

**STROMER**  
POWER

**Comprehensive Specification Sheet**

Low-Voltage AC Alternator  
Electrical and Mechanical Data



**SP4-G160D9**

200kVA Prime / 220kVA Standby  
Three Phase / 50Hz / 4 pole

## World-Class Alternators

Setting new standards in all aspects from design, manufacturing, material selection and production to testing equipment, tooling and quality control.

**Tough:** Our alternators are trusted as a component in the production of stationary diesel generator sets, mobile power plants and other power generation equipment which is supplied to various commercial, agricultural, refrigeration, residential, government and military services.

**Trusted:** Our product is highly regarded for its superior quality and performance. The alternators are used as the main power supply for three major satellite launch bases, for a station in Antarctica and for a spacecraft series.

**Tested:** Our products are thoroughly tested in different environments to ensure unsurpassed quality and reliability. Our stringent tests verify overall performance and align our products with most internationally-recognised standards.

## Standards

- StromerPower alternators meet all key international standards and regulations
- The 4-pole alternator complies with the following major domestic and international standards and regulations: GB755, BS5000, IEC60034, VDE0530, CSAC22.2 100 and NEMA MG-1.22
- It is designed, manufactured and marketed in an ISO 9001 quality assurance environment
- Alternator can be integrated in CE-marked generator set

## Electrical Characteristics and Performance

- Class H insulation
- 2/3 pitch winding
- **Voltage Range:** 50Hz: 220v - 240v and 380v - 415v (440v)
- High efficiency and motor starting capacity
- Low reactances

## Specifications Overview

Three Phase / 50Hz / 400V / PF = 0.8			
Continuous 40°C		Standby 40°C	
kw	kVA	kw	kVA
160	200	176	220

Rated Frequency	Voltage	Voltage Regulation	Voltage Regulation Change	Phase Change Rate	Power Factor
Hz	v	v	% UN	%	
50	400	+/- 1%	< +/- 10	+/- 1	0.8

Insulation Class	Type	Phase and Connection	
H	Brushless	Three Phase	4 Pole

AVR Model	Stator	Rotor
SX460	2/3 Pitch	Single Bearing



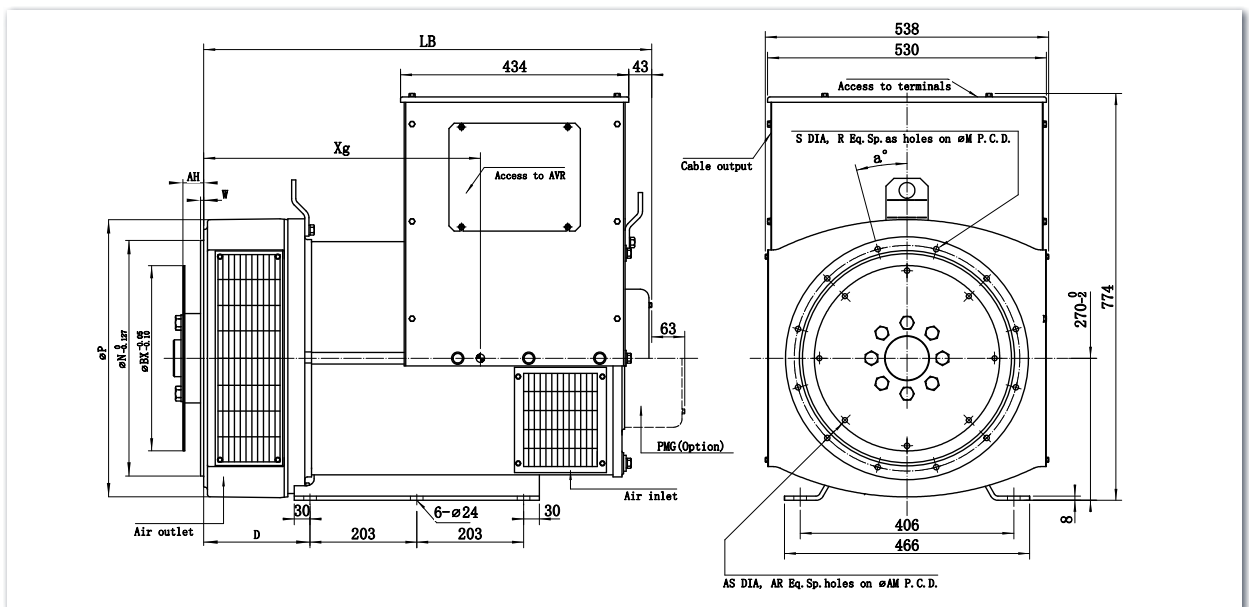
## Mechanical Construction

- StromerPower enclosures are **IP23**
- All rotors are dynamically balanced in strict accordance with the requirements of the **ISO1940** standard
- Robust flanges and shields
- The large junction box makes wiring and adjustment of the AVR easier
- Space for current transformers or other optional modules to be installed
- Compact design and sturdy assembly to withstand generator vibrations
- All our alternators use long-term sealed bearings
- Steel base

