V220C2

Motor type TAD733GE
Alternator type LSA462M5

GENERAL CHARACTERISTICS

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

V220C2 : VOLVO, TAD733GE - LEROY SOMER, LSA462M5						
Voltage (V)	Voltage Code	Power ESP		Power PRP		Standby Amps
		kWe	kVA	kWe	kVA	
415/240	T51A1	176	220	160	200	306
400/230	T51A2	176	220	160	200	318
380/220	T51A3	176	220	160	200	334
240/120	T51C1	176	220	160	200	529
230/115	T51C2	176	220	160	200	552
220/110	T51C3	176	220	160	200	577
200/115	T51B2	176	220	160	200	635

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

Standard reference conditions 25°C Air Intlet Temp, 1000 m A.S.L. 60 % relative humidity. All engine performance data based on the above mentioned maximum continuous ratings.

This product comply with the relevant European standards

This product complies with standard 2000/14/EC relating to sound levels. This compliance is tested in an approved laboratory.

ENGINE SPECIFICATIONS

GENERAL CHARACTERISTICS	Description	TAD733GE
	Motor model	VOLVO
	Cylinder arrangement	L
	Number of cylinders	6
	Bore (mm)	108
	Stroke (mm)	130
	Displacement (C.I.)	7.15
	Compression ratio	18.1 : 1
	Speed (RPM)	1500
	Pistons speed (m/s)	6.5
	Maximum stand-by power at rated RPM (kW)	197
	Governor type	Electronic
	Frequency regulation (%)	+/- 0.5%
	BMEP (bar)	20.04
EXHAUST	Exhaust gas flow (L/s)	565
	Exhaust gas temperature (°C)	540
	Max. exhaust back pressure (mm CE)	1000
FUEL	Consumption @ 110% load (L/h)	47.6
	Consumption @ 100% load (L/h)	42.7
	Consumption @ 75% load (L/h)	31.7
	Consumption @ 50% load (L/h)	21.3
	Maximum fuel pump flow (L/hr)	360
OIL SYSTEM	Oil capacity (L)	34
	Min. oil pressure (bar)	2
	Max. oil pressure (bar)	4
	Oil consumption 100% load (L/h)	0.08
	Carter oil capacity (L)	31
HEAT BALANCE	Heat rejection to exhaust (kW)	143
	Radiated heat to ambiant (kW)	13
	Haet rejection to coolant (kW)	91
AIR INTAKE	Intake air flow (L/s)	211
	Max. intake restriction (mm CE)	250
COOLING SYSTEM	Radiator & Engine capacity (L)	35.8
	Max water temperature (°C)	105
	Outlet water temperature (°C)	102
	Fan power (kW)	4.4
	Fan air flow w/o restriction (m3/s)	5.5
	Available restriction on air flow (mm CE)	20
	Type of coolant	Glycol-Ethylene
	Thermostat (°C)	87-102
EMISSIONS	Emission HC (g/kW.h)	0.323
	Emission Nox (g/kW.h)	5.813
	Emission CO (g/kW.h)	0.504
	Emissions PM (g/kW.h)	0.064

ALTERNATOR SPECIFICATIONS

GENERAL CHARACTERISTICS	Description	LSA 46.2 M5
	Alternator brand	LEROY SOMER
	Number of phase	3
	Altitude (m)	0 à 1000
	Overspeed (rpm)	2250
	Number of pole	4
	Excitation system	SHUNT
	Insulation class	H
	Regulation	R230
	#Taux d'harmonique à vide TGH/THC	< 2.5%
	#Taux d'harmonique en charge TGH/THC	< 2.5%
	Wave form : CEI=FHT-(TGH/THC)	< 2%
	Wave form : NEMA=TIF-(TGH/THC)	< 50
	Number of bearing	1
	Coupling	Direct
	#Régulation de tension à régime établi (%)	+/- 0.5%
	Air flow (m3/s)	0.43
POWERS	Power factor (Cos Phi)	0.8
	Continuous Nominal Rating 40°C (kVA)	200
	Standby Nominal Rating 40°C (kVA)	214
	Standby Rating 27°C (kVA)	223
	Efficiencies 4/4 load (%)	92.3
REACTANCES (R) - TIME CONSTANT(CT)	Short circuit ratio (Kcc)	0.45
	Direct axis synchro reactance unsaturated (Xd) (%)	301
	Quadra axis synchro reactance unsaturated (Xq) (%)	180
	Open circuit time constant (T'do) (ms)	2042
	Direct axis transient reactance saturated (X'd) (%)	14.7
	Short circuit transient time constant (T'd) (ms)	100
	Direct axis subtransient reactance saturated (X''d) (%)	8.8
	Subtransient time constant (T''d) (ms)	10
	Quadra axis subtransient reactance saturated (X''q)	10.9
	Zero sequence reactance unsaturated (Xo) (%)	0.8
	Negative sequence reactance saturated (X2) (%)	9.9
	Armature time constant (Ta) (ms)	15
OTHER CHARACTERISTICS	No load excitation current (io) (A)	1
	Full load excitation current (ic) (A)	3.7
	Full load excitation voltage (uc) (V)	32
	Recovery time (Delta U = 20% transitoire) (ms)	500
	Motor start (Delta U = 20% perm. or 50% trans.)	397
	Transient dip (4/4 charge) - PF : 0,8 AR (%)	15.4
	No load losses (W)	3040
	Heat rejection (W)	13180

DIMENSIONS AND NOISE LEVELS

DIMENSIONS COMPACT VERSION	Length (mm)	2370
	Width (mm)	1114
	Height (mm)	1538
	Tank capacity (L)	340
	Dry weight (kg)	1850
DIMENSIONS CANOPIED VERSION	Canopy	M226
	Length (mm).	3508
	Width (mm).	1200
	Height (mm).	1830
	Tank capacity (L).	340
	Dry weight (kg).	2540
NOISE LEVEL	dB(A)@1m (50Hz)	78.5
	dB(A)@7m (50Hz)	68.5
	dB(A)@15m (50Hz)	64.5
	LWa (50Hz)	96

CONTAINMENT

DIMENSIONS COMPACT VERSION	Length (mm)	3560
	Width (mm)	1180
	Height (mm)	1890
	Tank capacity (L)	868
	Dry weight (kg)	2330
DIMENSIONS CANOPIED VERSION	Canopy	M226 DW
	Length (mm).	3560
	Width (mm).	1200
	Height (mm).	2182
	Tank capacity (L).	868
	Dry weight (kg).	2960
NOISE LEVEL	dB(A)@1m (50Hz)	78.5
	dB(A)@7m (50Hz)	68.5
	dB(A)@15m (50Hz)	64.5
	LWa (50Hz)	96

CONTROL PANELS

DESCRIPTION OF STANDARD CONTROL PANEL

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.

DESCRIPTION OF CONTROL PANEL AS OPTION

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,