MOTORISED DRIVES FOR AUTOMATIC SWIMMING POOL COVERS

SIREM

ABOUT SIREM

SIREM is specialised in submerged or wet environments and designs, manufactures and sells electrical motorised solutions for the industrial, food processingand swimming pool markets.

Motorised drives for swimming pools

Counter-current swimming systems

Industrial

Agri-food industry agitation

Customised offers

- **100,000** products manufactured a year
- **over 300** clients
- **65** countries buy our solutions
- **100%** of products assembled in France
- An offer of repairable products

SIREM, Creator of high value-added motorized solutions

In 2014, SIREM launched the COVEO® range to confirm its position as**leader in motorised drives for automatic swimming pool covers.** COVEO® is the result of two years of development and SIREM's expertise acquired in around **200,000+ pools equipped worldwide**

COVEO® meets the specific needs of users, installers and manufacturers of automatic pool covers, and complies with the NF P 90-308 French standard.

CE **Complies with standards** — **The box complies with the provisions of the European directives** → ✓ "Low voltage" directive **2014/35/UE** ✓ "Electromagnetic compatibility" directive **2014/30/E**

HOW TO CHOOSE THE RIGHT PRODUCT

COVEO, motorised drives for automatic swimming pool covers

The drive and its control box are the keys to making a swimming pool cover user-friendly, with automatic opening and closing controlled at the touch of a button.

Securing your pool just became simple, natural and effortless. The same is true for protecting the water from outside hazards and keeping the pool at the right temperature.

A swimming pool cover provides effective and long-lasting safety to prevent the risk of drowning. It is also an asset for the environment as it conserves the water temperature, limits evaporation and therefore reduces the need to refill the pool.

The COVEO range

IM submerged range

The IM range models are fitted inside the swimming pool, in a specific cover box. These motorised drives manage the limit switches automatically. The bearings are made to measure and the IP 68 certification guarantees that the product is watertight.

Page 8

H and C above-ground range

These automatic swimming pool cover motorised drives are outside of the swimming pool. Depending on the model, the limit switch can be managed mechanically (C range), electronically (H range).

Page 20

S solar range

With a lead battery system, the motorised drives of the solar range are recharged by sunlight on a solar panel.

Page 30

Why choose COVEO?

Customisation

SIREM adapts its solutions to your integration environment (bearings, axes, cable length, software).

Specific development

The SIREM teams can also study any special development requests or specifications you may have.

Reactivity

SIREM has a technical team to ensure that claims are handled smoothly and efficiently.

The COVEO® custom parameters

A customization offer to serve your product line strategy

Customising your box

Type of installation
Above-ground, submerged or solar

Customising the cover speeds
Option only available for the submerged range

Control modes
Auto-Auto / Auto-Manual

Dry contacts
Pump, electrolyser, light

Remote controls
Wall-mounted, wireless or Bluetooth

Customising the motor

Type of waterproof rating
IP68 or IPX5

Torque
From 50 to 600Nm

Speed
From 2 to 8 rpm

Limit switch setting mode
Mechanical or electronic

Type of mechanical interface
Bearing bushes, flanges, axles...

After-Sales and services

Remote support
Smoother exchanges and quicker response times

Documents
Multi-lingual documents, installation guide, troubleshooting guide

SUBMERGED RANGE

THE SUBMERGED RANGE

MOTORISED DRIVES AND CONTROL BOX FOR ABOVE-GROUND COVERS

The submerged range is made up of motorised drives that have been specially developed to resist the buoyancy force generated by the cover.

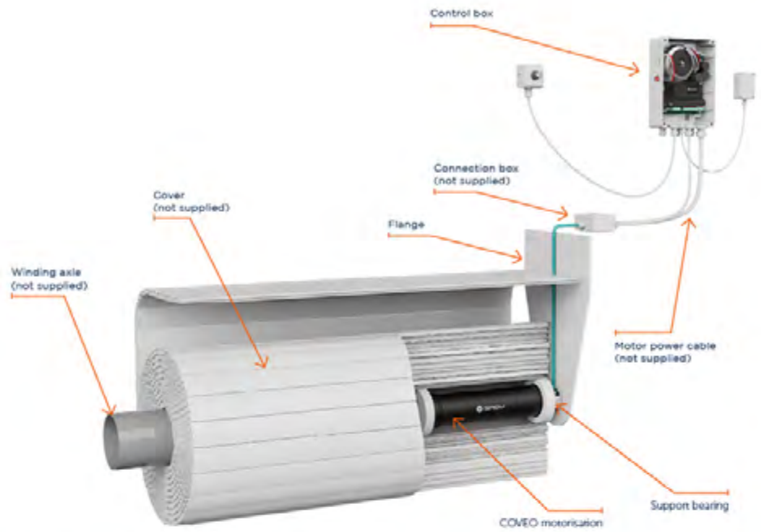
Each motorised drive has a control box that allows you to adjust the limit switches and speed of the cover.

Motorised drives available

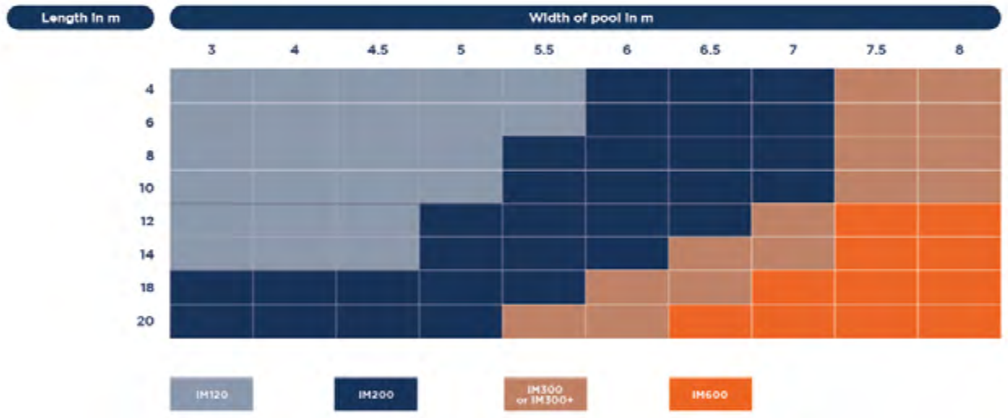
- IM120
- IM200
- IM300 & IM300+
- IM600

