

Commercial refrigeration controller portfolio

Suitable for commercial fridges and freezers, cold rooms, and glass door merchandisers



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Electronic thermostats

The EET electronic thermostat enables a seamless switch from mechanical to electronic temperature control of food service equipment, with minimal design change. The thermostats are suitable for use with commercial fridges and freezers.

EETc 11/12



EETc 21/22



EETa 2W



EETa 3W



EETc 11/12



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Sensor error handling
- Initial pull down



Energy saving features

- Variable defrost interval
- Eco mode (Temp. offset)



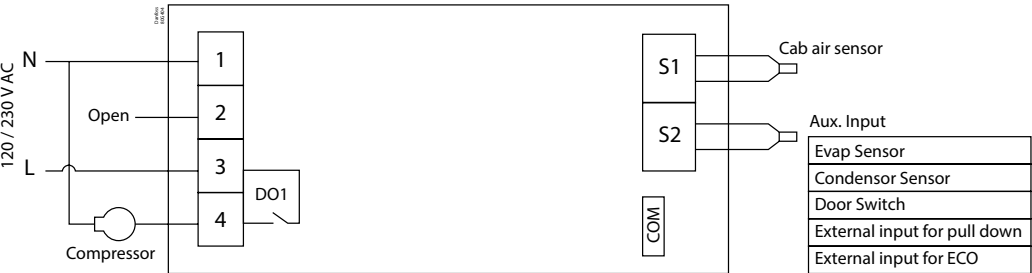
- Temperature control
- Compressor control
- Defrost control

	Technical specifications	
	EETc 11	EETc 12
Voltage	120V AC, 50/60 Hz	230V AC, 50/60 Hz
DO1	16(16)A	16(10)A
AI	2 (1 Analogue + Analogue / Digital)	
Sensor type	NTC 5K, NTC 10K	
LED indication	Power	
Installation	Cold space installable (-25... +55°C)	

Ordering and connections

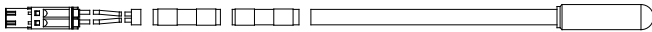
EETc 11/12	Min. Q-ty	Code no.
EETc 12 - EET Compact, 1 relay, 230 V, 50/60 Hz	150	080N0010
EETc 11 - EET Compact, 1 relay, 120 V, 50/60 Hz		080N0012

Optional	Q-ty	Code no.
Hand knob, black	480	077F8562
Washer, black with white print 0-9		077F8577
Power Plug, 4-pole with screw (28A max.)	50	080N0310



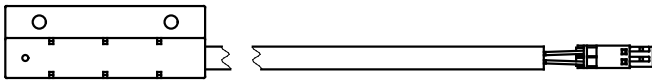
Accessories

Temperature sensor (Cabinet), -40 – +80 °C,
PVC Standard, NTC 10K



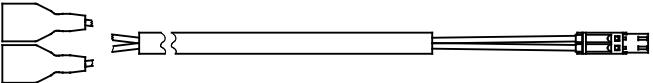
Port	Cable length	Q-ty	Code no.
S1	1000 mm	150	080N0300
	1500 mm		080N0301
	2000 mm		080N0302
	3000 mm		080N0303
	4000 mm		080N0332
S2	1500 mm, 2 Blue Stripes	150	080N0304
	2000 mm, 2 Blue Stripes		080N0305
	3000 mm, 2 Blue Stripes		080N0306
	4000 mm, 2 Blue stripes		080N0333

Magnetic door sensor



Port	Cable length	Q-ty	Code no.
S2	2000 mm	150	080N0311
	3000 mm		080N0312

Cable door sensor



Port	Cable length	Q-ty	Code no.
S2	2000 mm	150	080N0313
	4000 mm		080N0314



Programming tools and app

KoolProg is available for EETc 11/12

[Find more info on page 37](#)

EETc 21/22



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Sensor error handling
- Initial pull down



Energy saving features

- Variable defrost interval
- Fan pulsing mode
- Eco mode (Temp. offset)



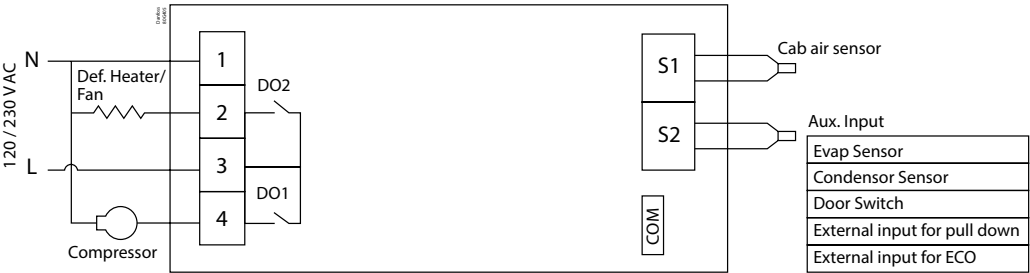
- Temperature control
- Compressor control
- Defrost control
- Evaporator fan control

	Technical specifications	
	EETc 21	EETc 22
Voltage	120V AC, 50/60 Hz	230V AC, 50/60 Hz
DO1/2	16(16)/5(2)A	16(10)/5(2)A
AI	2 (1 Analogue + Analogue / Digital)	
Sensor type	NTC 5K, NTC 10K	
LED indication	Power	
Installation	Cold space installable (-25... +55°C)	

Ordering and connections

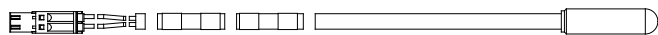
EETc 21/22	Q-ty	Code no.
EETc 22 – EET Compact, 2 relays, 230V, 50/60 Hz	150	080N0011
EETc 21 - EET Compact, 2 relays, 120V, 50/60 Hz		080N0013

Optional	Q-ty	Code no.
Hand knob, black	480	077F8562
Washer, black with white print 0-9		077F8577
Power Plug, 4-pole with screw (28A max.)	50	080N0310



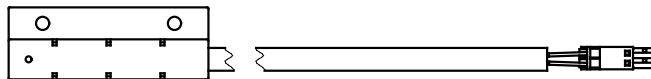
Accessories

Temperature sensor (Cabinet), -40 – +80 °C,
PVC Standard, NTC 10K



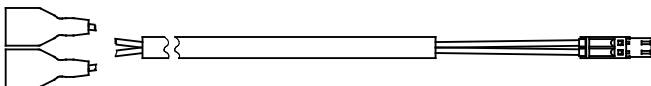
Port	Cable length	Q-ty	Code no.
S1	1000 mm	150	080N0300
	1500 mm		080N0301
	2000 mm		080N0302
	3000 mm		080N0303
	4000 mm		080N0332
S2	1500 mm, 2 Blue Stripes	150	080N0304
	2000 mm, 2 Blue Stripes		080N0305
	3000 mm, 2 Blue Stripes		080N0306
	4000 mm, 2 Blue stripes		080N0333

Magnetic door sensor



Port	Cable length	Q-ty	Code no.
S2	2000 mm	150	080N0311
	3000 mm		080N0312

Cable door sensor



Port	Cable length	Q-ty	Code no.
S2	2000 mm	150	080N0313
	4000 mm		080N0314



Programming tools and app
KoolProg is available for EETc 21/22
[Find more info on page 37](#)

