

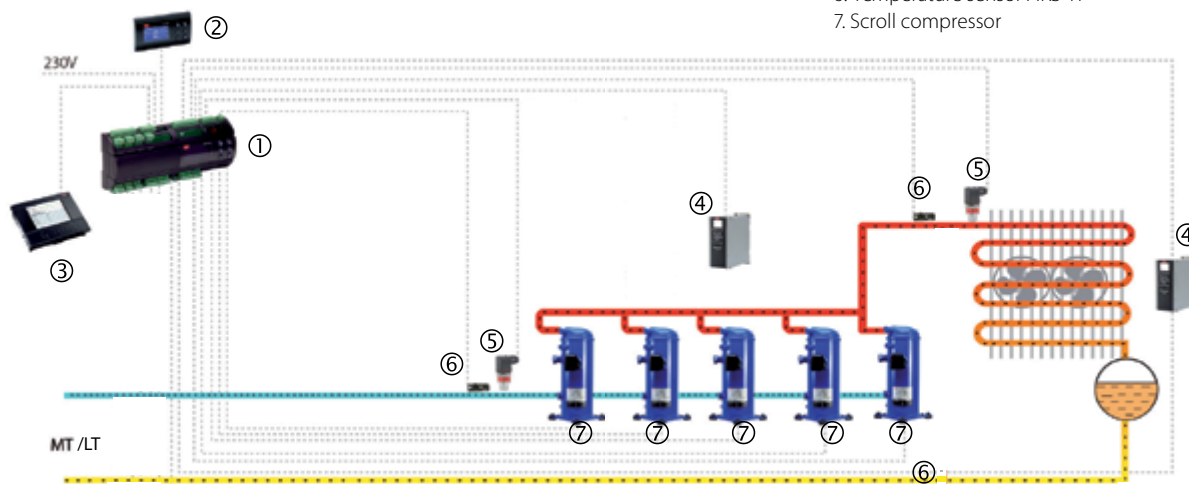
# AK-PC 651, Capacity controller

AK-PC 651 is used for capacity regulation of compressors and condensers in small refrigeration applications. A maximum of 10 compressors and one condenser can be regulated:

- One suction group + one condenser group
- One compressor group, max. 10 steps
- One condenser group, max. 8 steps



1. Pack controller AK-PC 651
2. Remote graphical display MMIGRS2
3. System Manager AK-SM 800
4. VLT® Frequency converter FC 103
5. Pressure transmitter AKS 32R
6. Temperature sensor AKS 11
7. Scroll compressor

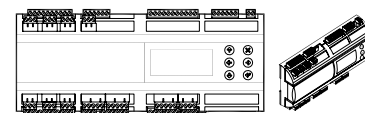


## Facts

### Benefits:

- Energy savings via:
  - optimisation of suction pressure
  - night time increase
  - floating condensing pressure
  - load limitation

# Technical data and ordering



## AK-PC 651

### Capacity controller

Features	Description
Supply voltage	230 V AC (85 – 265 V) 50 / 60 Hz, 26 V A
10 analog Input	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
18 digital input (14 for low voltage + 4 for high voltage or low voltage)	From contact function E.g. to: Start / stop of regulation Monitoring of safety circuits General alarm function
Relay output to capacity control	7 pcs. SPST (8 A): AC-1: 6 A (ohmic), AC-15: 4 A (inductive)
	4 pcs. SPDT (8 A): AC-1: 6 A (ohmic), AC-15: 4 A (inductive)
	2 pcs. SPDT (16 A): AC-1: 7 A (ohmic), AC-15: 3.5 A (inductive)
	2 pcs. Solid State. PWM for scroll -unload
4 Voltage output	0-10 V DC Ri = 1 kohm, Separate 24 V supply required
Display output	For type MMIGRS2
Data communication	Modbus for AK-SM 850
Environments	-20 – 60 °C, During operations
	-40 – 70 °C, During transport
	20 – 80% Rh, not condensed
	No shock influence/vibrations
Enclosure	IP20
Weight	0.8 kg
Mounting	DIN-rail
Connection terminals	max. 2.5 mm <sup>2</sup> multi core
Approvals	EU Low Voltage Directive and EMC demands re CE-marking complied with LVD tested acc. EN 60730-1 and EN 60730-2-9 EMC-tested acc. EN61000-6-2 and 3

## Ordering

Description	Code no.	PSC
Pack Controller AK-PC 651 with built-in display	080G0312	1
Remote Display MMIGRS2	080G0294	1
Wire for Display	080G0076 (3 m)	1
Pressure transmitter AKS 32R for suction (1/4" flare -1 to 12 bar)	060G1036	2
Pressure transmitter AKS 32R for discharge (1/4" flare -1 to 34 bar)	060G0090	1
Plug with 5 m cable	060G1034	3
Temperature sensor AKS 11 for suction (3.5 m cable, -50 to 100°C)	084N0003	1
Temperature sensor AKS 21A for discharge (5 m cable, -70 to 180°C)	084N0008	1
Variable Speed drive FC-103 for lead compressor and condenser	Consult FC-103 configuration tool (drives.danfoss.com)	
Scroll Compressor		