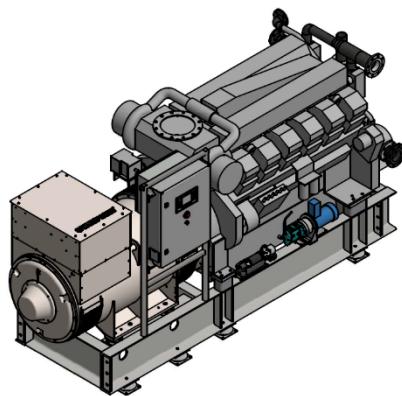


MAS-1350-1500

MITSUBISHI AUXILIARY SET

Quality, reliability, performance, and partnership
- Mitsubishi Heavy Industries Group.



RATING		DESIGN CONDITIONS	
Generating set model	MAS-1350-1500	Ambient temp - max	45 °C
Generator voltage	400 V	Ambient temp – min	0°C
Frequency	50 Hz	Altitude (maxi)	1000m a.s.l
Generator output PRP	1343	Relative humidity (maxi)	0,85
Power factor – min	0,8	Fuel oil LHV	42700kJ/kg
Duty	Auxiliary/DEP	Fuel oil	Diesel
Rating	PRP – Prime Power	Fuel oil gravity at 15°C	0.83 to 0.87
Average load factor for 24h	"80% or lower >90% for max 3h/24h"	Fuel oil sulfur content max	0.2% by weight
Overload	110% for 1h/12h	Fuel oil viscosity min(60°C)/max(50°C)	2.0/8.0 cSt
Installation location	Indoors	Fuel oil cetane number – min	45
		Lube oil capacity - max	200 l
		Emissions	IMO II

ALTERNATOR DATA		ENGINE DATA	
Alternator Make	Stamford	Engine model	S12R-MPTAW-5
Alternator Type	S7L1M-D42	Engine speed	1500 rpm
Bearing configuration	double	Engine brake output	1120 kW
Insulation class	H	Cylinder configuration	12 60°V
Temperature rise class	F	Total displacement	49,03
Cooling method	Air	Bore x Stroke	170x180 mm
Protection	IP23	Compression ratio	14.5 : 1
Excitation system	Digital	Turbocharged	Turbo-Charged, Inter Cooler
PT100 for bearing and stator winding	Included	Governor	Electric
AVR for single and parallel operation	Included	Cooling method (engine driven pump)	Water
Space heater	Included	Starting method	Battery

CE COMPLIANCE

2006/42/EC : machinery

LANGUAGE - UNITS

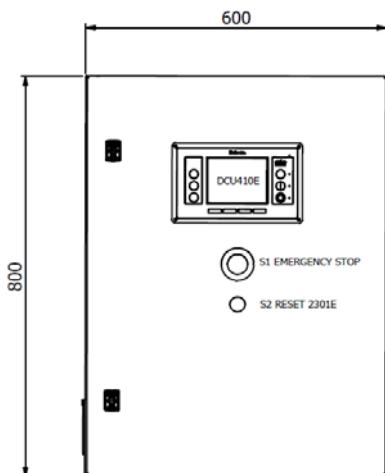
Drawings, documents, nameplates in English

SI metric system

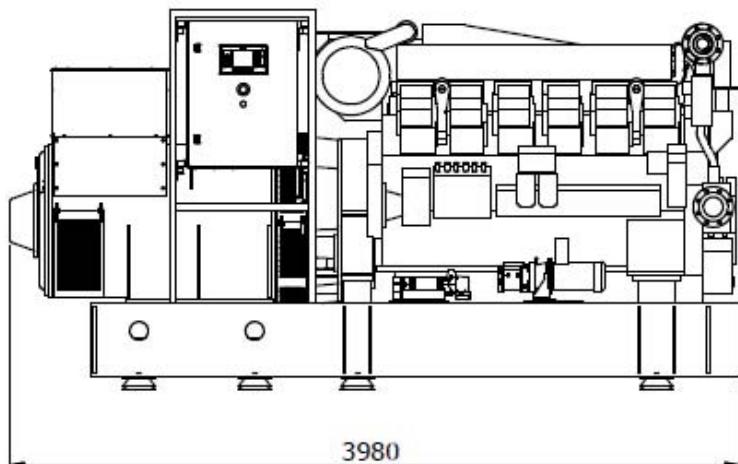
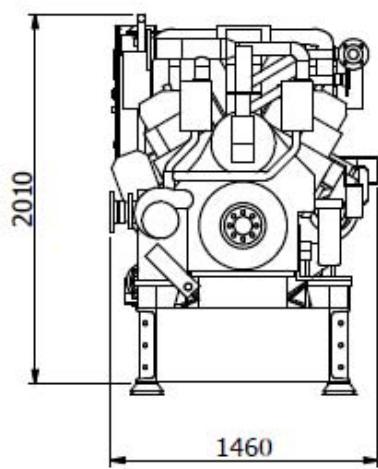
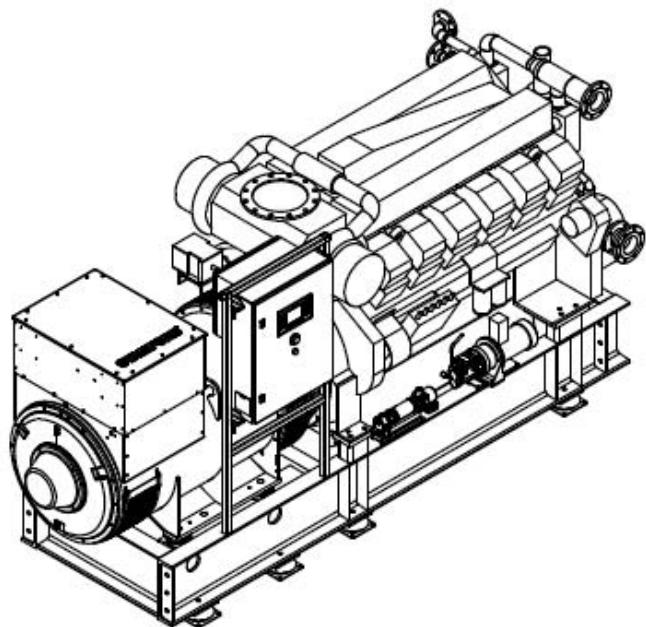
PERFORMANCES @ PRIME		HEAT BALANCE	
Generator output	1056 kWe	Heat rejection (HT / LT)	438 / 351 kW
Specific consumption – ISO3046/1 : 0/+5%	210 g/kWh	Heat rejection (exhaust)	925 kW
Fuel oil consumption @ 100%	277 l/hr	Thermal radiation (engine block)	88 kW
Fuel oil consumption @ 75%	208 l/hr	Thermal radiation (generator)	-
Exhaust gas temperature	440 °C	Coolant temperature at HT outlet - max	95 °C
Exhaust gas flow rate	265 m³/min	Coolant temperature at LT inlet - max	38 °C
Air intake flow rate	100 m³/min	Coolant temperature at LT inlet - derating 5.2%	-
Noise level@ 1m (open skid)	-	Flow rate of coolant radiator circuit – HT/LT	1650 / 200 l/min
		Coolant capacity (engine only)	111 l

