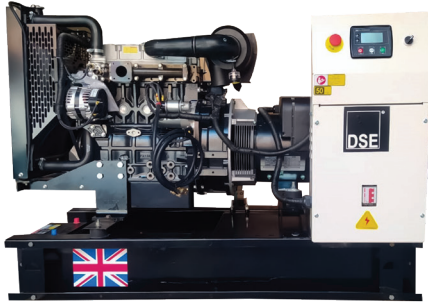




TECHNO POWER

TP20

POWERED BY PERKINS
404D-22G



Genset Model	TP20
Engine Model	404D-22G
Alternator Model	TAL040F
Controller Model	Deep Sea 4520 MKII

OUTPUT RATINGS		50Hz		60Hz	
		PRIME	STANDBY	PRIME	STANDBY
KVA POWER	KVA	20.3	22.3	24.2	26.6
KW POWER	KW	16.2	17.8	19.2	21.3
RATED SPEED	r.p.m	1500		1800	
VOLTAGE	V	230/400		110/220	
		240/415		220/380	

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.

ENGINE SPECIFICATIONS



-  **Three Phase**
-  **Diesel**
-  **Water Cooled**
-  **50/60Hz**
-  **65 Amps Battery Charging Alternator**
-  **12V Negative**

Manufacturer	PERKINS
Model	404D-22G
Engine Type	4-stroke
Aspiration Type	Naturally Aspirated
Bore and Stroke	84 x 100 mm
Cooling System	Water Cooled
Number of cylinders and arrangement	4/ Vertical in Line
Compression Ratio	23.3 : 1
Circuit Breaker Type	3Pole MCB / MCCB
Displacement	2.216 L





TECHNO POWER

TP20

POWERED BY PERKINS
404D-22G



ALTERNATOR SPECIFICATIONS

Manufacturer	Leroy Somer	Over speed (rpm)	2250
Model	TAL040F	Voltage Regulation(steady state)	+/- 1.0%
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	Radio Interference	Supression is in line with European Standard EN61000-6
Excitation System	SHUNT	Radiant Heat kW	50Hz 2.3
AVR Model	R120		60Hz 2.7

IP23 Protection

H Class Insulation

SHUNT Excitation System

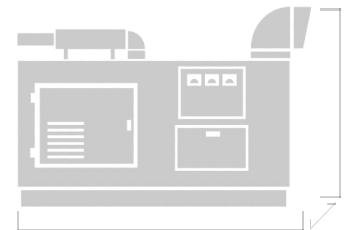
WEIGHT AND DIMENSIONS

OPEN

CLOSE



LENGTH	mm	1510	1806
WIDTH	mm	630	926
HEIGHT	mm	1100	1302
WEIGHT	kg	485	540

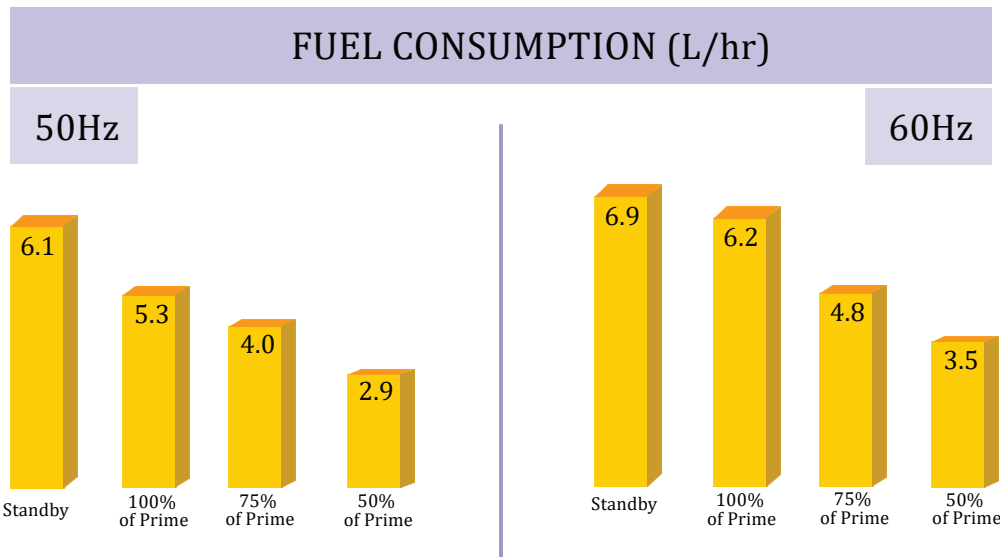




TECHNO POWER

TP20
POWERED BY PERKINS
404D-22G

Fuel Filter Type	Replaceable Element
Recommended Fuel	Class A2 Diesel
Fuel Tank Capacity	78.2L



FUEL SYSTEM

		50Hz		60Hz			
EXHAUST	SILENCER TYPE	INDUSTRIAL					
	MAX. ALLOWABLE BACK PRESSURE	kPa(in Hg)		10.2(3.0)	10.2(3.0)		
	SILENCER NOISE REDUCTION LEVEL	29dB		21.5dB			
		PRIME	STANDBY	PRIME	STANDBY		
	EXHAUST GAS FLOW	m ³ /min(cfm)		3.6(129)	3.9(139)	4.3(153)	4.8(168)
	EXHAUST GAS TEMPERATURE	°C (°F)		445(833)	505(941)	440(824)	510(950)

EXHAUST SYSTEM





TECHNO POWER

TP20
POWERED BY PERKINS
404D-22G

AIR SYSTEM

A I R	AIR FILTER TYPE		REPLACEABLE ELEMENT			
			50Hz		60Hz	
			PRIME	STANDBY	PRIME	STANDBY
	COMBUSTION AIR FLOW	m ³ /min(cfm)	1.5(51)	1.5(51)	1.7(61)	1.7(61)
	MAX. COMBUSTION AIR INTAKE RESTRICTION	kPa(in H ₂ O)	3.0(12.0)		3.0(12.0)	

LUBRICATION SYSTEM

Oil Filter Type	Spin-on , Full Flow	
Total Oil Capacity	L(US gal)	10.6 (2.8)
Oil Pan	L(US gal)	8.9 (2.4)
Oil Type	CH4 15W-40	

COOLING SYSTEM

		50Hz	60Hz
Water Pump Type	Centrifugal		
Cooling System Capacity	L	7	7
Radiator Fan Load	kW(HP)	0.3(0.4)	0.4(0.5)
Radiator Cooling Airflow	m ³ /min(cfm)	33.0(1165)	41.4(1462)
External Restriction to Cooling Airflow	Pa(in H ₂ O)	125(0.5)	125(0.5)





TECHNOPOWER Silent Canopy



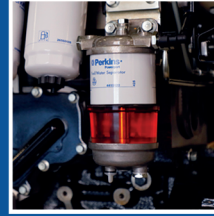
Fuel Inlet/Outlet



Document holder
Protects documents



Diesel filling with
key lock



Fuel/water
separator filter

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 4520MKII Controller



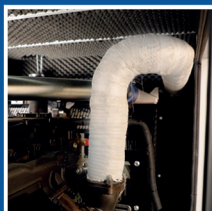
Easy to service



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



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

-30 °C to +85 °C
-40 °F to +185 °F

OPERATING TEMPERATURE RANGE

-40 °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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