

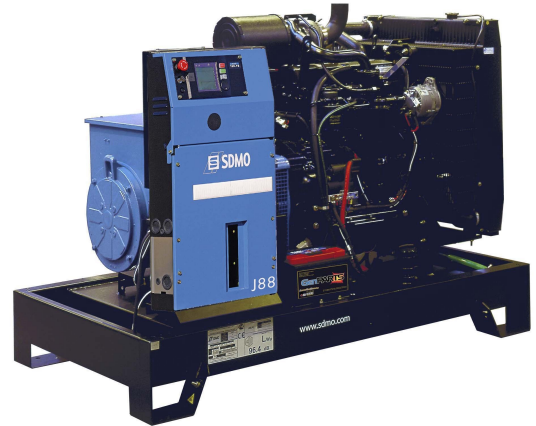
Model: J88K

Engine: JOHN DEERE, 4045TF220

Alternator: LEROY SOMER, LSA432L8

Specifications

- Mechanical 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
- 12 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	69 / 86	63 / 78	120	Length: 1870 Width: 994 Height: 1360	1110kg Net 1310kg Gross
400/230	70 / 88	64 / 80	127		
380/220	68 / 85	62 / 77	129		
240/120	70 / 88	64 / 80	212		
230/115	70 / 88	64 / 80	221		
220/110	70 / 88	64 / 80	231		
220/127	62 / 77	56 / 70	202		
200/115	70 / 88	64 / 80	254		

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
M128	70	Length: 2300 Width: 1080 Height: 1680	1530kg Net 1730kg Gross	180 L
M128-DW	70	Length: 2344 Width: 1080 Height: 1900	1717kg Net 2107kg Gross	390 L

All units supplied with canopy as standard except when requested.

Engine Data

Manufacturer/Model	JOHN DEERE 4045TF220, 4-strokes, Turbo
Cylinder arrangement	4 x L
Displacement	4.48L [273.4C.I.]
Bore and stroke	106mm [4.2in.] X 127mm [5.0in.]
Compression ratio	17 : 1
Rated RPM	1500 Rpm
Piston speed	6.35m/s [20.8ft./s]
Max. standby power at rated RPM	80kW [107BHP]
Frequency regulation, steady state	+/- 2.5%
BMEP	13.3bar [193psi]
Governor: type	MECA

Exhaust System

Exhaust temperature	565°C [1049°F]
Exhaust gas flow	205L/s [434cfm]
Max back pressure	750mm CE [30in. WG]

Fuel System

110% (Stand by power)	21.5L/h [5.7gal/hr]
100% (of the Prime Power)	19.5L/h [5.2gal/hr]
75% (of the Prime Power)	14L/h [3.7gal/hr]
50% (of the Prime Power)	10L/h [2.6gal/hr]
Total fuel flow	108L/h [28.5gal/hr]

Oil System

Total oil capacity w/filters	13.5L [3.6gal]
Oil Pressure low idle	1bar [14.5psi]
Oil Pressure rated RPM	5bar [72.5psi]
Oil consumption 100% load	0.019L/h [0.005gal/hr]
Oil capacity carter	12.5L [3.3gal]

Thermal balance 100% load

Heat rejection to exhaust	65kW [3696Btu/mn]
Radiated heat to ambient	9.5kW [540Btu/mn]
Heat rejection to coolant	43kW [2445Btu/mn]

Air intake

Max. intake restriction	625mm CE [25in. WG]
Engine air flow	93L/s [197cfm]

Coolant system

Radiator & engine capacity	23.6L [6.2gal]
Max water temperature	105°C [221°F]
Outlet water temperature	93°C [199°F]
Fan power	2.5 kW
Fan air flow w/o restriction	3.37m ³ /s [7141cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	82-94 °C

Emissions

PM	60 mg/Nm ³
CO	190 mg/Nm ³
Nox	3800 mg/Nm ³
HC	34 mg/Nm ³

Alternator Specifications

Manufacturer/Type	LEROY SOMER (LSA432L8)
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)	< 2%
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	80 kVA
STANDBY RATING @ 27° C	88 kVA
EFFICIENCIES @ 4/4 LOAD	90.5 %
AIR FLOW	0.27m ³ /s [572.09cfm]
SHORT CIRCUIT RATIO: 50 (Kcc)	0.41
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	284 %
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	170 %
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	1431 ms
DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd)	9.9 %
SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	50 ms

Other Alternator Data Continued

DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	5 %
SUBTRANSIENT TIME CONSTANT (T'd)	5 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	6.3 %
ZERO SEQUENCE REACTACE UNSATURATED (X ₀)	0.1 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X ₂)	5.7 %
ARMATURE TIME CONSTANT (T _a)	8 ms
NO LOAD EXCITATION CURRENT (i ₀)	0.4 A
FULL LOAD EXCITATION CURRENT	1.6 A
FULL LOAD EXCITATION VOLTAGE (u _c)	29 V
RECOVERY TIME (DELTA U = 20% TRANSITOIRE)	500 ms
MOTOR START (DELTA = 20% PERM. OR 50% TRANS.)	213 kVA
TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	13.9 %
NO LOAD LOSSES	1.41kW [1.41Kw]
HEAT REJECTION	6.64 kW