

**easy宽面板型, easy宽面板小型 / easy wide, easy small wide - 电子控制器, 用于控制独立式制冷装置 / electronic controller for stand-alone refrigerating units**

(RC) (ENG)

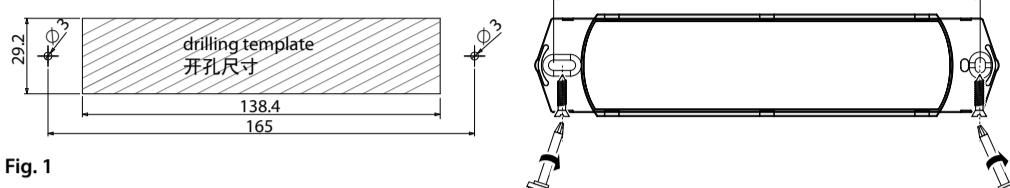
**面板安装/Panel mounting**

Fig. 1

**easy宽面板型尺寸(mm) / Dimensions easy wide (mm)**

Fig. 2

**easy宽面板小型尺寸(mm) / Dimensions easy small wide (mm)**

Fig. 3

**报警和信号表: 显示屏, 蜂鸣器和继电器 / Table of alarms and signals: display, buzzer and relay**

代码 / Code	显示屏上的图标 / Icon on the display	报警继电器 / Buzzer	蜂鸣器 / Buzzer	复位 / Reset	说明 / Description
'E'	闪烁/ flashing	ON	ON	自动的/ automatic	虚拟控制传感器故障 / virtual control probe fault
'E0'	闪烁/ flashing	OFF	OFF	自动的/ automatic	房间传感器S1故障 / room probe S1 fault
'E1'	闪烁/ flashing	OFF	OFF	自动的/ automatic	除霜传感器S2故障 / defrost probe S2 fault
'E2'..3-4	闪烁/ flashing	OFF	OFF	自动的/ automatic	传感器S3-4故障 / probe S3-4 fault
'I'	否/no	OFF	OFF	自动的/ automatic	传感器未启用 / probe not enabled
'L0'	闪烁/ flashing	ON	ON	自动的/ automatic	低温报警 / low temperature alarm
'H1'	闪烁/ flashing	ON	ON	自动的/ automatic	高温报警 / high temperature alarm
'Af'	闪烁/ flashing	ON	ON	手动的/ manual	防冻报警 / antifreeze alarm
'IA'	闪烁/ flashing	ON	ON	自动的/ automatic	外部触点的即时报警 / immediate alarm from external contact
'da'	闪烁/ flashing	ON	ON	自动的/ automatic	外部触点的延时报警 / delayed alarm from external contact
'DEF'	亮/ON	OFF	OFF	自动的/ automatic	除霜进行中 / defrost running
'Ed1'..2	否/no	OFF	OFF	自动的/手动的 automatic/manual	蒸发器1-2的除霜因超时而终止 / defrost on evaporator 1-2 ended by timeout
'Pd'	闪烁/ flashing	ON	ON	自动的/手动的 automatic/manual	泵极报警的最长时间 / maximum time pump-down alarm
'LP'	闪烁/ flashing	ON	ON	自动的/手动的 automatic/manual	低压报警 / low pressure alarm
'Ats'	闪烁/ flashing	ON	ON	自动的/手动的 automatic/manual	泵极中自动启动 / autostart in pump-down
'cht'	否/no	OFF	OFF	自动的/手动的 automatic/manual	高冷凝温度预报警 / high condenser temperature pre-alarm
'CHT'	闪烁/ flashing	ON	ON	手动的/ manual	高冷凝温度报警 / high condenser temperature alarm
'dor'	闪烁/ flashing	ON	ON	自动的/ automatic	因门打开时间太长而报警 / door open for too long alarm
'Etc'	闪烁/ flashing	OFF	OFF	自动的/手动的 automatic/manual	实时钟故障 / real time clock fault
'EE'	闪烁/ flashing	OFF	OFF	自动的/ automatic	Eeprom故障, 机组参数 / EEPROM error, unit parameters
'EF'	闪烁/ flashing	OFF	OFF	自动的/ automatic	Eeprom故障, 运行参数 / EEPROM error, operating parameters
'HA'	闪烁/ flashing	OFF	OFF	手动的/ manual	HACCP报警, 'HA'型 / HACCP alarm, type 'HA'
'HF'	闪烁/ flashing	OFF	OFF	手动的/ manual	HACCP报警, 'HF'型 / HACCP alarm, type 'HF'
'rc'	信号/ signal				通过远程控制启用装置而进行编辑(对ir33+ wide无效) / Instrument enabled for programming from the remote control (not available on ir33+ wide)
'Add'	信号/ signal				自动分配地址进行中 / Automatic address assignment procedure in progress
'lrH'	信号/ signal				低相对湿度程序的启用 / Activation of the of low relative humidity procedure
'Hrh'	信号/ signal				高相对湿度程序的启用 / Activation of the of high relative humidity procedure
'ccb'	信号/ signal				请求开始连续循环 / Request to start continuous cycle
'ccC'	信号/ signal				请求结束连续循环 / Request to end continuous cycle
'dfB'	信号/ signal				请求开始除霜 / Request to start defrost
'dfF'	信号/ signal				请求结束除霜 / Request to end defrost
'On'	信号/ signal				开启 / Switch ON
'Off'	信号/ signal				关闭 / Switch OFF
'ES'	信号/ signal				通过手动方式复位报警; 复位HACCP报警; 恢复温度监控 / Reset alarms with manual reset; Reset HACCP alarms; Reset temperature monitoring
'n1'..n6	闪烁/ flashing	ON	ON	自动的/ automatic	表明网络中存在的装置1..6有报警 / Indicates an alarm on unit 1 to 6 present in the network
'dnL'	信号/ signal				下载进行中 / Download in progress
'd1'..d6'	闪烁/ flashing	OFF	OFF		装置1..6上的下载出现错误

