
Fabric Tension System

Version 3

Information file

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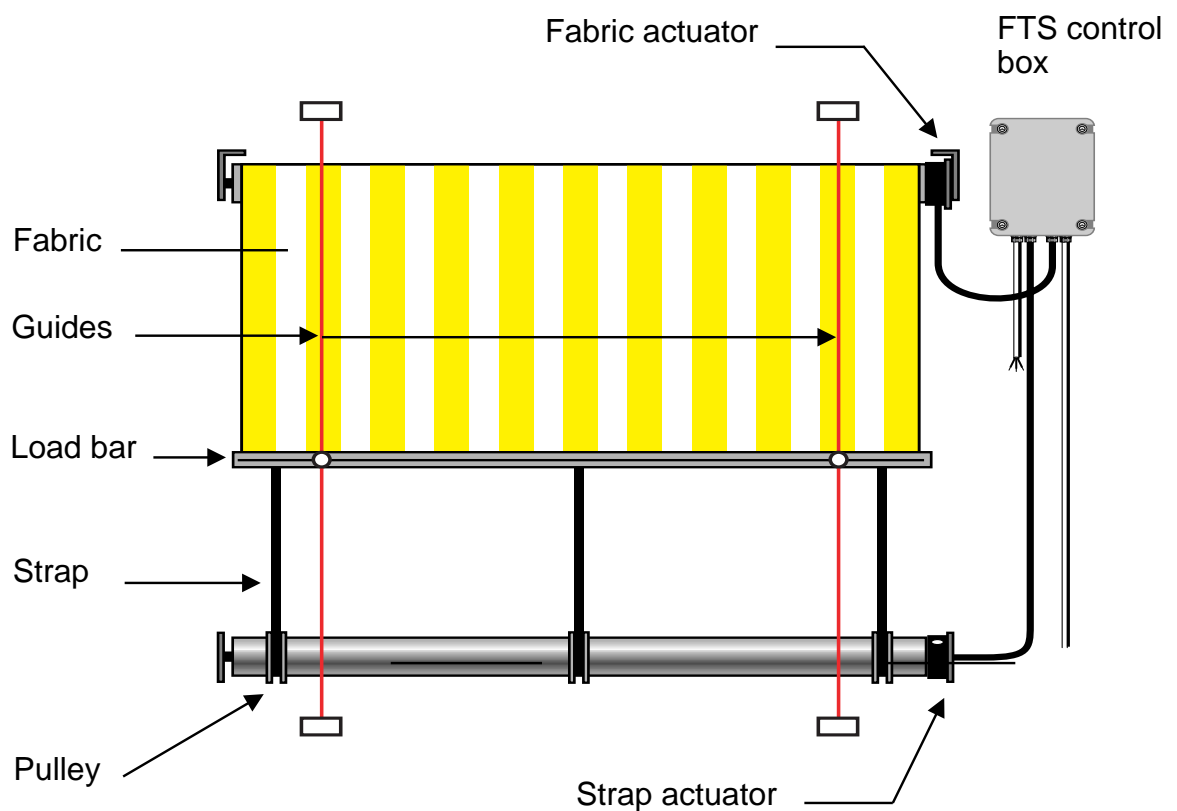
1 - Generalities :

The Fabric Tension System has been specially designed for motorising the medium, big fabric surfaces and big projections which are often used for velums and verandas solar protection.

The F.T.S. is broken up into 2 inseparable and distinct parts :

- the servo-control device,
- the specific actuators.

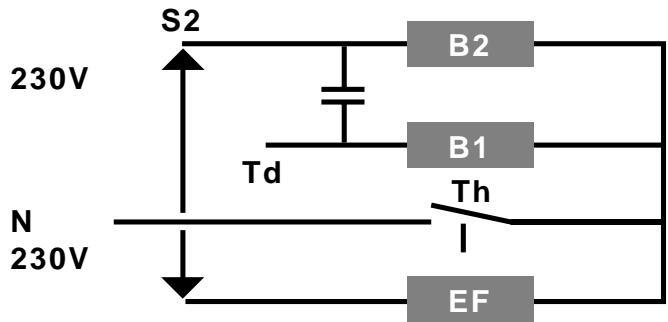
• Description :



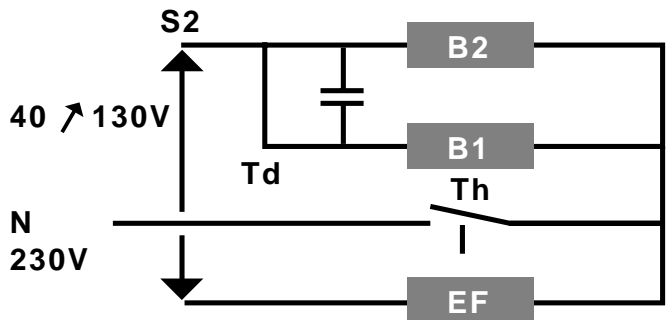
The F.T.S. is not approved. In other hand, it is in accordance with the european regulation criterions. So that, it is **CE** marked (for the range 1).

2 - Principle

When the master actuator (which trains) is electrically supplied, the rotation direction S2 and the coil-brake are supplied in the same time.



The slave actuator (which is trained), ensure the dynamic braking. The electronic box put the 2 actuator windings in shortcircuit and supplies an adjustable voltage (from 40 to 130V adjustable by the CO2 potentiometer).



Legend :

B1	: actuator winding 1	S2	: direction 2
B2	: actuator winding 2	Td	: dynamic tension
EF	: coil brake	Th	: thermal security
N	: neutral		

• To be known :

The limit switch unit, with its 46 turns capacity for the FTS 50 and 35 turns for the FTS 60, a longer running time (8 min for the FTS 50 and 7 min for the FTS 60), a 6 min electronic box output delay and a judicious choice of the diameter of the tube allow to motorise and control big projections till 10 m and more (please see abacus). You can use an external limit switch if needed.

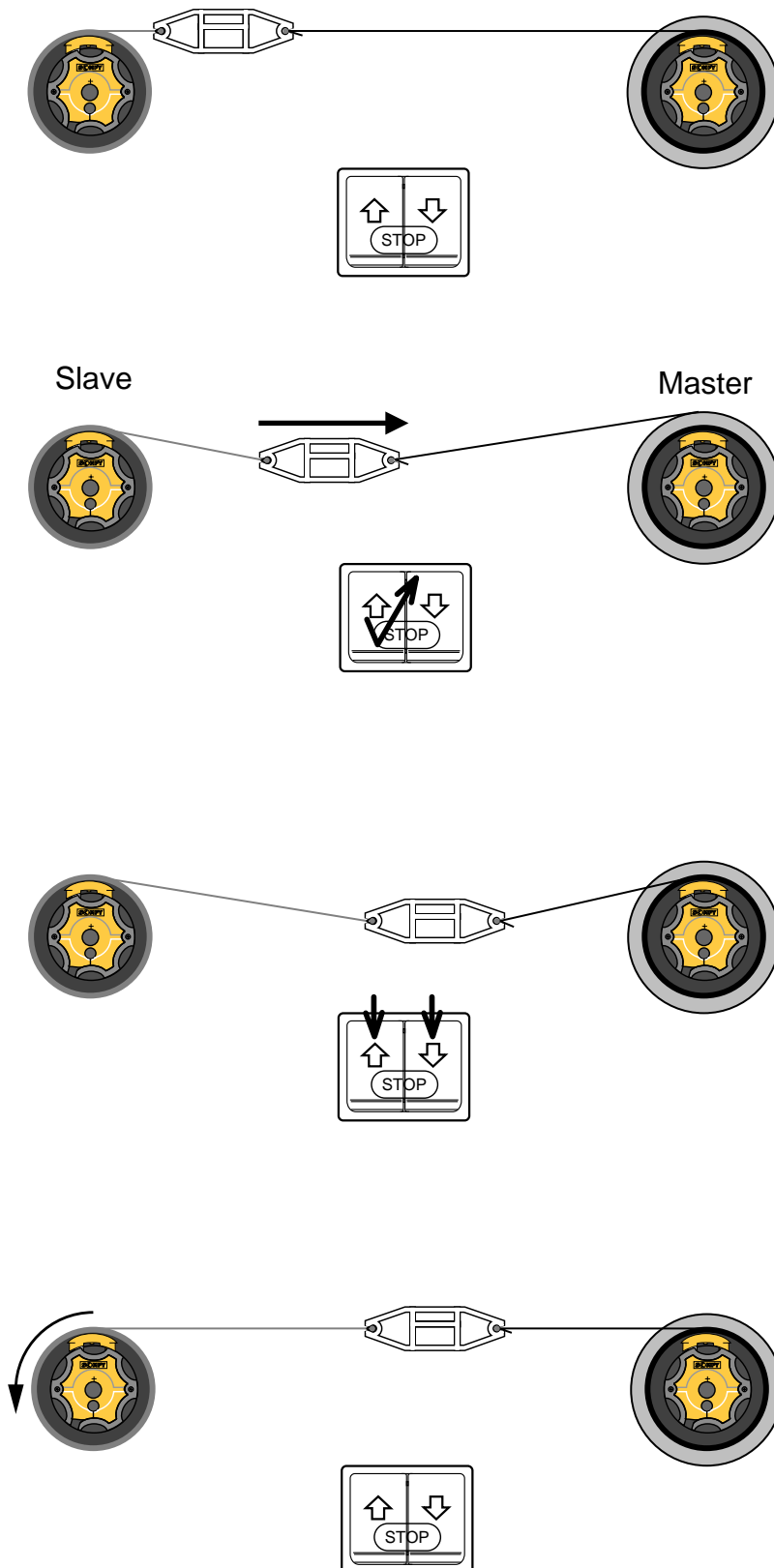
A formula can help to find the maximal limit of the fabric in accordance with the diameter of the tube :

$$L = \pi (n \varnothing + n (n-1) e)$$

where :

L is the maximal length of the projection,
n is the capacity of the limit switch unit (tr),
∅ the diameter of the tube,
 and **e** the fabric thickness.

• **Description of a cycle :**



Stationary :

The system is stopped either by the limit switch unit, or by a stop order .

movement order :

an "up" or "down" order causes the rotation of the master actuator. The slave actuator brakes the system to an adjustable value (dynamic tension). Thus, the fabric sagging is reduced.

In any case, use guides

Stop or end of limit switch :

A stop or a end of limit switch unit stops the movement of the fabric.

Final tension :

The final fabric tension is managed by the electronic box. This one, after a stop makes a slight reverse rotation of the slave motor in order to ensure a correct final fabric tension.

3 - Functions

The FTS is fitted with several functions :

- **the final tension** : adjustable by potentiometer situated into the electronic box and graduated from 0 to 9 (marked CO1). This adjustment allows to regulate precisely the wished final fabric tension.



The CO1 potentiometre must be put at 5 at the minimum. In other hand, the structure of the installation must be able to withstand the constraints.

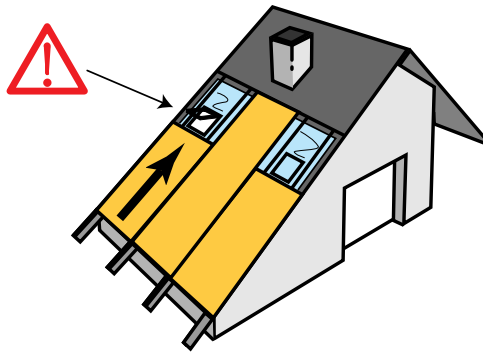
- **the dynamic tension** : In order to avoid the fabric sagging due to the weight of the load-bar and the fabric it-self during the widening/unwiding, the fabric dynamic tension is adjustable by the potentiometer marked CO2 situated into the electronic box and graduated from 0 to 9.



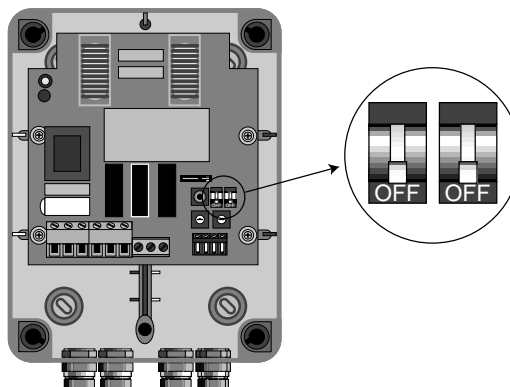
The CO2 potentiometre must be put at 5 at the minimum. In other hand, the structure of the installation must be able to withstand the constraints.

- **the brake disclutching** : marked BP1 into the box, this push-button declutches simultaneously both actuators in supplying the coil-brakes. Used during the mounting if necessary. This push-button is an electronic reset too.

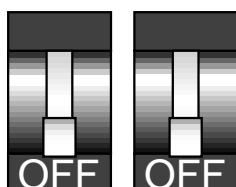
- **security roof opening** : a dry contact normally closed between the terminal 10 and 13 forbid the movement of the fabric when this contact is opened. Make a strap if not used (the box is delivered with the strap).



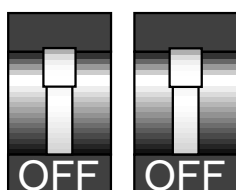
- **Dissymmetric fabric tension adjustment :**



This configuration adjustment is totally depending on the mounting type. This dip-switches allows to replace easily the a, b, c system linked to the FTS LS. The dissymmetric tension will be imposed by a vertical mounting. This adjustment allows to cancel the dynamic tension on the lower actuator. Indeed, the weight of the load-bar and of the fabric are sufficient to brake the system.



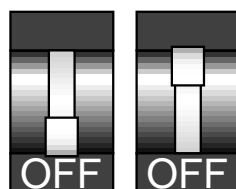
Symetric tension :
normal and adjustable (by CO2 potentiometer) dynamic tension in both widening directions.



Symetric tension :
normal and adjustable (by CO2 potentiometer) dynamic tension in both widening directions.



dissymetric tension :
the dynamic tension is on the fabric actuator. The tension on the strap actuator is at the minimum.



dissymetric tension :
the dynamic tension is on the strap actuator. The tension on the fabric actuator is at the minimum, apart from the CO2 potentiometer which acts only on the strap actuator

fabric actuator →



strap actuator →



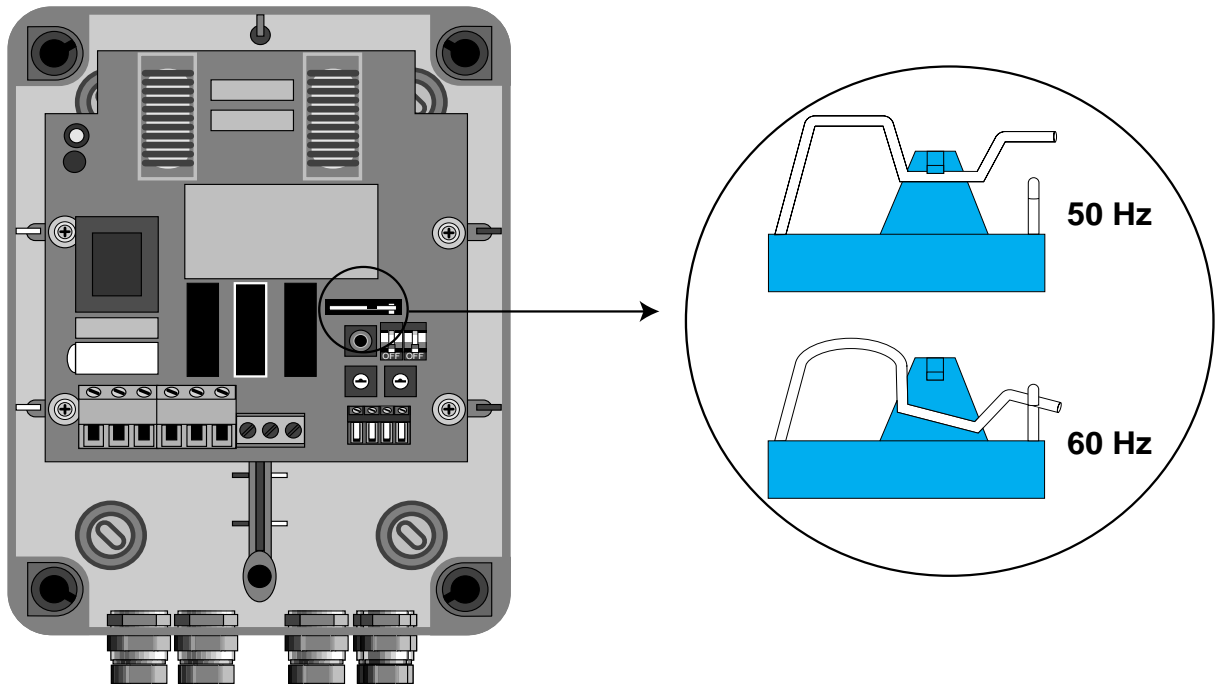
strap actuator →



fabric actuator →



- **Frequency adjustment :**



The FTS 230 V electronic box is delivered with the pin on 50 Hz.

- **Miscellaneous :**

- The individual control is an impulse type (the impulsion must be $\geq 0,5$ second).
- The inputs are dry contacts and are compatible with every automatic control for master control such as Centralis IB, Chronis IB,...
- A security cuts off the power of both actuators as soon as one of them reaches the temperature of tripping.

4 - Installation :

- **Abacus generalities :**

The FTS ABACUS have to give 3 pieces of information :

- choice of the actuators,
- determination of the number of systems,
- choice of the type of guides, which are compulsory.

- **Choice of the guide :**

The choice of the actuator is depending on 3 components :

- the projection,
- the weight of the load-bar and the fabric,
- the torque power of the actuator.

