

Exclusively from your Caterpillar® dealer



## GEK6SP-1 (1-Phase)

**50 HZ**  
**STANDBY**     **6kVA / 6kW**  
**PRIME**        **5.5kVA / 5.5kW**

### FEATURES

#### GENERATING SET

- Complete system designed and built at ISO8528 certified facility
- Factory tested to design specifications at full load conditions
- Fully engineered with a range of options and accessories

#### ENGINE

- Industrial water cooled diesel engine
- Governor, mechanical
- Electrical system, 12 VDC
- Cartridge type fuel and oil filters
- Air filter
- Battery(s), rack and cables

#### GENERATOR

- Self excited brushless generator
- Insulation system, class H
- Drip proof generator air intake (IP23)
- Electrical design in accordance with BS4999, BS5000, BSEN60034, BSEN61000, IEC60034

#### CONTROL SYSTEM

- Access 1500 Autostart control panel
- Vibration isolated sheet steel enclosure with hinged lockable door

#### MOUNTING ARRANGEMENT

- Heavy-duty fabricated steel base with lifting points
- Anti-vibration pads to ensure vibration isolation
- Engine coupled to generator with flexible disc coupling
- Baseframe incorporates integral plastic fuel tank, 8 hours running capacity

#### EXHAUST SYSTEM

- Heavy duty industrial capacity exhaust silencer (approximately 10 dB reduction) supplied loose

#### COOLING SYSTEM

- Standard ambient temperatures up to 50° C (122° F)
- Fan, fan drive and charging alternator fully guarded
- Antifreeze protection coolant

#### CIRCUIT BREAKER

- 3-pole miniature circuit breaker (mcb) < 160 amps and 3-pole molded case circuit breaker (mccb) >= 160 amps
- Vibration isolated sheet steel enclosure with removable cover plate
- Outgoing cable stub-up area directly below circuit breaker

#### EQUIPMENT FINISH

- All electroplated hardware
- Anticorrosive paint protection
- High gloss polyurethane paint for durability and scuff resistance

#### QUALITY STANDARDS

- BS4999, BS5000, BSEN60034, BSEN61000, IEC60034

#### DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

#### WARRANTY

- All equipment carries full manufacturer's warranty. Extended warranty terms available

5 0 H z

S T A N D B Y  
P R I M E

6 k V A / 6 k W  
5 . 5 k V A / 5 . 5 k W

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**OPTIONAL EQUIPMENT\***

<b>Handling/Trailers</b>	Mobile trolley kit
<b>Controls</b>	Changeover panels
<b>Circuit Breaker</b>	CEE Form sockets, quantity dependant on rating

\*Some options may not be available on all models.  
Not all options are listed.

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**SPECIFICATIONS**



**GENERATOR**

Make..... Mecc Alte  
 Model ..... AC03-160/4  
 Type..... Capacitor brushless  
 Voltage regulation ..... N/A  
 Frequency..... N/A  
 Waveform distortion ..... N/A  
 Radio interference ..... N/A  
 Telephone Interference..... N/A  
 Overspeed limit ..... N/A  
 Insulation..... Class H  
 Temperature rise ..... Within Class H limits

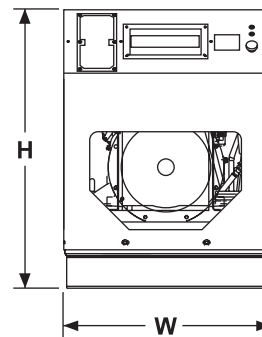
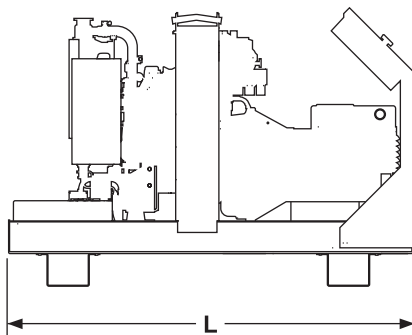


**ENGINE**

Manufacturer ..... Kubota  
 Model ..... D905  
 Type..... Vertical, watercooled 4 cycle diesel  
 Aspiration..... N/A  
 Cylinder configuration ..... In line  
 Displacement — L (cu in) ..... 0.898 (54.80)  
 Bore/stroke — mm (in)..... 72.0/73.6 (2.83/2.90)  
 Compression ratio..... 23:1  
 Engine speed — rpm  
 50 Hz ..... 1500

Piston speed — m/sec (ft/sec)  
 50 Hz..... 3.68 (12.08)  
 Maximum power at rated rpm — kW (hp)  
 Standby  
 50 Hz ..... 7.38 (9.9)  
 Prime  
 50 Hz ..... 6.7 (9.0)  
 BMEP — kPa (psi)  
 Standby  
 50 Hz..... TBA  
 Prime  
 50 Hz..... TBA  
 Regenerative power — kW (hp)  
 50 Hz..... TBA  
 Motor starting capability — kW (hp)  
 50 Hz ..... 0.9 (1.21)  
 Governor  
 Type ..... Centifugal flyweight mechanical  
 Class ..... G2

**GENERATING SET DIMENSIONS AND WEIGHTS**



Model	Length mm (in)	Width mm (in)	Height mm (in)	Weight* kg (lb)
GEK6SP-1	1400 (55.1)	740 (29.1)	1038 (40.9)	327 (721)

Note: General configuration not to be used for installation. See general dimension drawings for detail.

