

Features:

- Excitation system: self-excited (AREP and PMG are optional)
- ATS (automatic transfer switch) receptacle
- Lockable battery isolator switch
- Stainless galvanized zinc plates with strong corrosion resistance
- Vibration isolators between the engine/alternator and base frame
- Integrated wiring design
- Base fuel tank for at least 8 hours running
- Equipped with an industrial muffler
- Engine oil pump
- 50 C radiator
- Top lifting and steel base frame with forklift holes
- Drainage for fuel tank
- Complete protection functions and safety labels
- IP54 (soundproof sets), IP56 (control system)
- Water jacket preheater, oil heater and double air cleaner, etc. are available.



Output Ratings

Generating Set Model	Prime	Standby
X66C6/S	73kVA/58kW	80kVA/64kW

Ratings at 0.8 power factor.

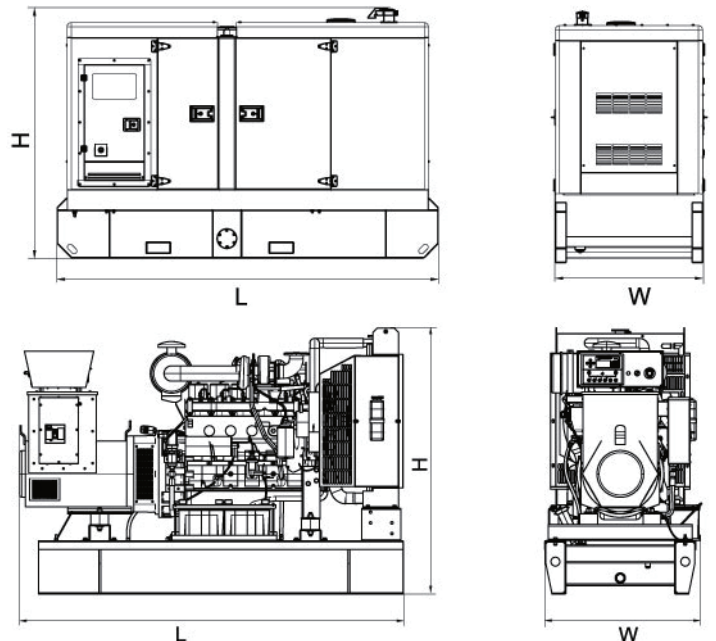
Ratings and Performance Data

Engine Make & Model:	4BTA3.9-G2	
Alternator Model:	UCI224E	
Alternator Brand:	STAMFORD	
Control System:	PLC-920 / PLC-7420	
Noise Level@7m:	62.4	
Frequency & Phase:	60Hz & 3PH	
Engine Speed: RPM	1800	
Structure Type:	X66C6	A
	X66C6S	R
Fuel Tank Capacity: L	X66C6	226
	X66C6S	360
Fuel Consumption: l/hr (100% Load)	Prime	9.3
	Standby	10.3

Dimensions and Weights

Generating Set Model	Length (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	Dry kg (lb)
X66C6	1842	797	1437	907
X66C6S	2688	1081	1754	1568

Dry = With Lube Oil Wet = With Lube Oil and Coolant



Also available in the following voltages: 415/240V-380/220V-220/127V-200/115V;

ESP: Standby Power Standby duty, operation under variable load, without over load;

PRP: Prime Power-Continuous duty operation, under variable load 24/24h-10% over load permissible 1 hour/12 hours;

The data is only for your reference but not for use of sales.

M: Mechanical speed governor, E/ECU: Electronic speed governor;

NA: Naturally aspirated, TC: Turbocharged, TCA: Turbocharged and air-air aftercooled. TCW: Water-cooled Turbocharged;

The weights are approximate and without fuel

Engine model: 4BTA3.9-G2

Typical engine data

Net weight	kg	321
Rotate part instantaneous inertia _ without flywheel	kg.m ²	0.143
Distance between gravity center and rear surface of cylinder block	mm	373
Distance between gravity center and center line above of crankshaft	mm	163

Engine installation

Static bent torque permitted—rear surface of cylinder block	N.m	1356
Static bent torque permitted—front surface of cylinder block	N.m	435
Static bent torque permitted—flank surface of cylinder block	N.m	365

Exhaust system

Max. back pressure	mmHg	76
Diameter of exhaust pipe recommended	mm	75

Air intake system

Max. air intake resistance		
Dirty filter	mmH ₂ O	635
Normal air cleaner and clean filter	mmH ₂ O	254
Heavy duty cleaner and clean filter	mmH ₂ O	381
Diameter of intake pipe recommended	mm	75

Lubrication system

Normal oil pressure range		
Low idle	kPa	207
Rated speed	kPa	345
Max. oil temperature permitted in oil pan	°C	121
Oil pan capacity (Max _ Min)	L	9.5_8.5
Lubrication system Min. capacity (oil pan + oil filter)	L	10.9
Usage inclining degree permitted (any direction)	°	40

Fuel system

Fuel injection pump model	BYC	A pump with GAC governor
Max. fuel input resistance of transfer pump	mmHg	102
Max. overflow fuel resistance at overflow pipe of injector	mmHg	254
Total fuel overflow amount	L/h	30