Indeed, the projection is directly linked with the fabric guide, and from a certain length, the guide is essential in order to ensure a correct winding of the fabric.



In any case, guides are compulsory

- **Straps :**

We advise you to use a traction system of the load-bar with cable when the projection length is more than 7,5 m.



WARNING, in this case, due to the limit switch unit capacity, this mounting requires external end limit switches.

projection maxi. 12 m.

- **Actuators :**

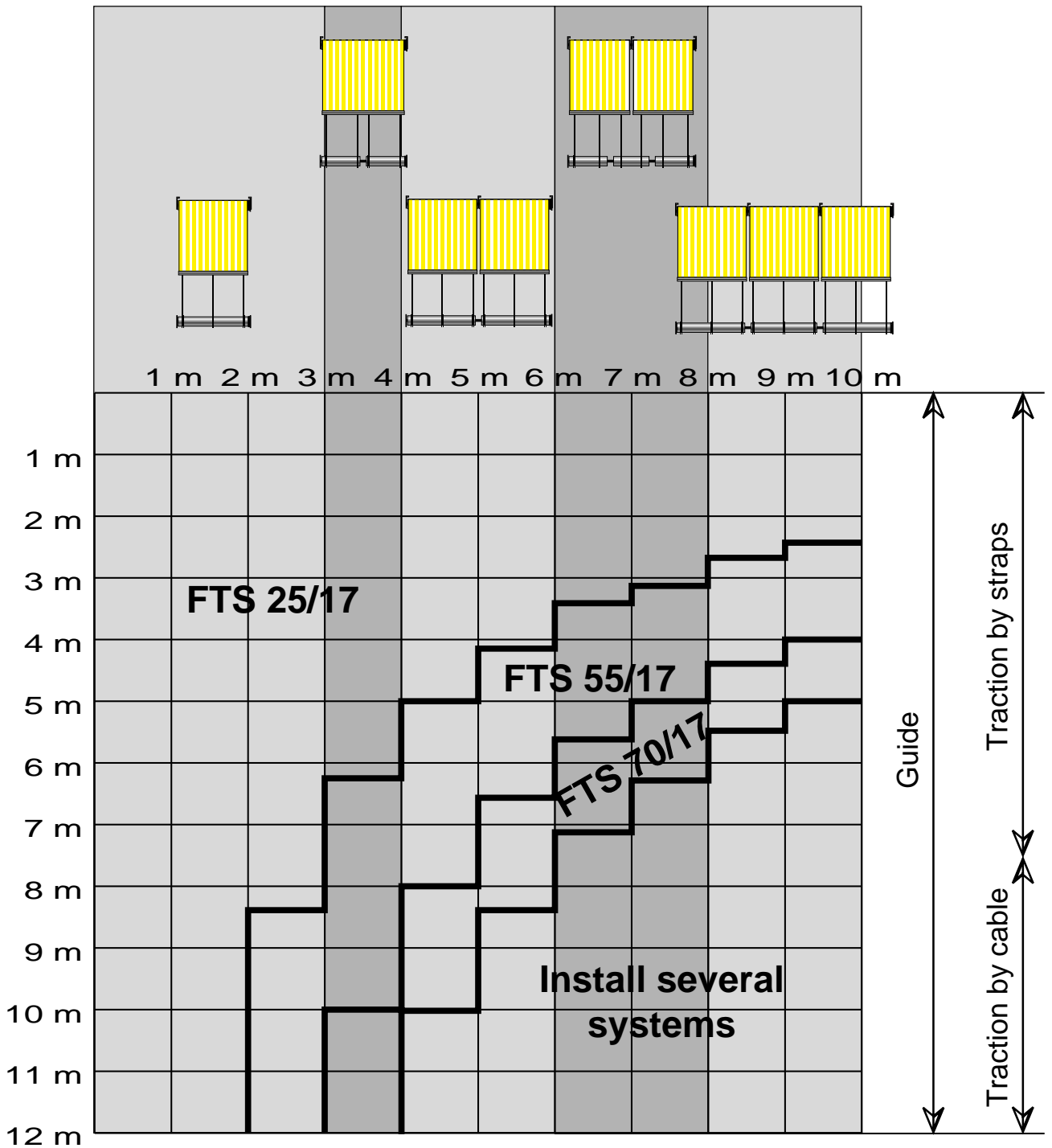
- 25/17 : maximum surface 25 m²,
- 55/17 : maximum surface 40 m²,
- 70/17 : maximum surface 50 m².

- **Tubes :**

Because of the considerable tightness on the tubes, we advise you the following maximal dimensions for tubes.

- Fabric tube ø 70 : 4 m
- Fabric tube ø 89 : 5 m
- Straps tube ø 63 : 3 m .

• Abacus :



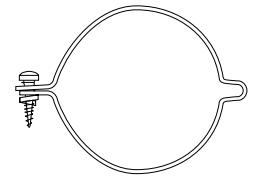
WARNING TAKE CARE OF THE ROBUSTNESS OF THE STRUCTURE IN THE ACTUATOR CHOICE.
In any case, use guides

For other cases, please contact us

• **Mounting procedure :**

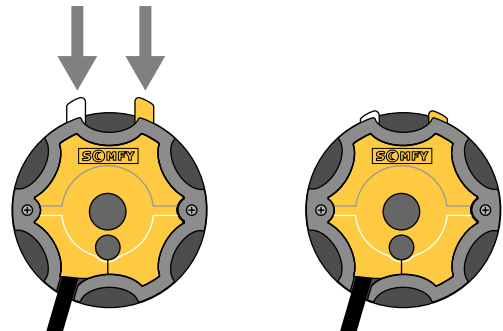


Owing to the considerable mechanical stress withstood by the brackets, it is imperative to use the locking stop ring with each FTS actuator.



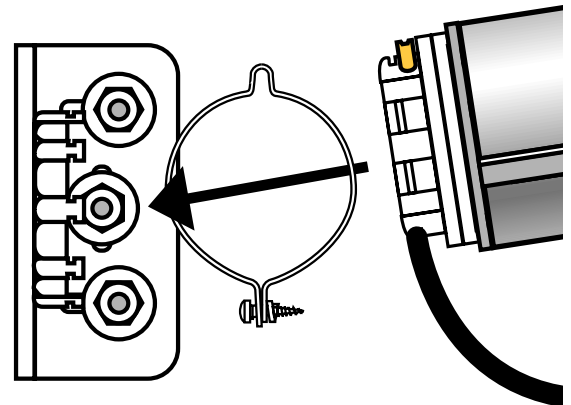
Ref.9910002

Like a standard LT, prepare the motorised axles in accordance with the usual way. Then depress fully both limit switch push button of each actuator..

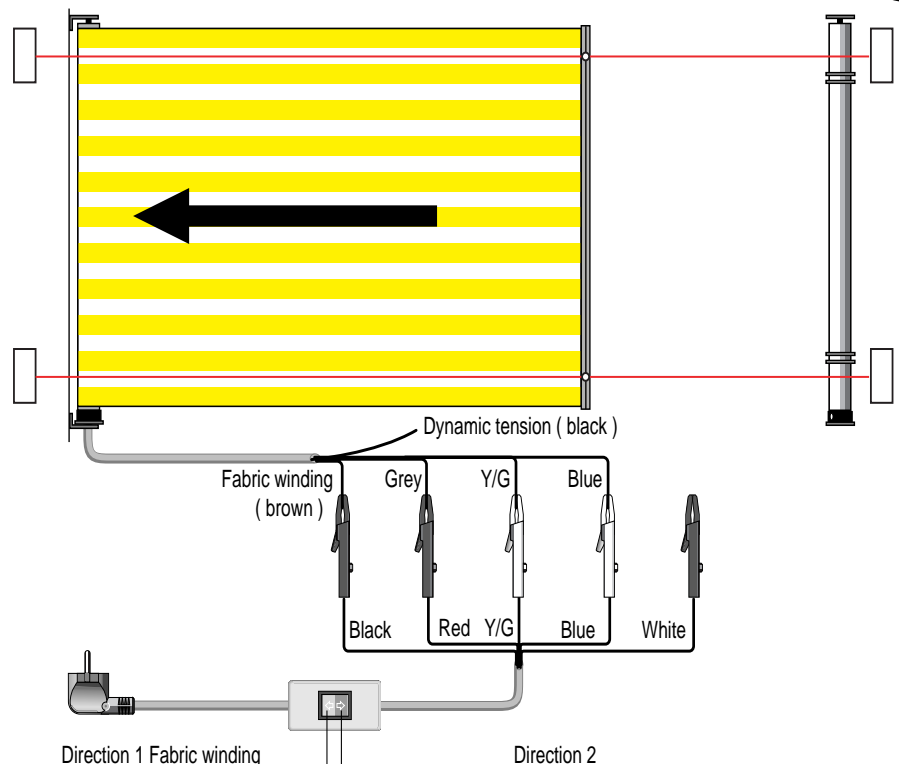


The cable of the FTS actuator is a 5-wire cable and is not removable

Then, mount the motorised axles on the brackets of the structure and lock them with the locking stop ring. Take care to respect the axles parallelism.



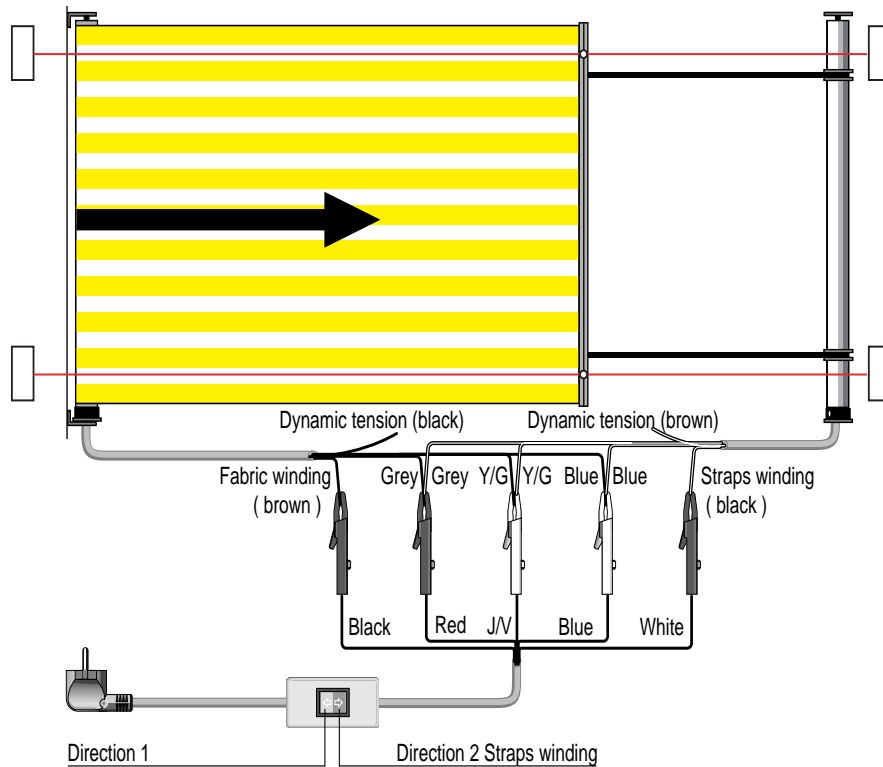
Fix, then wind the fabric around the "fabric tube" with the help of the test cable. When the fabric is totally wind up, press the corresponding limit switch push button (see installation instructions for the adjustment).





Fix the pulleys, then the straps on the "straps tube".
The straps have to be on the same length in order to ensure a correct traction.

Then wind the straps around the pulleys with the help of the test cable. When they are correctly wind up, press the corresponding limit switch push button



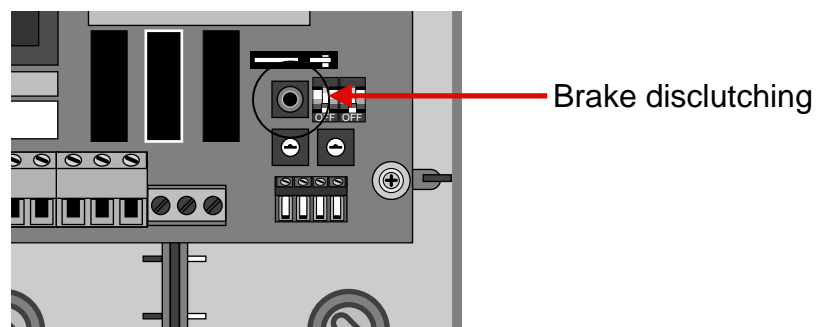
Make the wiring of the electronic box (see the electrical wiring in the next pages).



The final and dynamic tensions have to be set at 0 for the first test, then the adjustment will be made by successive stages incremented of 1, from 5 at the minimum. Take care of the excessive constrains on the fabric, the structure and the brackets.

Once the wiring done, check that the actuators stop at the up and down position just set by a complet operation.

If a straps adjustment is necessary, release the brakes with the brake disclutching push button.



• Potentiometers values :



Values ($\pm 10\%$) for information only.

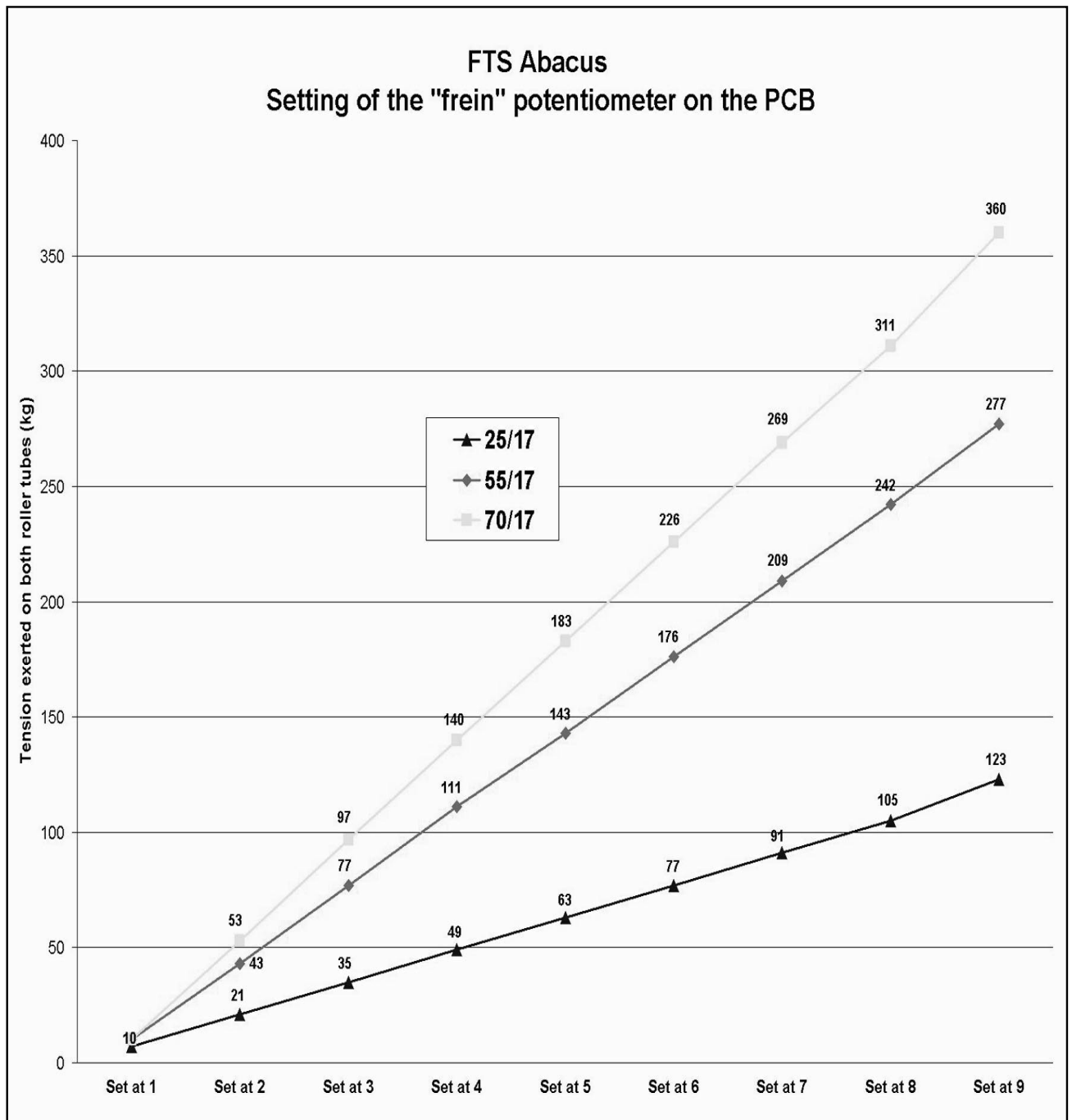
The charts show the maximum values in static (motors stopped)

1 Final tension :

The temporisation of the final tension is standing between 0,6 to 1,2 seconds for the fabric tension and between 0 to 0,2 seconds for the straps tension.