Control boxes

- V2.2 - 10A
- 4020 - 20A



GUIDE FOR SELECTING YOUR MOTORISED DRIVE



Depth at which shaft is submerged	Width of the pool								
	3 m*	4 m*	4.5 m*	5 m*	5.5 m*	6 m**	6.5 m**	7 m**	7.5 m**
0.5 m	L: 14 m 120 N.m	L: 14 m 120 N.m	L: 11 m 120 N.m	L: 9 m 120 N.m	L: 7 m 120 N.m	L: 20 m 300 N.m	L: 17 m 300 N.m	L: 15 m 300 N.m	L: 12 m 300 N.m
1 m	L: 20 m 300 N.m	L: 20 m 300 N.m	L: 20 m 300 N.m	L: 15 m 300 N.m	L: 12 m 300 N.m	L: 14 m 300 N.m	L: 12 m 300 N.m	L: 10 m 300 N.m	L: 8.5 m 300 N.m
1.5 m	L: 18 m 300 N.m	L: 18 m 300 N.m	L: 13 m 300 N.m	L: 10 m 300 N.m	L: 8 m 300 N.m	L: 8.5 m 300 N.m	L: 15 m 600 N.m	L: 15 m 600 N.m	•
2 m	•	L: 12 m 300 N.m	L: 8 m 300 N.m	L: 20 m 600 N.m	L: 15 m 600 N.m	L: 15 m 600 N.m	L: 12 m 600 N.m	L: 12 m 600 N.m	•
2.5 m	•	•	•	L: 15 m 600 N.m	L: 12 m 600 N.m	L: 12 m 600 N.m	•	•	•
3 m	•	•	•	L: 12 m 600 N.m	•	•	•	•	•

Data used to create this table:

- Capacity: 100 N/m2
- Weight of the slats: 40 N/m2

Type of shaft:

* Equivalent to that of a tube with int. ø 180xe=4 in aluminium
** Equivalent to that of a tube with int. ø 150xe=10 in aluminium
L: Length

Data is not guaranteed but provided for information; only to be used as an initial guideline; it cannot replace integrator's experience. It needs to be validated to suit the type of slat used, the type of shaft, type of attachment, etc.

THE SUBMERGED RANGE

MOTORS

IM120 IM200 IM300 IM300+ IM600

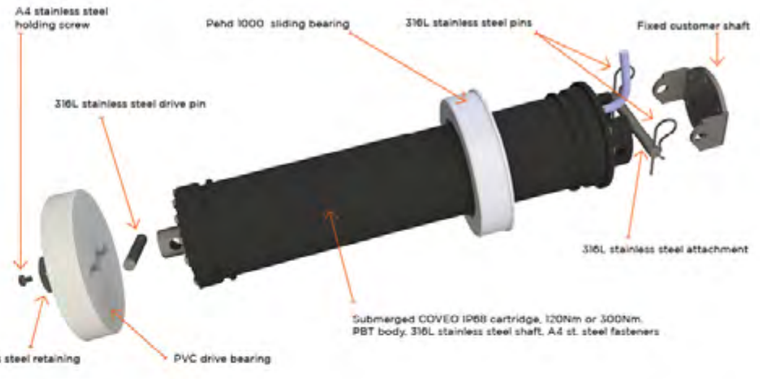
- Waterproof rating IP 68
- Repairable
- Electronic limit switch control
- Made-to-measure bearings

The submerged motorised drives for covers may be used for swimming pools of up to 8 x 20m. They are designed to be completely waterproof and resist the buoyancy of the submerged cover.

TECHNICAL CHARACTERISTICS

		(IM submerged range)				
Motor	-	IM120	IM200	IM300	IM300+	IM600
Reduction ratio	-	1/886	1/630	1/1003	1/616	1/1003
Input voltage	-	24V	24V	24V	24V	24V
Common	-	24V	24V	24V	24V	24V
Consumption at max. torque (+ - 20%)	-	5A	9A	9A	16A	16A
Protection rating	-	IP68	IP68	IP68	IP68	IP68
Max. torque (Nm)	-	120	200	300	300	600
Speed rpm	-	6 (with no load)	7 (with no load)	4.5 (with no load)	7.5 (with no load)	3.5 (with no load)
	-	4 (with load)	5.5 (with load)	3.5 (with load)	4.5 (with load)	2 (with load)
Motor shaft		316L stainless steel	316L stainless steel	316L stainless steel	316L stainless steel	316L stainless steel
Materials	Cartridge	PBT	PBT	PBT	PBT	316L stainless steel
Limit switch sensor		Electronic	Electronic	Electronic	Electronic	Electronic
Magnetic brake	-	120 N.m min.	200 N.m min.	300 N.m min.	300 N.m min.	600 Nm min.
Flexible cable	Waist	ø 10 + 0.5mm		ø 10 + 0.5mm	ø 10 + 0.5mm	ø 10 + 0.5mm
	Composition	2x2.5 mm² ± 4x0.5mm²	2x2.5 mm² ± 4x0.5mm²	2x2.5 mm² ± 4x0.5mm²	2x2.5 mm² ± 4x0.5mm²	2x2.5 mm² ± 4x0.5mm²
	Waterproof rating	ADB	ADB	ADB	ADB	ADB
Maximum permissible load on the motorised drive	-	6.000N	6.000N	6.000N	6.000N	12.000N
Operating condition	Usage period	6 months per year	6 months per year	6 months per year	6 months per year	6 months per year
	Number of cycles / day	2	2	2	2	2
	Pool length	12 rotations of the shaft	15 rotations of the shaft	15 rotations of the shaft	15 rotations of the shaft	11 rotations for a pool of 5mx50m with a 35mm shaft
	Water temperature	0° - 40° C	0° - 40° C	0° - 40° C	0° - 40° C	0° - 40° C

