



TECHNO POWER

TPC 500

POWERED BY CUMMINS
KTA19-G4



STAMFORD
power generation



| | |
|------------------|--------------------|
| Genset Model | TPC 500 |
| Engine Model | KTA19-G4 |
| Alternator Model | HCI544D |
| 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 1 hour 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 | | 50Hz | | 60Hz | |
|----------------|-------|---------|---------|---------|---------|
| | | PRIME | STANDBY | PRIME | STANDBY |
| KVA POWER | KVA | 500 | 550 | 569 | 625 |
| KW POWER | KW | 400 | 440 | 455 | 500 |
| RATED SPEED | r.p.m | 1500 | | 1800 | |
| VOLTAGE | V | 230/400 | | 110/220 | |
| | | 240/415 | | 220/380 | |

ENGINE SPECIFICATIONS

- Three Phase
- Diesel
- Water Cooled
- 50/60Hz
- 35 Amps Battery Charging Alternator
- 24V Negative

| | |
|-------------------------------------|---------------------------|
| Manufacturer | CUMMINS |
| Model | KTA19-G4 |
| Engine Type | 4-stroke |
| Cooling System | Water Cooled |
| Bore and Stroke | 159 x 159 mm |
| Compression Ratio | 17 : 1 |
| Number of cylinders and arrangement | 6/ Vertical in Line |
| Circuit Breaker Type | 3Pole MCCB |
| Aspiration Type | Turbo charged, Air-cooled |
| Displacement | 18.9 L |





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ALTERNATOR SPECIFICATIONS

| | | | |
|---------------------------|----------|----------------------------------|---|
| Manufacturer | Stamford | Over speed (rpm) | 2250 |
| Model | HCI544D | Voltage Regulation(steady state) | +/- 1.0% |
| No of Bearings | 1 | Wave from NEMA=TIF | 50 |
| Insulation Class | H | Rated power factor | 0.8 |
| Ingress Protection Rating | IP23 | Winding Leads | 12 |
| Excitation System | SHUNT | Winding pitch | Two Thirds |
| AVR Model | AS440 | Radio Interference | Suppression is in line with European Standard EN61000-6 |

IP23 Protection

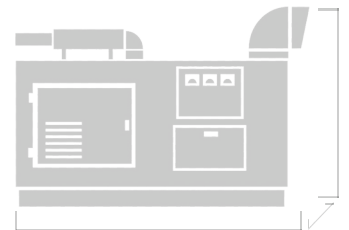
H Class Insulation

SHUNT Excitation System

WEIGHT AND DIMENSIONS



| | | OPEN | CLOSE |
|--------|----|------|-------|
| LENGTH | mm | 3750 | 5106 |
| WIDTH | mm | 1350 | 1553 |
| HEIGHT | mm | 2305 | 2447 |
| WEIGHT | kg | 4975 | 5876 |