EETa 2W



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Sensor error handling
- Automatic pull down
- Dual evaporator defrost
- Dual compressor control
- Leakage detection



Energy saving features

- Variable defrost interval
- Fan pulsing mode
- Eco mode (Temp. offset and light switching off)
- Holiday mode



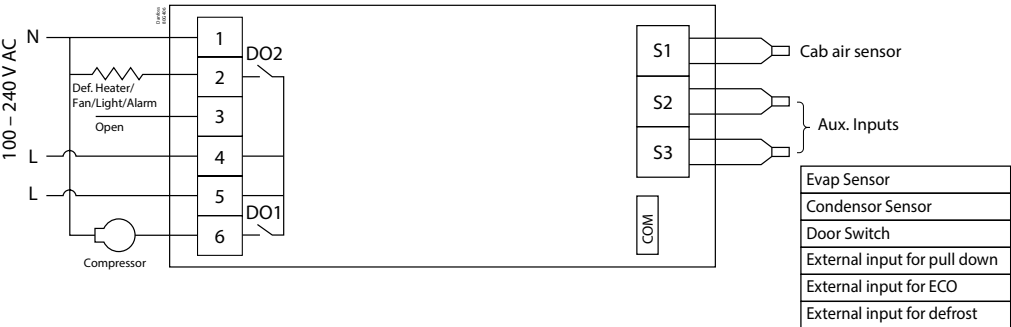
- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Evaporator fan control
- Heater control

Technical specifications	
Voltage	100-240V AC, 50/60 Hz
DO1/2	16(16)/8(2)A
AI	3 (1 Analogue + 2 Analogue / Digital)
Sensor type	NTC 5K, NTC 10K, PTC
LED indication	Power + Errors
Installation	Cold space installable (-25... +55°C)

Ordering and connections

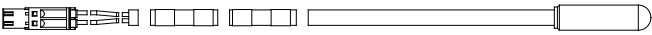
EETa 2W	Q-ty	Code no.
EETa 2W - EET Advanced, 2 relays, wide voltage (120 – 230 V), 50/60 Hz	150	080N0014

Optional	Q-ty	Code no.
Hand knob, black	480	077F8562
Washer, black with white print 0-9		077F8577
Power Plug, 6-pole with screw (28A max.)	54	080G3357



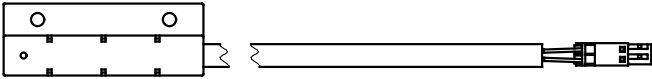
Accessories

Temperature sensor (Cabinet), -40 – +80 °C,
PVC Standard, NTC 10K



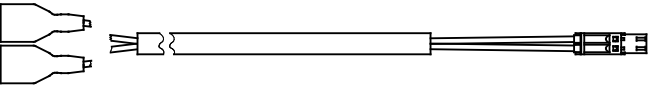
Port	Cable length	Q-ty	Code no.
S1	1000 mm	150	080N0300
	1500 mm		080N0301
	2000 mm		080N0302
	3000 mm		080N0303
	4000 mm		080N0332
S2	1500 mm, 2 Blue Stripes	150	080N0304
	2000 mm, 2 Blue Stripes		080N0305
	3000 mm, 2 Blue Stripes		080N0306
	4000 mm, 2 Blue stripes		080N0333
S3	1000 mm, 1 Blue Stripe	150	080N0307
	3000 mm, 1 Blue Stripe		080N0308

Magnetic door sensor



Port	Cable length	Q-ty	Code no.
S2 / S3	2000 mm	150	080N0311
	3000 mm		080N0312

Cable door sensor



Port	Cable length	Q-ty	Code no.
S2 / S3	2000 mm	150	080N0313
	4000 mm		080N0314



Programming tools and apps
KoolProg is available for EETa 2W
[Find more info on page 37](#)

EETa 3W



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Sensor error handling
- Automatic pull down
- Dual evaporator defrost
- Dual compressor control
- Leakage detection



Energy saving features

- Variable defrost interval
- Fan pulsing mode
- Eco mode (Temp. offset and light switching off)
- Holiday mode



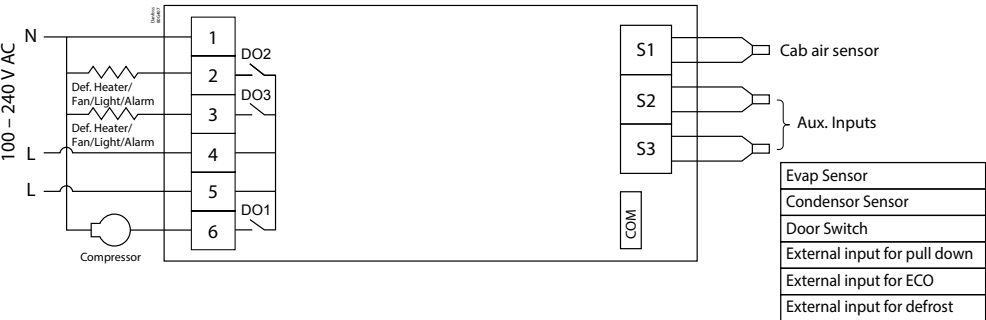
- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Evaporator fan control
- Heater control

Technical specifications	
Voltage	100-240V AC, 50/60 Hz
DO1/2/3	16(16)/8(2)A/5(2)A
AI	3 (1 Analogue + 2 Analogue / Digital)
Sensor type	NTC 5K, NTC 10K, PTC
LED indication	Power + Errors
Installation	Cold space installable (-25... +55°C)

Ordering and connections

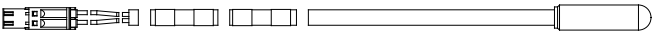
EETa 3W	Q-ty	Code no.
EETa 3W - EET Advanced, 3 relays, wide voltage (120 – 230 V), 50/60 Hz	150	080N0015

Optional	Q-ty	Code no.
Hand knob, black	480	077F8562
Washer, black with white print 0-9		077F8577
Power Plug, 6-pole with screw (28A max.)	54	080G3357



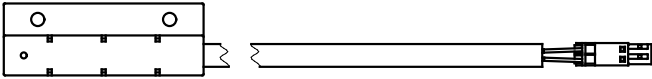
Accessories

Temperature sensor (Cabinet), -40 – +80 °C,
PVC Standard, NTC 10K



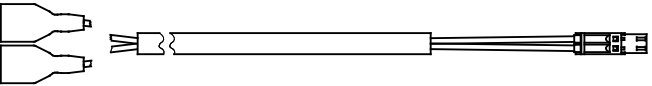
Port	Cable length	Q-ty	Code no.
S1	1000 mm	150	080N0300
	1500 mm		080N0301
	2000 mm		080N0302
	3000 mm		080N0303
	4000 mm		080N0332
S2	1500 mm, 2 Blue Stripes	150	080N0304
	2000 mm, 2 Blue Stripes		080N0305
	3000 mm, 2 Blue Stripes		080N0306
	4000 mm, 2 Blue stripes		080N0333
S3	1000 mm, 1 Blue Stripe	150	080N0307
	3000 mm, 1 Blue Stripe		080N0308

Magnetic door sensor



Port	Cable length	Q-ty	Code no.
S2 / S3	2000 mm	150	080N0311
	3000 mm		080N0312

Cable door sensor



Port	Cable length	Q-ty	Code no.
S2 / S3	2000 mm	150	080N0313
	4000 mm		080N0314



Programming tools and apps
KoolProg is available for EETa 3W
[Find more info on page 37](#)



Refrigeration controllers

ERC multipurpose electronic refrigeration controls offer energy savings through defrost on demand, smart evaporator fan management, as well as ECO and Holiday modes depending on the ERC model. The controllers are suitable for use with glass door merchandisers, coolers, commercial fridges and freezers, and cold rooms.

