

Fact Sheet

**EKC 202x vs EKC 22x
ERC 21x vs EKC 22x**

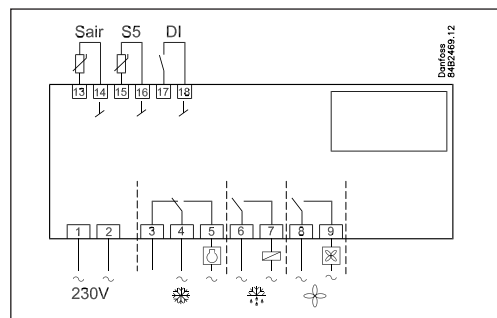


EKC 202B vs EKC 224

EKC 202B



Wiring

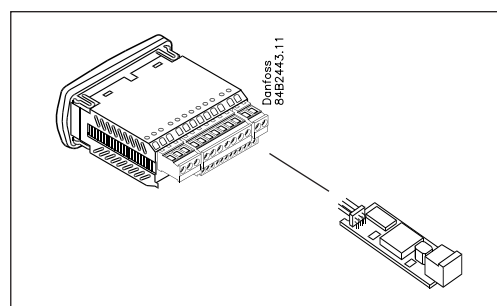


- 3 DO, pluggable terminals
 - 2 SPST NO contacts
 - 1 SPDT contacts

Output ¹⁾ IEC60730	DO1 – Relay 1: 8 (6) A & (5 FLA, 30 LRA)
	DO2 – Relay 2: 8 (6) A & (5 FLA, 30 LRA)
	DO3 – Relay 3: 6 (3) A & (3 FLA, 18 LRA)

¹⁾ DO1 and DO2 are 16 A relays. The mentioned 8 A can be increased up to 10 A, when the ambient temperature is kept below 50 °C. DO3 and DO4 are 8 A relays. Above max. load must be kept.

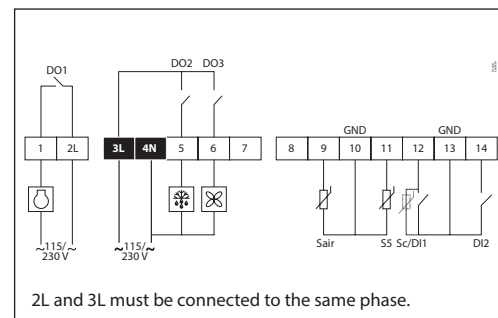
- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
- Inputs
 - 2 AI, 1 DI
- Sensor types
 - Pt 1000 – AKS 12
 - PTC 1000 – EKS 111
 - NTC-M2020 – EKS 211
- Measuring range: -60 – +99 °C
- Data communication:
 - Modbus RS-485 (EKA 178A module)
 - LON RS-485 (EKA 179A module)



EKC 223



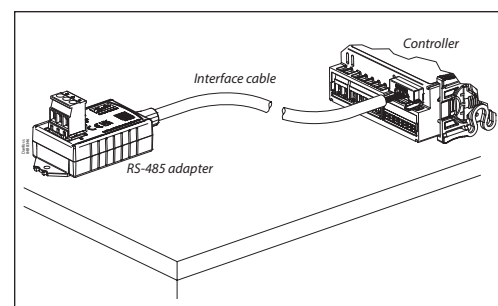
Wiring



- 3 DO, fixed terminals
 - 3 NO contacts

Output	DO1 - Relay 1: 16 A, 16 (16) A, EN 60730-1 10 FLA / 60 LRA at 230 V, UL60730-1 16 FLA / 72 LRA at 115 V, UL60730-1
	DO2 - Relay 2: 8 A, 2 FLA / 12 LRA, UL60730-1 8 A, 2 (2 A), EN60730-1
	DO3 - Relay 3: 3 A, 2 FLA / 12 LRA, UL60730-1 3 A, 2 (2 A), EN60730-1
	DO4 - Relay 4: 2 A

- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Light
 - Heating thermostat
- Inputs
 - 2 AI, 1 AI/DI, 1 DI
- Sensor types
 - Pt 1000 – AKS11/12/21
 - NTC 10k – EKS 221
 - NTC 5k – EKS 211
 - PTC 1000 – EKS 111
- Measuring range: -40 – +105 °C
- Data communication:
 - Modbus RS-485 (EKA 206 adapter)