注意: 蜂鸣器是启用的, 如果已经通过参数'H4'启用。 / NOTE: The buzzer is enabled if enabled by the parameter 'H4'

**显示屏上的信号 / Signals on the display**

图标 / Icon	功能 / Function	常规操作 / Normal operation			启动/ Startup
■	压缩机 / COMPRESSOR	ON	OFF	闪烁/ blink	
88	风扇 / FAN	风扇开启 / fan ON	风扇关闭 / fan OFF	请求风扇运行 / fan required	
冰块	除霜 / DEFROST	除霜中 / defrost in progress	无除霜请求 / defrost not required	请求除霜 / defrost required	
AUX	辅助输出AUX是启用的 / auxiliary output AUX active	辅助输出AUX未启用 / auxiliary output AUX not active	防露加热功能是启用的 / anti-sweat heater function active		
!	报警 / ALARM	外部报警延迟(在时间'A7'到点前) / delayed external alarm (before the expiry of the time 'A7')	无报警 / no alarm present	报警和故障 / alarms and malfunctions	
CLOCK	时钟 / CLOCK	至少已经设定了一个定时除霜 / at least one timed defrost has been set	不存在定时除霜 / no timed defrost is present	时钟报警 / clock alarm	如果存在RTC 则是在开启的 / ON if RTC present
光	灯光 / LIGHT	辅助灯光输出是启用的 / auxiliary output LIGHT active	辅助灯光输出未启用 / auxiliary output LIGHT not active	防露加热功能是启用的 / anti-sweat heater function active	
服务	服务 / SERVICE			无故障 / no malfunctions	故障(例如EEPROM或传感器故障) / malfunction (e.g. EEPROM error or probe fault)
HACCP	功能未被启用 / function not enabled			功能被启用 (HA 和/或 HF) / function enabled (HA and/or HF)	HACCP报警被启用 / HACCP alarm enabled
*	连续循环 / CONTINUOUS CYCLE	功能被启用 / function enabled	功能未被启用 / function not enabled	请求执行此功能 / function required	

**产品处理 / Product disposal**

必须按照当地关于废品处理的强制法规单独处理本装置(或本产品)。

The appliance (or the product) must be disposed of separately in accordance with the local waste disposal legislation in force.

