


Technical specifications
SIREM Immersed Motorization
For automatic security cover deck of pools

DIFFUSION	
NAME	Department / Function
Commercial Dpt	
Customers	

Evolutions	
Indice	Evolution description
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1. General points.

This MIS motorization is intended to drive the swimming-pool covers with immersed axis automatically.

It ensures the following functions:

- puts the rotating axis into motion
- maintains the axis in stop position when not working

Hollow blades are rolled up around the axis, closed at the two ends, in rigid PVC which cover the area of water of the pool in spread position.

In the non-spread position, the unit exerts an effort towards the top of around 5,000 Newton for a volume of air of 1m³ max. It corresponds to a pool of 6 x 12m.

This MIS motorization builds in an electronic rev counter card. When linked to the SIREM control panel, this sensor allows the automatic working of the cover after the teaching phase.

This motorization has been designed to be connected to a SIREM MIS control panel. The performances described in this document are not guaranteed if one uses another panel than the SIREM one. SIREM declines all responsibilities in case of malfunctioning when this motorization is used with another panel than the MIS control panel by SIREM.

The integration of the MIS motorization by SIREM in an automatic cover deck for swimming-pool applications complies with the recommendations of the product norms NFP 90-308 and is compatible with the certification of the standard NFP 90-308.

2. Security instructions


Caution! Failure to adhere to these instructions can engender serious injury.

- All work on the electrical installation has to be done by a qualified, specialized and authorized electrician.
- The controls of the motorization must be operated only by adults. Forbid to children to operate the motorization.
- In the event of failure, the motorization must be stopped until reparation
- Switch off the motorization and the supply during maintenance, and generally for any intervention on the motorization.
- During the mounting, ensure that the cable of the electrical supply cannot be damaged. In case of damage, only the manufacturer is authorized to replace it.
- Protect the electrical connections from humidity
- In case of drilling of the rolling axis, never drill in the gear motor area.

3. Description.

3.1. Limits of use

- The maximum length of axis for a unique motorization is **6 meters**.
- The length of the pool should not exceed 12meters + the stairs.
- The maximum admissible strength towards the top will be 5,000 Newton.
- The maximum air volume in the blades will be of 1 m³.
- Depth of the axis:
 - Ratio 1/647 : 0.6 m. max
 - Ratio 1/1068 :1 m. max
- The average using conditions are:
 - 4 cycles opening/closing per day
 - 4 months per year
 - In nominal load condition, the product will not work more than 6 minutes per hour (S3 service class, 10% of 60 min)
- Working temperatures : between +10°C and +40°C
- Temperatures beyond which the motor should not work: -10°C/+40°C.
- The product is intended to be immersed in a place that corresponds to the normal using standards for swimming-pools.

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3.2. Using restraints

The control of the motorization is submitted to the respect of the following instructions by the user:

Absence of obstacles, objects or persons in the pool that could prevent the cover from rolling or unrolling (ice, swimmer, robot, pipe, toy).

Unlock the fastening system of the cover before any operation.

The water level must be maintained in the normal working area of the "skimmer" to allow the cover to go through the gap below the grating beam and over the separation wall.

3.3. Mechanical features.

3.3.1. Features

	Type 1/647	Type 1/1068
Maximum torque (Nm)	200	300
Mechanical power at nominal torque (W)	98 ±10%	91 ±10%
Rupture torque (static effort) (Nm)	500	500
Minimum reversibility torque (Nm)	260	310
Maximum reversibility torque (Nm)	340	420
Rotation speed at nominal torque (RPM)	4.6 ±10%	2,8±10%
Rotation speed empty (RPM)	6 max	3,5 max

3.3.2. Waterproofness.

The product is waterproof - IP68 at 2 m. depth.

3.3.3. Bulk dimensions

The drawing ND-2928-1 describes the dimensions of the product.

3.3.4. Axis fastening.

The motorization will be fastened to the axis according to the recommendation set by mutual agreement with the customer.

In case of drilling of the rolling up axis, never drill outside the area of the linking flange.

3.4. Material.

- The shaft is in stainless steel AISI 304L
- The flanges and the tube are in rigid PVC
- The cable coating is in special PVC for extended immersion (AD8 class following to NF C 15-100)

3.5. Electrical features

3.5.1. Electrical motor features

- Supply tension: 24VDC (-15%, +20% undulations included)
- Electrical current at nominal torque: 8.5 amps \pm 10%

3.5.2. Electrical sensor features

- Hold on electrical shock 15,000 volts


3.5.3. Supply cable and rev. counter card

During the mounting, ensure that the electrical supply cable cannot be damaged. In case of damaging, only the manufacturer is authorized to replace it. Protect the electrical connections from humidity.

