

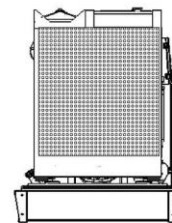
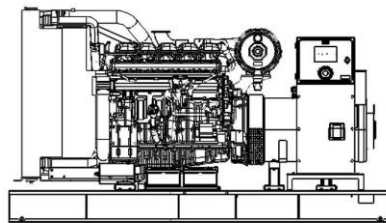
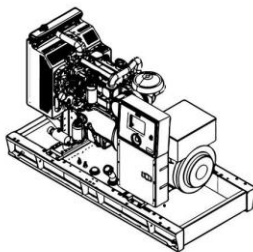


For illustration only

Output Power

| | | |
|---------------------|-----|-----|
| Standby Power (ESP) | kVA | 495 |
| | kW | 396 |
| Prime Power (PRP) | kVA | 450 |
| | kW | 360 |

| Size | W x L x H (mm) | Weight (kg) | Fuel Tank (lt) | Noise dB(A) @ 1m |
|-----------|-----------------|-------------|----------------|------------------|
| Canopied | 4300x1422 x2180 | 4750 | 950 | TBA |
| Open Skid | 3400x1180x1860 | 3630 | 530 | TBA |



Continuous Power

The maximum power which a generating set is capable of delivering continuously whilst supplying a constant electrical load. Average load can be 100%. The generator must not be overloaded.

Standby Power

The max power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hrs. of operation per year under

Prime Power

average of 70% load. Overloading isn't permissible. The maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load. Average load should be 70%. The generator can be overloaded 10% for 1 hour per 12 hrs.

Engine

| | | |
|------------------------------------|---------------------|---------------------|
| Manufacturer | | VOLVO |
| Model | | TAD1645GE |
| Cylinder Configuration | | IN-LINE |
| No of Cylinders | | 6 |
| Displacement | lt | 16,12 |
| Stroke | mm | 158 |
| Bore | mm | 131 |
| Compression Ratio | | 18.1:1 |
| Aspiration | | <u>TURBOCHARGED</u> |
| Governor Type | | |
| Cooling System | | WATER |
| Coolant Capacity | lt | 24 |
| Total Lubrication Capacity | lt | 36 |
| Electrical System | VDC | 12/24 |
| Speed / Frequency 50 Hz | rpm | 1500 rpm / 50 Hz |
| Engine Gross Power (Standby 50 Hz) | kW | 80 |
| Fuel Consumption %25 | g/kwh(lb/ hph) | <u>TBA</u> |
| Fuel Consumption %50 | g/kwh(lb/ hph) | <u>TBA</u> |
| Fuel Consumption %75 | g/kwh(lb/ hph) | <u>67.1</u> |
| Fuel Consumption %100 | g/kwh(lb/ hph) | 89.5 |
| Exhaust Outlet Temperature 50 Hz | °C | 561 |
| Exhaust Gas Flow 50 Hz | m ³ /min | 8,04 |
| Combustion Air Flow 50 Hz | m ³ /min | 3,12 |
| Cooling Air Flow 50 Hz | m ³ /min | 120 |

Alternator

| | | |
|-----------------------------------|-----|--------------------------|
| Manufacturer | | LEROY SOMER/ STAMFORD |
| Model | | S5L1D-C4 |
| No of Phases | | 3 |
| Power Factor | | 0, 8 |
| No of Bearings | | 1 |
| No of Poles | | 4 |
| No of Leads | | 6 |
| Voltage Regulation (Steady State) | | $\leq \pm 1.0\%$ H |
| Insulation Class | | |
| Degree of Protection | | IP 23 |
| Exciter type | | Brushless |
| Rated speed | RPM | 1500 |
| Voltage adjust range | | $\geq 5.0\%$ |
| Frequency | Hz | 50 |
| Voltage Output 50 Hz | VAC | 400 |
| Rated Power | kVA | 500 |
| Efficiency | % | 93,8 |

Standard Equipment

Engine

In our company generator sets, leading engine brands that have state of the art technology and have compliance with ISO 8528, ISO 3046, BS 5514, DIN 6271 standards, are being used. These engines with low fuel consumption, provide accurate speed setting and order, mount to the fuel pump and also, have mechanic or electronic type governors.

Alternator

In products our company produces, leading alternator brands of the world that have state of the art technology, high quality, productivity and durability, are being used. All alternators, which pass necessary test process and found

appropriate according to EC 60034-1; CEI EN 60034-1; BS 4999-5000; VDE 0530, NF 51-100,111; OVE M-10, NEMA MG 1.22. Standards, have bearing system that does not need maintenance, with electronic type voltage regulator providing voltage setting.

