

# WORLD OF D. C. MOTORS













Rotomag and its group companies, comprising of 4 brands have been manufacturing high performance D.C. and A.C. motors as well as gearboxes and electric drive systems for over 20 years.

We have built our design and manufacturing expertise by working closely with demanding global customers and through the knowledge transfer from our European joint venture partners. Our processes and quality are continuously upgraded along with the expansion of our manufacturing infrastructure.

In addition to our range of over 500 types of permanent magnet DC and wound field DC motors, we offer geared motors, transaxles, wheel drives for a wide range of industries and applications.

## **CORE TECHNOLOGIES**

Rotomag has expertise, jointly with our group companies, in diverse motor technologies. We can custom design permanent magnet DC motors, series and shunt wound DC motors, brushless DC motors and controllers for such motors. These motors in tandem with worm, helical and planetary gear heads enable us to offer a wide variety of electric drive systems.













Ltd, joint venture with Motive Srl,

Italy manufactures AC motors,

special purpose motors, helical,

worm and bevel-helical gearboxes.





Magtor Servomotion Pvt. Ltd, joint venture with Magnetic Srl, Italy manufactures AC servo motors, vectorial motors, servo drives, BLDC motors.



Rotosol, a solar pump division of Rotomag manufactures ultra efficient surface and submersible solar pumps based on BLDC and PMDC technology.

www.rotomotive.com www.magtor.com www.rotosol.solar





## BENCHMARKED PROCESSES

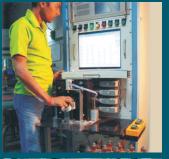
Our three plants, having a floor area of over 20,000 sq meters, have state-of-the art processes and manufacturing facilities. Lean manufacturing with assurance of ISO 9001 certified quality systems ensures consistent quality, production flexibility and control of process variability. All key processes are validated using FMEA and process capability studies.

Processes like controlled magnetizing, trickle impregnation, Resiglas banding, laser mica undercutting, dual flyer winding, dynamic balancing enable us to build product reliability through our manufacturing processes.





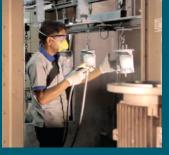
















20K

Area

140 Employees 24 Engineers 35% CAGR in sales 500+ Unique products

50+ New products every year 30+ Countries export

CE, ROHS compliant

#### ROTOMAG ADVANTAGES

## **Product Development Skills**

Our core strength lies in application engineering and translating the application data into PMDC motors, series, separately excited and geared motors.

# Multiple technologies & Applications

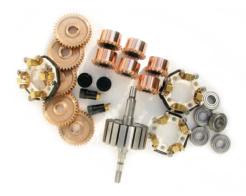
Our exposure to various technologies, including those of our group companies covering a wide spectrum of applications enable us to design and build customised solutions very quickly and meet the performance and quality expectations of our discerning customers.

## World class supply chain

Our suppliers are some of the best in India and in the world. Long term agreements with our dedicated suppliers enables us to meet the cost and quality goals of our customers.







# International Exposure

We export to over 30 countries and have an experience of working with customers who are leaders in their business. Prompt communications, visual reports, close interface between our development engineers and those of our customers make it easy for our customers to do business with us.



# Quality systems and IT enabled manufacturing

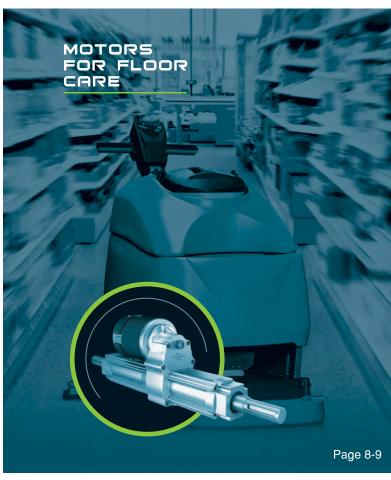
We are an ISO 9001 company and extensively use IT tools like bar coding, laser marking, ERP, CRM and Sharepoint services to ensure that our operations are consistent and efficient.