TOLERANCES AND CONDITIONS	STANDARDS
Efficiency data for average conditions (avg) – derating above 1000 m asl or 40°C intake air temperature or 32°C LT coolant inlet temperature	I.S.O. : International Standard Organization
Fuel input: 0/+5% (ISO3046/1). Submitted to fuel oil specification confirmation	C.E.N. : European Standard Committee
Heat rejection data: +/- 12%. Add 17% margin for remote dry air cooler design	I.E.C: International Electric Commission
Exhaust gas flow / temperature: +/- 6% - +/- 8%	J.I.S : Japanese Industrial Standards (for engine)
Pictures are not contractual and may include optional accessories	J.E.C: Japan. Electrotechnical committee (engine)
These data are not contractual. They can be modified by MTEE without prior notice	J.E.M: Japan Elec. Manufacturers Association (Eng.)
	Manufacturers standards

GENERATOR SET EMBEDDED CONTROL PANEL
Automatic start and shutdown DCU410 system mounted in door of interface box with the following functions
LCD displaying engine rpm, control voltage, lube oil pressure and temperature, cooling water temperature water temperature, charge air pressure, exhaust temperature after turbo
3 automatic start attempts acc. to class requirements.
Automatic shutdown for low oil pressure, high water temperature HT and overspeed
Control of pre lube pump
Start and Stop switch
Hour meter
RS-485/TCP IP converter for serial communication with IAS, Modbus protocol
Common alarm
Stop System; 24V stop solenoid
Automatic control of engine auxiliaries and power supply:
- Intercooler water (LT) pump
- Jacket water heater and pump
- Alternator space heater



MAS-1350-1500 S12R-MPTAW-5- LAYOUT



Dry Weight = 10 000 kg

SCOPE OF SUPPLY

- Standard item
- Option

Engine	Mitsubishi engine	●
	SOLAS compliant exhaust insulation and protection for fuel and oil connections	●
	Heavy duty frame with vibration absorbers	●
	Electrical Pre-lube pump with oil drain/filling	●
	Cooling heater with internal circulation pump and flexible below connections	●
	Alarm switch for fuel leakage	●
	Woodward Pro Act digital + Governor system	●
	Woodward speed controller 2301E (built into control cabinet)	●
	Protect guard for moving parts	●
	LT/HT interface flexible bellows	●
Generator	Air-cooled Generator IP 23 with Digital AVR	●
	PT-100 bearing and windings	●
	Anti-condensation heater	●
	Flexible coupling with TVC calculation	●
	Droop CT	●
Control system	Type approved Control system (cabinet) including package aux class including sensors and mounting	●
	Based on Auto-Maskin	●
	Electrical starter cabinet: for heater, lubrication oil primer pump and LT pump	●
Documentation	IMO2 certificate	●
	Drawing and design engineering (GAD, P&ID, Electrical Drawings)	●
	Test running of complete sets at Spikkestad before shipment / Test Report	●
	Mitsubishi Warranty	●
Options (mounted)	Water cooled Generator	○
	Drip tray oil filter	○
	Mechanical LT cooling water pump v-belt driven	○
	Drip trays fuel filter	○
	Lifting lugs	○
	Exhaust temperature monitoring on every cylinder	○
Options (loose)	Silencer	○
	Exhaust compensator	○
	Plate Heat exchanger	○
	Expansions tanks	○
	Remote Genset Control Panel	○
	Start battery and battery box	○
	Battery isolation switch cabinet	○
	Battery charger	○
	IMO3 SCR system and Urea pump and certificate	○
	Remote Panel RP4801 for remote control	○

MITSUBISHI TURBOCHARGER AND ENGINE EUROPE B.V.

Damsluisweg 2,

1332 EC Almere, The Netherlands

France

Phone: + 31-36-358-8311

e-mail : info@mtee.eu

Web : www.mtee.eu

[Space for stamp with Dealer contact information]

More information

Contact your local Mitsubishi Engine & Energy dealer for more information regarding Mitsubishi Generator Sets and optional equipment.
Or visit www.mtee.eu

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