



# Pack controller

## AK-PC 351

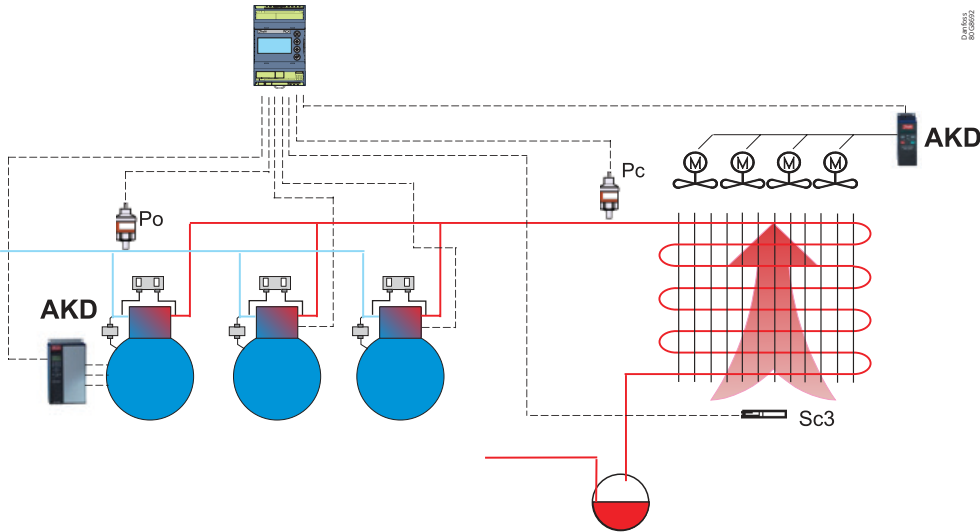
## Description

The AK-PC 351 is a pack controller designed for managing compressor and condenser systems. It offers a range of features to ensure optimal performance and safety in refrigeration applications. The controller is equipped with multiple inputs and outputs, allowing for precise control and monitoring of various parameters. It supports MODBUS communication, making it compatible with other systems and devices. The AK-PC 351 is designed for easy installation and operation, with a user-friendly interface and robust construction.

## Features & benefits

- Safety with low pressure protection
  - Ensures the system operates within safe pressure limits to prevent damage and maintain efficiency.
- Comprehensive compressor safeguards
  - Protects compressors from potential hazards, ensuring longevity and reliability.
- Efficient condenser management
  - Optimizes condenser pressure for improved energy efficiency and performance.
- Advanced temperature monitoring
  - Monitors and controls the temperature of the suction gas to prevent overheating and ensure optimal operation.
- Maximize energy savings with heat recovery
  - Utilizes waste heat for other applications, enhancing overall energy efficiency.
- Smart load management
  - Reduces load during peak times to prevent system overload and save energy.
- Alerts with built-in buzzer
  - Provides audible alerts for various system conditions, ensuring prompt attention and action.
- Optimize performance with P0 optimization
  - Fine-tunes system parameters for maximum efficiency and performance.
- High pressure and discharge gas temperature safety
  - Protects the system from excessive pressure, ensuring safe and reliable operation.
  - Monitors and controls the temperature of the discharge gas to prevent overheating and ensure optimal operation.
- User-friendly interface with built-in LCD display
  - Provides a clear and intuitive interface for easy monitoring and control.

Applications



Application	Description
	<b>Single step</b> Single step compressors of same size
	<b>Speed on lead</b> Speed compressor of one size single step compressors of another size
	<b>Digital scroll on lead</b> Digital scroll of one size single step compressors of another size
	<b>Stream 4 cycle on lead</b> Stream 4 cycle of on size single step compressors of another size
	<b>Multistep compressors</b> Multistep compressors with same no. of unloader valves and of same size

## Ordering

### Product code numbers

Type	Supply voltage [V] AC	Supply voltage [V] DC	Communication type	Code number
AK-PC 351	24	24	MODBUS	080G0289

## Product details

### General data

Table: Technical data

Features	Description	
Supply voltage	24 V AC $\pm$ 15% 50/60 Hz, 9 VA	
	24 V DC (20 – 60 V), 9 VA	
4 analog inputs	Pressure measuring: Ratiometric pressure transmitter type AKS 32R 1 – 5 volt pressure transmitter type AKS 32 0 – 20 (4 – 20) mA pressure transmitter type AKS 33	
	Temperature measurement Pt 1000 ohm/0 °C NTC - 86 K from digital scroll/stream	
8 digital inputs	From contact function E.g. to: Start/stop of regulation Monitoring of safety circuits General alarm function	
Relay output to capacity control	5 pcs. SPST (5 A)	AC-1: 5 A (ohmic)
		AC-15: 2 A (inductive)
	1 pc. solid state PWM for scroll-unload	I <sub>max.</sub> = 0.5 A
		I <sub>min.</sub> = 50 mA
		Leak < 1.5 mA
		Not short-circuit protected
2 voltage outputs	0 – 10 V DC, R <sub>i</sub> = 1 kohm	
Data communication	Modbus for AK-SM 800	
Environments	-20 – 60 °C, during operations	
	-40 – 70 °C, during transport	
	20 – 80% Rh, not condensed	
	No shock influence/vibrations	
Density	IP20	
Weight	0.2 kg	
Mounting	DIN-rail	
Connection terminals	Max. 2.5 mm <sup>2</sup> multi core	

## Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
EU-UK Declaration	<a href="#">Danfoss EU-UK 080R1224.02</a>	Danfoss	LVD
Manufacturer's Declaration	<a href="#">Danfoss MD 080R4002.01</a>	Danfoss	China RoHS
Export Control Declaration	<a href="#">Pack controllers (Mid End)</a>	Danfoss	
Manufacturer's Declaration	<a href="#">Danfoss MD 080R1237.01</a>	Danfoss	EAEU RoHS
UA Declaration	<a href="#">Danfoss UA 8537</a>	Danfoss	UA RoHS
UA Declaration	<a href="#">UA 2024-06-27 electr. protection units for compressors</a>	Danfoss	LVD
EAC Declaration	<a href="#">EAC KZ 7100841.13.12.01062</a>	EAC - Eurasian Customs Union	EMC
Electrical Safety Certificate	<a href="#">EAC KZ 7100841.01.01.01245</a>	EAC - Eurasian Customs Union	LVD
Electrical Safety Certificate	<a href="#">UL E31024</a>	UL - Underwriters Laboratories inc.	

## Contact details

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