

| Output Power Rating |           | Prime   |     | Standby *** |     |     |
|---------------------|-----------|---------|-----|-------------|-----|-----|
| rpm                 | Frequency | Voltage | Kva | Kw          | Kva | Kw  |
| 1500                | 50 Hz     | 400     | 150 | 120         | 165 | 132 |
| 1800                | 60 Hz     | 480     | 170 | 136         | 191 | 153 |

### Switch able speed 1500/1800 rpm

The above kW rating are at 0.8 pf

Guaranteed within condition equivalent to those specification in ISO 8528-1,ISO 3046-1 and BS 5514-1.

\* Prime power rating of the generating set is where a variable load and unlimited hours usage are applied on the generating set with an average load factor of 80% of the prime rating over each 24 hours period.

Nothing that a 10% overload is available for 1 hour in every 12 hours operation

\*\* Standby power rating of the generating set is where a variable load limited to an annual usage up to 500 hours is applied, with 300 hours of which may be continuous running. Noting that no overload is permitted

### Engine Technical Data

|                            |  |
|----------------------------|--|
| Engine Make and Model      | Perkins 1106D-E70TAG3  |
| Cylinder                   | 6 Vertical In-Line   |
| Aspiration                 | Turbo Charged, Air to Air After Cooled                             |
| Combustion System          | Direct Injection   |
| Displacement               | 7.01 Liters  |
| Governor                   | Electronic / Mechanical  |
| Emissions Regulation       | TA Luft  |
| Electrical Starting System | 12 Volt Starter Motor and 12 Volt 55 Amp Alternator with DC Output |

### Air System

|  |                           |              |               |
|--|---------------------------|--------------|---------------|
| Air Filter Type                                  | Dry Element (Replaceable) |              |               |
| Combustion Air Flow<br>Cm <sup>3</sup> /min(cfm) | Prime<br>Standby          | 50 Hz        | 60 Hz         |
|  |                           | 8.38 (295.9) | 10.72 (378.6) |
|  |                           | 8.78 (310.1) | 11.17 (394.4) |
| Max Air Filter Intake Restriction                | 5.0 kpa                   | 5.0 kpa      |               |

### Fuel System

|                                     |  |             |              |
|-------------------------------------|--|-------------|--------------|
| Fuel Filter Type                    | Spin-On Full Flow and Pre-Filter (Replaceable) |             |              |
| Recommended Fuel                    | Class A2 Diesel                                |             |              |
| Fuel Consumption<br>l/hr(US gal/hr) | Engine Speed                                   | 1500 rpm    | 1800 rpm     |
|                                     | Standby  | 34.6 (9.14) | 41.3 (10.91) |
|                                     | Prime Power                                    | 31.5 (8.32) | 37.6 (9.93)  |
|                                     | 75% of Prime Power                             | 24.1 (6.37) | 28.9 (7.64)  |
|                                     | 50% of Prime Power                             | 16.5 (4.36) | 19.4 (5.13)  |
| Fuel Tank: Open / Close             | 405 L / 435 L                                  |             |              |

### Lubrication System

|                    |  |
|--------------------|--|
| Lube Oil           | API-CD / SE or CCMC D4 15W40 (-10°C to 50°C Ambient Temperature) |
| Lube Oil Capacity  | 19 L   |
| Oil Pan            | 16 L   |
| Oil Filter Type    | Spin-On Full Flow (Replaceable)                                  |
| Oil Cooling Method | Water  |

### Cooling System

|  |                                |            |         |
|--|--------------------------------|------------|---------|
| Coolant Capacity                               | 37.2 L                         |            |         |
| Cooling System                                 | Mounted Radiator, Water Cooled |            |         |
| Cooling Fan Air Flow m <sup>3</sup> /min (cfm) | 154 (5438)                     | 182 (6427) |         |
| Heat Radiation to Room                         | Prime<br>Standby               | 50 Hz      | 60 Hz   |
|  |                                | 15.4 kW    | 19.0 kW |
|  |                                | 25.7 kW    | 33.6 kW |

### Exhaust system

|   |                  |               |                |
|---|------------------|---------------|----------------|
| Silencer                                      | Grade            | Industrial    |                |
|   | Size             | 3"            |                |
|   | QTY              | 1             |                |
| Exhaust gas flow<br>m <sup>3</sup> /min (cfm) | Prime            | 24.14 (852.5) | 29.75 (1050.6) |
|   | Standby          | 25.71 (907.9) | 31.41 (1109.1) |
| Max Allowable Backpressure                    | TBA              | 6kpa          |                |
| Exhaust Gas Max Temperature                   | Prime<br>Standby | 50 Hz         | 60 Hz          |
|   |                  | 571°C         | 540°C          |
|   |                  | 585°C         | 551°C          |

