



**Gensets**  
Small Range

**Perkins**  
THE HEART OF EVERY GREAT MACHINE

**STAMFORD**  
power generation

**Ratings**  
@ 0.8 PF

**50 Hz**  
1500 RPM

| VOLTAGE  | PRIME RATING | STANDBY RATING |
|----------|--------------|----------------|
| 400/3 Ph | 13 KVA       | 15 KVA         |

## NOTES

### Prime Power

Unlimited hours usage with an average load factor of 75% of the published Prime power over each 24 hours period.

A 10% overload is available for 1 hour in every 12 hour operation.

### Standby Power

Limited to 500 hours annual usage.

Available in 60HZ for all voltage ratings

### Standard Reference Conditions

Note: Standard reference conditions 40°C (104°F) Air inlet temp, 100m (328 ft.) A.S.L. 30% relative humidity.

## Standards Compliance



## Dimensions

|                | Open Type | Silent | Super Silent |
|----------------|-----------|--------|--------------|
| <b>Length:</b> | 1250mm    | 1980mm | 2450mm       |
| <b>Width:</b>  | 650mm     | 780mm  | 870mm        |
| <b>Height:</b> | 960mm     | 1280mm | 1400mm       |
| <b>Weight:</b> | 400kg     | 700kg  | 900kg        |

## Technical Data

### Diesel Generating Set

|   |  |
|---|--|
| <b>GENSET Make / Model</b>                  | PERKINS 403A-15G1                        |
| <b>Alternator Make / Model</b>              | Stamford Tech I64C                       |
| <b>Control Panel</b>                        | DSE 4520                                 |
| <b>Base Frame / Canopy</b>                  | Robust Structure / Corrosion Resistant   |
| <b>Circuit Breaker Type</b>                 | 3-Pole MCCB (4-Pole Available as option) |
| <b>Built-In Fuel Tank Capacity (Silent)</b> | 50 L                                     |
| <b>Battery</b>                              | 50 A                                     |

### Engine Specifications

|                                      |                      |
|--------------------------------------|----------------------|
| <b>Make &amp; Model</b>              | PERKINS 403A-15G1    |
| <b>Cylinder &amp; Arrangement</b>    | 3; Vertical in-line  |
| <b>Cycle</b>                         | 4 stroke             |
| <b>Induction System / Aspiration</b> | Naturally Aspirated  |
| <b>Cooling System</b>                | Water cooled         |
| <b>Governing</b>                     | Mechanical           |
| <b>Governing Class</b>               | G2 - ISO 8528 Part 1 |
| <b>Compression Ratio</b>             | 22.5:1               |
| <b>Displacement</b>                  | 1.496                |
| <b>Bore &amp; Stroke</b>             | 84 x 90 mm           |
| <b>Dynamic Charging Alternator</b>   | 15 AMP, 12 V         |

### Lubrication System

|                           |                   |
|---------------------------|-------------------|
| <b>Oil Filter Type</b>    | Spin-On Full Flow |
| <b>Total Oil Capacity</b> | 6.0 L             |
| <b>Oil Type</b>           | API CI-4          |

### Cooling System

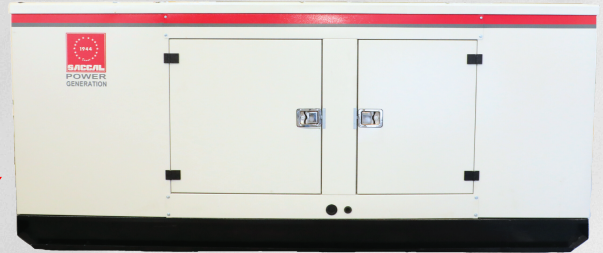
|                               |                        |
|-------------------------------|------------------------|
| <b>Total Coolant Capacity</b> | 6.0 L                  |
| <b>Cooling Fan Air Flow</b>   | 0.42 m <sup>3</sup> /s |
| <b>Max Water Temperature</b>  | 112°C                  |
| <b>Cooling System Design</b>  | 50°C                   |
| <b>Heat Radiation to Room</b> | 3.5 kW                 |

### Air System

|  |             |
|--|-------------|
| <b>Air Filter Type</b>                   | Dry Element |
| <b>Max Air Filter Intake Restriction</b> | 3kPA        |

