

Basic Line Marine Gen Set Data Sheet

RED LINE

MRL165KC420



Engine Equipment

- Basis engine for IMO Tier II
- Air filter(s), marine type
- Duplex change-over lube oil filter with dip tray
- Lube oil cooler
- Freshwater cooling pump with thermostats (HT circuit)
- Raw/Seawater pump LT circuit(Optional)
- Duplex change-over fuel oil filter with dip tray
- Fuel oil pressure gauge, mounted on the engine
- Flameproof flexible fuel oil hoses
- Flywheel and -housing
- Unit injectors, PDE
- Fuel lift pump and pre-filter
- Turbocharger
- Intercooler water-cooled
- Exhaust manifold(s) water-cooled
- Lube oil sump
- Hand pump for lube oil draining
- Centrifugal oil cleaner
- Scania Engine Management System,EMS
- Prepared for connecting to keel cooling/box cooling system

Specific Fuel and Oil Consumption

100% Load	[g/kWh]	200
75% Load	[g/kWh]	202
50% Load	[g/kWh]	205
Lube oil consumption (max)	[g/h]	135
Urea consumption @ 32,5% Urea	[g/kWh]	N.A.

Alternator Options:

- Anti-condensation heater(s)
- Droop kit for parallel operation

Service	Unit	Value
Power	kVA	525
Power	kW	420
Speed	r.p.m.	1500
Standard Voltage	V	400
Frequency	Hz	50
Phases		3

Engine and Alternator

Engine	Scania DI16 075M (04-12)
Alternator	LIAG Standrad Alternator

Diesel Engine Data

Engine Power	kW	450
Number of Cylinders	Pcs.	8
Arrangement of Cylinders		V-type
Bore/Stroke	mm	130/154
Piston displacement	litres	16,4
Intake Air Volume Flow	m³/h	1810
Exhaust gas heat	kW	274
Exhaust gas temp.	°C	457
Exhaust gas mass flow	kg/h	2100
Exhaust gas volume flow	m³/h	4408
Exhaust gas back press. max	hPa	20/100
Cooling water heat	kW	278
Intercooler heat rate	kW	60
Radiation heat	kW	21

Classification

Optional

Alternator Data

Voltage	V	400
Frequency	Hz	50
Speed	r.p.m.	1500
Insulation Stator/Rotor	Cl.	H
Temperature Rise	Cl.	H
Enclosure	IP	IP 23
Power	kW	420
Power	kVA	525

Alternator Equipment

The alternator is a 2-bearings, brushless, self-exciting, self-regulating with revolving field, in-ventilated, drip-proof design and with damper windings included.

The voltage regulation is maintained within limits of +/- 0,5 % from no load to full load at any power factor between 0,8 and 1,0.

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Alarm Equipment

Indication for individual alarm at following failures:

- Low cooling water pressure LT
- Low cooling water level LT
- Low cooling water pressure HT
- Low cooling water level HT
- High cooling water temperature HT
- Low fuel oil pressure
- Low lube oil pressure
- High lube oil temperature
- Over speed
- Options to customized as per clients requirements

Shut-Down Equipment

- Overspeed
- Too high cooling water temperature HT
- Too low lube oil pressure

Control System

The Engine Control Panel is flexible mounted on right side of the set and equipped alarm, monitoring and control system according to the rules of classification society.

Marine Engine Controller (MEC 24) with Graphic display 5,7".
Redundant microprocessor based control and supervision system.

- (Optional) Provision of remote control MEC24 panel
- (Optional) Provision of Modbus RTU communication

Construction

The diesel engine and alternator are connected through a flexible coupling and mounted on a common marine bed frame, manufactured of electro welded steel profiles. Vibration dampers are mounted between the set and the bed frame.

Cooling System

Prepared for a double circuit keel cooling system incl. installed pump for HT circuit

Fuel oil System

The fuel consumption stated below refers to a net calorific value of 43,000 kJ/kg (11,800 kWh/kg) for fuel acc. to DIN EN 590 or ASTM D975 or DMX/DMA as ISO8217, sulphur max. 0,15% (1500 ppm)
You will get more information in the engine supplier manual.

Dimensions

Height	mm	1620
Width	mm	1470
Length	mm	3050
Weight	kg	4250

Painting

The set will be painted in colour RAL 2002, base frame RAL 9005 (black)

The instrument panel will be painted in colour RAL 7035

Signs

All signs on the set will be in English

Certificates & Test run

The equipment will be tested according to LIAG rules in our workshop in Germany in the presence of our QS Team

- 1 No. LIAG test report

- 1 No. technical files for parts according to MARPOL ANNEX VI The parts which have influence on the NOx Emission will be according to the requirement for obtaining Certificate E(I)APP

- 1 No IMO Tier II (NOx) E(I)APP Certificate by DNV according to flag state

Main starting system

- Electric 24V, 5,4 kW, 2-pole

Warranty

12 months after commissioning, max. 24 months after announcement of readiness to dispatch from LIAG, whichever comes first.

Electronical Final Documentation (per ship)

- 1x CD / USB's of Technical data's, descriptions, service instructions and drawings for the delivered equipment in English language

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Specifications are subjected to change without prior notice

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