



DESCRIPTIVE

- ➔ Stage 3a engine
- ➔ Leroy-Somer AREP (TS26-S004) Alternator
- ➔ Four-pole circuit breaker
- ➔ Connection terminal box rental type
- ➔ Containment fuel tank and large autonomy
- ➔ Forks and frame protection pads
- ➔ Adjustable earth fault protection and earthing rod
- ➔ Inlet air preheating
- ➔ Battery isolating switch
- ➔ Oil drainage pump
- ➔ Heavy duty air filter with interchangeable cartridge
- ➔ Primary filter
- ➔ Heat hand protections (EC standard)
- ➔ Sockets pack : 1x32A 400V - 1x16A MONO indus - 1xMONO SCHUCCO
- ➔ Electronic governor with speed adjustment



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.

R550C3 (CE)

Engine type	TAD1651GE
Alternator type	LSA 47.2 M7
Canopy Type	N/A

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Voltage (V)	400/230
Max power ESP (kVA)	550
Max power ESP (kWe)	440
Max power PRP (kVA)	500
Max power PRP (kWe)	400
Intensity (A)	794
Standard Control Panel	TELYS

LARGE AUTONOMY DIMENSIONS

Length (mm).	5000
Width (mm).	1611
Height (mm).	2600
Dry weight (kg).	6082
Tank capacity (L).	1481
Autonomy @ 75% of load (h)	18.60
Autonomy @ 50% of load (h)	26.90

SOUND LEVELS

Acoustic pressure level @1m in dB(A) ()	76 (0.70)
Acoustic pressure level @7m in dB(A) ()	66 (0.70)
Sound power level guaranteed (Lwa)	96



R550C3 (CE)

ENGINE SPECIFICATIONS

GENERAL ENGINE DATAS

Description	TAD1651GE
Engine model	VOLVO
Cylinder arrangement	L
Number of cylinders	6
Displacement (C.I.)	16.12
Bore (mm) x Stroke (mm)	144 x 165
Compression ratio	16.5 : 1
Speed (RPM)	1500
Pistons speed (m/s)	8.25
Maximum stand-by power at rated RPM (kW)	484
Frequency regulation (%)	+/- 0.5%
BMEP (bar)	21.88
Governor type	Electronic

COOLING SYSTEM

Radiator & Engine capacity (L)	60
Max water temperature (°C)	107
Outlet water temperature (°C)	93
Fan power (kW)	11
Fan air flow w/o restriction (m3/s)	N/A
Available restriction on air flow (mm EC)	N/A
Type of coolant	Glycol-Ethylene

EMISSIONS

Emission HC (g/kW.h)	0.135
Emission HCNOx (mg/Nm3)	N/A
Emission CO (g/kW.h)	0.77
Emission PM (g/kW.h)	0.136

EXHAUST

Exhaust gas flow (L/s)	1267
Exhaust gas temperature (°C)	492
Max. exhaust back pressure (mm EC)	1000

FUEL

Consumption @ 110% load (L/h)	113.90
Consumption @ 100% load (L/h)	102.70
Consumption @ 75% load (L/h)	79.80
Consumption @ 50% load (L/h)	55
Maximum fuel pump flow (L/h)	141

OIL

Oil capacity (L)	48
Min. oil pressure (bar)	0.70
Max. oil pressure (bar)	6.50
Oil consumption 100% load (L/h)	0.10
Carter oil capacity (L)	42

HEAT BALANCE

Radiated heat to ambient (kW)	19
Heat rejection to coolant (kW)	193

AIR INTAKE

Max. intake restriction (mm EC)	500
Intake air flow (L/s)	500

GENERAL DATAS

Description	LSA 47.2 M7
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
AVR	R450
Sustained short circuit current	3 IN for 10S
Harmonic factor, no load TGH/THC (%)	<1.5
Harmonic factor, on load TGH/THC (%)	<1.5C
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)	0.90

OTHER DATAS

No load excitation current (io) (A)	1
Full load excitation current (ic) (A)	3.60
Full load excitation voltage (uc) (V)	36
Recovery time (Delta U = 20% transient) (ms)	500 ms
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	1195
Transient dip (4/4 load) - PF : 0,8 AR (%)	11.90
No load losses (W)	6540
Heat rejection (W)	23040

REACTANCES (R) - TIME CONSTANT(CT)

Short circuit ratio (Kcc)	0.41
Direct axis synchro reactance unsaturated (Xd) (%)	307
Quadra axis synchro reactance unsaturated (Xq) (%)	184
Open circuit time constant (T"do) (ms)	1930
Direct axis transient reactance saturated (X"d) (%)	15.90
Short circuit transient time constant (T"d) (ms)	100
Direct axis subtransient reactance saturated (X""d) (%)	11.10
Subtransient time constant (T""d) (ms)	10
Quadra axis subtransient reactance saturated (X""q) (%)	14.70
Zero sequence reactance unsaturated (Xo) (%)	0.70
Negative sequence reactance saturated (X2) (%)	13
Armature time constant (Ta) (ms)	15

POWERS

Power factor (Cos Phi)	N/A
Continuous Nominal Rating 40°C (kVA)	500
Standby Nominal Rating 40°C (kVA)	545
Standby Rating 27°C (kVA)	570
Efficiencies 4/4 load (%)	94.50

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.

Automatic control: automatic start.

For more information on the product and its options, please refer to the sales documentation.