



B5L

Model	B5L
Power	Up to 1.600 kW
Voltages	Up to 6.600 V
Atex protection	Ex nA II C T3 Gc
Frame LV	71 ± 500
Frame MV	355 ± 500
Poles	2, 4, 6, 8
Cooling	IC 411 on request IC 416
IP	IP 55 / 56 / 65
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

Poles	2 Poles	4 Poles	6 Poles	8 Poles	
kW	900	1.600	1.300	900	

Certificates and testing																			
Certificate	Motors from 160 to 315 frame size are certified by TÜV NORD. Ex nA according to IEC/EN 60079-15 and ATEX directive 94/9/EC.																		
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 Made in carbon steel (EN 10083 – 2 C45 or better)</p> <p>Shaft design Cylindrical shaft with key.</p>																		
Main terminal box	Mounted on top. Made in cast iron. (EN 1561 – GJL 200 or better)																		
Fan	<table border="1"> <tbody> <tr> <td>Frame</td> <td>71 ± 280</td> <td colspan="2">315</td> <td colspan="2">355 ± 450</td> </tr> <tr> <td>Pole</td> <td>2 ± 8</td> <td>2 ± 6</td> <td>8</td> <td>2</td> <td>4 ± 6</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> </tbody> </table>	Frame	71 ± 280	315		355 ± 450		Pole	2 ± 8	2 ± 6	8	2	4 ± 6	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	<p>Stator is VPI treated with an unsaturated polyester amide resin which is polymerisation in an oven.</p>
Insulation system	<p>Stator: F class insulated with a synthetic enamel. (H class insulation available on request)</p>
Protective treatments	<p>Specific Oil&gas treatment.</p>



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.