

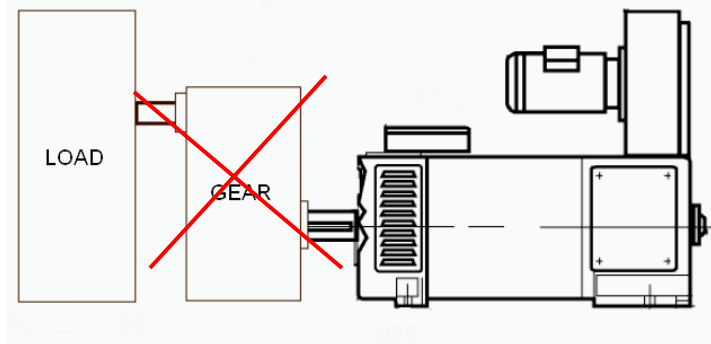


MOTORES ELÉCTRICOS DE VELOCIDAD VARIABLE

MDD DIVISION
DIRECT DRIVE MOTORS

¿WHAT IS A DIRECT DRIVE TORQUE MOTOR?

- Synchronous permanent magnet multipole servomotor.
- Same synchronous permanent magnet technology as standard brushless servomotors.
- Main difference is concerning number of poles: Usually more than 10 in front of 4/6/8 pole of the conventional brushless servomotors.
- Motor design is optimised to work at low speeds and providing high torque.
- This results in a very high power density motor which can assume gear functions.



MDD-SW MOTOR SERIES

- DIRECT DRIVE TORQUE MOTORS



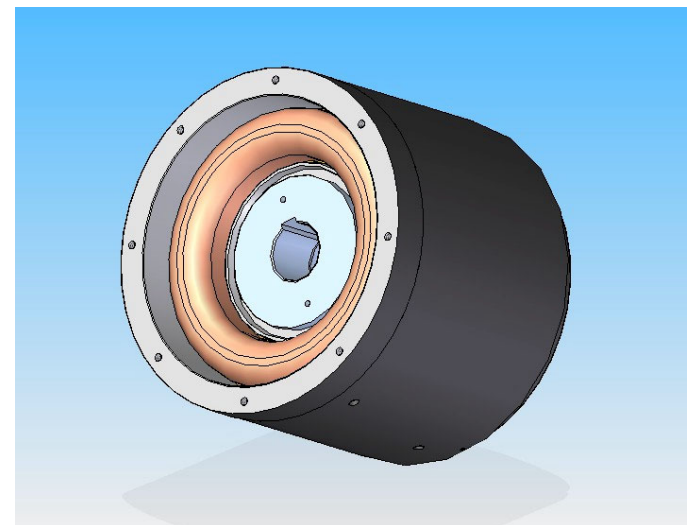
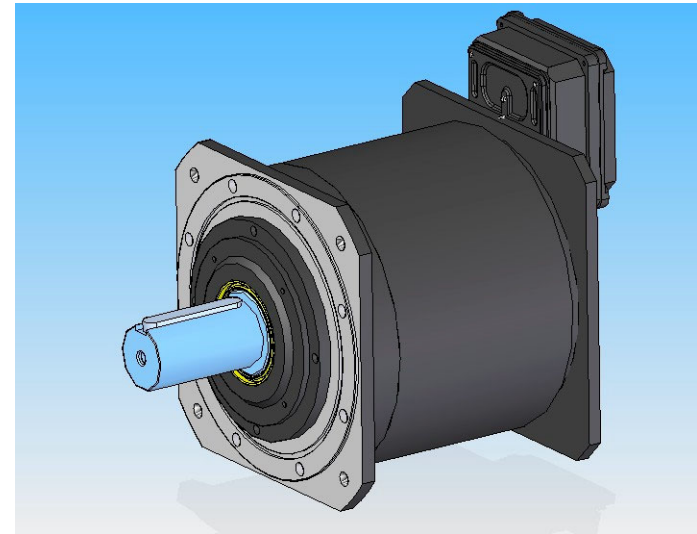
Up to 7.330 Nm / 400 kW

MAIN ADVANTATGES OF THE MDD SOLUTION

- COMPACT DESIGN
- NO MAINTENANCE
- SILENT OPERATION

(According European directive 2003/10 CE)

