





Benefits and features

Rehlko premium quality

- · Design offices using the latest technical innovations
- Modern fully certified factories
- A cutting edge laboratory
- The generating set, its components and a wide range of options have been fully developed, prototype tested, factory built, and production tested
- Approved for use with HVO (Hydrotreated Vegetable Oil) according to EN15940

Rehlko premium performances

- · Optimized and certified sound levels
- Reliable power, even in extreme conditions
- Optimized fuel consumption
- Compact footprint
- Best quality of electricity, high starting and loading capacity, according to ISO8528-5
- · Robust base frames and high-quality enclosures
- Protection of installations and people
- Approved in line with the most stringent standards

Engines

- Premium level engines, in-house or from strong partners
- High power density, small footprint
- · Low temperature starting capability
- Long maintenance interval

Alternator

- Provide industry leading motor starting capability
- Made in Europe
- Built with a class H insulation and IP23

Cooling

- A compact and complete solution using a mechanically driven radiator fan
- Designed or optimized by Rehlko
- High temperature and altitude product capacity available

Base frame and enclosure

- High quality steel with enhanced corrosion resistance
- Highly durable QUALICOAT-certified epoxy paint
- Minimum 1000 hours of resistance to salt spray in accordance with ISO12944
- · Ergonomic access to allow easy maintenance and
- connection of the generator
- Robust design optimized for transportation

Generator sets ratings

| | | St | Standby rating | | | Prime rating | |
|----------|----|------|----------------|------|------|--------------|--|
| | Hz | kWe | kVA | Amps | kWe | kVA | |
| 230 MONO | 50 | 25 | 25 | 109 | 22,7 | 22,7 | |
| 240 MONO | 50 | 25,2 | 25,2 | 105 | 22,9 | 22,9 | |
| 220 MONO | 50 | 24,8 | 24,8 | 113 | 22,5 | 22,5 | |

Manufacturer Engine ref. Alternator choices Performance class

Ratings Range

kW

kVA

kW

kVA

Standby

Prime

230 MONO V - 50 Hz

25

25

22,7

22,7

General Specifications

Voltage (V)

Controllers Consumption @ 100% load ESP (L/h)* Consumption @ 100% load PRP (L/h)* Emission level

Type of Cooling Factory installed enclosures KH00602T G3 230 MONO 240 MONO

220 MONO

APM303 APM403

Rehlko

KDI2504TM-30

8 7 Fuel consumption optimization

> Radiator M137 M137-DW M137-DW48

"* Volumetric Fuel consumption is up to 4% higher when using HVO than Diesel Fuel"



| Engine | Specifications |
|--------|----------------|
|--------|----------------|

| Engine opeenioutione | |
|---|---------------|
| Engine brand | KDI |
| Engine ref. | KDI2504TM-30* |
| Air inlet system | Turbo |
| Cylinder configuration | 4 - L |
| Displacement (I) | 2,48 |
| Bore (mm) x Stroke (mm) | 88 x 102 |
| Compression ratio | 18.5 : 1 |
| Speed 50Hz (RPM) | 1500 |
| Maximum stand-by power at rated RPM (kW) | 31 |
| Governor type | Mechanical |
| Frequency regulation, no-load to full-load | Isochronous |
| Frequency regulation, steady state (%) | +/- 0.75% |

| Consumption with cooling system | |
|---|-----|
| Fuel consumption @ ESP Max Power (I/h) | 8 |
| Fuel consumption @ PRP Max Power (I/h) | 7,5 |
| Fuel consumption @ 75% of PRP Power (I/h) | 5,9 |
| Fuel consumption @ 50% of PRP Power (I/h) | 4,2 |

Lubrication System

Oil Filter Quantity and type****

Charge Air coolant

****Rehlko recommends the use of genuine oil and filters.

| Fuel System | |
|-------------------------------|-----------------|
| Maximum fuel pump flow (I/h) | 55 |
| Fuel Filter Quantity and type | |
| Fuel | Diesel Fuel/HVO |

* Engine reference may be partially modified depending on genset application, options selected by the customer and lead time required.



| Exhaust system | |
|------------------------------------|-----|
| Heat rejection to exhaust (kW) | |
| Exhaust gas temperature @ ESP (°C) | 455 |
| Exhaust gas flow @ ESP (I/s) | 103 |
| Electrical system | |
| Battery voltage (V) | 12 |
| Air Intake system | |
| Combustion air flow (I/s) | |
| Radiated heat to ambiant (kW) | 5 |

| Alternator Specifications | |
|---|-----------|
| Number of pole | 4 |
| Technology | Brushless |
| AVR Regulation | Yes |
| Insulation class | Н |
| Indication of protection | IP23 |
| Number of bearing | 1 |
| Number of wires | 12 |
| Coupling | Direct |
| Overspeed (rpm) | 2250 |
| Voltage regulation at established rating (+/- %) | 0,5 |
| Unbalanced load acceptance ratio (%) | 8 |

Alternator standard features

- All models are brushless, rotating-field alternators
- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting
- The AVR voltage regulator provides superior short circuit capability
- Self-ventilated and dip proof constructio
- Superior voltage waveform

Note: See Alternator Data Sheets for alternator application data and ratings, efficiency curves, voltage dip with motor starting curves, and short circuit decrement curves.