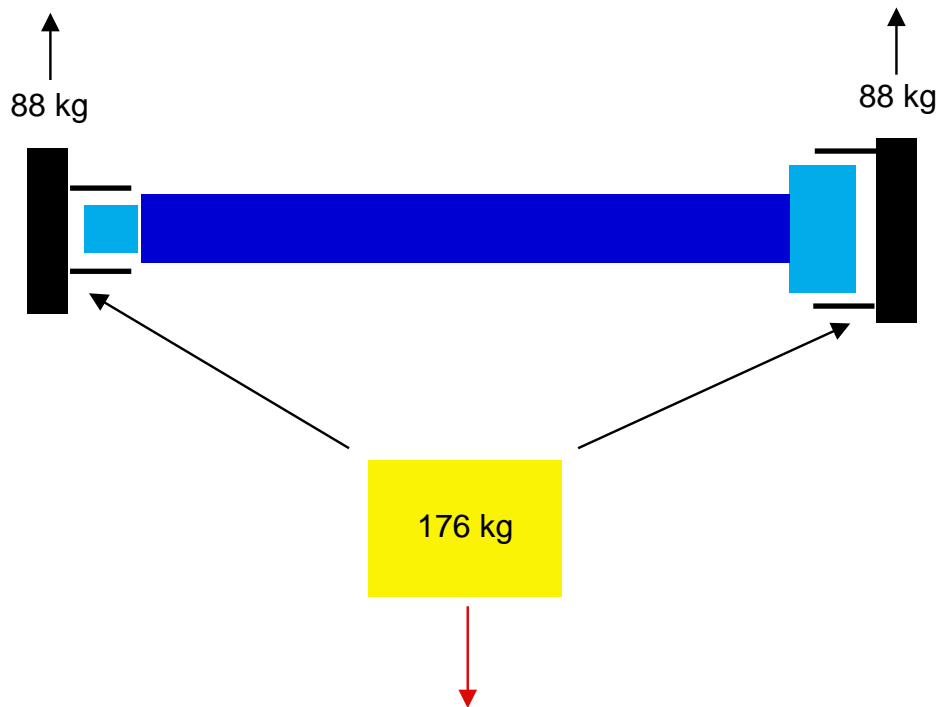
2 Dynamic tension (Frein) :

Dynamic tension by potentiometer C02, final tension at 0 :



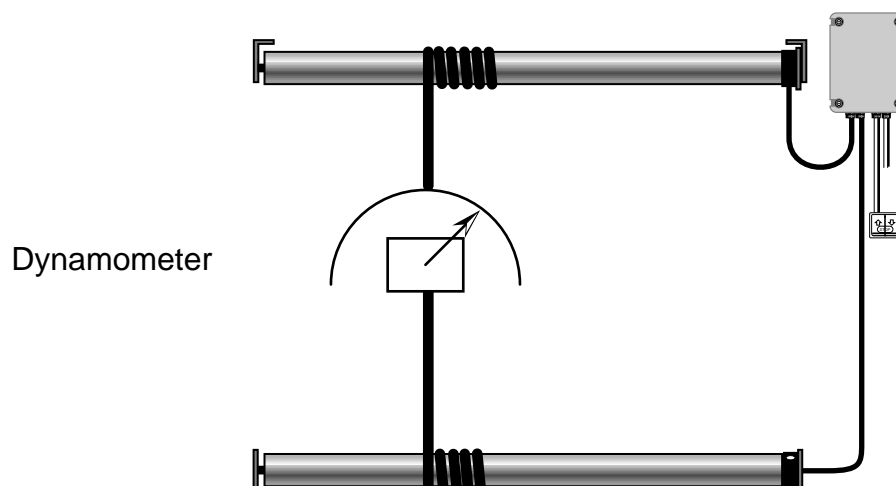
Example : 2 motors 55/17 installed on site.

If the potentiometer is set at 6, it means that the force on each bracket is equal to $176 \text{ kg}/2 = 88 \text{ kg}$. **You must take a safety margin.**

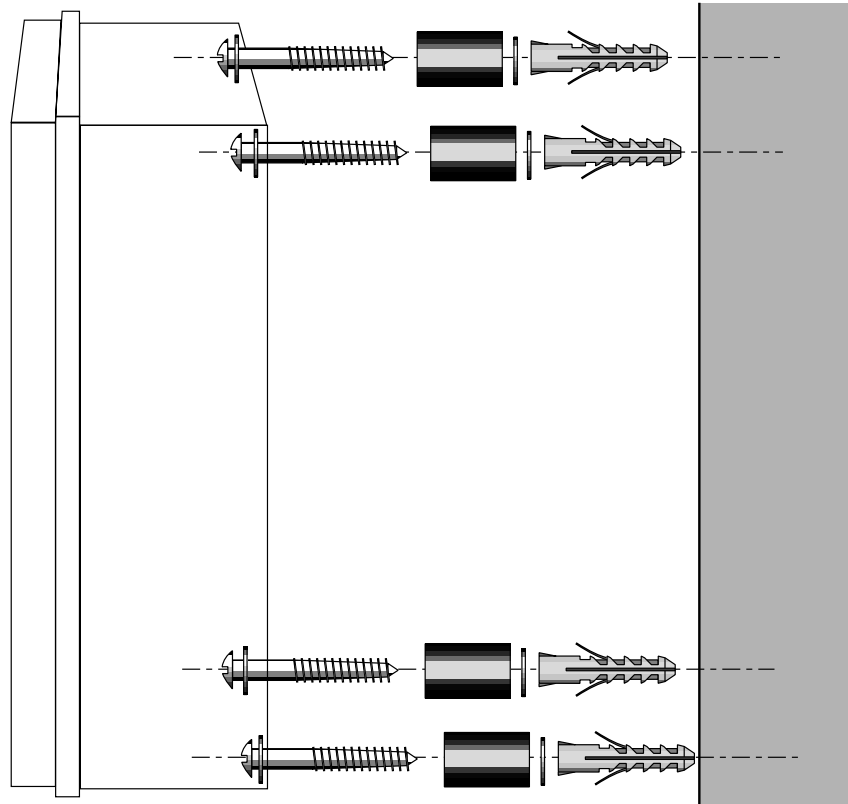


The values on the abacus above have been measured according to the drawing shown in the following part.

- Measure principle :



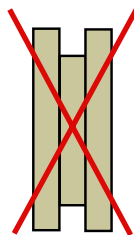
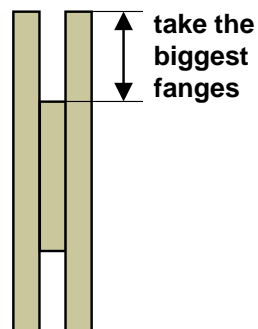
• **Box hanging :**



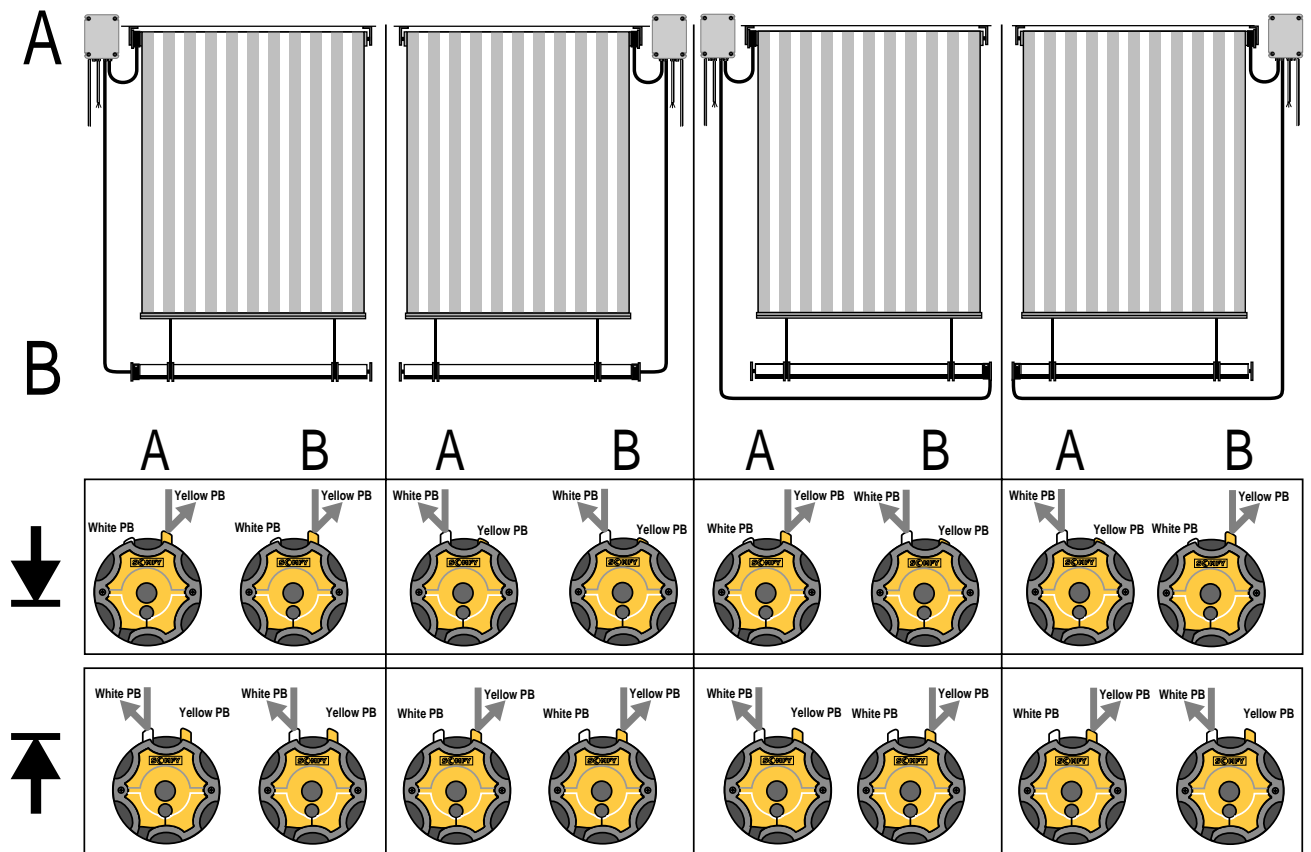
• **In case of vertical installation :**

3 advices to reduce the sliding on the vertical system

1. The setting of the static potentiometer (final tension) must not exceed "5".
2. The bar load must not exceed the weight of 10 kg.
3. On the straps pulleys, grooves must be maximum deep in order to reduce the risk of disengaging when the system start from the UP position.

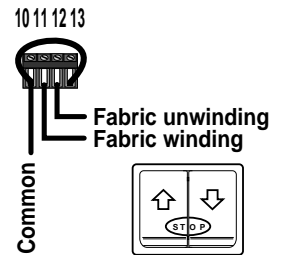
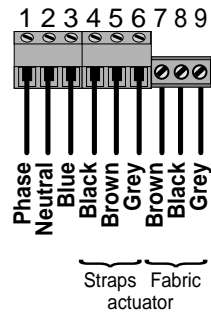
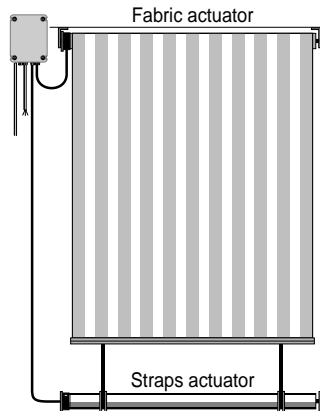


5 - Push buttons and setting according to heads positions :

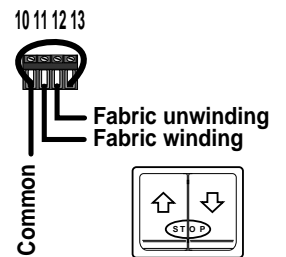
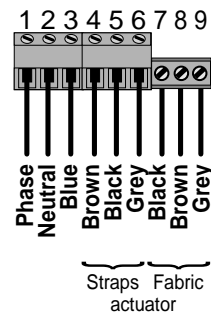
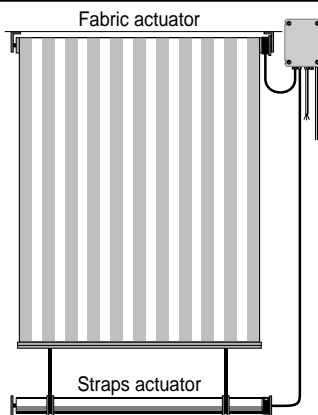


6 - Terminal wiring : Straps and fabric above winding

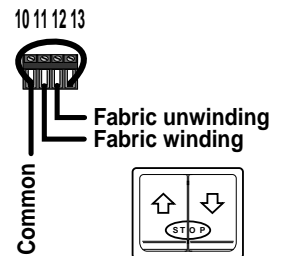
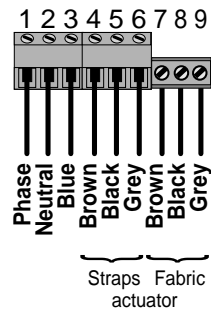
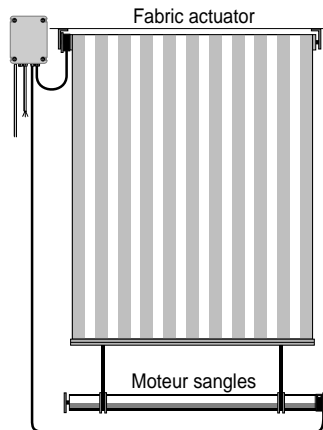
- 1
2 heads on the left.



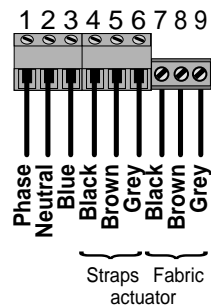
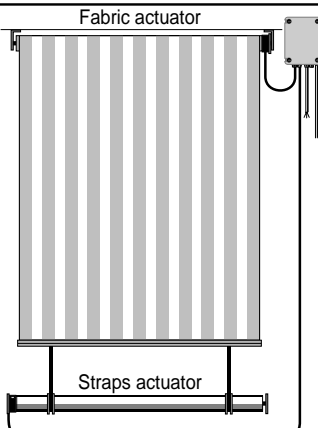
- 2
2 heads on the right.



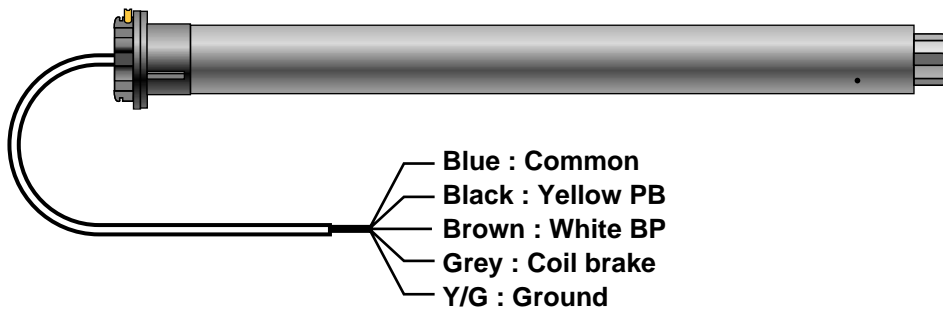
- 3
"fabric" head on the left and "straps" head on the right.



- 4
"fabric" head on the right and "straps" head on the left.



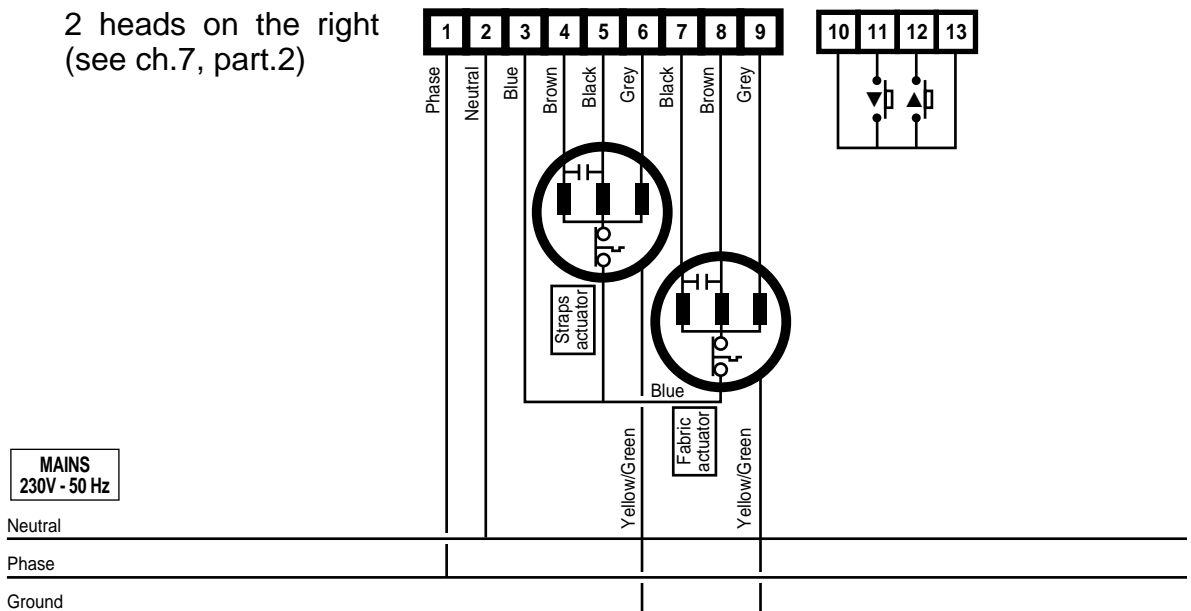
- Code color



7 - Control wiring :

- Switch :