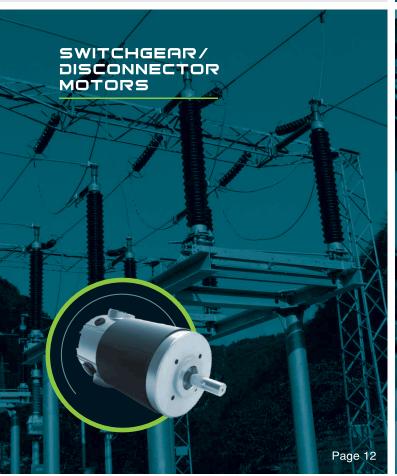




## PRODUCTS AND APPLICATIONS

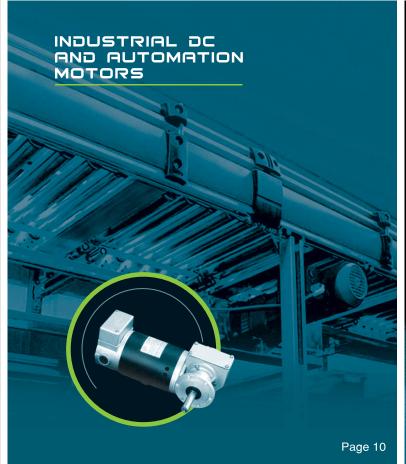
Our wide range of permanent magnet DC motors, would field DC motors, brushless DC motors and electronic controllers have been designed to operate most efficiently and reliably for variety of applications. We continuously improve our products through sustained endurance and type testing, often jointly with our customers.

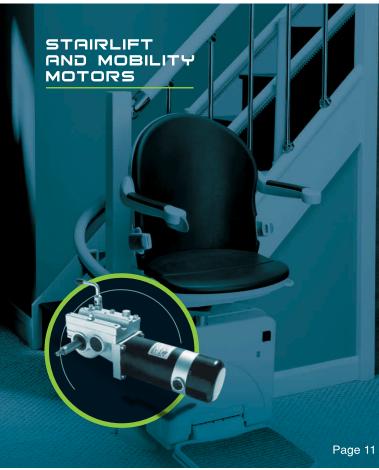
















## MOTORS FOR FLOOR CARE

Rotomag offers a range of brush motors, drive motors and transaxles for floor care equipment. These motors have several unique features that result in compact, efficient solutions and are available with worm and helical gear heads as well as ungeared versions. The transaxles have oversized bearings and precisely ground helical gears and lapped bevel gears.

#### ADVANTAGES

Ribbed aluminium housings for improved reliability

Anti-corrosion powder coated body Helical gears ground to Din class 7

Permanently lubricated bearings
Low noise

Easy replacement, long life brushes

## BRUSH MOTORS-UNGERRED



## B/HK SERIES

Available in TENV-TEFC-SPDP Protections Option: IP-20, IP-44, IP-54

\*Diameter & length mentioned suitable for 1500RPM Speed range: 1000 RPM to 3500 RPM

- 10 K

Power( KW)	Voltage	D	*L
0.08	12V-24V- 36V-48V	89	143
0.12		89	161
0.18		114	200
0.37		114	220
0.56		114	260
0.75		114	300

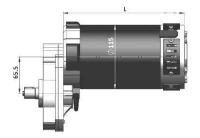
# BRUSH MOTORS-GEARED



#### RM SERIES

Ratio: 1:10

Available in TENV-TEFC-SPDP Protections Option: IP-20, IP-44 \* Length mentioned is suitable for 150RPM Speed range: 100 RPM to 300 RPM



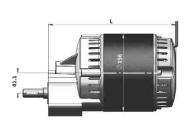
Power( KW)	Voltage	*L
0.18	12V-24V-36V- 48V	205
0.37		225
0.56		245
0.75		265



#### TNT SERIES

Ratio: 1:5.2 Type-SPDP Protection: IP-20

\*Length mentioned is suitable for 200RPM Speed range :200 RPM to 600 RPM

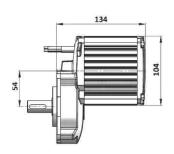


Power( KW)	Voltage	*L
0.56		256
0.75	24V-36V-48V	256
1.1		278



# BRUSHLESS D C MOTORS





#### **BD SERIES**

Speed:180 RPM

Power (KW)	Voltage	D	Speed (RPM)
0.53	24V	104	180

# DRIVE AND TRANSAXEL MOTORS





### HWA SERIES

Available in TENV-TEFC-SPDP Protections Option: IP-20, IP-44, IP-54 \*Shown length consider for 1800 RPM Speed range: 1000 RPM to 3500 RPM Shunt wound motor

Power (KW)	Voltage	L
0.75		216
1.5	36V-48V	323
2.2		430





## JTA SERIES

Ratio: 1:18.85

Available in TENV-SPDP

Protections Option: IP-20, IP-44, IP-54 Speed range: 65 RPM to 160 RPM

Power (KW)	Voltage	L
0.1 to 0.45	12V-24V-36V	185 to 395

### OPTIONS





**Ferrite Core** 



**Special Connectors** 



**Terminal Bolt** 



**Special Shaft** 



## INDUSTRIAL DC AND AUTOMATION MOTORS

Rotomag's Permanent Magnet D.C. Motors for use in automation are specially designed for continuous operation and frequent start-stops and reversals. TEFC/TENV construction with IP-44/ IP-55 protection make them suitable for use in ambients till 45°C.

