

# AZJ Field coil direct drive starter motors

## Features

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

## Applications

Diesel engines with 3 to 9 litre displacement.

## Options

- Pinion, flange, electrical terminals and direction of rotation are customized for specific engines.
- Additional dust protection with a lip seal on the pinion.
- Oil-proof versions for wet clutch applications.
- Insulated return versions are available.

## Design

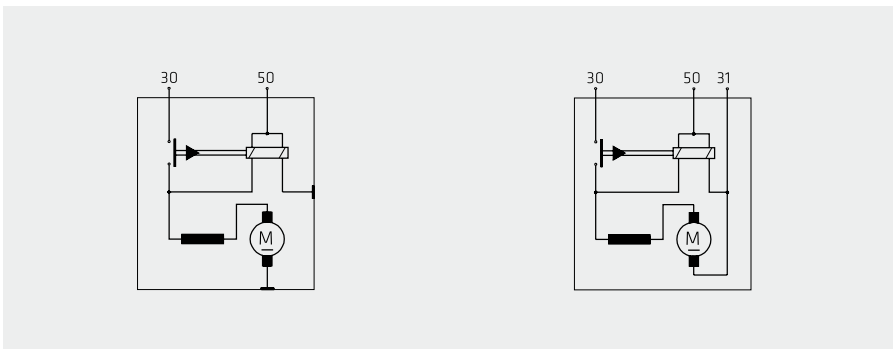
- Pre-engaged style of a starter motor.
- Nosed versions for specific engine applications.
- Direct drive.
- Electrical excitation of the motor part.
- Drive assembly with a six roller clutch.
- Pinion shift mechanism with solenoid, fork lever and helix.
- Solenoid switch with pull-in and hold-in winding.
- High quality thermally resistant materials.
- Drive end brackets made of grey cast iron (GCI), nodular cast iron (NCI) or die cast aluminium (DCA).
- End-of-life Directive 2000/53/EC respected, and also free from asbestos, beryllium and ammonia.
- Water protection is achieved with drain holes, O-rings and rubber boot.



### Main technical data

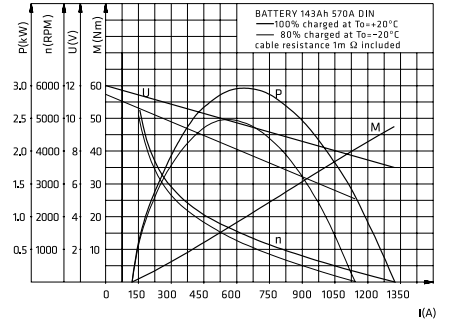
Type	AZJ			
Nominal voltage (V)	12		24	
Rated power (kW)	2.7	3.0	3.2	4.0
Length (mm)	< 239.5	< 281	< 239.5	< 281
Weight (kg)	12.5	13.9	12.5	13.9
Yoke diameter (mm)	115			
Stator	4-pole windings			
Drive assembly	6 rollers			
Control signal (T50) (+20°C) Solenoid 12V	pull-in current < 62A hold-in current < 14A			
Solenoid 24V	pull-in current < 30A hold-in current < 6A			
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)			
Operating temperature	- 30°C to + 100°C			
Ambient temperature	- 40°C to + 130°C			

### Connection diagrams

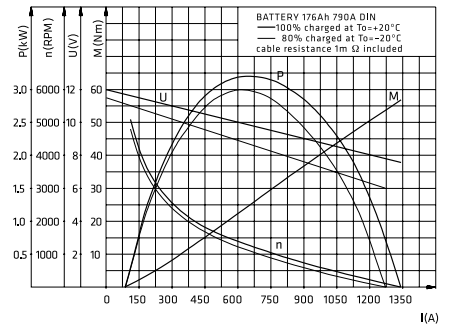


### Characteristics

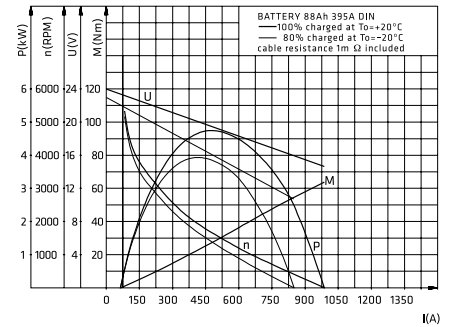
12 V 2.7 kW



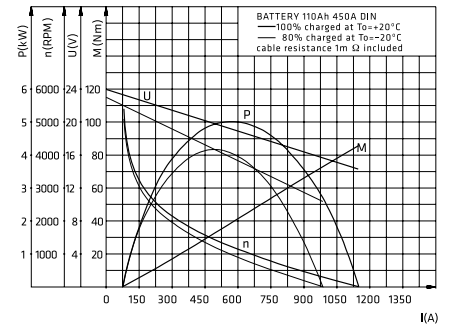
12 V 3 kW



24 V 3.2 kW



24 V 4 kW



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