

1-phase condenser fan speed control

P216

Condenser fan speed controller

These controllers are designed for speed variation of single phase motors, especially for fan speed control on air cooled condensers. Head pressure control of a refrigeration system, through speed variation of the fan on an air-cooled condenser, results in optimum performance throughout the year.

Using a pressure transducer as the input device to the fan speed controller, gives the most direct and fastest response to pressure variations in the refrigerant system. The controller varies the supply voltage to the motor from 45% to at least 95% over the proportional band using the phase cutting principle. If the pressure drops below the adjusted setpoint minus the proportional band, the output to the motor is zero volt or the adjusted min. speed setting. This provides speed variation of permanent split capacitor or shaded pole motors which do not draw more than 12 A (rms) full load current.

The controller used for dual pressure input varies the fan speed by directly sensing the pressure changes of two separate refrigerant circuits. The setpoint of each pressure transducer can be separately adjusted. The controller selects the input with the greatest cooling demand to control the fan speed.

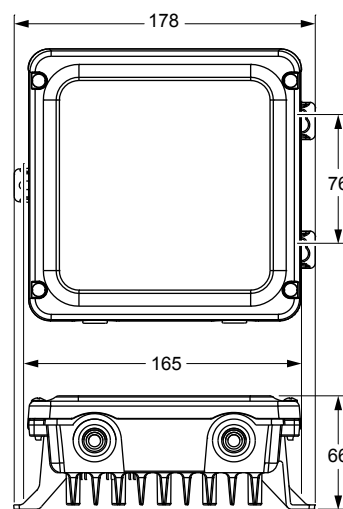
The transducers can be used in non-corrosive refrigerant systems. The motor manufacturer should have approved his product for this speed control principle. It is recommended to confirm with the electric motor manufacturer, that the motor can be used with a controller, using the phase cutting principle for speed variation. You can also provide a copy of this P216 product data sheet to the motor manufacturer/supplier for review.

Features

- ▶ The new benchmark in standard FSC
- ▶ Easy to Install and Easy to operate
- ▶ Output Range: 0,5 to 12 Amp (1 phase)
- ▶ Input 0-10 Vdc
- ▶ Including 0-50 bar pressure transducer P499VCS-405C
- ▶ Heatpump mode
- ▶ Reverse operation mode
- ▶ Master / Slave mode
- ▶ Fixed pressure ranges for direct replacement (P215)
- ▶ Setpoint and Min speed potmeters
- ▶ Operate with High Efficiency AC-fan motors who comply to ERP 2015 directive.

Ordering information

Codes	Description
P216EEA-2K	Wallmount P216EEA-101C + P499VCS-405C pressure transducer
P216EEA-101C	Wall mounted FSC
P499VCS-405C	Pressure transmitter with range 0-50 bar, Output 0-10V. 2 meter fixed cable. Pressure connection 7/16-20UNF female thread



Dimensions in mm