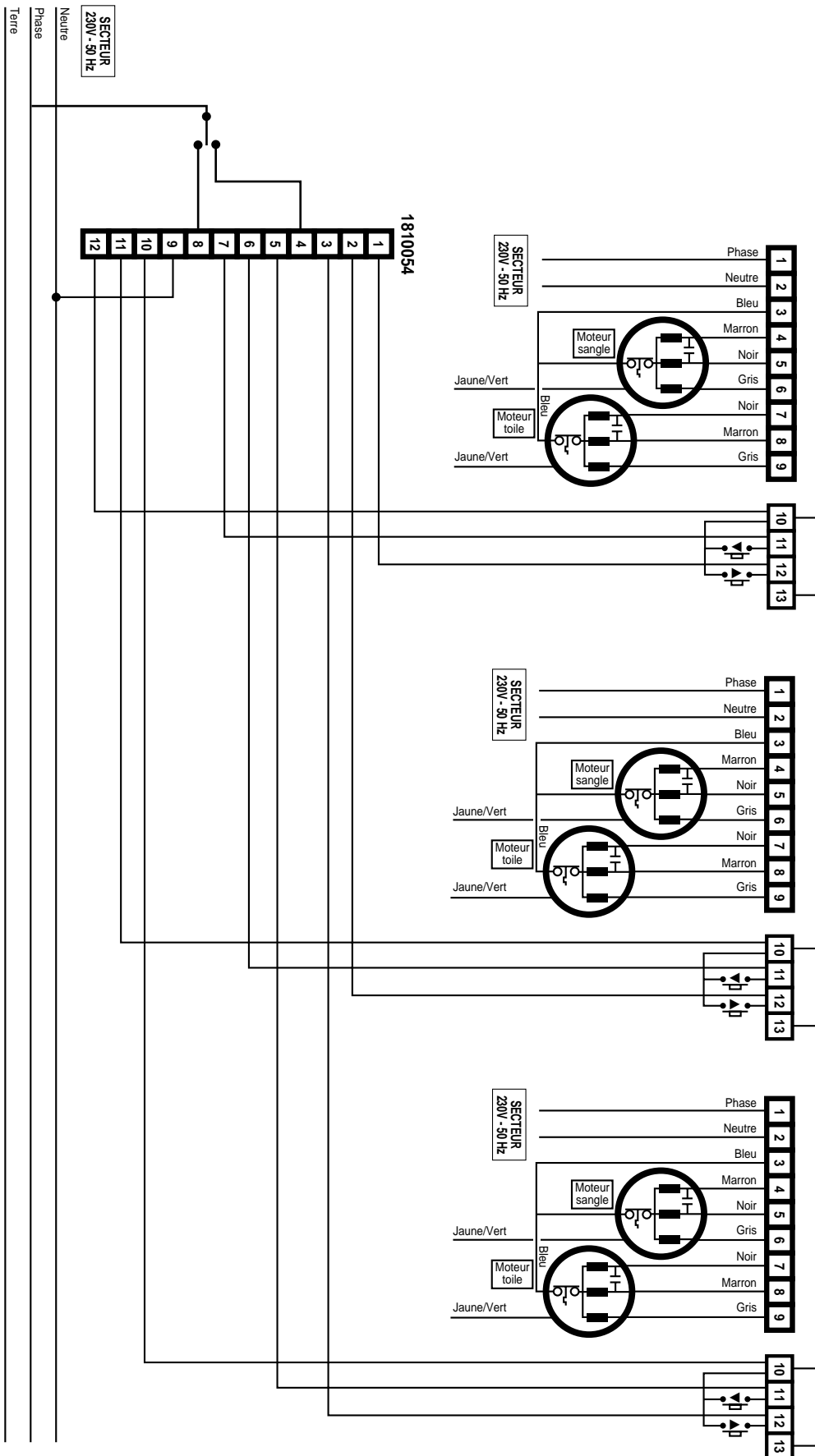
2 heads on the right
 (see ch.7, part.2)



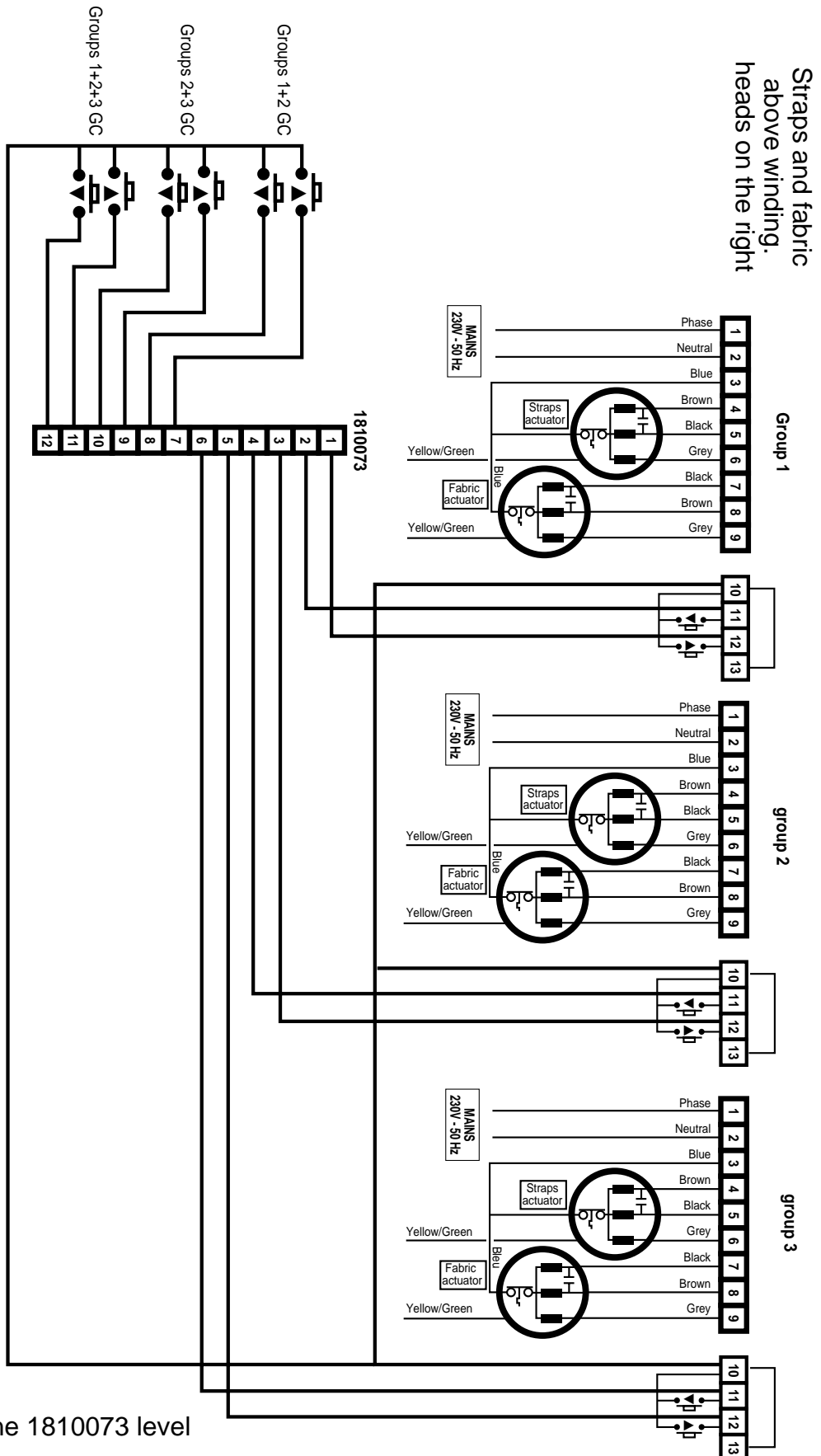
Straps and fabric
 above winding.
 Heads on the right

• FTS group control (1810054) :

Straps and fabric
above winding.
Heads on the right



• FTS sub-group control (1810073) :



Only one 1810073 level

8- Installation guide :

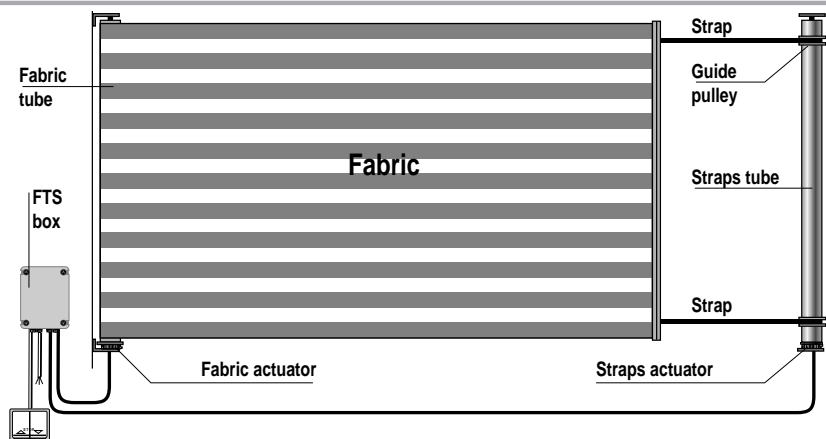


FTS INSTALLATION INSTRUCTIONS

Ref.900156D

1. INTRODUCTION.

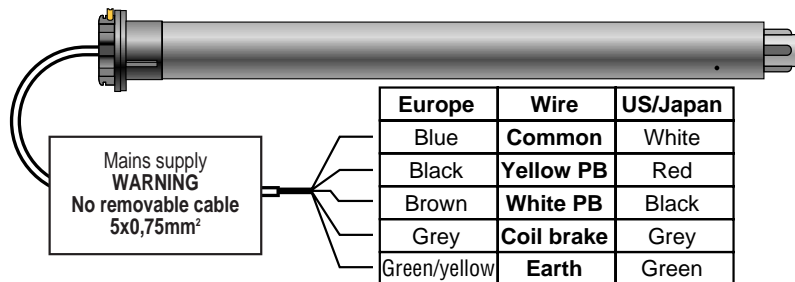
- The FTS is a specialised system designed for the solar protection market where horizontal or inclined type shading is required.
- The system consists of 2 specific actuators and a common control box which controls the operation of each actuator independently, the dynamic and final tension in the system.
- One actuator fits in the fabric roller, the second actuator fits in the strap roller. The system is extended by straps connected to a draw bar on the fabric.



2. SPECIFIC CHARACTERISTICS.

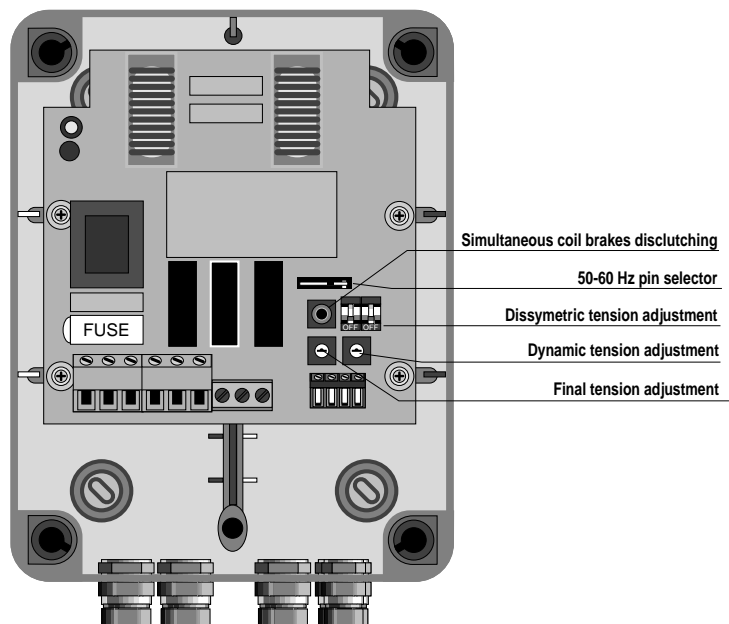
2.1 - Actuators characteristics :

- Limit switch unit capacity :
 - 46 turns on the FTS50.
 - 35 turns on the FTS60.
- Each motor can turn in either direction and are fitted with a coil brake (5 wires supply cable).
- The supply cable is Black RR-F, for external use and **cannot be removed**.
- FTS tubular motors are not continuously rated. They have a built-in thermal overload device which limits their operation to approximately 7 min.



2.1 - Electronic box characteristics :

- Water proof box IP56 :
- Dimensions : 190 x 145 x 80 mm.
- Equipped with 5 packings.
- Functions :
 - Low voltage impulse type switch control.
 - Compatible with automatic control SL 1010n and SL 2017n.
 - Adjustable dynamic tension.
 - Adjustable final tension.
 - Symetric dynamic tension : the dynamic brake presetting acts on the straps and fabric actuators.
 - Dissymetric dynamic tension : the dynamic brake presetting acts on the straps or on the fabric actuators, according to a dipswitches selection.
 - Option to connect a safety roof opening.
 - Security : in the event of either motor reaching its thermal protection limit or its limit end, both motors will stop.
 - Push button brake release.
 - Output temporisation : 6 min.
 - Type 1 working device.
 - Device for normally pollutive element.



This document is not contractual. We are allowed, at any time, in a permanent care to improve the product, to modify any technical features we would require. © SOMFY 07/1999

■ 3. LIMIT SWITCH SETTING.

The procedure for setting the limits is the same for either motor regardless of the installation configuration.

Firstly, the configuration of your installation must be identified by the opposite chart according to the motor positions.

1 - Depress both limit switch push buttons on each motor (A&B) and ensure they lock in the "in" position.

2 - Press the switch in the up direction until the desired position is reached and put the switch in the off position. Unlock the relevant push button on motor A by depressing and then releasing it.

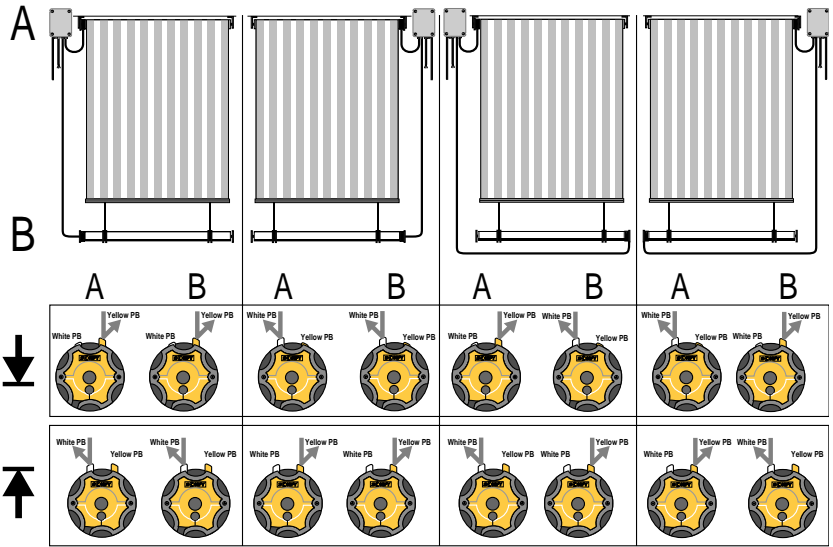
3 - On the other motor (B), depress the push button which acts in the same direction as the one set before.

4 - Repeat the operation for the other direction.

Check, with the switch, that the system stops at the up and down positions just set.

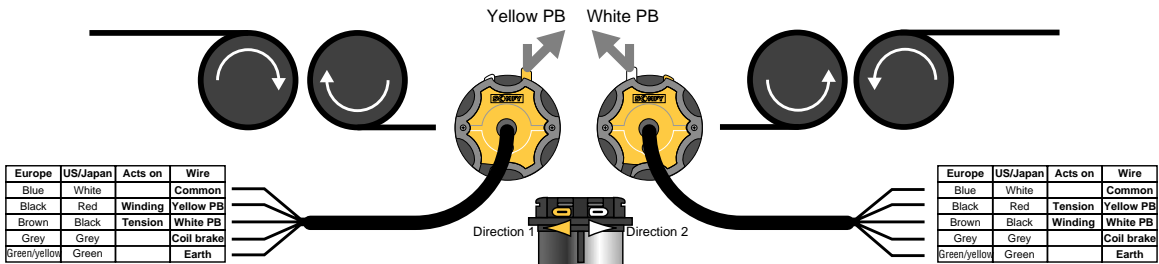
After setting, refit the protective cap.

If necessary to re-set a limit switch, put both push buttons of each motor in the "in" position and start again from 1.



Before the setting of the motor, put the potentiometers of the dynamic and finale tension to "0".

■ 4. ROTATION DIRECTIONS.



■ 5. ELECTRONIC BOX ADJUSTMENT.

Fabric dynamic tension adjustment.

Adjustment by potentiometer (value between 0 and 9).

Fabric final tension adjustment.

The final tension is made after each stop by limit switch unit or by STOP order.

Adjustment by potentiometer (value between 0 and 9).

Straps tension : 1/10th fabric tension .

Dissymmetric tension adjustment.

Adjustable by dipswitches.

or Symetric tension.

Dynamic tension on the fabric actuator. Weak tension on the straps actuator.

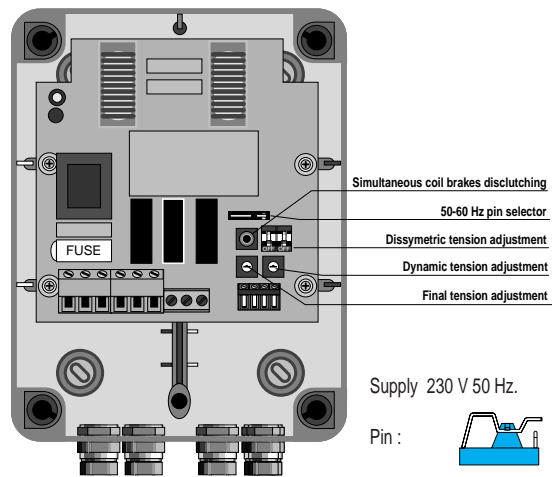
Dynamic tension on the straps actuator. Weak tension on the fabric actuator.