Cooling system

Coolant capacity-engine only	L	7.2
Max. coolant cycling resistance exterior engine	kPa	28
Thermostat adjusting temperature (range)	°C	82_95
Min. opening pressure of radiator cap	kPa	69
Max. coolant temperature permitted _ Standby Power/Base output Power	°C	104/100

Electric system

Starter	12V	24V
Battery charging system	63A	40A
Max. starting circuit resistance	0.00075Ω	0.002Ω
Min. battery capacity_ -12°C (CCA: Cold Cranking Ampere)	625CCA	312CCA

Technical data _ under standard fuel delivery rate FR L003

	Base output Power	Standby Power
Engine speed _ RPM	1500	1500
Output Power _ kW	36	40
Torque _ Nm	229	255
Low idle _ RPM	950-1050	950-1050
Friction energy output _ kW	8.2	8.2
Piston speed _ m/s	6.0	6.0
Engine coolant flow _ L/sec	2.2	2.2
Air intake flow _ L/sec	43.6	44.9
Exhaust flow _ L/sec	101	108
Exhaust temperature _ °C	463	487
Environment energy output _ kW	N/A	N/A
Coolant energy output _ kW	25.9	29
Fuel energy output _ kW	N/A	N/A

Alternator model: UC1224E

CONTROL SYSTEM	SEPARATELY EXCITED BY P.M.G.							
A.V.R.	MX321	MX341						
VOLTAGE REGULATION	± 0.5 %	± 1.0 %	With 4% ENGINE GOVERNING					
SUSTAINED SHORT CIRCUIT	REFER TO SHORT CIRCUIT DECREMENT CURVES (page 7)							
CONTROL SYSTEM	SELF EXCITED							
A.V.R.	SX460	AS440						
VOLTAGE REGULATION	± 1.0 %	± 1.0 %	With 4% ENGINE GOVERNING					
SUSTAINED SHORT CIRCUIT	SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT							
INSULATION SYSTEM	CLASS H							
PROTECTION	IP23							
RATED POWER FACTOR	0.8							
STATOR WINDING	DOUBLE LAYER CONCENTRIC							
WINDING PITCH	TWO THIRDS							
WINDING LEADS	12							
STATOR WDG. RESISTANCE	0.101 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED							
ROTOR WDG. RESISTANCE	0.69 Ohms at 22°C							
EXCITER STATOR RESISTANCE	20 Ohms at 22°C							
EXCITER ROTOR RESISTANCE	0.078 Ohms PER PHASE AT 22°C							
R.F.I. SUPPRESSION	BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N. refer to factory for others							
WAVEFORM DISTORTION	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%							
MAXIMUM OVERSPEED	2250 Rev/Min							
BEARING DRIVE END	BALL. 6312-2RS (ISO)							
BEARING NON-DRIVE END	BALL. 6309-2RS (ISO)							
	1 BEARING				2 BEARING			
WEIGHT COMP. GENERATOR	311 kg				330 kg			
WEIGHT WOUND STATOR	103 kg				103 kg			
WEIGHT WOUND ROTOR	95.89 kg				87.52 kg			
WR ² INERTIA	0.4999 kgm ²				0.4682 kgm ²			
SHIPPING WEIGHTS in a crate	334 kg				351 kg			
PACKING CRATE SIZE	105 x 57 x 96(cm)				105 x 57 x 96(cm)			
	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF<2%				TIF<50			
COOLING AIR	0.216 m ³ /sec 458 cfm				0.281 m ³ /sec 595 cfm			
VOLTAGE SERIES STAR	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE SERIES DELTA	220/110	230/115	240/120	254/127	240/120	254/127	266/133	277/138
KVA BASE RATING FOR REACTANCE VALUES	60	60	60	45	67.5	70	72.5	75
X _d DIR. AXIS SYNCHRONOUS	2.48	2.24	2.08	1.39	3.00	2.78	2.64	2.50
X' _d DIR. AXIS TRANSIENT	0.19	0.17	0.16	0.11	0.22	0.20	0.19	0.18
X'' _d DIR. AXIS SUBTRANSIENT	0.13	0.12	0.11	0.07	0.15	0.14	0.13	0.13
X _q QUAD. AXIS REACTANCE	1.13	1.02	0.95	0.63	1.38	1.28	1.21	1.15
X'' _q QUAD. AXIS SUBTRANSIENT	0.14	0.13	0.12	0.08	0.14	0.13	0.12	0.12
X _L LEAKAGE REACTANCE	0.08	0.08	0.07	0.05	0.09	0.08	0.08	0.08
X ₂ NEGATIVE SEQUENCE	0.13	0.12	0.11	0.07	0.14	0.13	0.12	0.12
X ₀ ZERO SEQUENCE	0.11	0.10	0.09	0.06	0.09	0.08	0.08	0.08
REACTANCES ARE SATURATED VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED								
T' _d TRANSIENT TIME CONST.	0.028 s							
T'' _d SUB-TRANSTIME CONST.	0.007 s							
T' _{do} O.C. FIELD TIME CONST.	0.7 s							
T _a ARMATURE TIME CONST.	0.006 s							
SHORT CIRCUIT RATIO	1/X _d							