PRODUCT MODULAR



DIMENSIONS

THE SUBMERGED RANGE

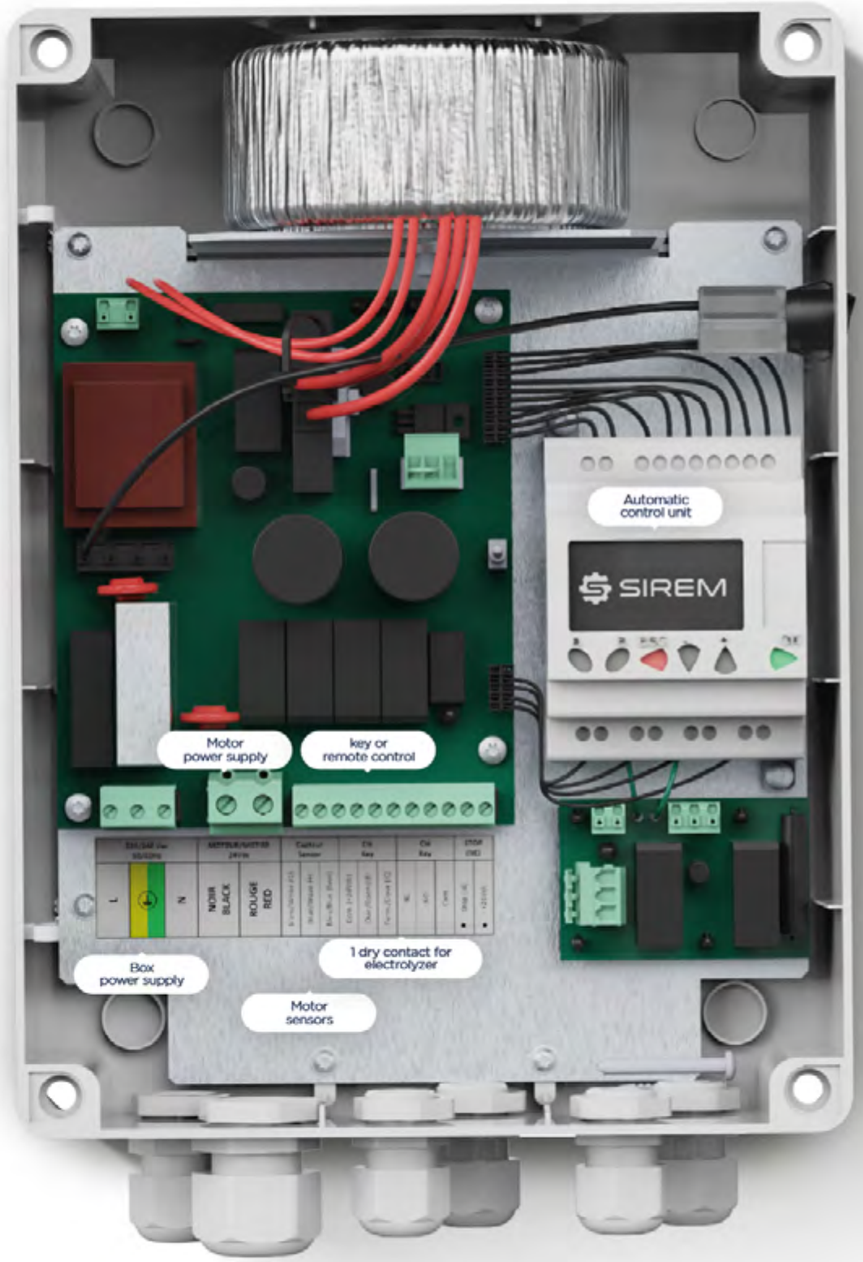
CONTROL BOX

V2.2

- Programming with a PLC
- Voltage surge protection
- Electrical power supply
- Display
- Dry contact to control the electrolyser

Technical characteristics

Compatible motors	IM120, IM200 & IM300	Set start of opening speed	No
Input voltage	230 V AC - 50/60Hz	Set start of closing speed	Yes
IP	IPX4	Set end of closing speed	No
Language	Multilingual, via key	Electrolyser contact	Yes
Power consumption (stand-by mode)	6W	Pump contact	Option
Power consumption (in operation)	290W	Cleaning mode	No
Current consumption (stand-by mode)	35mA	Manual and/or automatic control	Yes, via key
Current consumption (in operation)	2A	Compatible with COVEO Link	Yes
Limit switch adjustment	Yes	Built-in remote control	No
Motor current	10A	Remote control connectors	Yes
Cover speed setting	No	Dimensions	313 x 233 x 128