**说明 / Description**

easy宽面板型, 是一个带LED显示屏的微处理器控制器系列, 是专为控制独立式制冷装置而开发的。

easy wide represent a range of electronic microprocessor controllers with LED display developed for the management of stand-alone refrigerating units.

**小键盘上的按钮 / Buttons on the keypad**

按钮 / Button	常规操作 / Normal operation	启动/Start-up	请求自动分配 / Request automatic assignment
PRG PROG	单独按下这个按钮 / Pressing the button alone	与其它按钮一起按下 / Pressing together with other buttons	
MUTE prog mute	按下至少5秒钟后, 进入设定“F”类(常用的)参数的菜单/pressed for more than 5s accesses the menu for setting type "F" (frequent) parameters	PRG+SET:一起按下至少5秒钟后, 进入设定“C”类(配置)参数或下载参数的菜单/if pressed together for more than 5s access the menu for setting type "C" (configuration) or downloading the parameters	如果在启动时按下超过5秒, 则将启动默认参数设置 / if pressed for more than 5s at start-up, starts the default parameter setting
ON-OFF	按下至少5秒钟后, 启用/禁用装置 / if pressed for more than 5s, enables/disables the unit	MUTE+UP/CC:如果同时按下超过5秒, 则将手动复位任何报警。 / if pressed together for more than 5s reset any alarm with manual reset	如果按下持续1秒, 则进入自动分配串行地址程序 / if pressed for 1s enters the automatic serial address assigning procedure
AUX	按下至少5秒钟后, 启用/禁用辅助输出点 / if pressed for more than 5s, enables/disables the auxiliary output		
DOWN/DEF	按下至少5秒钟后, 启用/禁用一个手动除霜 / if pressed for more than 5s, enables/disables a manual defrost		
UP/CC	按下至少5秒钟后, 启用/禁用一个连续循环 / if pressed for more than 5s, enables/disables a continuous cycle	• UP/CC+MUTE: 如果同时按下超过5秒, 则将手动复位任何报警。 / if pressed together for more than 5s reset any alarm with manual reset • UP/CC+SET: 如果同时按下超过5秒, 则将显示除霜温度(传感器2) / if pressed together for more than 5s display the defrost temperature (probe 2)	
SET set	按下至少1秒钟后, 显示/设定点 / if pressed for more than 1s, displays/sets the set point	• SET+PRG: 如果同时按下超过5秒, 则将进入设定“C”类(配置)参数或下载参数的菜单/if pressed together for more than 5s access the menu for setting the type "C" (configuration) or downloading the parameters • SET+UP/CC: 如果同时按下超过5秒, 则将显示除霜温度(传感器2) / if pressed together for more than 5s display the defrost temperature (probe 2)	
LIGHT	按下至少5秒钟后, 启用/禁用辅助输出点2 / if pressed for more than 1s, enables/disables the auxiliary output no. 2		
HACCP	进入菜单, 以显示和删除HACCP报警 / enters the menu to display and delete the HACCP alarms		