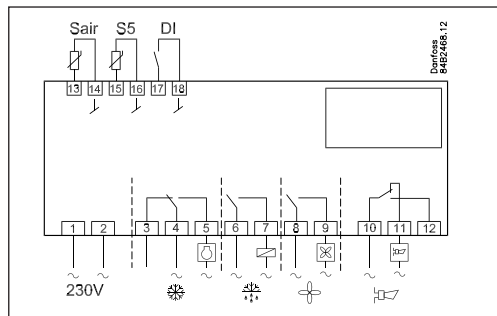


EKC 202C vs EKC 224

EKC 202C



Wiring



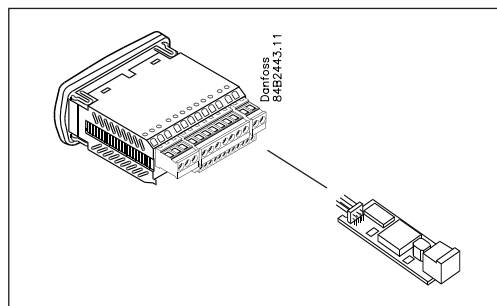
- 4 DO, pluggable terminals
 - 2 SPST NO contacts
 - 2 SPDT contacts

Output ¹⁾ IEC60730	DO1 – Relay 1: 8 (6) A & (5 FLA, 30 LRA)
	DO2 – Relay 2: 8 (6) A & (5 FLA, 30 LRA)
	DO3 – Relay 3: 6 (3) A & (3 FLA, 18 LRA)
	DO4 ²⁾ – Relay 4: 4 (1) A, Min. 100 mA ²⁾

¹⁾ DO1 and DO2 are 16 A relays. The mentioned 8 A can be increased up to 10 A, when the ambient temperature is kept below 50 °C. DO3 and DO4 are 8 A relays. Above max. load must be kept.

²⁾ Gold plating ensures make function with small contact loads.

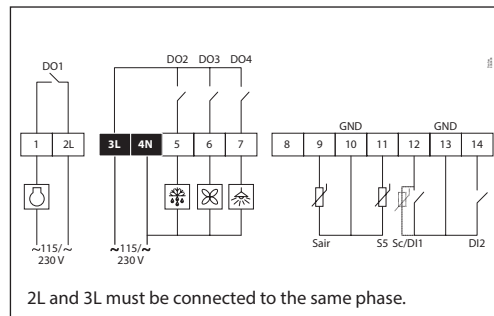
- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Light
- Inputs
 - 2 AI, 1 DI
- Sensor types
 - Pt 1000 – AKS 12
 - PTC 1000 – EKS 111
 - NTC-M2020 – EKS 211
- Measuring range: -60 – +99 °C
- Data communication:
 - Modbus RS-485 (EKA 178A module)
 - LON RS-485 (EKA 179A module)



EKC 224



Wiring

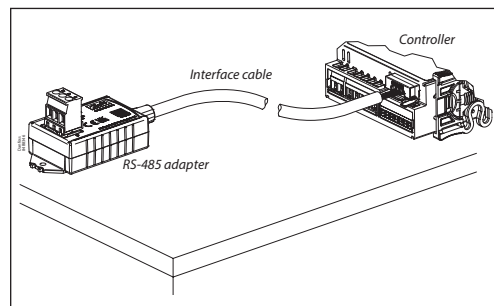


2L and 3L must be connected to the same phase.

- 4 DO, fixed terminals
 - 4 SPST NO contacts

Output	DO1 - Relay 1: 16 A, 16 (16) A, EN 60730-1 10 FLA / 60 LRA at 230 V, UL60730-1 16 FLA / 72 LRA at 115 V, UL60730-1
	DO2 - Relay 2: 8 A, 2 FLA / 12 LRA, UL60730-1 8 A, 2 (2 A), EN60730-1
	DO3 - Relay 3: 3 A, 2 FLA / 12 LRA, UL60730-1 3 A, 2 (2 A), EN60730-1
	DO4 - Relay 4: 2 A

- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Light
 - Heating thermostat
- Inputs
 - 2 AI, 1 AI/DI, 1 DI
- Sensor types
 - Pt 1000 – AKS11/12/21
 - NTC 10k – EKS 221
 - NTC 5k – EKS 211
 - PTC 1000 – EKS 111
- Measuring range: -40 – +105 °C
- Data communication:
 - Modbus RS-485 (EKA 206 adapter)

