

TP 850

POWERED BY PERKINS 4008TAG

Perkins®



TP 850
4008TAG
TAL049D
Deep Sea 4520 MKII

PRIME RATINGS

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercial purchased power.

There is no limitation to the annual hours of operation and this model can supply 10% Overload power for 1hour in 12 hours operation.

STANDBY RATINGS

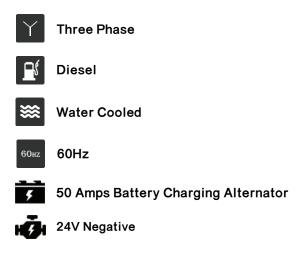
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings.

LEROY-SOMER



OUTPUT RATINGS		Hz
	PRIME	STANDBY
KVA	850	938
KW	680	750
r.p.m	19	300
V		/220 /380
	KW r.p.m	KVA 850 KW 680 r.p.m 18

ENGINE SPECIFICATIONS



Manufacturer	PERKINS
Model	4008TAG
Engine Type	4-stroke
Induction System	Turbo charged air ti air charge cooled
Bore and Stroke	145 x 183 mm
Cooling System	Water Cooled
Number of cylinders and arrangement	6/ Vertical in Line
Compression Ratio	14:1
Circuit Breaker Type	3 Pole MCCB
Displacement	18.1 L







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ALTERNATOR SPECIFICATIONS

Manufacturer	Leroy Somer
Model	TAL049D
No of Bearings	1
Insulation Class	Н
Wires	6
Ingress Protection Rating	IP23
Excitation System	SHUNT
AVR Model	R150

Over speed (rpm)	2250
Voltage Regulation(steady s	tate) +/- 0.5%
Wave from NEMA=TIF	50
Wave From IEC=THF	2.0%
Total Harmonic Content LL/	/NN 4.0%
Radiant Heat kW	48.5
Radio Interference	Supression is in line with European Standard EN61000-6

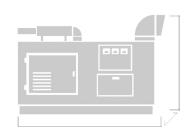
► IP23 Protection

■ H Class Insulation

SHUNT Excitation System



WEIGHT AND DIMENSIONS			
		OPEN	CLOSE
LENGTH	cm	490	600
WIDTH	cm	205	238
HEIGHT	cm	247	260
WEIGHT	kg	7510	9000











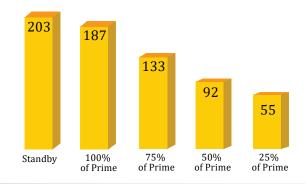
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Fuel Filter Type Replaceable Element

Recommended Fuel Class A2 Diesel

FUEL CONSUMPTION (L/hr)

60Hz



			60	Hz
	SILENCER TYPE		INDUSTRIAL 10.0(3.0)	
ST	MAX. ALLOWABLE BACK PRESSURE	kPa(in Hg)		
AU	SILENCER NOISE REDUCTION LEVEL		16 dB	
XH			PRIME	STANDBY
豆	EXHAUST GAS FLOW	m³/min(cfm)	152 (5368)	160(5650)
	EXHAUST GAS TEMPERATURE	°C (°F)	452 (845.6)	473(883.4)







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	AIR FILTER TYPE	Replaceable Element (60Hz)	
		PRIME	STANDBY
I R	COMBUSTION AIR FLOW m³/min(cfm)	69.0 (2437)	71.0 (2507)
A	MAX. COMBUSTION AIR INTAKE RESTRICTION kPa(in H20)	3.7(14.9)

LUBRICATION SYSTEM

Oil Filter Type		Spin-on, Full Flow
Total Oil Capacity	L(US gal)	68.0 (18.0)
Oil Pan	L(US gal)	68.0 (18.0)
Oil Type		CH4 15W-40

COOLING SYSTEM		60Hz
Water Pump Type		Centrifugal
Cooling System Capacity	L	110
Radiator Fan Load	kW(hp)	31.50(42.2)
Radiator Cooling Airflow	m ³ /min(cfm)	889.0(31395)
External Restriction to Cooling Airflow	Pa(in H ₂ O)	125(0.5)













