

### E PR EM 0050-H0030

#### PERKINS Series Diesel Generator Sets

|         |     |    |
|---------|-----|----|
| STANDBY | kVA | 50 |
|         | kW  | 40 |
| PRIME   | kVA | 45 |
|         | kW  | 36 |



Water Cooled



50 hz



Easy maintenance



Modular type sound-proof canopy



3 phase



Hybrid (Diesel and Solar)



Warning system for decreasing fuel with electronic fuel level sender



Remote control system

**Emergency Standby Power:** Emergency standby power, provided by diesel generators, acts as a backup during power outages. These generators kick in swiftly during emergencies, ensuring continuity for critical operations. Ideal for homes, businesses, and industries, their usage duration should be limited to prevent wear. Strict standards like NFPA 110 ensure their reliability.

**Prime Rated Power:** Prime rated power generators serve as primary power sources, especially in remote locations. These diesel generators handle varying loads over extended periods, making them perfect for sites without grid access. Commonly mobile, they're crucial for mining, construction, and energy industries, offering consistent, prime-rated power supply.

**Continuous Operation Power:** Continuous operation generators offer non-stop, stable power output, especially where grid access is inconsistent or expensive. These generators operate at a consistent 100% load, making them indispensable for remote mining, military, or farming sites. Unlike prime-rated generators, they don't vary in power, ensuring unwavering power delivery.

### QUALITY STANDARDS

Our generators are manufactured in compliance with VDE 0530, BSE 4999 BS5000, IEC 34, EN12601; EN60204-1; TS ISO 8528-1 ... -13; EN12100-1; EN12100-2; EN61000-6-4; EN61000-6-2; EN61000-4-11; EN61000-4-6; EN61000-4-5; EN61000-4-2; EN55011; EN55016-2-1; EN55016-2-3; EN61000-3-2; EN61000-3-3; EN55014-1; EN61000-6-2; EN61000-4-3; EN61000-4-4; EN61000-4-8; EN61000-4-11; TS EN ISO 3744; TS EN ISO 3746; TS EN 60034-1; TS EN 60034-22; TS EN ISO 3046; BS 5514; NEMA MG 21; IEC 60034, BS 4999/5000 and TS EN 60947-1..4 standards.

We have ISO 9001-2015, ISO 14001-2015, ISO 45001-2018 and ISO 1002-2006 management system certificates from Kiwa, an accredited independent quality organization.

Our generators up to 400 kw are manufactured in compliance with 2000/14/EC European noise emission directive and certified from Ente Certificazione Macchine.

We also have TS ISO 8528-4, TS ISO 8528-5, TS EN 13501-1+A1:2013 flame retardancy and TTS EN ISO 9227 certificates against anti-corrosion together with CE Declaration.



## Engine Specifications

- PERKINS series heavy duty diesel engine
- 4 cycle, water cooling system, turbocharged induction
- Mechanic governor system
- 12/24 volt self-starter and charger alternator
- Changeable air, fuel and oil filter
- Flexible fuel pipe

|                     |             |      |
|---------------------|-------------|------|
| MODEL               | 1103A-33TG1 |      |
| POWER               | STANDBY kW  | 46.5 |
|                     | PRIME kW    | 42.2 |
| SPEED (rpm)         | 1500        |      |
| Cycle               | 4           |      |
| DISPLACEMENT (lt)   | 3.3         |      |
| NUMBER OF CYLINDERS | 3, in line  |      |
| BORE AND STROKE     | 105 x 127   |      |
| COMPRESSION RATIO   | 17,25 : 1   |      |

- Oil discharge valve and extension pipe
- Industrial type silencer, exhaust spiral or compensator
- Maintenance free battery
- Engine block water heater
- Diesel gen-set maintenance and operating instructions and electrical circuit diagram

|                                        |                     |              |
|----------------------------------------|---------------------|--------------|
| GOVERNOR TYPE                          |                     | Mechanic     |
| Induction                              |                     | TURBOCHARGED |
| COMBUSTION SYSTEM                      |                     | DIRECT       |
| Cooling System                         |                     | WATER        |
| FUEL CONSUMPTION (lt/h)                | 100% OF PRIME POWER | 10.8         |
|                                        | 75% OF PRIME POWER  | 8.23         |
|                                        | 50% OF PRIME POWER  | 5.83         |
|                                        |                     |              |
| TOTAL LUBRICATION SYSTEM CAPACITY (lt) |                     | 7.9          |
| TOTAL COOLANT CAPACITY (lt)            |                     | 10.2         |



## Alternator Specifications

- Brushless, single bearing, flexible disc 4 poles alternator for harmonic failure
- H type isolation class
- IP 23 protection class
- Self exciter

|                 |                   |
|-----------------|-------------------|
| BRAND           | EMSA              |
| MODEL           | EGK180-34N2       |
| FREQUENCY (HZ)  | 50                |
| POWER (KVA)     | 50.1              |
| DESIGN          | 4 pole, brushless |
| CONNECTION TYPE | Star              |
| VOLTAGE (V)     | 400               |

