

## **DEPARTEMENT OUTILLAGE**

### GROUPE ELECTROGENE 30KVA DIESEL TRIPHASE - MOTEUR PERKINS



Generator
Model:

SDG30PM

PERKINS
1103A-33G

Mecc Alte
ECP30 3M4C

Frequency 50HZ 3Phase4Wire Power Factor  $Cos\phi = 0.8$ 

| RATINGS |      | PRIME POWER |      | STANDBY POWER |      |
|---------|------|-------------|------|---------------|------|
|         |      | SDG30PM     |      |               |      |
| Voltage | Amps | kVA         | kWe  | kVA           | kWe  |
| 400     | 48   | 30          | 24.0 | 33            | 26.0 |

#### **DEFINITION OF RATINGS**

**Prime power** is defined as being 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 24h of operation shall not exceed 70% of the PRP.

**Emergency standby power** is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions for up to 200h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24h of operation shall not exceed 70% of the ESP. **Standard Reference Conditions:** air inlet temperature 25°C (77°F), barometric pressure 100kPa [110m (361ft) altitude] and 30% relative humidity.

Note: The above ratings may be subject to derate at different operating conditions.





#### **Key Features:**

- Efficient water cooled diesel engine.
- Radiator with pressure cap and drain point
- Fully guarded engine-driven fan
- Fully welded steel baseframe with lifting points
- Various fuel system options
- Heavy duty rubber anti-vibration mountings
- 24V starter batteries and connecting cables
- Engine-driven battery charging alternator
- Spin on oil and fuel filters and dry type air filter element
- Auto Start control with digital instrumentation
- Factory Test Certificate
- Operation & Maintenance Manual
- Optional extra features available



L ng e (L1) =2300 mm L ge (W1) =1000 mm = e (=1)=1 0mm h =1 00 g



# SDG30PM

2020-rev00

| ENGINE                   |   |   |   | _PE   | RKINS 1103A-33G                             |  |  |
|--------------------------|---|---|---|---|---|--|--|
|                          |   |   |   | Units   | PRIME STANDBY                               |  |  |
|                          | Engine Speed  |   |   | r/min   | 1500  |  |  |
|                          | Gross Po  |   |   | kWm   | 28.2 31                                     |  |  |
|                          | Governo   | Governor/Class                                    |   |   | Mechanical                                  |  |  |
|                          | Cylinder  | Cylinder No.                                      |   |   | 3   |  |  |
|                          | Cycle   |   |   |   | Four stroke                                 |  |  |
|                          | Cylinder  | Cylinder arrangement                              |   |   | Vertical in-line                            |  |  |
|                          | Type of i   | njection  |   |   | Direct injection                            |  |  |
|                          | Aspiratio   | n   |   |   | Narually Aspirated                          |  |  |
|                          | Cooling mode  |   |   |   | Water cooled                                |  |  |
| ata                      | Bore and  | Bore and stroke                                   |   |   | 105x127                                     |  |  |
|                          | Compres   | sion ratio  |   |   | 19.25:1                                     |  |  |
| General Data             | Displace  | ment  |   | L   | 3.3   |  |  |
| ien                      | Battery c   | apacity   |   | A/hr  | 80  |  |  |
| ٥                        | Direction of rotation(Facing output end)  |   |   |   | Counter clockwise                           |  |  |
|                          | Steady speed regulation   |   |   | %   | ≤5  |  |  |
|                          | Lubricanting Oil Capacity   |   |   | L   | 8.3   |  |  |
|                          | Coolant Capacity  |   |   | L   | 10.2  |  |  |
|                          | Fuel Type   |   |   |   | 0# Diesel (Natural temperature)             |  |  |
|                          | Filter sys  | tem   |   |   | Adopt lubricating oil , fuel and air filter |  |  |
|                          | Exhaust :   | system  |   |   | Adopt industrial high efficiency silencer   |  |  |
|                          | F.  | uel 100% Load                                     |   | L/h   | 7.2   |  |  |
|                          |   | 175% Load   |   | L/h<br>L/h  | 5.61  |  |  |
|                          | Consum  | Consumption at 50% Load                           |   |   | 4.06  |  |  |
| <b>ALTERN</b>            | ATOR  |   |   |   | Mecc Alte ECP30 3M4C                        |  |  |
|                          |   |   |   | Units   |   |  |  |
|                          | Alternato   |   |   |   | A.C. Synchronous                            |  |  |
|                          | Rated Vo  |   |   |   | 230V/400V                                   |  |  |
|                          | Rated Fro   |   |   |   | 50HZ  |  |  |
|                          | Rated Sp  | eed   |   |   | 1500 RPM                                    |  |  |
|                          | Poles   |   |   |   | 4   |  |  |
| ata                      |   | or Voltage Regulation                             |   | %   | ≤±1   |  |  |
| General Data             | Waveform Distortion   |   |   |   | no load ≤1.5%; Non-distorting               |  |  |
| era                      |   | ne Interference                                   |   | %   | THF≤2                                       |  |  |
| en                       | Exciting  |   |   |   | self exciting                               |  |  |
| U                        | Power Fa  |   |   |   | 0.8   |  |  |
|                          | Phase &   |   |   |   | 3 phase 4 wires                             |  |  |
|                          | Rated Cu  |   |   | A   | 48  |  |  |
|                          | Efficiency  |   |   | %   | 85.50%                                      |  |  |
|                          | Insulation Class  |   |   |   | H   |  |  |
|                          | Protection Class  |   |   | IP23  |   |  |  |
| CONTRA                   |   | bient Temperature                                 |   | ℃   | 40  |  |  |
| CONTRO                   |   | nfigure.  | 14/   | ma(M) and alma  | DEEPSEA DSE7320                             |  |  |
|                          |   |   |   | ps(W) and shut down alarm (S)                         |   |  |  |
|                          |   | 1 Automatic control module×1 1                    |   | Low oil pressure (W+S)  Coolant over temperature(W+S) |   |  |  |
|                          | 3   | Emergency stop button×1 AC main circuit breaker×1 | 3   |   | perature(vv+5)                              |  |  |
|                          | _   |   |   | Failed start (W)                                      |   |  |  |
| E E                      | Digital display: 4  1 Mains and generator voltage 5  2 3-phase gernerator current 6 |   |   | Battery over and under voltage(W)                     |   |  |  |
| ste                      |   |   | Battery charge failure(W) Engine over and under speed (W+S) |   |   |  |  |
| Sy                       | 3   | Mains and generator frequency                     | 7   | Gernerator over and under speed (W+S)                 |   |  |  |
| tro                      | 4   | Out put(kva,kW,kvar,cos(phi)                      |   | 8 Gernerator over and und voltage(W+S)                |   |  |  |
| on                       | 5   | Battery voltage                                   | 9   | KW overload trip (W)                                  |   |  |  |
| CO                       | 6   |   |   |   | Delayed over current(W)                     |  |  |
| Automatic Control System | 7   | Fuel level  | 11  | Emergency stop (W)                                    |   |  |  |
|                          | 8   | Oil pressure                                      | -   ''  | Emergency stop (w)                                    |   |  |  |
| Au                       | 9   | Water temperature                                 |   | ₩ MERCANINAN  |   |  |  |
|                          | 10  | Run hours   |   |   |   |  |  |