- ENERGY SAVINGS
- LESS VIBRATIONS



MDD-S MAIN FEATURES

- 3 PHASE PERMANENT MAGNET SYNCHRONOUS MOTORS
- 3 DIFFERENT SIZES: 180, 250 AND 315 mm SHAFT HEIGHTS
- HIGH NUMBER OF POLES: 10 (MDD 180), 16 (MDD 250) AND 20 (MDD315)
- CLASS H MATERIALS WORKING AT CLASS F TEMPERATURE.
- IP54 PROTECTION DEGREE
- POWER RANGE FROM 4 kW TO 400 kW @ 520 RPM.
- TORQUE RANGE FROM 300 TO 7.330 Nm
- IC97W WATER COOLING or IC410 AIR CONVECTION COOLING SYSTEM
- RARE EARTH NeFeB MAGNETS WITH HIGH COERCITIVE FORCES
- IM B5/B35 MOUNTING TYPE
- FITTED WITH PTC THERMISTOR. KTY OR Pt100 PROBES ON REQUEST.
- FEEDBACK SENSOR ACCORDING TO THE CUSTOMER REQUIREMENTS
- HOLLOW SHAFT, SOLID SHAFT AND FRAMELESS VERSIONS.
- POSSIBLE CUSTOMISATION OF FLANGES, SHAFTS AND OTHER FIXING INTERFACES

COMPLETE VERSION CONSTRUCTION DETAILS

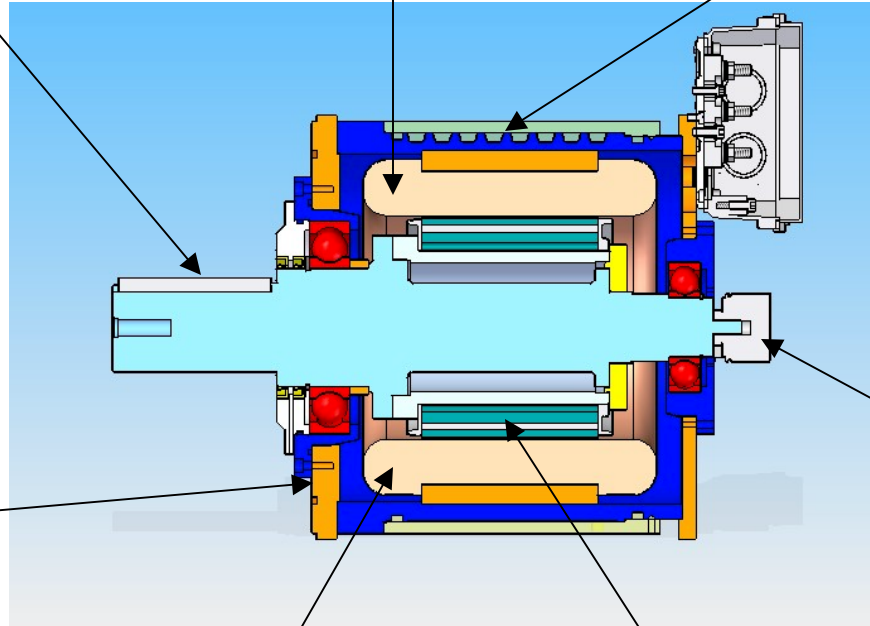
Customised shaft configurations



Possible customisation of flanges and other fixing interfaces



H class materials working at F class temperature



IC97W Water or IC410 Air convection cooling system



Feedback sensor according to customer requirements



140 °C PTC thermal probe (KTY as an option)

