



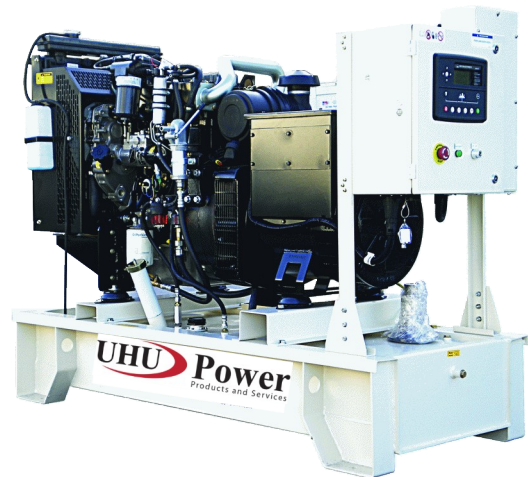
**GENERATOR MODEL: UP20**

**230/400V, 50HZ @ 1500RPM**

<b>Prime Power</b>	<b>20 kVA</b>	<b>16 kW</b>
<b>Standby Power</b>	<b>22 kVA</b>	<b>17.6 kW</b>

**Features:**

- **Warranty: 1 year or 1000 hours.**
- **Perkins as the world's leading power engines manufacturer since 1932.**
- **24/7 after sales support.**
- **Easy and economical availability of Spares.**
- **Advance digital control system, Long service life, Easy to Operate, Low Fuel consumption, Anti vibrating Isolators.**
- **Automatic start (optional), Eco-friendly.**
- **Low oil shutdown safety.**
- **Automatic overload protection safety.**



**Engine**

Perkins-UK, Model 404A-22G1, in accordance to ISO3046, ISO 8528, DIN 6271



**Alternator**

Stamford UK, Leroy Somer-France, Meccalte-EU Complying to the following Standards: CEE/CE12/3/EN60034-1 / IEC34-1/VDE



**Control Panel**

Deep Sea Electronics DSE-4000/6000 series, Made in UK, Comply to standards: BS EN 61000, BS EN 60950, BS EN 60068



**Fuel Tank**

The overall fuel tank capacity: 53 LTR.



**Dimensions**

L x W x H = 6.0' x 2.8' x 3.8' (with Canopy)

# ENGINE TECHNICAL DATA



SCHEMA



FUEL



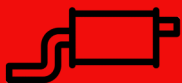
LUBE SYSTEM



COOLING



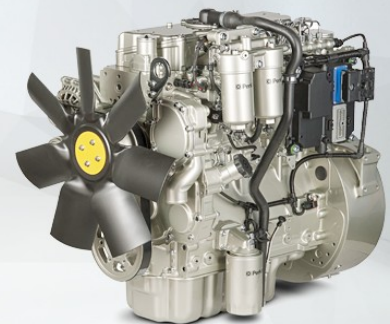
AIR INTAKE



EXHAUST

Engine Make	Perkins
Engine Model	404A-22G1
Number Of Cylinders	4
Cylinder Arrangement	Vertical In Line
Bore and Stroke	84 mm x 100 mm
Governor Type	Mechanical
Displacement	2.216 L
Compression Ratio	23.3:1
Aspiration	Natural
Cycle	4 Stroke
Combustion System	Indirect Injection
Rotation	Anti-clockwise, viewed on flywheel
Cooling System	Water - Cooled
Frequency and Engine Speed	50Hz and 1500 rpm
Gross Engine Power (Prime)	18.7 kW / 25.1 h.p
Gross Engine Power (Standby)	20.6 kW / 27.6 h.p
Fuel Consumption	
100% Load (L/hr)	5.3
75% Load (L/hr)	4.0
50% Load (L/hr)	2.9
Fuel Tank Capacity	53 Ltr
Lubrication System Capacity	10.6 Ltr
Total Coolant Capacity	7.0 Ltr
Radiator Cooling Air Flow	0.49 m <sup>3</sup> /sec
Combustion Air Flow	1.45 m <sup>3</sup> /min
Exhaust Gas Flow (Prime)	3.64 m <sup>3</sup> /min
Exhaust Gas Flow (Standby)	3.94 m <sup>3</sup> /min
Exhaust Temperature (Prime)	445 °C
Exhaust Temperature (Standby)	505 °C

 **Perkins**  
The Heart of Every Great Machine



# ALTERNATOR TECHNICAL DATA



SCHEMA

Insulation System	Class H
Winding Pitch	2/3 to Minimize Harmonics effects
Number of Poles	4
Number of Bearings	Single Bearing
RPM	1500 RPM
Power Factor	0.8/1
Regulation	± 1%
Frequency	50 Hz
Voltage Range	380-415 / 220-240
IP Rating (Protection)	Ip23

Synchronous, 3/1 phase, Brushless & Self Excited

**NOTE:** Alternator Brand & Model is subject to availability.



## CONTROL MODULE

DEEP SEA ELECTRONICS  
(DSE-4000/6000 Series)



### INDICATORS

- ✔ Operating Hours
- ✔ 3 Phase Generator Voltage Sensing & Monitoring
- ✔ Current Protection & Monitoring
- ✔ Power Measurement (kW, kVA, kVA<sub>r</sub>, kWh, kVAh, kVA<sub>r</sub>h, pf)
- ✔ Frequency Monitoring (Hz)
- ✔ Oil Pressure/Coolant Temperature
- ✔ Battery Voltage Monitoring (DC)
- ✔ Alarm Acknowledge



### CONTROLS

- ✔ Engine Cool Down Timer
- ✔ Emergency Stop Push button/ Alarm Acknowledge
- ✔ Warm-up Timer
- ✔ Load Switching Timer
- ✔ Engine Cycle Crank



### WARNING & SHUTDOWN ALARM

- ✔ Generator Over/Under Voltage & Frequency
- ✔ Crank Disconnect (Failure to Start)
- ✔ Under/Over Speed
- ✔ Over Current
- ✔ Low Oil Pressure
- ✔ High Water Temperature
- ✔ Low Fuel Level
- ✔ Low Water Level



### FEATURES

- ✔ User Friendly
- ✔ Compatible With CAN Engines
- ✔ License Free Software
- ✔ Largest Backlit Icon Display In Its Class
- ✔ Fully Configured Via The Fascia Or Pc Using Usb
- ✔ Efficient Power Save Mode

