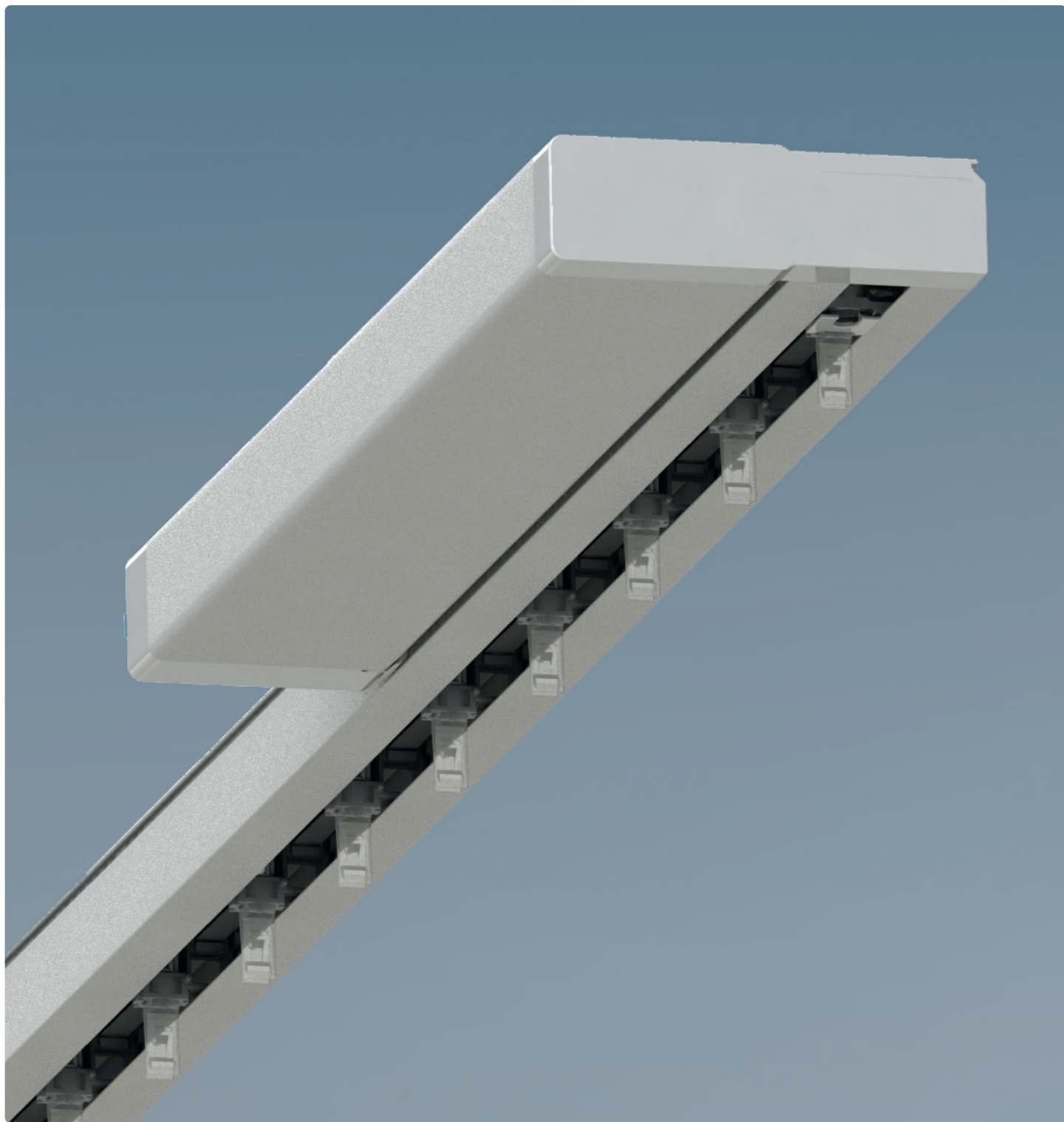


VERTICAL BLINDS

IQ3 motor Electrical planning



BENTHIN®

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Info:

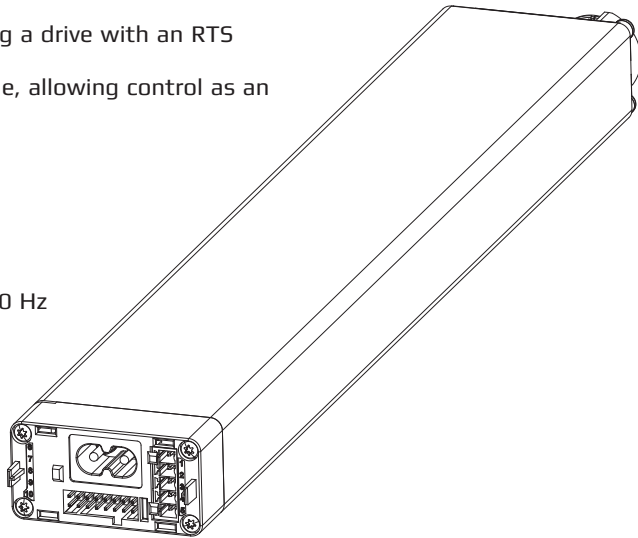
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Components – IQ3 motor

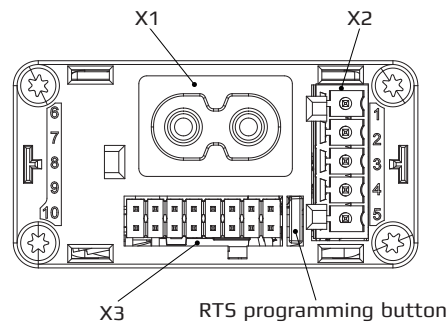
IQ3-100

The **IQ3 motor** is used to move and turn the louvres.
It is equipped with a "mono function" so that control elements with 2 switching functions can be used.
The IQ3 motor includes an optional RTS module for controlling a drive with an RTS radio transmitter from Somfy.
Up to 16 transmitters can be programmed on one RTS module, allowing control as an individual system, in a group or even centrally.

- Rated voltage : 230-240 V AC 50 Hz
- Voltage range : 180-264 V AC 47/63 Hz
- Input power : 28.2 W @ 24 W P out @ 230 V 50 Hz
Stand by ≤ 0.3 W
- Protection class housing : IP 20
- Protection class : II 
- Type of current : Low voltage
- Control voltage : Low voltage
- Control current : 10 mA / control signal
- Torque : 80 Ncm on the sprocket
- Travelling speed : max 5 m/min (3-stage)
- End position detection : electronic through programming
- Operating temperature : 0-70 °C
- Continuous load capacity: approx 10 % duty cycle
- Weight : 690 g
- Dimensions : 53.5 x 27.4 x 400 mm
incl. end caps and cover



X1 - Supply voltage
X2 - Control signals (CLOSE/OPEN)
X3 - Multifunctional interface



X1		X2				
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8	Comment
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)	VOUT
N	230 V	2	GND (ground)	BN (brown)	BK (black)	VOUT
		3	Coding *			
		4	CLOSE button (><)	GN (green)	WH (white)	Control signal
		5	OPEN button (<>)	YE (yellow)	YE (yellow)	Control signal

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

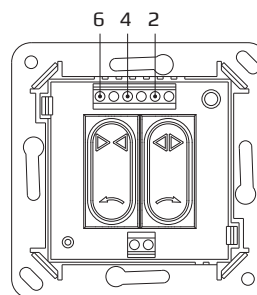
Components – IQ3 motor

IQ3-103

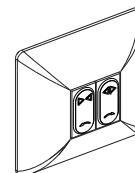
Push-button (surface-mounted)

Push-button for operating one or more vertical systems.

- Functions : Open/Close
- Dimensions : 81 x 81 x 10 mm
- Colour : white
- Connections : 1 x 2 and 1 x 6 screw terminals
- Connection data : Solid 0.14-1.5 mm²
Flexible 0.1-1.0 mm²
- Maximum load : 100 mA



- 2 – OPEN drive
- 4 – CLOSE driving
- 6 – Ground



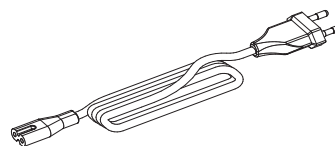
▲ IMPORTANT!

Max. 10 systems per push-button.

Mains cable with Euro plug

Power supply for the motor.

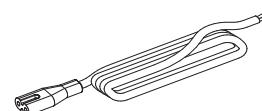
- Connection : Socket on motor / plug in socket
- Cable : H03VVH2-F, 2 x 0.75 mm²



Mains cable without Euro plug

Power supply for the motor.

- Connection : Socket on motor
- Cable : H03VVH2-F, 2 x 0.75 mm²



Control cable

Connection between the individual components (motors, group control modules, etc.).

- Cable : J-Y(ST)Y 2 x 2 x 0.8 (Ø9.0 mm)



- CLOSE – white
- OPEN – yellow
- Ground – black
- + 24 V – red

Components – IQ3 motor

IQ3-105

IQ3 motor switching module 230 V

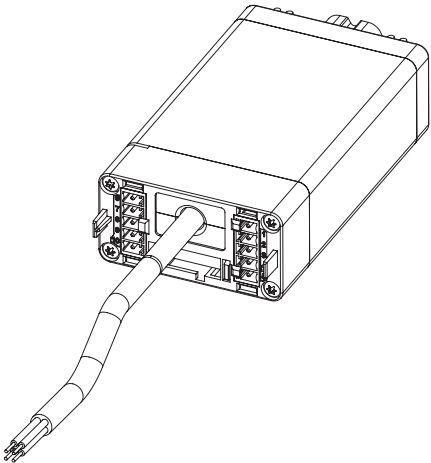
The 230 V switching module is used to control a drive with a control voltage of 230 V AC.

- Control voltage : 230 V AC
- Control current (230 V) : 5 mA
- Operating temperature : 0-70 °C
- Dimensions : 53.5 x 27.4 x 93.4 mm

X2 - Control signal (CLOSE/OPEN)

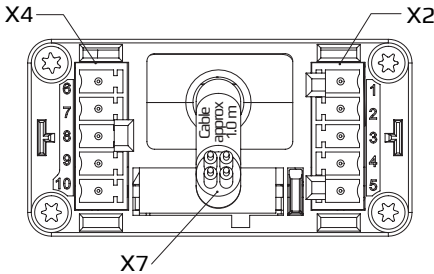
X4 - Plafond interface

X7 - Power supply / Control signal



X2				
Pin	Function	LIYY 4 x 0.14 mm ²	J-Y(ST)Y 2 x 2 x 0.8	Comment
1	+ 24 V (max. 80 mA)	WH (white)	RD (red)	V _{OUT}
2	GND (ground)	BN (brown)	BK (black)	V _{OUT}
3	Coding *			
4	CLOSE button (><)	GN (green)	WH (white)	Control signal
5	OPEN button (<>)	YE (yellow)	YE (yellow)	Control signal

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)



X4				X7			
Pin	Function	Cable	Comment	Pin	Function	Cable	Comment
6	-	-		L1	230 V	BN (brown)	V _{IN}
7	+ 5 V	-		N		BU (blue)	V _{IN}
8	GND	BK (black)	Ground	S1	CLOSE	BK (black)	Control signal
9	CAN L	YE (yellow)		S2	OPEN	GY (grey)	Control signal
10	CAN H	WH (white)					

▲ **ATTENTION!** The 230 V switching module requires a permanent power supply!

Components – IQ3 motor

IQ3-106

IQ3 motor Plafond module

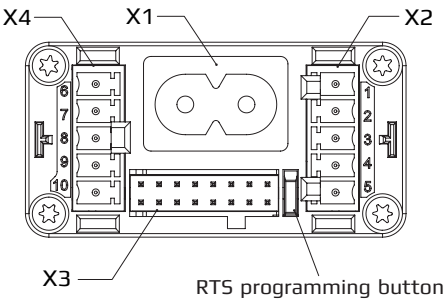
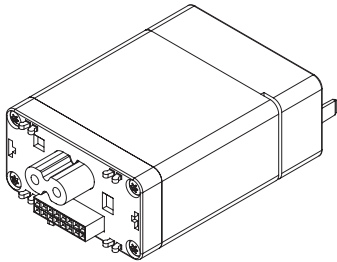
The plafond module is used to connect two drives in a plafond system. It is required once per drive and enables data exchange and therefore synchronisation between the control units. The CLOSE/OPEN control signals are only routed to one actuator!

- Operating temperature : 0-70 °C
- Weight : 110 g
- Dimensions : 53.5 x 27.4 x 71.4 mm

- X1 - Power supply
- X2 - Control signal (CLOSE/OPEN)
- X3 - Multifunctional interface
- X4 - Plafond interface

The CLOSE/OPEN control signals are only sent to one actuator in the plafond system. The second drive receives its information via the communication line.

In combination with other control modules, the plafond module is always plugged onto the motor first.

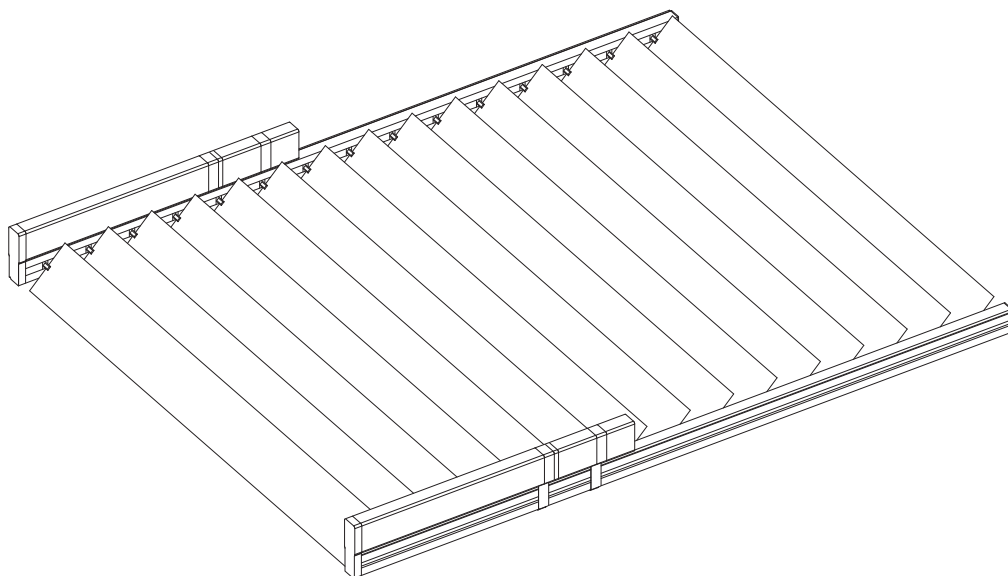


X1		X2					X4			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8	Comment	Pin	Function	Cable	Comment
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)	V _{OUT}	6	-	-	
N	230 V	2	GND (ground)	BN (brown)	BK (black)	V _{OUT}	7	+ 5 V	-	
		3	Coding *				8	GND	BK (black)	Ground
		4	CLOSE button (><)	GN (green)	WH (white)	Control signal	9	CAN L	YE (yellow)	
		5	OPEN button (<>)	YE (yellow)	YE (yellow)	Control signal	10	CAN H	WH (white)	

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

Operating instructions – Plafond – IQ3 motor

IQ3-150



General:

In ceiling systems, each track is equipped with a motor.