THE SUBMERGED RANGE

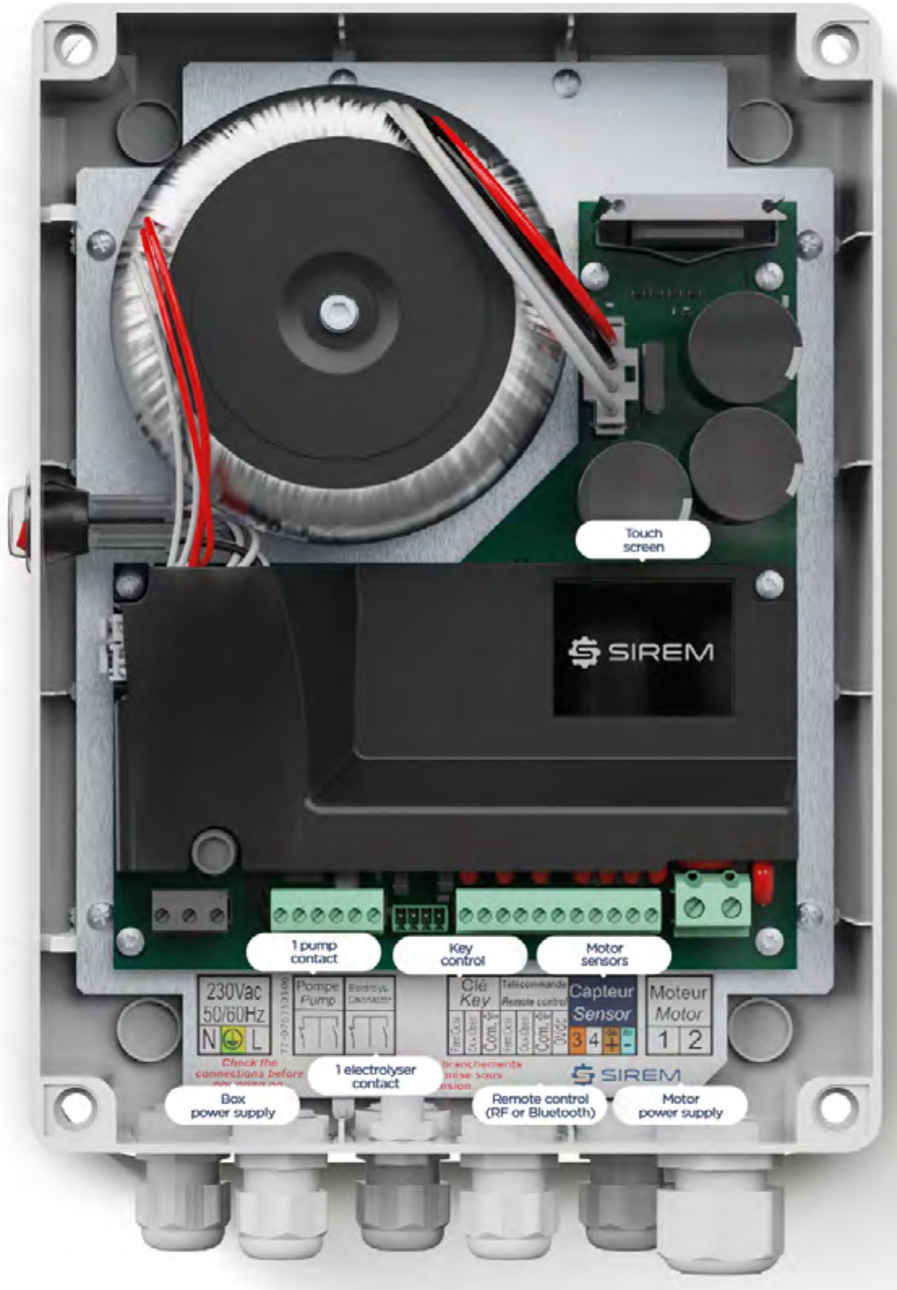
CONTROL BOX

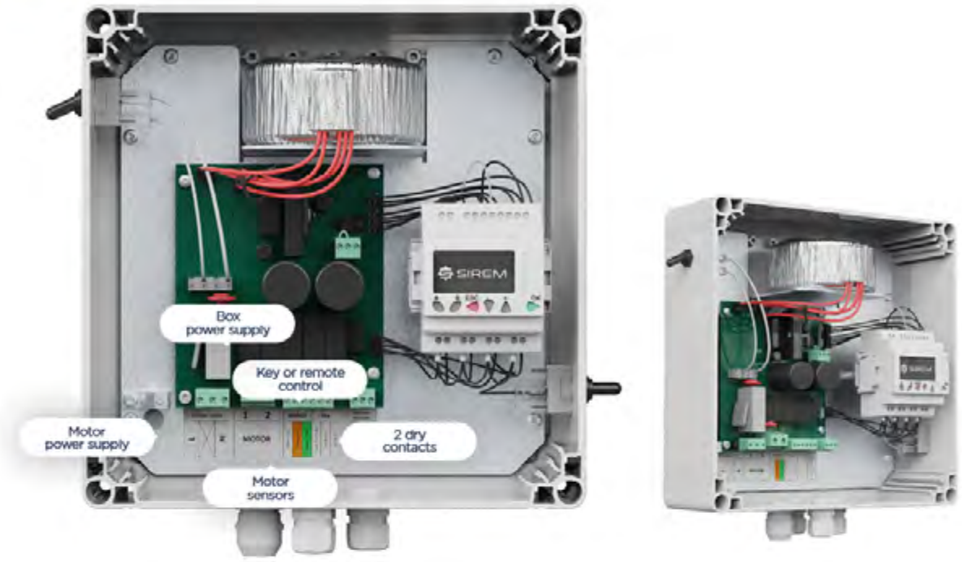
4020

- Touch-screen control
- Double access remote control and key box
- Cleaning mode without losing limit switches
- Progressive and adjustable speeds
- Multilingual interface

Technical characteristics

Compatible motors	From IM120 to IM600	Set start of opening speed	Yes
Input voltage	230 V AC - 50/60Hz	Set start of closing speed	Yes
IP	IPX4	Set end of closing speed	Yes
Language	Multilingual	Electrolyser contact	Yes
Power consumption (stand-by mode)	8W	Pump contact	Yes
Power consumption (in operation)	720W	Cleaning mode	Yes
Current consumption (stand-by mode)	8mA	Manual and/or automatic control	Yes (via interface)
Current consumption (in operation)	3.8A	Compatible with COVEO Link	Yes
Limit switch adjustment	Yes	Built-in remote control	No
Motor current	20A	Remote control connectors	Yes
Cover speed setting	Yes	Dimensions	313 x 233 x 128





THE SUBMERGED RANGE

CONTROL BOX

V2.2 UL

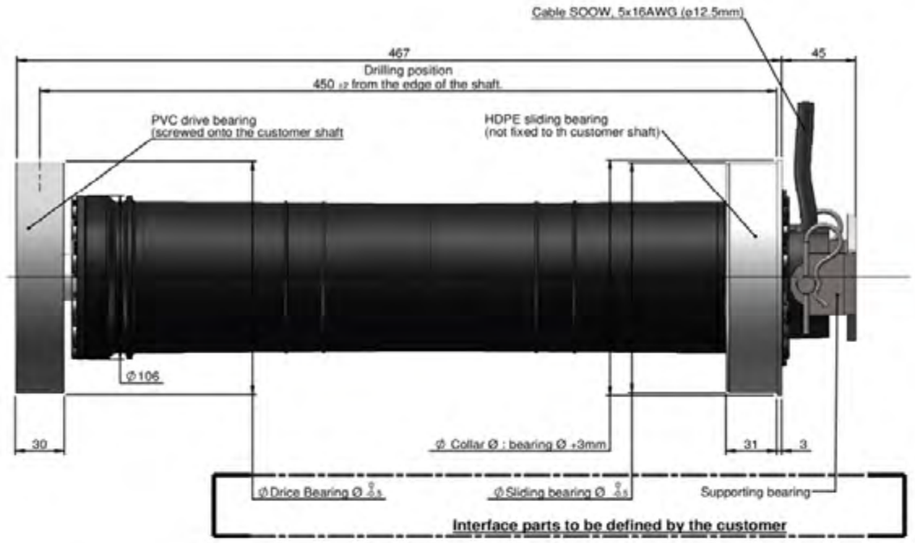
- Programming with a PLC
- Voltage surge protection
- Electrical power supply
- Display
- Dry contact to control the electrolyser

