

Model: V350C2

Engine: VOLVO, TAD941GE

Alternator: LEROY SOMER, LSA462VL12

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	264 / 330	240 / 300	459	Length: 3160 Width: 1340 Height: 1761	2850kg Net 3320kg Gross
400/230	280 / 350	255 / 318	505		
380/220	280 / 350	255 / 318	532		
240/120	264 / 330	240 / 300	794		
230/115	280 / 350	255 / 318	879		
220/110	280 / 350	255 / 318	919		
200/115	264 / 330	240 / 300	953		

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	3980kg Net 4450kg Gross	470 L
M228-DW	67	Length: 4527 Width: 1410 Height: 2700	4320kg Net 5688kg 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 (LSA462VL12)
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	+/- 1%
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	300 kVA
STANDBY RATING @ 27° C	341 kVA
EFFICIENCIES @ 4/4 LOAD	93.7 %
AIR FLOW	0.43m ³ /s [911.11cfm]
SHORT CIRCUIT RATIO: 50 (Kcc)	0.5
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	273 %
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	164 %
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	2260 ms
DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd)	12.1 %
SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	105 ms

Other Alternator Data Continued

DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	7.3 %
SUBTRANSIENT TIME CONSTANT (T'd)	10 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	9 %
ZERO SEQUENCE REACTANCE UNSATURATED (X ₀)	0.5 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X ₂)	8.1 %
ARMATURE TIME CONSTANT (T _a)	16 ms
NO LOAD EXCITATION CURRENT (i ₀)	1.1 A
NO LOAD EXCITATION CURRENT (i _c)	3.5 A
FULL LOAD EXCITATION VOLTAGE (u _c)	35 V
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	500 ms
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	850 kVA
TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	13 %
NO LOAD LOSSES	4.9kW [4.90Kw]
HEAT REJECTION	16.7 kW