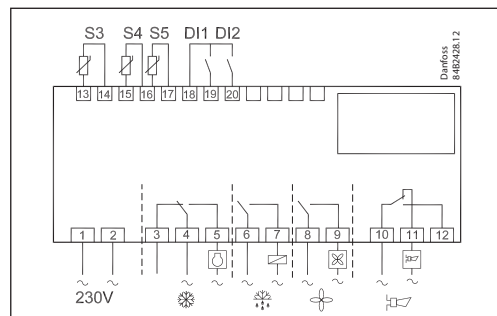


EKC 202D vs EKC 224

EKC 202D



Wiring



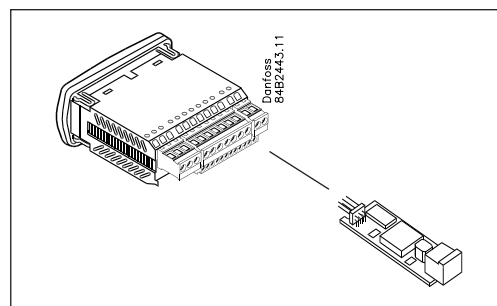
- 4 DO, pluggable terminals
 - 2 SPST NO contacts
 - 2 SPDT contacts

Output ¹⁾ IEC60730	DO1 – Relay 1: 8 (6) A & (5 FLA, 30 LRA)
	DO2 – Relay 2: 8 (6) A & (5 FLA, 30 LRA)
	DO3 – Relay 3: 6 (3) A & (3 FLA, 18 LRA)
	DO4 ²⁾ – Relay 4: 4 (1) A, Min. 100 mA ²⁾

¹⁾ DO1 and DO2 are 16 A relays. The mentioned 8 A can be increased up to 10 A, when the ambient temperature is kept below 50 °C. DO3 and DO4 are 8 A relays. Above max. load must be kept.

²⁾ Gold plating ensures make function with small contact loads.

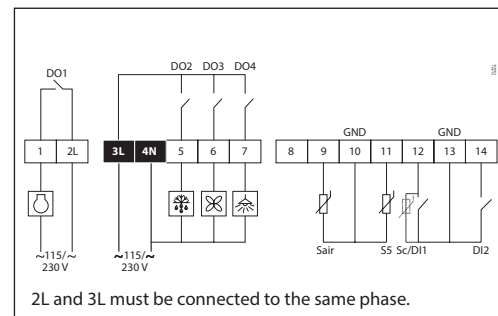
- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Light
 - Rail heat
- Inputs
 - 3 AI, 2 DI
- Sensor types
 - Pt 1000 – AKS 12
 - PTC 1000 – EKS 111
 - NTC-M2020 – EKS 211
- Measuring range: -60 – +99 °C
- Data communication:
 - Modbus RS-485 (EKA 178A module)
 - LON RS-485 (EKA 179A module)



EKC 224



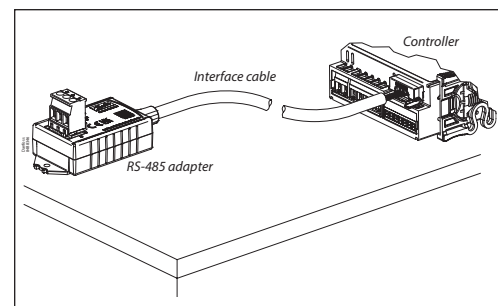
Wiring



- 4 DO, fixed terminals
 - 4 NO contacts

Output	DO1 - Relay 1: 16 A, 16 (16) A, EN 60730-1 10 FLA / 60 LRA at 230 V, UL60730-1 16 FLA / 72 LRA at 115 V, UL60730-1
	DO2 - Relay 2: 8 A, 2 FLA / 12 LRA, UL60730-1 8 A, 2 (2 A), EN60730-1
	DO3 - Relay 3: 3 A, 2 FLA / 12 LRA, UL60730-1 3 A, 2 (2 A), EN60730-1
	DO4 - Relay 4: 2 A

- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Light
 - Heating thermostat
- Inputs
 - 2 AI, 1 AI/DI, 1 DI
- Sensor types
 - Pt 1000 – AKS11/12/21
 - NTC 10k – EKS 221
 - NTC 5k – EKS 211
 - PTC 1000 – EKS 111
- Measuring range: -40 – +105 °C
- Data communication:
 - Modbus RS-485 (EKA 206 adapter)