Due to their standard size, easy configuration and multiple sensors compatibility, installation is quick and easy. They also improve food safety by protecting the compressor from fluctuations in power supply and high condensing temperatures. Their long relay lifetime ensure minimal maintenance costs.

ERC 111A



ERC 112C



ERC 112D



ERC 112D VSC



ERC 113D



ERC 211



ERC 213



ERC 214



AK-CC25 Pro – Reliable performance & seamless user experience

The AK-CC25 Pro sets a new standard for flexibility and ease of use in plug-in and remote TXV refrigerated display cases. Its modern interface and built-in Bluetooth® enable fast setup and monitoring through seamless integration with ADAP-KOOL® tools such as the AK-CC Connect app.

The intuitive Configuration Wizard makes application selection, I/O setup, and wiring diagram generation effortless—online or offline.

A single versatile controller supports MT/LT switch mode, dual compressor, and dual circuit configurations, reducing complexity and service stock.

Compatible with CO₂ and flammable refrigerants (A3/A2L), the AK-CC25 Pro delivers reliable protection through advanced ADAP-KOOL® algorithms, built-in diagnostics, and easy system integration via MODBUS and wide sensor compatibility.

AK-CC25 Pro



ERC 111A



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Service information
- Sensor error handling
- Leakage detection



Energy saving features

- Variable defrost interval
- Defrost on demand
- Holiday mode (Temp. offset)

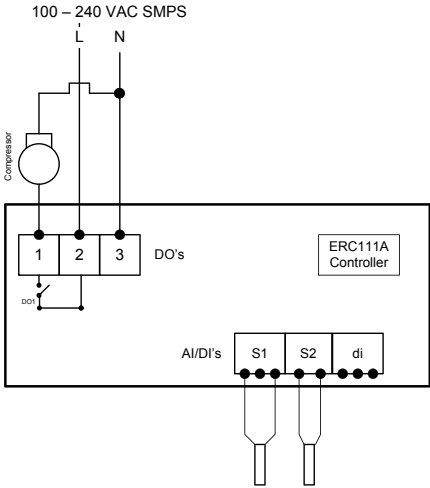


- Temperature control
- High temperature alarm
- Compressor control
- Defrost control

Technical specifications	
Voltage	100 – 240V AC
DO1	16(16)A
AI (configurable)	2 (NTC 5K, NTC 100K)
DI	0 (for communication only)
Protection	Front: IP65, Rear: IP00

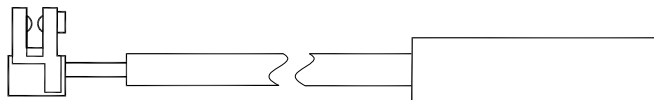
Ordering and connections

Left buttons	ERC 111A	Q-ty	Code no.
	ERC 111A, Red LED, without buzzer	54	080G3230
	ERC 111A, Blue LED, without buzzer		080G3231
	ERC 111A, Blue LED, with buzzer		080G3236
	ERC111A, Red LED, with buzzer		080G3235
Optional		Q-ty	Code no.
Clips, black (2 pcs needed per controller)		54	080G3308
Power Plug, 3-pole with screw (16A max.)		108	080G3356



Accessories

Temperature sensor, -40 – +85 °C, PVC Standard, NTC 5K



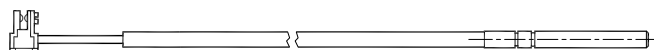
Port	Cable length	Q-ty	Code no.
S1	470 mm	120	077F8751
	1000 mm		077F8757
	1500 mm		077F8761
	2000 mm		077F8765
	2200 mm		077F8767
	3000 mm	60	077F8769
	3500 mm		077F8723
	6000 mm	27	080G2019
S2	1000 mm	120	077F8786
	1500 mm		077F8790
	2000 mm		077F8794
	3000 mm	60	077F8798
	6000 mm	27	080G2029

Temperature sensor, -40 – +120 °C, TPE precision, NTC 5K



Port	Cable length	Q-ty	Code no.
S1	1500 mm	120	077F8726

Temperature sensor, -20 – +175 °C, Silicone cable, NTC 100K



Port	Cable length	Q-ty	Code no.
S1/S3	2000 mm	108	080G2043



Programming tools and apps
KoolProg is available for ERC 111A
[Find more info on page 37](#)

ERC 112C



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Service information
- Sensor error handling
- Leakage detection
- Automatic pull down
- Dual evaporator defrost
- Summer/winter mode



Energy saving features

- Variable defrost interval
- Defrost on demand
- Holiday mode
- Automatic fan control
- ECO mode (Light off and temp. offset)
- Early wake up



- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Evaporator fan control
- Heater control

Technical specifications	
Voltage	100 – 240V AC
DO1/2/3	16(16)/8(2)/8(2) A*
AI (configurable)	4 (NTC 5K, NTC 100K, Pt 1000, Light, DI)
DI	1 (also for communication)
Protection	Front: IP65, Rear: IP00

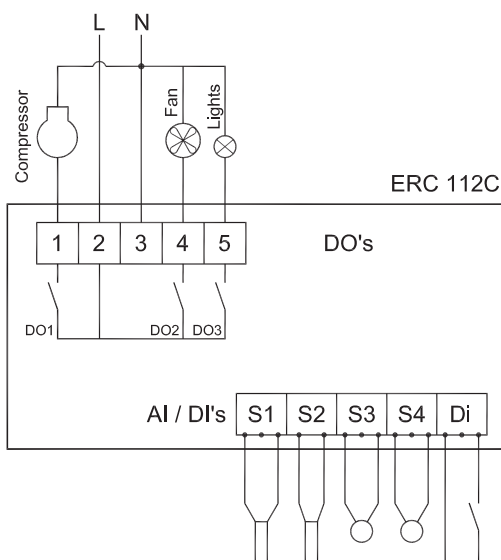
* Max 10 A total "DO2-3".

