



### MAIN TECHNICAL DATA

Type	AAK	
Nominal voltage	14V	28V
Nominal current	45A-80A	35A – 50A
Stator diameter	125 mm	
Weight	~4.7 kg without pulley	
Max. speed	18,000 RPM	
Regulator	Built-in or separate Mono or multifunction Hybrid or microelectronic monochip technology	
Pulleys and drive end brackets	Different types according to customers' requirements.	
Terminals	Screw and/or blade terminal	
Drive end bearings	Type 6203 / 6303 / 6304E / 6403-2RS	
Rear end bearing	Type 6201-2RS	
Power diodes	Rectifier or Zener diodes	
Protection of the slip rings and brushes	Protected against access by a wire or splashing water (IP 44) Protected against ingress of solid foreign matter and powerful water jets (IP 56)	
Ambient temperature	From - 40°C to + 110°C	

### APPLICATIONS

High output power alternators to satisfy the needs for electrical energy in a wide range of applications:

- for cars
- for commercial vehicles
- for heavy-duty applications
- for special applications

### DESIGN

The alternator is a three-phase 12-pole synchronous self-excited generator with built-in rectifier and regulator and cooled by an external fan. Depending upon the purpose of the installation, various versions can be supplied: insulated, marine and other versions according to special requirements.

### Cooling

An integral fan provides effective through cooling of the alternator. Two different fans are used depending upon the required direction of rotation.

### Rotor

With regard to the requirements of the installation and the operating conditions, different protection levels are provided for the slip rings and brush compartment.

### Rectifier

A three-phase bridge circuit with power rectifier diodes and excitation diodes provides D.C. output currents and excitation of the alternator. It is possible to use Zener power diodes to protect loads on the vehicle against alternator overvoltages.

### Regulator

Regulator with brush holder is fitted to the alternator. They are made in thin-film hybrid or microelectronic technology. With regard to the requirements of the application they may be monofunction or multifunction. The highest quality brushes ensure long life of the alternator.

### Brackets - Bearings - Pulleys

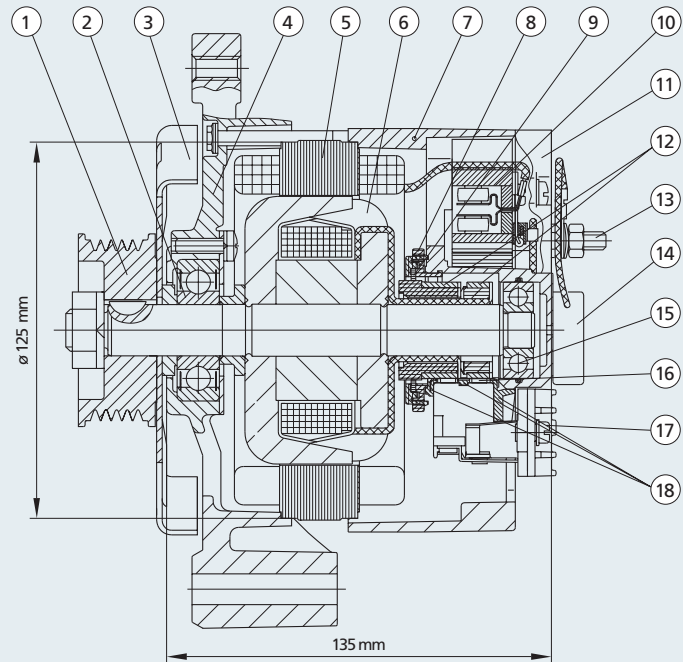
Brackets, bearings and pulleys are made according to the customers' requirements. A range of special sealed bearings makes it possible to design alternators for specific installations, operating in the harshest conditions whilst achieving long, maintenance free life.

### Electrical terminals

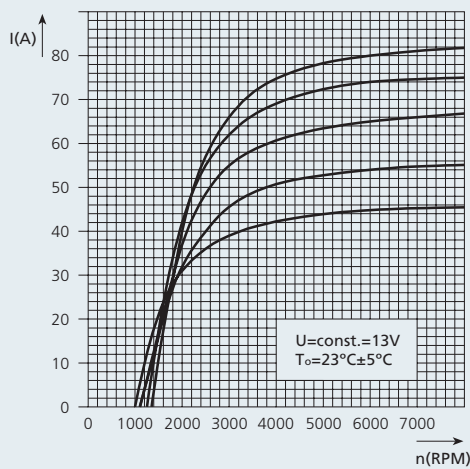
Electrical terminals are according to the customers' requirements.

CROSS SECTION

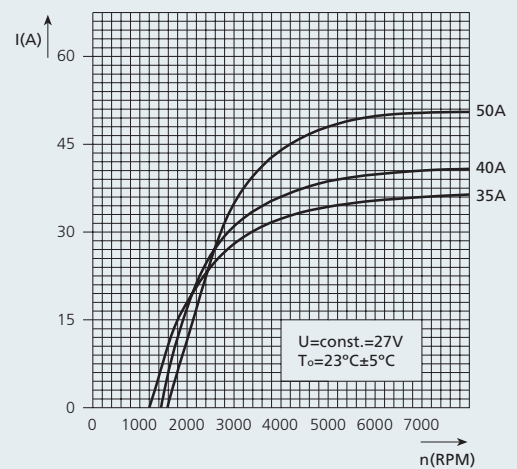
- Pos 1 ... Pulley
- Pos 2 ... Drive end bearing
- Pos 3 ... Fan
- Pos 4 ... Drive end bracket
- Pos 5 ... Stator with winding
- Pos 6 ... Rotor
- Pos 7 ... Rear bracket
- Pos 8 ... Snap rings
- Pos 9 ... Sealing felt
- Pos 10 ... Rectifier with diodes
- Pos 11 ... Protective cover
- Pos 12 ... Slip rings
- Pos 13 ... Terminals B+, D+, W
- Pos 14 ... Capacitor
- Pos 15 ... Rear bearing
- Pos 16 ... Brush
- Pos 17 ... Brush holder with voltage regulator
- Pos 18 ... Rubber gaskets



CHARACTERISTICS



	$n_o$ (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
14V 45A	1000	28	45
14V 55A	1100	27	54
14V 65A	1100	30	65
14V 75A	1250	34	74
14V 80A	1350	29	80



	$n_o$ (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
28V 35A	1200	15	35
28V 40A	1450	12	40
28V 50A	1550	5	50

CONNECTION DIAGRAMS

