

# 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	AAN Compact	
Nominal voltage	14V	28V
Nominal current	120A - 200A	70A - 110A
Stator diameter	142 mm	
Weight (without pulley)	~7.3 kg	
Max. speed (permanent / short time)	15,000 RPM / 18,000 RPM	
Regulator	Built-in Mono 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 6304E / 6403 / 6305E	
Rear end bearing	Type 6203	
Power diodes	Press fit Zener diodes	
Protection of the slip rings and brushes	Protected against ingress of solid foreign matter and water jets (IP 56)	
Ambient temperature	From - 40°C to + 110°C	

### APPLICATIONS

- for passenger cars and commercial vehicles with higher electrical demand
- 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 assure 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 for 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.

### Bearings - Brackets - Pulleys

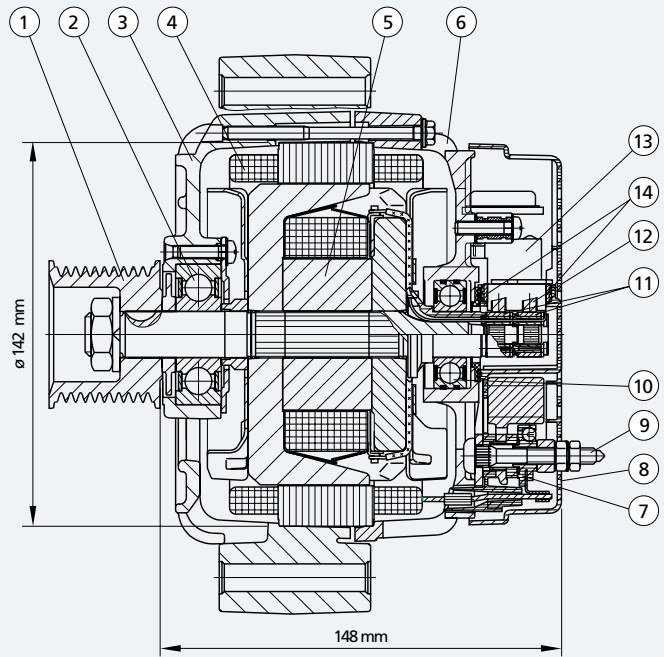
Brackets, bearings and pulleys are made according to the customers' requirements. A range of special sealed bearings makes it possible to design alternators for specific installations, operating in the harshest conditions whilst achieving long, maintenance free life.

### Electrical terminals

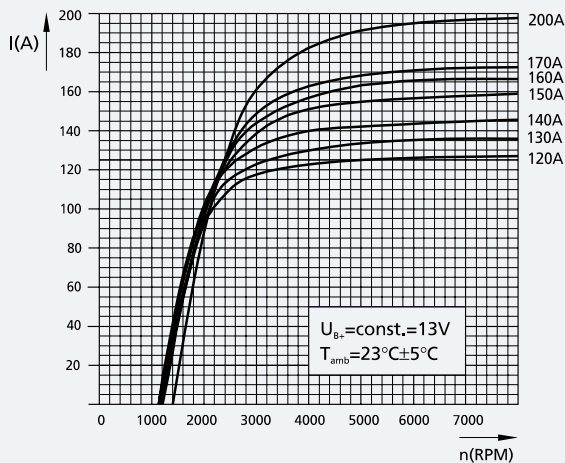
Electrical terminals are according to the requirements of the customers.

CROSS SECTION

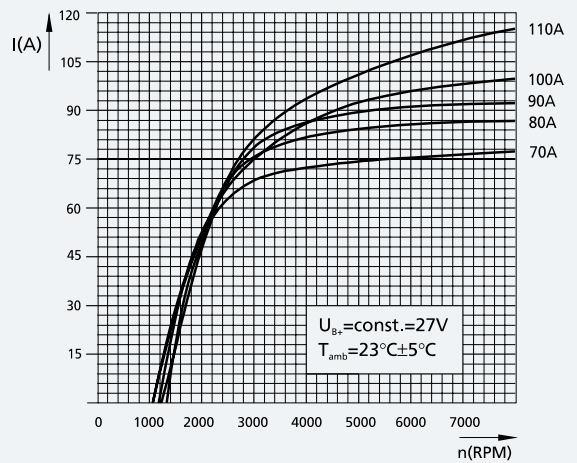
- Pos 1... Pulley
- Pos 2... Drive end bearing
- Pos 3... Drive end bracket
- Pos 4... Stator with winding
- Pos 5... Rotor
- Pos 6... Rear bracket
- Pos 7... Rectifier with diodes
- Pos 8... Protective cover
- Pos 9... Terminals B+, B-, D+, W (monofunction regulator)  
B+, L, DFM (multifunction regulator)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



CHARACTERISTICS

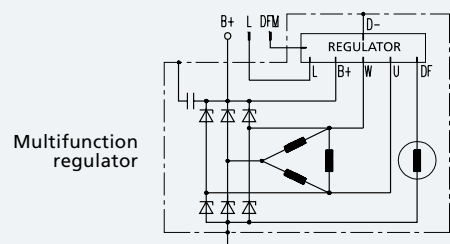
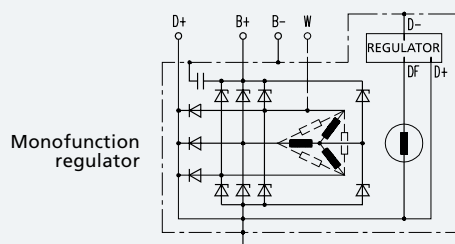


	n <sub>o</sub> (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
14V 120A	1100	80	125
14V 130A	1050	80	134
14V 140A	1050	85	144
14V 150A	1200	75	155
14V 160A	1200	78	165
14V 170A	1200	78	170
14V 200A	1400	65	195



	n <sub>o</sub> (RPM)	I (A) at 1800 RPM	I (A) at 6000 RPM
28V 70A	1050	45	75
28V 80A	1250	42	85
28V 90A	1300	40	90
28V 100A	1250	43	96
28V 110A	1400	35	106

CONNECTION DIAGRAMS



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