Brake release push button.

Usable during the installation.

Electronic reset.

releases the brake on both actuators simultaneously.



Supply 230 V 50 Hz.

Pin :

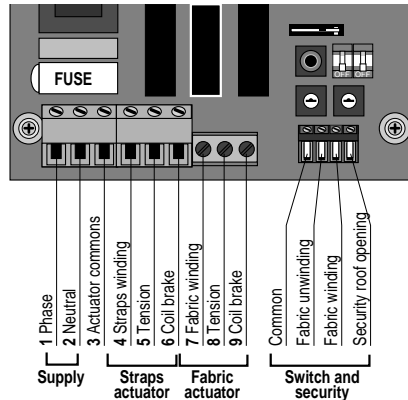
Supply 230 V 60 Hz.

Pin :

6. CONTROL BOX CONNECTIONS.

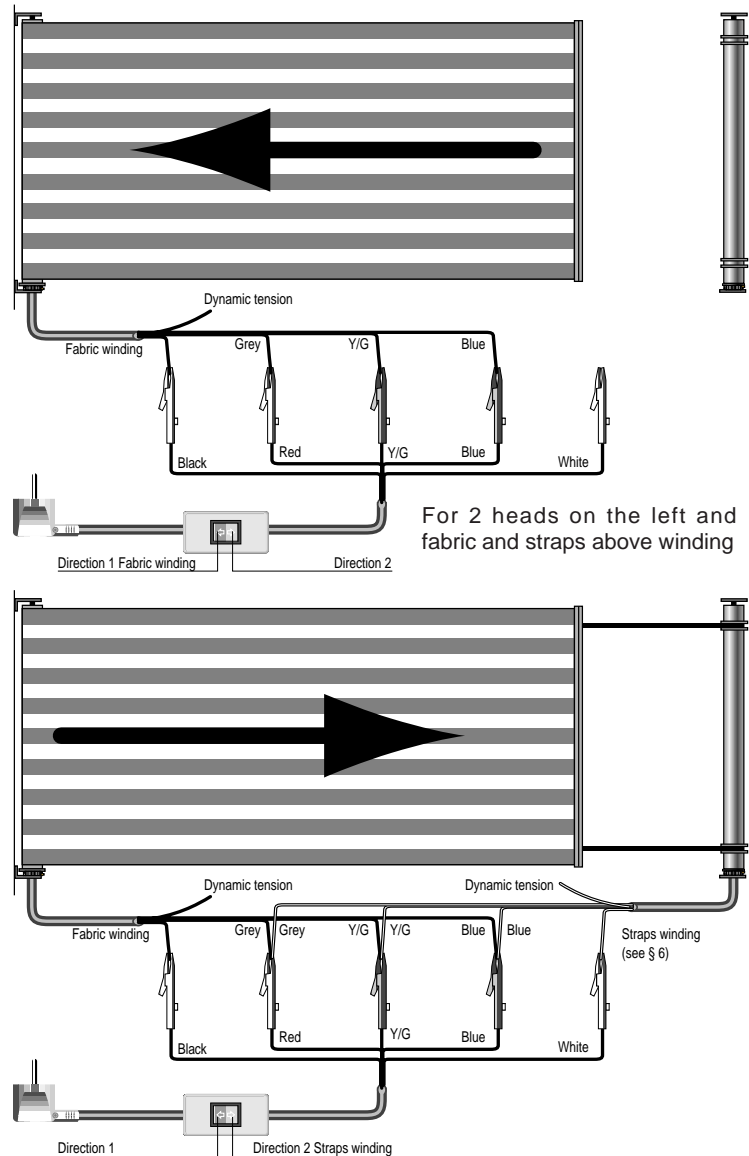
- The commons wire (blue) from both actuators are connected to terminal 3.
- The earth wire (yellow/green) from both actuators must be connected to the supply earth using a connector block.
- An impulse type switch can be connected to terminals 10,11 and 12.
- If no safety device is fitted, then bridge terminals 10 and 13 (done in factory).

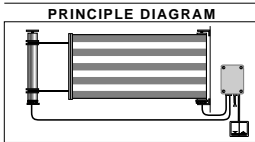
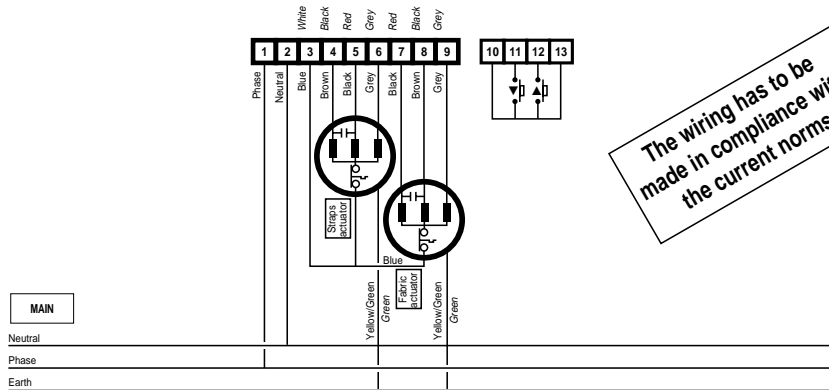
Do not put the actuator supply cables and the security control cables together in the same sleeve.



7. INSTALLATION PROCEDURE.

- 1 - Ensure the correct size of motors has been selected by using the Somfy FTS selector chart.
- 2 - Fit the actuators into the tube with the correct drive adapters in accordance with our standard installation instructions.
- 3 - depress both limit switch unit push buttons and ensure they lock in the "in" position.
- 4 - Mount the motorised barrels onto their respective brackets. Locking stop ring ref.910002 must be used with the motor end bracket. Ensure that both barrels are parallel.
- 5 - Attach the fabric to the tube. Connect the test lead ref.137080 to the motor as shown and wind the fabric around the tube. Set the "in" limit by releasing the relevant push button.
- 6 - Fit the pulleys and straps. Adjust the straps as required to ensure that they are all the same length. Connect the test lead to motor as shown and wind the straps around the tube. Set the "out" limit by releasing the relevant button.
- 7 - Before connecting the actuators and the switch to the control box **set the 2 potentiometers to "0"** and ensure that all the dipswitches are in the "up" position. Connect the actuators and switch to the control box as shown.
- 8 - Check that the system operates in the correct sense and ensure that the limits have been set correctly.
- 9 - Set the dynamic and final tension in the system by gradually increasing the settings on the potentiometers. When setting the final tension in the system, care should be taken to ensure that the fabric and all fixtures and fittings are capable of withstanding the operating load.
- 10 - If the straps have to be adjusted, press the brake release button in the control box, adjust the straps as necessary and then operate the system as normal.



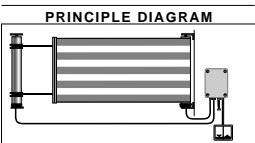
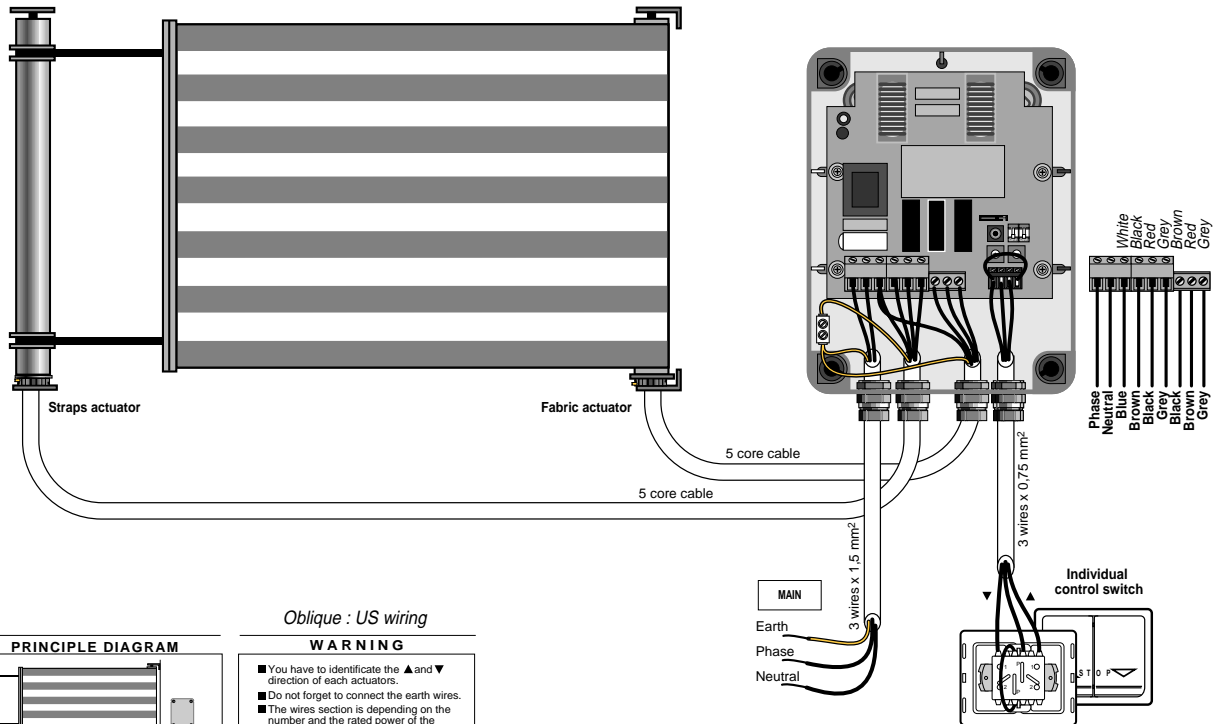


WARNING

- Do not forget to connect the earth wires.
- The wires section is depending on the number and the rated power of the actuators.

Oblique : US wiring

For 2 heads on the right and fabric and straps above winding



Oblique : US wiring

WARNING

- You have to identify the ▲ and ▼ direction of each actuators.
- Do not forget to connect the earth wires.
- The wires section is depending on the number and the rated power of the actuators.
- Cables after installation must not operate traction on the terminals.

8- Technical data forms :

MKI

ELECTRONIC PRODUCT FORM

25.03.96

DMKI-FPTE ESFT726120R0

designation	FTS HiPro control box 230V
reference	ESFT 726120
range	Separate box

FUNCTIONS

Adjustment of the canvas tension of the FTS HiPro system.

Time delay outputs : 6'

The push-button inputs are in security low voltage and impulse type.

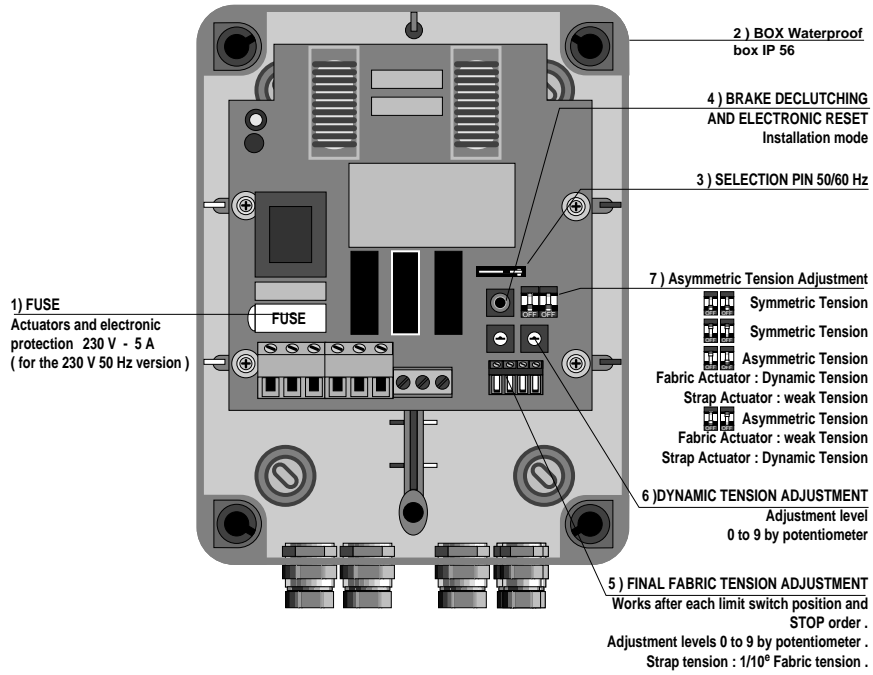
A security roof opening prevents the system movement in case a roof window is opened. Make a jumper if this security is not used.

Do not wire 2 FTS boxes in parallel.

TECHNICAL SPECIFICATIONS

Box	Material	ABS
	Colour	Grey
Supply	Dimensions	190 x145 x80 mm
	Protection factor against solid and splashproof	IP 56
Electromagnetic compatibility	nominal	220-240 V / 50-60 Hz
	limits	198-255 V
	Frequency	50 - 60 Hz
Temperature range	CEI 1000-4-2	8 kV minimum
	CEI 1000-4-3	lev III guaranteed
	CEI 1000-4-4	lev III guaranteed
Rate of relative humidity	Working	0°C to +40°C
	Storing	-15°C to +70°C
Connectors		90% maxi at 25°C
Fuse		screws
Coil-brake output relay		5 A - 230 V
Actuator control output		5 A max
Weight		by triac 5 A max
CE marking		0,935 kg
Approval		yes

CONFIGURATION

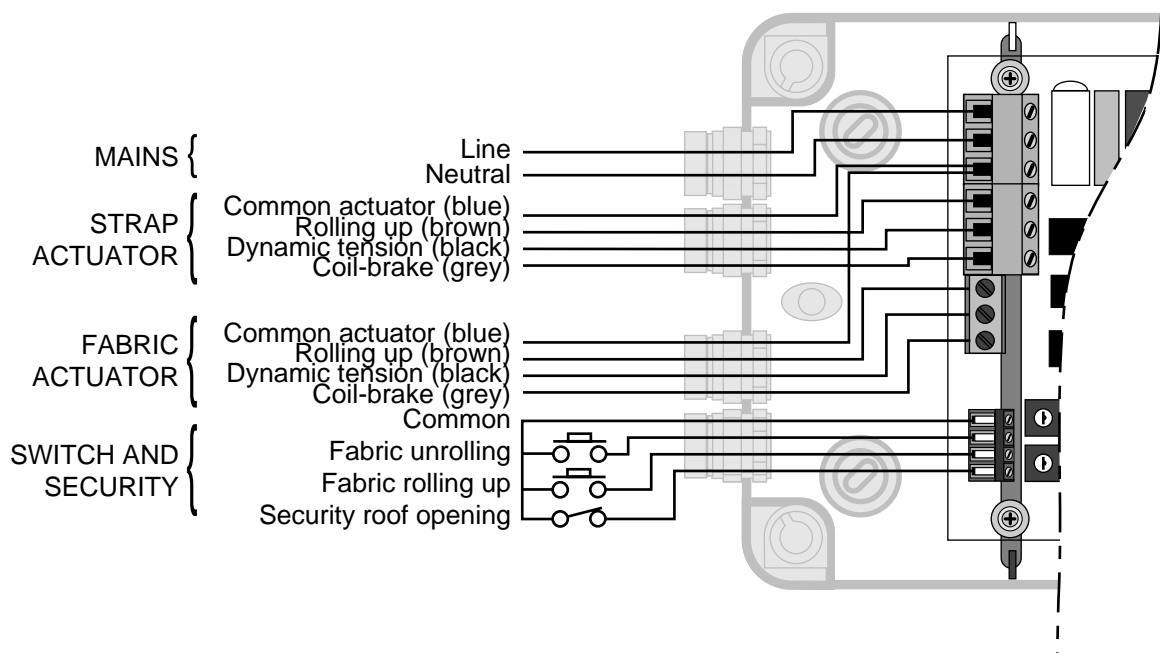


COMPATIBILITIES

IN OTHERS RANGES

- Input :
- SL 1010,
 - SL 1010 n,
 - SL 1017,
 - SL 1017 n,
 - 130150 with dry contact
 - Mastercontrol
 - SM1

WIRING AND CONFIGURATION



SOMFY [®]	12/02/1998	FTS 50 TECHNICAL DATA	DMKI - FPTE RANGE 1 FTS50Range1R0
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Nominal voltage	230 V - 50 Hz
Power supply tolerances	207 - 244V
Thermal time	8 minutes
System thermal time	dynamic brake and final tension mini : 21 minutes dynamic brake and final tension max : 15 minutes
Number of wires of the cable	5 Non removable 1 m RR-F black cable (2,5 m for the 35/12)
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	46 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Screw implantation for LT50 mounting 206810-Wheel interface LT50 206821-Crown interface LT50 206822-Interface drawing star head LT50 and LT50PA/PS 206823-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	50 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	
FTS Gemini	25	17	200521	655	640	663	590	180	0,95	130	coil brake	2,93	-
FTS Apollo	35	12	200545*	655	640	663	590	180	0,95	130	coil brake	3,1	-