| Alternator Technical Data   |  |  |  | Standford / or L.S   |            |             |             |   |       |       |       |       |      |
|---|--|--|--|--|------------|-------------|-------------|---|-------|-------|-------|-------|------|
| Model Number  |  |  |  | UCI274F  |            |             |             |   |       |       |       |       |      |
| No. of Poles  |  |  |  | 4  |            |             |             |   |       |       |       |       |      |
| Number of terminals (leads)                                       |  |  |  | 12   |            |             |             |   |       |       |       |       |      |
| A.V.R & Excitation  |  |  |  | SX 460   |            |             |             |   |       |       |       |       |      |
| Regulation  |  |  |  | ± 1.5%   |            |             |             |   |       |       |       |       |      |
| Ingress Protection  |  |  |  | IP-21  |            |             |             |   |       |       |       |       |      |
| Insulation Class  |  |  |  | H  |            |             |             |   |       |       |       |       |      |
| TIF   |  |  |  | <40  |            |             |             |   |       |       |       |       |      |
| THD at Full Load %  |  |  |  | 1.7 / 1.8  |            |             |             |   |       |       |       |       |      |
| THD at No Load %  |  |  |  | 2.3 / 2.4  |            |             |             |   |       |       |       |       |      |
| Cooling Air flow-@50 Hz m3 / min (cfm)                            |  |  |  | 19.3 (681.57)  |            |             |             |   |       |       |       |       |      |
| Cooling Air flow-@60 Hz m3 / min (cfm)                            |  |  |  | 23.0 (812.23)  |            |             |             |   |       |       |       |       |      |
| Output Voltage  |  |  |  | 50 Hz  |            |             | 60 Hz       |   |       |       |       |       |      |
| V   |  |  |  | 380  | 400        | 415         | 440         | 415   | 440   | 460   | 480   |       |      |
| kVA   |  |  |  | 150  | 150        | 150         | 125         | 150   | 170   | 180   | 180   |       |      |
| kW  |  |  |  | 120  | 120        | 120         | 100         | 120   | 135   | 144   | 144   |       |      |
| Alternator performance data                                       |  |  |  |  |            |             |             |   |       |       |       |       |      |
| Reactance (f.l.c.l.f)   |  |  |  | xd %   |            | 265.9       | 240         | 223   | 165.3 | 267.6 | 269.8 | 261.3 | 240  |
|   |  |  |  | xd' %  |            | 16.4        | 14.8        | 13.7  | 10.2  | 19.6  | 16.6  | 16.1  | 14.8 |
|   |  |  |  | xd" %  |            | 6.2         | 6.2         | 5.8   | 4.3   | 6.9   | 7.0   | 6.8   | 6.2  |
| Motor starting capacity based on 30% voltage dip and 0.8 pf (kVA) |  |  |  | 325  | 400        | 480         | -           | 250   | 325   | 400   | 480   |       |      |
| Controller features   |  |  |  | DSE  |            |             |             |   |       |       |       |       |      |
| Controller Make and Model   |  |  |  | Auto mains failure (AMF) applications including remote communication, user configuration and complete gen-set monitoring and protection. Ready for generators with 3 ph 4 wire / 3ph 3 wire/ Mono ph |            |             |             |   |       |       |       |       |      |
| Engine Protection   |  |  |  | * Oil Pressure<br>* Coolant Temperature  |            |             |             | * Fuel Level (Optional)                                 |       |       |       |       |      |
| Generator Protection  |  |  |  | * Over / Under Voltage<br>* Over / Under Frequency<br>* Phases Frequency   |            |             |             | * Over Current<br>* Charging Alternator Fault           |       |       |       |       |      |
| Inputs and Outputs  |  |  |  | * 3 No's Configurable Analog Inputs<br>* 4 No's Binary Inputs  |            |             |             | * 6 No's Binary Outputs<br>* D+ Pre-Excitation Terminal |       |       |       |       |      |
| Event and Performance Log   |  |  |  | * Gen-set text Alarm Log<br>* For More Features we can use High Controller   |            |             |             | * Engine Hours History Log                              |       |       |       |       |      |
| Gen-set Enclosure specification (optional)                        |  |  |  |  |            |             |             |   |       |       |       |       |      |
| Enclosure Type  |  |  |  | Acoustic and Weatherproof  |            |             |             |   |       |       |       |       |      |
| Anticorrosive Protection  |  |  |  | Polyester Powder Coated Galvanized Sheet   |            |             |             |   |       |       |       |       |      |
| Access Doors  |  |  |  | 6  |            |             |             |   |       |       |       |       |      |
| Drainage  |  |  |  | Fuel and Water Drainage Provision  |            |             |             |   |       |       |       |       |      |
| Transportation  |  |  |  | Tested Single Point Lifting Facility & Forklift Pockets  |            |             |             |   |       |       |       |       |      |
| Noise Level (@ Free-Field Conditions)                             |  |  |  | 71 dBA @ 7 meter   |            |             |             |   |       |       |       |       |      |
| Water Fill  |  |  |  | Radiator Water Filling Provision   |            |             |             |   |       |       |       |       |      |
| Cable Access  |  |  |  | Cable Inlet and Outlet Provision   |            |             |             |   |       |       |       |       |      |
| Emergency stop  |  |  |  | External Emergency Push Button   |            |             |             |   |       |       |       |       |      |
| Canopy RAL Color  |  |  |  | RAL 2000   |            |             |             |   |       |       |       |       |      |
| Chassis RAL Color   |  |  |  | RAL 9011   |            |             |             |   |       |       |       |       |      |
| Shipping Data   |  |  |  |  |            |             |             |   |       |       |       |       |      |
| Type  |  |  |  | Length (mm)  | Width (mm) | Height (mm) | Weight (kg) |   |       |       |       |       |      |
| Open  |  |  |  | 2500   | 775        | 1425        | 1325        |   |       |       |       |       |      |
| Enclosed  |  |  |  | 3200   | 1100       | 1790        | 1975        |   |       |       |       |       |      |

**Notes:**

All Generators carry a one year or (1,000) hour's manufacturer's warranty