

# GENERATING SET GE SX-12000 KTD

Le immagini riportate sono indicative



## FEATURES

- Bunded base suitable to contain any liquids leakage from engine avoiding environmental pollution
- The rounded edges of the canopy designed for rainwater drainage away
- Large doors for better and easy maintenance (air, oil, fuel filters replacement)
- Central lifting eye
- Low oil pressure automatic engine shut down and high water temperature
- Circuit breaker and ELCB-GFI (Ground Fault Interruptor)
- Supersilenced
- Control panel with automatic digital control unit (AMF) **on request**
- Meets EC directives for noise and safety



water  
cooled



diesel



three-phase  
power



electric

## POWER RATINGS

* Stand-By three-phase power (LTP)	12 kVA (9.6 kW) / 400V / 17.3A
* PRP three-phase power	10.5 kVA (8.7 kW) / 400V/15.1A
* PRP single-phase power	6 kVA / 230V / 26A
* COP single-phase power	/
Frequency	50 Hz
Cos φ	0.8

\* Output powers according to ISO 8528-1

## DEFINITION

Valid declared powers up to the followings environmental conditions: temperature 25°C, altitude 100 meters above sea level

**LTP power: stand-by power:** Maximum available power for use with variable loads for a yearly number of hours limited at 500 h. No overload is admitted.

**PRP power:** continue power with variable loads. Maximum power for use with variable loads for a yearly illimited nubers of hours.

**COP power:** continuous power with constant load. Maximum power for use with constant loads for a yearly unlimited numbers of hours.

## ENGINE 3000 RPM

### 4 STROKE, NATURAL ASPIRATED

Model	KUBOTA D722
Cylinders / Displacement	11.9 kW (16 hp)
Bore / Stroke	10.3 kW (14 hp)
Compression ratio	/
* Stand-By net power	3 / 719 cm³
* PRP net power	67 / 68 (mm)
* COP net power	/
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
<b>FUEL CONSUMPTION</b>	
110 % (Stand-by power)	3.9 lt./h
100 % to PRP	3.4 lt./h
75 % to PRP	2.6 lt./h
50 % to PRP	1.7 lt./h
<b>COOLING SYSTEM</b>	
Total system cap. - only engine	4.1 lt - /
Fan air flow	/
<b>LUBRICATION SYSTEM</b>	
Total oil system capacity	/
Oil capacity in sump	3.8 lt.
Oil consumption at full load	/

## EXHAUST SYSTEM

Maximum exhaust gas flow	/
Max. exhaust gas temp.	/
Maximum back pressure	/
External diameter exhaust pipe	/
<b>ELECTRICAL SYSTEM</b>	
12 Vdc	
Starter motor power	1 kW
Battery charging alternator cap.	14 A
Cold start	/
With cold start aid	- 15 °C
<b>AIR FILTER</b>	
Dry	
Combustion air flow	/
<b>HEAT REJECTED AT FULL LOAD</b>	
To exhaust system	/
To water and oil	/
Radiated to room	/
To charge cooler	/

## ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED		
	WITHOUT AVR	WITH AVR
Continuos power	11.5 kVA	
Stand-by power	12.5 kVA	
Three phase voltage	400 Vac	
Frequency	50 Hz	
Cos $\varphi$	0.8	
Model A.V.R.	/	HVR 10
Voltage regulation acc.	$\pm 4 \%$	$\pm 1 \%$
Sustained short circuit current	$\leq 3 \text{ In}$	
Transient dip (100% load)	$< 15 \%$	
Recovery time	/	
Efficiency at 100% load	83 % (400V - Cos $\varphi$ 0.8)	83.5 % (400V - Cos $\varphi$ 0.8)
Insulation	Classe H	
Connection - Terminals	Serie - N°6	
Electromagnetic compatibility ( R.F.I. suppr.)	EN55011	
Waveform distorsion - THD	$< 4\%$	
Telephone interference - THF	/	