* Specific for Somfy France

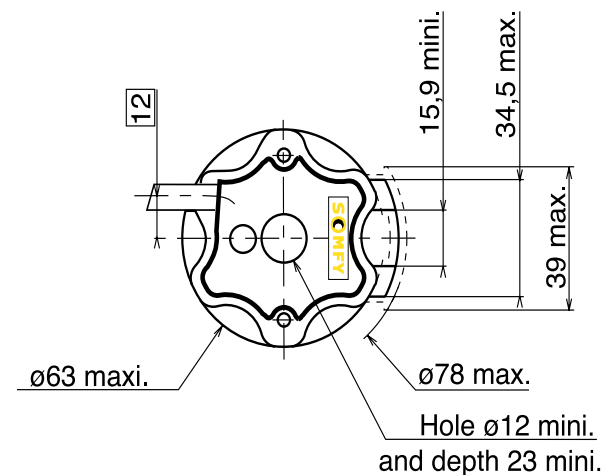
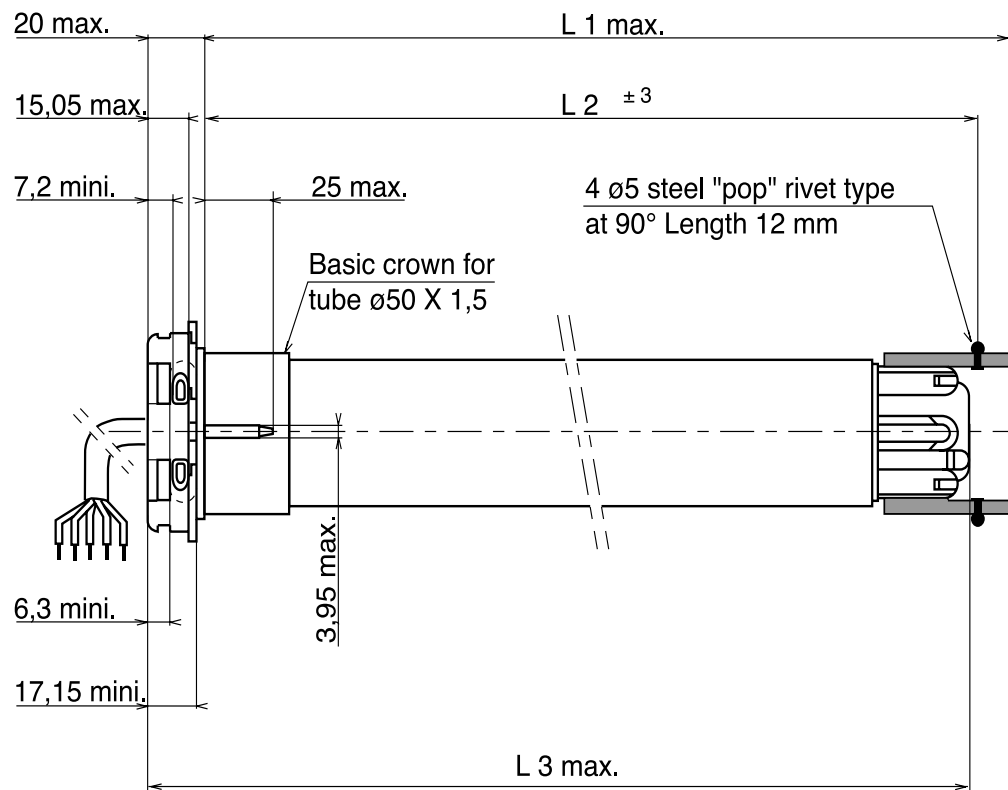


12/02/1998

FTS 50 TECHNICAL DATA

RANGE 1

WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	BEM	Quality	MKI
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12/02/1998

FTS 50 TECHNICAL DATA

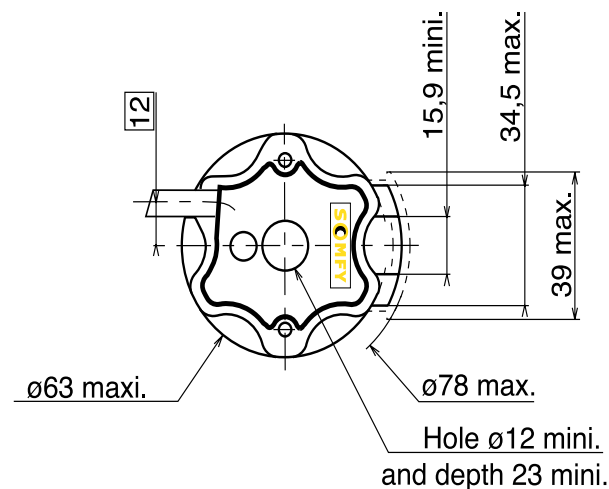
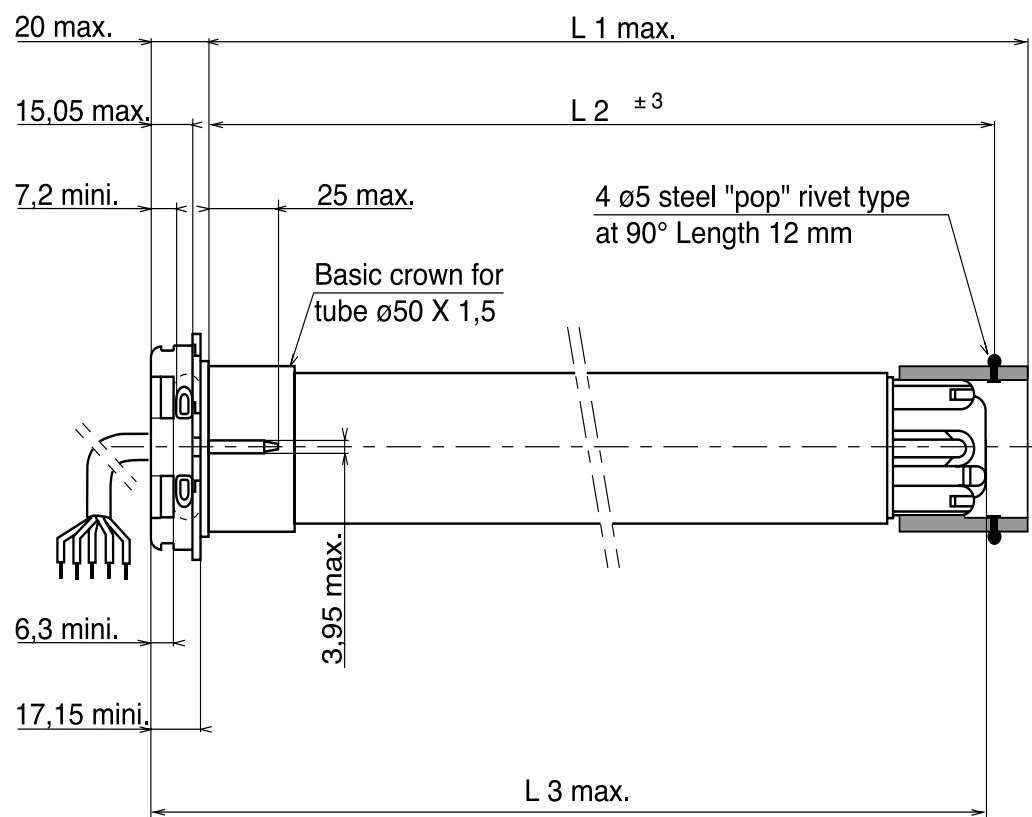
DMKI - FPTE
RANGE 2
FTS50Range2R0

Nominal voltage	120 V - 60 Hz
Power supply tolerances	108 - 126V
Thermal time	8 minutes
System thermal time	dynamic brake and final tension mini : 16 minutes dynamic brake and final tension max : 13 minutes
Number of wires of the cable	5 Non removable 2 m VV-F white cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	46 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Screw implantation for LT50 mounting 206810-Wheel interface LT50 206821-Crown interface LT50 206822-Interface drawing star head LT50 and LT50PA/PS 206823-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	50 x 1,5 mm
Electronic control box	Ref. ESFT826140 (110V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm / in.Lbs	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 525A2	25/220	20	200542	655	640	663	490	170	1,5	130	coil brake	2,95	-

SOMFY [®]	12/02/1998	FTS 50 TECHNICAL DATA	RANGE 2
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WIRING	Neutral	White
	White button	Black
	Yellow button	Red
	Brake	Grey
	Earth	Green



Visa :	BEM	Quality	MKI
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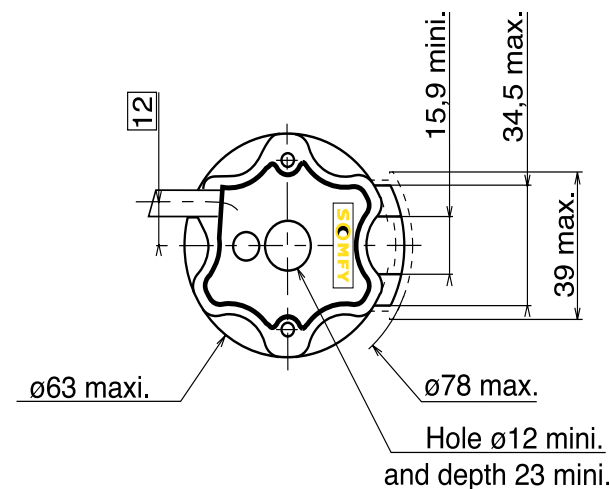
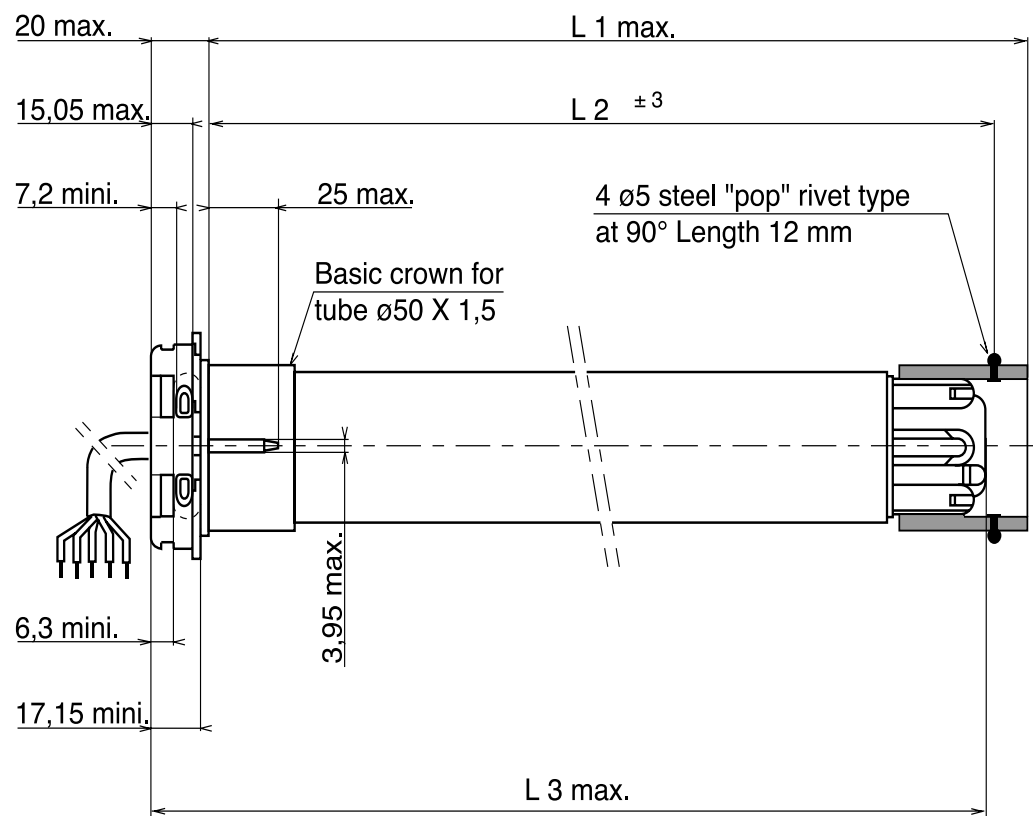
SOMFY [®]	12/02/1998	FTS 50 TECHNICAL DATA	DMKI - FPTE RANGE 3 FTS50Range3R0
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Nominal voltage	100 V - 50/60 Hz
Power supply tolerances	95 - 107 V
Thermal time	8 minutes
System thermal time	dynamic brake and final tension mini : 17 minutes dynamic brake and final tension max : 13 minutes
Number of wires of the cable	5 Non removable 1 m VV-F grey cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	46 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Screw implantation for LT50 mounting 206810-Wheel interface LT50 206821-Crown interface LT50 206822-Interface drawing star head LT50 and LT50PA/PS 206823-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	50 x 1,5 mm
Electronic control box	Ref. ESFT826140 (110V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	kg	dBA	
Designation	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping	Brake type	Weight	Noise
FTS 525A3	25	17/20	200540	655	640	663	590	250	2,35	130	coil brake	2,95	-

SOMFY®	12/02/1998	FTS 50 TECHNICAL DATA	RANGE 3
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WIRING	Neutral	White
	White button	Black
	Yellow button	Red
	Brake	Grey
	Earth	Green



Visa :	BEM	Quality	MKI
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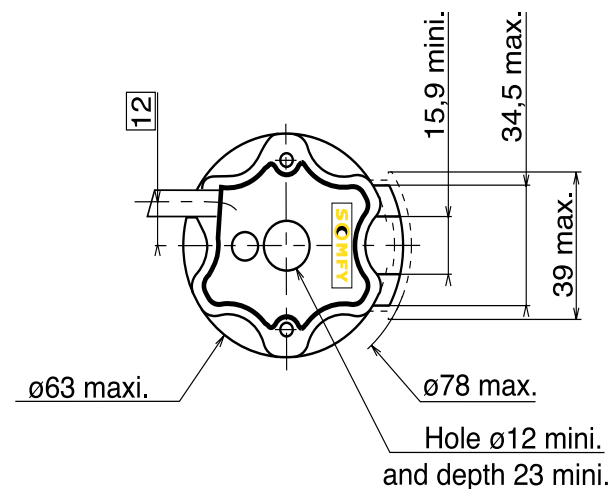
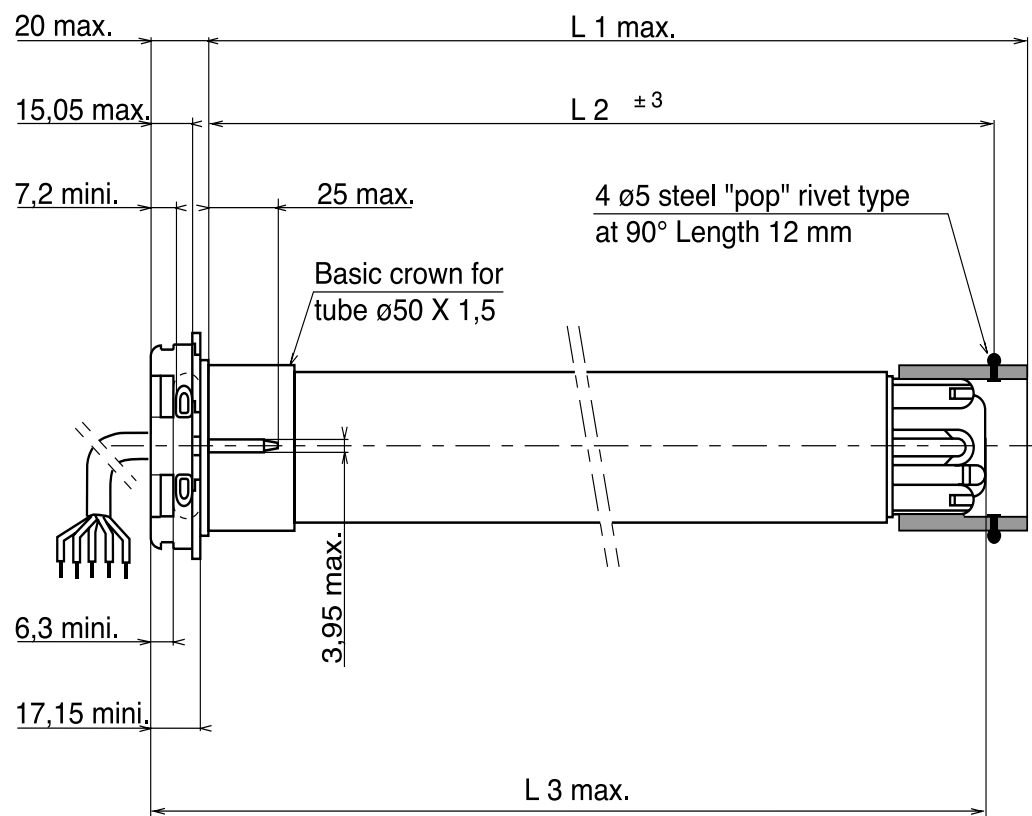
SOMFY [®]	12/02/1998	FTS 50 TECHNICAL DATA	DMKI - FPTE RANGE 4 FTS50Range4R0
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Nominal voltage	200 V - 50/60 Hz
Power supply tolerances	180 - 220 V
Thermal time	8 minutes
System thermal time	dynamic brake and final tension mini : 20 minutes dynamic brake and final tension max : 14 minutes
Number of wires of the cable	5 Non removable 1 m RR-F black cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	46 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Screw implantation for LT50 mounting 206810-Wheel interface LT50 206821-Crown interface LT50 206822-Interface drawing star head LT50 and LT50PA/PS 206823-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	50 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	kg	dBA	
Designation	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping	Brake type	Weight	Noise
FTS 525A4	25	17/20	200541	655	640	663	590	170	1,25	130	coil brake	2,93	-

SOMFY®	12/02/1998	FTS 50 TECHNICAL DATA	RANGE 4
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WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	BEM	Quality	MKI
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12/02/1998