Control Panel

Standard control panel, which is used in our company generator sets, ensures comfortable and safe usage. All measured and statistical parameters, operating modes, notice and alarms and condition of generator, are monitored easily from the control panel. On the front of the panel's metal body has electronic control module and the emergency stop button and the panel's metal body is

made of steel sheet and is painted with electrostatic powder paint.

Our company offers panel design and solutions that comply with special requirements of customers as well as quality standard panels.

Chassis and Fuel Tank

Chassis is manufactured from steel that has features and durability for carrying burden of generator set. Thanks to its rigid structural design and anti-vibration mounts, it reduces vibration level to minimum. All chassis contain lifting lugs. Apart from chassis that are produced by our company, special solutions that design in accordance with customer desires, make transportation and positioning easier.

In less than 1600 kVA power generator sets, fuel tank is produced integrated to the chassis. In more than 1600 kVA power generator sets, rectangular type fuel tank is provided with generator set separately. In all types of fuel tank have its level and indicator.

Cooling System

System, that consists of quality industrial - type radiator, expansion tank and cooler fan, keeps the temperature of generator set's equipment constant at a proper level.



Canopy Features

Our company Standard Canopies' default features are as follows;

- Compatible with 2000/14/EC directives, certified noise emission level,

- 2 or 4 points transport possibility according to cabin size,
- Hidden exhaust inside the canopy,
- Emergency stop button located on the canopy,
- Improved air suction channel to ensure homogenous cooling in the canopy,
- Radiator air outlet and exhaust with designed towards above,
- Lid on cab that provides to be filled up water and antifreeze easily to the radiator,
- Amplified paint system against corrosion and rust,
- Improved performance in terms of sound insulation,
- Demounted parts that make transportation and maintenance easier,

As well as the standard range of canopies, our company can also design tailor-made canopies with specific sound level or size upon customer requests.

Optional Equipment

Some Optional Equipment that our company provides with

Generator Sets;

- Medium voltage alternator,
- Remote radiator applications,
- Automatic fuel filling system,
- Fuel tank, oil pan, dashboard, alternator, coil heaters,
- Alternator with double AVR and PMG,
- Synchronization systems,
- The generator output breaker,
- Grid-generator transfer switches,
- Accordance with the specific volume of demand-insulated cabins,
- Seismic solutions,
 - Trailer,
- Remote monitoring.

Control Panel Features-DSE7320

- The DSE7320 is a next generation genset control unit combining multi-functionality and wide communication possibilities together with a reliable and low cost design.
- The unit complies and mostly exceeds world's tightest safety, EMC, vibration and environmental standards for the industrial category.
- Software features are complete with easy firmware upgrade process through USB port. The Windows based PC software allows monitoring and programming through USB, RS-485, Ethernet and GPRS.
- The PC and server based Rainbow Scada software allows monitoring and control of an unlimited number of gensets from a single central location.



Functions

- AMF unit with uninterrupted transfer
- ATS unit with uninterrupted transfer
- Remote start controller
- Manual start controller
- Engine controller
- Remote display & control unit
- Technical information and values are according to ISO8528, ISO3046, NEMA MG-1.22, IEC 600341, BS 4999-5000, VDE 0530 standards.
- Producing with ISO9001, ISO14001, OHSAS18001, TSE, CE standards.
- A

If information given in this leaflet is intended for general purposes only.

- Due to a policy continuous improvement our company reserves the right to amend details and specifications without notice and all information given is subject to our company's current condition of sales.

TBA: To Be Asked TBD: To Be Determined NA: Not Available N/A: Not Applicable

- Waveform display of V & I
- Harmonic analysis of V & I
- CTs at genset or load side

Communications

- SM-GPRS
- Web monitoring
- Web programming
- GSM-SMS
- E-mail
- USB Device
- RS-232
- J1939-CANBUS

Topologies

- 2 phase 3 wires, L1-L2
- 2 phase 3 wires, L1-L3
- 3 phase 3 wires, 3 CTs
- 3 phase 3 wires, 2 CTs (L1-L2)
- 3 phase 3 wires, 2 CTs (L1-L3)
- 3 phase 4 wires, star
- 3 phase 4 wires, delta
- 1 phase 2 wires

WWW.ORKAL.CO.IL

Ha'eshel Street 4/ Industrial Park Caesarea/ Zip code: 38900
Po Box: 3013

FAX : 04-6277558 PHONE: 04-6277551