REACTANCES (11.5 KVA - 400V)		
Direct axis synchronuos - Xd	280 %	239 %
Direct axis transient - X'd	21 %	19 %
Subdirect axis transient - X''d	5.8 %	4.6 %
Quadrature axis synchronuos - Xq	155 %	130 %
Quadr. axis subtransient - X''q	/	
Negative sequence - X2	/	
Zero sequence - X0	/	
TIME CONSTANTS		
Transient - T'd	0.04 sec	0.046 sec
Subtransient - T''d	0.006sec	
Open circuit - T'do	0.53 sec	0.58 sec
Armature - Ta	/	
Short-circuit ratio Kcc	0.62	0.72
IP protection degree	IP 23	
Cooling air flow	0.082 m³/sec.	
Coupling I Bearing	Diretto SAE 5 -7 ½ - N°1	

## GENERAL SPECIFICATIONS

Fuel tank capacity	38 lt.
Running time (75% to PRP)	14.5 h
Starter battery	12 Vdc -38Ah
IP protection degree	IP 23

* Measured acoustic power LwA (pressure LpA)	93 dB(A) (68 dB(A) @ 7m)
* Guaranteed acoustic power LwA (pressure LpA)	93 dB(A) (68 dB(A) @ 7m)
Performance class (ISO 8528)	G2

\* Acoustic power according to European Directive 2000/14/CE

## MANUAL CONTROL PANEL

- Start and stop engine key
- Low oil pressure warning light with shutdown
- High cooling temperature warning light with shutdown
- Battery charge warning light fault
- Low fuel warning light
- Glow plug light
- Digital multifunction meter : Voltmeter - Frequencymeter - Total Hoursmeter - Partial Hoursmeter (resettable) - Battery voltage
- Fuel level gauge
- Emergency stop button
- Circuit breaker
- ELCB-GFI (Ground Fault Interruptor)
- Output sockets: 1x 400V 16A 3P+N+T  
1x 230V 16A 2P+T  
1x 230V 16A Schuko
- Earth terminal (PE)



## AUTOMATIC CONTROL PANEL

- Controller InteliNano Plus
- Controller supply switch
- Battery charge warning light fault
- Emergency stop button
- TCM 35 remote control plug
- PAC (ATS) plug
- Battery charger
- Circuit breaker - ELCB-GFI (Ground Fault Interruptor)
- Circuit breaker for 230V 16A sockets
- Output sockets : 1x 230V 32A 2P+T  
1x 230V 16A 2P+T  
1x 230V 16A Schuko
- Earth terminal (PE)

Features	<ul style="list-style-type: none"> <li>• Event log and alarms (10 events)</li> <li>• Operator interface with icons, no text</li> <li>• Remote Start and Stop</li> <li>• Pre-heating</li> <li>• Fully programmable from the panel or from PC</li> <li>• Direct connection to engines with ECU via Can bus J1939</li> <li>• Manual operation (MRS) with remote start</li> <li>• IP65 protection</li> <li>• Operation temperature: -20°C / +70°C</li> </ul>
Communication	<ul style="list-style-type: none"> <li>• Setup USB port</li> <li>• CAN BUS interface (J1939 only)</li> </ul>

### INTELINANO PLUS CONTROLLER CHARACTERISTICS

Operating mode	<ul style="list-style-type: none"> <li>• MAN. - AUTO</li> </ul>
Display	<ul style="list-style-type: none"> <li>• Graphic back-light LCD display 128x64 pixels</li> </ul>
LEDs	<ul style="list-style-type: none"> <li>• Engine operation</li> <li>• AUTO operating mode</li> <li>• Alarm</li> </ul>
Buttons	<ul style="list-style-type: none"> <li>• START button</li> <li>• STOP button</li> <li>• AUTO button</li> <li>• N° 2 buttons for controller programming</li> </ul>
Generator Measures	<ul style="list-style-type: none"> <li>• Voltage : L1-L2</li> <li>• Current : I1</li> <li>• Powers : kVA</li> <li>• Frequency</li> </ul>
Engine Measures	<ul style="list-style-type: none"> <li>• Water temperature (optional)</li> <li>• Oil pressure (optional)</li> <li>• Fuel level</li> <li>• Rpm meter</li> <li>• Battery voltage</li> <li>• Maintance</li> <li>• Hours meter</li> </ul>
Generator Protections	<ul style="list-style-type: none"> <li>• Short circuit</li> <li>• Over-Undervoltage</li> <li>• Over-Underfrequency</li> <li>• Phase sequence</li> </ul>
Engine Protections	<ul style="list-style-type: none"> <li>• Overspeed</li> <li>• High water temperature warning</li> <li>• Low oil pressure warning</li> <li>• Low fuel level warning</li> <li>• Under battery voltage</li> <li>• Battery charge alternator failure</li> <li>• Start failure</li> <li>• Stop failure</li> <li>• Emergency stop</li> </ul>
AMF functins (Automatic control panel only)	<ul style="list-style-type: none"> <li>• Measure mains voltage : L1-L2 / L2-L3 / L3-L1 - N-L1 / N-L2 / N-L3</li> <li>• Measure mains frequency</li> <li>• Three phase detection</li> <li>• Over-Under mains voltage</li> <li>• Over-Under mains frequency</li> <li>• Phase sequence</li> </ul>