FTS 50 TECHNICAL DATA

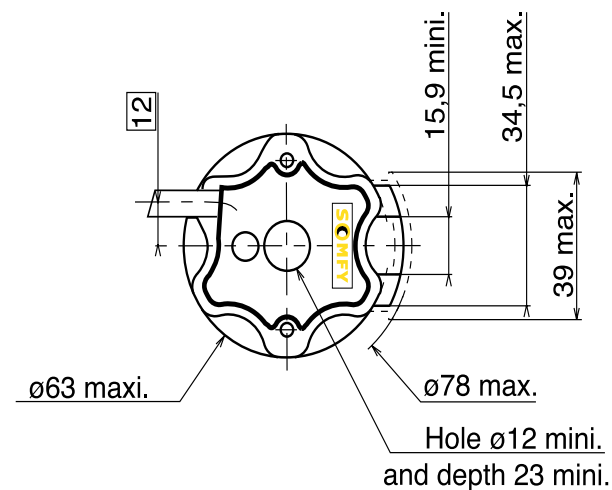
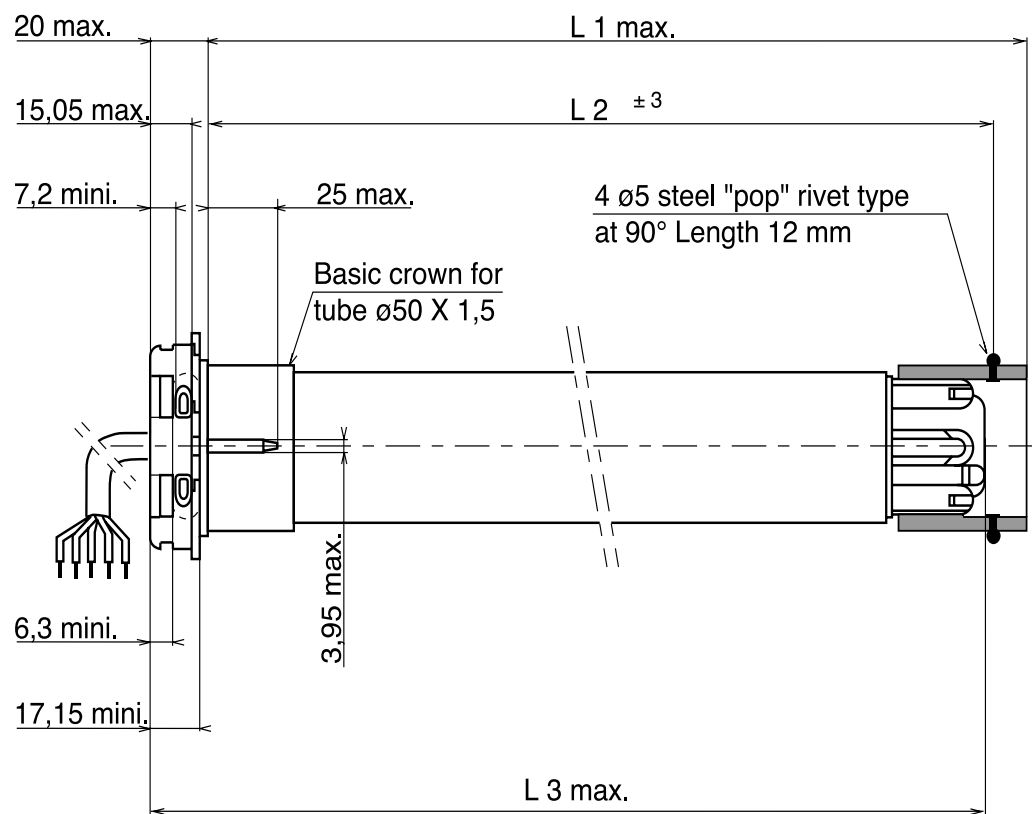
DMKI - FPTE
RANGE 5
FTS50Range5R0

Nominal voltage	240 V - 50 Hz
Power supply tolerances	225 - 254 V
Thermal time	8 minutes
System thermal time	dynamic brake and final tension mini : 16 minutes dynamic brake and final tension max : 12 minutes
Number of wires of the cable	5 Non removable 1 m RR-F black cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	46 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Screw implantation for LT50 mounting 206810-Wheel interface LT50 206821-Crown interface LT50 206822-Interface drawing star head LT50 and LT50PA/PS 206823-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	50 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 525A5	25	17	200544	655	640	663	590	180	0,95	130	coil brake	2,93	-

SOMFY [®]	12/02/1998	FTS 50 TECHNICAL DATA	RANGE 5
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WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	BEM	Quality	MKI
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12/02/1998

FTS 50 TECHNICAL DATA

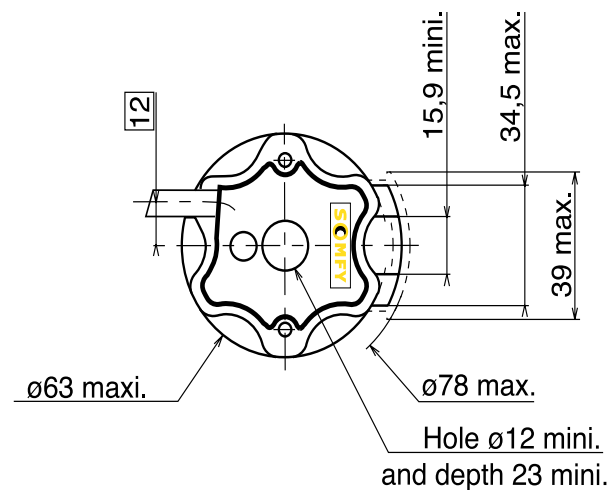
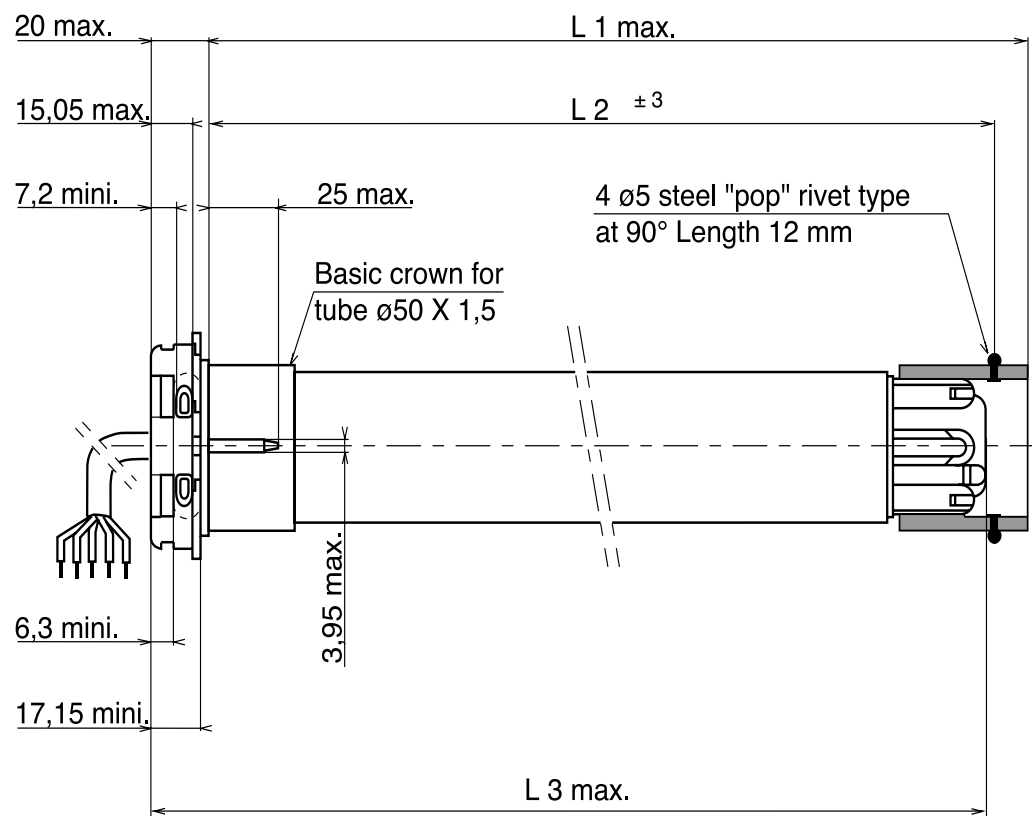
DMKI - FPTE
RANGE 6
FTS50Range6R0

Nominal voltage	220 V - 60 Hz
Power supply tolerances	190 - 235 V
Thermal time	8 minutes
System thermal time	dynamic brake and final tension mini : 19 minutes dynamic brake and final tension max : 15 minutes
Number of wires of the cable	5 Non removable 1 m RR-F black cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	46 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Screw implantation for LT50 mounting 206810-Wheel interface LT50 206821-Crown interface LT50 206822-Interface drawing star head LT50 and LT50PA/PS 206823-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	50 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 525A6	25	20	200543	655	640	663	590	200	0,9	130	coil brake	2,93	-

SOMFY [®]	12/02/1998	FTS 50 TECHNICAL DATA	RANGE 6
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WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	BEM	Quality	MKI
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SOMFY [®]	12/02/1998	FTS 60 TECHNICAL DATA	DMKI - FPTE RANGE 1 FTS60Range1R0
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Nominal voltage	230 V - 50 Hz
Power supply tolerances	207 - 244V
Thermal time	7 minutes
System thermal time	dynamic brake and final tension mini : 20 minutes dynamic brake and final tension max : 11 minutes
Number of wires of the cable	5 Non removable 1 m RR-F black cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	35 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	63 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS Orion S	55	17	200501	694	677	700	630	350	1,5	140	coil brake	5	-
FTS Antares	70	17	200502	694	677	700	630	390	1,9	150	coil brake	5,1	-

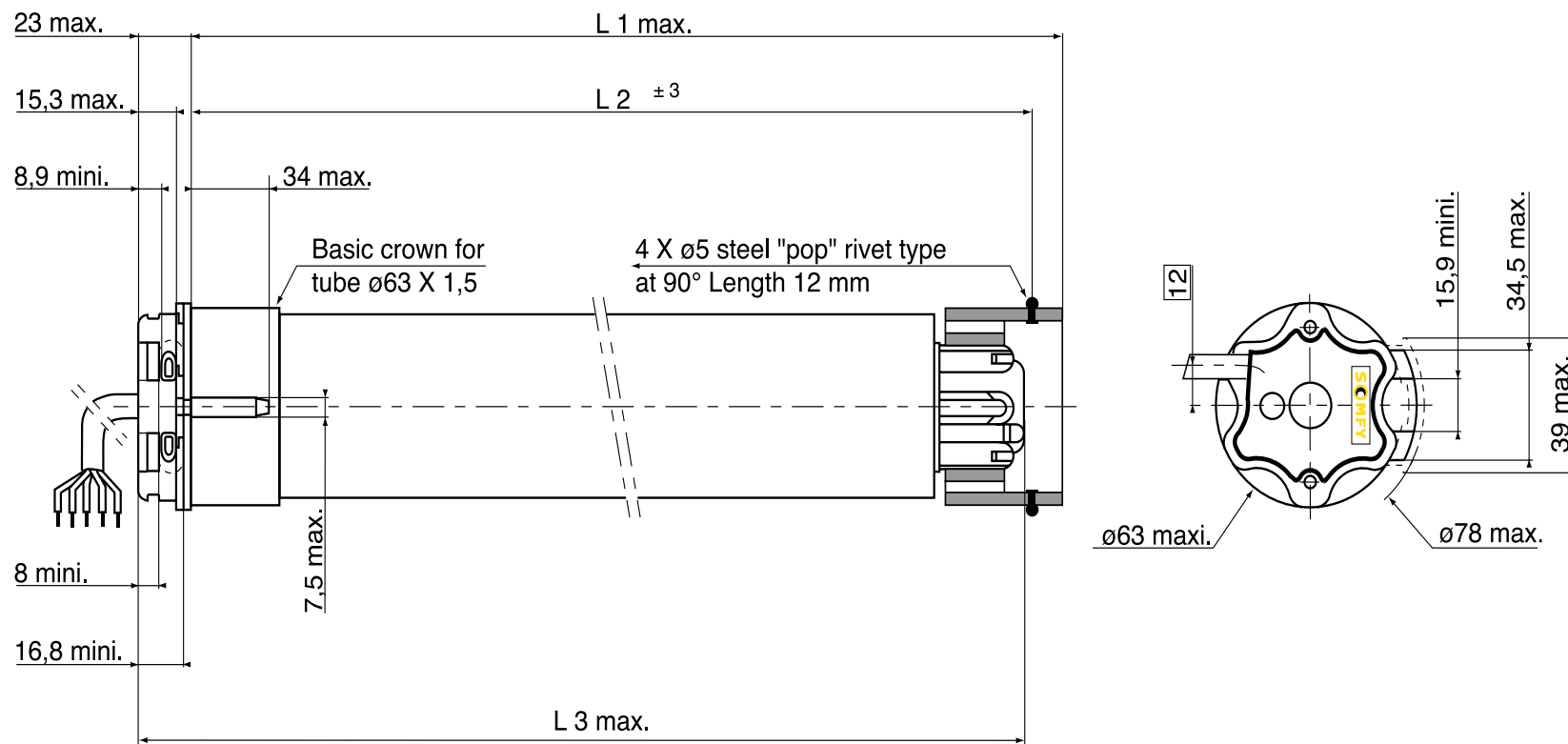


12/02/1998

FTS 60 TECHNICAL DATA

RANGE 1

WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	BEM	Quality	MKI
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12/02/1998

FTS 60 TECHNICAL DATA

DMKI - FPTE
RANGE 2
FTS60Range2R0

Nominal voltage	120 V - 60 Hz
Power supply tolerances	108 - 126V
Thermal time	7 minutes
System thermal time	dynamic brake and final tension mini : 17 minutes dynamic brake and final tension max : 12 minutes
Number of wires of the cable	5 Non removable 2 m VV-F white cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	35 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	63 x 1,5 mm
Electronic control box	Ref. ESFT826140 (110V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm / in.Lbs	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 65A2	55/487	20	200507	694	677	700	630	285	2,1	140	coil brake	5	-

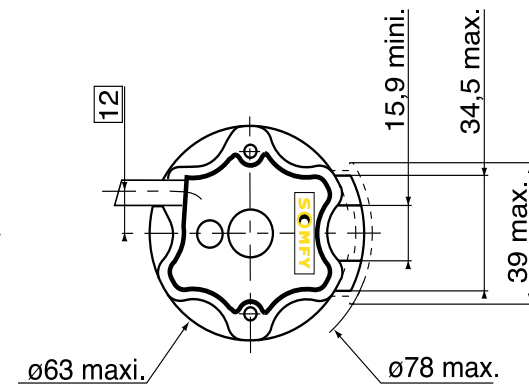
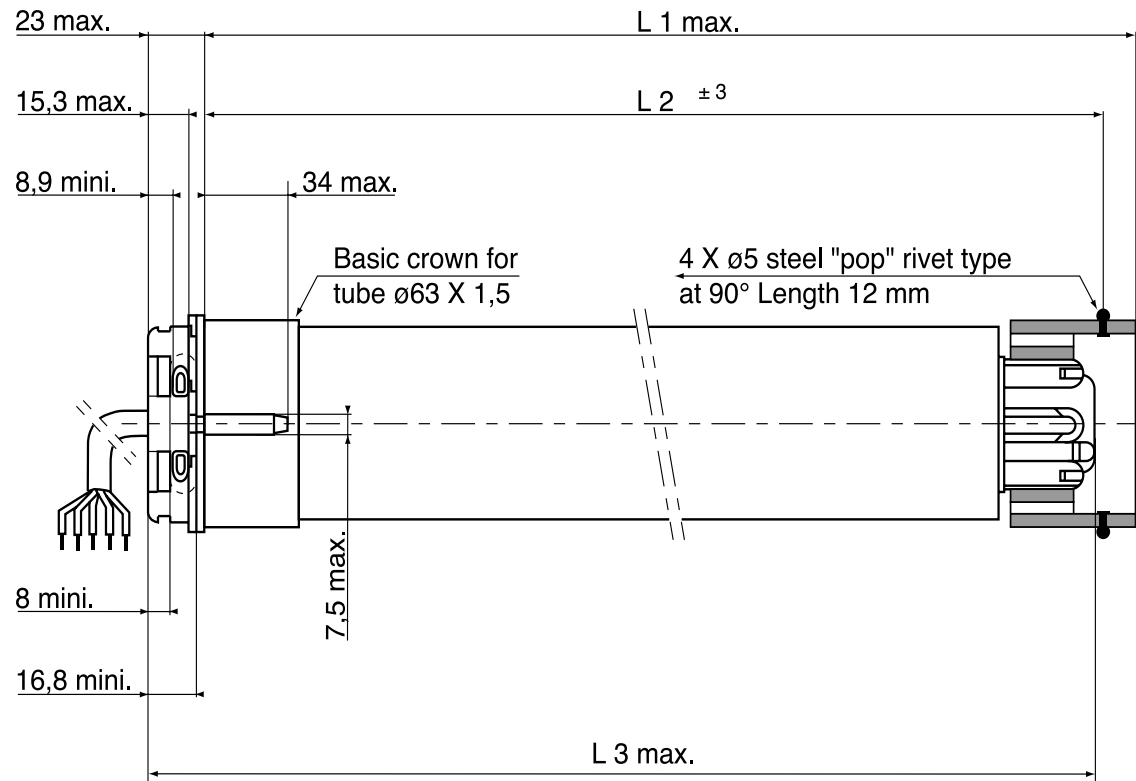


12/02/1998

FTS 60 TECHNICAL DATA

RANGE 2

WIRING	Neutral	White
	White button	Black
	Yellow button	Red
	Brake	Grey
	Earth	Green



Visa :	BEM	Quality	MKI
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	12/02/1998	FTS 60 TECHNICAL DATA	DMKI - FPTE RANGE 3 FTS60Range3R0