## Excitation System Regulations

- **Self-Excitation Standard**
- **Parallel Use:** When the appropriate modules (AVR, current transformer and control equipment) are installed, all 4-pole alternators can be used in parallel
- **Bearing Capacity:** NEMA specifications
- **Waveform:** According to the IEC standard, the total harmonic distortion rate is less than 5% under no-load or non-linear load. The telephone interference factor (TIF) is less than 50 in accordance with NEMA specifications
- **Frequency:** To be used at a frequency of 50Hz (standard windings) (No. B31, B32)
- **Power Factor:** The alternator is designed for loads with a power factor of 0.8

## Single-Bearing Outline Schematic



## SAE Rating

Model	SAE	LB	LC	Xg	Weight
					kg
SP4-G160D9	1	915.3	434	432	578
	2	901	434	432	578

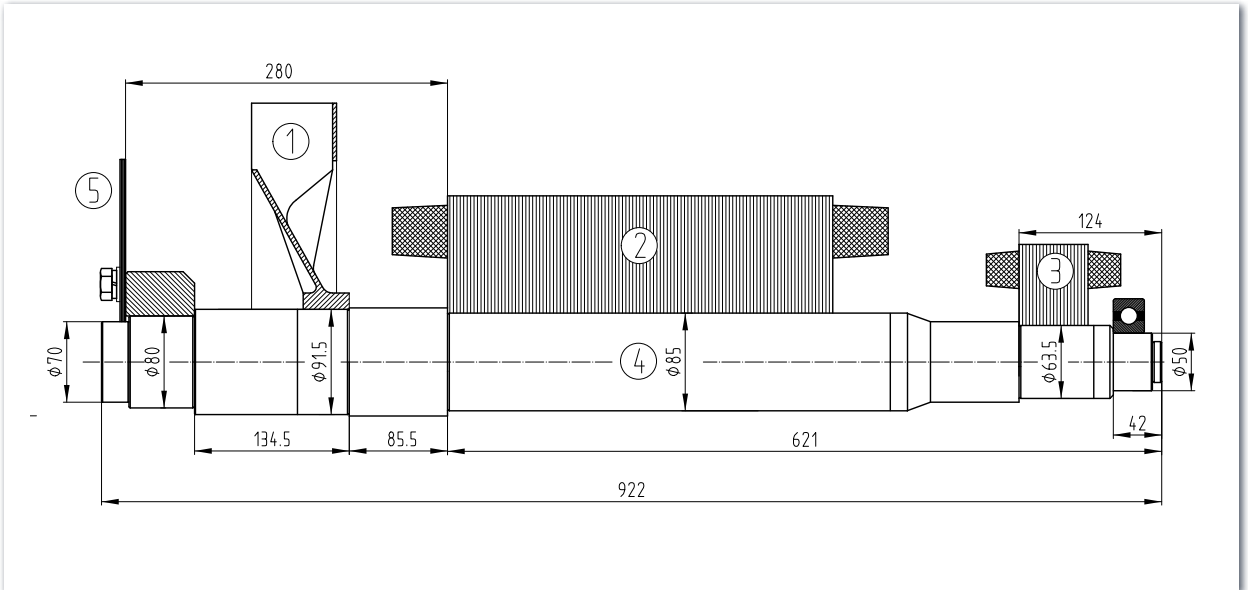
## Adapter

SAE	BX	AM	AR - øAS	AH
	mm			
11.5	352.425	333.38	8 - ø11	39.6
14	466.725	438.15	8 - ø14	25.4

## Flange

SAE	P	N	M	R - øS	W	D	a°
	mm						
1	580	511.175	530.225	12 - ø12	6	216.3	15
2	530	447.675	466.725	12 - ø12	5	202	15

## Torsional Analysis Data



Fan		Main Rotor		Excitation Rotor		Shaft		Total	
Weight (kg)	J(kgm <sup>2</sup> )	Weight (kg)	J(kgm <sup>2</sup> )	Weight (kg)	J(kgm <sup>2</sup> )	Weight (kg)	J(kgm <sup>2</sup> )	Weight (kg)	J(kgm <sup>2</sup> )
4.3	0.0394	142.1	1.7878	16.3	0.1265	44.3	0.0492	207.0	2.0029

SAE	5	Shafts Coupling Flex Plate		
	D	L	Weight (kg)	J(kgm <sup>2</sup> )
11.5	290	992	3.44	0.0291
14	290	992	6.04	0.1053

## Dimensions

Unpacked				Packed			
Length	Width	Height	Net Weight	Length	Width	Height	Gross Weight
mm			kg	mm			kg
959	538	774	578	1050	630	970	616



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The accuracy cannot be guaranteed as StromerPower have an ongoing process of development and reserve the right to change the specification of their products without notice.

