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EVZ000 (user interface) / EVG004 (power module) split digital controller for static refrigeration units



nchronizati input 🛰 🖡

• compressor protection is ongoing (parameters C0, C1

· defrosting has been requested, but compressor protection

((())))	MEANING						
Loc	the keypad ad/or the operational setpoint are blocked						
	(parameter r3); see section 4.8						
	the value to be displayed is not available (e.g. because the probe is missing)						
8	ALARMS						
8.1	Alarms						
CODE	MEANING						
AL	Remedies:						
	• check the temperature associated with the alarm						
	• see parameters A0, A1 and A2						
	the device will continue to operate normally						
AH	Maximum temperature alarm						
	Remedies:						
	check the cabinet temperature see parameters A4 and A5						
	Main consequences:						
	• the device will continue to operate normally						
When the	cause that triggered the alarm has been resolved, the device ormal operation						
9	INTERNAL DIAGNOSTICS						
9.1	Internal diagnostics						
CODE	MEANING						
Pr1	Cabinet probe error Remedies:						
	see parameter P0						
	check probe integrity						
	cneck probe-device connection check the cabinet temperature						
	Main consequences:						
	• the activity of the compressor will depend on parameters						
	C4 and C5 • defrosting will never be activated						
Pr2	Evaporator probe error						
	Remedies:						
	 the same as for the previous case, but in relation to the evaporator, probe 						
	Main consequences:						
	• if parameter P3 is set to 1, defrosting will last for the duration						
	established by parameter d3 a if parameter P2 is set to 1 and parameter d9 is set to 2, the						
	device will operate as though parameter d8 was set to 0						
When the	cause that triggered the alarm has been resolved, the device						
restores n	ormal operation.						
10.1	Technical information						
EVZOOO	(user interface) case: grey self-extinguishing.						
EVG004	(power module) case: open card. (user interface) front namel protection classification						
IP 65.							
EVG004	(power module) front panel protection classification:						
IP00.	(user interface) connections: 9 way famale telephony						
connector	(to the power module), 2.5 mm (0.098 in, digital inputs)						
pitch 2-wa	ay male JST connectors.						
The user in	nterface is connected to the power module by means of an						
8-core tele	phony cable wired straight on 8-way telephony connectors; is not supplied with the device						
Digital inp	nuts for synchronising defrosting between several devices						
are conne	ats for synchronising denosting between several devices						
into 2.5 mm (0.098 in) pitch, 2-way female JST connectors; the cable							
into 2.5 m is not prov	cted together by means of a two-core cable wired directly im (0.098 in) pitch, 2-way female JST connectors; the cable wided with the device						
into 2.5 m is not prov EVGOO4	total to synchronising denosing between several devices cted together by means of a two-core cable wired directly im (0.098 in) pitch, 2-way female JST connectors; the cable vided with the device. (power module) connections: 8-way female telephony						
into 2.5 m is not prov EVG004 connector	to the user interface), screw terminal blocks (power supply),						
into 2.5 m is not prov EVGOO4 connector 6.3 mm fa Mate-N-Lo	tects to synchronianing denosing between several devices cted together by means of a two-core cable wired directly min (0.098 in) pitch, 2-way female JST connectors; the cable vided with the device. (power module) connections: 8-way female telephony (to the user interface), screw terminal blocks (power supply), aston (ground), 2.8 mm faston (sensor inputs), 3-way male k connectors (outputs)						
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into 2.5 m is not prov EVG004 EVG004 Mate-N-Lo Operatin 10 90% EVZ000 (power m EVZ000 (power m EVG004 V AC (+10 Alarm bu Sensor i NTC prob Digital ii 5 V 1 mA) Sensor r probes, fro Sensitiv	Auto is synchronianing denosing between several devices several devices devices devices by means of a two-core cable wired directly mm (0.098 in) pitch, 2-way female JST connectors; the cable vided with the device. (power module) connections: 8-way female telephony (to the user interface), screw terminal blocks (power supply), aston (ground), 2.8 mm faston (sensor inputs), 3-way male k connectors (outputs). gg temperature: from 0 to 55 °C (from 32 to 54.44 °C, 6 relative humidity, without condensation). (user interface) power supply: powered by the EVG004 odule). (power module) power supply: 115 V AC (-15%) 230 %), 50/60 Hz, 6.3 VA. zzzer: available on request. nputs: 2 (chamber probe and evaporator probe) for PTC/es. suputs: 2 (synchronised defrosting) in parallel (clean contact, amge: from -50.0 to 150.0 °C (from -50 to 300 °F) for PTC probes. ty 0,1 °C/1 °C/1 °C.						
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into 2.5 m is not prov EVG004 connector 6.3 mm fa Mate-N-Lo Operatin 10 90% EVZ000 (power m EVZ0004 V AC (+10 Alarm bu Sensor in NTC prob Digital in Sensor r probes, fro Sensitivi Digital o	Auto is synchronising denosing between several devices several devices detected together by means of a two-core cable wired directly mm (0.098 in) pitch, 2-way female JST connectors; the cable vided with the device. (power module) connections: 8-way female telephony (to the user interface), screw terminal blocks (power supply), aston (ground), 2.8 mm faston (sensor inputs), 3-way male k connectors (outputs). Ig temperature: from 0 to 55 °C (from 32 to 54.44 °C, 6 relative humidity, without condensation). (user interface) power supply: powered by the EVG004 odule). (power module) power supply: 115 V AC (-15%) 230 %), 50/60 Hz, 6.3 VA. zzzer: available on request. nputs: 2 (chamber probe and evaporator probe) for PTC/es. ange: from -50.0 to 150.0 °C (from -50 to 300 °F) for PTC pom -40.0 to 105.0 °C (from -40 to 220 °F) for NTC probes. ty 0,1 °C/1 °C/1 °F. utputs: 4 relays: compressor 1 relay: 30 A res. @ 250 VAC (NA contacts) compressor 2 relay: 30 A res. @ 250 VAC (NA 						

