

Technical data and ordering

Optyma™ Control, Single phase

Electronic controller

Power supply			
Voltage	230 V~ ± 10% 50/60 Hz		
Max power (only electronics)	~ 7 VA		
Rated current	16 A		
Climate conditions			
Working temperature	-5 – 50 °C		
Storage temperature	-10 – 70 °C		
Relative ambient humidity	Lower than 90% Hr		
General characteristics			
Type of sensors that can be connected	NTC 10K 1%		
Resolution	0.1 °C		
Sensor read precision	± 0.5 °C		
Read range	-45 – 99 °C		
Output characteristics			
Description	Installed relay	Card output characteristics	Note
Compressor	(Relay 30A AC1)	10 A 250 V~ (AC3) (2HP) (100000 cicli)	The sum of contemporary absorptions of these outputs has not to exceed 16 A
Defrost	(Relay 30A AC1)	16A 250 V~ (AC1)	
Fans	(Relay 16A AC1)	2.7 A 250 V~ (AC3)	
Room light	(Relay 16A AC1)	16 A 250 V~ (AC1)	
Aux 1 (free voltage contact)	(Relay 5A AC1)	5(3) A 250 V~	
Aux 2 (free voltage contact)	(Relay 5A AC1)	5(3) A 250 V~	
General electrical protection	Differential magnetothermic circuit breaker 16A		
	Id=300 mA		
	(Id=30 mA on request)		
	Disconnecting power 4.5 kA		
Dimension characteristics			
Dimensions	18.0 cm x 9.6 cm x 26.3 cm (HxPxL)		
Insulation and mechanical characteristics			
Box protection rating	IP65		
Box material	ABS self-extinguishing		
Type of insulation	Class II		

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Optyma™ Control, three phase

Technical Characteristics

Technical characteristics	OPTYMATM Control (4 HP)	OPTYMATM Control (7.5 HP)	
Box dimensions	400 x 300 x 135 mm	400 x 300 x 135 mm	
Weight	9 kg	10 kg	
Protection rating	IP 65	IP 65	
Power supply (3F+N+T)	400 V AC ±10% 50/60Hz	400 V AC ±10% 50/60Hz	
Load type	3-phase	3-phase	
Operating temperature	- 5 – 40 °C	- 5 – 40 °C	
Storage temperature	-25 – 55 °C	-25 – 55 °C	
Relative ambient humidity	from 30% to 95% RH w/out condensate	from 30% to 95% RH w/out condensate	
Altitude	< 1000 m	< 1000 m	
Main switch / general protection	4 poles magnetothermic 16A "D"	4 poles magnetothermic 25A "D"	
Interruption power	Icn=6kA / Ics=8kA / Icu=15kA	Icn=6kA / Ics=8kA / Icu=15kA	
Compressor protection	Adjustable motor circuit breaker	Adjustable motor circuit breaker	
Defrosting	Electrical	Electrical	
Status indicators	LED + display	LED + display	
Alarm signals	LED + buzzer	LED + buzzer	
Inputs			
Ambient probe	NTC 10K 1%	NTC 10K 1%	
Evaporator probe	NTC 10K 1%	NTC 10K 1%	
Door switch	Present	Present	
High/low pressure switch	Present	Present	
Kriwan® connection	Present	Present	
Compressor functioning mode selection	Pump-down / thermostat	Pump-down / thermostat	
Outputs			
Compressor	See motor circuit breaker thermal range relative to panel ID code	See motor circuit breaker thermal range relative to panel ID code	
Condenser fans output 1	800 W total	800 W total	(1 phase)
Condenser fans output 2 (separated)			
Evaporator fans	500 W (1 phase)	2000 W (1phase / 3 phases)	
Defrosting heaters	6000 W (AC1) eq. resistive load	9000 W (AC1) eq. resistive load	
Room light	800 W (AC1) resistive load	800 W (AC1) resistive load	
Solenoid valve	Present	Present	
Compressor oil heater	Present	Present	
Aux1	100 W	100 W	
Aux2	100 W	100 W	
Supervision system	Modbus	Modbus	

Ordering

Type	Description	Psc	Code no.
AK-RC 111	Optyma Control single-phase (2 HP) including two sensors	1	080Z3220
AK-RC 113	Optyma Control, three phase (4HP), including 2 sensors, 4,5 – 6,3 A	1	080Z3221
AK-RC 113	Optyma Control, three phase (4HP), including 2 sensors, 7 – 10 A	1	080Z3222
AK-RC 113	Optyma Control, three phase, (7,5HP), including 2 sensors, 11 – 16 A	1	080Z3226
AK-RC 113	Optyma Control, three phase, (7,5HP), including 2 sensors, 14 – 20 A	1	080Z3227

Note:

Sensor EKS 221 (spare part)- 084N3210