



REFRIGERATION AND  
AIR CONDITIONING

# Instructions Controller tray AK-CT 200A

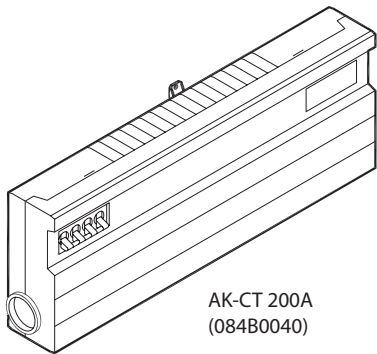


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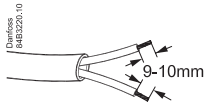


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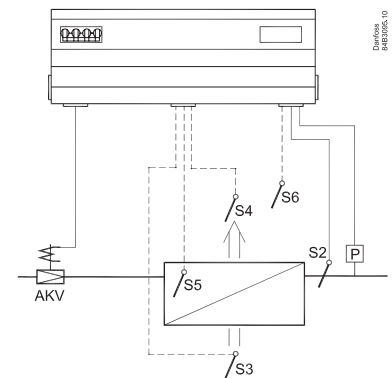
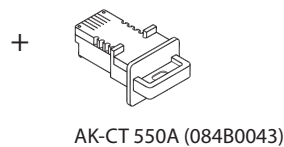
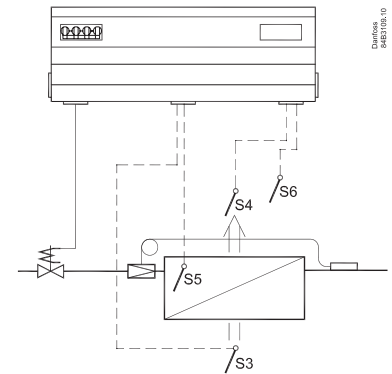
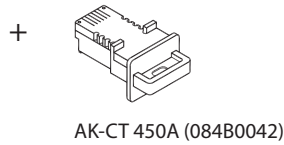
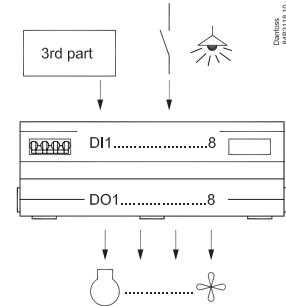
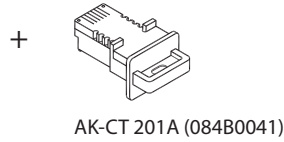
## Identification / Princip



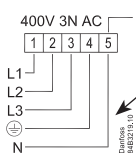
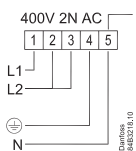
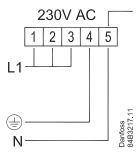
**AK-CT 201A, Manual = RS8GT**  
**AK-CT 450A, Manual = RS8GR**  
**AK-CT 550A, Manual = RS8GS**



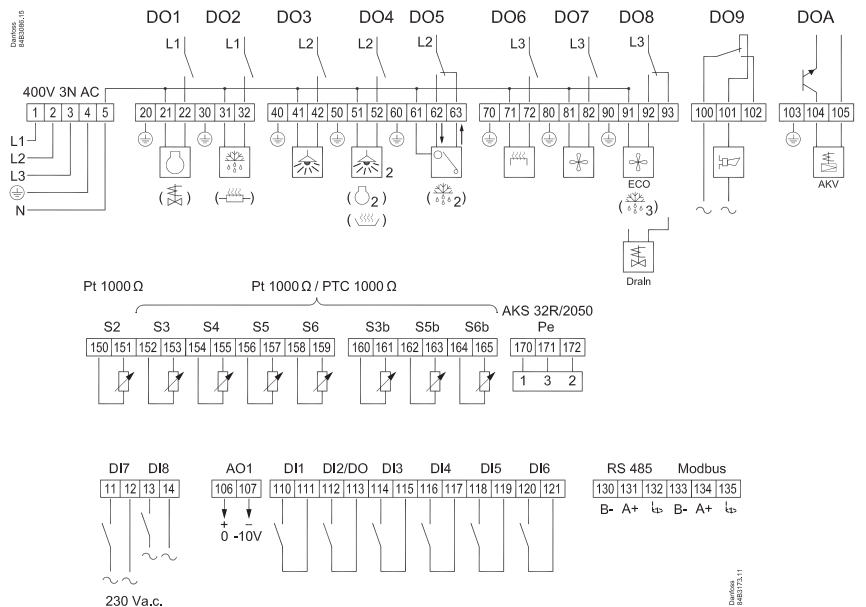
Required stripping  
length for spring  
connectors.



