

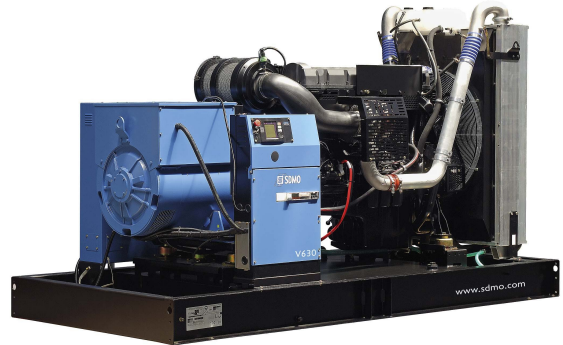
**Model: V630C2**

**Engine: VOLVO, TAD1642GE**

**Alternator: LEROY SOMER, LSA472L9**

## 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	504 / 630	458 / 573	876	Length: 3470 Width: 1630 Height: 2080	3780kg Net 4420kg Gross
400/230	504 / 630	458 / 573	909		
380/220	504 / 630	458 / 573	957		
240/120	504 / 630	458 / 573	1516		
230/115	504 / 630	458 / 573	1581		
220/110	504 / 630	458 / 573	1653		

**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
M230	71.5	Length: 5031 Width: 1690 Height: 2662	5300kg Net 5940kg Gross	610 L
M230-DW	71.5	Length: 5083 Width: 1690 Height: 2922	5850kg Net 7930kg Gross	1950 L

All units supplied with canopy as standard except when requested.

## Engine Data

Manufacturer/Model	VOLVO TAD1642GE, 4-strokes, Turbo
Cylinder arrangement	6 x L
Displacement	16.12L [983.7C.I.]
Bore and stroke	144mm [5.7in.] X 165mm [6.5in.]
Compression ratio	16.5 : 1
Rated RPM	1500 Rpm
Piston speed	8.25m/s [27.1ft./s]
Max. standby power at rated RPM	536kW [718BHP]
Frequency regulation, steady state	+/- 0.5%
BMEP	24.06bar [349psi]
Governor: type	ELEC

## Exhaust System

Exhaust temperature	494°C [921°F]
Exhaust gas flow	1678L/s [3556cfm]
Max back pressure	1000mm CE [39in. WG]

## Fuel System

110% (Stand by power)	129.75L/h [34.3gal/hr]
100% (of the Prime Power)	115.93L/h [30.6gal/hr]
75% (of the Prime Power)	85.21L/h [22.5gal/hr]
50% (of the Prime Power)	57.10L/h [15.1gal/hr]
Total fuel flow	180L/h [47.6gal/hr]

## Oil System

Total oil capacity w/filters	48L [12.7gal]
Oil Pressure low idle	0.7bar [10.1psi]
Oil Pressure rated RPM	6.5bar [94.2psi]
Oil consumption 100% load	0.1L/h [0.026gal/hr]
Oil capacity carter	42L [11.1gal]

## Thermal balance 100% load

Heat rejection to exhaust	426kW [24222Btu/mn]
Radiated heat to ambient	20kW [1137Btu/mn]
Heat rejection to coolant	218kW [12395Btu/mn]

## Air intake

Max. intake restriction	500mm CE [20in. WG]
Engine air flow	676L/s [1433cfm]

## Coolant system

Radiator & engine capacity	60L [15.9gal]
Max water temperature	103°C [217°F]
Outlet water temperature	93°C [199°F]
Fan power	11 kW
Fan air flow w/o restriction	10m <sup>3</sup> /s [21191cfm]
Available restriction on air flow	30mm CE [1.2in. WG]
Type of coolant	Glycol-Ethylene
Thermostat	86-96 °C

## Emissions

PM	0.100 g/KW.h
CO	1.2 g/KW.h
Nox	5.3 g/KW.h
HC	0.12 g/KW.h

## Alternator Specifications

Manufacturer/Type	LEROY SOMER (LSA472L9)
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	600 kVA
STANDBY RATING @ 27° C	660 kVA
EFFICIENCIES @ 4/4 LOAD	94.5 %
AIR FLOW	0.9m <sup>3</sup> /s [1906.98cfm]
SHORT CIRCUIT RATIO: 50 (Kcc)	0.37
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	330 %
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	198 %
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	1997 ms
DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd)	16.5 %
SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	100 ms

## Other Alternator Data Continued

DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.2 %
SUBTRANSIENT TIME CONSTANT (T'd)	10 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	17.4 %
ZERO SEQUENCE REACTACE UNSATURATED (X <sub>0</sub> )	0.9 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X <sub>2</sub> )	15.4 %
ARMATURE TIME CONSTANT (T <sub>a</sub> )	15 ms
NO LOAD EXCITATION CURRENT (i <sub>0</sub> )	0.9 A
FULL LOAD EXCITATION CURRENT (i <sub>c</sub> )	3.7 A
FULL LOAD EXCITATION VOLTAGE (u <sub>c</sub> )	36 V
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	500 ms
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	1258 kVA
TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	15 %
NO LOAD LOSSES	6.78kW [6.78Kw]
HEAT REJECTION	27.49 kW