

ENGINEERING
TOMORROW

Danfoss

Water loop application | AK-CC55 Water Loop

Brine pump speed control

Multipurpose AK-CC55 Water Loop controller in a brine cooled cabinet with a variable speed pump.



AK-CC55 Water Loop controller in a brine cooled cabinet with a variable speed pump

AK-CC55 Water Loop controller offers a set of predefined applications. These include a brine cooled cabinet with a speed-controlled brine feeding pump, which are found in application modes 7 and 8.

The controller will monitor and/or maintain the temperatures S3-S8 across the cabinet (see graphics) and regulate the cooling capacity by adjusting the brine pump speed.

Temperature sensors S7 and S8 are used to monitor the brine inlet/outlet temperatures.

The pump speed control is achieved through the analogue output signal in either:

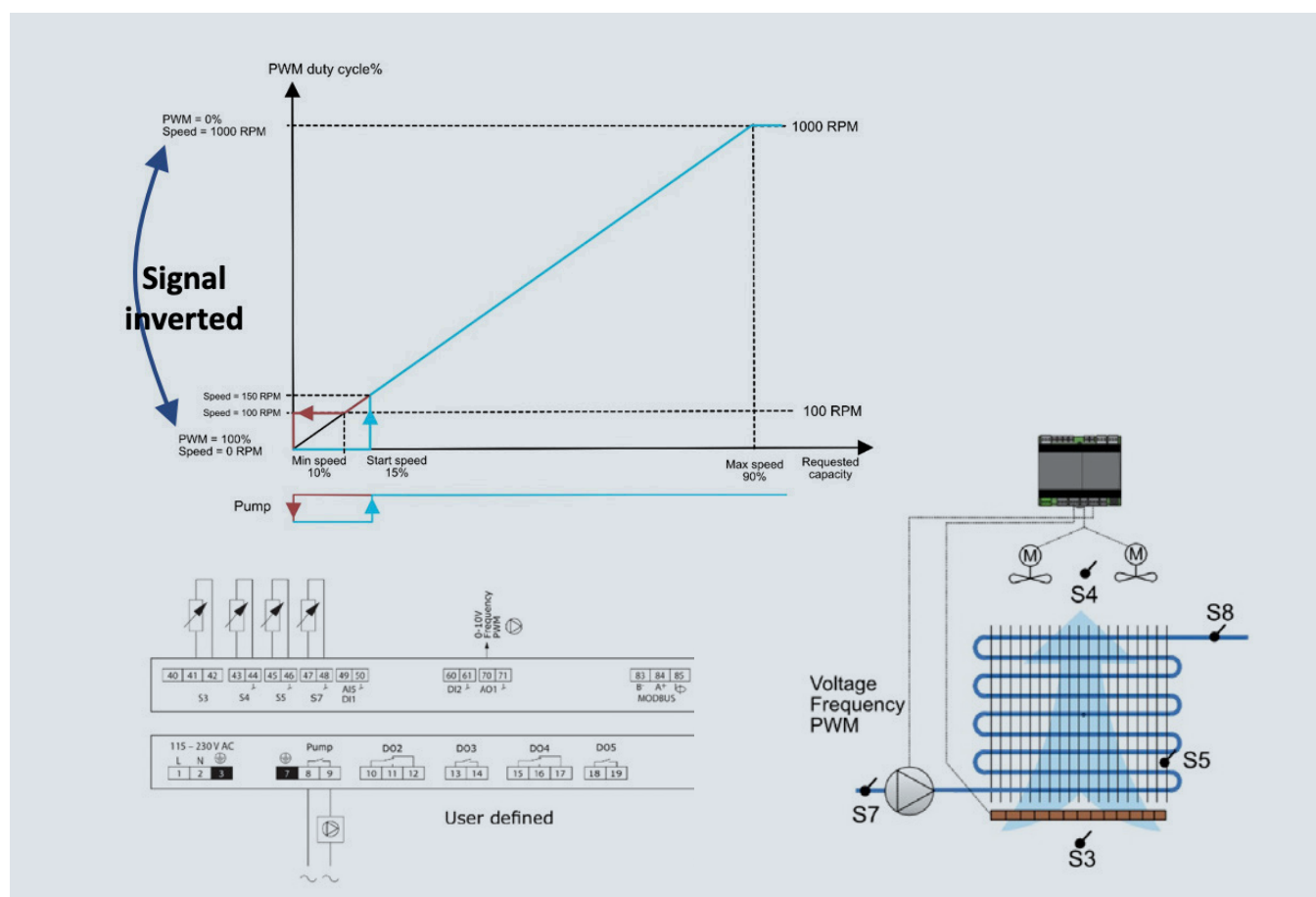
- Voltage 0-10 Volt
- Frequency 15-150 Hz
- PWM duty cycle control in range from 100-500 Hz

Additionally, a set of advanced software functionalities related to pump speed control include:

- Speed control – Ramp limiting function (%/Sec.)
- Min, max and start speed
- Option for inverted capacity signal (see graphics)

Application setting 8 enables a flexible user defined configuration of digital outputs, with brine pump speed control as described above. The digital outputs DO2 – DO5 (relays) can be setup for:

- Evaporator "Fan control" & "Fan Eco"
- Defrost heater
- Rail heat
- Alarm
- Light
- Blinds
- Air heating element



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