



# TECHNOPOWER

**FPT 45**  
POWERED BY FPT  
NEF45 AM1A



Genset Model	FPT 45
Engine Model	NEF45 AM1A
Alternator Model	TAL042F
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		50Hz	
		PRIME	STANDBY
KVA POWER	KVA	45.0	50.0
KW POWER	KW	36.0	40.0
RATED SPEED	r.p.m	1500	
VOLTAGE	V	230/400	240/415

## ENGINE SPECIFICATIONS

Manufacturer	FPT
Model	N45 AM1A
Engine Type	4-stroke
Cooling System	Liquid Cooled
Bore and Stroke	104 x 132 mm
Compression Ratio	17.5 : 1
Number of cylinders and arrangement	4/ Vertical in Line
Circuit Breaker Type	3Pole MCB/MCCB
Aspiration	Naturally Aspirated
Displacement	4.5 L

-  Three Phase
-  Diesel
-  Liquid Cooled
-  90 Amps Battery Charging Alternator
-  12V Negative



TECHNOPOWER FZC

Q4-94, SHARJAH AIRPORT INT'L FREEZONE (SAIF ZONE), SHARJAH, UAE.

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## ALTERNATOR SPECIFICATIONS

Manufacturer	Leroy Somer	Over speed (rpm)	2250
Model	TAL042F	Voltage Regulation(steady state)	+/- 1.0%
No of Bearings	1	Waveform: NEMA = TIF	< 50
Insulation Class	H	Waveform: I.E.C. = FHT	< 2%
Wires	6(12)	Winding pitch	2/3
Ingress Protection Rating	IP 23	Excitation System	SHUNT
AVR Model	R120	Radio Interference	Supression is in line with European Standard EN55011

IP23 Protection

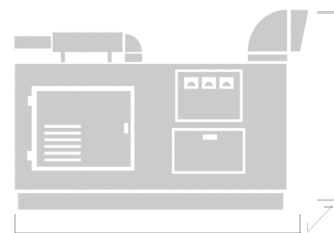
H Class Insulation

SHUNT Excitation System

## WEIGHT AND DIMENSIONS



		OPEN	CLOSE
LENGTH	mm	1710	2306
WIDTH	mm	770	1010
HEIGHT	mm	1250	1277
WEIGHT	kg	852	1230



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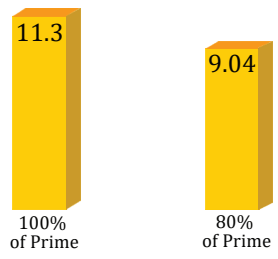


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Fuel Filter Type	Replaceable Element
Recommended Fuel	Class A2 Diesel
Fuel Tank Capacity	125 L

## FUEL CONSUMPTION (L/hr)



**FUEL SYSTEM**

<b>EXHAUST</b>		50Hz		
	SILENCER TYPE	INDUSTRIAL		
	SILENCER NOISE REDUCTION LEVEL	20dB		
	MAX. ALLOWABLE BACK PRESSURE	kPa	10.0	
			PRIME	STANDBY
	EXHAUST GAS FLOW	kg/hr	221	221
	EXHAUST GAS TEMPERATURE	°C (°F)	620(1148)	620(1148)

**EXHAUST SYSTEM**



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A I R	AIR FILTER TYPE		Dry	
			50Hz	60Hz
			PRIME	STANDBY
	COMBUSTION AIR FLOW	m <sup>3</sup> /hr(kg/hr)	172(221)	172(221)
	MAX. COMBUSTION AIR INTAKE RESTRICTION	kPa(mbar)	2.0(20)	

## LUBRICATION SYSTEM

Oil Filter Type	Spin-on , Full Flow	
Total Oil Capacity	L	12.8
Oil Pan	L	8.5
Oil Type	CH4 15W-40	

## COOLING SYSTEM

		50Hz
Water Pump Type	Centrifugal	
Cooling System Capacity	L	18.5
Radiator Fan Load	kW	1.15
Radiator Cooling Airflow	m <sup>3</sup> /s	1.8
External Restriction to Cooling Airflow	Pa(in HzO)	46(0.2)



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# TECHNOPOWER



## AUTHORISED GOLD DISTRIBUTOR



# DSE4510/20

## AUTO START AND AUTO MAINS FAILURE CONTROL MODULES

### (ALTERNATOR FREQUENCY & CAN SPEED SENSING)

#### FEATURES



DSE4520



DSE4510



#### KEY BENEFITS

- Ultimate size to feature ratio
- Automatically transfers between mains (utility) and generator (DSE4520 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
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress

#### KEY FEATURES

- Alternator frequency & CAN speed sensing in one variant
- Largest back-lit icon display in its class
- 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 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 (2 for DSE4510)
- 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
- 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
- Event log (50)

#### SPECIFICATION

##### 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 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

2 A DC at supply voltage

###### AUXILIARY OUTPUTS E & F DSE4520

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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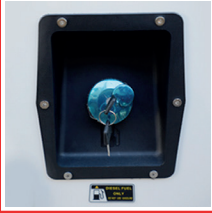
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# TECHNOPOWER

## Silent Canopy



Fuel filling point with key lock



Document holder



Emergency stop button

Central lifting hook for easy lifting



Control Panel IP55 Control panel managed by DSE 4520 MKII controller



**Heavy duty Engines**  
optimized for low fuel consumption

**Alternator** - 3phase and Single phase with AVR

**Stainless Steel Lockable handles & Hinges**

**Sound proof galvanised canopy**   
65dB(A) @7m

**In-built fuel tank made of Polypropylene**  
with bounded base for 8hrs @full load

**Reinforced anti-rollover forklift tunnels**   
for safe handling



**Easy maintenance**  
easily removable side part



Fuel Inlet/Outlet



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



Galvanized metal sheet to increase strength & durability



Oil and coolant drain



Anti-vibration pads attenuate vibrations caused by the unit



Exhaust terminal pipe with tilting cap rain over