Ordering and connections

Left buttons	ERC 112C	Q-ty	Code no.
	ERC 112C, GDM, Red LED, without buzzer	27	080G3489
	ERC 112C, GDM, Blue LED, without buzzer		080G3491
	ERC 112C, CFF, Red LED, with buzzer		080G3493
	ERC 112C, CFF, Blue LED, with buzzer		080G3494
	ERC 112C, CFF, Blue LED, with buzzer		080G3496

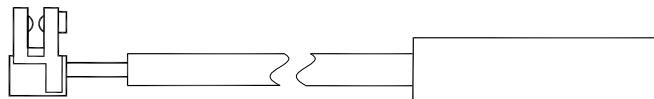
Optional	Q-ty	Code no.
Clips, black (2 pcs needed per controller)	54	080G3308
Power Plug, 6-pole with screw (28A max.)		080G3357

100 - 240 Va.c. SMPS



Accessories

Temperature sensor, -40 – +85 °C, PVC Standard, NTC 5K



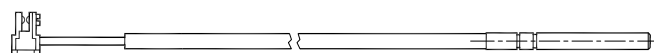
Port	Cable length	Q-ty	Code no.
S1	470 mm	120	077F8751
	1000 mm		077F8757
	1500 mm		077F8761
	2000 mm		077F8765
	2200 mm		077F8767
	3000 mm	60	077F8769
	3500 mm		077F8723
	6000 mm	27	080G2019
S2	1000 mm	120	077F8786
	1500 mm		077F8790
	2000 mm		077F8794
	3000 mm	60	077F8798
	6000 mm	27	080G2029
S3	1000 mm	120	077F8756
	1500 mm		077F8760
	2200 mm		077F8766
	3000 mm	60	077F8768

Temperature sensor, -40 – +120 °C, TPE precision, NTC 5K



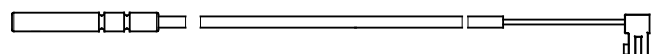
Port	Cable length	Q-ty	Code no.
S1	1500 mm	120	077F8726

Temperature sensor, -20 – +175 °C, Silicone cable, NTC 100K



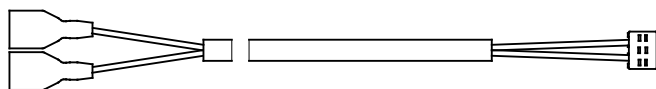
Port	Cable length	Q-ty	Code no.
S1/S3	2000 mm	108	080G2043

Temperature sensor, -100 – +200 °C, PT 1000



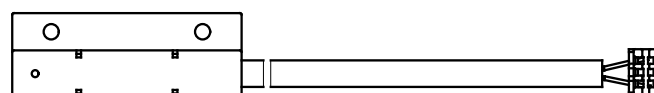
Port	Cable length	Q-ty	Code no.
S4	1000 mm	108	080G3350

Cable door sensor



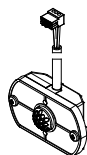
Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	108	080G3340
	2000 mm		080G3341
	3000 mm		080G3342
	4000 mm	81	080G3343

Magnetic door sensor



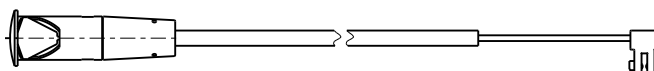
Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	81	080G3320
	2000 mm		080G3322
	3000 mm		080G3324

Motion sensor



Port	Cable length	Q-ty	Code no.
S3/di	3000 mm	27	080G3392

Light sensor



Port	Cable length	Q-ty	Code no.
S3	3000 mm	108	080G3315



Programming tools and apps
KoolProg is available for ERC 112C
[Find more info on page 37](#)

ERC 112D



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Dual compressor control
- Sensor error handling
- Leakage detection
- Automatic pull down
- Dual evaporator defrost
- Summer/winter mode



Energy saving features

- Variable defrost interval
- Defrost on demand
- Holiday mode
- Automatic fan control
- ECO mode (Light off and temp. offset)
- Early wake up



- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Evaporator fan control
- Heater control

Technical specifications

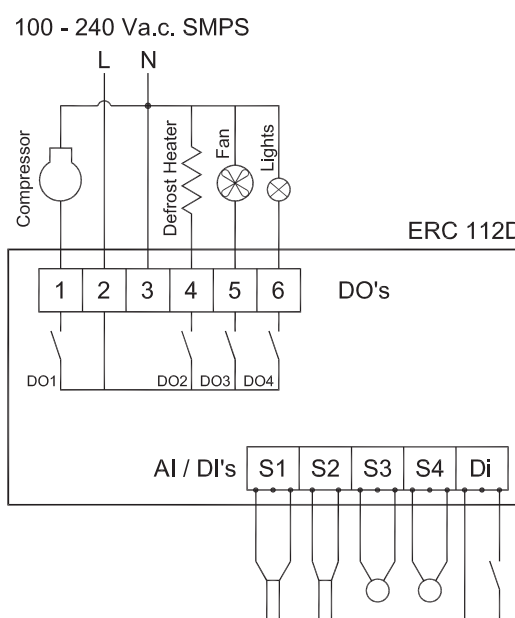
Voltage	100 – 240V AC
DO1/2/3	16(16)/8(2)/8(2) A*
AI configurable	4 (NTC 5K, NTC 100K, Pt 1000, Light, DI)
DI	1 (also for communication)
Protection	Front: IP65, Rear: IP00

* Max 10 A total "DO2-4".

Ordering and connections

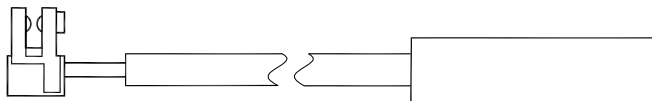
Left buttons	ERC 112D	Q-ty	Code no.
	ERC 112D, GDM, Red LED, without buzzer	27	080G3490
	ERC 112D, GDM, Blue LED, without buzzer		080G3492
	ERC 112D, CFF, Red LED, with buzzer		080G3498
	ERC 112D, CFF, Blue LED, with buzzer		080G3499
	ERC 112D, CFF, Blue LED, with buzzer		080G3413

Optional	Q-ty	Code no.
Clips, black (2 pcs needed per controller)	54	080G3308
Power Plug, 6-pole with screw (28A max.)		080G3357



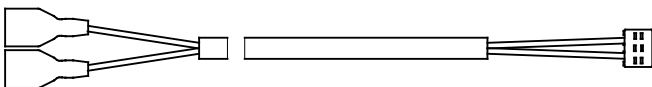
Accessories

Temperature sensor, -40 – +85 °C, PVC Standard, NTC 5K



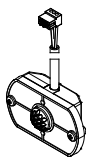
Port	Cable length	Q-ty	Code no.
S1	470 mm	120	077F8751
	1000 mm		077F8757
	1500 mm		077F8761
	2000 mm		077F8765
	2200 mm		077F8767
	3000 mm	60	077F8769
	3500 mm		077F8723
	6000 mm	27	080G2019
S2	1000 mm	120	077F8786
	1500 mm		077F8790
	2000 mm		077F8794
	3000 mm	60	077F8798
	6000 mm	27	080G2029
S3	1000 mm	120	077F8756
	1500 mm		077F8760
	2200 mm		077F8766
	3000 mm	60	077F8768

Cable door sensor



Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	108	080G3340
	2000 mm		080G3341
	3000 mm		080G3342
	4000 mm	81	080G3343

Motion sensor



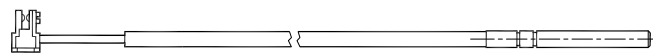
Port	Cable length	Q-ty	Code no.
S3/di	3000 mm	27	080G3392

