



# V220C2

Engine VOLVO , TAD733GE  
 Alternator LEROY SOMER , LSA462M5

## STANDARD FEATURES

- 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
- 12 V charge alternator and starter
- Delivered with oil and coolant -30°C
- Manual for use and installation



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
415/240	176 / 220	160 / 200	306		
400/230	176 / 220	160 / 200	318	Leng : 2370mm [93in]	1850kg [4079lbs] Net
380/220	176 / 220	160 / 200	334	Widt : 1114mm [44in]	2200kg [4850lbs] Gross
240 TRI	176 / 220	160 / 200	529	Heig : 1538mm [61in]	
230 TRI	176 / 220	160 / 200	552		
220 TRI	176 / 220	160 / 200	577		
200/115	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.

## TERM OF USE

Standard reference conditions ESP/PRP 27 C°/40 C° Air Intlet Temp, 1000 m/1000 m m A.S.L. 60 % relative humidity.

Model	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
 M226-DW	78.5	68.5	Leng : 3560mm [140in] Widt : 1200mm [47in] Heig : 2182mm [86in]	2960kg [6526lbs] 3790kg [8356lbs]	868 L
 M226	78.5	68.5	Leng : 3508mm [138in] Widt : 1200mm [47in] Heig : 1830mm [72in]	2540kg [5600lbs] 2890kg [6371lbs]	340 L

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## ENGINE SPECIFICATIONS

<b>DATA</b> <b>GENERAL DATA</b>	Motor model	VOLVO TAD733GE , 4-temps, TURBO , AIR/AIR 6
		X
	Cylinder arrangement	L
	Displacement (C.I.)	7.15
	Bore (mm) X Stroke (mm)	108 X 130
	Compression ratio	18.1 : 1
	Speed (RPM)	1500
	Pistons speed (m/s)	6.5
	Maximum stand-by power at rated RPM (kW)	197
	Frequency regulation (%)	0.5
	BMEP (bar)	20.04
	Governor type	ELEC
<b>EXHAUST SYSTEM</b>	Exhaust gas temperature (°F)	540
	Exhaust gas flow (L/s)	565
	Max. exhaust back pressure (mm CE)	1000
<b>FUEL SYSTEM</b>	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
<b>OIL</b>	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
<b>THERMAL BALANCE</b>	Heat rejection to exhaust (kW)	143
	Radiated heat to ambient (kW)	13
	Heat rejection to coolant (kW)	91
<b>AIR INTAKE</b>	AIR INTAKE_entree_max%	250
	Intake air flow (L/s)	211
<b>COOLANT SYSTEM</b>	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
	Thermostat (°C)	87-102
<b>EMISSIONS</b>	Emissions PM (g/kW.h)	0.064
	Emission CO (g/kW.h)	0.504
	Emissions HCNOx (g/kWh)	N/A
	Emission HC (g/kW.h)	0.323

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## ALTERNATOR SPECIFICATIONS

<b>DATA</b> <b>GENERAL DATA</b>	Alternator brand	LEROY SOMER
	Alternator	LSA462M5
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude (m)	<1000
	Overspeed (rpm)	2250
	Number of pole	4
	Excitation system	SHUNT
	Insulation class / Temperature class	H / H
	Regulation	R230
	Total harmonics TGH/THC	<2.5
	Wave form : NEMA=TIF-TGH/THC	<50
	Wave form : CEI=FHT-TGH/THC	<2
	Number of bearing	1
	Coupling	DIRECT
	Voltage regulation 0 à 100%	0.5
	Recovery time (Delta U = 20% transitoire) (ms)	500
<b>OTHER</b> <b>DATA</b>	Continuous Nominal Rating 40°C (kVA)	200
	Standby Rating 27°C (kVA)	223
	Efficiencies 4/4 load (%)	92.3
	Air flow (m3/s)	0.43
	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
	No load excitation current (io) (ms)	1
	Full load excitation current (ic) (A)	3.7
	Full load excitation voltage (uc) (A)	32
	Recovery time (Delta U = 20% transitoire) (ms)	500
	Motor start (Delta U = 20% perm. or 50% trans.) (ms)	397
	Transient dip (4/4 charge) - PF : 0,8 AR (%)	15.4
No load losses (kW)	3.04	
Heat rejection (kW)	13.18	

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## CONTROL PANEL

### Standard

### NEXYS



#### NEXYS

Specifications : Frequency meter, Ammeter, Voltmeter  
Alarms and faults : Oil pressure, water temperature, Overcrank, Overspeed ( >60 kVA), Min/max alternator, Low fuel level, Emergency stop  
Engine parameters : Hours counter, Engine speed, Battery voltage, Fuel level, Air preheating

### Option

### TELYS



#### TELYS

Specifications : Frequency meter, Ammeter, Voltmeter  
Alarms and faults : Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop  
Engine parameters : Hours counter, Oil pressure, Water temperature, Engine speed, Battery voltage, Fuel level