

ON BOARD GENSET RANGE OBG 040R OPERATION DATASHEET

Operation datasheet DSEBIMOBG040Rx-----AEN00

RAYWIN bimotor.it

GENSET PERFORMANCE

Electric frequency [Hz]	Electrical prime power rating [kVA] (1) (2)	Electrical Stand By power rating [kVA] (1) (2)
50 Hz	40	42
60 Hz	40	42

ENGINE PERFORMANCE

Engine speed [rpm]	Mechanical Prime power rating [kWm (hp)] (1)	Mechanical Stand By power rating [kWm (hp)] (1)	Specific fuel consumption @ full load [g/kWh]
1500 rpm	36,0	39,6	225

39,6

229

36,0

ENGINE GENERAL DATA

1800 rpm

Thermodynamic cycle	Diesel - 4 stroke	
Engine architecture	4 cylinders, in line	
Firing order	1 - 3 - 4 - 2	
Air intake	Turbocharged	
Cooling	Water	
Charge air cooling system	N/A	
Compression ratio	17,8:1	
Injection system	Mechanical rotary pump	
Combustion	Direct injection	
Engine displacement	2,45	
Valves per cylinder	2	
Intake	1	
Exhaust	1	
Rotation (viewed from engine flywheel)	CCW	
Engine cranckcase ventilation system	Recirculated	

GENERATOR GENERAL DATA

H class model	MECCALTE ECP32 - 2 S/4 C
B class model	MECCALTE ECP32 - 1 M/4 C
Poles	4
Phases	3 + N
Winding treatments	Standard+
Stator/rotor insulation class	Н
Enclosure protection	IP 23
Cooling	by ventilation fan
Total Harmonic Distortion - THD	< 3.5%
Maximum overspeed [rpm]	2250
Execution	Brushless
Voltage regulator	DSR





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GENERATING SET INSTALLATION DATA

General datas		
Dry weigth [kg]	490 (H class) -	530 (B class)
External dimensions [mm]	1470 x 700 x 865	
Liquids		
Engine lube oil total capacity [l]	9,5	
Engine lube oil specification	ACEA E3 - E5 (summer: 15W40 - winter: 5W-30)	
Primary coolant capacity [l]	8,5	
Primary coolant specification	SAE J1034	
		60
Air requirements and exhaust	50 Hz	60 Hz
Air requirement for combustion @ full load [kg/h]	227	268
Exhaust temperature @ full load [°C]	550	550
Exhaust gas flow @ full load [kg/h]	236	276
Max allowable exhaust backpressures [kPa]	10	
Injection system		
Injection system	STANAD	
Injection pump	STANADYNE DB Mechanical	
Injection pump speed regulator		
Max speed drop in steady conditions	59	%
Max speed drop in steady conditions Max fuel feed suction head [m]	5% 2	%
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Max speed drop in steady conditions Max fuel feed suction head [m]	5% 2	%
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications	59 2 EN5	% 90
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications Cooling system	59 2 EN5 50 Hz	60 Hz
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications Cooling system Sea water pump flow [l/min]	59 2 EN5 50 Hz 55	% 590 60 Hz 66 18,9
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications Cooling system Sea water pump flow [l/min] Heat rejected to sea water [kW] Max allowable sea water inlet restriction [kPa]	59 2 EN5 50 Hz 55 17,2	% 590 60 Hz 66 18,9
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications Cooling system Sea water pump flow [l/min] Heat rejected to sea water [kW] Max allowable sea water inlet restriction [kPa] Electric system	59 2 EN5 50 Hz 55 17,2 2	% 590 60 Hz 66 18,9
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications Cooling system Sea water pump flow [l/min] Heat rejected to sea water [kW] Max allowable sea water inlet restriction [kPa] Electric system Breakaway current [A]	59 2 EN5 50 Hz 55 17,2 2 130	% 590 60 Hz 66 18,9
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications Cooling system Sea water pump flow [l/min] Heat rejected to sea water [kW] Max allowable sea water inlet restriction [kPa] Electric system Breakaway current [A] Cranking motor power [kW]	59 2 EN5 50 Hz 55 17,2 2 13(2,	% 590 60 Hz 66 18,9 500 3
Max speed drop in steady conditions Max fuel feed suction head [m] Fuel specifications Cooling system Sea water pump flow [l/min] Heat rejected to sea water [kW] Max allowable sea water inlet restriction [kPa] Electric system Breakaway current [A]	59 2 EN5 50 Hz 55 17,2 2 130	% 590 60 Hz 66 18,9 50 50 3 00

STANDARD EQUIPMENT

Engine, sea water pump, engine coolant pump, water cooled exhaust manifold, 12V electric system, Bimotor light control panel (includes oil pressure gauge, coolant temperature gauge, voltmeter, tachometer, engine alarm lights, key and ignition button), H/B class generator (standard+ winding treatment), black powder painted baseframe, elastic pads (4), internal testing.

OPTIONS

24V electric system, 24V insulated poles electric system, wet exhaust riser, special control panels and automation, engine coolant heaters, generator winding GREY treatment.

(1) Power at flywheel according to 97/68 EC (without fan), after 50 hours running, 3% tolerance, fuel Diesel EN 590 Test conditions : ISO 3046/1, 25 °C air temperature, 100 kPa atmospheric pressure, 30% relative humidity
(2) Electric power with 89% generator efficiency and 0.8 power factor.