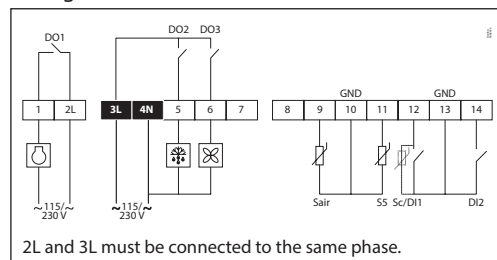


ERC 213 vs EKC 223

ERC 213



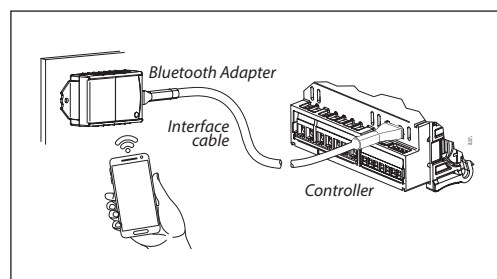
Wiring



- 3 DO, fixed terminals
 - 3 SPST NO contacts

Output	DO1 - Relay 1: 16 A, 16 (16) A, EN 60730-1 10 FLA / 60 LRA at 230 V, UL60730-1 16 FLA / 72 LRA at 115 V, UL60730-1
	DO2 - Relay 2: 8 A, 2 FLA / 12 LRA, UL60730-1 8 A, 2 (2 A), EN60730-1
	DO3 - Relay 3: 3 A, 2 FLA / 12 LRA, UL60730-1 3 A, 2 (2 A), EN60730-1

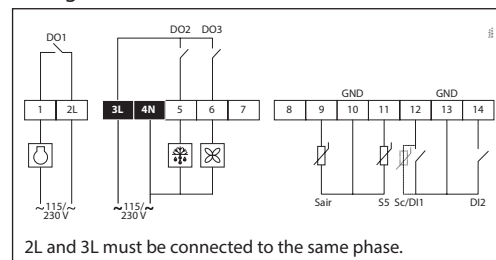
- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Heating thermostat
 - Light
- Inputs
 - 2 AI, 1AI/DI, 1 DI
- Sensor types
 - Pt 1000 – AKS 11/12/21
 - NTC 10k – EKS 221
 - NTC 5k – EKS 211
 - PTC 1000 – EKS 111
- Measuring range: -40 – +105 °C
- Data communication:
 - Bluetooth adapter (EKA 202 & EKA 203)



EKC 223



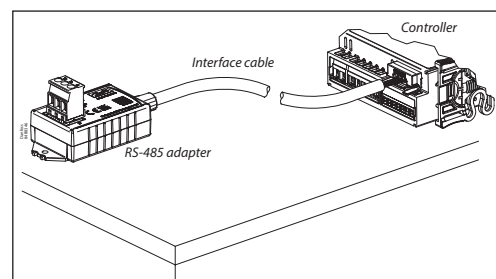
Wiring



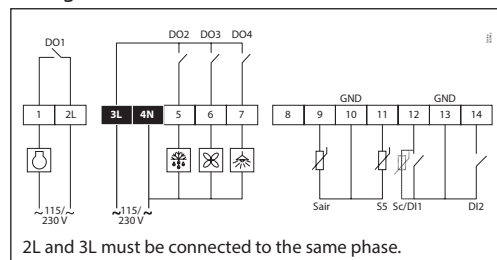
- 3 DO, fixed terminals
 - 3 SPST NO contacts

Output	DO1 - Relay 1: 16 A, 16 (16) A, EN 60730-1 10 FLA / 60 LRA at 230 V, UL60730-1 16 FLA / 72 LRA at 115 V, UL60730-1
	DO2 - Relay 2: 8 A, 2 FLA / 12 LRA, UL60730-1 8 A, 2 (2 A), EN60730-1
	DO3 - Relay 3: 3 A, 2 FLA / 12 LRA, UL60730-1 3 A, 2 (2 A), EN60730-1

- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Heating thermostat
 - Light
- Inputs
 - 2 AI, 1AI/DI, 1 DI
- Sensor types
 - Pt 1000 – AKS11/12/21
 - NTC 10k – EKS 221
 - NTC 5k – EKS 211
 - PTC 1000 – EKS 111
- Measuring range: -40 – +105 °C
- Data communication:
 - Modbus RS-485 (EKA 206 adapter)
 - Supported front ends are AK-SM800, AK-SM800A and AK-SM 720 (Modbus only)
 - Network address, scan procedure and auto baud rate up to 38400 baud
 - Supported master control features:
 - Night setback
 - Light remote
 - Defrost start
 - Defrost coordination