Temperature sensor, -40 – +120 °C, TPE precision, NTC 5K



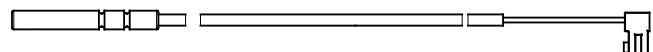
Port	Cable length	Q-ty	Code no.
S1	1500 mm	120	077F8726

Temperature sensor, -20 – +175 °C, Silicone cable, NTC 100K



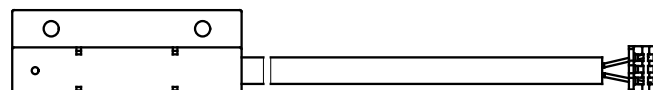
Port	Cable length	Q-ty	Code no.
S1/S3	2000 mm	108	080G2043

Temperature sensor, -100 – +200 °C, PT 1000



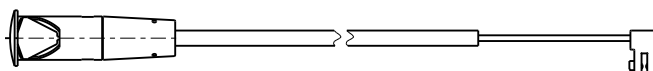
Port	Cable length	Q-ty	Code no.
S4	1000 mm	108	080G3350

Magnetic door sensor



Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	81	080G3320
	2000 mm		080G3322
	3000 mm		080G3324

Light sensor



Port	Cable length	Q-ty	Code no.
S3	3000 mm	108	080G3315



Programming tools and apps
KoolProg is available for ERC 112D
[Find more info on page 37](#)

ERC 112D VSC



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Service information
- Sensor error handling
- Leakage detection
- Automatic pull down
- Dual evaporator defrost
- Summer/winter mode



Energy saving features

- Variable defrost interval
- Defrost on demand
- Holiday mode
- Automatic fan control
- ECO mode (Light off and temp. offset)
- Early wake up



- Temperature control
- High temperature alarm
- Variable speed compressor control
- Defrost control
- Evaporator fan control
- Heater control

Technical specifications	
Voltage	100 – 240V AC
DO1/2/3/4	16(16)/8(2)/8(2)/8(2)A*
AO	1 (Frequency signal for variable speed 5V, 0-200 Hz)
AI (configurable)	3 (NTC 5K, NTC 100K, Pt 1000, Light, DI)
DI	1 (also for communication)
Protection	Front: IP65, Rear: IP00

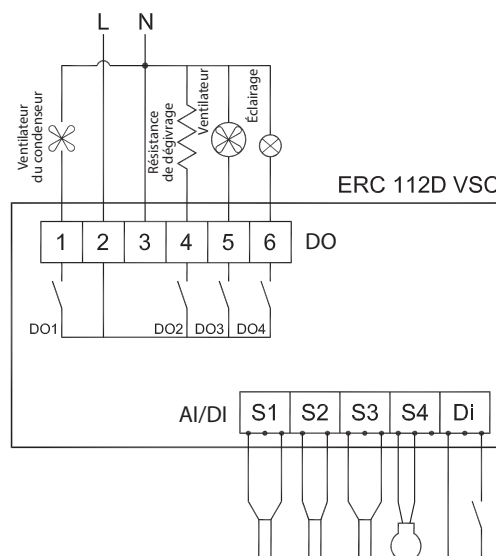
*Max. 10A total "DO2-4"

Ordering and connections

Left buttons	ERC 112D VSC	Q-ty	Code no.
 	ERC 112D VSC, Blue LED, with buzzer	27	080G3414
	ERC 112D VS, Red LED with buzzer		080G3410
	ERC 112D VSC, White LED with buzzer		080G3430

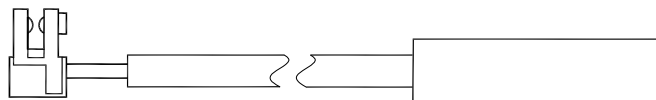
Optional	Q-ty	Code no.
Clips, black (2 pcs needed per controller)	54	080G3308
Power Plug, 6-pole with screw (28A max.)		080G3357

100 - 240 Va.c. SMPS



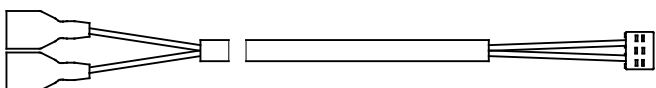
Accessories

Temperature sensor, -40 – +85 °C, PVC Standard, NTC 5K



Port	Cable length	Q-ty	Code no.
S1	470 mm	120	077F8751
	1000 mm		077F8757
	1500 mm		077F8761
	2000 mm		077F8765
	2200 mm		077F8767
	3000 mm	60	077F8769
	3500 mm		077F8723
	6000 mm	27	080G2019
S2	1000 mm	120	077F8786
	1500 mm		077F8790
	2000 mm		077F8794
	3000 mm	60	077F8798
	6000 mm	27	080G2029
S3	1000 mm	120	077F8756
	1500 mm		077F8760
	2200 mm		077F8766
	3000 mm	60	077F8768

Cable door sensor

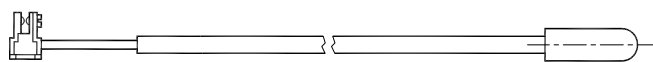


Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	108	080G3340
	2000 mm		080G3341
	3000 mm		080G3342
	4000 mm	81	080G3343

Cable, variable speed compressor

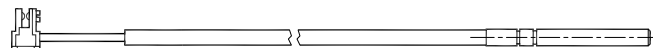
Port	Cable length	Q-ty	Code no.
S4	3500 mm	81	080G3397

Temperature sensor, -40 – +120 °C, TPE precision, NTC 5K



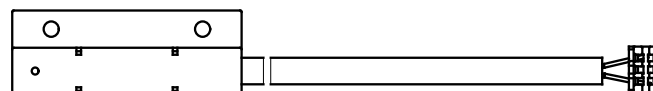
Port	Cable length	Q-ty	Code no.
S1	1500 mm	120	077F8726

Temperature sensor, -20 – +175 °C, Silicone cable, NTC 100K



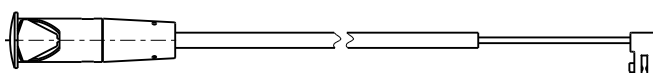
Port	Cable length	Q-ty	Code no.
S1/S3	2000 mm	108	080G2043

Magnetic door sensor



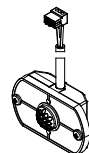
Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	81	080G3320
	2000 mm		080G3322
	3000 mm		080G3324

Light sensor



Port	Cable length	Q-ty	Code no.
S3	3000 mm	108	080G3315

Motion sensor



Port	Cable length	Q-ty	Code no.
S3/di	3000 mm	27	080G3392



Programming tools and apps
KoolProg is available for ERC 112D VSC
[Find more info on page 37](#)

ERC 113D



Features

- Condenser protection
- Compressor voltage protection
- Zero cross technology
- Service information
- Sensor error handling
- Leakage detection
- Automatic pull down
- Dual evaporator defrost
- Summer/winter mode



Energy saving features

- Variable defrost interval
- Defrost on demand
- Holiday mode
- Automatic fan control
- ECO mode (Light off and temp. offset)
- Early wake up



- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Evaporator fan control
- Heater control

Technical specifications	
Voltage	100-240V AC
DO1/2/3/4	16(16)/8(2)/8(2)/8(2) A*
DO5 optional**	16(16)A
AI (configurable)	4 or 6** (NTC 5K, NTC 100K, Pt 1000, Light, DI)
DI	1 (also for communication) or 0**
Protection	Front: IP31, Rear: IP00

