



# TECHNO POWER

# TP 1000

POWERED BY PERKINS  
4008 - TAG2A



Genset Model	TP 1000
Engine Model	4008-TAG2A
Alternator Model	TAL049E
Controller Model	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.

### OUTPUT RATINGS

		50 Hz	
		PRIME	STANDBY
KVA POWER	KVA	1022	1125
KW POWER	KW	818	900
RATED SPEED	r.p.m	1500	
VOLTAGE	V	230/ 400 240/ 415	

## ENGINE SPECIFICATIONS

- Three Phase
- Diesel
- Water Cooled
- 50 Hz
- 40 Amps Battery Charging Alternator
- 24V Negative

Manufacturer	PERKINS
Model	4008-TAG2A
Engine Type	4-stroke
Induction System	Turbo charged air to air charge cooled
Bore and Stroke	160 x 190 mm
Cooling System	Water Cooled
Number of cylinders and arrangement	8/ Vertical in Line
Compression Ratio	13.6 : 1
Circuit Breaker Type	3 Pole ACB
Displacement	30.561 L





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### ALTERNATOR SPECIFICATIONS

Manufacturer	Leroy Somer	Over speed (rpm)	2250
Model	TAL049E	Voltage Regulation(steady state)	+/- 0.5%
No of Bearings	1	Wave from NEMA=TIF	50
Insulation Class	H	Wave From IEC=THF	2.0%
Wires	6(12)	Total Harmonic Content LL/NN	3.5%
Ingress Protection Rating	IP23	Radiant Heat kW	40.0
Excitation System	SHUNT	Radio Interference	Suppression is in line with European Standard EN61000-6
AVR Model	R150		

IP23 Protection

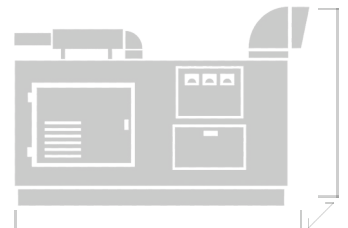
H Class Insulation

SHUNT Excitation System

### WEIGHT AND DIMENSIONS



		OPEN	CLOSE
LENGTH	cm	490	600
WIDTH	cm	205	238
HEIGHT	cm	247	260
WEIGHT	kg	7510	9800





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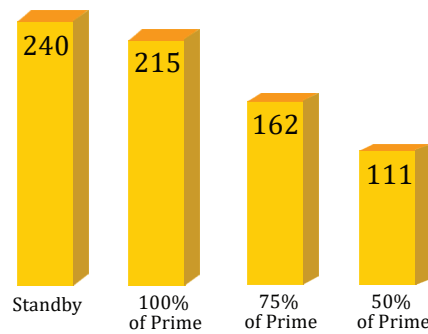
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Fuel Filter Type                      Replaceable Element

Recommended Fuel                      Class A2 Diesel

### FUEL CONSUMPTION (L/hr)

50Hz



FUEL SYSTEM

EXHAUST SYSTEM

		50Hz		
EXHAUST	SILENCER TYPE	INDUSTRIAL		
	MAX. ALLOWABLE BACK PRESSURE	kPa(in Hg)	8.0(2.4)	
	SILENCER NOISE REDUCTION LEVEL	10 dB		
		<b>PRIME</b>	<b>STANDBY</b>	
	EXHAUST GAS FLOW	m <sup>3</sup> /min(cfm)	200.0 (7063)	200(7063)
	EXHAUST GAS TEMPERATURE	°C (°F)	438 (820)	465(869)





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AIR SYSTEM

A I R	AIR FILTER TYPE	cylinder paper pleat	
		PRIME	STANDBY
	COMBUSTION AIR FLOW $m^3/min(cfm)$	75 (2649)	81 (2878)
	MAX. COMBUSTION AIR INTAKE RESTRICTION $kPa(in H_2O)$	1.25(5.0)	

## LUBRICATION SYSTEM

Oil Filter Type	Spin-on , Full Flow	
Total Oil Capacity	L(US gal)	166 (43.9)
Oil Pan	L(US gal)	153 (40.4)
Oil Type	CH4 15W-40	

## COOLING SYSTEM

50Hz

Water Pump Type	Centrifugal	
Cooling System Capacity	L	162
Radiator Fan Load	kW(hp)	38(51.0)
Radiator Cooling Airflow	$m^3/min(cfm)$	1350(47675)
External Restriction to Cooling Airflow	Pa(in H <sub>2</sub> O)	200(0.8)





# TECHNO POWER

Authorized  
**Distributor**  
in UAE



## DSE4520 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 ignore 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) 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 inputs
- 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 ingress

### SPECIFICATIONS

#### DC SUPPLY

**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 during cranking.

**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 V

**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

#### OUTPUTS

##### 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  
4.6" x 3.6"

##### MAXIMUM PANEL THICKNESS

8 mm  
0.3"

##### STORAGE TEMPERATURE RANGE

-40 °C to +85 °C  
-40 °F to +185 °F

##### OPERATING TEMPERATURE RANGE

-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)



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