Synchronisation ensures that the motors run at the same speed.

To data to be exchanged between the motors via a serial interface, the motors are fitted with a module and connected via a cable.

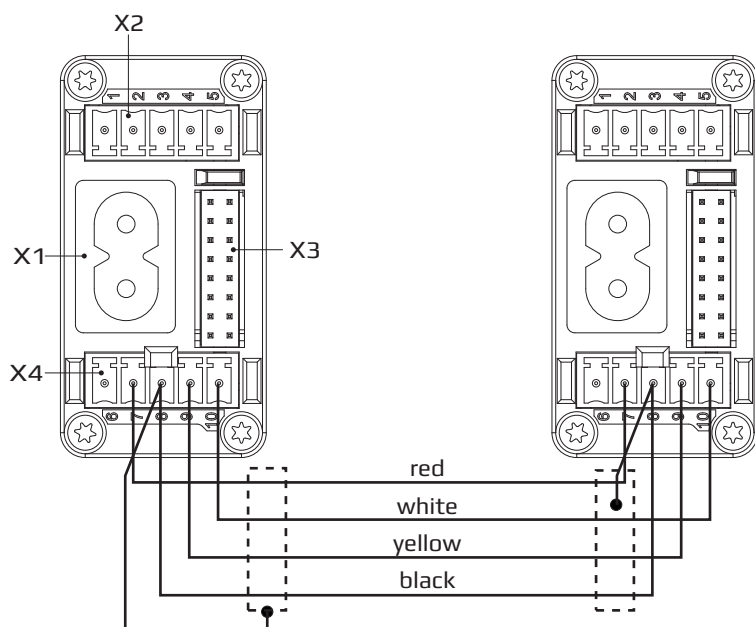
The operating elements such as buttons, timers and remote control may only be connected to one motor.

Motor features:

- Guaranteed parallel running of the blind
- 180° rotation only possible when the blind is closed
- Automatic opening of the louvres during movement
- Stop the motors immediately:
 - If a motor loses voltage,
 - if the data cable is interrupted,
 - if the difference between the rails is too large, when moving,
 - in the event of sluggishness due to external sources of interference.

Pin assignment:

Cable: J-Y(ST)Y 2 x 2 x 0.8 Ø9.0 mm

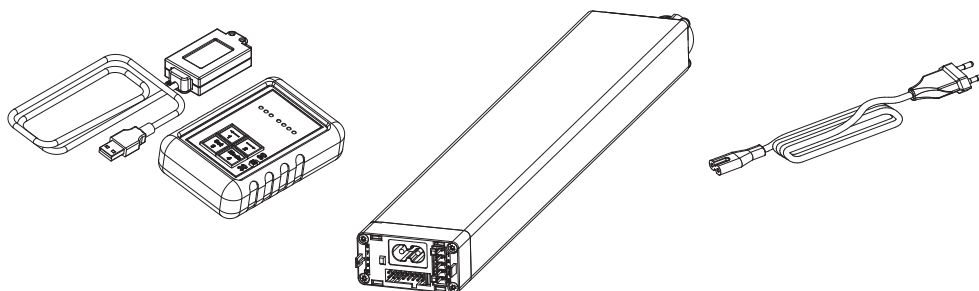


Teach-in end positions – IQ3 motor

IQ3-160 a

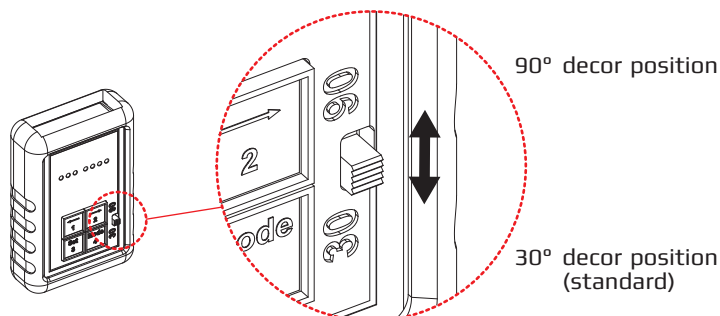
Required components:

- IQ3 programming unit
- IQ3 motor
- Mains connection cable



Default setting

The "30/90" switch can be used to determine which decor position is used during setting. of the end positions is set automatically.



Plug in the mains cable

The drive must output a signal sequence via the beeper as a start signal.



Attach programming unit

The green LED must light up (communication with drive).

If the green LED flashes, there is no communication (error in the CAN).

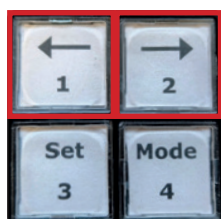
If the green LED shows no reaction, there is a problem with the power supply (+5V from the drive).



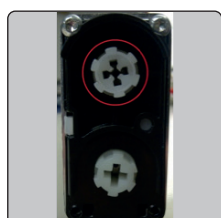
Press the Set & Mode buttons together and keep them pressed for approx. 3 seconds

The drive confirms the programming mode with a signal sequence (– – • •)
The first red LED lights up and the first yellow LED flashes quickly.

If no command (close/open) is executed, the drive outputs a signal sequence (– –) every 10 seconds.
Programming mode is exited automatically after 1 min without a command.



The traversing motor can be operated using the -> and <- buttons



Move the traversing motor to the desired position (slats separated)

Teach-in end positions – IQ3 motor

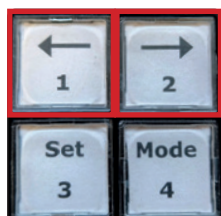
IQ3-160 b



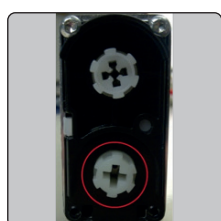
Press and hold the Set button for approx. 2 seconds

The "CLOSED" position is accepted and the actuator outputs a signalisation (•) as confirmation.

When the button is released, the first yellow LED lights up and the second yellow LED starts to flash quickly.



The reversing motor can be operated using the -> and <- buttons



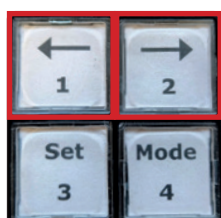
Move the reversing motor to the desired position (reversing to 0°)



Press and hold the Set button for approx. 2 seconds

The "0°" position is accepted and the drive outputs a signalisation as confirmation (••).

When the button is released, the second yellow LED lights up and the third yellow LED starts to flash quickly.



The reversing motor can be operated using the -> and <- buttons

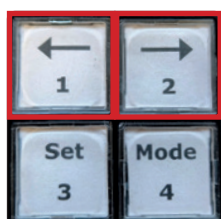
Move the reversing motor to the desired position (reversing to 180°)



Press and hold the Set button for approx. 2 seconds

The position "180°" is accepted and the drive outputs a signalisation as confirmation (•••), the reversing motor turns back 30°/90° and the third yellow LED lights up.

When the button is released, the fourth yellow LED starts to flash quickly.



The traversing motor can be operated using the -> and <- buttons

Move the traversing motor to the desired position (slats in packet)

Set package options – IQ3 motor

IQ3-160 c



Press and hold the Set button for approx. 2 seconds

The "Open" position is accepted and the drive outputs a signalisation as confirmation (•••→), three times short, once long.
The second red LED starts to flash and the yellow LEDs change to the package on the left or the package already stored



Use buttons 1 - 4 to set the desired package option

Button	Package position	Programming unit with IQ3 support	Programming unit without IQ3 support
1	Left	●●○○	●○○○
2	Right	○○●●	○○○○
3	Centre	○○●○	○○●○
4	Split	●○○●	○○○●



Press and hold the Set button for approx. 2 seconds

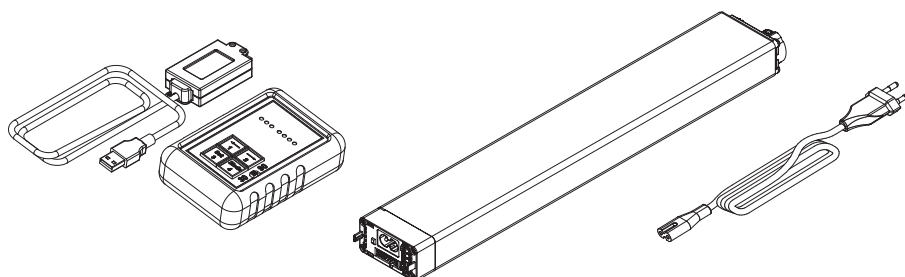
The parcel item is accepted.
The two red LEDs and the yellow LEDs are switched off again, the green LED remains switched on.

Setting options – IQ3 motor

IQ3-161 a

Required components:

- IQ3 programming unit
- IQ3 motor
- Mains connection cable



Plug in the mains cable

The drive must output a signal sequence via the beeper as a start signal.



Attach programming unit

The green LED must light up (communication with drive).

If the green LED flashes, there is no communication (error in the CAN).

If the green LED shows no reaction, there is a problem with the power supply (+5V from the drive).



Press and hold the Mode button for approx. 2 seconds

The Red 2 LED simply starts to flash and the Page 1 options are displayed.

If no command is executed, the drive emits a signal sequence (– –) every 10 seconds to remind the user of the programming mode.



The respective option (1, 2, 3, 4) can be switched on or off by briefly pressing one of the buttons.
(Display via LEDs yellow 1 to yellow 4)



Press and hold the Mode button for approx. 2 sec

This switches to page 2 of the options
(it can also be switched back in the same way).

The Red 2 LED starts to flash twice and the options on page 2 are displayed.

If no command is executed, the drive emits a signal sequence (– –) every 10 seconds to remind the user of the programming mode.



The respective option (1, 2, 3, 4) can be switched on or off by briefly pressing one of the buttons.
(Display via LEDs yellow 1 to yellow 4)

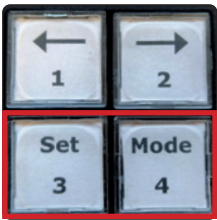


Press and hold the Set button for approx. 2 seconds

The red 2 and yellow 1 to yellow 4 LEDs are deactivated again and the set options are saved in the actuator.

Setting options – IQ3-Motor

IQ3-161 b



Optional:

Press and hold the Set button+ Mode for approx. 2 seconds to switch from pages 1/2 to page 3 or from pages 3/4 to page 1 on Options.



Option pages		
Red 1	Red 2	Options page
Off	Simply flashes	Page 1
Off	Flashes twice	Page 2
On	Simply flashes	Page 3
On	Flashes twice	Page 4

Setting options – IQ3 motor

IQ3-161 c

Options Page 1

Yellow 1	Off	Self-holding with a short press of a button
	On	Self-hold with long button press
Yellow 2	Off	Decor position only adjustable with programming unit
	On	Decor position also adjustable with operating button
Yellow 3	Off	Decor position adjustable in the range 30° - 150
	On	Decor position adjustable in the range 0° - 180
Yellow 4	Off	Intermediate stop can only be set with programming unit
	On	Intermediate stop can also be set with operating button

Options Page 2

Yellow 1	Off	Self-retaining deactivated
	On	Self-retaining activated (behaviour as set in option 1 / page 1)
Yellow 2	Off	Deco2 mode deactivated
	On	Deco2 mode activated
Yellow 3	Off	
	On	
Yellow 4	Off	
	On	

Setting options – IQ3 motor

IQ3-161 d

Options Page 3

Yellow 1	Off	Decoration position in the "normal" process
	On	Decor position "swapped" during the process
Yellow 2	Off	Decor position as set
	On	Decor position fixed at 30°
Yellow 3	Off	
	On	
Yellow 4	Off	
	On	

Options page 4 (subsequent setting of the package position)

Yellow 1+2	●●○○	Package position: Left	Programming unit with IQ3 support
Yellow 3+4	○○●●	Package position: Right	
Yellow 2+3	○○●○	Package position: Centre	
Yellow 1+4	●○○●	Package position: Split	

Options page 4 (subsequent setting of the package position)

Yellow 1	●○○○	Package position: Left	Programming unit without IQ3 support
Yellow 2	○●○○	Package position: Right	
Yellow 3	○○●○	Package position: Centre	
Yellow 4	○○○●	Package position: Split	

Customisation - Speed

IQ3-162

The travelling speed can be adjusted by pressing the RTS programming button for < 0.5 seconds.

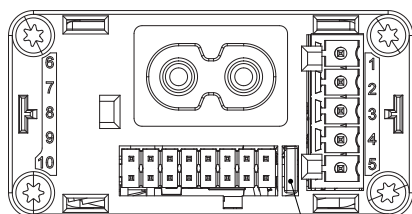
The first press the current travel speed of the motor.

Pressing again changes the speed.. (100% -> 75% -> 50% -> 100%)

Single signal corresponds to 2.5 m/min, 50%.

Double signal corresponds to 3.75 m/min, 75%.

Triple signal corresponds 5 m/min, 100% (factory setting).



RTS programming button

Operating instructions – IQ3 motor

IQ3-170

The IQ3 motor is equipped with 4 functions.
Open curtain, close curtain, turn slats to the left and turn slats to the right.
The system is operated via 2 control buttons.

Function:

„Drive CLOSE“ (►◄)

Press the button briefly (half a second):
Slats rotate and then the louvre curtain and then the turn close.

„Drive OPEN“ (◄►)

Press the button briefly (half a second):
Slats rotate and then the louvre curtain moves in the direction of the package.

„Turning“

Press and hold the button:
Slats rotate to the desired position to the left or right (0° - 180°).

Operation:

Louvre curtain for parcel delivery

1. Fully closed louvre curtain:
Briefly press the "Drive OPEN" button: The slats turn to 180° (slats completely closed), then turn back to the decor position and then move towards the package.
2. The louvre curtain is not fully closed:
Briefly press the "Drive OPEN" button: The slats rotate to the decor position and then move towards the package.