Technical characteristics

Compatible motors	**IM300 UL**
Input voltage	**Single phase, 120Vac (+/-10%), 60 Hz**
IP	**IPX4**
Language	**English**
Power consumption (stand-by mode)	**6W**
Power consumption (in operation)	**290W**
Current consumption (stand-by mode)	**70mA**
Current consumption (in operation)	**3A**
Limit switch adjustment	**Yes**
Current	**10A**
Cover speed setting	**No**

Set start of opening speed	**No**
Set start of closing speed	**Yes (no factory setting)**
Set end of closing speed	**No**
Electrolyser contact	**Yes**
Pump contact	**No**
Cleaning mode	**No**
Manual and/or automatic control	**Yes in factory**
Compatible with COVEO Link	**Yes**
Built-in remote control	**No**
Remote control connectors	**No**
Dimensions	**300 x 300 x 128**

c UL us E493182 **The box is certified in the XACN2/8 category** "Miscellaneous Controls - Component".



THE SUBMERGED RANGE

MOTOR

IM300 UL

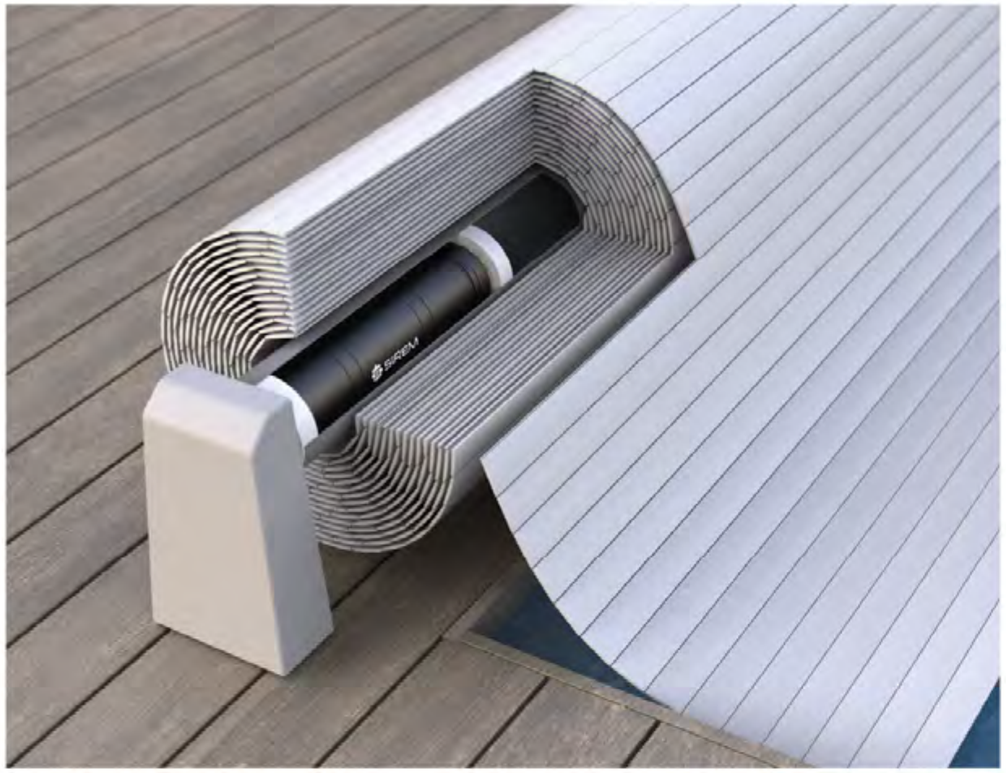
- Compatible with North American (UL) and Canadian (CSA) market standards
- Electronic limit switches
- For pool of up to 7 x 15m

Motor	**IM300 UL**
Reduction ratio	**1/1003**
Input voltage	**24V**
Common	**24 V**
Consumption at max. torque (±20%)	**9V**
IP protection rating	**IP68**
Max. torque (Nm)	**300**
Speed rpm	**4.5 (with no load) 3.5 (with load)**
Drive shaft	**316L stainless steel**
Materials	**PBT**

Limit switch sensor	**Electronics**
Magnetic brake	**300 N.m min.**
Size of flexible cable	**ø 12.5 ± 0.5mm**
Composition of flexible cable	**5x16AWG**
Waterproof rating (NFC15-100) of flexible cable	**SOOW**
Maximum permissible load on the motorised drive	**6,000N**
Usage period	**6 months per year**
Number of cycles / day	**2**
Water temperature	**0° - 40°C**

c UL us E501103 **The motor is UL certified in category WDUT2/8** "Swimming Pool and Spa Equipment, Miscellaneous - Component".

ABOVE-GROUND RANGE



THE ABOVE-GROUND RANGE

MOTORISED DRIVES AND CONTROL BOX FOR ABOVE-GROUND COVERS

The range of motorised drives for above-ground covers is divided into 2 limit switch adjustments: mechanical limit switch sensor (C range) and electronic limit switch sensor (H range).

The above-ground motorised drives have a range of power supply and control boxes.

