

Advanced Heat Recovery Control

EAHC21

The EAHC21 is an automatic control system for up to two heat recovery units (standard). It is designed to be used in conjunction with Exodraft chimney fans and heat exchangers. The heart of the EAHC21 system is a WAGO PLC control with various digital and analogue I/O modules connected to terminal blocks for easy interface. A 7" touch screen allows for monitoring and configuration of the system.

The EAHC21 control monitors and maintains specific pressures and temperatures by controlling the speed of a chimney fan and by regulating the water temperature in the hydraulic system. It also monitors the pressure loss in the heat exchanger as well as other critical values in the heat exchanger system. The different pressures in the system are measured by XTP 150 sensors and the temperatures by PT1000 sensors. If the pressure and temperature setpoints of the system reach critical levels, a warning will be shown on the display and an alarm relay will be activated.

The touch-enabled display gives the user the option to monitor the values of both the flue and hydraulic systems. The latest warnings and trend curves are visible for both systems. With a flow meter installed, the user can continuously monitor the production (kW) of the system.



Features

- Input and output to 2 heat recovery units and 2 buffer tanks
- Remote access via web server
- Easy installation
- Expandable I/O capacity
- Multiple bus compatible (BACnet, MODBUS/IP, KNX, PROFIBUS)
- Integrated touch display with userfriendly interface
- 3 standard motor configuration options

Approval

EN 61 439-1:2014*	Type-tested and partially type-tested assemblies
EN 60 204-1:2006*	Safety of Machinery - Electrical equipment of machines, Part 1: General requirements
EN ISO 13 850:2008*	Safety of Machinery, Emergency stop, Principles for design (ISO 13850:2006)
EN ISO 13 849-1:2008*	Safety of Machinery, Safety related parts for control system, Part 1: General principles for design
EN 60757	The color-code on wires: The English abbreviation for indication of the colour used on connecting lines (wires) is according to this standard.

* These standards are only in use as far as it is of relevance in relation to the actual "Low-voltage switchgear and controlgear assemblies".

Technical Data

Description Exodraft order no.	EAHC21 TRIAC 3201067	EAHC21 VFD+TRIAC 3201071	EAHC21 VFD 3201068
Height x width x depth	700 x 500 x 250 mm		
Weight	30 kg		
IP-rating / material	IP54 / Steel		
Voltage	1x230 V AC ±10 %, 50 Hz		3x400V AC ±10 %, 50 Hz
Rated Current	4A	20A	25A
Temperature	0 to 55 °C		
HMI	7" Resistiv Touch LCD 800x480		
Inputs			
Digital potential free	2		
Digital 24-230 V AC/DC	2		
XTP-sensor 0-10V Analog	4		
Flow Sensor 0-20 mA / 0.3-15 m3/h	2		
PT100/PT1000 Temperature sensor	8		
Outputs			
Digital potential free	6 - 250V/8A		
Digital 230V output	4 - 230V/6A total		
General purpose potential free	2 - 250V/8A		
0-10V Analog	4		
Chimney Fan output	2 x 70-230V / 4A	1 x 70-230V / 4A + 1 x 3x230V / 1.5kW	2 x 3x400V / 1.5kW
Pressure sensor data			
Dimension (w x h x d)	Dimension (w x h x d) 75 x 92 x 49 mm		
Operating temperature	0 to 70 °C		
Monitoring range	0 to +150 Pa (0 to 250 Pa)		
Max. distance between controller and XTP sensor	100 m		
IP-rating	IP54		
mA	30		
Communication options	BACnet, MODBUS/IP, KNX, MODBUS, PROFIBUS		

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Dimensions