Rare earth NdFeB magnets with high coercitive forces

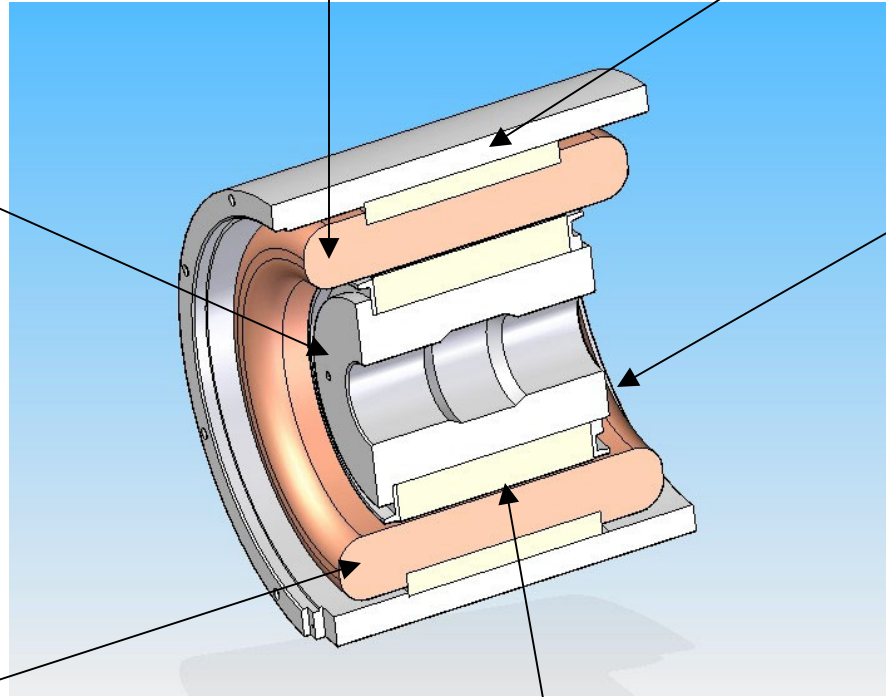
FRAMELESS VERSION CONSTRUCTION DETAILS

Customised shaft configurations



H class materials working at F class temperature

IC97W Water or IC410 Air convection cooling system



Customised mechanical execution to be integrated into the customer machine design

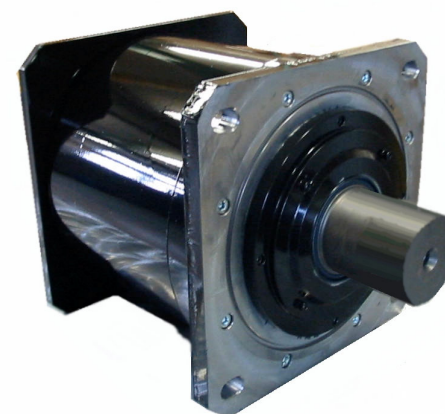


140 °C PTC thermal probe (KTY as an option)

Rare earth NdFeB magnets with high coercitive forces

OVERVIEW OF MDD-SW TECHNICAL DATA

Motor	Torque Nm	L mm	Ø mm	
MDD SW 180 S	250	295	350	
MDD SW 180 M	390			
MDD SW 180 L	540			
MDD SW 180 P	700	395		
MDD SW 180 X	860			
MDD SW 180 Y	1.020			
MDD SW 250 K	900	360	495	
MDD SW 250 S	1.200			
MDD SW 250 M	1.500			
MDD SW 250 L	1.800	460		
MDD SW 250 P	2.100			
MDD SW 250 Q	2.400			
MDD SW 250 X	2.700	560		
MDD SW 250 Y	3.000			
MDD SW 315K	3.050			460
MDD SW 315S	3.670			
MDD SW 315M	4.280	560		620
MDD SW 315L	4.890			
MDD SW 315P	6.110	760		
MDD SW 315X	7.330			



Available on 2010

OVERVIEW OF MDD-SN TECHNICAL DATA

Motor	Torque Nm	L mm	Ø mm	
MDD SN 180 S	125	295	350	
MDD SN 180 M	195			
MDD SN 180 L	270	395		
MDD SN 180 P	350			
MDD SN 180 X	430	495		
MDD SN 180 Y	510			
MDD SN 250 K	450	360	495	
MDD SN 250 S	600			
MDD SN 250 M	750	460		
MDD SN 250 L	900			
MDD SN 250 P	1.050	560		
MDD SN 250 Q	1.200			
MDD SN 250 X	1.350	660		
MDD SN 250 Y	1.500			
MDD SN 315K	1.550	460		620
MDD SN 315S	1.865			
MDD SN 315M	2.175	560		
MDD SN 315L	2.485			
MDD SN 315P	3.105	760		
MDD SN 315X	3.725			



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TYPICAL APPLICATIONS & SECTORS

- **CONVERTING MACHINES**

- Drum shears
- Winders / Unwinders
- Flying shears
- ...



- **PLASTIC MACHINES**

- Extruders
- Injection moulding
- Blow film lines
- ...



- **MACHINE TOOL**

- Servopresses
- Pouching machines
- Multiprocess centers (turning + milling)
- ...



- **PRINTING MACHINES**

- Flexo presses (central drum)
- ...

- **TESTING SYSTEMS**

- Chassis Dynos
- ...

- **RENEWABLE ENERGIES**

- Wind mills
- Hydraulic turbines
- ...

And much more...