



WATER



1-3 PHASE



50 Hz



DIESEL

| Service      |         | Standby | Prime |
|--------------|---------|---------|-------|
| Power        | kVA     | 22      | 20    |
| Power        | kW      | 17,6    | 16    |
| Engine Speed | r.p.m   | 1500    |       |
| Voltage      | V       | 230/400 |       |
| Power Factor | Cos Phi | 0,8     |       |

**Standby power;** In standby mode, the load value defined in the document describes annual usage under variable load conditions, averaging 70% load. Overloading is not permitted. Standby power is 10% more than prime power. It is used as backup power in areas where grid power infrastructure is available.

**Prime power;** This document specifies unlimited hours of use throughout the year with an average load factor of 70% of the power defined in the document during a 24-hour working period. It may be overloaded for a maximum of 1 hour at varying intervals during every 12-hour workday. This does not include continuous operation for 1 hour under overload conditions.

**Continuous power;** This allows for unlimited hours of use at the full (100%) of the defined power. Overloading beyond the defined power is not permitted. It is intended for use in locations without mains power.

## QUALITY STANDARDS

Our generators comply 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; Manufactured in accordance with 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, TS EN 60947-1..4 standards. ISO 9001-2015, ISO 14001-2015, ISO 45001-2018 and ISO 1002-2006 management system certificates have been obtained with accreditation from TUV AUSTRIA.

Our generators, with sound insulation enclosures up to 400 kW power, are manufactured in accordance with directive 2000/14/EC and are certified by SZUTEST.

Our generators are certified according to TS ISO 8528-4, TS ISO 8528-5, TS EN 13501-1+A1:2013 Insulation Foam Fire Behavior and TS EN ISO 9227 1500 Hour Neutral Salt Test. Our generators have CE Declaration.



## ENGINE

| Service                          | Features         |
|----------------------------------|------------------|
| Net Engine Output Power          | 18               |
| Standby Output Power             | 20               |
| Brand                            | Perkins          |
| Model                            | 404A-22G1        |
| Engine Type                      | 4 Stroke Diesel  |
| Injection Pattern                | Direct Injection |
| Intake Pattern                   | mm               |
| Number of Cylinders              | L                |
| Cylinder Bore and Stroke         | 84 x 100         |
| Cylinder Volume                  | 2,21             |
| Cooling Type                     | (Ltr/h)          |
| Compression Ratio                | (Ltr/h)          |
| Fuel Consumption at Load         | (Ltr/h)          |
| 100% Prime Load Fuel Consumption | (Ltr/h)          |
| 75% Prime Load Fuel Consumption  | L                |
| 50% Prime Load Fuel Consumption  | L                |
| Total Oil Capacity               | Type             |
| Total Cooling Capacity           | 7                |
| Governor Type                    | Mechanic         |

The engine used in the generator set is a heavy-duty, industrial-type diesel engine. Depending on the model, the system is equipped with a water-cooled structure, naturally aspirated or turbocharged air intake system, mechanical or electronic governor, 12V/24V starter motor and charging alternator. The engine has replaceable air, fuel and oil filters, a flexible fuel hose, an oil drain valve and extension hose or oil drain pump. The system is also supplied with an industrial-type muffler, exhaust spiral or compensator, maintenance-free starter battery, and, in suitable models, an engine block water heater. Maintenance and operating manuals and electrical diagrams are provided with all products.

## ALTERNATOR

| Service                         | Features     |
|---------------------------------|--------------|
| Brand                           | TEREX        |
| Model                           | TA160-16N2   |
| Output Voltage                  | V            |
| Frequency                       | HZ           |
| Automatic Voltage Regulation    | ±%           |
| Alternator Standby Power        | kVA          |
| Alternator Continuous Power     | kVA          |
| Power Factor                    | Cosφ         |
| Number of Cables                | 12           |
| Winding Pitch                   | 2/3          |
| Protection Class                | IP23/H       |
| Warning System                  | Self Warning |
| AVR Model                       | SX460        |
| Performance - PF 0.8 / 75% Load | %            |

The alternator used in the generator set is a brushless, single-bearing, 4-pole synchronous type with flexible disc connections. It has Class H insulation and IP21-IP23 protection class. The system is self-excited and provides voltage stability with an electronic voltage regulator (AVR). The alternator stator windings are designed with a 2/3 pitch to reduce harmonic distortions. All windings are protected with a special insulation varnish against oil, moisture and acidic effects, offering long-lasting and reliable operation.

