



R16CC (CE)

Engine type	S4L2-SD
Alternator type	LSA 40 S3
Canopy Type	M3126

GENERAL CHARACTERISTICS

Canopy Type	M3126
Frequency (Hz)	50
Reference voltage (V)	400/230
Max power ESP (kVA)	16
Max power ESP (kWe)	12.8
Max power PRP (kVA)	14.5
Max power PRP (kWe)	11.6
Intensity (A)	23
Standard Control Panel	NEXYS
Optional control panel	TELYS

FULL VERSION DIMENSION

Length (mm)	1850
Width (mm)	901
Height (mm)	1355
Tank capacity (L)	153
Dry weight (kg)	794
Autonomy @ 50% of load (h)	59
Autonomy @ 75% of load (h)	45
Acoustic pressure level @ 1m in dB(A)	73
Acoustic pressure level @ 7m in dB(A)	60
Acoustic pressure level @ 15m in dB(A)	54
Sound power level guaranteed (Lwa)	90

DESCRIPTIVE

- Four-pole circuit breaker
- Central lifting ring
- Primary filter
- Oil drainage pump
- Battery isolating switch
- Containment fuel tank and large autonomy
- Inlet air preheating
- Differential protection and earthing rod
- Rental Compact canopy
- Leroy-Somer AREP (TS26-S004) Alternator
- Forks and frame protection pads
- Heavy duty air filter with interchangeable cartridge

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 Inlet 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 UNCERTAINTY

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.

ENGINE SPECIFICATIONS

GENERAL ENGINE DATAS

Description	S4L2-SD
Engine model	MITSUBISHI
Cylinder arrangement	L
Number of cylinders	4
Bore (mm)	78
Stroke (mm)	92
Displacement (C.I.)	1.76
Compression ratio	22 : 1
Speed (RPM)	1500
Pistons speed (m/s)	4.6
Maximum stand-by power at rated RPM	15.8
Governor type	Mechanical
Frequency regulation (%)	+/- 2.5%
BMEP (bar)	6.55

COOLING SYSTEM

Radiator & Engine capacity (L)	4.9
Max water temperature (°C)	111
Outlet water temperature (°C)	93
Fan power (kW)	.7
Fan air flow w/o restriction (m3/s)	.8
Available restriction on air flow (mm EC)	10
Type of coolant	Gencool
Thermostat (°C)	82-95

EMISSIONS

Emission HC (mg/Nm3)	40
Emission Nox (mg/Nm3)	1350
Emission CO (mg/Nm3)	120
Emission PM (mg/Nm3)	100

EXHAUST

Exhaust gas flow (L/s)	48.7
Exhaust gas temperature (°C)	410
Max. exhaust back pressure (mm EC)	700

FUEL

Consumption @ 100% load (L/h)	4.4
Consumption @ 75% load (L/h)	3.4
Consumption @ 50% load (L/h)	2.6
Maximum fuel pump flow (L/h)	18

OIL

Oil capacity (L)	5.9
Min. oil pressure (bar)	1
Max. oil pressure (bar)	4
Oil consumption 100% load (L/h)	.025
Carter oil capacity (L)	5.4

HEAT BALANCE

Heat rejection to exhaust (kW)	14
Radiated heat to ambient (kW)	2
Heat rejection to coolant (kW)	14

AIR INTAKE

Intake air flow (L/s)	18.2
Max. intake restriction (mm EC)	200

ALTERNATOR SPECIFICATIONS

GENERAL DATAS

Description	LSA 40 S3
Alternator brand	LEROY SOMER
Number of phase	3
Altitude (m)	0 à 1000
Overspeed (rpm)	2250
Number of pole	4
Excitation system	AREP
Insulation class	H
Regulation	R438
Sustained short circuit current	3 IN for 10S
Harmonic factor, no load TGH/THC (%)	<3
Harmonic factor, on load TGH/THC (%)	<2
Wave form : CEI=FHT-(TGH/THC)	<2
Wave form : NEMA=TIF-(TGH/THC)	<50
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating	+/- 0.5%
Air flow (m3/s)	.06

OTHER DATAS

No load excitation current (io) (A)	.8
Full load excitation current (ic) (A)	2.1
Full load excitation voltage (uc) (V)	26
Recovery time (Delta U = 20%)	<300
Engine start (Delta U = 20% perm. or	36
Transient dip (4/4 load) - PF : 0,8 AR	14.6
No load losses (W)	550
Heat rejection (W)	2040

REACTANCES (R) - TIME CONSTANT(CT)

Short circuit ratio (Kcc)	.62
Direct axis synchro reactance	190
Quadra axis synchro reactance	114
Open circuit time constant (T'do) (ms)	909
Direct axis transient reactance	16.8
Short circuit transient time constant	74
Direct axis subtransient reactance	8.4
Subtransient time constant (T"d) (ms)	7
Quadra axis subtransient reactance	16.8
Zero sequence reactance unsaturated	.1
Negative sequence reactance saturated	12.7
Armature time constant (Ta) (ms)	11

POWERS

Power factor (Cos Phi)	.8
Continuous Nominal Rating 40°C (kVA)	15
Standby Nominal Rating 40°C (kVA)	16
Standby Rating 27°C (kVA)	16.5
Efficiencies 4/4 load (%)	85.4

CONTROL PANELS

NEXYS, comprehensive and simple



The NEXYS is a versatile control unit allowing operation in manual or automatic mode. Equipped with an LCD screen, the user-friendly NEXYS offers high-quality basic functions to guarantee simple, reliable operation of your generating set.

Offers the following functions:

Standard electrical measurements: voltmeter, frequency meter, ammeter.

Engine parameters: working hours counter, engine speed, battery voltage, fuel level.

Alarms and faults: oil pressure, coolant temperature, failure to start, overspeed (> 60 kVA), charging alternator fault, low fuel level, emergency stop.

For more information, please refer to the sales documentation.

TELYS, ergonomic and user-friendly



The highly versatile TELYS control unit is complex yet accessible, thanks to the particular attention paid to optimising its ergonomics and ease of use. With its large display screen, buttons and scroll wheel, it places the accent on simplicity and communication.

The TELYS offers the following functions:

Electrical measurements: voltmeter, frequency meter, ammeter.

Engine parameters: working hours counter, oil pressure, coolant temperature, fuel level, engine speed, battery voltage.

Alarms and faults: oil pressure, coolant temperature, failure to start, overspeed, alternator min./max., battery voltage min./max., emergency stop, fuel level.

Ergonomics: wheel for navigating around the various menus.

Communication: remote control and operation software, USB connections, PC connection.