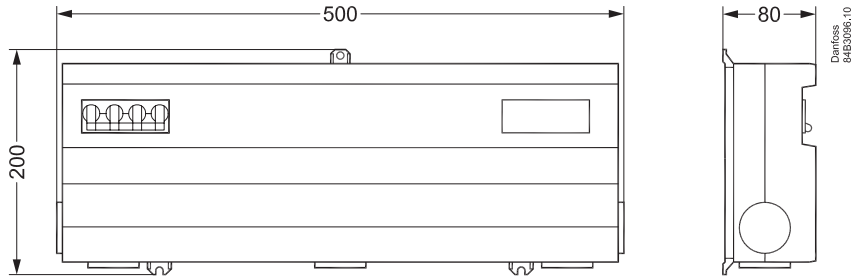
## Supply samples



**! Important!**  
N must always be  
connected when  
power is on.



**Data**



**AK-CT 201A**

Supply voltage	400 V 3N a.c. / 400 V 2N a.c. / 230 V N a.c. +10/-15%, 30 VA, 50 Hz	
Main switch	Automated fuse, 4 terminals, 16 A, SIL-approved	
Display	2 plugs for connecting external display	
Accuracy	I-measuring (L11-L18)	0-10 A: +/- 15%, min +/- 1 A
External display	EKA 163B or 164B. (any EKA 163A or 164A)	
Digital inputs DI1, DI2, DI3, DI4, DI5, DI6	Signal from contact functions Requirements to contacts: None Cable length must be max. 15 m Use auxiliary relays when the cable is longer	
Digital inputs DI7, DI8	230 V a.c.	On: DI > 80 V a.c. Off: DI < 24 V a.c.
Electricity supply cable	Max. 2.5 mm <sup>2</sup>	
Relays	DO1-DO8	Max. 16 (12) A I <sub>max</sub> adjustable: 4-16 A I <sub>max</sub> =0 = no fuse
	Alarm relay	4 (3) A, Min. 100 mA*
Environments	0 to +55°C, During operations -40 to +70°C, During transport	
	20 - 80% Rh, not condensed	
	No shock influence / vibrations	
Enclosure	IP 20	
Weight	3,8 Kg	
Data communication	Fixed	MODBUS
	Extension options	LON RS485 MODBUS
Approvals	EU Low Voltage Directive and EMC demands re CE-marking complied with LVD-tested acc. EN 60730-1, EN 60730-2-1 and EN 60730-2-9 EMC-tested acc. EN 61000-6-2 and EN 61000-6-3	