Close the louvre curtain (separate)

1. The louvre curtain is not fully closed:
Briefly press the "Drive CLOSE" button: The slats rotate to the decorative position and then the slat curtain and then the turn close.
2. Louvre curtain is isolated and in decor position:
Briefly press the "Drive CLOSE" button: The slats rotate to 0° and the turning stops automatically.

Turn slats

1. Louvre curtain closed:
The louvres can be turned within 0 - 180° by pressing the OPEN or CLOSE button.
2. Louvre curtain not closed:
The slats can be turned within the two decor positions using the OPEN and CLOSE buttons.
Once one of the decor positions has been reached, the slats remain in place for half a second before the slats move into the packet or close (separate).

Additional functions:

Decor position

Once the desired slat angle has been set with the slats closed, the user presses both buttons simultaneously for 3 seconds.

The drive adopts the current angle and signals this with an acoustic signal (1 x short).

If the set angle is outside the range of 30 - 150 degrees, the setting is not accepted. If the turning angle is within the range of 85 - 95 degrees, the decimal position is cancelled and a signal (1 x short, 1 x long) is signalled.

Stopover

Once the desired position between the end positions (but at least 10 cm from both end positions) has been set the user presses both buttons simultaneously for 3 seconds.

The drive adopts the current position and signals this with an acoustic signal (1 x short).

If the position is within 10 cm an end position, the intermediate stop is cancelled and signalled with a signal (3 x long).

Programming instructions – Teach-in/teach-out RTS – IQ3 motor

IQ3-180

Programming steps:

1. Start learning mode

Pressing the RTS programming unit for 2 seconds starts the learning mode and the signal (1 x long - pause - 2 x short) is signalled.

If end positions have already been programmed, the slats move briefly.

Or

Press the programming button on a known radio transmitter for 2 seconds and the signal (1 x long - pause - 2 x short) is signalled.

If end positions have already been programmed, the slats move briefly.

2. Programming an RTS radio transmitter

Press the programming button on an unknown radio transmitter for 0.5 seconds and the signal (1 x long - pause - 1 x short - 1 x short) is signalled.

If end positions have already been programmed, the slats move briefly. The learning mode is ended.

3. Teaching out a radio transmitter

Press the programming button on a known radio transmitter (but not the one with which the learning mode was started) for 0.5 seconds and the signal (1 x long - pause - 1 x long - 1 x short) is signalled.

If end positions have already been programmed, the slats move briefly. The learning mode is ended.

If programming is incorrect, the learning mode is ended and the signal (1 x long - pause - 2 x long) is signalled.

4. Cancel learning mode

Pressing the RTS programming button for 0.5 seconds cancels the programming mode and the signal (1 x long - pause - 2 x long) is signalled.

If end positions have already been programmed, the slats move briefly.

5. MY position

By pressing the MY button for 5 seconds on a programmed RTS transmitter, a position of the drive can be saved and deleted again.

If the drive is in a new position, this is saved as the MY position and the signal (1 x long - pause - 1 x short - 1 x long) is signalled.

If the drive is in the MY position (controlled via the MY function), the position is deleted by the storage process and the signal (1 x long - pause - 1 x long - 1 x short) is signalled.

Press the MY button briefly for 0.5 seconds to automatically move to the saved position.

6. Delete all settings

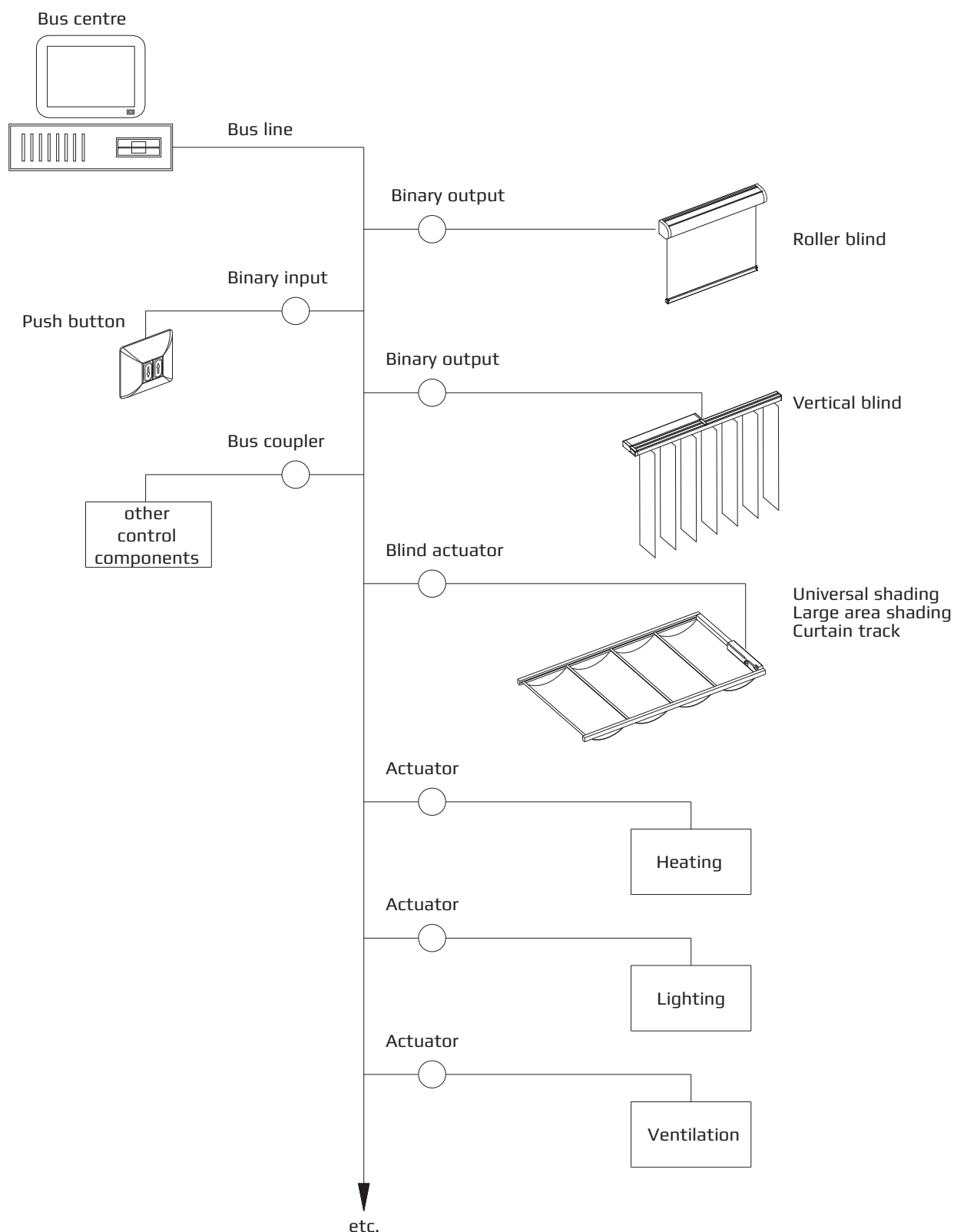
Pressing the RTS programming unit for approx. 12 seconds deletes all settings.

The signal indicates (1 x long - pause - 2 x short - pause - 1 x long - pause - 1 x long - 1 x short - pause - 1 x long - pause - 1 x long - 1 x short) the delete process.

General – Bus system

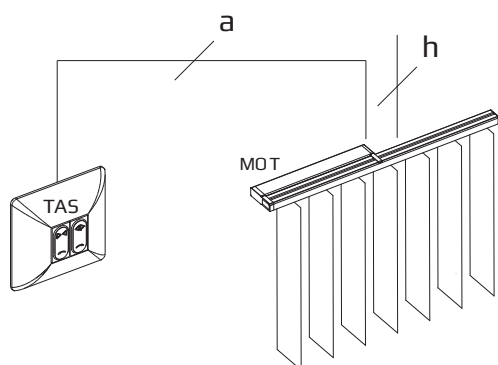
IQ3-200

The motor system can be integrated into all standard bus or centralised control systems. It is important to ensure that the appropriate switching actuators or binary outputs are used, as well as the corresponding bus couplers or binary inputs. A combination of the many control options is schematically in the picture below.



Individual control unit – IQ3 motor

IQ3-300 a

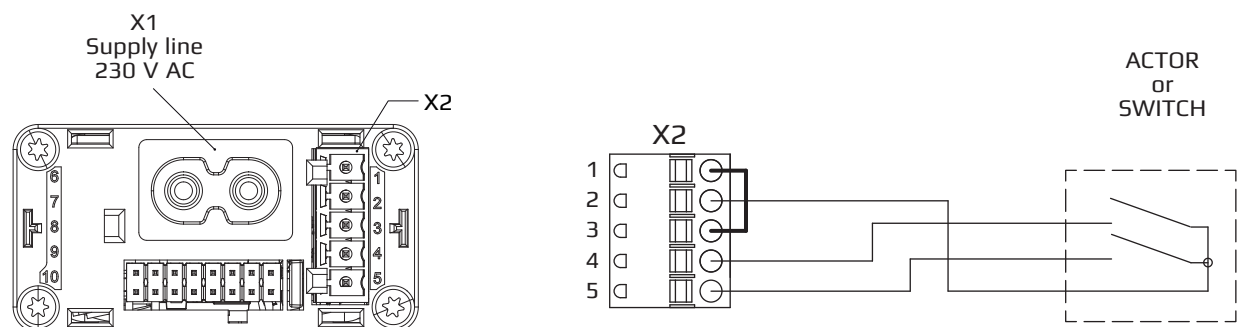


- MOT – IQ3 motor
- TAS – Push-button (surface-mounted)
- a – J-Y(ST)Y 2 x 2 x 0.8
- h – Supply line 230 V ~

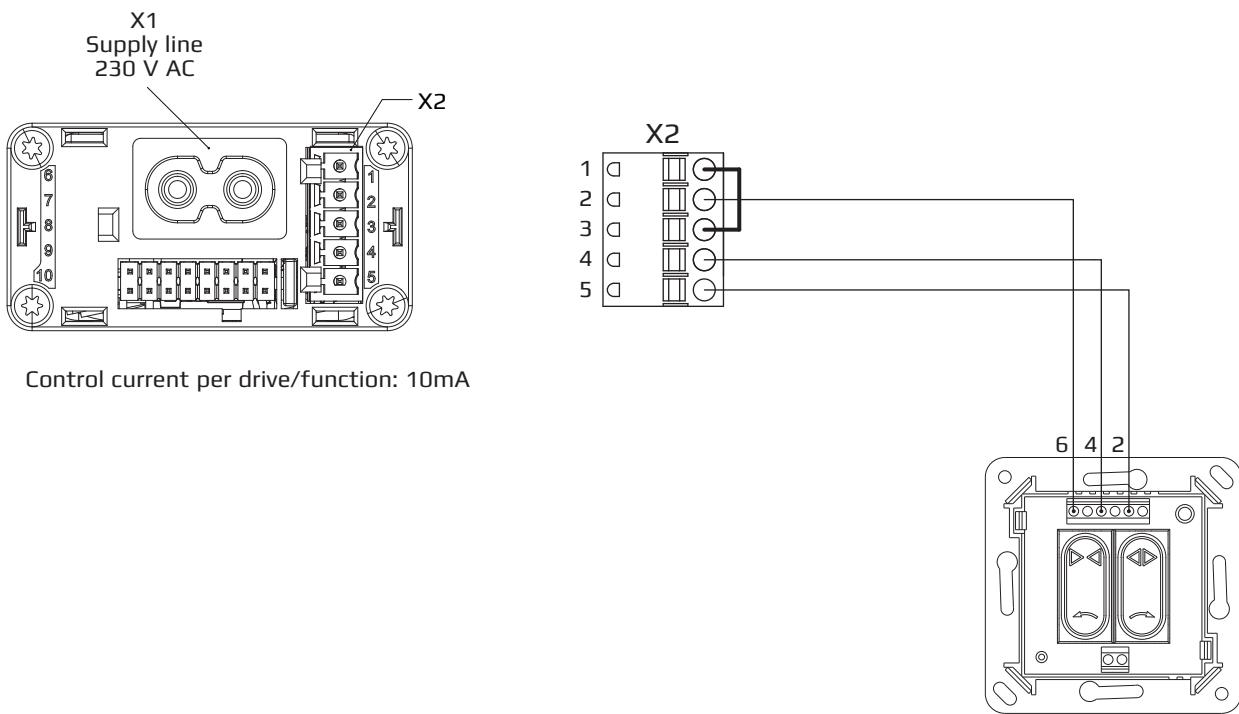
Wiring - Individual control unit - IQ3 motor

IQ3-300 b

Ground as control signal (potential-free)



Control current per drive/function: 10mA



Control current per drive/function: 10mA

X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

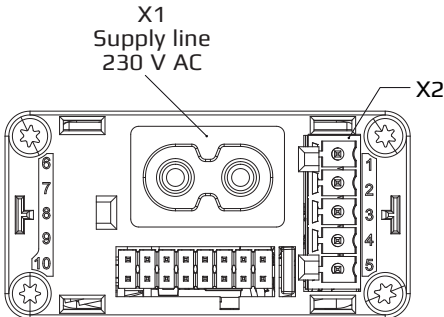
* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

Wiring - Individual control unit - IQ3 motor

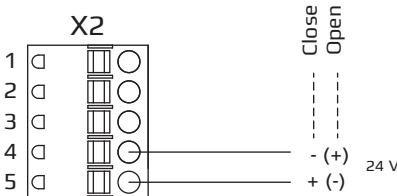
IQ3-300 c

Pole usage principle (control)

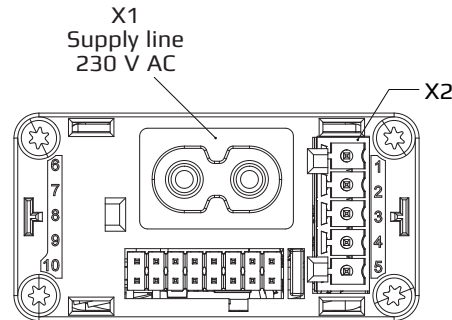
Polarity



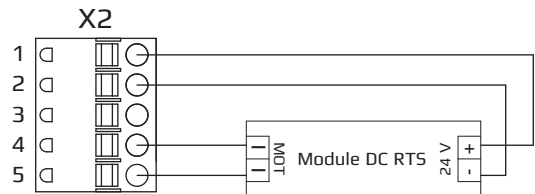
Control current per drive/function: 10mA



