

# Industrial Diesel Generator Set – **B900**



RATINGS 400 V - 50	Hz	
Standby	kVA	900
	kWe	720
Prime	kVA	818
	kWe	654



#### GENERAL SPECIFICATIONS

Engine brand	BAUDOUIN
Alternator commercial brand	rehlko
Voltage (V)	400/230
Standard Control Panel	APM403
Consumption @ 100% load ESP (L/h) *	188
Consumption @ 100% load PRP (L/h) *	170
Emission level	Fuel consumption optimization
Type of Cooling	Mechanical driven fan

#### GENERATOR SETS RATINGS

			Standby Rating Prime		Rating		
Voltage	PH	Hz	kWe	kVA	Amps	kWe	kVA
415/240	3	50	690	863	1201	628	785
400/230	3	50	720	900	1299	654	818
380/220	3	50	720	900	1367	654	818
DIMENSIONS COMPACT VERSION							
					4417		
Width (mm) 1740							
Height (mm) 2384							
Tank capacity (L) 500							
Dry weight (kg) 7470							
DIMENSIONS SOUNDPROOFED VERSION							
Type soundproofing NOT AVAILABLE							
					6413		
Width (mm)				2160			
Height (mm)			2753				
Tank capacity (L)			1035				
(g)					9700		
sure level @	1m iı	n dB(A)	) 50Hz		86		
sure level @	7m iı	n dB(A)	) 50Hz		77		
	415/240 400/230 380/220 5 COMPACT V ( (L) (g) 5 SOUNDPRO roofing ( (L) (g) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	415/240 3 400/230 3 380/220 3 5 COMPACT VERSI (/ (L) (g) 5 SOUNDPROOFEI (roofing (/ (L) (g) (L) (g) (L) (g) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	415/240         3         50           400/230         3         50           380/220         3         50           5 COMPACT VERSION         5         5           7 (L)         5         5           380         3         50           380/220         3         50           5 COMPACT VERSION         5           7 (L)         5           380         5           380         5           5 SOUNDPROOFED VERS           roofing           7 (L)           5g)           ssure level @1m in dB(A)	Voltage         PH         Hz         kWe           415/240         3         50         690           400/230         3         50         720           380/220         3         50         720           5         COMPACT VERSION         Version         Version           (L)         SOUNDPROFED VERSION         Version         Version	Voltage         PH         Hz         kWe         kVA           415/240         3         50         690         863           400/230         3         50         720         900           380/220         3         50         720         900           380/220         3         50         720         900           COMPACT VERSION         COMPACT VERSION         Soundary State         Soundary State           (L)         Soundary State         NO         NO	Voltage         PH         Hz         kWe         kVA         Amps           415/240         3         50         690         863         1201           400/230         3         50         720         900         1299           380/220         3         50         720         900         1367           COMPACT VERSION         COMPACT VERSION         4417         1740         2384           / (L)         500         7470         500         3344         17470           SOUNDPROOFED VERSION         500         4413         2160         2753           / (L)         1035         2160         2753         1035         3160           g)         9700         35         9700         35         350         350	Voltage         PH         Hz         kWe         kVA         Amps         kWe           415/240         3         50         690         863         1201         628           400/230         3         50         720         900         1299         654           380/220         3         50         720         900         1367         654           COMPACT VERSION           4417           1740           2384         2384           / (L)         500         2384           SOUNDPROOFED VERSION           ROT AVAILABLE           6413           2160         2753           1035           gg)         9700           86

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

Benefits & features

#### **REHLKO** premium quality

- REHLKO provides one source responsibility for the generating set and accessories
- The generator set, its components and a wide range of options have been fully developed, prototype tested, factory built, and production tested
- The generator sets are designed in accordance to ISO8528
- Approved for use with HVO (Hydrotreated Vegetable Oil) according to EN15940

## **REHLKO** premium performances

#### Engines

- High reliability enhanced through a simple design for optimal functional performances
- High performances turbochargers providing high engine performances under all loads
- Easy operation and maintenance: accessories requiring daily maintenance are conveniently located on the same side of the engine

#### Alternator

- Provide industry leading motor starting capability
- Excitation system to permit sustained overcurrent > 300% In, during 10 sec
- Built with a class H insulation and IP23