### ADVANTAGES

Use of high coercivity PATENTED magnets prevents demagnetization even in conditions which involve frequent start-stops

Externally replaceable brushes

Window for cleaning of commutator

Prevision balancing for low noise and vibration

Higher quality SKF ball bearings





## R-CT SERIES

Available in TENV-TEFC-SPDP Protections Option: IP-20, IP-44 S1, S2, S3 Duty cycle

\*Length mentioned suitable for 1500RPM Speed range: 1000 RPM to 3500 RPM

Power (KW)	Voltage	D	*L
15	12V-24V	63	88
30		63	122
50		63	152
40		75	121
60		75	151





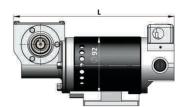
#### M SERIES

Available in TENV-TEFC-SPDP Protections Option: IP-20, IP-44 S1, S2, S3 Duty cycle IEC Frame Mounting

\*Length mentioned suitable for 1500RPM S1-TEFC motor Speed range: 1000 RPM to 3500 RPM

Power (KW)	Voltage	*L
0.18	12V-24V-36V-	245
0.37	48V-90V-110V-	265
0.75	180V-220V	345





#### SINR-S2NR

Ratio: 16, 32, 55 Available in TENV-SPDP Protections Option: IP-20, IP-44

S1, S2, S3 Duty cycle

Speed range: 60 RPM to 220 RPM

Power (KW)	Voltage	*L
0.075	12V-36V-	225
0.18	48V-90V-110V- 180V-220V	257

#### **OPTIONS**

**Planetary Gearbox** 



**Inline Helical Gearbox** 



**Worm Gearbox** 



Worm-box type





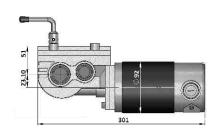
## STAIRLIFT AND MOBILITY MOTORS

Motors for marine winches and hoists are made for S2 intermittent duty and special features to withstand very high starting current. Bodies are powder coated to withstand the corrosive effects of the humid marine environment.

### ADVANTAGES

Rugged brush holders
High conductivity brushes
Very high starting current
Brazed winding joints
Powder coated externally





## WH SERIES

Ratio: 32 Protections Option: IP-44, IP20

Power (KW)	Voltage	Speed (RPM)
0.28	24V	25



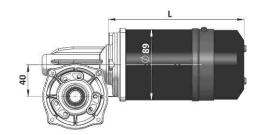


#### HK SERIES

Ratio: 7.5,10,15, 20, 25, 30, 40, 50, 60, 80, 100 Protection: IP-44,IP-20

Power(KW)	Voltage	D	1	Speed(RPM)
0.18 to 0.75	12V-24V 36V-48V	114	40, 50, 63, 75	10 to 400





#### RMP SERIES

Ratio: 18

Protections Option: IP-44,IP-20

Power (KW)	Voltage	*L
0.15	24V-36V-48V	154
0.26		172

#### **OPTIONS**

#### **Planetary Gearbox**



**Inline Helical Gearbox** 



**Worm Gearbox** 



Thermal switch Protction



**Special Shaft** 



## SWITCHGEAR/ DISCONNECTOR MOTORS

These customized motors are specially built with very compact dimensions for intermittent operation. Very high starting torque and very good regulation make these motors superior to universal motors.

## ADVANTAGES

Very high starting torque

Operation till 60% voltage

High regulation

Brushes last lifetime





#### RB SERIES

Power (KW)	Voltage	Speed (RPM)
Up to 0.75	90V- 110V- 220V	Up to 4000

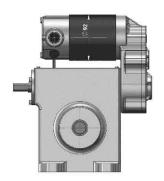




M SERIES

Power (KW)	Voltage	Speed (RPM)
Upto 1	90V-110V-220V	Up to 4500





## SS SERIES

Power (KW)	Voltage	Speed (RPM)
0.18 & 0.37	90V-110V- 220V	2.6

### OPTIONS



Special connectors



**Worm Gearbox** 



Inline Helical Gearbox



Planetary Gearbox



**Special Shaft** 



## HOIST AND WINCH MOTORS

Motors for marine winches and hoists are made for S2 intermittent duty and special features to withstand very high starting current. Bodies are powder coated to withstand the corrosive effects of the humid marine environment.