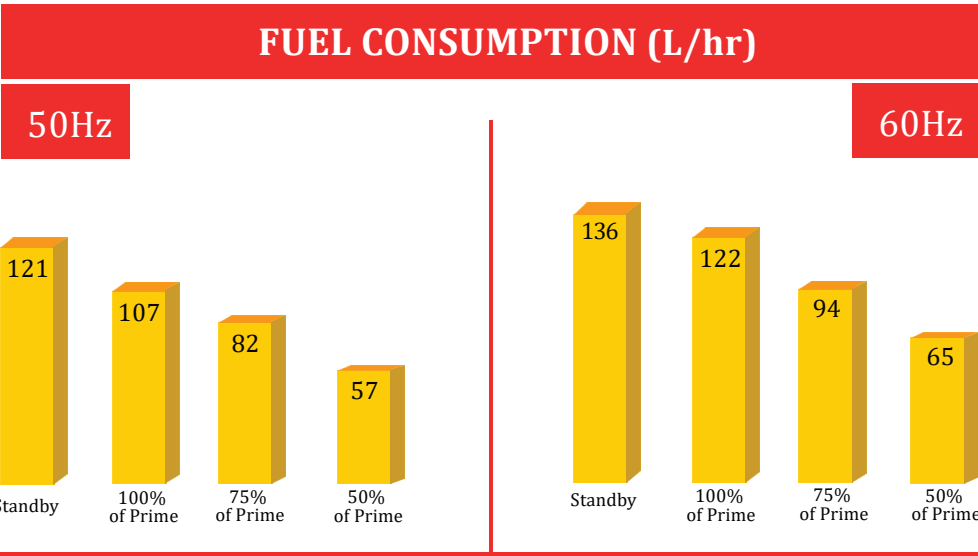


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| | |
|--------------------|---------------------|
| Fuel Filter Type | Replaceable Element |
| Recommended Fuel | Class A2 Diesel |
| Fuel Tank Capacity | 550 L |



FUEL SYSTEM

| | | 50Hz | | 60Hz | | | |
|---------|--------------------------------|---------------|---------|------------|------------|------------|------------|
| EXHAUST | SILENCER TYPE | INDUSTRIAL | | | | | |
| | MAX. ALLOWABLE BACK PRESSURE | kPa | | 10 | 10 | | |
| | SILENCER NOISE REDUCTION LEVEL | | | - | - | | |
| | | PRIME | STANDBY | PRIME | STANDBY | | |
| | EXHAUST GAS FLOW | cfm (litre/s) | | 2660(1255) | 2900(1370) | 2905(1370) | 3200(1510) |
| | EXHAUST GAS TEMPERATURE | °C | | 488 | 515 | 435 | 443 |

EXHAUST SYSTEM





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| A I R | AIR FILTER TYPE | | Dry Replaceable Element with restriction Indicator | | | |
|-------|--|--|--|-----------|-----------|-----------|
| | | | 50Hz | | 60Hz | |
| | | | PRIME | STANDBY | PRIME | STANDBY |
| | COMBUSTION AIR FLOW | cfm (litre/s) | 1150(540) | 1280(605) | 1260(695) | 1290(608) |
| | MAX. COMBUSTION AIR INTAKE RESTRICTION | in H ₂ O(mm H ₂ O) | 15 (381) | | 15 (381) | |

LUBRICATION SYSTEM

| | | |
|--------------------|---------------------|-----------|
| Oil Filter Type | Spin-on , Full Flow | |
| Total Oil Capacity | L | 50 |
| Oil Pan | L(US gal) | 83.0 (22) |
| Oil Type | CH4 15W-40 | |

COOLING SYSTEM

| | | 50Hz | 60Hz |
|---|-------------------------|---------|---------|
| Water Pump Type | Centrifugal | | |
| Cooling System Capacity | L | 93 | 93 |
| Radiator Fan Load | kW | 15 | 24 |
| Radiator Cooling Airflow | m ³ /s | 9.91 | 12.5 |
| External Restriction to Cooling Airflow | Pa(mm H ₂ O) | 127(13) | 127(13) |





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)
- 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 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)



TECHNOPOWER GENERATORS SHARJAH INDUSTRIAL AREA2, BADR AL SAYEGH BLDG SHOP NO:1,2,3,4,5, SHARJAH, UAE

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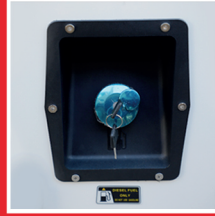
TECHNOPOWER



Fuel Inlet/Outlet



Document holder
Protects documents



Diesel filling with key lock

Engines Selected from the heavy duty product and optimized for low quality fuel

Alternator 3phase and Single-Phase with AVR(+/-1%)

Sound proof galvanized canopy 65dB(A) @7m

Lockable Snap handles

Integrated fuel tank made of Polypropylene with bounded base for 8hrs. @ full load

Reinforced anti-rollover forklift tunnels For safe handling

Central lifting hook for easy lifting

Control panel
IP55 Control panel managed by DSE 4510 MKII Controllers



Easy to service



Galvanized metal sheet to increase strength and durability



Exhaust terminal pipe with tilting cap rain over



Exhaust pipes with exhaust heat wrap for high-performance and security



Emergency stop button It shuts down the generating set immediately



Anti-vibration pads attenuate the vibrations caused by the unit



Oil and Coolant Drain