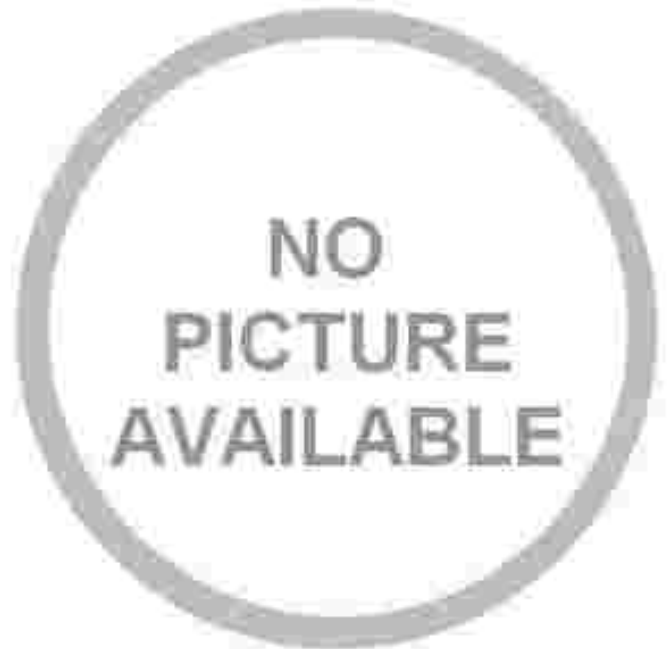


V700C2

Engine VOLVO , TWD1643GE
 Alternator LEROY SOMER , LSA491S4

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	560 / 700	509 / 636	974		
400/230	560 / 700	509 / 636	1010	Leng : 3470mm [137in]	3890kg [8576lbs] Net
380/220	553 / 691	503 / 628	1050	Widt : 1630mm [64in]	4560kg [10053lbs] Gross
240 TRI	558 / 697	507 / 634	1677	Heig : 2080mm [82in]	
230 TRI	535 / 669	487 / 608	1679		
220 TRI	511 / 639	465 / 581	1677		



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	85.2	75.2	Leng : 5083mm [200in] Widt : 1690mm [67in] Heig : 2922mm [115in]	6140kg [13536lbs] 7980kg [17593lbs]	1950 L
 M230	85.2	75.2	Leng : 5031mm [198in] Widt : 1690mm [67in] Heig : 2662mm [105in]	5410kg [11927lbs] 6090kg [13426lbs]	610 L

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ENGINE SPECIFICATIONS

DATA GENERAL DATA	Motor model	VOLVO TWD1643GE , 4-temps, TURBO , AIR/WATER 6 X
	Cylinder arrangement	L
	Displacement (C.l.)	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)	596
	Frequency regulation (%)	0.5
	BMEP (bar)	26.6
	Governor type	ELEC
EXHAUST SYSTEM	Exhaust gas temperature (°F)	450
	Exhaust gas flow (L/s)	1693
	Max. exhaust back pressure (mm CE)	1000
FUEL SYSTEM	Consumption @ 110% load (L/h)	142.6
	Consumption @ 100% load (L/h)	128
	Consumption @ 75% load (L/h)	94.5
	Consumption @ 50% load (L/h)	63
	Maximum fuel pump flow (L/hr)	190
OIL	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
THERMAL BALANCE	Heat rejection to exhaust (kW)	463
	Radiated heat to ambient (kW)	20
	Heat rejection to coolant (kW)	218
AIR INTAKE	AIR INTAKE_entree_max%	150
	Intake air flow (L/s)	727
COOLANT SYSTEM	Radiator & Engine capacity (L)	95
	Max water temperature (°C)	103
	Outlet water temperature (°C)	93
	Fan power (kW)	17
	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
EMISSIONS	Emissions PM (g/kW.h)	0.083
	Emission CO (g/kW.h)	0.69
	Emissions HCNOx (g/kWh)	N/A
	Emission HC (g/kW.h)	0.08

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ALTERNATOR SPECIFICATIONS

DATA GENERAL DATA	Alternator brand	LEROY SOMER
	Alternator	LSA491S4
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude (m)	<1000
	Overspeed (rpm)	2250
	Number of pole	4
	Excitation system	AREP
	Insulation class / Temperature class	H / H
	Regulation	R448_LS/B
	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%	1
	Recovery time (Delta U = 20% transitoire) (ms)	500
OTHER DATA	Continuous Nominal Rating 40°C (kVA)	660
	Standby Rating 27°C (kVA)	725
	Efficiencies 4/4 load (%)	93.6
	Air flow (m3/s)	1
	Short circuit ratio (Kcc)	0.38
	Direct axis synchro reactance unsaturated (Xd) (%)	343
	Quadra axis synchro reactance unsaturated (Xq) (%)	205
	Open circuit time constant (T'do) (ms)	1958
	Direct axis transient reactance saturated (X'd) (%)	17.5
	Short circuit transient time constant (T'd) (ms)	100
	Direct axis subtransient reactance saturated (X''d) (%)	14
	Subtransient time constant (T''d) (ms)	10
	Quadra axis subtransient reactance saturated (X''q) (%)	16.3
	Zero sequence reactance unsaturated (Xo) (%)	0.9
	Negative sequence reactance saturated (X2) (%)	15.2
	Armature time constant (Ta) (ms)	15
	No load excitation current (io) (ms)	0.9
	Full load excitation current (ic) (A)	3.6
	Full load excitation voltage (uc) (A)	43
	Recovery time (Delta U = 20% transitoire) (ms)	500
	Motor start (Delta U = 20% perm. or 50% trans.) (ms)	1578
Transient dip (4/4 charge) - PF : 0,8 AR (%)	13.3	
No load losses (kW)	8.1	
Heat rejection (kW)	33.7	

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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...