## **CONTROL UNIT**

## F21050501 VariMax50 CE Control unit for stepper motor

Also available in Modbus version



- User friendly
- Stable aluminium enclosure
- Compact build dimensions
- Input signal 0-10 V
- Remaining alarms
- CE-approved
- Five-year product warranty

Set of EMC-glands are included in VariMax50 CE

VariMax50 CE is a control unit and combines small dimensions with large capacity and is very easily mounted and run.

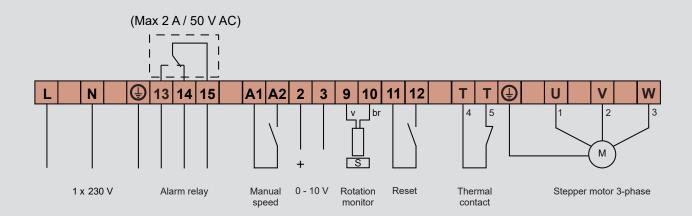
VariMax50 CE is intended for thermal rotor diameters up to 2500 mm with a rotor speed of max. 12 rpm. If the rotor requires a faster rotor speed, the rotor diameter should be reduced.

VariMax50 CE is an alternative to our control units MiniMax and MicroMax.

The control unit should be combined with our VariMax-motor50 CE.



## **CONNECTION DIAGRAM**



## **Description of functions**

Together with the VariMax-motor50 CE, VariMax50 CE constitutes a modern combination of specific additional functions for an optimal run of a rotary heat exchanger. The VariMax-motor50 CE is a stepper motor with a large torque within the complete speed area. This means that the speed of a thermal rotor is between 0,1-12 rpm.

Input signal 0-10 V	The speed of the rotor is regulated by the control unit so that the efficiency of the heat exchanger
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is in proportion to the input signal from the central control.

**Cleaning function** When the rotor has stopped for 10 minutes, the cleaning function is activated and the rotor starts to

rotate. As a warning, the rotor first rotates for 6 seconds at a motor speed of 5 rpm, the rotor is then

stationary for 3 seconds. After this, the actual cleaning starts, for a random time,

between 10 to 20 seconds with the motor at 20 rpm.

**Rotation monitor** Alarms and trips if pulse is not received every 30 minutes at minimum speed and every

20 seconds at maximum speed. The time between theese speed is linear.

The function is disconnectable through DIP-switches. The alarm is remaining.

Other alarms

The control unit trips and alarms at over- or under voltage, overtemperature in the control unit,

overtemperature in the motor, short circuit or earth faulty. All alarms are remaining.

**Manual speed** Possibility of controlling the speed via separate potentiometer, whatever the value of the input signal.

**Test** DIP-switches for manual run at low- or high speed.

Technical data	VariMax50 CE
Connection voltage	1x230-240 V +/-15%
	50/60 Hz
Power input max.	240 W
Input current	1,9 A
External fuse max.	10 A
Output voltage*)	3x0-280 V
Output current, max	2,0 A
Internal fuse**)	2,5 AT
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Output frequency	0-312 Hz
Acceleration- and retardation time	30 sec
Ambient temperature	-30 - +45 °C
not condensing	-40 - +45 °C***)
Protection form	Type 1
Weight	1,2 kg
Dimensions, HxWxD	203x187x70 mm

<sup>\*)</sup> Exact value can not be achieved with a digital measuring instrument

<sup>\*\*)</sup> The fuse protects both motor and electronics

<sup>\*\*\*)</sup> Note, at -40  $^{\circ}$ C, the control unit must be connected to power all the time