\*Includes oil and coolant

50 Hz

STANDBY  
PRIME6 kVA / 6 kW  
5.5 kVA / 5.5 kW**OLYMPIAN™***Exclusively from your Caterpillar® dealer***GEK6SP-1 (1-Phase) 50 Hz**

Generating Set Technical Data		Standby	Prime
<b>Package Performance</b> Power rating	kVA (kW)	6.0 (6)	5.5 (5.5)
<b>Lubricating System</b> Type: Oil pump & lubrication sump Oil filter: Spin-on, full flow Oil cooler: Water Oil type required: API CD 15W-40 Total lube system capacity Oil pan capacity	L (U.S. Gal) L (U.S. Gal)	5.1 (1.35) TBA	5.1 (1.35) TBA
<b>Fuel System</b> Fuel Tank Capacity Generating set fuel consumption** 100% load	L (U.S. Gal) L/hr (U.S. g/hr)	30.0 (7.9) 2.29 (0.60)	30.0 (7.9) 2.09 (0.55)
<b>Engine Electrical System</b> Voltage/ground: 12 vDC/negative Battery charging alternator ampere rating	amps	30	30
<b>Cooling System</b> Water pump type: Centrifugal Cooling system capacity Maximum coolant static head Coolant flow rate Minimum temperature to engine Temperature rise across engine Heat rejected to coolant at rated power Total heat radiated to room at rated power Radiator fan load	L (U.S. Gal) m H <sub>2</sub> O (ft H <sub>2</sub> O) L/hr (U.S. gal/hr) °C (°F) °C (°F) kW (Btu/min) kW (Btu/min) kW (hp)	3.41 (0.9) 8.99 (29.5) 1624 (429) TBA TBA 7.26 (413) TBA 0.19 (0.25)	3.41 (0.9) 8.99 (29.5) 1624 (429) TBA TBA 7.26 (413) TBA 0.19 (0.25)
<b>Air Requirements</b> Combustion air flow Maximum air cleaner restriction Radiator cooling air Generator cooling air	m <sup>3</sup> /min (cfm) kPa (in H <sub>2</sub> O) m <sup>3</sup> /min (cfm) m <sup>3</sup> /min (cfm)	0.586 (20.7) 4.9 (19.7) 22.0 (777) 4.0 (141)	0.586 (20.7) 4.9 (19.7) 22.0 (777) 4.0 (141)
<b>Exhaust System</b> Maximum allowable backpressure Exhaust flow at rated power Exhaust temperature at rated power (dry exhaust)	kPa (in Hg) m <sup>3</sup> /min (cfm) °C (°F)	5.0 (1.476) 1.62 (57) 373 (703.4)	5.0 (1.476) 1.62 (57) 373 (703.4)
<b>Generating Set Noise Rating*</b> (without attenuation) at 1 m (3.28 ft)	dBA	TBA	TBA

\*dBA levels are for guidance only

\*\*Fuel consumption data at indicated load with diesel fuel with a specific gravity of 0.85 and conforming to BS2869:1998 Class A2.

Generator Technical Data	50 Hz			
	230V			
<b>Full Load Efficiency</b>				
Standby	%	80.0		
Prime	%	80.0		
<b>Reactances (per unit)</b>	Xd	TBA		
Saturated	X'd	TBA		
Reactances	X''d	TBA		
are shown	Xq	TBA		
applicable to the	X''q	TBA		
standby rating	X2	TBA		
	X0	TBA		
<b>Time Constants:</b>	t'd	t''d	t'do	ta
	TBA ms.	TBA ms.	TBA ms.	TBA ms.

Consult your Olympian representative for more information.

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		50 Hz			
Voltage Code	Voltage	Standby		Prime	
		kVA	kW	kVA	kW
VOPT523	230	6	6	5.5	5.5

Ratings at 27° C (80° F), 152.4 m (500 ft), 60% humidity, 0.8 pf

**RATING DEFINITIONS****STANDBY**

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. When used at standby rating the alternator will be peak continuous rated (as defined in ISO8528-3).

**PRIME POWER**

These ratings are applicable for supplying continuous power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

50 Hz

STANDBY  
PRIME

6 kVA / 6 kW  
5.5 kVA / 5.5 kW

**OLYMPIAN™**

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European sourced

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