





Ratings Range 400/230 V - 50 Hz

Manufacturer

Alternator choices

Performance class

Engine ref.

Voltage (V)

Controllers

Emission level

Type of Cooling

Factory installed enclosures

 Standby
 kW
 32

 kVA
 40

 Prime
 kW
 32

 kVA
 40



General Specifications

Consumption @ 100% load ESP (L/h)*

Consumption @ 100% load PRP (L/h)*

Rehlko premium quality

- · Design offices using the latest technical innovations
- · Modern fully certified factories

Benefits and features

- 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

		Standby rating			Prime rating	
	Hz	kWe	kVA	Amps	kWe	kVA
400/230	50	32	40	58	32	40
380/220	50	31,2	39	59	31,2	39
415/240	50	32	40	56	32	40

Rehlko KDI2504TM-40-EU KH00602T G3

400/230 380/220 415/240 APM303 APM403 10 11 Emission optimization - Stage IIIA Compliant

> Radiator M137 M137-DW M137-DW48

"* Volumetric Fuel consumption is up to 4% higher when using HVO than Diesel Fuel" $\ensuremath{\mathsf{Vol}}$

Industrial Generator Set - K44C3



Engine Specifications

3 • • • • • • • •	
Engine brand	KDI
Engine ref.	KDI2504TM-40-EU*
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)	36,9
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)	9,6	
Fuel consumption @ PRP Max Power (I/h)	9,6	
Fuel consumption @ 75% of PRP Power (I/h)	7,3	
Fuel consumption @ 50% of PRP Power (I/h)	5,1	

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.

Industrial Generator Set - K44C3



Exhaust system	
Heat rejection to exhaust (kW)	
Exhaust gas temperature @ ESP (°C)	530
Exhaust gas flow @ ESP (l/s)	117
Electrical system	
Battery voltage (V)	12
Air Intake system	
Combustion air flow (I/s)	
Radiated heat to ambiant (kW)	0

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	06
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



Industrial Generator Set - K44C3

Dimensions and Weights

Compact version	
Overall Size, max., L x W x H, (mm)	1700 x 896 x 1200
Dry weight (kg)	597
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)	785
Sound power level guaranteed (Lwa) 50Hz (75% PRP)	92
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	76
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	64

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)	993
Sound power level guaranteed (Lwa) 50Hz (75% PRP)	92
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	76
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	64

M137 - Dimensions DW 48h soundproofed version

Overall Size, max., L x W x H, (mm)	2100 x 938 x 1540
Tank capacity (L)	470
Dry weight (kg)	1005
Sound power level guaranteed (Lwa) 50Hz (75% PRP)	92
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	76
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	64









* 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.