

Model: V375C2

Engine: VOLVO, TAD941GE

Alternator: LEROY SOMER, LSA472VS2

Specifications

- Compliant with stage 2 of the European pollutant emissions directive
- Electronic governor
- Mechanically welded chassis with anti-vibration suspension
- Power circuit breaker
- Radiator for wiring T° of 50°C [122°F] max with mechanical fan
- Protective grille for fan and rotating parts
- 9dB(A) silencer supplied separately
- Charged DC starting battery with electrolyte
- 24 V charging alternator and starter
- Supplied with oil and coolant -30°C
- User manual and commissioning guide



Generator Ratings

Voltage	Power ESP kW/kVA	Power RRP kW/kVA	Standby Amps	Dimensions	Weight
415/240	300 / 375	273 / 341	522	Length: 3160 Width: 1340 Height: 1761	2780kg Net 3250kg Gross
400/230	300 / 375	273 / 341	541		
380/220	300 / 375	273 / 341	570		
240/120	300 / 375	273 / 341	902		
230/115	300 / 375	273 / 341	941		
220/110	300 / 375	273 / 341	984		
200/115	300 / 375	273 / 341	1083		

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

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 Inlet Temp, 100m A.S.L 60% relative humidity. All engine performance data based on the above mentioned continuous ratings.

Canopy Version

Type	dB(A)@7m	Dimensions	Weight	Tank
M228	67	Length: 4475 Width: 1410 Height: 2430	3910kg Net 4380kg Gross	470 L
M228-DW	67	Length: 4527 Width: 1410 Height: 2700	4400kg Net 5768kg Gross	1368 L

All units supplied with canopy as standard except when requested.

Engine Data

Manufacturer/Model	VOLVO TAD941GE, 4-strokes, Turbo
Cylinder arrangement	6 x L
Displacement	9.36L [571.2C.I.]
Bore and stroke	120mm [4.7in.] X 138mm [5.4in.]
Compression ratio	17.4 : 1
Rated RPM	1500 Rpm
Piston speed	6.9m/s [22.6ft./s]
Max. standby power at rated RPM	320kW [429BHP]
Frequency regulation, steady state	+/- 0.5%
BMEP	26bar [377psi]
Governor: type	ELEC

Exhaust System

Exhaust temperature	519°C [966°F]
Exhaust gas flow	775L/s [1642cfm]
Max back pressure	1000mm CE [39in. WG]

Fuel System

110% (Stand by power)	75.9L/h [20.1gal/hr]
100% (of the Prime Power)	68.1L/h [18.0gal/hr]
75% (of the Prime Power)	50.6L/h [13.4gal/hr]
50% (of the Prime Power)	35.1L/h [9.3gal/hr]
Total fuel flow	108L/h [28.5gal/hr]

Oil System

Total oil capacity w/filters	33L [8.7gal]
Oil Pressure low idle	0.7bar [10.1psi]
Oil Pressure rated RPM	6bar [86.9psi]
Oil consumption 100% load	0.06L/h [0.016gal/hr]
Oil capacity carter	28L [7.4gal]

Thermal balance 100% load

Heat rejection to exhaust	224kW [12737Btu/mn]
Radiated heat to ambient	9kW [512Btu/mn]
Heat rejection to coolant	129kW [7335Btu/mn]

Air intake

Max. intake restriction	500mm CE [20in. WG]
Engine air flow	295L/s [625cfm]

Coolant system

Radiator & engine capacity	41L [10.8gal]
Max water temperature	103°C [217°F]
Outlet water temperature	93°C [199°F]
Fan power	15 kW
Fan air flow w/o restriction	5.9m ³ /s [12503cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Glycol-Ethylene
Thermostat	82-92 °C

Emissions

PM	30 mg/Nm ³
CO	340 mg/Nm ³
Nox	2200 mg/Nm ³
HC	30 mg/Nm ³

Alternator Specifications

Manufacturer/Type	LEROY SOMER (LSA472VS2)
NUMBER OF PHASE	3
POWER FACTOR (Cos Phi)	0.8
ALTITUDE	< 1000 m
OVERSPEED	2250 rpm
POLE: NUMBER	4
EXCITER TYPE	SHUNT
INSULATION: CLASS, TEMPERATURE RISE	H / H
VOLTAGE REGULATOR	R230
SUSTAINED SHORT CIRCUIT CURRENT	
TOTAL HARMONICS (TGH/THC)	< 4%
WAVE FROM : NEMA = TIF- TGH/THC	< 50
WAVE FROM: CEI = FHT - TGH/THC	< 2%
BEARING: NUMBER	1
COUPLING	Direct
VOLTAGE REGULATION 0 TO 100% LOAD	+/- 0.5%
RECOVERY TIME (20% VOLT DIP) MS	500 ms
SkVA WITH 90% OF NORMAL SUSTAINED VOLTAGE (AT 0.4PF)	[N/A]

Other Alternator Data

CONTINUOUS NOMINAL RATING @ 40° C	365 kVA
STANDBY RATING @ 27° C	420 kVA
EFFICIENCIES @ 4/4 LOAD	93.3 %
AIR FLOW	0.9m ³ /s [1906.98cfm]
SHORT CIRCUIT RATIO: 50 (Kcc)	0.38
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	336 %
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	201 %
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	1738 ms
DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd)	19.3 %
SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	100 ms

Other Alternator Data Continued

DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	15.4 %
SUBTRANSIENT TIME CONSTANT (T'd)	10 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	21 %
ZERO SEQUENCE REACTACE UNSATURATED (X ₀)	0.9 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X ₂)	18.2 %
ARMATURE TIME CONSTANT (T _a)	15 ms
NO LOAD EXCITATION CURRENT (i ₀)	1 A
FULL LOAD EXCITATION CURRENT (i _c)	3.8 A
FULL LOAD EXCITATION VOLTAGE (u _c)	39 V
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	500 ms
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	722 kVA
TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	16.8 %
NO LOAD LOSSES	5.44kW [5.44Kw]
HEAT REJECTION	20.78 kW