



### DIESEL GENERATING SET 400/230 V - 50 Hz - 3PHASE

| POWER RATING          |         | PRIME                                  | STANDBY |
|-----------------------|---------|--|---------|
| POWER                 | kVA     | 1375                                   | 1500    |
|                       | kW      | 1100                                   | 1200    |
| Rated Speed           | r.p.m   | 1500                                   |         |
| Available Voltages    | V       | 400/230 - 380/220-415/240V-440/254 etc |         |
| Rated at power factor | Cos Phi | 0.8                                    |         |

**Standard Reference Conditions:** 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

**Prime Power (PRP):**

According to ISO 8528-1:2018, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 hours of operation shall not exceed 70 % of the PRP.

**Emergency Standby Power (ESP):**

According to ISO 8528-1:2018, Emergency standby power is the maximum 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 hours of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 hours of operation shall not exceed 70 % of the ESP

| ENGINE                              |        | PRIME                                    | STANDBY |
|-------------------------------------|--------|--|---------|
| Rated Output                        | kW     | 1095                                     | 1205    |
| Manufacturer                        |        | MTU                                      |         |
| Model                               |        | 12V4000G23R                              |         |
| Number of Cylinders and arrangement |        | 4 Cycle; 12V Cylinder Diesel             |         |
| Aspiration Type                     |        | turbocharger and Air charge air cooling; |         |
| Bore and Stroke                     | mm     | 170X210                                  |         |
| Compression Ratio                   |        | 16.5:1                                   |         |
| Cooling System                      |        | Water-cooled                             |         |
| Engine Speed/Frequency              | rpm/Hz | 1500/50HZ                                |         |
| Coolant Capacity                    | L      | 200                                      |         |
| Starting System                     |        | Electric 24volt DC                       |         |
| Displacement                        | L      | 57.2                                     |         |

|                            |      |  |       |       |      |
|----------------------------|------|--|-------|-------|------|
| Lubricant system Capacity  | L    | 260  |       |       |      |
| Battery Volatge / Capacity |      | 24VDC                                      |       |       |      |
| Governor                   | Type | Electronic engine management system "ADEC" |       |       |      |
| Air Filter                 | Type | Dry  |       |       |      |
| Fuel Consumption           | Load | 100%                                       | 75%   | 50%   | 25%  |
|                            | L/h  | 307.0                                      | 236.0 | 167.0 | 88.0 |

**ENGINE:**Industrial 4 stroke cooled diesel engine complete with air,fuel and oil filters,electric starting and charging equipment,engine protection against low water level.

**COOLING:**Radiator and colling fan complete with protection guards,designed to cool engine at specified output in air temperatures upto 50 °C.,radiators suitable for higher temperatures are available.Low water level protection fitted as standard.

**ELECTRICAL SYSTEM:**12/24V upto.Axial type starter motor,battery charging alternator,high capacity lead acid battery,and battery tray mounted on the generator base frame,and heavy duty interconnecting cable with terminations.

**EXHAUST SYSTEM:**Heavy duty industrial exhaustet silencer with flexible piping.

| ALTERNATOR MANUFACTURER   | STAMFORD                         | LEROY SOMER | PRIME POWER |
|---------------------------|----------------------------------|-------------|-------------|
| Model                     | PI734B                           | LSA50.2M6   | SMG734B     |
| Excitation System         | Self-excited, brushless          |             |             |
| Number of Poles           | 4                                |             |             |
| Connection Type           | Star-Series                      |             |             |
| Insulation Class          | Class H                          |             |             |
| Voltage Regulator         | A.V.R. (Electronic)              |             |             |
| Bracker Type              | Single bearing                   |             |             |
| Steady Voltage Precision  | ± 1%                             |             |             |
| Couping System            | Flexible disc                    |             |             |
| Coating Type              | Standard ( Vacuum impregnation ) |             |             |
| Underspeed Protection     | Standard                         |             |             |
| Ingress Protection Rating | IP23                             |             |             |
| Wave Form NEMA=TIF        | <50                              |             |             |

**CONTROL PANEL: COMAP AMF20 Or DSE7320**

**Auto Mains Failure Control Panel**

Panel equipments:

- Δ Control with AMF module
- Δ Static battery charger
- Δ Emergency stop push button



**a) Generating set control module features:**

- Δ The module is used to monitor main supply and starts and stops of a standby generating set
- Δ Micro-processor based design
- Δ Automatic control of main and generator contactors

**c) Alarms:**

- Δ Over and Under Speed
- Δ Low and High Battery Volt.
- Δ Start and Stop Failure