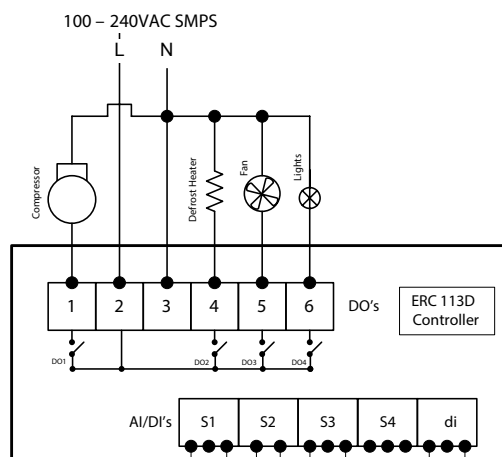
*Max 10 A total "DO2-4" / ** for ERC 1130 + RDI 107

Ordering and connections

Left buttons	ERC 113D and remote display RDI 107	Q-ty	Code no.
–	ERC 113D	54	080G3253
	RDI 107, GDM, Blue LED, without buzzer*		080G3241
	RDI 107, CFF, Red LED, with buzzer*		080G3245
	RDI 107, CFF, Blue LED, with buzzer*		080G3246

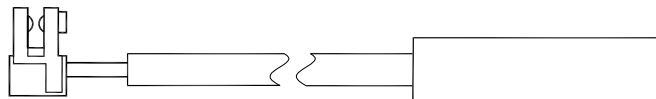
* I/O and connectors on RDI 107 are the same as for ERC111

Optional	Q-ty	Code no.
Clips, black (2 pcs needed per RDI 107)	54	080G3308
Power Plug, 3-pole with screw (16A max.)	108	080G3356
Power Plug, 6-pole with screw (28A max.)	54	080G3357



Accessories

Temperature sensor, -40 – +85 °C, PVC Standard, NTC 5K



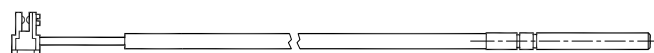
Port	Cable length	Q-ty	Code no.
S1	470 mm	120	077F8751
	1000 mm		077F8757
	1500 mm		077F8761
	2000 mm		077F8765
	2200 mm		077F8767
	3000 mm	60	077F8769
	3500 mm		077F8723
S2	6000 mm	27	080G2019
	1000 mm	120	077F8786
	1500 mm		077F8790
	2000 mm		077F8794
	3000 mm	60	077F8798
S3	6000 mm	27	080G2029
	1000 mm	120	077F8756
	1500 mm		077F8760
	2200 mm		077F8766
	3000 mm	60	077F8768

Temperature sensor, -40 – +120 °C, TPE precision, NTC 5K



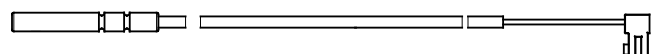
Port	Cable length	Q-ty	Code no.
S1	1500 mm	120	077F8726

Temperature sensor, -20 – +175 °C, Silicone cable, NTC 100K



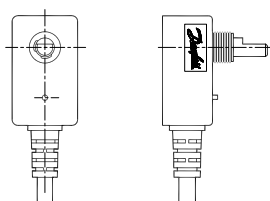
Port	Cable length	Q-ty	Code no.
S1/S3	2000 mm	108	080G2043

Temperature sensor, -100 – +200 °C, PT 1000



Port	Cable length	Q-ty	Code no.
S4	1000 mm	108	080G3350

Remote spindle, RSP 01



Port	Cable length	Q-ty	Code no.
di	2000 mm	42	080G3373

Communication wire for RDI 107

Port	Cable length	Q-ty	Code no.
di	2000 mm	108	080G3383
	3000 mm	54	080G3385

Motion sensor

Port	Cable length	Q-ty	Code no.
S3/di	3000 mm	27	080G3392

Light sensor

Port	Cable length	Q-ty	Code no.
S3	3000 mm	108	080G3315

Magnetic door sensor

Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	81	080G3320
	2000 mm		080G3322
	3000 mm		080G3324

Cable door sensor

Port	Cable length	Q-ty	Code no.
S4/di	1000 mm	108	080G3340
	2000 mm		080G3341
	3000 mm		080G3342
	4000 mm	81	080G3343



Programming tools and apps
KoolProg is available for ERC 113D
[Find more info on page 37](#)

ERC 211



Features

- Condenser protection
- Compressor voltage protection
- Multi sensor support
- Pull down mode
- Pre-defined applications
- Thermostat reference displacement
- Keyboard lock
- Automatic emergency cooling
- Status menu
- Zero cross for all outputs



Energy saving features

- Defrost on demand
- Night set back



- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Heating mode

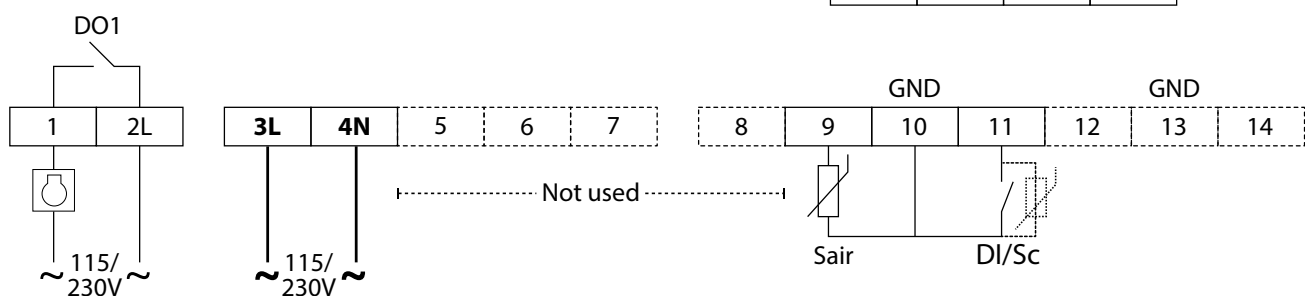
Technical specifications		
Voltage	115V AC, 50/60 Hz	230V AC, 50/60 Hz
DO1	16(16)A	
Inputs	2 (1 AI + 1 AI/DI)	
Sensor type	NTC 5K, NTC 10K, PTC, Pt 1000	
Protection	Front: IP65, Rear: IP00	

Ordering and connections

ERC 211 Kit: – ERC 211 – Temp. sensor NTC 10k, cable 1.5m (1 pcs.)	Q-ty	Code no.
ERC 211, Red LED, 115V	1	080G3451
ERC 211, Red LED, 230V		080G3453

ERC 211 (w/o sensor)	Q-ty	Code no.
ERC 211, Controller, Red LED, 230V	1	080G3454
Red	30	080G3459

