Your idea – Our drive.

For us, everything revolves around you.



Framo Morat is your partner for customized drive solutions. In the areas of gearwheel technology, worm gear sets and drive systems we supply a comprehensive range of products that cover a wide spectrum of applications. In addition to our complete range of standard products, we also design and implement customer-specific drive solutions. Framo Morat is your reliable partner for worm, spur or planetary gears; complete gear motors; and complex drive systems – and for your drive concept too!

GEARVALLEY

With us you profit from the experience and expertise of two centuries of Black Forest industrial culture. www.gearvalley.com

Spur gears

Rotor shafts, gearwheels with internal or external tooth systems, pinions and chain pulleys according to individual customer requirements.

Worm gear sets

Framo Morat is a leading international supplier – manufacturing over 1 million gear sets a year, a major proportion of which are produced to customer specifications.

Drive technology

Innovative standard drives such as the Compacta slip-on gear drive motor, as well as complete customer-specific drive solutions, are in use in numerous applications.

Framo GmbH & Co. KG Franz-Morat-Straße 6 79871 Eisenbach Germany Phone +49 (0) 7657 88-0 Fax +49 (0) 7657 88-333 E-Mail info@framo-morat.com www.framo-morat.com

Framo Morat B.V. Westbaan 228 2841 MC Moordrecht The Netherlands Phone +31 (0) 182 610006 Fax +31 (0) 182 610631 E-Mail info@framo-morat.nl

www.framo-morat.nl

Framo Morat Schweiz Lättenstr. 46 8953 Dietikon Switzerland Phone +41 (0) 44 741 40 85 Fax +41 (0) 44 741 40 62 E-Mail schweiz@framo-morat.com www.framo-morat.com

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Installed once, sealed twice.

The new PoolCoverDrive for pool covers with AQUASEAL technology.





PoolCover Drive for underfloor pool cover systems

On underfloor unwinding systems for swimming pool covers, the winding shaft (including the electric drive) are continuously under water. In order to avoid costly repairs, it is essential that these drives are watertight and maintenance-free over the long term. Many of the drives available today do not fulfill this requirement. They exhibit corrosion damage after a relatively short time, which can lead to leaks.

The new PoolCoverDrive from Framo Morat with AQUASEAL technology specially developed for permanent use in swimming pools is completely different:

A high quality stainless steel housing (V4A) provides maximum resistance against chlorine and salt water. All materials are extremely weather resistant (will not become brittle or form cracks). Double enclosures and redundant sealing of all mechanical interfaces permit continuous usage in water depths up to 2.5 m.

Delivery

The PoolCoverDrive by standard comes as a 24 V DC Drum Motor, with holding brake, Hall generator and device plug connector for cable connection. A 5m connection line with plug is delivered by standard (other lenghts optional).

Carrier disk and plain bearing ring of POM are not part of delivery but can be offered (also with customized dimensions) by request.

Specifications

Drive	
Maximum output torque	300 Nm
Maximum static holding torque	350 Nm
Output speed	2,8 min ⁻¹ at 300 Nm
Idle output speed	3,5 min ⁻¹
Gear ratio	1000:1
Total weight of drive	17,5 kg
Protection class	IP 68*

* tested operating conditions: water depth 2.5 m, interval operation, test duration 18 months

Motor	
Motor output	100 W
Duty cycle at 300 Nm	S2 15 min.
Motor voltage	24 V DC
No-load current	0,5 A
Maximum power consumption	6 A (at 300 Nm output)
Motor type	Permanent-magnet DC brush motor

Encoder	
Encoder type	Hall sensor
Voltage	5 – 24 V DC
Power consumption	max. 12 mA (at 12 V)
Resolution	2 pulses per rotation
Output signals	2 square wave signals in phase quadrature
Pulse width deviation	max. 15°
Phase shift deviation	max. 15°
Output voltage	0,4 V DC (20 mA)

Specifications are based on an ambient temperature of 20 °C

Dimensions Drive shaft with carrie a 150 o the 0 O

- Stainless steel (V4A) housing provides high resistance to chlorine and salt water.
- Redundant seals for security against moisture penetration.
- All flange screw fittings sealed with U-seals and sealing compound.
- Plug variation for rapid and economical installation.
- Integrated protection from formation of condensation in internal space.
- All materials are highly weather resistant.
- · Adapted material expansion coefficients reliably avoid crack formation during temperature fluctuations.
- · Wear-free holding brake.

Speed - Torque curve



Installation

Installation may vary for individual swimming pool cover systems. Therefore, always observe the manufacturer's specifications.

The Drum motor is inserted into the winding roll from one side. The Drum motor's installation flange is inserted and secured in the counterflange that is fastened to the wall of the pool.

The counterflange serves as torque support. The carrier disk and the plain bearing ring must be connected securely to the winding roll (e.g. screw connection). Force is transferred solely through the carrier disk.





Power consumption - Torque curve