**技术规格 / Technical characteristics**

电源/ power supply	型号/Model	电压/Voltage	功率/Power
PBEVxxXXXX	230 V~ (+10...-15%), 50/60 Hz 230 V~ (+10...-10%), 50/60 Hz (vers. 16 A, 8 A, 8 A)	3 VA, 25 mA~ max.	
PBEVxxXXXX	115 V~ (+10...-15%), 50/60 Hz 115 V~ (+10...-10%), 50/60 Hz (vers. 16 A, 8 A, 8 A)	3 VA, 50 mA~ max.	
PBEVxxXXXX	115...230 V~ (switching) (+10...-15%), 50/60 Hz	6 VA, 50 mA~ max.	
PBEVxxXXXX	12V~ (+10...-15%), 50/60 Hz	3 VA, 300 mA~ / mAdc max.	仅使用SELV电源/Use only SELV power supply
由电源保证的绝缘/ Insulation guaranteed by the power supply	与超低压部件的绝缘 / insulation in reference to very low voltage parts	加强的, 6 mm间隙, 8 mm爬电距离, 3750 V绝缘/reinforced, 6 mm clearance, 8 mm creepage, 3750 V insulation	
	与继电器输出点的绝缘 / insulation from relay outputs	基础的, 3 mm间隙, 4 mm爬电距离, 1250 V绝缘/basic, 3 mm clearance, 4 mm creepage, 1250 V insulation	
输入点/ Inputs	与超低压部件的绝缘 / insulation in reference to very low voltage parts	由安全变压器从外部确保(SELV)/externally guaranteed by safety transformer (SELV power supply)	
	与继电器输出点的绝缘 / insulation from relay outputs	基础的, 3 mm间隙, 4 mm爬电距离, 1250 V绝缘 / reinforced, 3 mm clearance, 4 mm creepage, 1250 V insulation	
传感器类型/ Probe type	S1(传感器1) / S1 (probe 1) NTC或PTC, 取决于控制器型号 / NTC or PTC according to the model		
	S2(传感器2) / S2 (probe 2) NTC或PTC, 取决于控制器型号 / NTC or PTC according to the model		
继电器输出/ Relay outputs	D1	无源触点, 触点阻抗 < 10 Ω, 闭合电流 6 mA / free contact, contact resistance < 10 Ω, closing current 6 mA	
	D2	无源触点, 触点阻抗 < 10 Ω, 闭合电流 6 mA / free contact, contact resistance < 10 Ω, closing current 6 mA	
传感器/ Probe	S3(传感器3) / S3 (probe 3) NTC或PTC, 取决于控制器型号 / NTC or PTC according to the model	由安全变压器和数字输入点之间的最大距离小于10 m / Maximum distance of probe and digital inputs less than 10 m	
	S4(传感器4) / S4 (probe 4) NTC或PTC, 取决于控制器型号 / NTC or PTC according to the model	注意: 在安装时, 请将电源、负载连接与传感器线缆、数字输入点、显示屏和监控系统分开。 / During installation keep the power and loads connection separate from probe cables, digital inputs, repeater display and supervisory system	
连接线/ Connections	10 kΩ a 25 °C, range -50T90 °C / 在25 °C时为10 kΩ, 量程-50~90 °C		
	测量误差 measurement error	1 °C nel range -50T50 °C / 量程-50~50 °C, 为1 °C	
继电器/ Relay	50 kΩ a 25 °C, range -40T150 °C / 在25 °C时为50 kΩ, 量程-40~150 °C		
	测量误差 measurement error	1,5 °C nel range -20T115 °C / 量程-20~115 °C, 为1.5 °C	
标准的CAREL PTC传感器 PTC std. CAREL (专用型号/specific model)	985 Ω a 25 °C, range -50T150 °C / 在25 °C时为985 Ω, 量程-50~150 °C		
	测量误差 measurement error	4 °C nel range esterno a -2	