C range

C50 - C80 - C120

H range

H80 - H120 - H200

Control boxes available

Control Box Standard

Control Box Standard+

Control Box Evolution

C RANGE: MOTORISED DRIVES WITH MECHANICAL LIMIT SWITCH SENSORS

Length in m	Width of the pool in m									
	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5
4	C50	C50	C80	C120	C120	C120	C120	C120		
6	C50	C50	C80	C120	C120	C120	C120	C120		
8	C80	C80	C80	C120	C120	C120	C120	C120		
10	C120	C120	C120	C120	C120	C120	C120	C120		
12	C120	C120	C120	C120	C120	C120	C120	C120		
14										
18										
20										

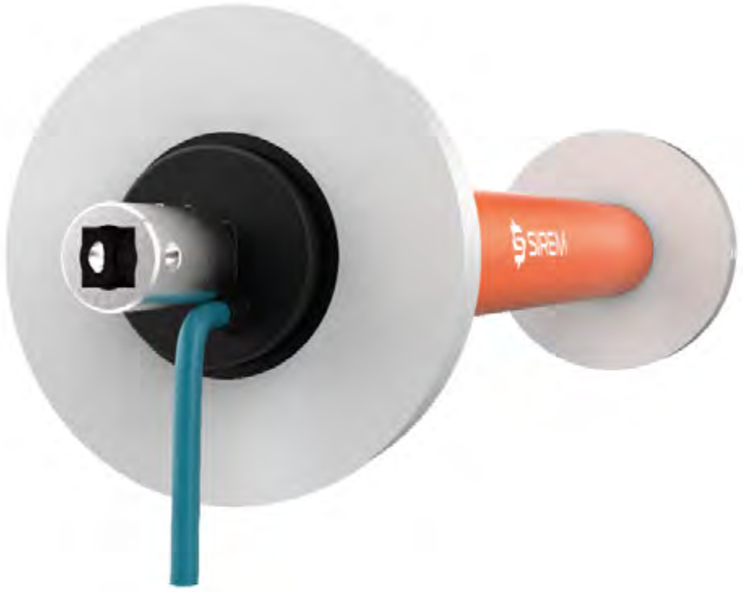
H RANGE: MOTORISED DRIVES WITH ELECTRONIC LIMIT SWITCH SENSORS

Length in m	Width of the pool in m									
	3	3.5	4*	4.5*	5*	5.5*	6**	6.5**	7**	7.5**
4			H120	H120	H120	H120	H200	H200	H200	H200
6			H120	H120	H120	H120	H200	H200	H200	H200
8	H120	H120	H120	H120	H120	H120	H200	H200	H200	H200
10	H120	H120	H120	H120	H120	H200	H200	H200	H200	H200
12	H120	H120	H120	H120	H120	H200	H200	H200	H200	H200
14	H120	H120	H120	H200	H200	H200	H200	H200	H200	H200
18	H120	H120	H120	H200	H200	H200	H200	H200	H200	H200
20	H200	H200	H200	H200	H200	H200	H200	H200	H200	H200

Data used to create this table:
- Weight of the slats: 40 N/m2
- Very rigid post
- Height of posts: 0.5m above the water

Type of shaft:
* Equivalent to that of a tube with int. ø 150xe=4 in aluminium
** Equivalent to that of a tube with int. ø 150xe=10 in aluminium

Data is not guaranteed but provided for information; only to be used as an initial guideline; it cannot replace integrator's experience. It needs to be validated to suit the type of slat used, the type of shaft, type of attachment, etc.
NOTE: a 120 N.m motorised drive may be used for a 6 x 12 m pool if a more rigid tube is used.



THE ABOVE-GROUND RANGE

C RANGE

C50 C80 C120

- Mechanical limit switch sensors
- Motorised drive for swimming pool cover - above-ground
- For pools of up to 6 x 12m
- Waterproof rating IP X5

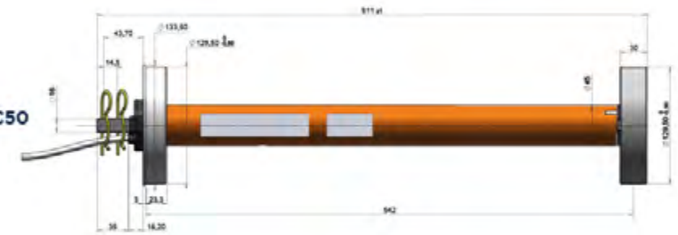
Technical characteristics	
Motor	24 V DC
Cable	Flexible multi-strand
Waterproof rating	IP X5
Limit switch control	Mechanical

TECHNICAL CHARACTERISTICS

		Above-ground range (C)		
Motor	-	C50	C80	C120
Reduction ratio	-	1/778	1/344	1/2160
Input voltage	-	24V	24V	24V
Common	-	24V	24V	24V
Consumption at max. torque (+ - 20%)	-	4.5A	6A	4.6A
IP protection rating	-	IPX5 (in the tube)	IPX5 (in the tube)	IPX5 (in the tube)
Max. torque (Nm)	-	50	80	120
Speed rpm	-	8 (with no load)	7 (with no load)	3 (with no load)
	-	6.8 (with load)	6 (with load)	2.7 (with load)
Motor shaft	-	Galvanised steel	Phosphated steel	Galvanised steel
Materials	Cartridge	Plastic parts: PA6.6 30%GF, rigid PVC, EPDM. Tube: painted steel. Fasteners Galvanised steel.	Plastic parts: PA6.6 30%GF, rigid PVC, POM, NBR. Tube: painted steel. Fasteners Galvanised steel.	Plastic parts: PA6.6 30%GF, rigid PVC, EPDM. Tube: painted steel. Fasteners Galvanised steel.
Limit switch sensor	-	Mechanical	Mechanical	Mechanical
Brake		Yes	No	Yes
Flexible cable	Waist	Ø8.2 ± 0.2	Ø9 ± 0.2mm	Ø8.2 ± 0.2
	Composition	4 x 0.75 mm²	4 x 1.5 mm²	4 x 0.75 mm²
	Waterproof rating	IPX5 (in the tube)	IPX5 (in the tube)	IPX5 (in the tube)
Maximum permissible load on the motorised drive	-	1,200N	2,750N	2,900N
Operating condition	Usage period	6 months/year	6 months/year	6 months/year
	Number of cycles / day	2	2	2
	Length of pool	19 shaft revolutions	20 shaft revolutions	19 shaft revolutions

