

A L T E R N A T O R S

T Y P E

AAG

AAG compact

AAK

AAK compact

AAN compact

AAT



Iskra

Iskra Avtoelektrika d.d.



MAIN TECHNICAL DATA

Type	AAK	
Nominal voltage	14V	28V
Nominal current	45A - 120A	35A - 60A
Stator diameter	125 mm	
Weight (without pulley)	~4.7 kg - 5.1 kg	
Max. speed (permanent / short time)	13,000 RPM / 15,000 RPM	
Regulator	Built-in Mono or multifunction Hybrid or microelectronic 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	Press fit Zener diodes	
Protection of the slip rings and brushes	Protected against ingress of solid foreign matter and water spray (IP 54)	
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. Also special fan for hand contact protection is available.

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 press fit Zener diodes and excitation diodes provides D.C. output currents and excitation of the alternator. Zener power diodes provides protection of electrical 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

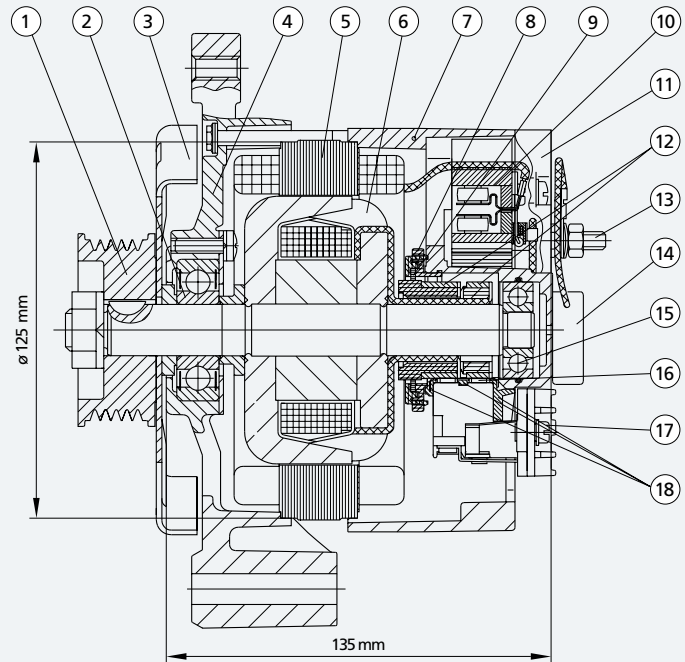
Brackets, bearings and pulleys are made according to the customers' requirements. A range of special sealed bearings makes it possible to design alternators for specific installations, operating in the harshest conditions whilst achieving long, maintenance free life.

Electrical terminals

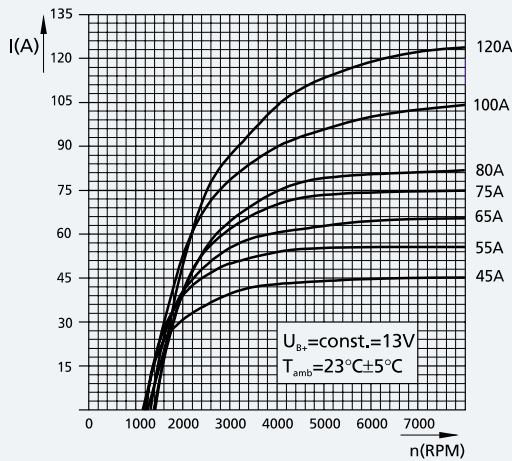
Electrical terminals are according to the customers' requirements.

CROSS SECTION

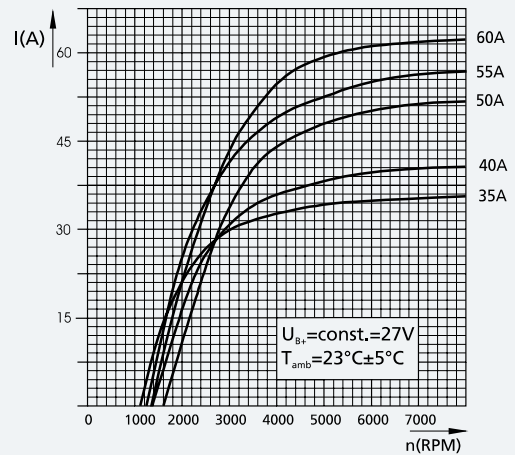
- Pos 1... Pulley
- Pos 2... Drive end bearing
- Pos 3... Fan
- Pos 4... Drive end bracket
- Pos 5... Stator with winding
- Pos 6... Rotor
- Pos 7... Rear bracket
- Pos 8... Snap rings
- Pos 9... Sealing felt
- Pos 10... Rectifier with diodes
- Pos 11... Protective cover
- Pos 12... Slip rings
- Pos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



CHARACTERISTICS

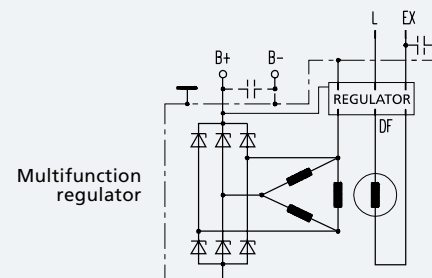
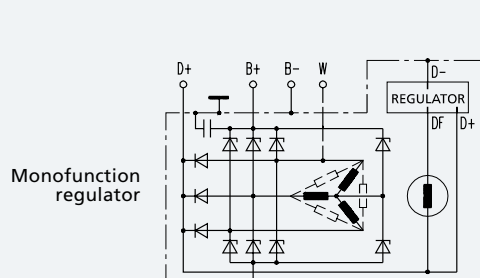


	n _o (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
14V 45A	1050	28	45
14V 55A	1000	35	55
14V 65A	1100	30	65
14V 75A	1250	34	74
14V 80A	1350	29	80
14V 100A	1150	44	100
14V 120A	1400	30	115



	n _o (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
28V 35A	1100	18	35
28V 40A	1450	12	40
28V 50A	1550	5	50
28V 55A	1250	21	55
28V 60A	1400	16	60

CONNECTION DIAGRAMS



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