**操作参数汇总 (U.M.= 测量单位, DEF= 默认值) /**  
**Summary of operating parameters (UOM = Unit of measure; Def. = Default value).**

图标 Symbol	代码 Code	参数 Parameter	类型 Models	U.M. UOM	类 型 Type	最 小 Min.	最 大 Max.	Def.
Pw	口令 Password	MSYF	-	C 0	200	22		
/2	测量稳定性 Measurement stability	MSYF	-	C 1	15	4		
/3	传感器显示反应 Probe display response	MSYF	-	C 0	100	0		
/4	虚拟传感器 Virtual probe	MSYF	-	C 0	100	0		
/5	选择温度单位°C或°F(0:°C,1:°F)	Selezione °C o °F (0:°C,1:°F)	MSYF	flag/标记	C 0	1	0	
/6	显示小数点 Display decimal point	MSYF	flag/标记	C 0	1	0		
	0:显示温度的十分位 with tenths of a degree							
	1:不显示温度的十分位 without tenths of a degree							
/tl	在内置终端上显示 Display on internal terminal	MSYF	-	C 1	7	1		
	1:虚拟传感器 1: virtual probe							
	2:传感器1 2:probe 1							
	3:传感器2 3:probe 2							
	4:传感器3 4:probe 3							
	5:传感器4 5:probe 4							
	6:传感器5 6:probe 5							
	7:设定点 7:set point							
/tE	在外部终端上显示 Display on external terminal	MSYF	-	C 0	6	0		
	0:远程终端不存在 remote terminal not present							
	1:虚拟传感器 1: virtual probe							
	2:传感器1 2:probe 1							
	3:传感器2 3:probe 2							
	4:传感器3 4:probe 3							
	5:传感器4 5:probe 4							
	6:传感器5 6:probe 5							
/P	选择传感器类型 Select type of probe	MSYF	-	C 0	2	0		
	0:NTC标准型, 范围-50°C到90°C 0:NTC standard with range -50T90°C							
	1:NTC扩展型, 范围-40°C到150°C 1:NTC enhanced with range -40T150°C							
	2:PTC标准型, 范围-40°C到150°C 2:PTC standard with range -50T150°C							
/A2	配置传感器2(S2) Configuration of probe 2 (S2)	MSYF	-	C 0	4	0		
	0:传感器存在 0: probe absent							
	1:产品传感器(仅显示) 1: product probe (display only)							
	2:融霜传感器 2: defrost probe							
	3:冷凝传感器 3: condenser probe							
	4:防冻传感器 4: antifreeze probe							
/A3	配置传感器3(S3,D11), 参考参数/A2 Configuration of probe 3 (S3/D11) As for /A2	MSYF	-	C 0	4	0		
/A4	配置传感器4(S4,D12), 参考参数/A2 Configuration of probe 4 (S4/D12) As for /A2	MSYF	-	C 0	4	0		
/cl	传感器1校正 Calibration of probe 1	MSYF	°C/F	C -20	20	0.0		
/c2	传感器2校正 Calibration of probe 2	MSYF	°C/F	C -20	20	0.0		
/c3	传感器3校正 Calibration of probe 3	MSYF	°C/F	C -20	20	0.0		
/c4	传感器4校正 Calibration of probe 4	MSYF	°C/F	C -20	20	0.0		
St	温度设定点 Temperature Set Point	MSYF	°C/F	F r1	r2	0.0		
rd	控制偏差 Control delta	SYF	°C/F	F 0.1	20	2.0		
r	死区 Dead band	SYF	°C/F	C 0.0	60	4.0		
rr	带死区的反向控制偏差 Reverse differential for control with dead band	SYF	°C/F	C 0.1	20	2.0		
r1	设定点最小值 Minimum set point allowed	MSYF	°C/F	C -50	r2	-50		
r2	设定点最大值 Maximum set point allowed	MSYF	°C/F	C r1	200	60		
r3	运行模式 Operating mode	SYF	flag/标记	C 0	2	0		
	0:带有除霜控制的正向模式(制冷): 0: Direct (cooling) with defrost control							
	1:正向模式(制冷) 1: Direct (cooling)							
	2:反向模式(制热) 2: Reverse-cycle (heating)							
r4	自动的夜间设点偏差 Automatic night-time set point variation	MSYF	°C/F	C -20	20	3.0		
r5	启用监视温度 Enable temperature monitoring	MSYF	flag/标记	C 0	1	0		
	0:启用 1:不启用 0: disabled 1: enabled							
rt	温度监视间隔 Temperature monitoring interval	MSYF	h	F 0	999	-		
rh	最大温度读数 Maximum temperature read	MSYF	°C/F	F -	-	-		
rl	最小温度读数 Minimum temperature read	MSYF	°C/F	F -	-	-		
c0	在死区启动时压缩机、风机和辅助延时 Compressor, fan and AUX delay on start-up in dead band	SYF	min	C 0	15	0		
c1	两次连续启动的最短时间间隔 Minimum time between successive starts	SYF	min	C 0	15	0		
