



DIRECT DRIVE STARTER MOTORS

APPLICATIONS

Diesel engines with 3 to 9 litre displacement.

FEATURES

- High specific power output and efficiency.
- High cold crank capability.
- Highly efficient drive assembly for idle run of the pinion.

DESIGN

Nose versions for specific applications on the engine.

Direct drive.

Pinion shift mechanism with solenoid, fork lever and helix.

Solenoid switch with pull-in and hold-in winding and double return spring for effective breaking of the main contacts.

Six-roller clutch and drive assembly is designed to transmit power from the starter motor to the engine.

High quality thermal resistant materials.

Support brackets of grey cast iron, nodular cast iron or die cast aluminium.

Free of asbestos, cadmium, beryllium and ammonia.

Additional dust protection with a lip seal on the pinion.

Water protection is achieved with drain holes, O-rings and rubber boot.

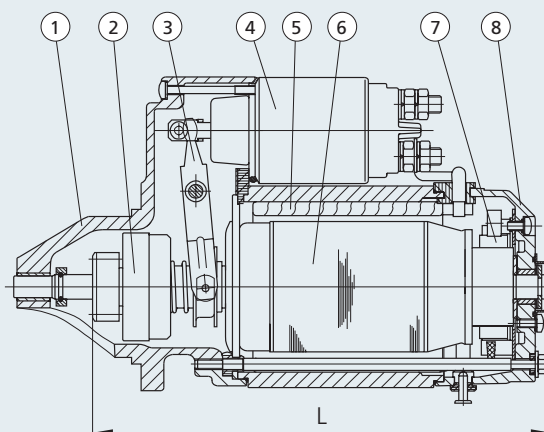
Oil-proof versions for wet clutch applications.

Insulated return versions are available.

MAIN TECHNICAL DATA

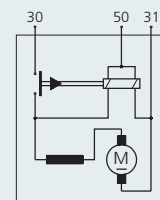
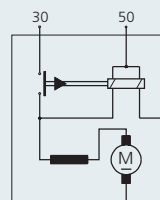
Type	AZJ			
Nominal voltage (V)	12		24	
Rated power (kW)	2.7	3.0	3.2	4.0
Length (mm)	< 239.5	< 281	< 239.5	< 281
Weight (kg)	12.5	13.9	12.5	13.9
Yoke diameter (mm)	115			
Stator	4-pole windings			
Drive assembly	6 rollers			
Solenoid 12V 24V	pull-in current < 62 A hold-in current < 14 A			
	pull-in current < 30 A hold-in current < 6 A			
Terminals	30 - M8, M10 31 - M8, M10 50 - M4, M6, M5, 6.3 x 0.8			
Basic protection	Protected against ingress of dust, solid foreign objects and splashing water (IP 56)			
Ambient temperature	- 40°C to + 110°C			

CROSS SECTION



1. Drive end bracket • 2. Drive assembly • 3. Engaging lever • 4. Starter switch • 5. Stator • 6. Armature
7. Brush holder • 8. Commutator end bracket

CONNECTION DIAGRAMS



CHARACTERISTICS