- Electronic automatic voltage regulator
- Stator 2/3 step for harmonic failure
- The alternator windings are protected by insulating varnish against oil and acid

|                              |         |
|------------------------------|---------|
| Phase                        | 3       |
| A.V.R.                       | SX460   |
| VOLTAGE REGULATION (+/-)     | ± 1%    |
| INSULATION SYSTEM            | Class H |
| PROTECTION                   | IP23    |
| RATED POWER FACTOR           | 0.8     |
| WEIGHT COMP. ALTERNATOR (KG) | 242     |

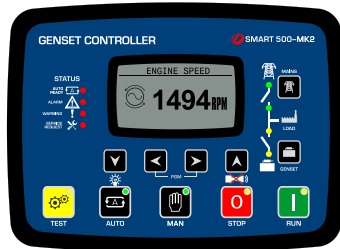
## Hybrid

|                          |         |
|--------------------------|---------|
| Inverter Power           | 30.0    |
| Total Battery Capacity   | 61.1    |
| Total Battery Pcs        | 13      |
| Circuit Breaker Capacity | 24 SAAT |

|                  |                                               |
|------------------|-----------------------------------------------|
| Inverter Model   | DEYE SUN-30K-SG02HP3-EU-AM3                   |
| Battery Capacity | PYLONTECH H32148C LiFePO4<br>32V 148Ah 4,7kWh |
| Circuit Breaker  | ABB-4P                                        |
| Output Panel     | PLUGBOX-DAHİL                                 |



## Genset Controllers



### Datakom SMART 500-MK2

The SMART 500-MK2 is a cost effective genset controller ready for BMS integration and internet monitoring

## OPTIONAL GENSET CONTROLLERS OPTIONAL

Datakom SMART 200



Datakom D500



Datakom D500-GSM



DEEPSEA 6120



DEEPSEA 7320



ComAp AMF25



|                                                         | Datakom<br>SMART<br>200 | Datakom<br>SMART<br>500-MK2 | Datakom<br>D500 | Datakom<br>D500<br>GSM | DEEPSEA<br>6120 | DEEPSEA<br>7320 | ComAp<br>AMF25 |
|---------------------------------------------------------|-------------------------|-----------------------------|-----------------|------------------------|-----------------|-----------------|----------------|
| <b>AUTOMATIC MAINS MONITORING</b>                       | ✓                       | ✓                           | ✓               | ✓                      | ✓               | ✓               | ✓              |
| <b>MANUEL START</b>                                     | ✓                       | ✓                           | ✓               | ✓                      | ✓               | ✓               | ✓              |
| <b>REMOTE START</b>                                     | ✓                       | ✓                           | ✓               | ✓                      | ✓               | ✓               | ✓              |
| <b>REMOTE MONITORING WITH SIM CARD</b>                  | OPTIONAL                | OPTIONAL                    | OPTIONAL        | ✓                      | ✗               | OPTIONAL        | OPTIONAL       |
| <b>1 ADDITIONAL OPTION (HORN, OIL-FUEL HEATER ETC.)</b> | ✗                       | OPTIONAL                    | OPTIONAL        | OPTIONAL               | OPTIONAL        | OPTIONAL        | OPTIONAL       |
| <b>LIGHT WARNING AND MIMIC DIAGRAM</b>                  | ✓                       | ✓                           | ✓               | ✓                      | ✓               | ✓               | ✓              |
| <b>BATTERY CHARGER</b>                                  | ✓                       | ✓                           | ✓               | ✓                      | ✓               | ✓               | ✓              |
| <b>RS-485 COMMUNICATION</b>                             | OPTIONAL                | OPTIONAL                    | ✓               | ✓                      | ✗               | ✓               | OPTIONAL       |
| <b>ETHERNET (TCP-IP) COMMUNICATION</b>                  | ✗                       | ✓                           | ✓               | ✓                      | ✗               | OPTIONAL        | OPTIONAL       |



## Canopy

- Modular type sound-proof canopy
- Canopy installation executed with screw and nut, without welding process
- Epoxy and polyester powder painted canopy
- Weatherproof canopy rating is IP 23
- Canopy designed for easy maintenance

- Lockable doors on both sides of canopy
- Emergency stop button
- Transparent panel inspection window
- Insulation details: Non-flammable acoustic foam
- Nano tech cleaning system



Dimensions  
(W x L x H) mm

xx



Weight (Kg)



Fuel tank capacity (lt)

Internal type



Internal type



Dimensions  
(W x L x H) mm

xx



Weight (Kg)



Fuel tank capacity (lt)

Internal type

### SILENCER OPTIONS

- Standard industrial type
- Critical type
- Hospital type

### CANOPY OPTIONS

- Standard canopy
- Super silent canopy
- Extra super silent canopy (thicker insulation)

### GEN-SET SAFETY PROTECTION & ALARMS

- High water temperature
- Low oil pressure
- High & low engine speed
- Low radiator water level

- Over current load
- High & low genset voltage
- Start/stop failure

### OPTIONAL EQUIPMENTS

- Charge ammeter
- Moulded case circuit breaker (in automatic models)
- Hospital/Critical type silencer
- Modular type sound-proof canopy
- Mobile - trailer
- Synchronization control panel for 2-16 gensets

- 3 pole/4 pole automatic transfer panel (A.T.S.)
- Fuel and oil heater
- Alternator heater
- Automatic fuel filling system
- Fuel-water separator filter
- PMG warning system