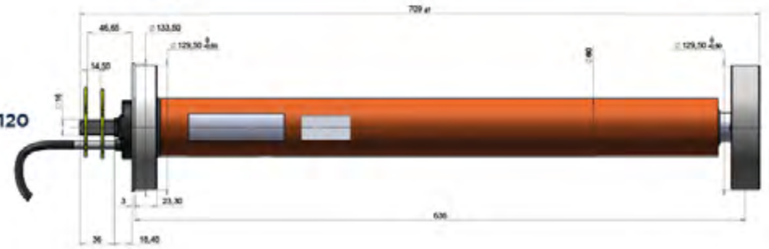
WIRING AND DIMENSIONS

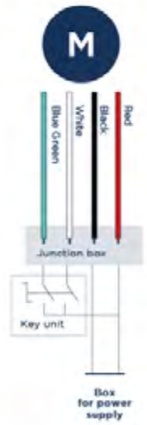
C50



C80

C120





THE ABOVE-GROUND RANGE

H RANGE

H80 H120 H150 H200

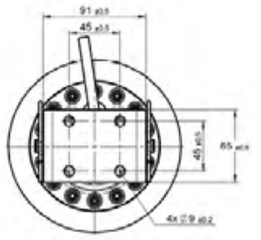
- For flexible covers or slatted covers
- Electronic limit switch control
- Motorised drive for above-ground covers
- Ease of use: open/close with a single click
- Fast and precise installation

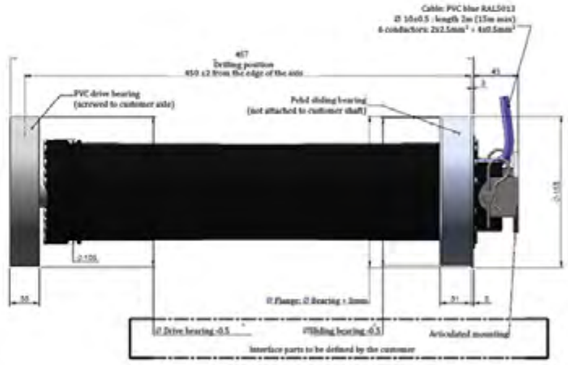
Technical characteristics	
Motor	24 V DC
Cable	Flexible multi-strand
Waterproof rating	IP X5
Limit switch control	Electronic
Reset button	To be connected
Solar powered	In option

TECHNICAL CHARACTERISTICS

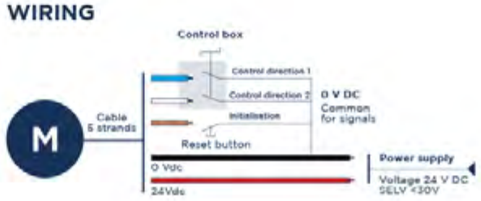
		Flexible covers	Slatted covers	
Motor	-	H80	H120	H200
Reduction ratio	-	1/146	1/886	1/830
Input voltage	-	24V	24V	24V
Common	-	0V	0V	0V
Consumption at max. torque (+ - 20%)	-	13A	5A	9A
Protection rating	-	IPX6	IPX5	IPX5
Max. torque (Nm)	-	80	120	200
Speed rpm	-	23 with no load	6 with no load	7 with no load
	-	14 with load	4 with load	5.5 with load
Motor shaft	-	Phosphated steel and oiled (resistance 96h neutral salt spray)	Phosphated steel and oiled (resistance 96h neutral salt spray)	Phosphated steel and oiled (resistance 96h neutral salt spray)
Materials	Cartridge	PBT	PBT	PBT
Limit switch sensor	-	Electronics	Electronics	Electronics
Magnetic brake	-	80 N.m min.	120 N.m min.	200 N.m min.
Flexible cable	Waist	ø 8 ± 0.5 mm²	ø 8 ± 0.5 mm²	ø 8 ± 0.5 mm²
	Composition	2x1.5 mm²‡ 3x0.5 mm²	2x1.5 mm²‡ 3x0.5 mm²	2x1.5 mm²‡ 3x0.5 mm²
	Waterproof rating	AD8	AD8	AD8
Maximum permissible load on the motorised drive	-	6,000N	6,000N	6,000N
Operating condition	Usage period	6 months/year	6 months/year	6 months/year
	Number of cycles / day	2	2	2
	Length of pool	60 shaft revolutions	12 shaft revolutions	12 shaft revolutions

DIMENSIONS





WIRING



THE ABOVE-GROUND RANGE

CONTROL BOX

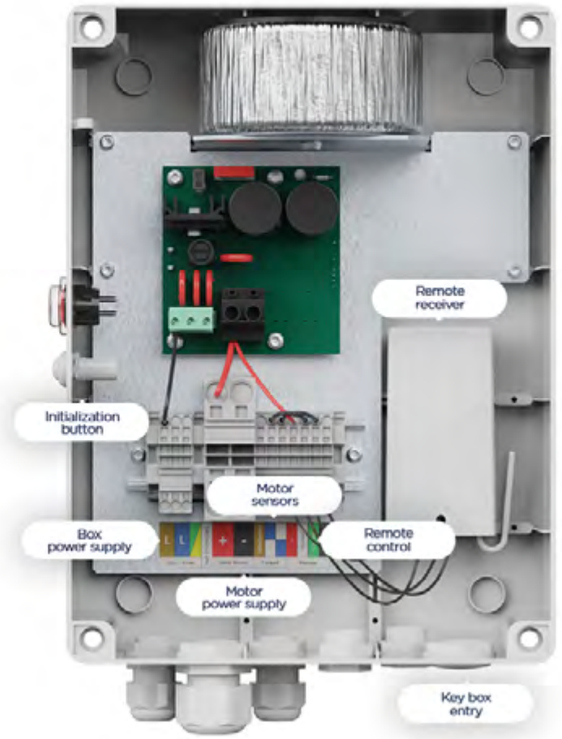
STANDARD & STANDARD+

- Single box
- Electrolyser box (standard +)

Technical characteristics

Compatible motors	C50-C80-C120 | H120-H200
Input voltage	230 V AC - 50/60Hz
IP	IPX4
Language	NA
Power consumption (stand-by mode)	1W
Power consumption (in operation)	250W
Current consumption (stand-by mode)	15mA
Current consumption (in operation)	1.3A
Limit switch adjustment	No
Current	10A
Cover speed setting	No