## DIMENSIONS

### OPEN TYPE



|           |    |               |
|-----------|----|---------------|
| LxWxH     | mm | 1600x900x1145 |
| Weight    | kg | 456           |
| Fuel Tank | lt | 82            |

### CANOPIED



|           |    |               |
|-----------|----|---------------|
| LxWxH     | mm | 1950x900x1337 |
| Weight    | kg | 627           |
| Fuel Tank | lt | 82            |

### CABIN FEATURES

- Modular design, sound insulation cabin
- Cabin assembly performed with bolts and nuts without welding
- Cabin parts painted with epoxy polyester exterior powder paint using nanotechnology
- IP23 protection class
- Design suitable for easy generator maintenance
- Lockable doors on both sides
- Emergency stop button in a special, non-protruding recess on the cabin's exterior surface
- Transparent panel window
- Fireproof acoustic foam insulation
- Nanotechnology cleaning system
- Container optional

### SILENCER OPTIONS

- Industrial type
- Critical type Silencer
- Hospital type

### CABIN OPTIONS

- Standard Cabin
- Quiet Cabin
- Special Type Cabin

### GENERATOR PROTECTION AND ALARMS

- High engine temperature
- Low oil pressure
- Excessive and low engine speed
- Low radiator water level
- Excessive current
- Excessive and low generator voltage and frequency
- Start/stop malfunction

### OPTIONAL EQUIPMENT

- Charging ammeter
- Thermal magnetic circuit breaker (in automatic models)
- Hospital/Critical type muffler
- Sound insulation cabinet designed according to modular principle
- Trailer
- Synchronization panel for 2-16 generators
- 3-pole/4-pole power transfer panel
- Fuel heater, oil heater
- Alternator heater
- Automatic fuel filling system
- Fuel water separator filter
- PMG warning system

## GENERATOR CONTROL DEVICES

Next-generation single generator control units combining multifunctionality for backup and main power applications and extensive communication with EFI engines.

Datakom DKG 309


**STANDARD**

Datakom D500



OPTIONAL

Datakom D500-GSM



OPTIONAL

EMKO Trans-AUTO



OPTIONAL

DEEPSEA 7320



OPTIONAL

ComAp AMF25



OPTIONAL

|                                         | Datakom<br>DKG 309 | Datakom<br>D500 | Datakom<br>D500-GSM | Deepsea<br>6120 | Deepsea<br>7320 | ComAp<br>AMF25 | EMKO<br>Trans-AUTO |
|-----------------------------------------|--------------------|-----------------|---------------------|-----------------|-----------------|----------------|--------------------|
| Automatic Master Monitoring             | ✓                  | ✓               | ✓                   | ✓               | ✓               | ✓              | ✓                  |
| Manual Operation                        | ✓                  | ✓               | ✓                   | ✓               | ✓               | ✓              | ✓                  |
| Remote Operation                        | OPTIONAL           | OPTIONAL        | ✓                   | <b>X</b>        | OPTIONAL        | OPTIONAL       | OPTIONAL           |
| Remote Monitoring with SIM Card         | <b>X</b>           | OPTIONAL        | OPTIONAL            | OPTIONAL        | OPTIONAL        | OPTIONAL       | OPTIONAL           |
| Optional Options (Horn, Oil-Fuel, etc.) | ✓                  | ✓               | ✓                   | ✓               | ✓               | ✓              | ✓                  |
| Warning Light and MIM Diagram           | ✓                  | ✓               | ✓                   | ✓               | ✓               | ✓              | ✓                  |
| Battery Charger                         | ✓                  | ✓               | ✓                   | ✓               | ✓               | ✓              | ✓                  |
| RS-485 Communication                    | OPTIONAL           | ✓               | ✓                   | <b>X</b>        | ✓               | OPTIONAL       | ✓                  |
| Ethernet (TCP-IP) Communication         | <b>X</b>           | ✓               | ✓                   | <b>X</b>        | OPTIONAL        | OPTIONAL       | OPTIONAL           |

## GENERATOR CONTROL DEVICES FOR SYNCHRONIZATION SYSTEMS

The new generation synchronized generator control unit has all kinds of communication and functionality.

Datakom D500 MK2



Datakom D700



DEEPSEA 8610



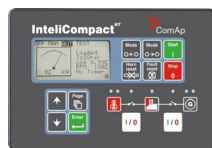
DEEPSEA 8620



DEEPSEA 8660



ComAp IntelliCompact NT SPTM



ComAp IntelliGen BaseBox



ComAp IntelliGen 200