### Exhaust System

|                                |                          |
|--------------------------------|--------------------------|
| <b>Muffler Type</b>            | Industrial Grade         |
| <b>Max Back Pressure</b>       | 10.2 kPa                 |
| <b>Exhaust Gas Flow</b>        | 2.9 m <sup>3</sup> / min |
| <b>Exhaust Gas Temperature</b> | ≤490° C                  |



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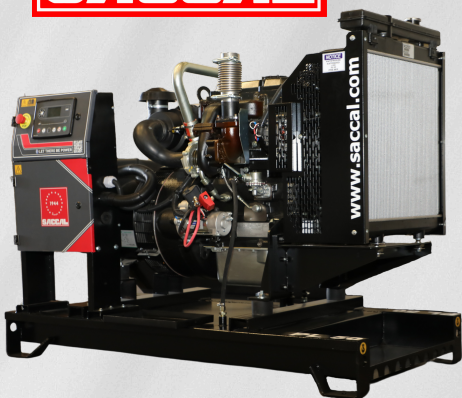
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## Engine Fuel System

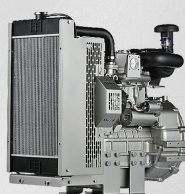
|                            |                 |
|----------------------------|-----------------|
| Recommended Fuel           | Class A2 Diesel |
| Fuel Consumption Standby   | 4.1 L/hr        |
| Fuel Consumption @100% PRP | 3.7 L/hr        |
| Fuel Consumption @75% PRP  | 2.8 L/hr        |
| Fuel Consumption @50% PRP  | 2.0 L/hr        |

## Alternator Specifications

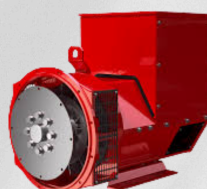
|                           |                            |
|---------------------------|----------------------------|
| Alternator Make / Model   | Stamford Tech 164C         |
| AVR Model                 | SX460                      |
| Number of Poles           | 4                          |
| Number of Winding Leads   | 6                          |
| Type of Bearing           | Single Bearing             |
| Excitation System         | Self Excited               |
| Ingress Protection Rating | IP23                       |
| Cooling Airflow           | 0.071 m <sup>3</sup> / Sec |
| Voltage Regulation        | ±1%                        |
| Harmonic Coefficient THF  | < 2%                       |
| Tel. Influence TIF        | < 50                       |
| Insulation Class          | H                          |



**Controller**



**Engine**



**Alternator**



**Saccal Enclosure / Canopy**

|                           |                                |
|---------------------------|--------------------------------|
| Controller Make / Model   | Deep Sea 4520                  |
| Operation Mode            | Auto-Start & AMF               |
| Display                   | Graphic Backlit LCD (128x64px) |
| Ingress Protection Rating | IP65                           |
| Binary Inputs/Outputs     | 4/4                            |
| Analog Inputs             | 3                              |
| Measurements              | Vac, A, Hz, KVA, KW, Vdc       |
| Event Log                 | Alarms Log, Hrs Log            |
| Communication             | USB                            |

|  |   |              |
|--|---|--------------|
| Canopy Type                                | SILENT  | SUPER SILENT |
| Enclosure Type                             | Acoustic & Weatherproof                                 |              |
| Drainage                                   | Fuel and Water Drainage Provision                       |              |
| Transportation                             | Tested Single Point Lifting Facility & Forklift Pockets |              |
| Ingress Protection                         | IP23  |              |
| Lifting                                    | ISO Standard Lifting                                    |              |
| Canopy RAL Color                           | RAL 9002 - Powder Coated                                |              |
| Base Frame RAL Color                       | RAL 9005 - Powder Coated                                |              |
| Noise Pressure Level db(A) @ 1m @ 75% Load | 71  | 65           |

## SACCAL TOOL BOX

### Standard for every GenSet

- Heat Resistant Gloves
- Notebook
- Pen
- Tape Measure
- Baseball Cap
- Operation Manual
- Wiring Diagrams
- Sound Test (Upon Request)

## Why Saccal Generators ?

**Saccal Industries** is one of the leading diesel generator OEM firms in the **MENA** Region.

With an impressive factory that spreads over an area of 30 thousand square meters in Bekaa & ISO certification, SACCAL has always been the leading name in the manufacturing and assembly of premium quality generating sets.

From planning and design, construction and production, to local and international sales, Saccal has more than 80 Years of experience.

Choose Right - Choose **Saccal**



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