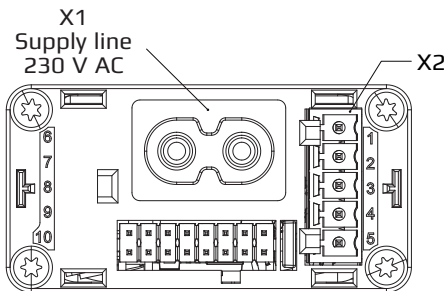
DC RTS radio receiver module



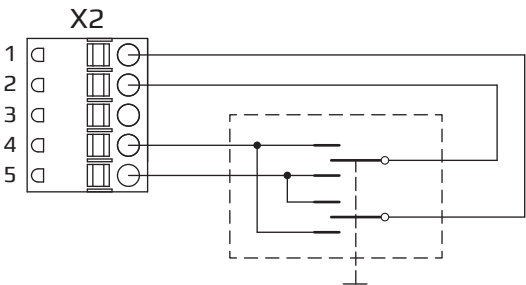
Control current per drive/function: 10mA



Pole reversing switch (example)



Control current per drive/function: 10mA

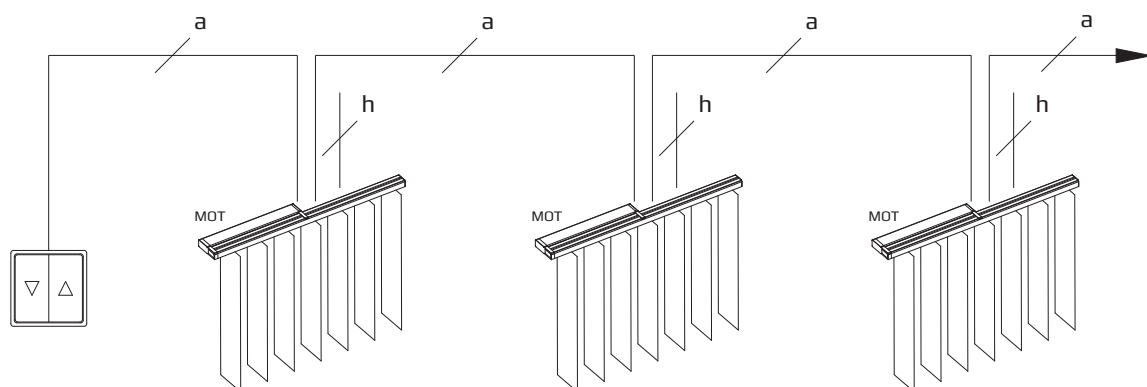


X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

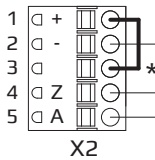
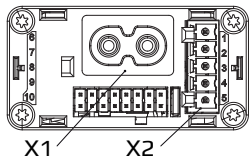
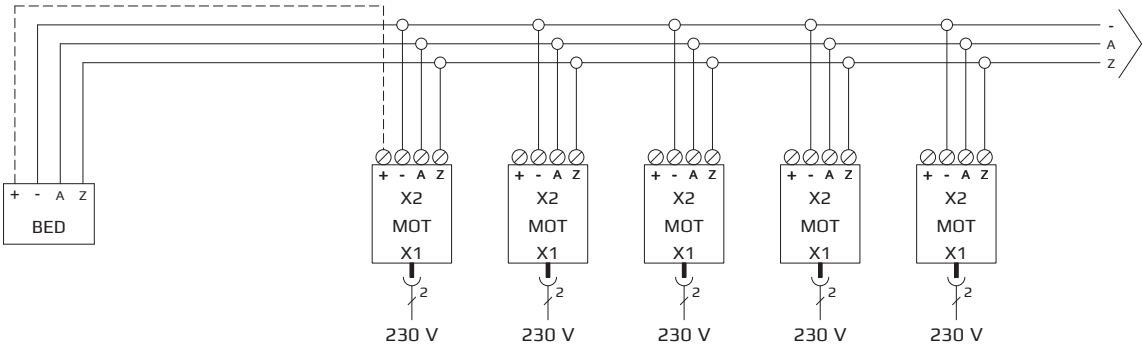
Group control – IQ3 motor

IQ3-301 a



- KM – Coupling module
- MOT – IQ3 motor
- TAS – Push-button (surface-mounted)
- a – J-Y(ST)Y 2 x 2 x 0.8
- h – Supply line 230 V ~

Wiring - Group control - IQ3 motor
IQ3-301 b



X1		X2				
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8	Comment
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)	Vout
N	230 V	2	GND (ground)	BN (brown)	BK (black)	Vout
		3	Coding *			
		4	CLOSE button (><)	GN (green)	WH (white)	Control signal
		5	OPEN button (<>)	YE (yellow)	YE (yellow)	Control signal

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

- BED - Operation
- MOT - IQ3 motor
- + - + 24 V
- - Ground
- A - OPEN drive
- Z - CLOSE drive

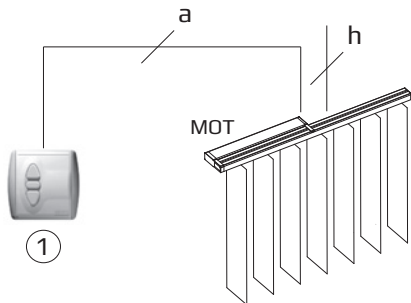
----- + Cable may ONLY be connected to infrared remote control!

Individual control unit - Centralis IB - IQ3 motor

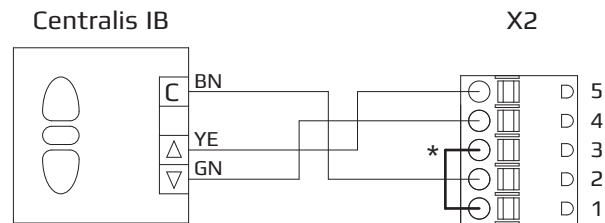
IQ3-400

Power supply from the motor

E-planning



Electrical connection diagrams



X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

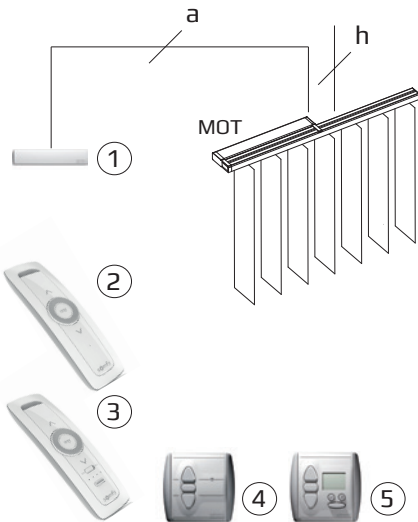
- ① - Centralis IB, central push-button
- MOT - IQ3 motor
- a - J-Y(ST)Y 2 x 2 x 0.8
- h - Supply line 230 V ~

Individual control unit - module DC RTS – IQ3 motor

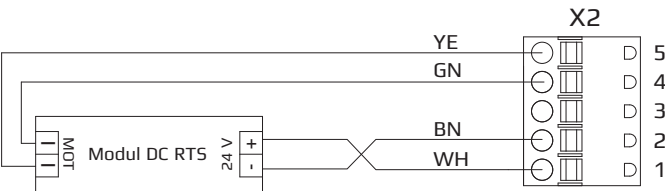
IQ3-401

Power supply from the motor

E-planning



Electrical connection diagrams



Note: No special function (e.g. Modulis or MY function) possible.

X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

- ① – module DC RTS, radio receiver
- ② – Situo 1 RTS, 1-channel-radio-handheld-transmitter
- ③ – Situo 5 RTS, 5-channel-radio-handheld-transmitter
- ④ – Centralis RTS, 1-channel radio wall transmitter
- ⑤ – Chronis RTS, radio programme timer
- ⑤ – Chronis RTS L, radio programme timer with automatic brightness control

MOT – IQ3 motor
a – J-Y(ST)Y 2 x 2 x 0.8
h – Supply line 230 V ~

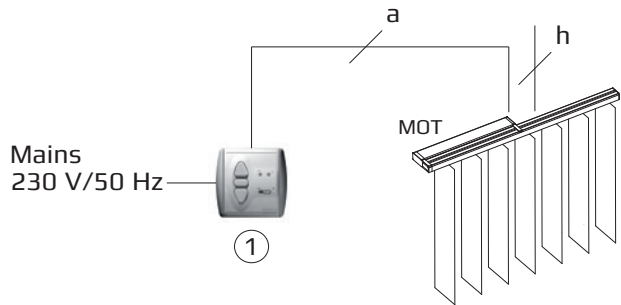
* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

Individual control unit - Soliris IB – IQ3 motor

IQ3-402

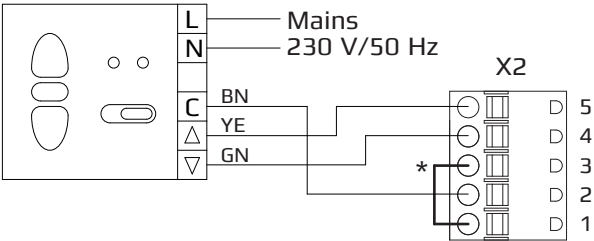
Power supply from the motor

E-planning



Electrical connection diagrams

Soliris IB Sonne



X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

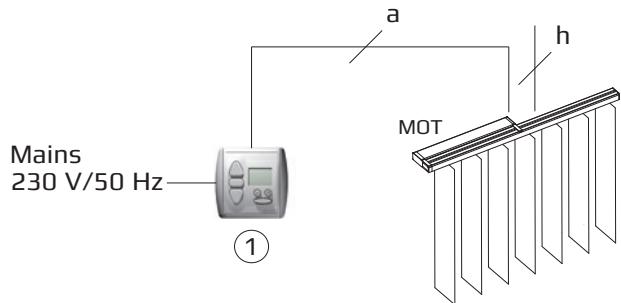
- ① – Soliris IB Sun,
Automatic sun control with window sensor (inside)
- MOT – IQ3 motor
- a – J-Y(ST)Y 2 x 2 x 0.8
- h – Supply line 230 V ~

Individual control unit - Chronis IB – IQ3 motor

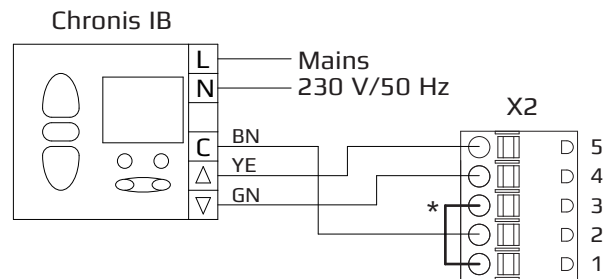
IQ3-403

Power supply from the motor

E-planning



Electrical connection diagrams



X1		X2				
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8	Comment
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)	V _{OUT}
N	230 V	2	GND (ground)	BN (brown)	BK (black)	V _{OUT}
		3	Coding *			
		4	CLOSE button (><)	GN (green)	WH (white)	Control signal
		5	OPEN button (<>)	YE (yellow)	YE (yellow)	Control signal

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

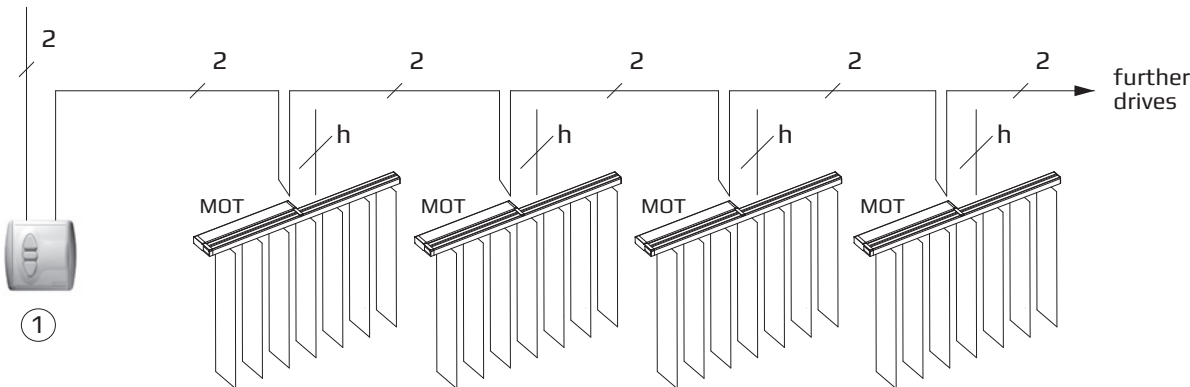
- ① – Chronis IB, programme timer
- ① – Chronis IB L, programme timer with automatic brightness control
- MOT – IQ3 motor
- a – J-Y(ST)Y 2 x 2 x 0.8
- h – Supply line 230 V ~