- · defrost relay:16 A res. @ 250 VAC (NA contacts)
- cabinet light relay: 16 A res. @ 250 VAC (NA contacts).
- The maximum permitted current on loads is 24 A.

11	OPER	ATION	AL SETPO	DINT A	ND CONFIGURATION PARAMETERS	(1) the unit of measurement dep	pends on parameter P2
11.1	Opera	ational	setpoint	1-		(2) Set the parameters relat	ing to the controllers appropriately after alteri
	MIN.	MAX.	U.o.M.	DEF.	OPERATIONAL SETPOINT	(3) the parameter is even effective (4) the time period established	we after power supply interruption, such as when the d
11.2	Confi	uratio	n param	eters		(+) the time period established to (5) if parameter C1 is set to 0 th	by parameter or is counted even while in stand-by module cabinet probe error resolution delay will, in any case
PARAM	MIN.	MAX.	U.o.M.	DEF.	OPERATIONAL SETPOINT	(6) The device stores the defrost	interval count every 30 minutes; altering parameter d0
SP	r1	r2	°C/°F (1)	2,0	operational setpoint	manual defrost activation	
PARAM	MIN.	MAX.	U.o.M.	DEF.	SENSOR INPUTS	(7) if parameter d1 is set to 1 and	d parameters C0, C1 and C2 are set to 0, the compresso
CA1	-25,0	25,0	°C/°F (1)	1,0	cabinet probe offset	(8) the display will restore norma	al function when, on completion of drip draining, the c
CA2	-25,0	25,0	°C/°F (1)	0,0	evaporator probe offset	the display (or if a temperatu	ure alarm occurs) a daviaa will anarata as though paramatar d8 was sat ta
PU	U	1		1	probe type	(9) If parameter P3 is set to 0, the	e device will operate as though parameter do was set to
					1 = NTC	fraction of time required to c	omplete it
P1	0	1		0	degree Celsius decimal point (for the quantity displayed during normal operation)	(11) if parameter P3 is set to 0, th	e device will operate as though parameter A0 was set to
					1 = YES	(12) the parameter differential is 2	2.0 °C/4 °F
P2	0	1		0	unit of temperature measurement (2)	(13) there are no temperature alar	rms during defrosting and drip draining, if they occur fo
						(14) if parameter u2 is set to 0, su	witching off the device may cause switching off of the
D2	0	1		1	1 = ⁴	switching on of the device); i	If parameter u2 is set to 1, switching off the device does
15	Ŭ	1			1 = YES		when my on or the device).
P5	0	3		0	quantity displayed during normal operation	The device must be dispos	sed of in accordance with local regulations pertaining to
					0 = cabinet temperature		
					1 = operational setpoint	1	
					2 = evaporator temperature	1	
DADATE	NAIN	MANY	11 - 14	DEE	3 = "cabinet temperature - evaporator temperature"	1	
PARAM	WIN.	MAX.	U.O.M.	DEF.	INAIN CONTROLLER	1	
r1	0, I .90 A	15,0 r2	0/ F (1)	2,0	minimum operational setpoint		
r2	r1	99.0	°C/°F (1)	8.0	maximum operational setpoint		
r3	0	1		0	block operational setpoint change (with the procedure indicated in paragraph 6.1)		
-				ľ	1 = YES	1	
PARAM	MIN.	MAX.	U.o.M.	DEF.	COMPRESSOR PROTECTIONS	1	
CO	0	240	min	0	compressor delay from device power on(3)	1	
C1	0	240	min	0	minimum elapsed time period between two consecutive compressor start-up operations; also compressor	1	
			<u> </u>	-	delay on resolution of cabinet probe error (4) (5)		
C2	0	240	min	0	minimum compressor shut-down time (4)	1	