DSE**4520 MKII**

AUTO START AND AUTO MAINS FAILURE CONTROL MODULES

(ALTERNATOR FREQUENCY & CAN SPEED SENSING)

DSE4520 MKII



KEY FEATURES

- Auto Start and AMF mode in one module (DSE4520 MKII only)
- J1939-75 support and CAN alarm ianore function
- Alternator frequency & CAN speed sensing in one variant
- · Largest back-lit icon display in its class (configurable as text display)
- Heated display option
- Real time clock provides accurate event logging
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3 phase generator sensing
- 3 phase mains (utility) sensing (DSE4520 MKII only)
- Compatible with 600 V ph to ph nominal systems
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Accumulated power monitoring (kW h, kVA h, kVAr h)
- Generator overload protection (kW)
- Generator/load current monitoring and protection
- Fuel and start outputs (configurable when using CAN)
- 4 configurable DC outputs
- 5 V output
- Configurable fuel & crank outputs
- 3 configurable analogue/digital

- 4 configurable digital inputs
- Configurable staged loading outputs
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Tier 4 engine instrumentation screens
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD alarm indication
- Coolant temperature pre-alarm
- Event log (50)
- Fuel solenoid pulling circuit
- On-screen line diagram on/off functionality
- Configurable CAN instrumentation (10)
- Water in fuel digital input
- Tank bund alarm digital input
- Generator at rest output
- ECU periodic wake-up for information retrieval
- Back-light power-save mode
- Adjustable delay crank timer
- Pre/post heat functionality

- Overload protection
- Mains/generator A/C system selection
- Output timer for external audible alarm
- Accommodates a wide range of senders and temperatures

KEY BENEFITS

- Ultimate size to feature ratio
- Automatically transfers between mains (utility) and generator (DSE4520 MKII only)
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored simultaneously which are clearly displayed on the largest back-lit icon display in its class
- The module can be configured to suit a wide range of applications
- Uses DSE Configuration Suite PC Software for simplified configuration
- Compatible with a wide range of CAN engines including Tier 4
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water inaress

SPECIFICATIONS

CONTINUOUS VOLTAGE RATING

8 V to 35 V Continuous

CRANKING DROPOUTS

Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained

MAXIMUM OPERATING CURRENT

85 mA at 12 V. 96 mA at 24 V

MAXIMUM STANDBY CURRENT 51 mA at 12 V, 47 mA at 24 V

MAXIMUM SLEEP CURRENT

35 mA at 12 V, 32 mA at 24

MAXIMUM DEEP SLEEP CURRENT <10 uA at 12 V. <10 uA at 24 V

MAINS (UTILITY) DSE4520 MKII ONLY

VOLTAGE RANGE 15 V to 415 V AC (Ph to N)

26 V to 719 V AC (Ph to Ph)

FREQUENCY RANGE 3.5 Hz to 75 Hz

OUTPUT A (FUEL)

10 A short term, 5 A continuous, at supply voltage

OUTPUT B (START)

10 A short term, 5 A continuous, at supply voltage

AUXILIARY OUTPUTS C, D, E & F 2 A DC at supply voltage

GENERATOR

VOLTAGE RANGE

15 V to 415 V AC (Ph to N) 26 V to 719 V AC (Ph to Ph)

FREQUENCY RANGE 3.5 Hz to 75 Hz

DIMENSIONS

OVERALL

140 mm x 113 mm x 43 mm 5.5" x 4.4" x 1.7

PANEL CUT-OUT 118 mm x 92 mm 46" x 36"

MAXIMUM PANEL THICKNESS

STORAGE TEMPERATURE RANGE

-40 °C to +85 °C -40 °F to +185 °F

-30 °C to +70 °C -22 °F to +158 °F

-40 °C to +70 °C (for heated display variant) -40 °F to +158 °F (for heated display variant)

OPERATING TEMPERATURE RANGE