Individual control unit - Inis DC roller blind – IQ3 motor

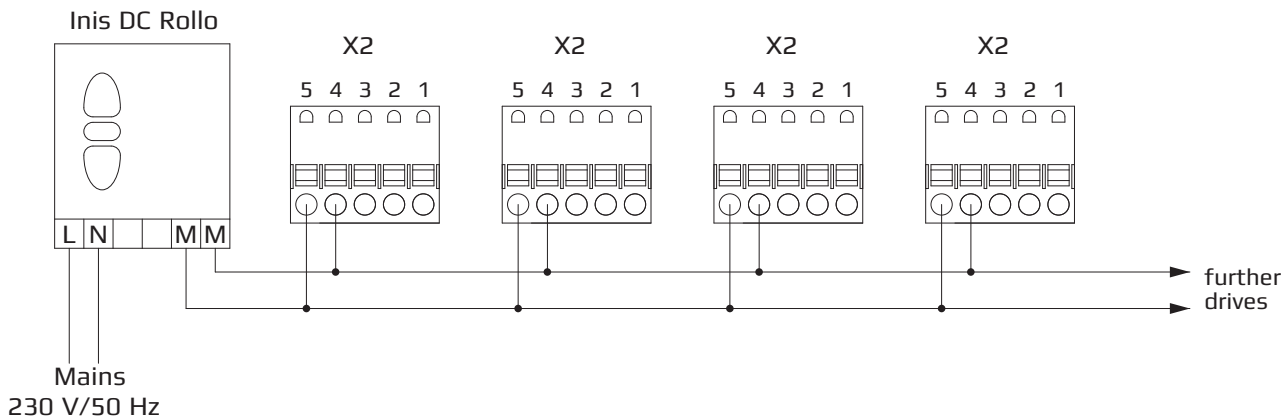
IQ3-404

E-planning

Mains
230 V/50 Hz



Electrical connection diagrams



X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

① – Inis DC roller blind, switch-mode power supply-unit

MOT – IQ3 motor

a – J-Y(ST)Y 2 x 2 x 0.8

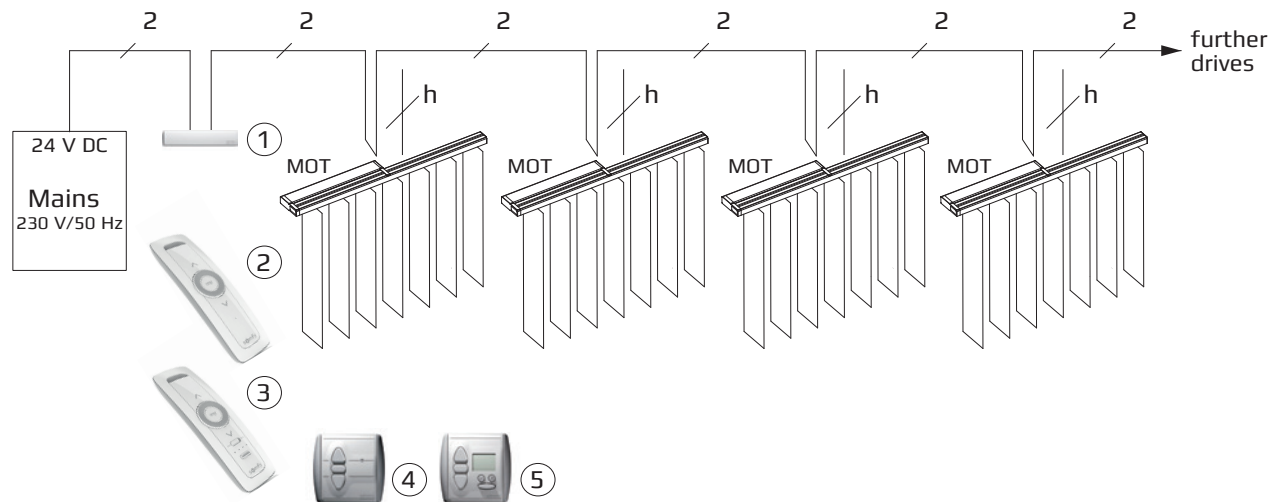
h – Supply line 230 V ~

Group control - DC RTS module - IQ3 motor

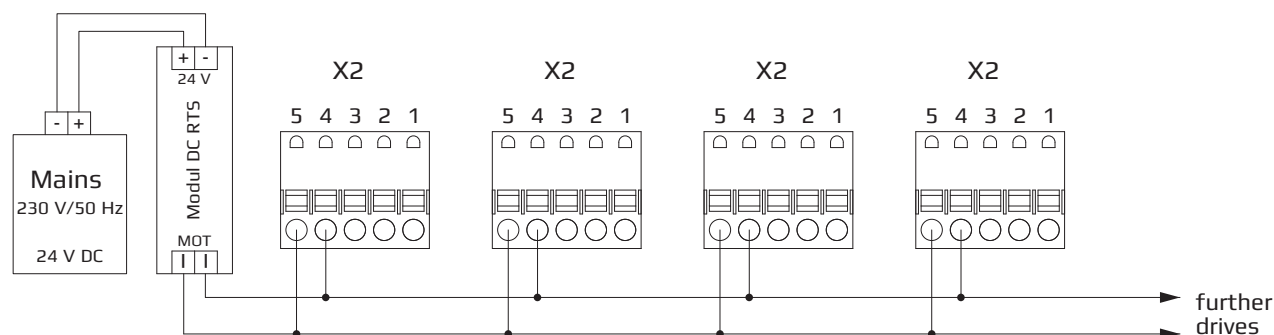
IQ3-405

Power supply from the power supply unit

E-planning



Electrical connection diagrams



Power supply
units Somfy

- UPS 10
- Socket transformer
- GPS 30
- GPS 100
- Power 2.5 DC

Power supply units in general

- 24 V DC
- Ripple <48%

X1		X2				
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm ²	J-Y(ST)Y 2 x 2 x 0.8	Comment
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)	V _{OUT}
N	230 V	2	GND (ground)	BN (brown)	BK (black)	V _{OUT}
		3	Coding *			
		4	CLOSE button (><)	GN (green)	WH (white)	Control signal
		5	OPEN button (<>)	YE (yellow)	YE (yellow)	Control signal

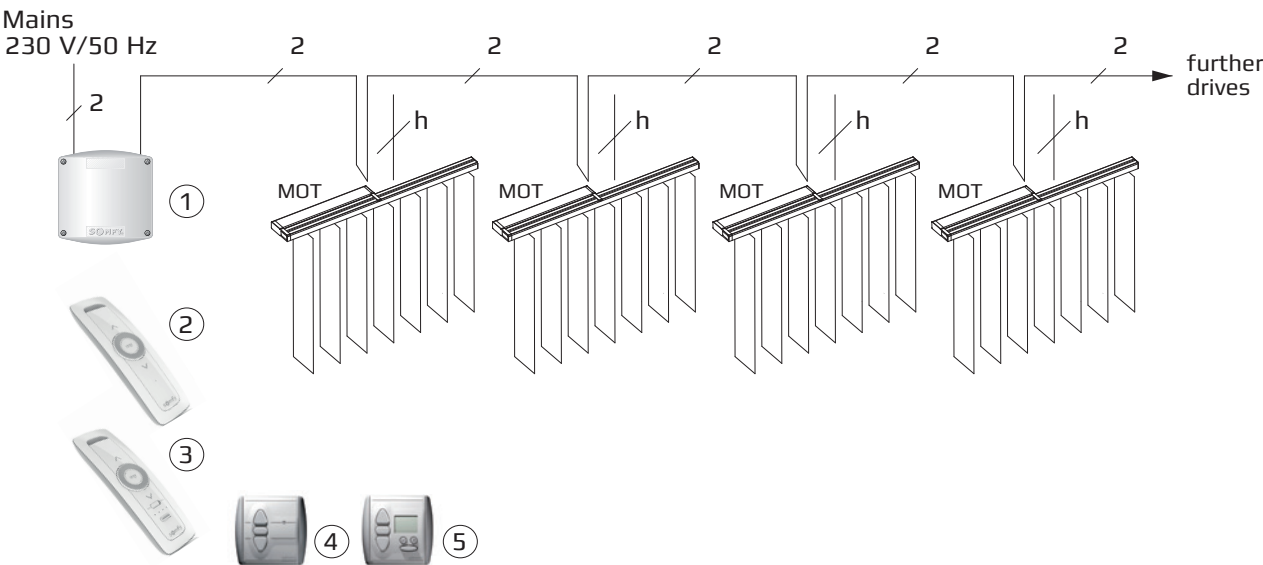
* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

- ① - module DC RTS, radio receiver
 - ② - Situo 1 RTS, 1-channel-radio-handheld-transmitter
 - ③ - Situo 5 RTS, 5-channel-radio-handheld-transmitter
 - ④ - Centralis RTS, 1-channel radio wall transmitter
 - ⑤ - Chronis RTS, radio programme timer
 - ⑤ - Chronis RTS L, radio programme timer
with automatic brightness control
- MOT - IQ3 motor
- h - Supply line 230 V ~

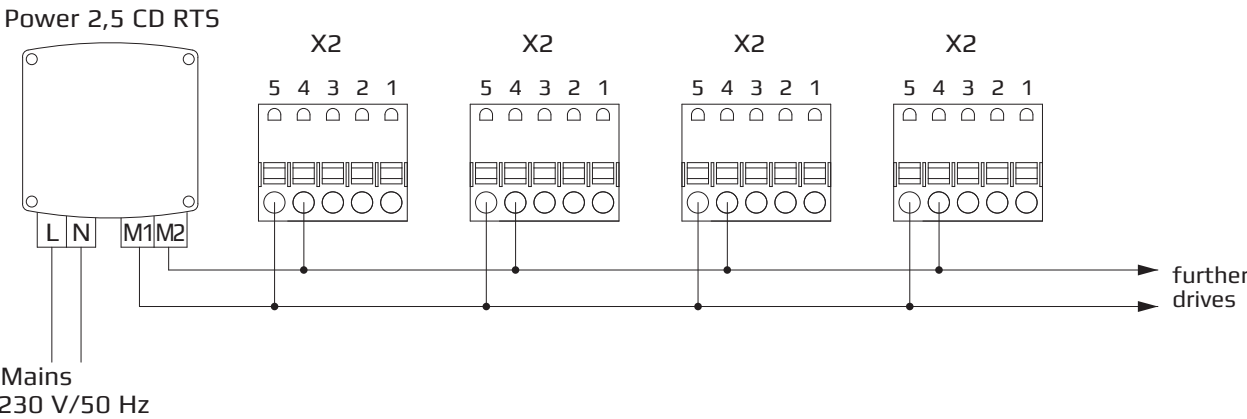
Group control - Power 2.5 DC RTS - IQ3 motor

IQ3-406

E-planning



Electrical connection diagrams



X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

- ① - module DC RTS, radio receiver
② - Situo 1 RTS, 1-channel-radio-handheld-transmitter
③ - Situo 5 RTS, 5-channel-radio-handheld-transmitter
④ - Centralis RTS, 1-channel radio wall transmitter
⑤ - Chronis RTS, radio programme timer
⑤ - Chronis RTS L, radio programme timer with automatic brightness control

MOT - IQ3 motor
h - Supply line 230 V ~

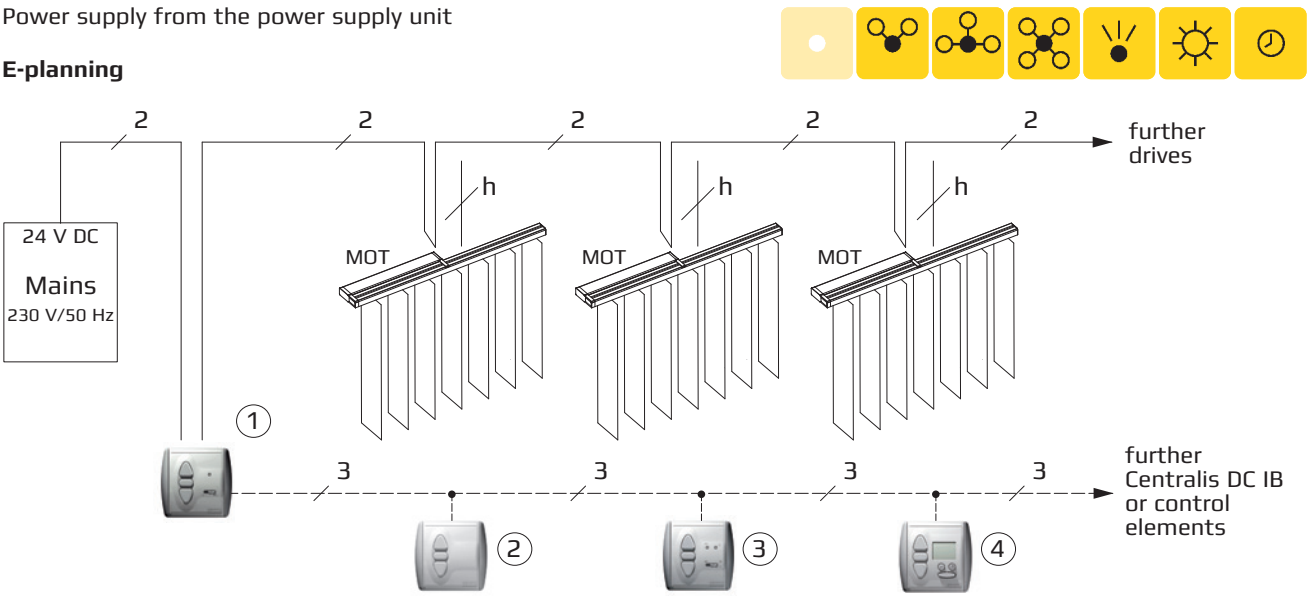
* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

Group control - Centralis DC IB roller blind – IQ3 motor

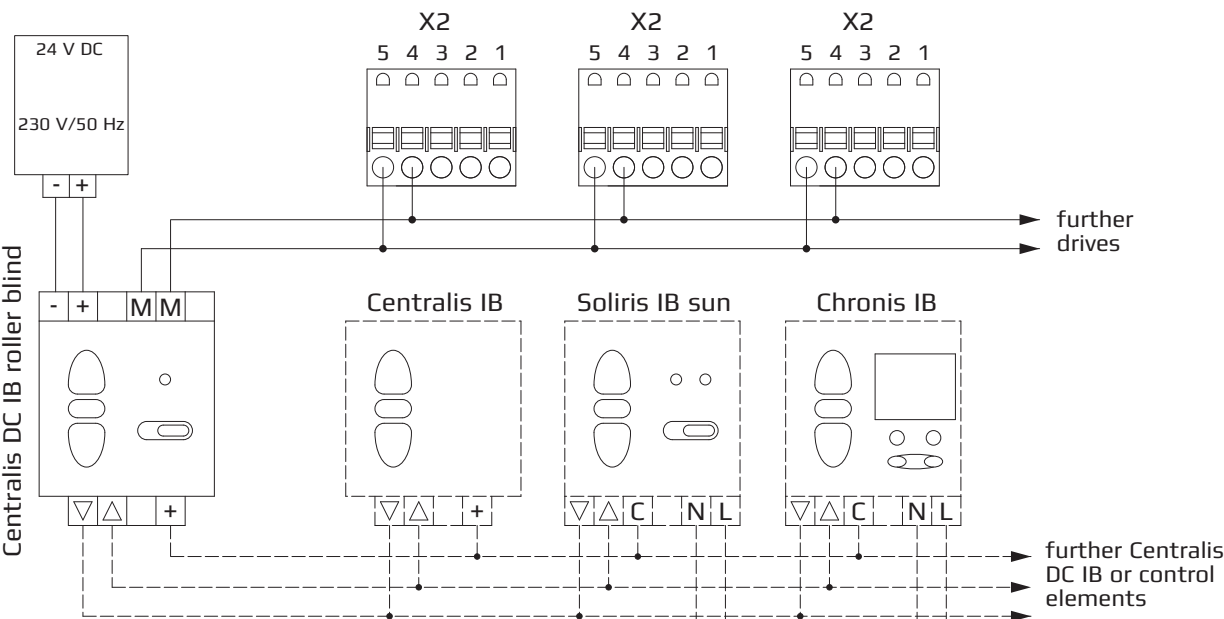
IQ3-407

Power supply from the power supply unit

E-planning



Electrical connection diagrams



Power supply units Somfy

- UPS 10
- Socket transformer
- GPS 30
- GPS 100
- Power 2.5 DC

General power supply units

- 24 V DC
- Ripple <48%

X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

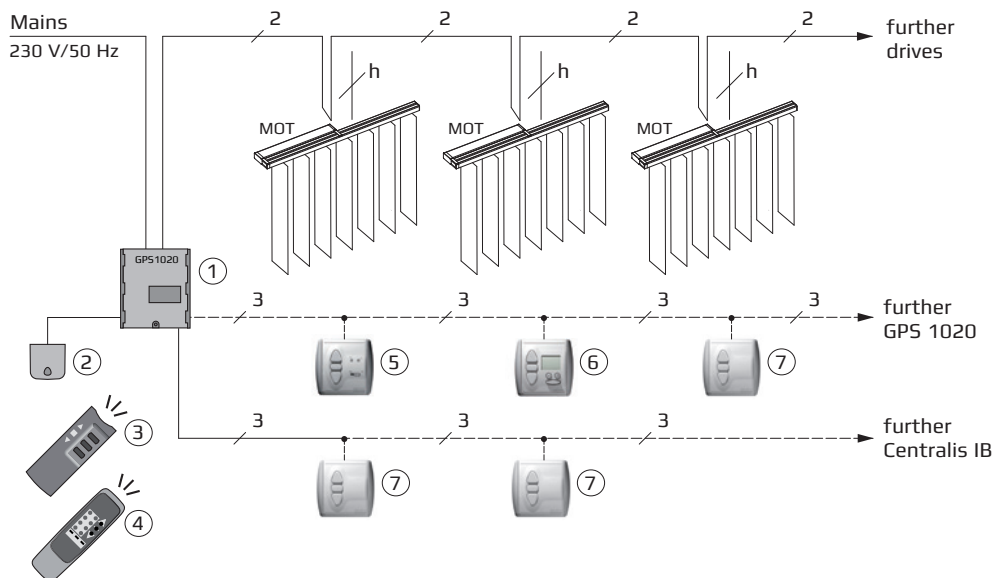
* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