APM303 controller

The APM303 is a versatile unit which can be operated in manual or automatic mode. It offers the following features:

- Measurements: phase-to-neutral and phase-to-phase voltages, fuel level (In option : active power currents, effective power, power factors, Kw/h energy meter, oil pressure and coolant temperature levels)
- Supervision: Modbus RTU communication on RS485
- Reports: (In option : 2 configurable reports)
- Safety features: Overspeed, oil pressure, coolant
- temperatures, minimum and maximum voltage, minimum and maximum frequency (Maximum active power P<66kVA)
- Traceability: Stack of 12 stored events

For further information, please refer to the data sheet for the APM303



APM403 controller

The APM403 is a versatile control unit which allows operation in manual or automatic mode

- Measurements : voltage and current
- kW/kWh/kVA power meters
- Standard specifications: Voltmeter, Frequency meter.
- Optional : Battery ammeter.
- J1939 CAN ECU engine control
- Alarms and faults: Oil pressure, Coolant temperature, Overspeed, Start-up failure, alternator min/max, Emergency stop button.
- Engine parameters: Fuel level, hour counter, battery voltage.
- Optional (standard at 24V): Oil pressure, water temperature.
- Event log/ Management of the last 300 genset events.
- Mains and genset protection
- Clock management
- USB connections, USB Host and PC,
- Communications : RS485 INTERFACE
- ModBUS protocol /SNMP
- Optional : Ethernet, GPRS, remote control, 3G, 4G
- Websupervisor, SMS, E-mails

Codes and Standards

Engine-generators set is designed and manufactured in facilities certified to standards ISO9001:2015 & ISO14001:2015. The generator sets and its components are prototype-tested, factory built and production tested and are in compliance with the relevant standards:

- Machinery Directive 2006/42/EC of May 17th 2006
- EMC Directive2014/30/UE
- Safety objectives set out in the Low Voltage Directive 2014/35/UE
- EN ISO 8528-13, EN 60034-1, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 55011, EN 1679-1 et EN 60204-1

Power ratings definition according to ISO8528-1 (2018-02 edition) and ISO-3046-1

Emergency Standby Power (ESP): The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Average load factor per 24 hours of operation is <70%.

Prime Power (PRP): At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour within 12 hour of operation. Average load factor per 24 hours of operation is <70%.

Standard scope of supply

- All our gensets are fitted with:
- Industrial water cooled DIESEL engine
- Electric starter & charge alternator
- Standard air filter
- Schneider or ABB electric circuit breaker, adapted to the shortcircuit current of the generating set
- Single bearing alternator IP 23 T° rise/ insulation to class H/H
- Welded steel base frame with 85% vibration attenuation mounts
- 4 lifting points on the chassis, lifting bar on the top included from 165 kVA ESP or optional
- highly durable QUALICOAT certified epoxy paint
- frame height optimized to allow it to be moved safely by forklift
- enclosure made of new high-quality European steel with enhanced corrosion resistance
- IP 64 locks, made from stainless materials
- enclosures and base frames tested and analyzed by the French
 Corrosion Institut
- 100% of tanks tested for permeability
- Personal protection ensured by protective grilles on hot and rotating parts
- Separate 9 dB(A) silencer
- Fuel tank welded inside the genset frame
- Retention bund included for gensets up to 110 kVA ESP
- Charged DC starting battery with electrolyte
- Emergency stop button on the outside
- Flexible fuel lines & lub oil drain cock
- Exhaust outlet with flexible and flanges
- User's manual (1 copy)
- Packing under plastic film
- Delivered with oil and antifreeze liquid



Dimensions and Weights

| Compact version | |
|-------------------------------------|-------------------|
| Overall Size, max., L x W x H, (mm) | 1700 x 896 x 1200 |
| Dry weight (kg) | 601 |
| Tank capacity (L) | 100 |

M137 - Dimensions soundproofed version

| Overall Size, max., L x W x H, (mm) | 2100 x 938 x 1285 |
|--|-------------------|
| Tank capacity (L) | 100 |
| Dry weight (kg) | 800 |
| Sound power level guaranteed (Lwa) 50Hz (75% PRP) | 93 |
| Acoustic pressure level @1m in dB(A) 50Hz (75% PRP) | 75 |
| Acoustic pressure level @7m in dB(A) 50Hz (75% PRP) | 63 |
| | |

M137 - Dimensions DW soundproofed version

| Overall Size, max., L x W x H, (mm) | 2100 x 938 x 1486 |
|--|-------------------|
| Tank capacity (L) | 240 |
| Dry weight (kg) | 1000 |
| Sound power level guaranteed (Lwa) 50Hz (75% PRP) | 93 |
| Acoustic pressure level @1m in dB(A) 50Hz (75% PRP) | 75 |
| Acoustic pressure level @7m in dB(A) 50Hz (75% PRP) | 63 |
| | |

M137 - Dimensions DW 48h soundproofed version

| Overall Size, max., L x W x H, (mm) | 2100 x 938 x 1540 |
|--|-------------------|
| Tank capacity (L) | |
| Dry weight (kg) | 1010 |
| Sound power level guaranteed (Lwa) 50Hz (75% PRP) | 93 |
| Acoustic pressure level @1m in dB(A) 50Hz (75% PRP) | 75 |
| Acoustic pressure level @7m in dB(A) 50Hz (75% PRP) | 63 |
| | |









* dimensions and weight without options

Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit; Fuel density at 0.85 kg/L. Data was taken from a single engine test according to the test methods, fuel specification and reference conditions stated above and is subjected to instrumentation and engine-to-engine variability. Test conducted with alternate test methods, instrumentation, fuel or reference conditions can yield different results. Data and specifications subject to change without notice.