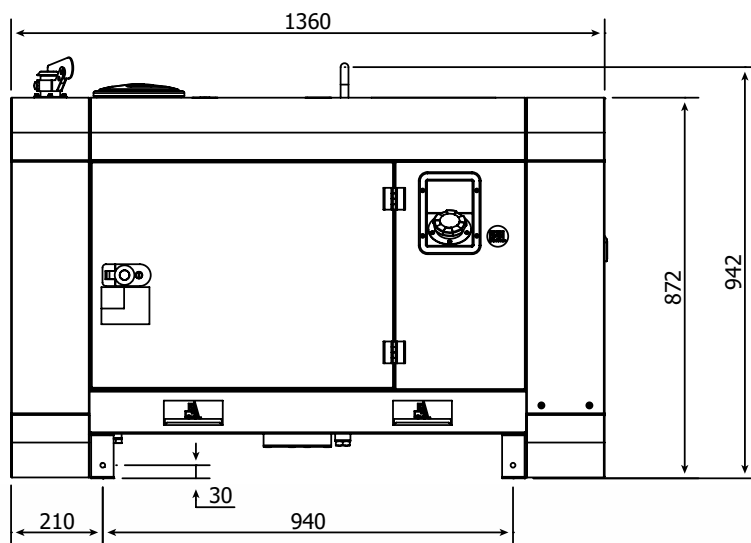
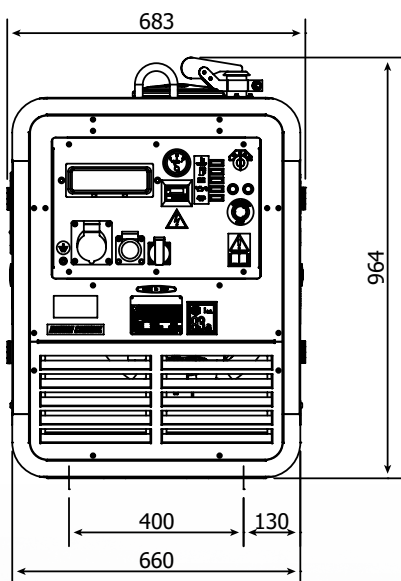
# WEIGHT - DIMENSIONS AND ACCESSORIES

GE SX-12000 KTDI

**DRY WEIGHT MACHINE:**  
• 305 Kg

Generating set pictured may include optional accessories.

## DIMENSIONS DRAW



### OPTIONS ON REQUEST

- \*Automatic transfer switch unit PAC 17 (25A)
- \*TCM35 Remote control
- Moving trolley CM9
- Site tow CTL 10000
- Road trailer CTV4
- Locking Fuel Cap
- Earthing kit

\* Only with Automatic Control Panel

### VERSIONS ON REQUEST

- Digital automatic control panel

### FACTORY INSTALLATION OPTIONS

- Isometer

## GENERAL INFORMATION

### COMPLIANCE GENERATING SETS WITH EC DIRECTIVES AND STANDARDS

2006/42 / EC (Machines Directive)  
2014/35 / EU (Low Voltage Directive)  
2014/30 / EU (EMC Directive)  
2000/14 / EC (Directive Acoustic Emission for machines for use outdoors)  
ISO 8528 (Reciprocating internal combustion engine driven alternating current generating sets )



ISO 9001:2008 - Cert. 0192

### WARRANTY

All devices are covered by the manufacturer's warranty.

The company reserves the right to change this specification without notice. For further information please contact the sales department.

© MOSA - Viale Europa, 59 - 20090 Cusago (Milano) - Italy - phone +39-0290352.1 - fax + 39-0290390466 E-mail: info@mosa.it Web site: www.mosa.it