- ① - Centralis DC IB roller blind, motor control unit
- ② - Centralis IB, central push-button
- ③ - Soliris IB sun, automatic sun control with window sensor (inside)
- ④ - Chronis IB, programme timer
- ⑤ - Chronis IB L, programme timer with automatic brightness control
- MOT - IQ3 motor
- h - Supply line 230 V ~

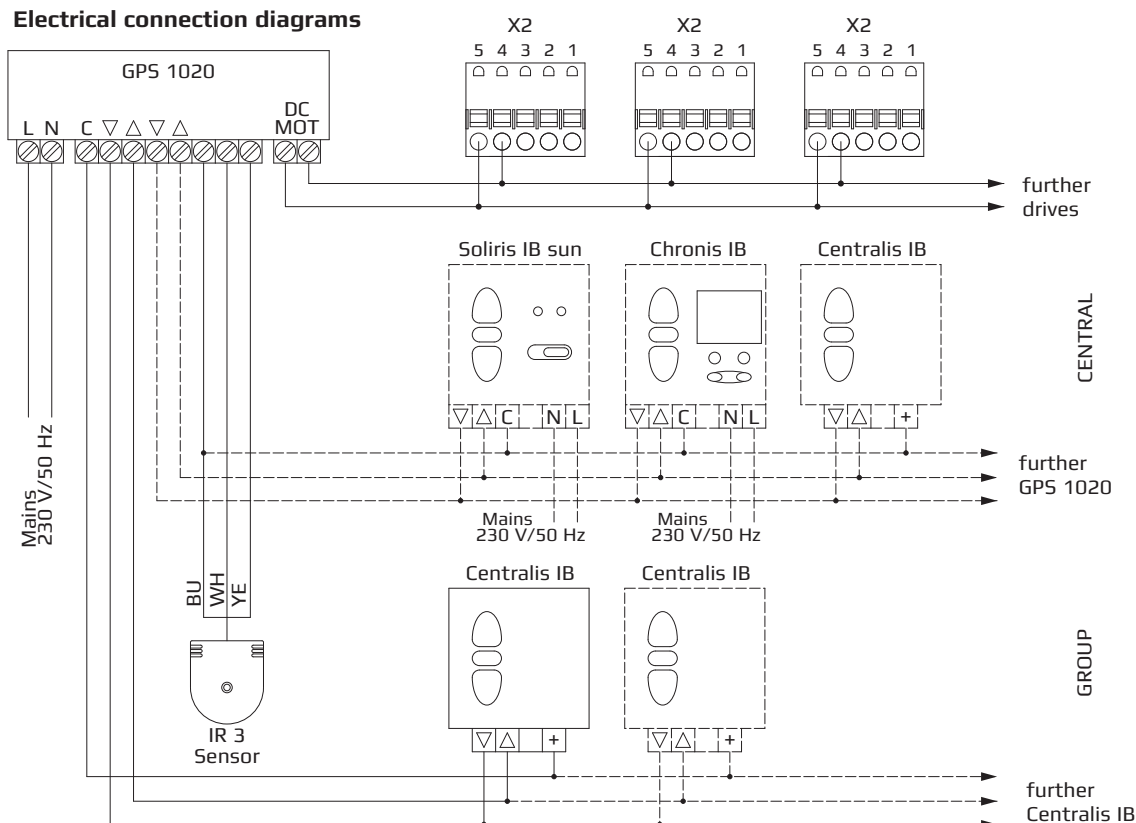
Group control - GPS 1020 - IQ3 motor

IQ3-408

E-planning



Electrical connection diagrams



X1		X2			
Pin	Function	Pin	Function	LIYY 4 x 0.14 mm²	J-Y(ST)Y 2 x 2 x 0.8
L	230 V	1	+ 24 V (max. 80 mA)	WH (white)	RD (red)
N	230 V	2	GND (ground)	BN (brown)	BK (black)
		3	Coding *		
		4	CLOSE button (><)	GN (green)	WH (white)
		5	OPEN button (<>)	YE (yellow)	YE (yellow)

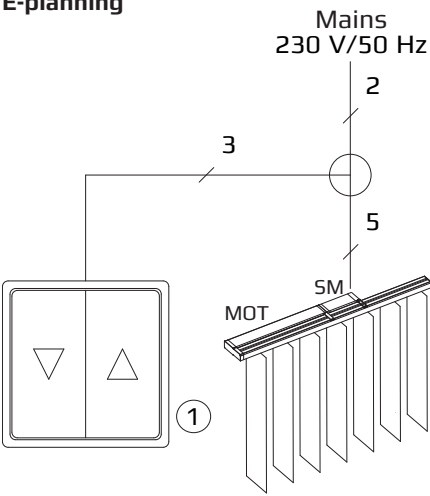
* Pin 3 : Connection X2/1 to X2/3 = Ground as control signal
no connection = Pole usage principle (control)

- ① - GPS 1020, group control
- ② - IR 3 Sensor, receiver for GPS 1020
- ③ - IRT 103, IR hand-held transmitter, 1-channel
- ④ - IRT 108, IR hand-held transmitter, 8-channel
- ⑤ - Soliris IB sun, automatic sun control with window sensor (inside)
- ⑥ - Chronis IB, programme timer
- ⑦ - Centralis IB, group push-button
- MOT - IQ3 motor
- h - Supply line 230 V ~
- BU (blue)

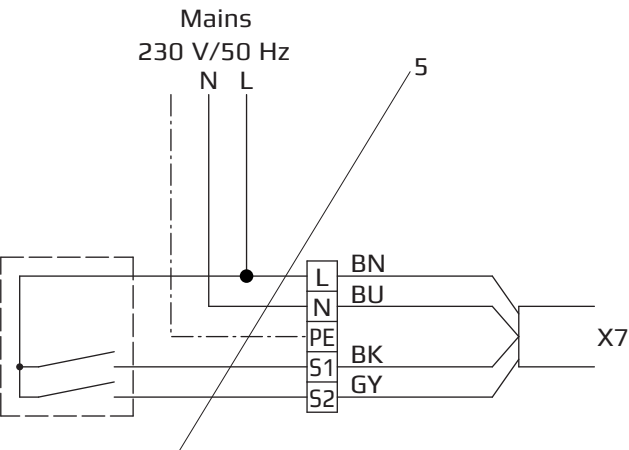
Individual control - Push-button – IQ3 motor

IQ3-500

E-planning



Electrical connection diagrams



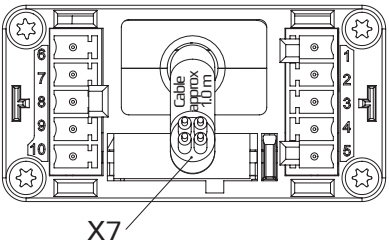
Control current per drive/function: 5 mA

ATTENTION!
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal

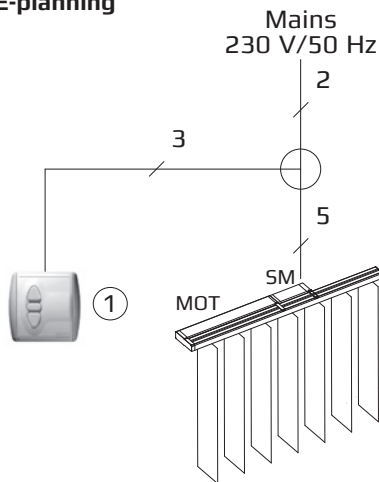


- ① – Push-button/switch
- SM – 230 V switch module
- MOT – IQ3 motor

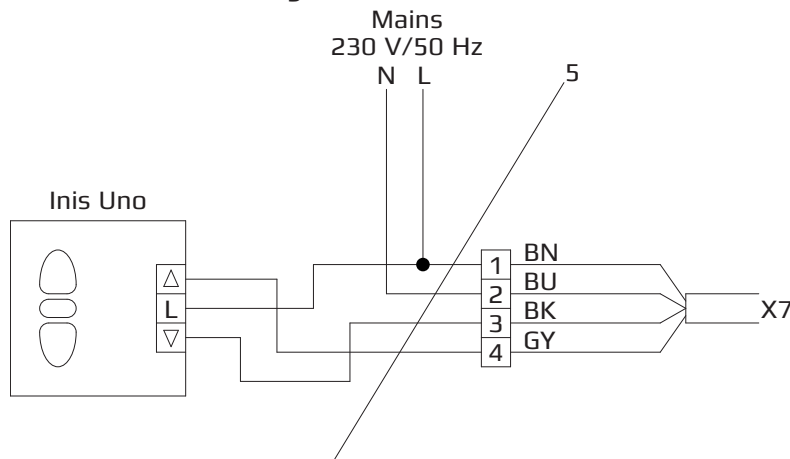
Individual control - Inis Uno - IQ3 motor

IQ3-501

E-planning



Electrical connection diagrams



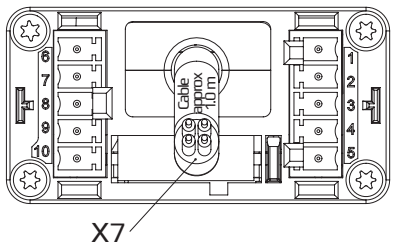
Control current per drive/function: 5 mA

ATTENTION!
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal

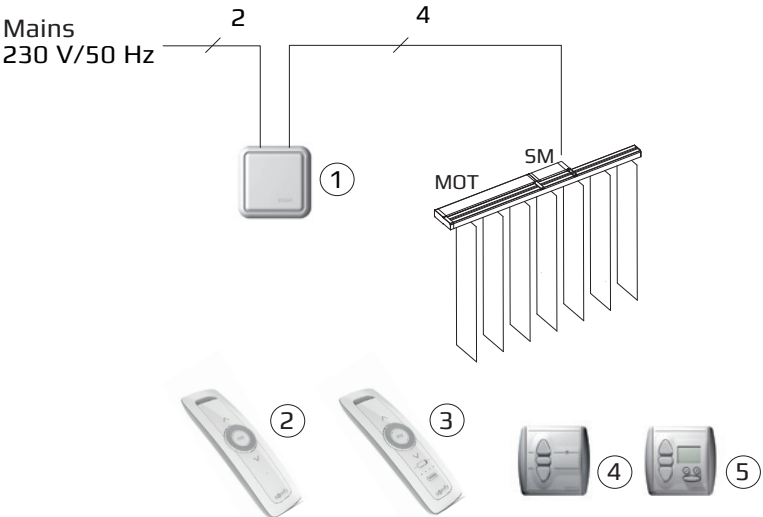


- ① - Inis Uno, switch
- SM - 230 V switch module
- MOT - IQ3 motor

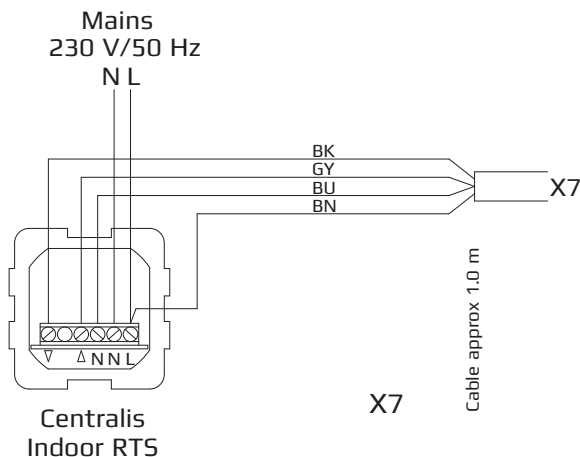
Individual control - Centralis Indoor RTS - IQ3 motor

IQ3-502

E-planning



Electrical connection diagrams



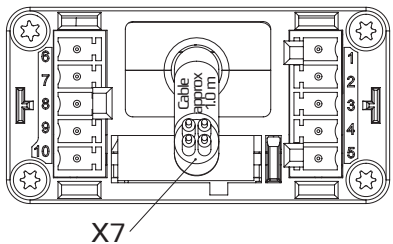
Control current per drive/function: 5 mA

ATTENTION!
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal

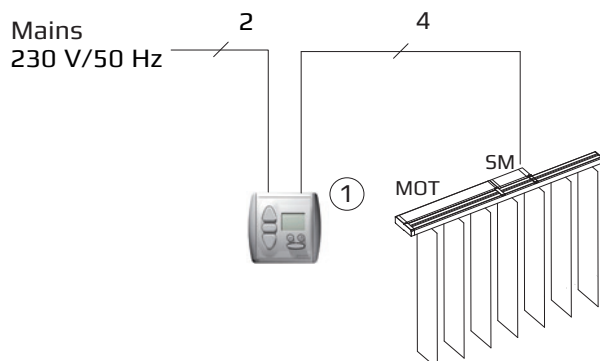


- ① – Centralis Indoor RTS, radio receiver
 - ② – Situo 1 RTS, 1-channel radio hand-held transmitter
 - ③ – Situo 5 RTS, 5-channel radio hand-held transmitter
 - ④ – Centralis RTS, 1-channel radio wall transmitter
 - ⑤ – Chronis RTS, radio programme timer
 - ⑤ – Chronis RTS L, radio programme time with automatic brightness control
- SM – 230 V switch module
MOT – IQ3 motor

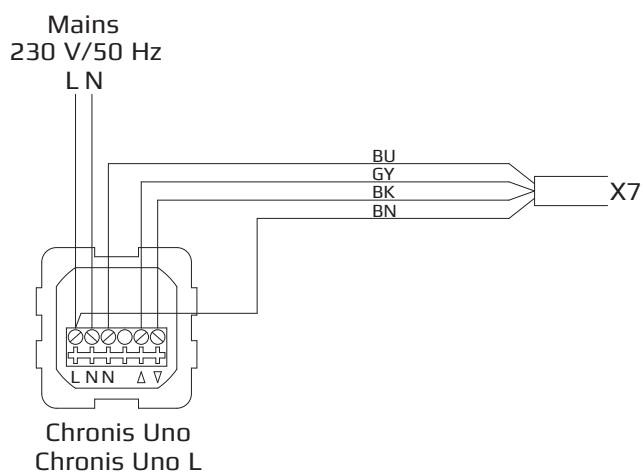
Individual control - Chronis Uno (L) - IQ3 motor

IQ3-503

E-planning



Electrical connection diagrams



Control current per drive/function: 5 mA

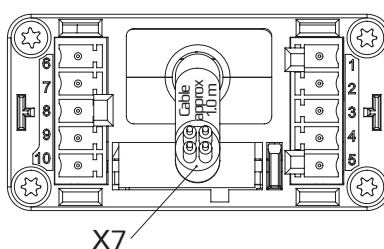
ATTENTION!