Set start of opening speed	No
Set start of closing speed	No
Set end of closing speed	No
Electrolyser contact	Yes optional
Pump contact	No
Cleaning mode	No
Manual and/or automatic control	Yes, in factory (set on the motor)
Compatible with COVEO Link	Yes
Built-in remote control	No
Remote control connectors	No
Dimensions	248x198x95



THE ABOVE-GROUND RANGE

CONTROL BOX

RC

- Includes the limit switch reset button
- Cover controlled by RF remote control

Technical characteristics

Compatible motors	H80 - H120 - H200
Input voltage	230 VAC - 50/60Hz
IP	IPX4
Language	NA
Power consumption (stand-by mode)	8W
Power consumption (in operation)	400W
Current consumption (stand-by mode)	90mA
Current consumption (in operation)	1.7mA
Limit switch adjustment	Yes
Current	13A
Cover speed setting	No

Set start of opening speed	No
Set start of closing speed	No
Set end of closing speed	No
Electrolyser contact	No
Pump contact	No
Cleaning mode	No
Manual and/or automatic control	Yes, in factory (set on the motor)
Compatible with COVEO Link	Yes
Built-in remote control	Yes
Remote control connectors	Yes
Dimensions	309 x 229 x 123

SOLAR RANGE

THE MOTORISED DRIVES FOR SOLAR ABOVE-GROUND COVERS

The range of motorised drives for solar-powered above-ground covers is divided into 2 families: 24V and 12V.

For the solar version, each motorised drive has a load regulation board, that allows a solar panel and a battery (2 for the 24V DC versions) to be connected, as well as the motor reset button and a dry contact for the electrolyser of your pool.

24V version	12V version
C50, C80, C120, H80, H120, H200	H150

SELECT YOUR ABOVE-GROUND MOTORISED DRIVE

12V DEc version 2 batteries + a 24v panel (not included)

Length	Width of the pool in m							
	4*	4.5*	5*	5.5*	6*	6.5**	7**	7.5**
5 m								
8 m								
10 m								
12 m								
15 m								
18 m								
20 m								

Motorised drive 80 N.m - 24V | Motorised drive 120 N.m - 24V | Motorised drive 200 N.m - 24V

12V DC version 1 batterie + a 24v panel (not included)

Length	Width of the pool in m				
	4*	4.5*	5*	5.5*	6*
10 m					
12 m					
13 m					
14 m					
16 m					
18 m					

Motorised drive 150 N.m - 12V

Data used to create this table:
- Capacity: 100 N/m2
- Weight of the slats: 40 N/m2
- Very rigid post
- Height of posts, 0.5m above the water

Type of shaft:

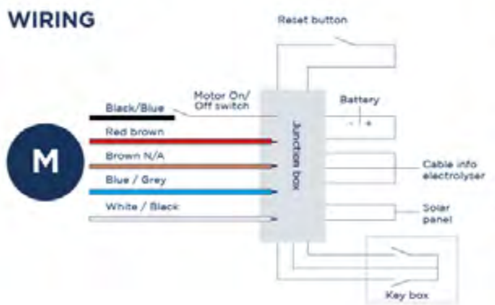
* Equivalent to that of a tube with int. ø 150xe=4 in aluminium
** Equivalent to that of a tube with int. ø 150xe=10 in aluminium

Data is not guaranteed but provided for information; only to be used as an initial guideline; it cannot replace integrator's experience. It needs to be validated to suit the type of slat used, the type of shaft, type of attachment, etc.
NOTE: a 120 N.m motorised drive may be used for a 6 x 12 m pool if a more rigid tube is used.

LOAD REGULATION BOARD

- **Used to recharge a lead battery system with a solar panel**
- **Dry contact to control the electrolyser**
- **Resin-coated electronic board**
- **Voltage surge protection**

WIRING



Technical characteristics

Polycarbonate box	Yes
Simplified connection	Yes
Electrolyser with integrated contact	Yes
Voltage surge protection	Yes
Electronic board entirely resin-coated	Yes
Low battery level warning signal	Yes
Operation and storage temperatures	-20°C to +- 50°C
Humidity	100% RH

Product is not designed to be exposed to U.V. radiation constantly

Characteristics of the connected compon

Solar panel of 10W to 12W - facing South and tilted to 30°

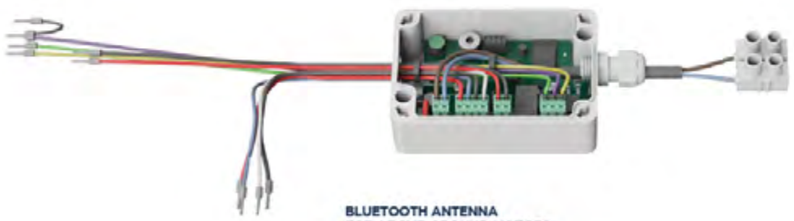
Lead battery 10Ah-12V

(2 batteries fitted in series for 24V model) (not included)

ACCESSORIES

COVEO LINK: Control your cover with your smartphone

BLUETOOTH ANTENNA
FOR UNDERWATER MOTORS



BLUETOOTH ANTENNA
FOR ABOVE-GROUND MOTORS

- Control your cover with the App
- Complies with standards
- Compatible Android and Apple
- App customisation (colours, logo)
- Set-up your store (Google Play and App Store)

Technical characteristics

2 versions	for submerged motors (IM) and above-ground motors (H)
Supplied with a cable	10m cable (IM version)

Cover controlled by remote control

RELAY BOARD
FOR REMOTE CONTROL

WALL-MOUNTED
REMOTE CONTROL

MOBILE
REMOTE CONTROL

WOULD YOU LIKE FURTHER INFORMATION?

Visit our website
to learn more.

https://www.sirem.fr/en/automatic-swimming-pool-cover-motorization-systems/

DO YOU HAVE A QUESTION?

WE'RE HERE TO HELP.

sirem.fr/contact/
+33 (0)4 78 55 83 00

3 Chemin du Pilon 01700 Saint-Maurice-de-Beynost FRANCE

SIREM