

WCC 310/320 STANDARD CONTROL UNIT

VOLTAGE

Input = 230V AC, Output = 24V DC

MOTOR LINES

4 (WCC 310) or 8 (WCC 320)

MOTOR LOAD

10 A (WCC 310) or 20 A (WCC 320)



DESCRIPTION

For daily comfort ventilation. To be used with $\pm 24V$ standard window actuators and window actuators with MotorLink®, 4 or 8 motor lines. 10A or 20A. With or without KNX. MotorController for the control of $\pm 24V$ DC standard actuators and actuators with MotorLink® for daily comfort ventilation. It can also control espagnolette/locking actuators. The MotorController is used for control of 4 or 8 individual motor lines. The number of actuators which can be connected on each motor line depends on the type of actuator – see the table “Max numbers of actuators per motor line and MotorController” for type and number.

INPUTS FOR

- Switch
- Key Switch
- Thermostat
- Wind Sensor
- Rain Sensor
- Co2 Sensor
- Remote Transmitter
- BMS (BACnet or KNX)

APPLICATION



DESCRIPTION (CONTINUED)

Versions

The MotorController is supplied in 4 variants:

With 10A: WCC 310 S 0410 U1: 10A, 4 motor lines, 10 inputs - WCC 310 S 0410 KNX U1: 10A, 4 motor lines, 10 KNX inputs.

With 20A: WCC 320 S 0810 U1: 20A, 8 motor lines, 10 inputs - WCC 320 S 0810 KNX U1: 20A, 8 motor lines, 10 KNX inputs.

In the MotorController each motor line can have a max load of 4A. The total max current consumption of all motor lines must not exceed 10A / 20A. The MotorController is also supplied as a PLUS version where the configuration is done on the built in touchscreen – please see the separate product sheet for further information. The communication between the MotorController and each window actuator is done via a 2 or 3 wire cable this depends, if the actuator has MotorLink® or not.

Actuators without MotorLink®

The communication is controlled via a 2 wire cable. The positioning of the windows is based on time control with a limited precision.

Actuators with MotorLink®

The communication is controlled digitally via MotorLink® in a 3-core (power and communication wire). The position of the window is controlled with millimetre accuracy. This is done via the position feedback from the actuators to the MotorController. Via this communication the system continuously registers the extent of the window opening. The MotorController immediately reports if a malfunction occurs on one of the motor lines.

Actuator speeds

This MotorController gives the possibility of up to three window actuator speeds depending on the type of actuator connected:

±24V DC standard actuator – 1 speed (speed B), MotorLink® actuator – 3 speeds (safety / manually operated / automatically)

The different speeds

- A. automatically control speed – actuators run slowly and almost soundlessly.
- B. manual control speed – actuators run faster and more audibly.
- C. safety control speed – actuators run fastest.

Communication card

The MotorController can be expanded with a communication card (fieldbus card) thus daily comfort ventilation will be possible via bus communication KNX, BACnet IP MS/TP or Modbus TCP/RTU/RS485 together with comfort controls e.g. NV Comfort® and NV Advance®. The field bus card is to be ordered separately.

Card types

WCA 3FK: KNX interface, WCA 3FB: BACnet-IP key, WCA 3FM: BACnet MS/TP / Modbus RTU/RS485 interface.

The MotorController is integrated into KNX and BACnet projects using the relevant application. In the application there are a number of communication objects and parameters, which help to ensure a flexible integration with other KNX/BACnet products and control units.

Configuring / commissioning / maintaining

The MotorController PLUS is configured, commissioned and maintained via the built in LCD touch screen – easy and simple without the use of an external PC. For easy commissioning and quick troubleshooting when maintaining the system, faults in the system will be displayed on the touch screen.

Configuration options

2 outputs as comfort group 1 respectively comfort group 2 wind speed sensor to be connected directly master/slave when linking with e.g. smoke control panels type WSC 310 or WSC 320 output when error input can be freely configured speeds can be configured sequence control ventilation timer 20A on one motor line (only WCC 320) event log.

Specifications

2, 6 or 10 motor lines (comfort ventilation groups) with up to 10A / 20A max. 10A/motor line automatically limited opening for comfort ventilation – no additional modules required field bus cards are available for KNX, BACnet IP MS/TP and Modbus TCP/RTU/RS485 max. output voltage 27.6VDC @230VAC easy configuration at start up / expanding / rebuilding on the 2½" LCD built in touch screen in the panel – this can also be done on a PC without any additional modules the touch screen is also used for quick troubleshooting when maintaining the system simple and fast installation.

Actuator and power supply cables are quickly and easily connected to the MotorController. The cable access can be made from the top or from underneath the MotorController, which can be mounted vertically or horizontally on the wall.

TECHNICAL DATA

Primary Voltage (Input)	230V AC
Secondary Voltage (Output)	24V DC
Motor Load	10 A (WCC 310) or 20 A (WCC 320)
Motor Lines	4 (WCC 310) or 8 (WCC 320)
Inputs	Switch, Thermostat, Wind Sensor, Rain Sensor, Co2 Sensor, Wireless Switch, Remote Transmitter, BMS (BACnet or KNX)
Operating Condition	-5°C - +45°C
Battery Backup	>72 hr
Size	355 x 320 x 76mm
Protection Type	IP 20
Delivery	1 x Control Unit

ACCESSORIES

NV SOLO	-	Control Unit & Weather Station
WCA3FB	-	Fieldbus card BACnet-IP key
WCA3FK	-	Fieldbus card KNX interface
WCA3FM	-	Fieldbus card BACnet/MSTP interface
WLA110	-	Room Thermostat
WLA150	-	Co2 & Temperature Sensor
WLA330	-	Wind & Rain Sensor
WLA331	-	Rain Sensor
WSK100	-	Ventilation Keypad
WSK-RECEIVER	-	Wireless Receiver
WSK-REMOTE	-	Remote Transmitter 2-Channel
WSK-SWITCH	-	Wireless Switch

PART CODES

WCC310	-	WCC 310 Control Unit 24 V 10 A 4-Zone
WCC320	-	WCC 320 Control Unit 24 V 20 A 8-Zone

COMPATIBLE WITH



WMX 804
Chain Actuator



WMX 826
Chain Actuator



WMX 814
Chain Actuator



WMU 842
Chain Actuator

(Multiple 24V DC actuators, total load must not exceed 3.0 A max.)