

## MAIN TECHNICAL DATA

| Type | AZE21.. / AZE25..- nose / AZE26..- noseless |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Nominal voltage (V) | 12 |  |  | 24 |
| Rated power (kW) | 1.2 | 1.4 | 2.1 | 2.5 |
| Length - nose <br> Length - noseless "L" (mm) | $\begin{aligned} & <161 \\ & <196 \end{aligned}$ | $\begin{aligned} & <175 \\ & <210 \end{aligned}$ | $\begin{aligned} & <186 \\ & <221 \end{aligned}$ | $\begin{aligned} & <186 \\ & <221 \end{aligned}$ |
| Weight - nose <br> Weight - noseless <br> (kg) | $\begin{aligned} & 3.3 \\ & 3.6 \end{aligned}$ | $\begin{aligned} & 3.75 \\ & 3.9 \end{aligned}$ | $\begin{aligned} & 4.05 \\ & 4.2 \end{aligned}$ | $\begin{aligned} & 4.05 \\ & 4.2 \end{aligned}$ |
| Yoke diameter (mm) | 80 |  |  |  |
| Stator | 6 permanent magnets |  |  |  |
| Drive assembly | 5 rollers or 6 rollers |  |  |  |
| Solenoid 12 V | $\begin{aligned} & \text { pull-in current < } 50 \mathrm{~A} \\ & \text { hold-in current }<10 \mathrm{~A} \end{aligned}$ |  |  |  |
| 24V | pull-in current < 30 A <br> hold-in current < 7.5 A |  |  |  |
| Terminals | $\begin{aligned} & 30-M 8 \\ & 31-M 8 \\ & 50-M 5, M 6,6.3 \times 0.8 \\ & 15 a-6.3 \times 0.8, M 5 \text { (option) } \end{aligned}$ |  |  |  |
| Basic protection | Protected against ingress of dust, solid foreign objects and splashing water (IP 56) |  |  |  |
| Ambient temperature | $-40^{\circ} \mathrm{C}$ to $+110^{\circ} \mathrm{C}$ |  |  |  |

## STARTER MOTORS WITH REDUCTION GEAR

## APPLICATIONS

Petrol engines of 1 to 5 litre and diesel engines of 1 to 3 litre displacement. Passenger cars, light commercial vehicles, agricultural equipment, marine applications.

## FEATURES

- High specific power output and efficiency.
- Excellent cold crank capability with low current drain from battery.
- Reduced weight and dimensions in comparison to direct drive starter motors.
- Highly efficient drive assembly for idle run of the pinion.
- High reliability and long life operation.


## D E S I G N

Nose or noseless versions for specific applications on the engine.

Excitation by high quality and high coercivity 6 -pole ferrite permanent magnets for high torque output.
Magnetic shunts improve the output power and enable high stability and resistance to demagnetisation.

Plastic or iron planetary low-noise reduction gear using a coaxial pinion with an armature.

Pinion shift mechanism with solenoid, fork lever and helix.

Solenoid switch with pull-in and hold-in winding.
Five or 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 die cast aluminium.
Free of asbestos, cadmium, beryllium and ammonia.

## CROSS SECTION


(1) (10)


1. Drive end bracket • 2. Drive assembly • 3. Engaging lever • 4. Reduction gear • 5. Starter switch • 6. Stator
2. Armature • 8. Brush holder • 9. Commutator end bracket • 10. Gasket • 11. Bearing

## CONNECTION DIAGRAMS



## CHARACTERISTICS




I(A)