c2	压缩机最小停机时间 Minimum compressor OFF time	SYF	min	C 0	15	0		
c3	压缩机最小开机时间 Minimum compressor ON time	SYF	min	C 0	15	0		
c4	轮值设置 Duty setting	SYF	min	C 0	100	0		
cc	持续循环时间 Continuous cycle duration	SYF	h	C 0	15	0		
c6	持续循环后报警忽略 Alarm bypass after continuous cycle	SYF	h	C 0	250	2		
c7	最大停机空时间 Maximum pump down time	SYF	s	C 0	900	0		
c8	打开停机抽空后压缩机启动延时 (出厂默认=0, 显示屏不显示) Compressor start delay after open PD valve (factory default=0, not visible from display)	SYF	s	C 0	60	5		
c9	在停机抽空期间允许自启动功能 Enable autostart function in PD	SYF	flag/标记	C 0	1	0		
c10	根据时间或压力选择停机抽空 Select Pump down by time or pressure	SYF	flag/标记	C 0	1	0		
	0:根据压力选择停机抽空 0: Pump down by pressure							
	1:根据时间选择停机抽空 1: Pump down by time							
c11	第二压缩机延时 Second compressor delay	SYF	s	C 0	250	4		
d0	除霜类型 Type of defrost	SYF	flag/标记	C 0	4	0		
	0:根据温度电加热除霜 0: Electric heater defrost by temperature							
	1:根据温度热气除霜 1: Hot gas defrost by temperature							
	2:根据时间电加热除霜 2: Electric heater defrost by time							
	3:根据时间热气除霜 3: Hot gas defrost by time							
	4:根据时间电加热除霜温度调节器 4: Electric heater defrost thermostat by time							
dl	除霜间隔 Interval between defrosts	SYF	ore	F 0	250	8		
dt1	除霜结束温度, 蒸发器 End defrost temperature, evaporator	SYF	°C/F	F -50	200	4.0		
dt2	除霜结束温度, 辅助蒸发器 End defrost temperature, aux evaporator	SYF	°C/F	F -50	200	4.0		
d3	除霜开始延时 Defrost start delay	SYF	min	C 0	250	0		
d4	机组开机时是否允许除霜 Enable defrost on start-up	SYF	flag/标记	C 0	1	0		
	0:机组开机时不除霜 0: No defrost when the instrument is switched on							
	1:机组开机时除霜 1: A defrost is performed when the instrument is switched on							
d5	机组启动时除霜延时 Defrost delay on start-up	SYF	min	C 0	250	0		
d6	除霜期间显示屏显示内容 Display on hold during defrost	SYF	-	C 0	2	1		
	0:dEF和传感器值交替显示 0: Alternating display of dEF and probe value							
	1:最后一个出现的温度显示 1: Display of the last temp. shown							
	2: dEF显示稳定不动 2: Display of dEF steady							
dd	除霜后的排水时间 Dripping time after defrost	SYF	min	F 0	15	2		
d8	除霜后报警忽略 Alarm bypass after defrost	SYF	h	F 0	250	1		
d8d	门打开后报警忽略 Door alarm after door open	SYF	min	C 0	250	0		
d9	除霜优先于压缩机保护 Defrost priority over compressor protectors	SYF	flag/标记	C 0	1	0		
	0:考虑压缩机保护时间c1,c2,c3 0: The protection times c1, c2 and c3 are observed							
	1:不考虑压缩机保护时间 c1,c2,c3 1: The protection times c1, c2 and c3 are not observed							
d1	显示除霜传感器1 Display of defrost probe 1	MSYF	°C/F	F -	-	-		
d2	显示除霜传感器2 Display of defrost probe 2	MSYF	°C/F	F -	-	-		
dC	除霜时间间隔 Time base for defrost	SYF	flag/标记	C 0	1	0		
	0: d1用小时表示, dP1, dP2用分钟表示 0: d1 in hours, dP1 and dP2 in minutes							
	1: d1用分钟表示, dP1,dP2用秒表示 1: d1 in minutes, dP1 and dP2 in seconds							
d10	压缩机运行时间 Compressor running time	SYF	ore	C 0	250	0		
d11	运行时间温度阈值 Running time temperature threshold	SYF	°C/F	C -20	20	1.0		
d12	高级除霜 Advanced defrost	SYF	-	C 0	3	0		
dn	额定除霜持续时间 Nominal defrost duration	SYF	-	C 1	100	65		
dh	比例因子, dI变量 Proportional factor, variation in dI	SYF	-	C 0	100	50		
A0	报警和风机偏差 Alarm and fan differential	MSYF	°C/F	C 0.1	20	2.0		
A1	AL和AH阈值类型 Type of threshold AL' and AH'	MSYF	flag/标记	C 0	1	0		
	0:AL和AH是相对阈值(相对于设点) 0: AL and AH							