



J400K

DIESEL GENSET

MODEL	J400K
Stand-by Power @ 50Hz	322kW / 402 kVA
Prime Power @ 50Hz	292 kW / 365 kVA

Standard Features

General features :

- Engine (JOHN DEERE , 6125HF070-387)
- Charge alternator 24 V , Governor:Elec
- Alternator (LEROY SOMER , LSA472VS2)
- Single bearing alternator IP 23 , insulation class H /H
- Radiator 50°C [122°F]°C max. T° air inlet with coolant cap
- Skid and vibration isolators
- Dry type air filter
- Main line circuit breaker
- Microprocessor control panel
- 24 V battery, rack and cable
- Industrial silencer (loose)
- User manual



Generator Ratings

Voltage	HZ	Phase	P.F	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA
415/240	50	3	0.8	559	322 / 402	292 / 365
400/230	50	3	0.8	580	322 / 402	292 / 365
380/220	50	3	0.8	611	322 / 402	292 / 365
240/120	50	3	0.8	967	322 / 402	292 / 365
230/115	50	3	0.8	1009	322 / 402	292 / 365
220/110	50	3	0.8	1055	322 / 402	292 / 365
200/115	50	3	0.8	1161	322 / 402	292 / 365

PRP : 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 12-hour 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.

Conditions of sale

- SDMO provides a full line of products with high quality recognized engines and alternators.
- Service and parts are available from SDMO distributors as a single source of responsibility.
- Each and every units is factory tested. All generator sets are also prototype tested.
- Warranty according to our standard conditions. Five years extended also available



ENGINE DATA

Manufacturer / Model	JOHN DEERE 6125HF070-387 , 4-cycle, Turbo , Air/Water SC
Cylinder Arrangement	6 X L
Displacement	12.5L [762.8C.I.]
Bore and Stroke	127mm [5.0in.] X 165mm [6.5in.]
Compression ratio	17 :1
Rated RPM	1500 Rpm
Piston Speed	8.25m/s [27.1ft./s]
Max. stand by Power at rated RPM	379kW [508BHP]
Frequency regulation, steady state	+/-0.5%
BMEP	24.77bar [359psi]
Governor : type	Elec

Exhaust System

Exhaust gas flow	1080L/s [2289cfm]
Exhaust temperature	468°C [874°F]
Max back pressure	750mm CE [30in. WG]

Fuel System

110% (Stand By power)	87.45L/h [23.1gal/hr]
100% (of the Prime Power)	81.01L/h [21.4gal/hr]
75% (of the Prime Power)	59.44L/h [15.7gal/hr]
50% (of the Prime Power)	40.44L/h [10.7gal/hr]
Total fuel flow	158L/h [41.7gal/hr]

Oil System

Total oil capacity w/filters	40L [10.6gal]
Oil Pressure low idle	1.38bar [20.0psi]
Oil Pressure rated RPM	2.75bar [39.8psi]
Oil consumption 100% load	0.12L/h [0.0gal/hr]
Oil capacity carter	42L [11.1gal]

Thermal balance 100% load

Heat rejection to exhaust	292kW [16603Btu/mn]
Radiated heat to ambient	47kW [2672Btu/mn]
Heat rejection to coolant	N/A

Air intake

Max. intake restriction	625mm CE [25in. WG]
Engine air flow	446L/s [945cfm]

Coolant System

Radiator & engine capacity	43.8L [11.6gal]
Max water temperature	105°C [221°F]
Outlet water temperature	94°C [201°F]
Fan power	8 kW
Fan air flow	6m ³ /s [12715cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	82-94 °C

Emissions

HC	N/A
CO	N/A
Nox	N/A
PM	N/A



ALTERNATOR SPECIFICATIONS

GENERAL DATA

- Compliance with NEMA MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards.
- Vacuum-impregnated windings with epoxy varnish.
- IP21 drip proof.

ALTERNATOR DATA

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	N/A
Total harmonics (TGH/THC)	< 4%
Wave form : NEMA = TIF – TGH/THC	< 50
Wave form : 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 nominal sustained voltage (at 0.4 PF)	N/A

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	456 kVA
Standby rating @ 27°C	530 kVA
Efficiencies @ 4/4 load	93.3 %
Air flow	1.1m ³ /s [2330.76cfm]
Short circuit ratio;50 (Kcc)	0.36
Direct axis synchro reactance unsaturated (Xd)	349 %
Quadra axis synchro reactance unsaturated (Xq)	209 %
Open circuit time constant;50 (T'do)	1738 ms
Direct axis transient reactance saturated (X'd)	20.1 %
Short circuit transient time constant (T'd)	100 ms
Direct axis subtransient reactance saturated (X''d)	16.1 %
Subtransient time constant (T''d)	10 ms
Quadra axis subtransient reactance saturated (X''q)	21.8 %
Zero sequence reactance unsaturated (Xo)	0.1 %
Negative sequence reactance saturated (X2)	19 %
Armature time constant (Ta)	15 ms
No load excitation current (io)	1 A
Full load excitation current (ic)	3.9 A
Full load excitation voltage (uc)	40 V
Recovery time (Delta U = 20% transitoire)	500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	890 kVA
Transient dip (4/4 charge) – PF : 1.8 AR	17.3 %
No load losses	8.54 kW
Heat rejection	25.65 kW

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

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...

Options

Engine and Radiator

- Heat shield protection
- Oil drain extension
- Heavy duty air filter
- Lube oil drain pump
- Radiator core guard
- Battery charger
- Block heater

Alternator

- Anti condensation heater
- Enforced impregnation
- Oversized alternator

Control panel

- NFPA 110 level 1
- Paralleling system
- Remote annunciator
- Oil temperature shutdown

Exhaust

- Residential silencer
- Critical silencer
- Flexible exhaust conn.

Literature

- Parts
- Maintenance

Fuel

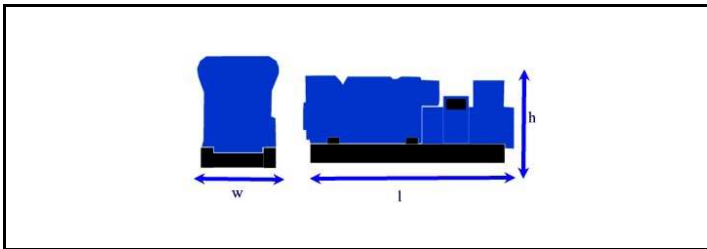
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

Enclosure

- M228
- Silent 66.5 db @ 7m [23 Ft] (stby)

Weight and Dimensions

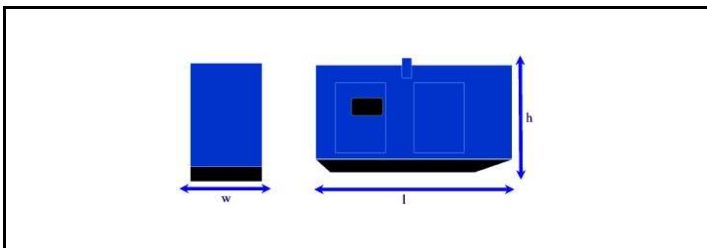
Open Model Excluding option



Overall size l x w x h :
3160mm [124in] x 1340mm [53in] x 1790mm [70in]

Weight :
3090kg [6810lbs] Net 3570kg [7868lbs] Brut

With Optional Enclosure



Overall size l x w x h :
4475mm [176in] x 1410mm [56in] x 2430mm [96in]

Weight :
4220kg [9301lbs] Net 4690kg [10337lbs] Brut