

# V630C2

Engine VOLVO , TAD1642GE  
Alternator LEROY SOMER , LSA472L9

## 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
- 24 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	504 / 630	458 / 573	876		
400/230	504 / 630	458 / 573	909	Leng : 3470mm [137in]	3780kg [8333lbs] Net
380/220	504 / 630	458 / 573	957	Widt : 1630mm [64in]	4420kg [9744lbs] Gross
240 TRI	504 / 630	458 / 573	1516	Heig : 2080mm [82in]	
230 TRI	504 / 630	458 / 573	1581		
220 TRI	504 / 630	458 / 573	1653		



### 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
 M230-DW	81.8	71.5	Leng : 5083mm [200in] Widt : 1690mm [67in] Heig : 2922mm [115in]	5850kg [12897lbs] 7930kg [17483lbs]	1950 L
 M230	81.8	71.5	Leng : 5031mm [198in] Widt : 1690mm [67in] Heig : 2662mm [105in]	5300kg [11685lbs] 5940kg [13095lbs]	610 L



## ENGINE SPECIFICATIONS

<b>DATA</b> <b>GENERAL DATA</b>	Motor model	VOLVO TAD1642GE , 4-temps, TURBO , AIR/AIR 6 X
	Cylinder arrangement	L
	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)	536
	Frequency regulation (%)	0.5
	BMEP (bar)	24.06
	Governor type	ELEC
<b>EXHAUST SYSTEM</b>	Exhaust gas temperature (°F)	494
	Exhaust gas flow (L/s)	1678
	Max. exhaust back pressure (mm CE)	1000
<b>FUEL SYSTEM</b>	Consumption @ 110% load (L/h)	129.75
	Consumption @ 100% load (L/h)	115.93
	Consumption @ 75% load (L/h)	85.21
	Consumption @ 50% load (L/h)	57.1
	Maximum fuel pump flow (L/hr)	180
<b>OIL</b>	Oil capacity (L)	48
	Min. oil pressure (bar)	0.7
	Max. oil pressure (bar)	6.5
	Oil consumption 100% load (L/h)	0.1
	Carter oil capacity (L)	42
<b>THERMAL BALANCE</b>	Heat rejection to exhaust (kW)	426
	Radiated heat to ambient (kW)	20
	Heat rejection to coolant (kW)	218
<b>AIR INTAKE</b>	AIR INTAKE_entree_max%	500
	Intake air flow (L/s)	676
<b>COOLANT SYSTEM</b>	Radiator & Engine capacity (L)	60
	Max water temperature (°C)	103
	Outlet water temperature (°C)	93
	Fan power (kW)	11
	Fan air flow w/o restriction (m3/s)	10
	Available restriction on air flow (mm CE)	30
	Type of coolant	GLYCOL
	Thermostat (°C)	86-96
<b>EMISSIONS</b>	Emissions PM (g/kW.h)	0.100
	Emission CO (g/kW.h)	1.2
	Emissions HCNOx (g/kWh)	N/A
	Emission HC (g/kW.h)	0.12

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## ALTERNATOR SPECIFICATIONS

<b>DATA</b> <b>GENERAL DATA</b>	Alternator brand	LEROY SOMER
	Alternator	LSA472L9
	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	<4
	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)	600
	Standby Rating 27°C (kVA)	660
	Efficiencies 4/4 load (%)	94.5
	Air flow (m3/s)	0.9
	Short circuit ratio (Kcc)	0.37
	Direct axis synchro reactance unsaturated (Xd) (%)	330
	Quadra axis synchro reactance unsaturated (Xq) (%)	198
	Open circuit time constant (T'do) (ms)	1997
	Direct axis transient reactance saturated (X'd) (%)	16.5
	Short circuit transient time constant (T'd) (ms)	100
	Direct axis subtransient reactance saturated (X''d) (%)	13.2
	Subtransient time constant (T''d) (ms)	10
	Quadra axis subtransient reactance saturated (X''q) (%)	17.4
	Zero sequence reactance unsaturated (Xo) (%)	0.9
	Negative sequence reactance saturated (X2) (%)	15.4
	Armature time constant (Ta) (ms)	15
	No load excitation current (io) (ms)	0.9
	Full load excitation current (ic) (A)	3.7
	Full load excitation voltage (uc) (A)	36
	Recovery time (Delta U = 20% transitoire) (ms)	500
	Motor start (Delta U = 20% perm. or 50% trans.) (ms)	1258
	Transient dip (4/4 charge) - PF : 0,8 AR (%)	15
No load losses (kW)	6.78	
Heat rejection (kW)	27.49	

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## CONTROL PANEL

### Standard



### 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

### Option



### KERYS

#### KERYS

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  
Additional specifications : Website, Troubleshooting, Assistance and Maintenance, Plotting and logging, Load impact, 8 configurations available, Compliance with international standards...