C3	0	240	S mi-	0	minimum compressor start-up time		
C5	0	24U 240	min	ঠ 5	compressor startup duration during cabinet probe error; see also C4	1	
PARAM	MIN	240 ΜΔ¥	UoM	DFF	DEFROSTING	1	
d0	0	99	h	6	defrost interval; see also d8 (6)		
		1	1	ľ	0 = regular periodic defrosting will never be activated		
d1	0	1		0	type of defrosting	1	
					0 = electric	1	
					1= hot gas (7)	1	
d2	-99,0	99,0	°C/°F (1)	8,0	defrost end temperature (only if P3 = 1)	1	
d3	0	99	mín	30	detrost duration if P3 = 0; maximum defrost duration if P3 = 1 $Q_{\rm eff}$ defrosting will have be activated	1	
d4	0	1		0	o = cenosing will never be activated defrosting at device power on(3)	1	
u4	۲.	'		5	1 = YES		
d5	0	99	min	0	defrost delay from device power on (only if d4 = 1) (3)		
d6	0	1		0	temperature displayed during defrosting (only if P5 = 0)		
			1		0 = cabinet temperature		
			1		1 = if, on activation of defrosting the cabinet temperature is below the "operational setpoint + r0", at		
			1		most"operational setpoint + r0"; if on activation of defrosting the cabinet temperature is above the		
		4-		_	"operational setpoint + r0", at most the cabinet temperature at activation of defrosting (8)		
d7	0	15	min	U	arip-arain duration	1	
uð	U	2		U	type of unp-orian interval $0 = -\frac{1}{2} + \frac{1}{2} + $		
	1		1		1 = defrosting will be activated when the compressor has remained on for the time set by do	I	
			1		2 = defrosting will be activated when the evaporator temperature has remained below the temperature		
			1		set by d9 for the period of time set by d0 (9)		
d 9	-99,0	99,0	°C/°F (1)	10,0	the evaporator temperature above which the defrost interval count is suspended (only if d8 = 2)		
dA	0	99	min	0	minimum compressor on duration on activation of defrosting so that they may be activated (only if		
					d1 = 1) (10)		
dC	0	999	min	30	maximum contact close duration of the digital inputs for synchronising defrosting		
DADANA	MIN	MAY	HoM	DEC			
PAKAM	IVIIN.	IVIAX.	U.O.IVI.	DEF.	TENTERATURE ALARNIS	1	
AU	Ŭ	l'		5	0 = cabinet temperature	1	
					1 = evaporator temperature (11)	1	
A1	-99,0	99,0	°C/°F (1)	-5,0	the temperature below which the minimum temperature alarm is activated; see also A0 and A2 (12)	1	
A2	0	2		1	minimum temperature alarm type		
			1		0 = no alarm		
			1		1 = in relation to the operational setpoint (i.e. "operational setpoint - A1"; consider A1 to be without		
			1		sign)		
	00.0	00.0	00 /0F //	10 7	Z = absolute (i.e. A1)		
A4	-99,0	99,0	°C/°F (1)	10,0	ine temperature above which the maximum temperature alarm is activated; see also A5 (12)	1	
нЭ	U I	4		1	nazimum emperature alarm type 0 = no alarm		
			1		$1 = $ in relation to the operational setpoint (i.e. "operational setpoint + $\Delta 4$ ", consider $\Delta 4$ to be without		
					sign) 2 = absolute (i.e. A4)	1	
A6	0	240	min	60	device power-on maximum temperature alarm delay (3)	1	
A7	0	240	min	40	temperature alarm delay	1	
A8	0	240	min	40	drip-drain end maximum temperature alarm delay (13)		
PARAM	MIN.	MAX.	U.o.M.	DEF.	DIGITAL OUTPUTS		
u2	0	1		1	enable cabinet light switching on/off while in stand-by mode (14)		
			1		1 = YES	I	
PARAM	WIN.	MAX.	U.o.M.	DEF.	KESEKVED	1	

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