwa	re class	and structure			A.			
PTC probes	Analog	jue input	s			2 for PTC, NTC or Pt 1000 probes (DHW tank			
Measurement field: from -50 to 150 °C (from -58 to 302 °F) Resolution: 0.1 °C (1 °F). NTC probes Sensor type: 63435 (10 K□Ω @ 25 °C, 77 °F) Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Pt 1000 probes Measurement field: from -100 to 650 °C (from -148 to 999 °F) Resolution: 0.1 °C (1 °F). Digital inputs 2 dry contact (photovoltaic and multipurpose input) Dry contact Contact type: 5 VDC, 1.5 mA Power supply: none Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 5 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Fan relay (K4) SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Type 1 Additional features of Type 1 or Type 2 actions Custom display, 3 digit, with function icons									
Resolution:	PTC pr	obes	Sensor type:			KTY 81-121 (990 Ω @ 25 °C, 77 °F)			
NTC probes Sensor type: B3435 (10 K□Ω @ 25 °C, 77 °F) Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Pt 1000 measurement field: from -100 to 650 °C (from -148 to 999 °F) Resolution: 0.1 °C (1 °F). Digital inputs 2 dry contact (photovoltaic and multipurpose input) Dry contact Contact type: 5 VDC, 1.5 mA Power supply: none Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Additional features of Type 1 or Type 2 actions Displays Custom display, 3 digit, with function icons			Measurement field:			from -50 to 150 °C (from -58 to 302 °F)			
Measurement field: from -40 to 105 °C (from -40 to 221 °F) Resolution: 0.1 °C (1 °F). Pt 1000 Measurement field: from -100 to 650 °C (from -148 to 999 °F) Resolution: 0.1 °C (1 °F). Digital inputs 2 dry contact (photovoltaic and multipurpose input) Dry contact Contact type: 5 VDC, 1.5 mA Power supply: none Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons			Resolution:			0.1 °C (1 °F).			
Resolution:	NTC pr	obes	Sensor type:			ß3435 (10 K□Ω @ 25 °C, 77 °F)			
Pt 1000 probes Resolution:			Measurement f	field:		from -40 to 105 °C (from -40 to 221 °F)			
Probes Resolution: Digital inputs Contact type: Power supply: Protection: Other inputs Can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) Relay K2 SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Fan relay (K4) SPST, 5 A res. @ 250 VAC Far selay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Contact type: 2 dry contact (photovoltaic and multi-purpose input) S VDC, 1.5 mA Power supply: none None SPST, 16 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Custom display, 3 digit, with function icons			Resolution:			0.1 °C (1 °F).			
Resolution: Digital inputs Contact type: Power supply: Portection: Other inputs Compressor relay (K1) Relay K2 Fan relay (K3) Relay K4 Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Digital inputs Contact type: Power supply: Power supply: None Protection: None S VDC, 1.5 mA Power supply: None Protection: None Connoe Other inputs A with electro-mechanical relay (compressor, defrost, fans and heaters) SPST, 16 A res. @ 250 VAC SPST, 8 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Custom display, 3 digit, with function icons	Pt 100	0	Measurement f	ield:		from -100		550 °C (from -148 to 999 °F)	
Digital inputs 2 dry contact (photovoltaic and multipurpose input) Dry contact Contact type: Power supply: none Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Contact type: S VDC, 1.5 mA Multipurpose input) S VDC, 1.5 mA EVDC, 1.5 mA S VDC, 1.5 mA EVDC, 1.5 mA S VDC, 1.5 mA EVDC, 1.5 mA SPST, 16 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Custom display, 3 digit, with function icons	probes								
Dry contact Contact type: 5 VDC, 1.5 mA			Resolution:			0.1 °C (1 °F).			
Dry contact Contact type: 5 VDC, 1.5 mA	Digital	Digital inputs				2 dr	y conta	ct (photovoltaic and multi-	
Power supply: none Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Type 1 Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons	· ·								
Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Type 1 Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons	Dry contact			Contact type:				5 VDC, 1.5 mA	
Protection: none. Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Type 1 Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons							none		
Other inputs can be configured for analogue input (DHW tank lower probe) or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons							none.		
or for digital input (high pressure input) Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) Relay K2 SPST, 16 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Fan relay (K4) SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Custom display, 3 digit, with function icons									
Digital outputs 4 with electro-mechanical relay (compressor, defrost, fans and heaters) Compressor relay (K1) Relay K2 SPST, 16 A res. @ 250 VAC SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Custom display, 3 digit, with function icons				-					
and heaters) Compressor relay (K1) SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons									
Compressor relay (K1) Relay K2 SPST, 16 A res. @ 250 VAC Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Custom display, 3 digit, with function icons									
Relay K2 SPST, 8 A res. @ 250 VAC Fan relay (K3) SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Type 1 Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons	Compr	essor re	lav (K1)			SPST, 16 A res. @ 250 VAC			
Fan relay (K3) Relay K4 SPST, 5 A res. @ 250 VAC Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays SPST, 5 A res. @ 250 VAC C. C. Custom display, 3 digit, with function icons									
Relay K4 SPST, 5 A res. @ 250 VAC Type 1 or Type 2 Actions Type 1 Additional features of Type 1 or Type 2 actions Displays custom display, 3 digit, with function icons									
Type 1 or Type 2 Actions Additional features of Type 1 or Type 2 actions Displays Type 1 C. Custom display, 3 digit, with function icons									
Additional features of Type 1 or Type 2 actions Displays C. Custom display, 3 digit, with function icons									
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Displays custom display, 3 digit, with function icons		illai leat	ures or Type T	Oi iy	pe z ac-	J · ·			
		/5				custom display, 3 digit, with function icons			
Marin Bull-III									
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N.B.

The device must be disposed of according to local regulations governing the collection of electrical and electronic equipment.

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