

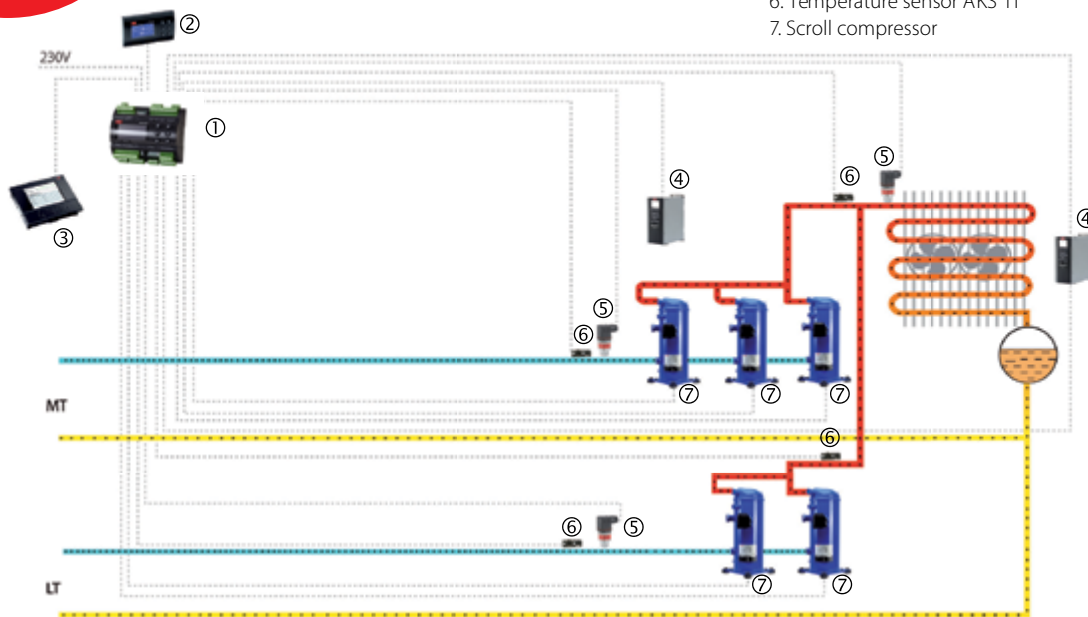
AK-PC 551, Capacity controller

AK-PC 551 is used for capacity regulation of compressors and condensers in small refrigeration applications. A maximum of 8 compressors and one condenser can be regulated:

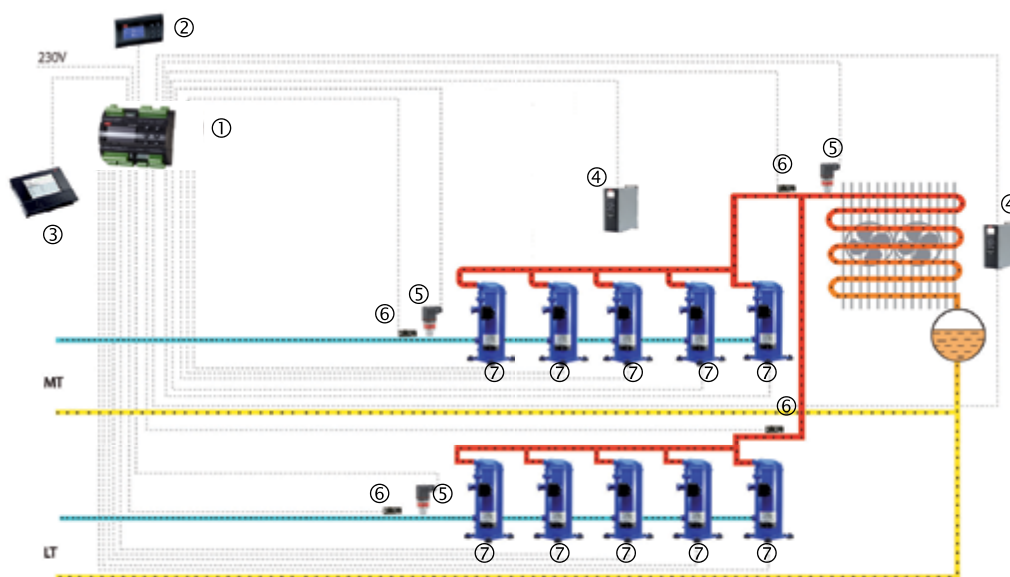
- One suction group + one condenser group
- Two suction groups + one shared condenser, max. 4 + 4 steps
- One compressor group, max. 8 steps
- One condenser group, max. 8 steps

Features AK-PC 551

1. Pack controller AK-PC 551
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



One Suction



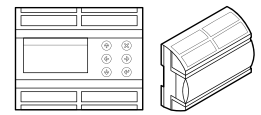
Two Suction

Facts

Benefits:

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

Technical data and ordering



AK-PC 551

Capacity controller

Features	Description			
Supply voltage	24 V AC \pm 15%, 50 / 60 Hz, 17 V A			
	24 V DC (20 – 60 V), 17 V A			
	230 V AC (85 – 265 V) 50 / 60 Hz, 20 V A			
8 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			
	From contact function E.g. to: Start / stop of regulation Monitoring of safety circuits General alarm function			
8 digital input				
Relay output to capacity control	4 pcs. SPDT (8 A): AC-1: 6 A (ohmic)			
	4 pcs. SPDT (8 A): AC-15: 4 A (inductive)			
	2 pcs. SPST (16 A): AC-1: 10 A (ohmic)			
	2 pcs. SPST (16 A): AC-15: 3.5 A (inductive)			
	2 pcs. Solid State. PWM for scroll -unload	<table border="1"> <tr> <td>I_{max.} = 0.5 A</td> </tr> <tr> <td>I_{min.} = 50 mA</td> </tr> <tr> <td>Leak < 1.5 mA</td> </tr> </table>	I _{max.} = 0.5 A	I _{min.} = 50 mA
I _{max.} = 0.5 A				
I _{min.} = 50 mA				
Leak < 1.5 mA				
2 Voltage output	0-10 V DC R _i = 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	0.4 kg			
Mounting	DIN-rail			
Connection terminals	max. 2.5 mm ² 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 551 with built-in display	080G0281 (230 V) or 080G0283 (24 V)	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	1
Pressure transmitter AKS 32R for discharge (1/4" flare -1 to 34 bar)	060G0090	1
Plug with 5 m cable	060G1034	2
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		