

| 3 PHASE OUTPUTS     |         |                     |     |
|---------------------|---------|---------------------|-----|
| GENERATOR SET MODEL | RATING  | 50HZ                |     |
|                     |         | 380-415 V, 1500 rpm |     |
|                     |         | KVA                 | KW  |
| CM-500              | PRIME   | 500                 | 400 |
|                     | STANDBY | 550                 | 440 |



| ALTERNATOR DATA        |                       |
|------------------------|-----------------------|
| Make                   | LEROY SOMER           |
| Model                  | TAL-047C              |
| No. of bearings        | 1                     |
| Insulation Class       | H                     |
| Total Harmonic Content | <3.5 %                |
| Wires / Poles          | 12 / 4                |
| Ingress Protection     | IP23                  |
| Excitation System      | Self-Excited          |
| Winding Pitch          | 2/3 (n° 6S)           |
| AVR Model              |                       |
| Overspeed              | 2250 mn <sup>-1</sup> |
| Voltage Regulation     | ±0.5%                 |

POWERED BY:



Power Generation



\* Ratings at 0.8 pf - Generator designed to operate in ambient temperatures up to 55 °C  
 \* Generating Set photo is for reference only.

### ENGINE / TECHNICAL DATA

|  |   |                |
|--|---|----------------|
| Engine Make                                | Cummins                                   |                |
| Engine Model                               | QSX15-G8                                  |                |
| Governing Type                             | Electronic                                |                |
| Cylinder Arrangement                       | In-line                                   |                |
| Number of Cylinders                        | 6   |                |
| Bore and Stroke                            | 137x169                                   |                |
| Displacement Litre                         | 15  |                |
| Induction System                           | Turbocharged                              |                |
| Cycle                                      | 4 stroke                                  |                |
| Fuel System                                | Direct Injection                          |                |
| Air Cleaner Type                           | Dry replaceable element                   |                |
| Rotation                                   | Anti-clockwise (viewed from flywheel end) |                |
| Cooling System                             | Water-cooled                              |                |
| Frequency and Engine Speed                 | 50Hz & 1500rpm                            |                |
|  | <b>Prime</b>                              | <b>Standby</b> |
| Gross Engine Power kW                      | 400                                       | 440            |
| FUEL CONSUMPTION (L/hr):                   |   |                |
| 50%  | 55  | -              |
| 75%  | 79  | -              |
| 100%                                       | 105                                       | 120            |
| Total Lubrication System Capacity [liters] | 91  | 91             |
| Total Coolant Capacity                     | 42  | 42             |
| Coolant Ratio                              | 50:50                                     | 50:50          |
| Fan Power (kWm)                            | 16  | 16             |
| Cooling System Air Flow (m3/s)             | 11.8                                      | 11.8           |
| Limiting Ambient Temperature (°C)          | 55  | 55             |
| Exhaust Gas Flow: L/sec                    | TBD                                       | TBD            |
| Fuel Tank Capacity                         | 900                                       | 900            |

### CONTROL PANEL

| Make  | Deepsea |
|---|---------|
| The auto starting control panel with Deepsea Controller has been designed and built to combine all the instruments control and the warning lights for engine and alternator. The sheet steel made panel is carefully painted for tropical climates and is designed for a dusty environment. Includes following equipment Ammeter with selector switch – water temperature meter – oil pressure meter- molded case three pole circuit breakers with thermal and magnetic release - automatic shut down in case of HWT, LOP and over speed - starting key and stop push button - acoustical signal - warning light for high cooling water temperature, low oil pressure, battery charging - hours meter. Automatic starting control board versions are available as option. |         |

### Dimension and Weight

| DIMENSION  | OPEN    | SILENT  |
|------------|---------|---------|
| Length (L) | 3700 mm | 4500 mm |
| Width (W)  | 1150 mm | 1630 mm |
| Height (H) | 2100 mm | 2130 mm |
| Net Weight | 3797 kg | 4750 kg |

### RATING DEFINITIONS:

**Prime Power** - These ratings are applicable for supplying continuous power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

**Standby Power** - 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 rating. When used at standby Rating the alternator will be peak continuous rated (according to ISO3046)

### STANDARD SPECIFICATIONS

#### 1. ENGINE

Cummins heavy duty diesel engine.

##### 1.1 GOVERNOR

Electronic

#### 2. COOLING RADIATOR

Radiator and cooling fan complete with protection guards, designed to cool the engine in ambient temperatures up to 55° C. The radiator is mounted on the base frame to avoid vibrations coming from the engine.

#### 3. FILTRATION SYSTEM

Cartridge type air filter with security element. Cartridge fuel filter and full lube oil filter. All filters have replaceable elements.

#### 4. EXHAUST SYSTEM

Heavy-duty industrial silencer.

#### 5. ELECTRICAL SYSTEM

24 Volts system with battery charging alternator, Starter motor, High capacity maintenance free lead acid battery, battery rack mounted on the generating set base frame, and heavy duty interconnecting cables with terminations.

#### 6. ALTERNATOR

Screen protected and drip-proof, self-exciting, self-regulating brush-less alternator. Four poles, STAR winding connection, suitable for tropical, humid and saline climates. H class insulation.

#### 7. AUTOMATIC VOLTAGE REGULATOR (AVR)

Static electronic design voltage regulator. Steady voltage precision within + 1 % from no load to full load including cold and hot variations, at any Power factor between 0.8 and unity.

#### 8. MOTOR STARTING

An overload capacity equivalent to between 160% to 300% (depending on alternator frame size) of full load impedance at zero power factor can be sustained for 10 seconds.

#### 9. MOUNTING ARRANGEMENT

##### 9.1 BASE FRAME

The complete generating set is mounted on heavy duty steel fabricated base frame which is anti rust coated.

##### 9.2 COUPLING

Engine and alternator are directly coupled by means of SAE flange. The engine fly wheel is flexibly coupled to the alternator rotor.

##### 9.3 ANTI VIBRATION MOUNTING PADS

Anti vibration pads are fitted between engine-alternator base frame ensuring complete vibration isolation of rotating assemblies.

#### 10. FUEL SYSTEM

On Generating Sets up to 700 KVA, the baseframe design is incorporated with an integral fuel tank with a capacity of approx. 8 hours running at Full Load. The tank is supplied complete with fill cap breather, fuel feed and return lines to the Engine and drain plug.

#### 11. DOCUMENTATION

A full set of operation and maintenance manual are provided.

#### 12. FACTORY TESTS

Generating set is subject to a strict load test before delivery. A test certificate can be provided as optional.

#### 13. QUALITY STANDARDS

Generating set meets the following standards ISO 8528, IEC 34.1, CEI 2.3, VDE 0530, BS 4999-5000, NF51-100. Cummins is fully accredited ISO 9001 company.

#### 14. WARRANTY

Generating set is guaranteed for a period of 12 months from date of commissioning or 18 months from date of shipment which ever occurs earlier. (check warranty statement for more details, as it may vary for different countries)

In line with our policy of continuous product development, we reserve right to change specification without notice

### AVAILABLE OPTIONS & ACCESSORIES

We offer a range of optional features and accessories to tailor our generating sets to meet your needs.

#### OPTIONS

- Generator Set control and synchronizing panels
- Additional Protection alarms and shutdowns
- Water fuel separator
- Water jacket heater
- Battery charger

Distributed and Serviced by:



#### ACCESSORIES

- Genuine spare parts
- Fuel Tanks
- Manual and Automatic Transfer Switches

#### STANDARD REFERENCE CONDITIONS

De-rating may apply, please consult Adpower for specific site ratings. Some of the specifications are not standard on all Genset Models.



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