# **ADVANTAGES**

Rugged brush holders
High conductivity brushes
Very high starting current
Brazed winding joints
Powder coated externally

### PLANETARY GEARED MOTOR



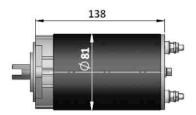


#### RB/HK SERIES

Ratio: 3, 4, 9,16, 27, 64 Foot, Face, Flange Options Available in TENV-TEFC-SPDP

Power (KW)	Voltage	D	Speed (RPM)
0.08 to 0.18	12V-24V-	89	20 to 200
0.15 to 0.75	36V-48V	114	20 10 200





# G SERIES

PM Motor Protection: IP-44 S2-S3 Duty cycle

Power (KW)	Voltage	Speed (RPM)
0.15 to 0.8	12V-24V	1500 to 4500





#### HP-BT SERIES

Series /Compound wound Motor Protection: IP-44, IP-20 S2-S3 Duty cycle

Power (KW)	Voltage	D	Speed (RPM)
0.08 to 2.2	10\/ 04\/	114	1500 to 4500
1 to 3	12V-24V	125	1500 10 4500

## OPTIONS



**Inline Helical Gearbox** 



**Worm Gearbox** 



**Blackodized Components** 



Canopy



Special Mounting



## MOTORS FOR HYDRAULIC POWER PACKS

These motors are available in Series and Compound version and have superior build quality. Option of different shaft and without drive end shield is available. Use of rugged brush holders results in cooler operation of the motors.

# ADVANTAGES

High starting torque

Silent and smooth operation

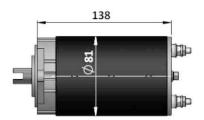
Longer brush life

Powder coated shells-resistant to corrosion



# G SERIES

PM Motor Protection: IP-44 S2-S3 Duty cycle



Power (KW)	Voltage	Speed (RPM)
0.15 to 0.8	12V-24V	1500 to 4500



#### HP SERIES

Type: Compound, Series, Shunt Protection: IP-44, IP20 S2-S3 Duty Cycle



Power (KW)	Voltage	Speed (RPM)
0.6 to 2.2	12V-24V	1500 to 4500



#### BT SERIES

Type: Compound, Series, Shunt Protection: IP-44,IP20 S2-S3 Duty Cycle



Power (KW)	Voltage	Speed (RPM)
1.5 to 4	12V-24V	1500 to 4500

#### **OPTIONS**

**Pump Mountings** 



**Starting Switch** 



Brake



Thermal Switch Protection



**Special Shaft** 



**Special Mountings** 



# MOTORS FOR MATERIAL HANDLING

Traction motors are designed for continuous operation and also momentary over-loads and have high starting torque. Oversized brushes result in high brush life and the brushes are easy to replace. Terminals are of extruded brass or copper.

### ADVANTAGES

Smooth and silent operation

Long life brushes

Easy brush replacement

SKF ball bearings





## BT SERIES

Type: Compound, Series, Shunt Protection: IP-44,IP20 S2-S3 Duty Cycle

Power (KW)	Voltage	Speed (RPM)
1.5 to 4	12V-24V	1500 to 4500



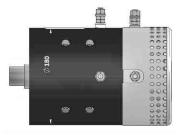


#### FT SERIES

Type: Compound, Series, Shunt Protection: IP-44,IP20 S2-S3 Duty Cycle

Power (KW)	Voltage	Speed (RPM)
1.5 to 4.5	12V-24V-36V-48V	1500 to 4500





#### HW SERIES

Type: Compound, Series, Shunt Protection: IP-44,IP20 S2-S3 Duty Cycle

Power (KW)	Voltage	Speed (RPM)	D
1.5 to 8	12V-24V- 36V-48V	1500 to 4500	180
3 to 13			192

#### **OPTIONS**

#### **Pump Mountings**



**Starting Switch** 



Brake



Thermal Switch Protection



**Special Shaft** 



**Special Mountings** 





WORLD OF D. C. MOTORS

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