



MAIN TECHNICAL DATA

Type	AAK Compact	
Nominal voltage	14V	28V
Nominal current	70A-120A	40A – 60A
Stator diameter	125 mm	
Weight	~5.3 kg without pulley	
Max. speed	20,000 RPM	
Regulator	Built-in or separate Monofunction or multifunction Microelectronic technology	
Pulleys and drive end brackets	Different types according to customers' requirements.	
Terminals	Screw and/or blade terminal	
Drive end bearings	Type 6303, 6304E, 62304E	
Rear end bearing	Type 6003	
Power diodes	Press fit Zener diodes	
Protection of the slip rings and brushes	Protected against ingress of solid foreign matter and powerful water jets (IP 56)	
Ambient temperature	From - 40°C to + 110°C	

APPLICATIONS

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

Features

- high specific power and efficiency
- small dimensions
- low weight
- low noise level
- higher protection against accidental contact
- long life operation

DESIGN

The alternator is a three-phase, 12-pole synchronous self-excited generator with two internal fans and built-in regulator and rectifier. The compact construction and carefully selected materials assure improved technical characteristics and long life, service free, operation even under the harshest conditions of high and low temperatures, salt spray, humidity, water, dust, vibrations, aggressive liquids.

Stator

The stator has a three-phase winding on a laminated pack. The selected design and high filling factor of the stator slots provides improved cooling, low noise and high output characteristics.

Cooling

Two internal fans positioned on the claw poles provide more effective cooling with lower noise and higher protection against accidental contact as well as higher output.

Rotor

Smaller slip rings provide higher brush durability, even at high speeds. Encapsulated slip rings offer increased durability of the alternator.

Rectifier

Sandwich construction of the rectifier with press fit Zener diodes provides the low temperatures of the rectifier diodes, high resistance to vibrations and protection of loads on the vehicle against alternator overvoltages. The installation of the rectifier on the outer side of the rear end bracket ensures flexible arrangement of all types of terminals.

Regulator

The regulator together with the brush holder is assembled on the rear end bracket. Regulators use microelectronic technology and are mono or multifunction. The highest quality of brushes ensure long life of the alternator.

Brackets - Bearings - Pulleys

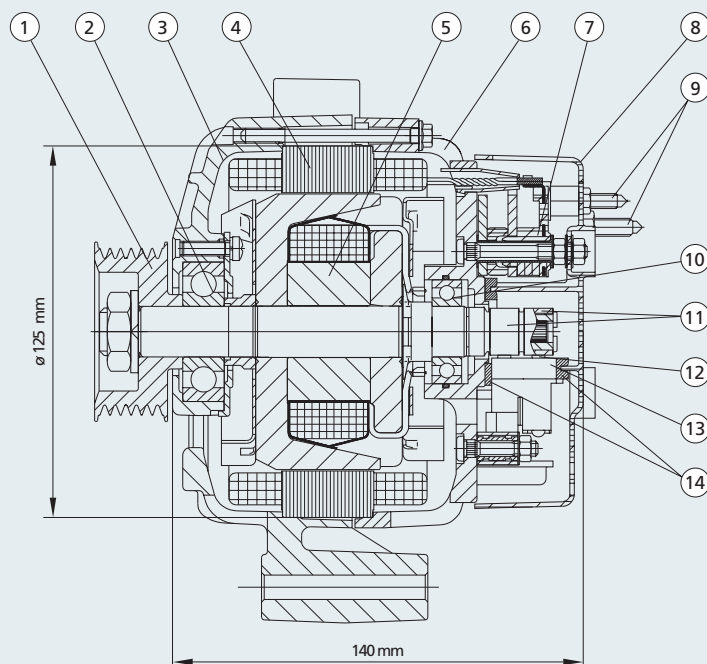
Brackets, bearings and pulleys are made according to the customers' requirements. A range of special sealed bearings makes it possible to design alternators for specific installations, operating in the harshest conditions whilst achieving long, maintenance free life.

Electrical terminals

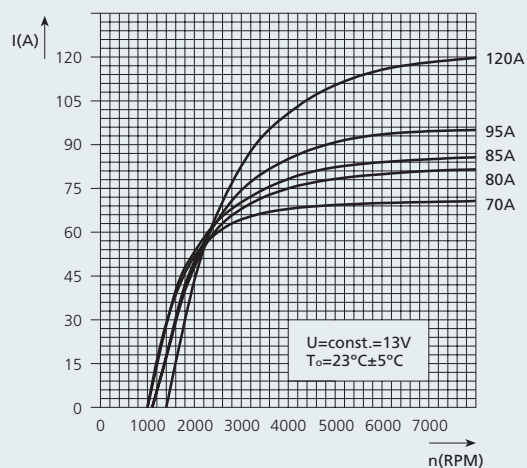
Electrical terminals are according to the requirements of the customers.

CROSS SECTION

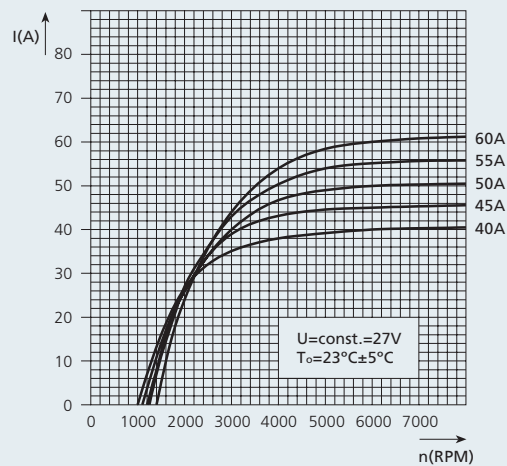
- Pos 1 ... Pulley
 Pos 2 ... Drive end bearing
 Pos 3 ... Drive end bracket
 Pos 4 ... Stator with winding
 Pos 5 ... Rotor
 Pos 6 ... Rear bracket
 Pos 7 ... Rectifier with diodes
 Pos 8 ... Protective cover
 Pos 9 ... Terminals B+, D+, W
 Pos 10 ... Rear bearing
 Pos 11 ... Slip rings
 Pos 12 ...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



CHARACTERISTICS



	n _o (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
14V 70A	1000	47	70
14V 80A	1100	40	80
14V 85A	1000	47	84
14V 95A	1100	42	94
14V 120A	1400	30	115



	n _o (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
28V 40A	1000	23	40
28V 45A	1100	22	45
28V 50A	1200	22	50
28V 55A	1250	21	55
28V 60A	1400	18	60

CONNECTION DIAGRAM