ATTENTION:
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal

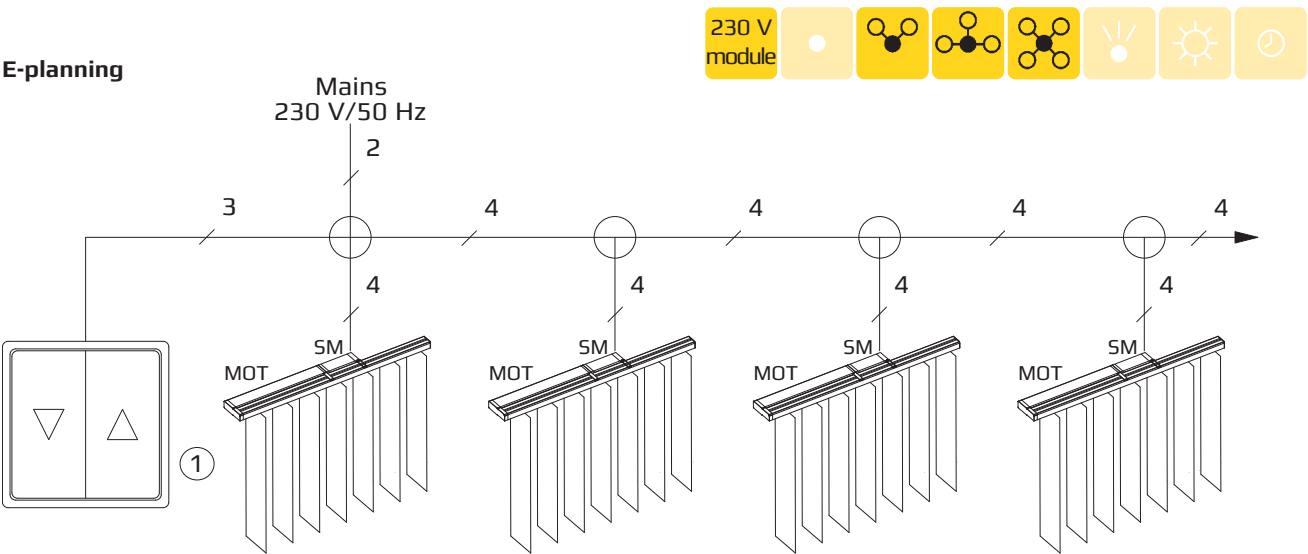


- ① - Chronis Uno, programme timer
- ① - Chronis Uno L, programme time with automatic brightness control
- SM - 230 V switch module
- MOT - IQ3 motor

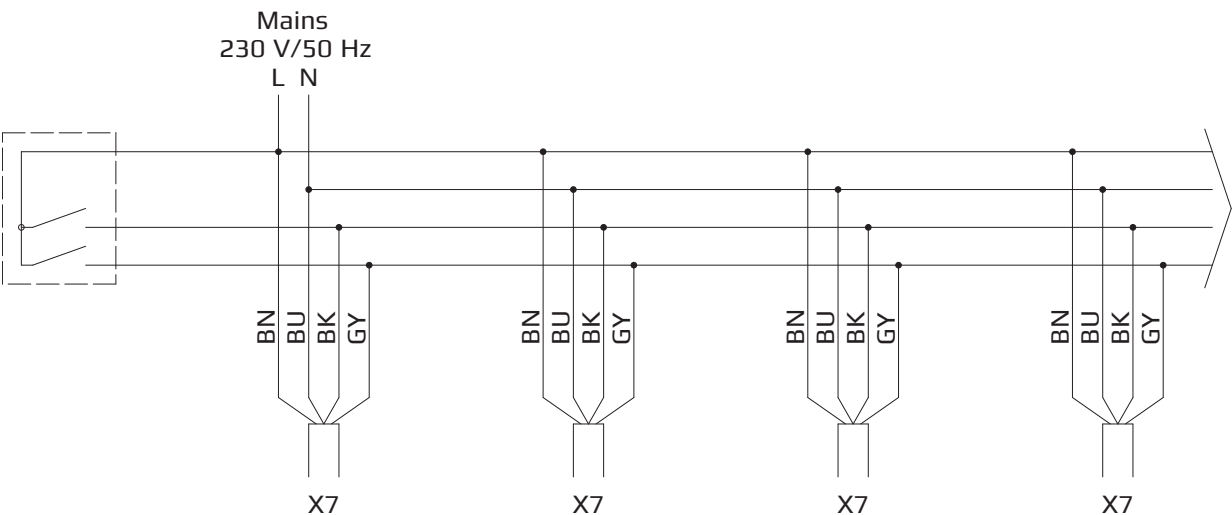
Group control - Push-button - IQ3 motor

IQ3-504

E-planning



Electrical connection diagrams



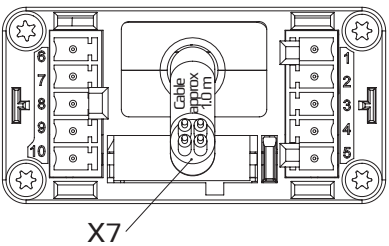
Control current per drive/function: 5 mA

ATTENTION!
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal

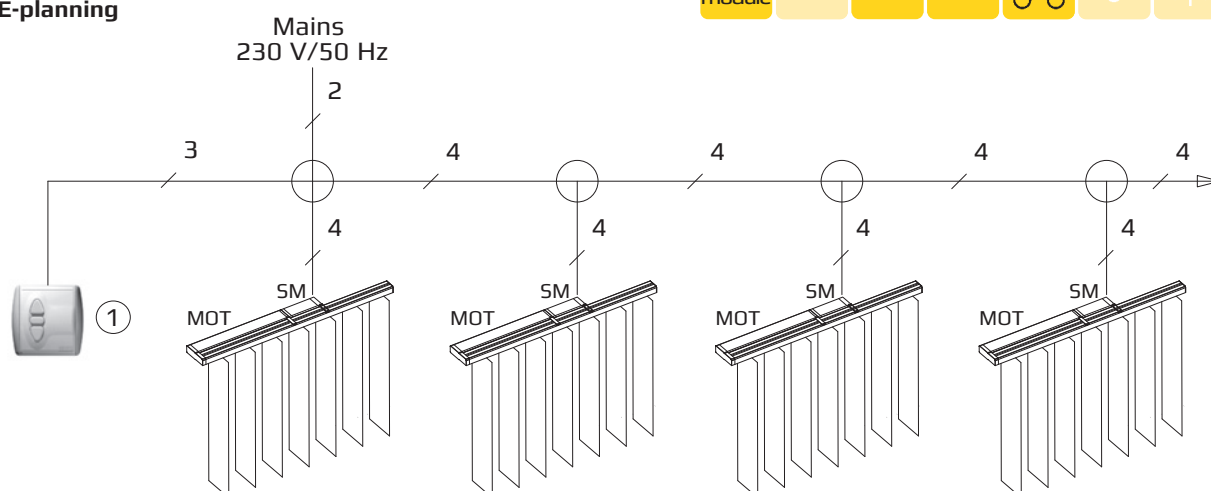


- ① - Push-button/switch
SM - 230 V switch module
MOT - IQ3 motor

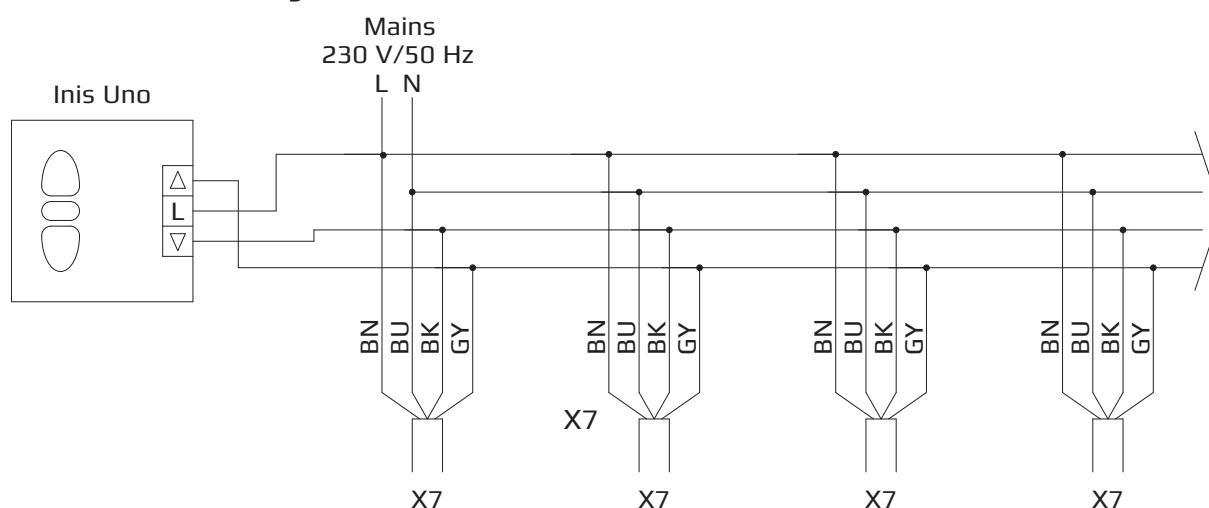
Group control - Inis Uno – IQ3 motor

IQ3-505

E-planning



Electrical connection diagrams



Control current per drive/function: 5 mA

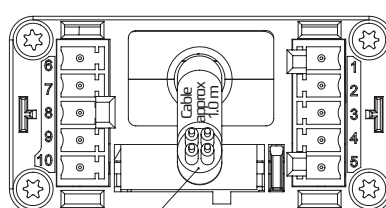
ATTENTION!

ATTENTION!
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal



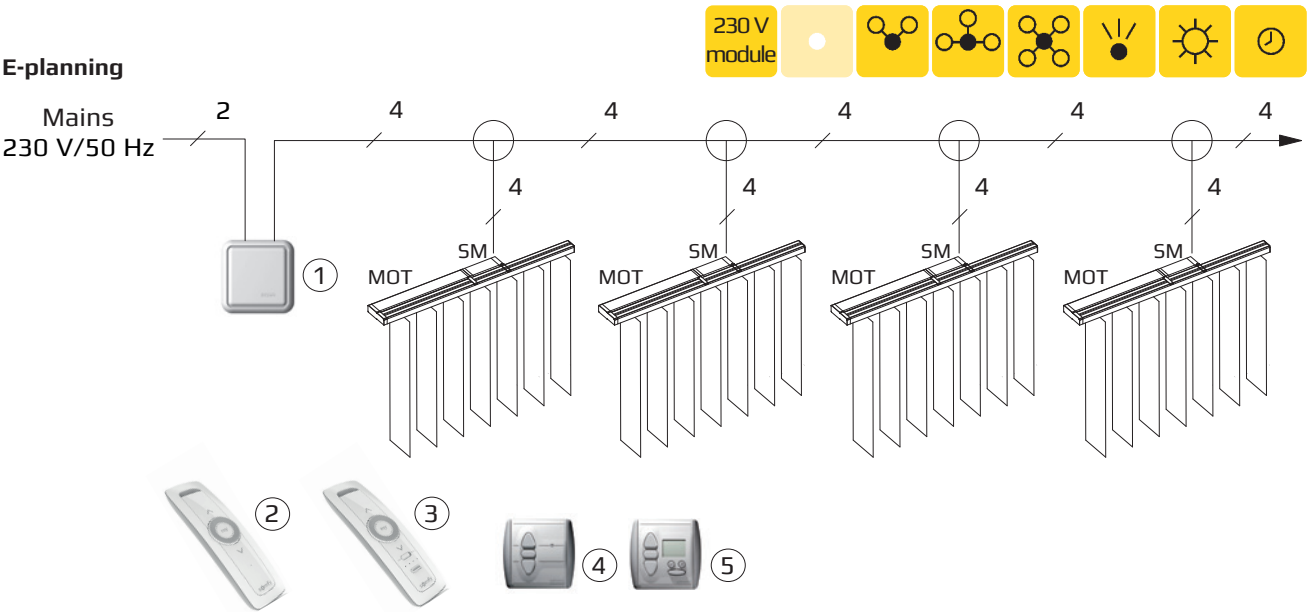
X7

- ① - Inis Uno, switch
- SM - 230 V switch module
- MOT - IQ3 motor

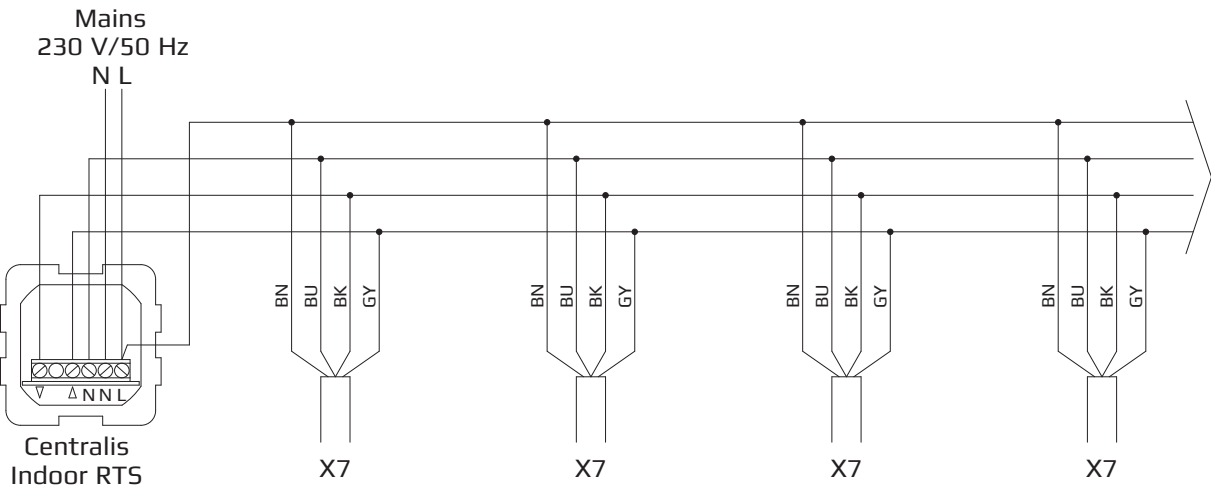
Group control - Centralis Indoor RTS - IQ3 motor