**AK-CT 450A**

Supply voltage	400 V 3N a.c. / 400 V 2N a.c. / 230 V N a.c. +10/-15%, 30 VA, 50 Hz	
Main switch	Automated fuse, 4 terminals, 16 A, SIL-approved	
Sensor S2	Not used	
Accuracy	Sensor S3, S3B, S4, S5, S5B, S6, S6B	Pt 1000 or PTC 1000 ohm / 25°C (All must be of the same type)
	Measuring range	-60 to +120°C
	Controller	±1 K below -35°C ± 0,5 K between -35 til +25°C; ±1 K above +25°C
	Pt 1000 sensor	±0,3 K at 0°C ±0,005 K per degree
I-measuring (L11-L18)	0-10 A: +/- 15%, min +/- 1 A	
Display	2 plugs for connecting external display	
External display	EKA 163B or 164B. (any EKA 163A or 164A)	
Digital inputs DI1, DI2, DI3, DI4, DI5, DI6	Signal from contact functions Requirements to contacts: None Cable length must be max. 15 m Use auxiliary relays when the cable is longer	
Digital inputs DI7, DI8	230 V a.c.	On: DI > 80 V a.c. Off: DI < 24 V a.c.
Electrical connection cable	Max. 2.5 mm <sup>2</sup>	
Relays	DO1-DO8	Max. 16 (12) A I <sub>max</sub> adjustable: 4-16 A I <sub>max</sub> =0 = no fuse
	Alarm relay	4 (3) A, Min. 100 mA*
Solid state output	DOA (for coil)	Max. 240 V half wave rectified Max. 0.5 A Leakage < 1 mA Max. 1 coil. Electronic coil controller EEC may not be used
Analog voltage output	AO1	0-10 V R <sub>load</sub> > 1 kΩ
Environments	0 to +55°C, During operations -40 to +70°C, During transport	
	20 - 80% Rh, not condensed	
	No shock influence / vibrations	
Enclosure	IP 20	
Weight	3.8 kg	
Data communication	Fixed	MODBUS
	Extension options	LON RS485 MODBUS
Power reserve for the clock	24 hours	
Approvals	EU Low Voltage Directive and EMC demands re CE-marking complied with LVD-tested acc. EN 60730-1, EN 60730-2-1 and EN 60730-2-9 EMC-tested acc. EN 61000-6-2 and EN 61000-6-3	

**AK-CT 550A**

Supply voltage	400 V 3N a.c. / 400 V 2N a.c. / 230 V N a.c. +10/-15%, 30 VA, 50 Hz	
Main switch	Automated fuse, 4 terminals, 16 A, SIL-approved	
Sensor S2	Pt 1000	
Accuracy	Sensor S3, S3B, S4, S5, S5B, S6, S6B	Pt 1000 or PTC 1000 ohm / 25°C (All must be of the same type)
	Measuring range	-60 to +120°C
	Controller	±1 K below -35°C ± 0,5 K between -35 til +25°C; ±1 K above +25°C
	Pt 1000 sensor	±0,3 K at 0°C ±0,005 K per degree
I-measuring (L11-L18)	0-10 A: +/- 15%, min +/- 1 A	
Measuring of Pe	Pressure transmitter	AKS 32R / AKS 2050
Display	2 plugs for connecting external display	
External display	EKA 163B or 164B. (any EKA 163A or 164A)	
Digital inputs DI1, DI2, DI3, DI4, DI5, DI6	Signal from contact functions Requirements to contacts: None Cable length must be max. 15 m Use auxiliary relays when the cable is longer	
Digital inputs DI7, DI8	230 V a.c.	On: DI > 80 V a.c. Off: DI < 24 V a.c.
Electrical connection cable	Max. 2.5 mm <sup>2</sup>	
Relays	DO1-DO8	Max. 16 (12) A I <sub>max</sub> adjustable: 4-16 A I <sub>max</sub> =0 = no fuse
	Alarm relay	4 (3) A, Min. 100 mA*
Solid state output	DOA (for coil)	Max. 240 V half wave rectified Max. 0.5 A Leakage < 1 mA Max. 1 coil. Electronic coil controller EEC may not be used
Analog voltage output	AO1	0-10 V R <sub>load</sub> > 1 kΩ
Environments	0 to +55°C, During operations -40 to +70°C, During transport	
	20 - 80% Rh, not condensed	
	No shock influence / vibrations	
Enclosure	IP 20	
Weight	3.8 kg	
Data communication	Fixed	MODBUS
	Extension options	LON RS485 MODBUS
Power reserve for the clock	24 hours	
Approvals	EU Low Voltage Directive and EMC demands re CE-marking complied with LVD-tested acc. EN 60730-1, EN 60730-2-1 and EN 60730-2-9 EMC-tested acc. EN 61000-6-2 and EN 61000-6-3	

The Product contains electrical components And may not be disposed together with domestic waste. Equipment must be separate collected with Electrical and Electronic waste. According to Local and currently valid legislation.

\*) Gold plating ensures make function with small contact loads

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