GND	TX	RX	+5V
15	16	17	18



Accessories

Temperature sensors

Sensor	Cable length	Q-ty	Code no.
EKS 211, NTC 5K, Thermo plastic polyester 8x30	1.5 m	1 / 150	084N1220 / 084B4403
	3.5 m	1 / 75	084N1221 / 084B4404
EKS 221, NTC 10K, Thermo plastic rubber 6x5x15	3.5 m	1 / 150	084N3210 / 084N3206
	8.5 m	1 / 50	084N3209 / 084N3208
EKS 221, NTC 10K, Stainless steel 6x20	1.5 m	150	084N3200
EKS 111, PTC, Stainless steel 6x30	1.5 m	1 / 150	084N1178 / 084N1161
	3.5 m		084N1179 / 084N1163
	6.0 m	1 / 80	084N1180 / 084N1173
	8.5 m	60	084N1168
AKS 12, Pt 1000, Stainless steel 6x40	1.5 m	1 / 30	084N0036 / 084N0035
	3.5 m	30	084N0039
	5.5 m	30	084N0038



Programming tools and apps
KoolProg is available for ERC 211
[Find more info on page 37](#)

ERC 213



Features

- Condenser protection
- Compressor voltage protection
- Multi sensor support
- Pull down mode
- Pre-defined applications
- Thermostat reference displacement
- Keyboard lock
- Automatic emergency cooling
- Status menu
- Zero cross for all outputs



Energy saving features

- Defrost on demand
- Fan pulsating
- Lighting control
- Night set back



- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Evaporator control
- Heating mode

Technical specifications

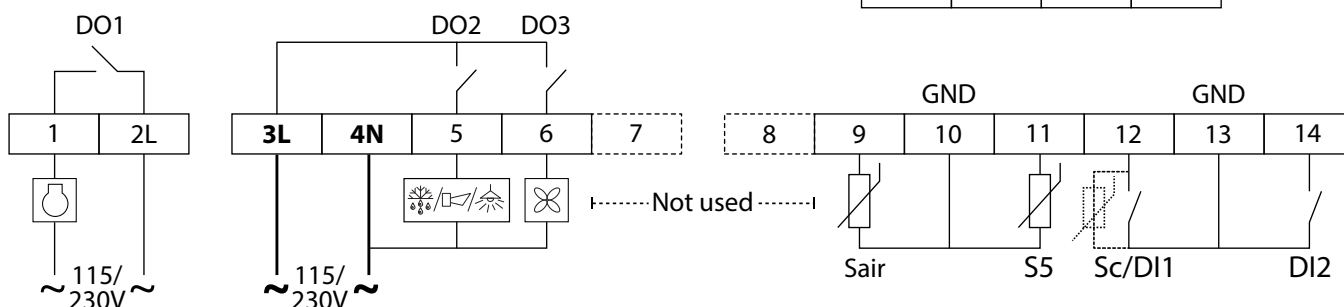
Voltage	115V AC, 50/60 Hz	230V AC, 50/60 Hz
DO1/2/3	16(16)/2(2)/2(2)A	
Inputs	4 (2 AI + 1 AI/DI + 1 DI))	
Sensor type	NTC 5K, NTC 10K, PTC, Pt 1000	
Protection	Front: IP65, Rear: IP00	

Ordering and connections

ERC 213 Kit: – ERC 213 – Temp. sensor NTC 10k, cable 1.5m (2 pcs.)	Q-ty	Code no.
ERC 213, Red LED, 230V	1	080G3457

ERC 213 (w/o sensors)	Q-ty	Code no.
ERC 213, Controller, Red LED, 230V	1	080G3458
ERC 213, Controller, Red LED, 230 V, I-Pack	30	080G3460

GND	TX	RX	+5V
15	16	17	18



Accessories

Temperature sensors

Sensor	Cable length	Q-ty	Code no.
EKS 211, NTC 5K, Thermo plastic polyester 8x30	1.5 m	1 / 150	084N1220 / 084B4403
	3.5 m	1 / 75	084N1221 / 084B4404
EKS 221, NTC 10K, Thermo plastic rubber 6x5x15	3.5 m	1 / 150	084N3210 / 084N3206
	8.5 m	1 / 50	084N3209 / 084N3208
EKS 221, NTC 10K, Stainless steel 6x20	1.5 m	150	084N3200
EKS 111, PTC, Stainless steel 6x30	1.5 m	1 / 150	084N1178 / 084N1161
	3.5 m		084N1179 / 084N1163
	6.0 m	1 / 80	084N1180 / 084N1173
	8.5 m	60	084N1168
AKS 12, Pt 1000, Stainless steel 6x40	1.5 m	1 / 30	084N0036 / 084N0035
	3.5 m	30	084N0039
	5.5 m		084N0038



Programming tools and apps
 KoolProg is available for ERC 213
[Find more info on page 37](#)

ERC 214



Features

- Condenser protection
- Compressor voltage protection
- Multi sensor support
- Pull down mode
- Pre-defined applications
- Thermostat reference displacement
- Keyboard lock
- Automatic emergency cooling
- Status menu
- Zero cross for all outputs



Energy saving features

- Defrost on demand
- Fan pulsating
- Lighting control
- Night set back



- Temperature control
- High temperature alarm
- Compressor control
- Defrost control
- Evaporator control
- Heating mode

Technical specifications

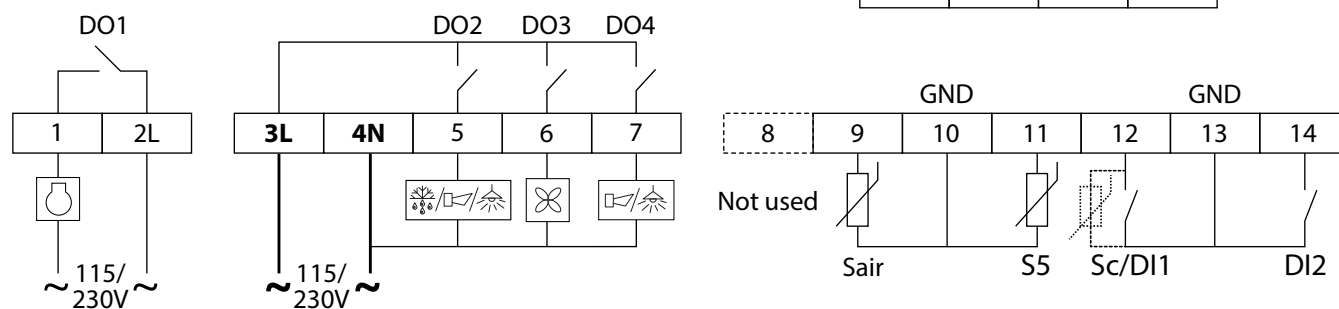
Voltage	115V AC, 50/60 Hz	230V AC, 50/60 Hz
DO1/2/3	16(16)/2(2)/2(2)/2(2)A	
Inputs	4 (2 AI + 1 AI/DI + 1 DI)	
Sensor type	NTC 5K, NTC 10K, PTC, Pt 1000	
Protection	Front: IP65, Rear: IP00	

Ordering and connections

ERC 214 Kit:

- ERC 214
- Temp. sensor NTC 10k, cable 1.5m (2 pcs.)