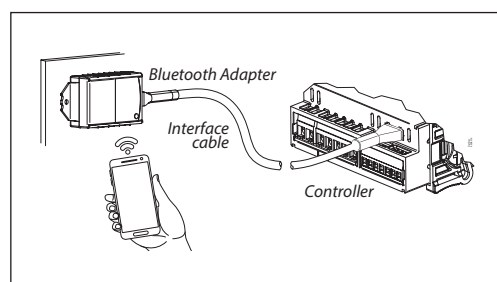
ERC 214 vs EKC 224
ERC 214

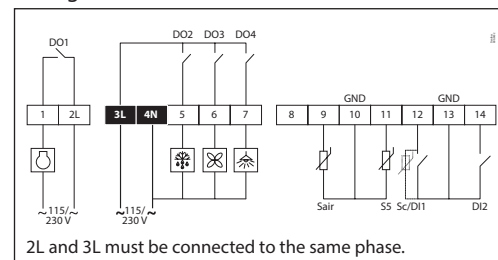
Wiring


- 4 DO, pluggable terminals
 - 4 SPST NO contacts

Output	DO1 - Relay 1: 16 A, 16 (16) A, EN 60730-1 10 FLA / 60 LRA at 230 V, UL60730-1 16 FLA / 72 LRA at 115 V, UL60730-1
	DO2 - Relay 2: 8 A, 2 FLA / 12 LRA, UL60730-1 8 A, 2 (2 A), EN60730-1
	DO3 - Relay 3: 3 A, 2 FLA / 12 LRA, UL60730-1 3 A, 2 (2 A), EN60730-1
	DO4 - Relay 4: 2 A

- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Light
 - Heating thermostat
- Inputs
 - 2 AI, 1AI/DI, 1 DI
- Sensor types
 - Pt 1000 – AKS11/12/21
 - NTC 10k – EKS 221
 - NTC 5k – EKS 211
 - PTC 1000 – EKS 111
- Measuring range: -40 – +105 °C
- Data communication:
 - Bluetooth adapter (EKA 202 & EKA 203)

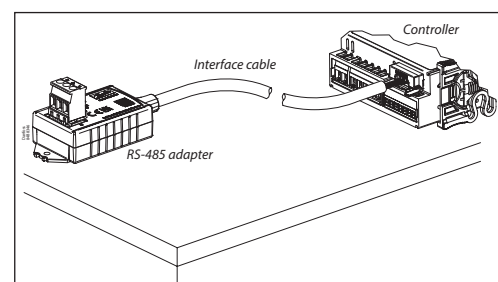

EKC 224

Wiring


- 4 DO, fixed terminals
 - 4 SPST NO contacts

Output	DO1 - Relay 1: 16 A, 16 (16) A, EN 60730-1 10 FLA / 60 LRA at 230 V, UL60730-1 16 FLA / 72 LRA at 115 V, UL60730-1
	DO2 - Relay 2: 8 A, 2 FLA / 12 LRA, UL60730-1 8 A, 2 (2 A), EN60730-1
	DO3 - Relay 3: 3 A, 2 FLA / 12 LRA, UL60730-1 3 A, 2 (2 A), EN60730-1
	DO4 - Relay 4: 2 A

- Functions depending of the application:
 - Refrigeration (compressor or solenoid valve)
 - Defrost
 - Fan
 - Alarm
 - Light
 - Heating thermostat
- Inputs
 - 2 AI, 1AI/DI, 1 DI
- Sensor types
 - Pt 1000 – AKS11/12/21
 - NTC 10k – EKS 221
 - NTC 5k – EKS 211
 - PTC 1000 – EKS 111
- Measuring range: -40 – +105 °C
- Data communication:
 - Modbus RS-485 (EKA 206 adapter)
 - Supported front ends are AK-SM800, AK-SM 800A and AK-SM 720 (Modbus only)
 - Network address, scan procedure and auto baud rate up to 38400 baud
 - Supported master control features:
 - Night setback
 - Light remote
 - Defrost start
 - Defrost coordination



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