IQ3-506

E-planning



Electrical connection diagrams



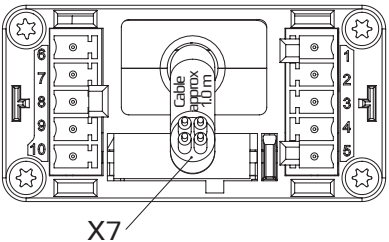
Control current per drive/function: 5 mA

ATTENTION!
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal

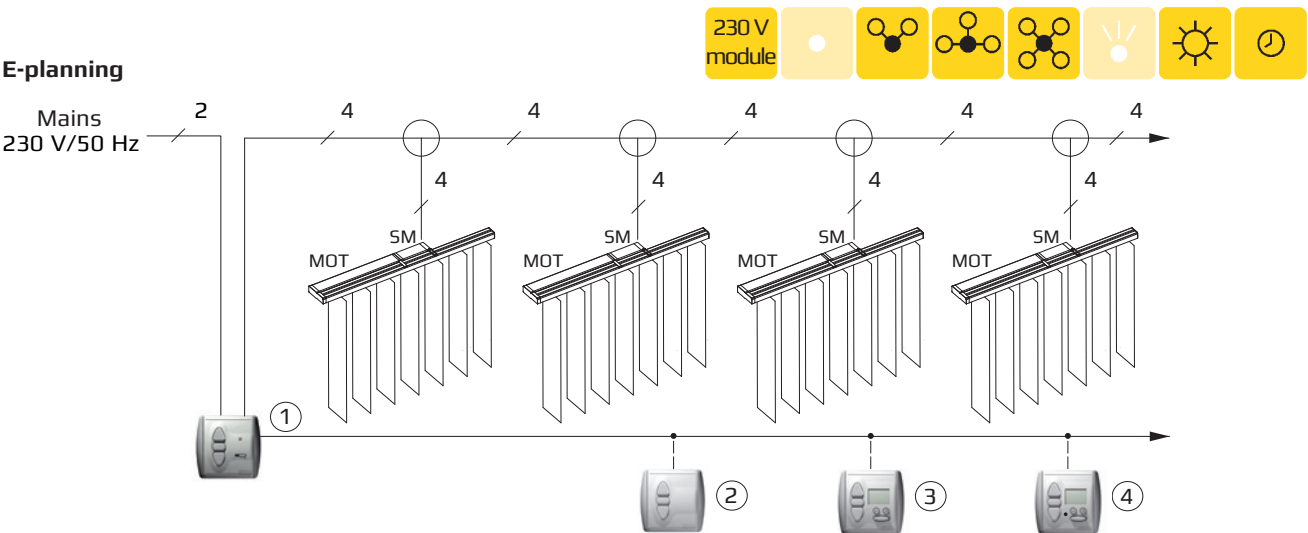


- ① – Centralis Indoor RTS, radio receiver
 - ② – Situo 1 RTS, 1-channel radio hand-held transmitter
 - ③ – Situo 5 RTS, 5-channel radio hand-held transmitter
 - ④ – Centralis RTS, 1-channel radio wall transmitter
 - ⑤ – Chronis RTS, radio programme timer
 - ⑤ – Chronis RTS L, radio programme time with automatic brightness control
- SM – 230 V switch module
MOT – IQ3 motor

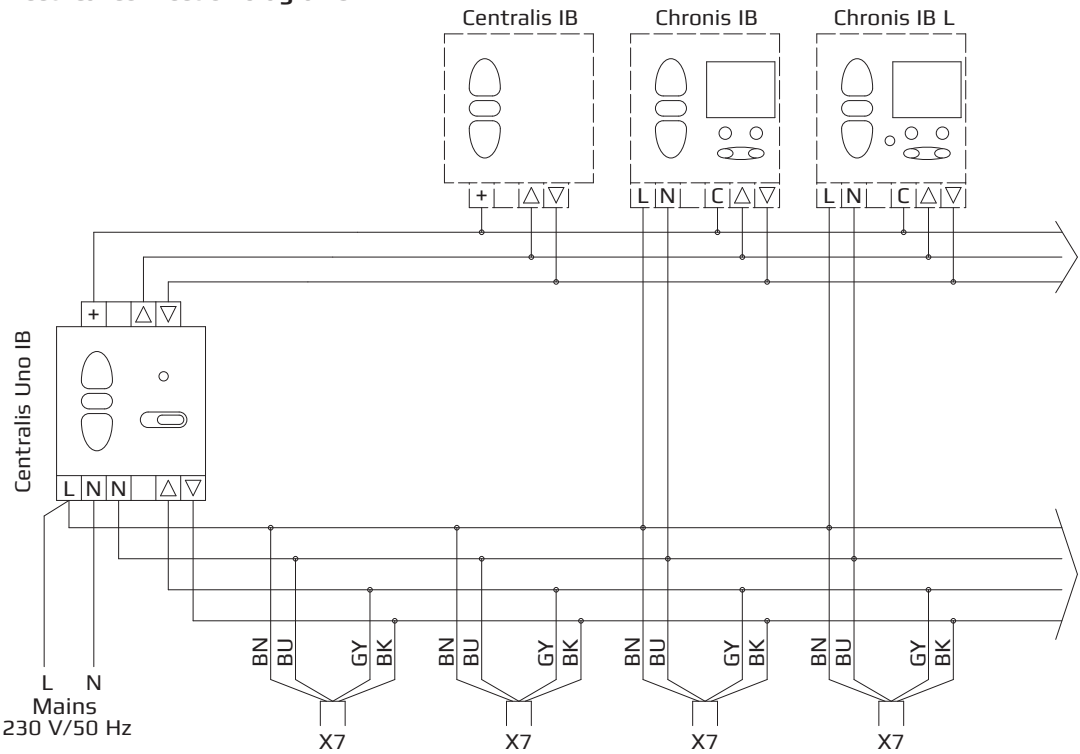
Group control - Centralis Uno IB – IQ3 motor

IQ3-507

E-planning



Electrical connection diagrams



Control current per drive/function: 5 mA

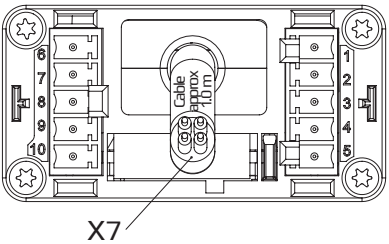
ATTENTION!

The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal

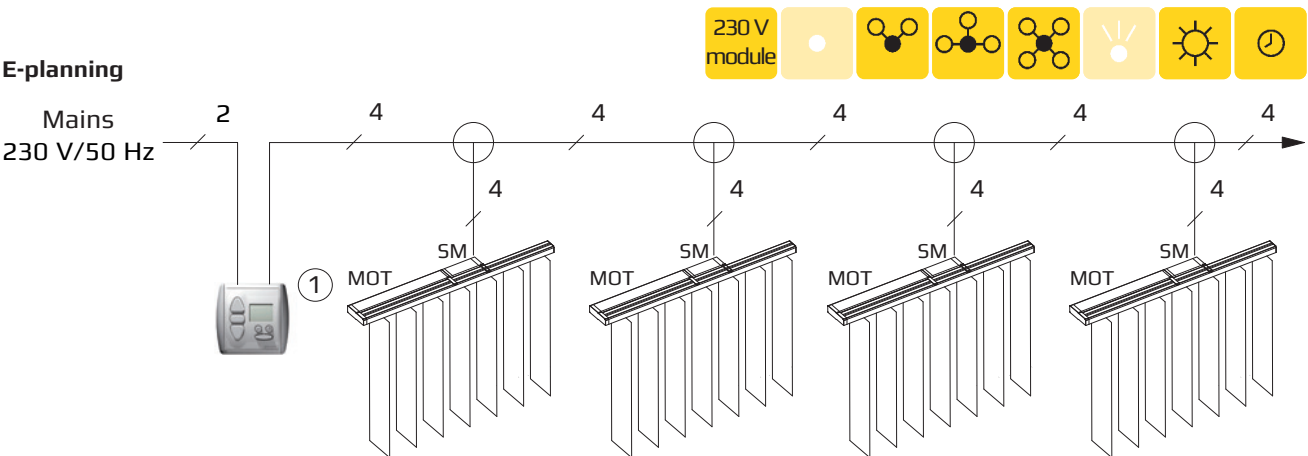


- ① - Centralis Uno IB, motor control unit
 - ② - Centralis IB, central push-button
 - ③ - Chronis IB, programme timer
 - ④ - Chronis IB L, programme timer with automatic brightness control
- SM - 230 V switch module
- MOT - IQ3 motor

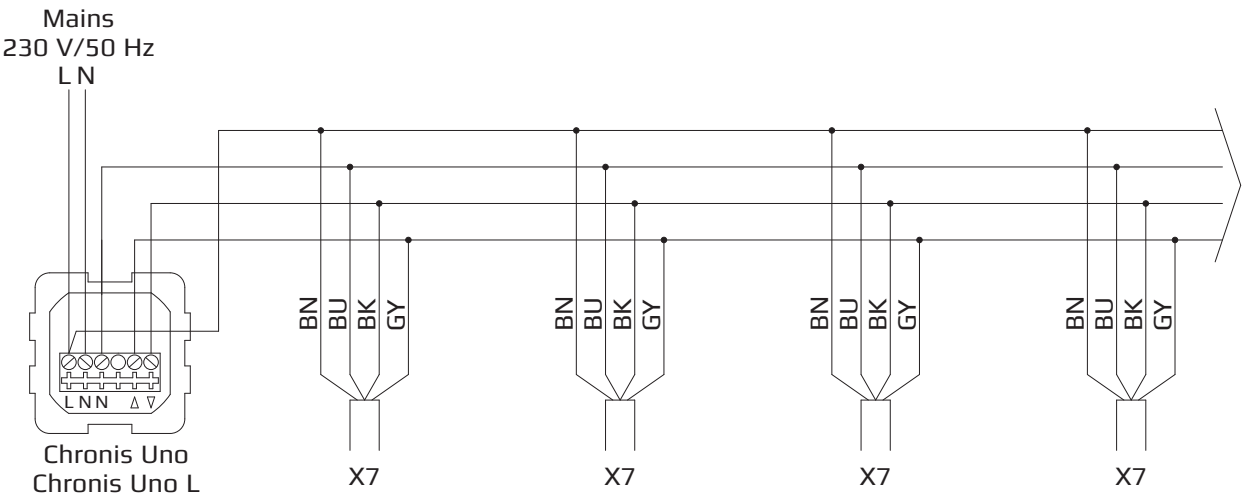
Group control - Chronis Uno (L) – IQ3 motor

IQ3-508

E-planning



Electrical connection diagrams



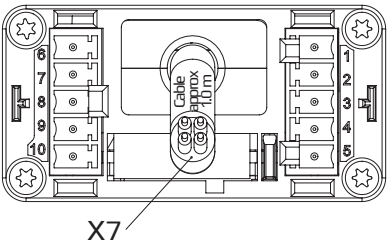
Control current per drive/function: 5 mA

ATTENTION!
The drive requires a permanent power supply!

Switches (push-buttons) with mutual interlocking must be used!

When using a push-button (switch) without interlocking, it is possible to programme the drive.

X7			
Pin	Function	Cable	Comment
L1	230 V	BN (brown)	V _{IN}
N		BU (blue)	V _{IN}
S1	CLOSE	BK (black)	Control signal
S2	OPEN	GY (grey)	Control signal



- ① - Chronis Uno, programme timer
- ① - Chronis Uno L, programme timer with automatic brightness control
- SM - 230 V switch module
- MOT - IQ3 motor

Listing – IQ3 motor

IQ3-600

**Individual operation**

Customer request: A system is to be operated individually.
Solution: Only 1 drive is connected to the control point.

**Small group service**

Customer request: Several systems are to be operated together as a small group. E.g. 3 systems in the bay window.
Solution: Several systems are connected directly to the control point. The maximum number of drives per control point must be observed.

**Group service**

Customer request: More than 4 systems should be operated as a group. Individual operation is not required.
Solution: Use the GPS 1020 group controller to which all drives in the group are connected directly. Operation is via a connected push-button or automatic device.

**Centralised operation**

Customer request: All systems should be able to be operated from a central point. This can be done by push-button or automatic device. Centralised service may be provided in addition to individual, small group or group service.
Solution: The corresponding control units are controlled by a central control centre.

**Remote control**

Customer request: The systems should be controlled by hand-held transmitter.
Solution: Use of radio/IR receiver and hand-held transmitter.

**Automatic sun control**

Customer request: The systems should also be opened or closed automatically during absence depending on sunshine, shade or twilight.
Solution: Use of the automatic sun function.

**Programme timer**

Customer request: The systems should be opened or closed automatically according to a weekly programme or depending on the sunrise and sunset times.
Solution: Use a programme timer.

**Switch module 230 V**

The 230 V switch module is used to control a drive with a control voltage of 230 V AC.

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