



D5X - D6X - D5S

Model	D5X - D6X - D5S																																														
Power	Up to 925 kW																																														
Voltages	Up to 690 V																																														
Atex protection	Ex de II B T4 Gb																																														
Frame LV	71 ± 450																																														
Frame MV	355 ± 450																																														
Poles	2, 4, 6 and 8																																														
Cooling	IC 411 on request IC 416																																														
IP	IP 55 / 56 / 65																																														
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Enclosure	TEFC – Totally Enclosed Fan Cooled Motors.																																														
Main Applications	Centrifugal & reciprocating compressor, Conveyor systems, Cranes, Extruders and expanders, Heat exchangers and blowers, Mills, Mixers, Pumps																																														

Sector	Oil&Gas
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Poles	2 Poles	4 Poles	6 Poles	8 Poles	
kW	750	925	660	550	

Certificates and testing

Certificate	<p>Motors from 71 to 132 frame size are certified by BVI.</p> <p>Motors from 160 to 450 frame size are certified by CESI.</p> <p>Ex d/(de) according to IEC/EN 60079-1/60079-7 and ATEX directive 94/9/EC.</p>
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Main components

Housing	Frame is made in cast iron. (EN 1561-GJL-200 or better)																		
Shield	Made in cast-iron (EN 1561 – GJL 200 or better)																		
Shaft	<p>General data</p> <p>Made in carbon steel (EN 10083 – 2 C45 or better)</p> <p>Shaft design</p> <p>Cylindrical shaft with key.</p>																		
Main terminal box	<p>Mounted on top.</p> <p>Made in cast iron. (EN 1561 – GJL 200 or better)</p>																		
Fan	<table border="1"> <tr> <td>Frame</td> <td>71 ± 280</td> <td>315</td> <td colspan="3">355 ± 450</td> </tr> <tr> <td>Pole</td> <td>-</td> <td>2 ± 6</td> <td>8</td> <td>2</td> <td>4 ± 8</td> </tr> <tr> <td>Material</td> <td colspan="2">Thermoplastic reinforced with glass fibres</td> <td>Metallic</td> <td>Polyamide</td> <td>Aluminum alloy</td> </tr> </table>	Frame	71 ± 280	315	355 ± 450			Pole	-	2 ± 6	8	2	4 ± 8	Material	Thermoplastic reinforced with glass fibres		Metallic	Polyamide	Aluminum alloy
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Construction	
Cooling System	<p>IC 411 as per IEC60034-6.</p> <p>Totally enclosed standard motor, frame surface cooled with fan</p> <p>4: frame surface cooled</p> <p>1: self circulation of primary coolant</p> <p>1: self circulation of secondary coolant</p> <p>On request for variable speed application an external ventilation unit can be supplied to get the IC416 cooling type.</p>
Degree of protection	IP 55 as per IEC60034-5. (Available up to IP 65)
Technical data	
Stator/Rotor core	<p>Laminated and enamel-insulated on both sides to minimise eddycurrent losses.</p> <p>The stator winding is made in flat copper or round copper wire depending on the machine size.</p> <p>The completely wound stator pack with housing is thereby impregnated in an epoxy-resin VPI.</p> <p>The subsequent heat treatment hardens the resin.</p>
Rotor	<p>Short circuit rotor type.</p> <p>Depending on machine size, the rotor construction is usually a solid shaft type.</p> <p>The rotor winding can be either a pressure die cast aluminum or a copper bar construction.</p>
Bearing	<p>General data</p> <p>Motors are normally fitted with single-row deep groove ball bearings.</p> <p>Up to 132 frame size bearings are lubricated for life.</p> <p>Up to 250 frame size motors are supplied with prelubricated ball bearings without grease nipples.</p> <p>From 280 frame size and above motors are supplied with regreasable bearings and greasing nipples on both ends.</p> <p>From 355 frame size SPM nipples for bearing vibration monitoring are delivered as standard both at N and D end.</p> <p>The motor bearings are designed according to the principle that the locating bearings are on the D end side and the floating bearings on the ND end side.</p> <p>Bearings are first greased in the factory with lithium base grease.</p> <p>The used grease is removed through a valve locked in the outer bearing cover. Sleeve bearings available as an option.</p>



Impregnation system	Stator is VPI treated with an unsaturated polyester amide resin which is polymerisation in an oven..
Insulation system	Stator: F class insulated with a synthetic enamel. (H class insulation available on request)
Protective treatments	Specific Oil&gas treatment.
Vibrations	Mechanical vibrations correspond to the limits specified in EN 60034-14 and are certified by the test room.
Rating plate	Stainless steel, thickness 0,5 mm.
Optional features	
List	Reinforced insulation suitable for frequency converter application dual / multiple winding configuration special shaft end on both sides increase protection degree up to IP 56 / 65 encoder vibration sensors special frame design to suite the application insulated bearings design other options available on request.