Nominal voltage	100 V - 50/60 Hz
Power supply tolerances	95 - 107V
Thermal time	7 minutes
System thermal time (50 Hz)	dynamic brake and final tension mini : 17 minutes dynamic brake and final tension max : 13 minutes
Number of wires of the cable	5 Non removable 1 m VV-F grey cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	35 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	63 x 1,5 mm
Electronic control box	Ref. ESFT826140 (110V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 655A3	5 5	17/20	200515	964	677	700	630	440	4,3	140	coil brake	5	-

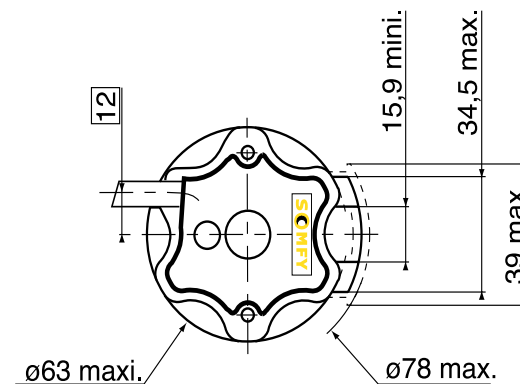
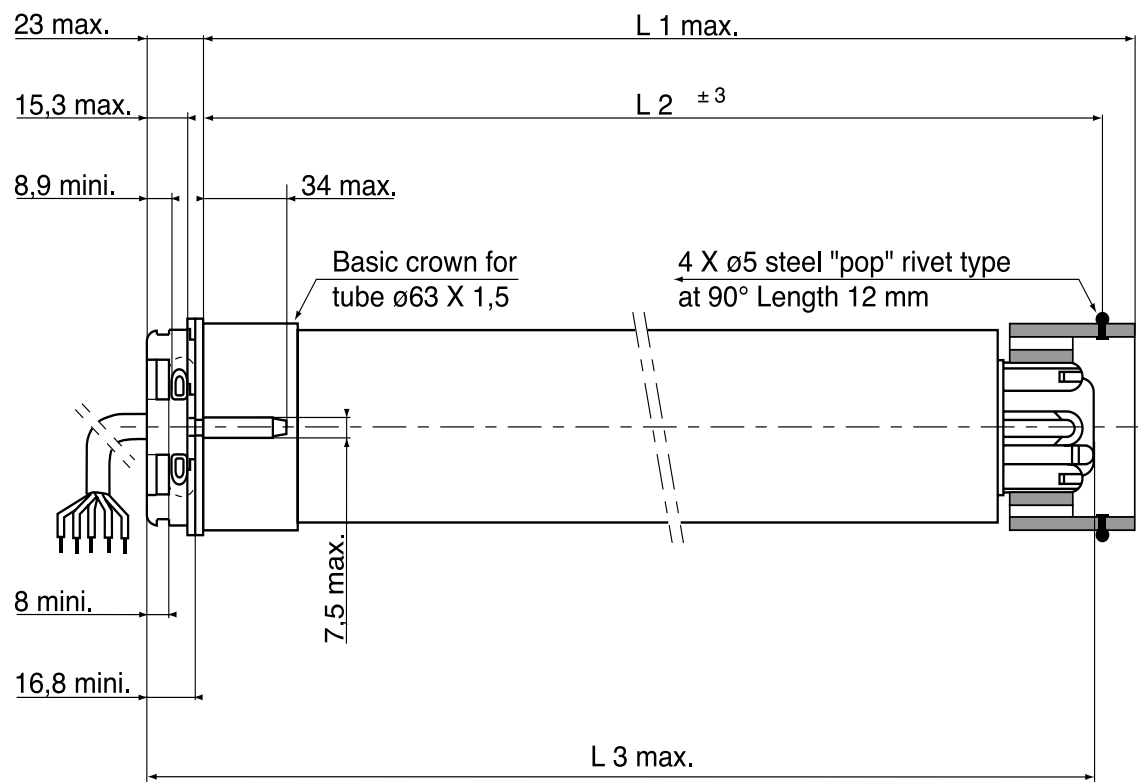


12/02/1998

FTS 60 TECHNICAL DATA

RANGE 3

WIRING	Neutral	White
	White button	Black
	Yellow button	Red
	Brake	Grey
	Earth	Green



Visa :

BEM

Quality

MKI



12/02/1998

FTS 60 TECHNICAL DATA

DMKI - FPTE
RANGE 4
FTS60Range4R0

Nominal voltage	200 V - 50/60 Hz
Power supply tolerances	180 - 220V
Thermal time	7 minutes
System thermal time (50 Hz)	dynamic brake and final tension mini : 17 minutes dynamic brake and final tension max : 12 minutes
Number of wires of the cable	5 Non removable 1 m RR-F black cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	35 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	63 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 655A4	55	17/20	200516	694	677	700	630	420	2,1	140	coil brake	5	-

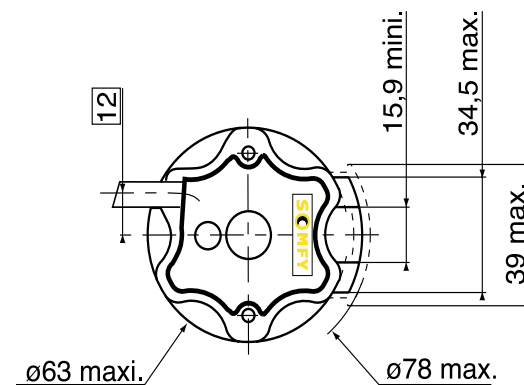
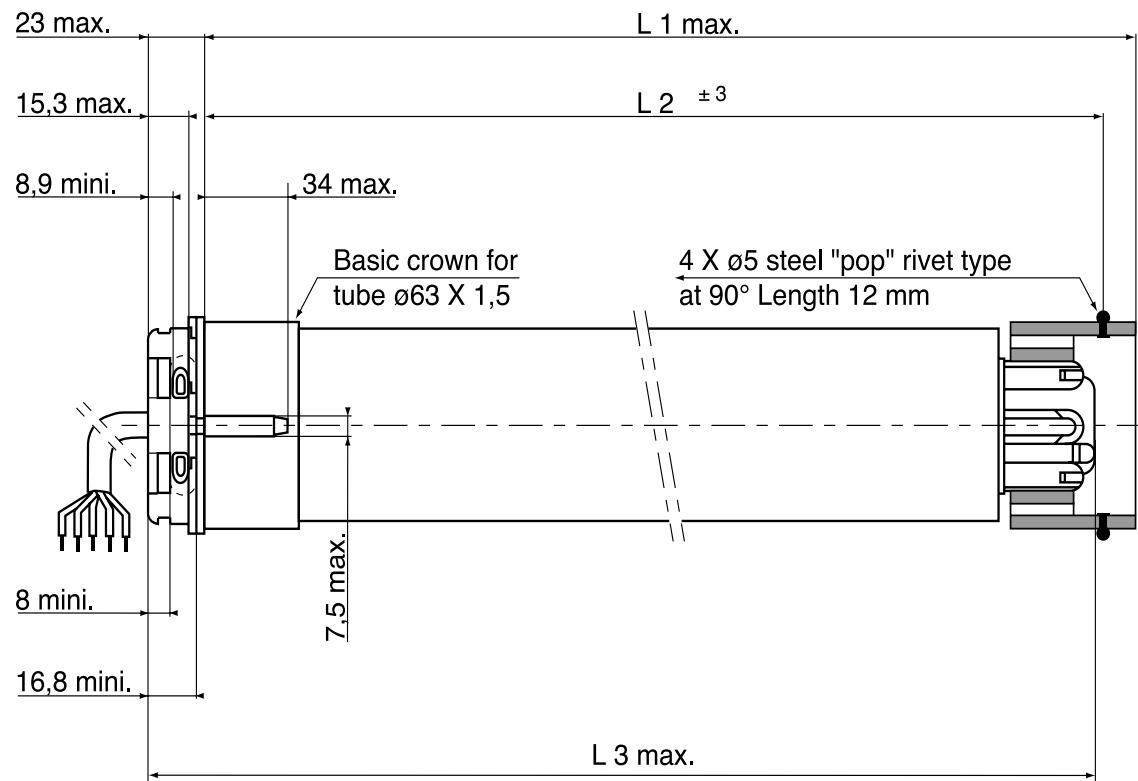


12/02/1998

FTS 60 TECHNICAL DATA

RANGE 4

WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	BEM	Quality	MKI
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12/02/1998

FTS 60 TECHNICAL DATA

DMKI - FPTE
RANGE 5
FTS60Range5R0

Nominal voltage	240 V - 50 Hz
Power supply tolerances	225 - 254V
Thermal time	7 minutes
System thermal time	dynamic brake and final tension mini : 16 minutes dynamic brake and final tension max : 13 minutes
Number of wires of the cable	5 Non removable 1 m RR-F black cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	35 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	63 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 655A5	5 5	1 7	200505	694	677	700	630	380	1,6	140	coil brake	5	-

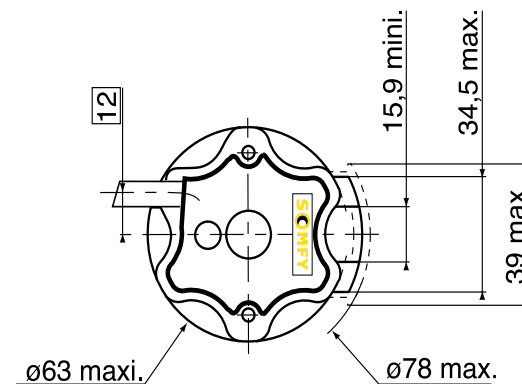
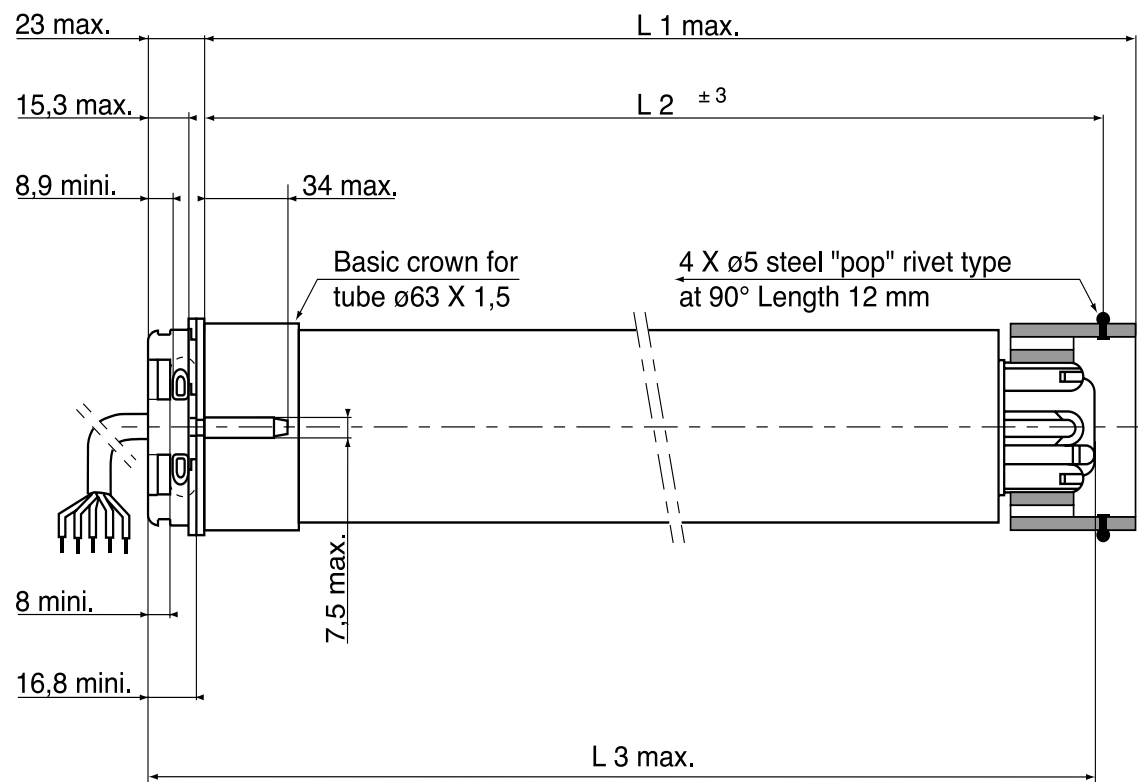


12/02/1998

FTS 60 TECHNICAL DATA

RANGE 5

WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	BEM	Quality	MKI
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04/01/2000

FTS 60 TECHNICAL DATA

DMKI - FPTE
RANGE 6
FTS60Range6R1

Nominal voltage	220 V - 60 Hz
Power supply tolerances	190 - 235V
Thermal time	7 minutes
System thermal time	dynamic brake and final tension mini : 16 minutes dynamic brake and final tension max : 13 minutes
Number of wires of the cable	5 Non removable RR-F black cable
Wire section	0,75 mm ²
Type of limit switch unit	Quick limit switch
Capacity of the LSU	35 turns
Repeatability	± 5°
System of protection	IP 44
Interface drawings	Wheel interface LT60 206801-Crown interface LT60, LT60ADF, FTS60 & LT60CSI 206802-Interface drawing star head LT60 206803-Interface drawing LT50&60 buttons 206817.
Basic crown for tube Ø	63 x 1,5 mm
Electronic control box	Ref. ESFT726120 (230V/50-60Hz)
Temperature working range	Normal use : -10°C to +40°C Exceptionnal use (20% of the life time not continuous) : -25°C to + 70°C
Noise level	According to SOMFY measures (for information only).Worse value : in load up direction during 10 seconds.

Designation	Nm	rpm	reference	mm	mm	mm	mm	W	A	°C	Brake type	kg	dBA
	Nominal torque	Nominal speed		L1 max.	L2 (±3 mm)	L3 max.	tube	Rated power	Rated current	Thermal tripping		Weight	Noise
FTS 650A6	50	20	200508	694	677	700	630	350	1,4	140	coil brake	5	-

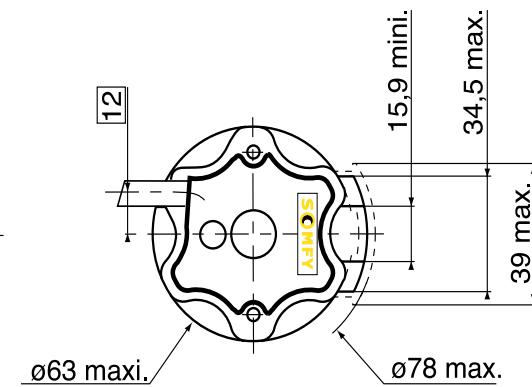
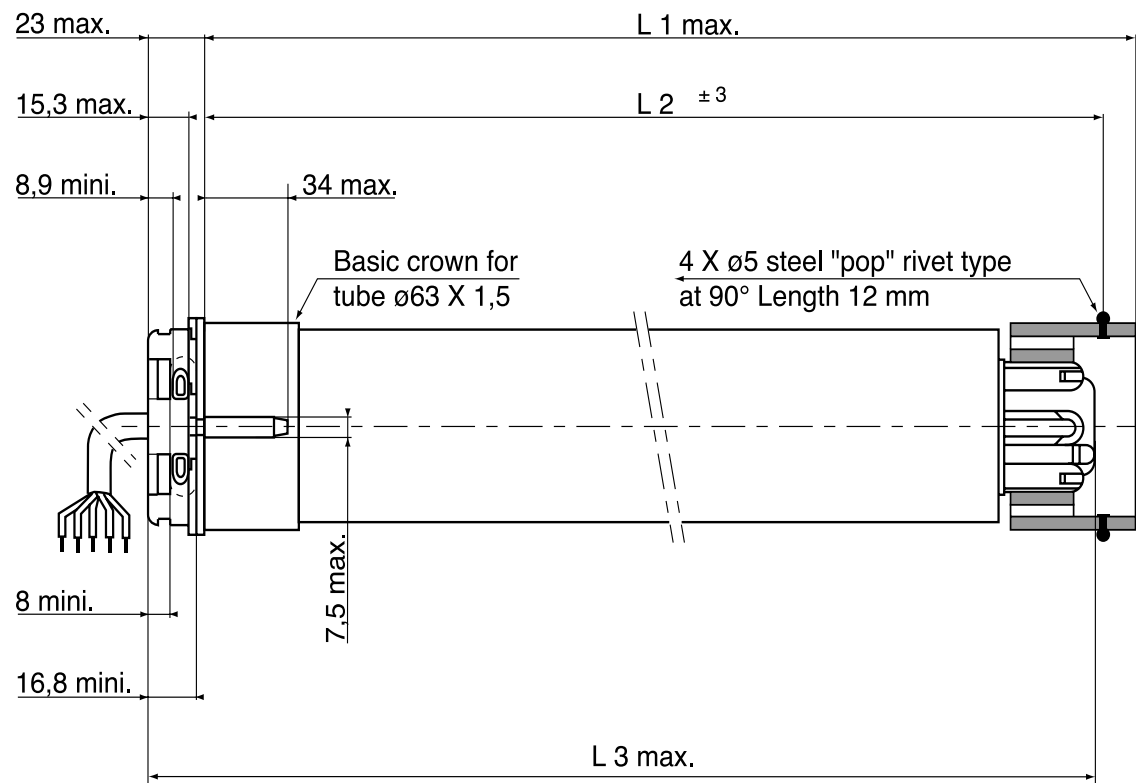


04/01/2000

FTS 60 TECHNICAL DATA

RANGE 6

WIRING	Neutral	Blue
	White button	Brown
	Yellow button	Black
	Brake	Grey
	Earth	Green / Yellow



Visa :	DT	Quality	GMD
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