The motorization is provided with a 2 meter length cable (max length available: 5m)

This cable is not intended to lift up the product.

Cable end: cable coating removed over 50 to 55mm, the five threads are denuded over 10mm

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The 5 threads have a rigid core :

- Two threads for the motor supply with a section of **1.5 mm²**
- Three threads for the sensor with a section of **0.75 mm²**

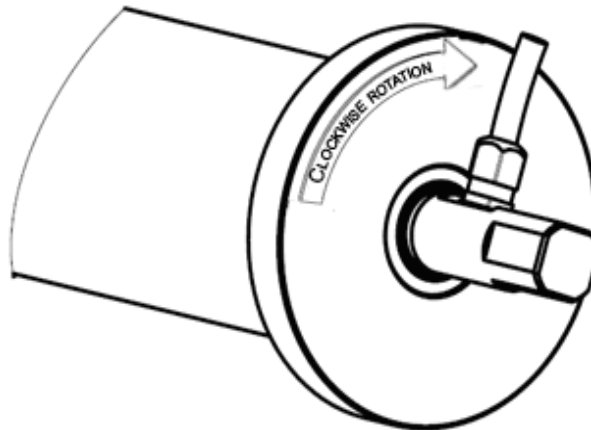
The maximum diameter on the external layer is of **10mm**

Color attribution :

- Red :.....Motor power
- Black :.....Motor power
- Brown :.....+ sensor
- Blue :.....- sensor
- White :.....sensor signal

3.5.4. Rotating ways

When the red conductor is connected to the positive polarity, the motor turns clockwise (CW) following to the drawing below:



3.6. Link to panel

The motorization is linked to the SIREM MIS control panel by 2 cables:


- A power cable: the section of this cable will be sufficient so that the voltage drop be lower than 1,5V at max load.
- A sensor cable.

4. Conformity

The SIREM immersed motor system driven by the SIREM control panel intended for this motorization abides by the following norms :

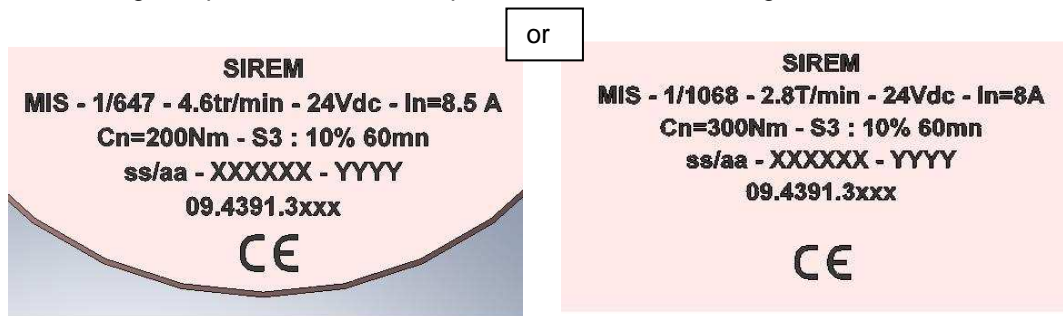
- Norm EN 60335-1 electrical security
- Norms CEM on emission : EN 55014-1, A1, A2, EN 61000-3-2 (2000) EN 61000-3-3 (95), NF EN 61000 6-3

According to the requirements of the norm : NF P 90-308 (June 2005).

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5. Mark

The following firm plate is stuck on our products on the inside flange.



A white sticky paper identification of 100x70 is on the tube.

Customer name	
Customer adress 09.4391.3xxx	
To warranty its well functioning, this motorization must be connected to a control panel	
Customer name 05.0001.1xxxx	

6. State of delivery

The products will be delivered in containers 800x1200mm, on a pallet with the same dimensions. 10 motors per stage, 5 stages, that is to say 50 motors per container. No constraint of resistance has been specified for this packing, it is only intended for this use.

An identification of the product will be placed in evidence on the container with:


- Customer code of product
- Name of product
- Serial number
- Manufacturing date

7. Warranty – After Sales Service

The warranty period begins with the manufacturing date that can be found on the firm plate.

Only spare parts, tools and accessories authorized by SIREM must be used.

SIREM does not ensure any warranty and declines all responsibilities in case of material or body damages caused by their products in case of misuse, of non-respect of the above instructions, of changes on the products or in case of use of the motorizations with non-authorized accessories from other manufacturers.

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