	Q-ty	Code no.
ERC 214, Controller, Red LED, 115 V	1	080G3466
ERC 214, Controller, Red LED, 230 V	1	080G3463



Accessories

Temperature sensors

Sensor	Cable length	Q-ty	Code no.
EKS 211, NTC 5K, Thermo plastic polyester 8x30	1.5 m	1 / 150	084N1220 / 084B4403
	3.5 m	1 / 75	084N1221 / 084B4404
EKS 221, NTC 10K, Thermo plastic rubber 6x5x15	3.5 m	1 / 150	084N3210 / 084N3206
	8.5 m	1 / 50	084N3209 / 084N3208
EKS 221, NTC 10K, Stainless steel 6x20	1.5 m	150	084N3200
EKS 111, PTC, Stainless steel 6x30	1.5 m	1 / 150	084N1178 / 084N1161
	3.5 m		084N1179 / 084N1163
	6.0 m	1 / 80	084N1180 / 084N1173
	8.5 m	60	084N1168
AKS 12, Pt 1000, Stainless steel 6x40	1.5 m	1 / 30	084N0036 / 084N0035
	3.5 m	30	084N0039
	5.5 m		084N0038



Programming tools and apps
KoolProg is available for ERC 214
[Find more info on page 37](#)

AK-CC25 Pro



Features

- Bluetooth® connectivity for fast setup and commissioning
- Robust ADAP-KOOL® control algorithms based on 35+ years of experience
- Fast commissioning via Wizard in AK-CC Connect app
- Compressor safety monitoring with safety lockout
- Start of defrost via internal schedule, digital input or network signal
- Natural, electrical, or hot gas defrost option
- Integrated Modbus communication
- MT/LT switch mode for multi-purpose cabinets, with fully dedicated parameter lists
- Full flexible IO configuration + 8 predefined
- Multi-refrigerant support, including CO₂ and flammable refrigerants (A3 and A2L)
- Wide sensor compatibility for flexible configuration
- Automatic fault detection and service information
- Built-in diagnostics and safety monitoring

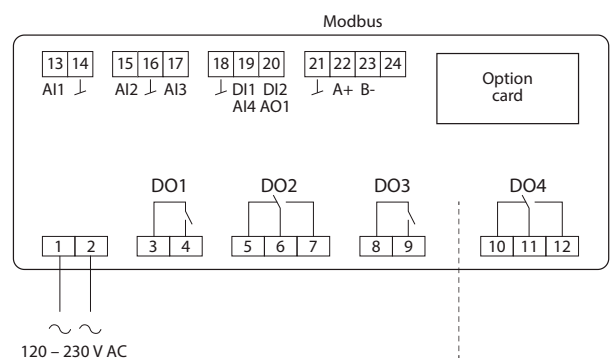


Energy saving features

- Modulating temperature control for optimized energy use
- Support for variable speed compressors
- Adaptive defrost strategies including defrost on demand
- Refrigeration performance monitoring for preventive maintenance
- ECO mode and night setback for reduced operating costs
- Intelligent system integration to further lower energy consumption
- Rail heat pulsing according to day/night or dew point

Ordering

Type	Packaging format	Min. Q-ty	Code no.
AK-CC25 Pro	Single pack	1	084B4022
AK-CC25 Pro	Industrial pack	27	084B4122
AK-CC25 Pro BT	Single pack	1	084B4023
AK-CC25 Pro BT	Industrial pack	27	084B4123
Connectors kit for AK-CC25 Pro	Industrial pack	81	084B4714



Accessories

Type	Packaging format	Min. Q-ty	Code no.
Interface cable AK-CC25 – KoolKey 2.1	Single pack	1	080N0334
KoolKey 2.1 (PV04)	Single pack	1	080N0020



[Interface cable AK-CC25 – KoolKey 2.1](#)
[KoolKey 2.1 \(PV04\)](#)



Programming tools and apps
 KoolProg is available for AK-CC25 Pro
[Find more info on page 37](#)



Cold room controllers

From standalone to fully managed solutions, the three-tiered Optyma™ Control range enable easy installation, simple setup, and energy savings for existing and new cold rooms.

For optimum protection of perishables and operational safety, the controllers provide HACCP temperature monitoring and transparency when combined with Danfoss System Manager.

AK-RC 2xx/3xx



AK-RC 251



UL version



AK-RC 2xx/3xx



Features

- Wizard mode
- Events in case of S1 fault
- Control with two temp. probes (large cold room)*
- Additional alarms
- Password
- Compressor/crankcase resistor control
- High-pressure switch for hot gas
- Defrost of 2nd evaporator



Energy saving features

- Adaptive mode incl. defrost*
- Solenoid control/pump down
- Door frame resistor
- Drainage resistor*



- Temperature control
- Compressor control
- Probes calibration
- Low pressure switch
- Continuous cycle
- Set point displacement
- Compressor protection timer
- Door management
- Defrost (El, air, how gas, reversed cycle)
- Fan control
- Alarms (temperature, probes, DI, door)
- Light control

* Only for AK-RC 305W

Technical specifications

Model	AK-RC204B	AK-RC 205C	AK-RC 305W	AK-RC 251
Voltage	230V AC, 50 Hz	230V AC, 50 HZ	100-240V AC, 50/60 Hz	100-240V AC, 50/60 Hz
DO	2 SPDT 20A 2 SPST 16A	1 SPDT 16A 2 SPDT 20A 2 SPST 16A	1 SPDT 16A 2 SPDT 20A 2 SPST 16A	1 SPDT 16A 2 SPDT 20A 2 SPST 16A
Electrical protection	–	MCB	–	–
Inputs	4 (2 AI + 1 AI/DI + 1 DI)			
Sensor type	NTC 10K			
Protection	IP65			

Ordering and connections

Model	Includes	Q-ty	Code no.
AK-RC 204B	1 x 1.5 m, NTC 10K sensor 1 x 3 m, NTC 10K sensor	1	080Z5001
AK-RC 205C		1	080Z5002
AK-RC 305W	2 x 1.5 m, NTC 10K sensor	1	080Z5003
AK-RC 251	1 x 1.5m, NTC 10K sensor 1 x 3m, NTC 10K sensor	1	080Z5000

Accessories

Temperature sensors

Sensor	Cable length	Q-ty	Code no.
NTC 10K, Thermo plastic rubber	3.5 m	1	084N3210
	8.5 m	50	084N3208
NTC 10K, Stainless steel	1.5 m	150	084N3200
NTC 10K, High prec.	1.5 m	1	080Z3216



Programming Tools



KoolProg
Download the app for programming via PC
www.danfoss.com/en/service-and-support/downloads/dcs/koolprog

Tools	Code no.
EKA 200 (KoolKey)	080N0020
EKA 201 (Mass Prog. Key)*	080N0021

* EKA 200 is needed to read/write config file for EKA 201



Cables for programming tools	Code No.
Cable - EET, 1M	080N0324
Cable - ERC11x 1M	080N0328

Cables for programming tools	Code No.
Cable - ERC21x 1M	080N0326
Cable - ERC21X 0.5M	080N0327

Commercial Refrigeration Controller portfolio

From electronic thermostats to refrigeration and cold room controllers. Danfoss offers a strong commercial refrigeration controller portfolio to support your needs.



EET range

Entry level
electronic thermostat
Advanced
electronic thermostat



ERC 21x

Controller for small
OEMs and indirect
channel



ERC 11x

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for large OEMs
and end users



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Cold room controller

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