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S366M

Engine type	DC09 072A
Alternator type	ECO38-3L4A
Performance class	G2

DESCRIPTON

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Main line circuit breaker
- Radiator for wiring temperature of 48/50°C max with mechanical fan
- Protective grille for fan and rotating parts
- 9 dB(A) silencer supplied separately
- Charger DC starting battery with electrolyte
- 24 V charge alternator and starter
- Delivered with oil and coolant -30°C
- Manual for use and installation

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Reference voltage (V)	400/230
Max power ESP (kVA)	366
Max power ESP (kWe)	293
Max power PRP (kVA)	330
Max power PRP (kWe)	264
Intensity (A)	433
Standard Control Panel	DSE 4510
Optional control panel	DSE 6610

POWER DEFINITION

PRP : Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1.
ESP : The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1.
Overload is not allowed

TERMS OF USE

According to the standard, the nominal power assigned by the genset is given for 25°C Air Intlet Temperature, of a barometric pressure of 100 kPA (100 m A.S.L), and 30 % relative humidity. For particular conditions in your installation, refer to the derating table.

ASSOCIATED UNCERTAINLY

For the generating sets used indoor, where the acoustic pressure levels depends on the installation conditions, it is not possible to specify the ambient noise level in the exploitation and maintenance instructions . You will also find in our exploitation and maintenance instructions a warning concerning the air noise dangers and the need to implement appropriated preventive measures.

DIMENSIONS COMPACT VERSION

Length (mm)	3000
Width (mm)	1220
Height (mm)	1527
Dry weight (kg)	1850
Tank capacity (L)	500

GENERAL CHARACTERISTICS

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
415/240	293	366	240	330	637
400/230	293	366	240	330	660
380/220	293	366	240	330	695

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ENGINE SPECIFICATIONS

GENERAL ENGINE DATAS

Engine model	SCANIA DC9 072A 4-temps, Turbo , Air/Air DC 5 X
Cylinder arrangement	L
Displacement (C.I.)	9.3
Bore (mm) x Stroke (mm)	130 x 140
Compression ratio	16.1
Speed (RPM)	1500
Pistons speed (m/s)	7.0
Maximum stand-by power at rated RPM (kW)	273
Frequency regulation (%)	+/- 0.5%
BMEP (bar)	23.47
Governor type	Electronic

COOLING SYSTEM

Radiator & Engine capacity (L)	37
Max water temperature (°C)	95
Outlet water temperature (°C)	80
Fan power (kW)	6
Fan air flow w/o restriction (m3/s)	6.1
Available restriction on air flow (mm water column)	20
Type of coolant	SCANIA
Thermostat (°C)	80-87

EMISSIONS

Emission PM (g/kW.h)	N/A
Emission CO (g/kW.h)	N/A
Emission HCNOx (g/kWh)	N/A
Emission HC (g/kW.h)	N/A

EXHAUST

Exhaust gas temperature (°C)	427
Exhaust gas flow (kg/min)	23
Max. exhaust back pressure (mm water coloumn)	750

FUEL

Consumption @ 110% load (L/h)	
Consumption @ 100% load (L/h)	
Consumption @ 75% load (L/h)	
Consumption @ 50% load (L/h)	
Maximum fuel pump flow (L/h)	N/A

OIL

Oil capacity (L)	31
Min. oil pressure (bar)	3
Max. oil pressure (bar)	6
Oil consumption 100% load (g/kWH)	<0.2
Carter oil capacity (L)	N/A

HEAT BALANCE

Heat rejection to exhaust (kW)	165
Radiated heat to ambiant (kW)	20
Haet rejection to coolant (kW)	84+52

AIR INTAKE

Max. intake restriction (mm wter column)	625
Intake air flow (kg/min)	22

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ALTERNATOR SPECIFICATIONS

GENERAL DATAS	
Alternator brand	Mecc Alte
Alternator type	ECO38-3L4A
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude (m)	0 to 1000
Overspeed (rpm)	2250
Number of pole	4
Excitation system	SHUNT
Insulation class / T° class, continuous 40°C	H / H / 125°K
Regulation	DSR
Wave Distors (THD Full Load) LL	<2.7
Wave Distors (THD Nol Load) LL	<2.5
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (%)	+/- 0.5%

OTHER DATAS	
Continuous Nominal Rating 40°C (kVA)	300
Standby Rating 27°C (kVA)	330
Efficiencies 4/4 load (%)	93.7
Air flow (m3/s)	0.53
Short circuit ratio (Kcc)	0.43
Direct axis synchro reactance unsaturated (Xd) (%)	215.3
Quadra axis synchro reactance unsaturated (Xq) (%)	124.2
Open circuit time constant (T'do) (sec)	1.4
Direct axis transcient reactance saturated (X'd) (%)	13.1
Short circuit transcient time constant (T'd) (ms)	.091
Direct axis subtranscient reactance saturated (X''d) (%)	6.96
Subtranscient time constant (T''d) (ms)	.0012
Quadra axis subtranscient reactance saturated (X''q) (%)	17.9
Zero sequence reactance unsaturated (Xo) (%)	2.38
Negative sequence reactance saturated (X2) (%)	16.7
Armature time constant (Ta) (ms)	.016
No load excitation current (io) (A)	.78
Full load excitation current (ic) (A)	3.9
Full load excitation voltage (uc) (V)	33
Recovery time (Delta U = 20% transcient) (ms)	500 ms
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	538
Transcient dip (4/4 load) - PF: 0,8 AR (%)	14.6
No load losses (W)	4340
Heat rejection (W)	16137

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CONTROL PANEL

DSE Deep Sea Electronics 4510 Standard

The DSE 4510 MRS is a versatile unit which can be operated in manual or automatic mode. It offers the following features:
Measurements:
phase-to-neutral and phase-to-phase voltages,
(In option: active power currents, effective power, power
factor, oil pressure and coolant temperature levels)
Supervision:
Modbus RTU communication on RS485
Reports:
(In option: 2 configurable reports)
Safety features:
Over speed, oil pressure, coolant temperatures, minimum and maximum voltage, minimum and maximum frequency
(Maximum active power P<66kVA)
Traceability:
Stack of 50 stored events
For further information, please refer to the data sheet for the DSE 4610.

DSE Deep Sea Electronics 6010 optional

The DSE 6010 MRS is a versatile control unit which allows
operation in manual or automatic mode
Measurements:
voltage and current, kW/kWh/kVA power meters
Standard specifications: Voltmeter, Frequency meter.
Optional: Battery ammeter.
J1939 CAN ECU engine control
Alarms and faults: Oil pressure, Coolant temperature, Over speed, Start-up failure, alternator min/max, Emergency
stop button.
Engine parameters: hour counter, battery voltage.
Optional (standard at 12V): Oil pressure, water temperature.
Event log/ Management of the last 50 gen set events.
Mains and gen set protection
Clock management
USB connections, USB Host and PC,
Communications: RS485 INTERFACE
Mod BUS protocol /SNMP
Optional: Ethernet, GPRS, remote control, 3G, 4G, Web supervisor, SMS, E-mails