## Cooling

- A compact and complete solution using a mechanical driven fan radiator
- High temperature and altitude product capacity available

#### **Control Panel**

 The REHLKO wide controller range provides the reliability and performances you expect from your equipment. You can program, manage and diagnose it easily and in an efficient way

#### **REHLKO worldwide support**

- A standard two-year or 1000-hours limited warranty for standby applications.
- A standard one-year or 2500 hours limited warranty for prime power applications.
- A worldwide product support



#### Engine

General	
Engine brand	BAUDOUIN
Engine ref.	12M26G900_5 *
Air inlet system	Turbo
Fuel	Diesel Fuel/HVO
Emission level	Fuel consumption optimization
Cylinder configuration	V
Number of cylinders	12
Displacement (I)	31,81
Bore (mm) * Stroke (mm)	150 * 150
Compression ratio	15.7 : 1
Speed 50Hz (RPM)	1500
Maximum stand-by power at rated RPM (kW)	793
Charge Air coolant	Air/Air
Injection Type	Direct
Governor type	Electronic
Air cleaner type, models	Dry
Fuel system	
Maximum fuel pump flow (l/h)	595
Fuel Inlet Minimum recommended size (mm)	14
Fuel Outlet Minimum recommended size (mm)	14
Max head on fuel return line (m fuel)	5,90
Maximum allowed inlet fuel temperature (°C)	70
Consumption with cooling system	
Specific consumption @ ESP Max Power (g/kW.h)	202,10
Specific consumption @ PRP Max Power (g/kW.h)	201,30
Specific consumption @ 75% of PRP Power (g/kW.h)	205,60
Specific consumption @ 50% of PRP Power (g/kW.h)	210,50

Lubrication System			
Dil system capacity including filters (I) 114			
Min. oil pressure (bar) 2		2	
Max. oil pressure (bar)	7		
Oil sump capacity (I)	109		
Oil consumption 100% ESP 50Hz (I/h)	0,5660		
Air Intake system			
Max. intake restriction (mm H2O)	663		
Combustion air flow (I/s)	1000		
Exhaust system			
	PRP	ESP	
Exhaust gas flow (L/s)	2298	2245	
Exhaust gas temperature @ ESP (°C)	550		
Max. exhaust back pressure (mm H2O)	765		
Cooling system			
Radiator & Engine capacity (I)	1	54	
Fan power 50Hz (kW)	3	30	
Fan air flow w/o restriction (m3/s)	2	24	
vailable restriction on air flow (mm H2O) 20		20	
Type of coolant	Ger	ncool	
oolant capacity HT, engine only (I) 83		33	
Nax coolant temperature, Shutdown (°C) 103		03	
Thermostat begin of opening HT (°C)	77		
rmostat end of opening HT (°C) 87		37	



# Industrial Diesel Generator Set – **B900**

Alternator Specifications	
Alternator commercial brand	rehlko
<b>REHLKO</b> Alternator description	KH02970T
Number of pole	4
Number of bearing	Single Bearing
Technology	Brushless
Indication of protection	IP23
Insulation class	Н
Number of wires	12
AVR Regulation	Yes
Coupling	Direct
Capacity for maintaining short circuit at 3 In for 10 s	Yes
Application data	

Application data		
Overspeed (rpm)	2250	
Power factor (Cos Phi)	0,80	
Voltage regulation at established rating (+/- %)	0,50	
Wave form : NEMA=TIF	<40	
Wave form : CEI=FHT	<2	
Total Harmonic Distortion in no-load DHT (%)	3,1	
Total Harmonic Distortion, on linear load DHT (%)	2,8	
Recovery time (Delta U = 20% transcient) (ms)	200	
Performance datas		
Continuous Nominal Rating 40°C (kVA)	820	
Unbalanced load acceptance ratio	8	

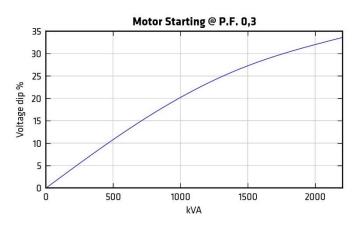
## Alternator Standard Features

- 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 construction
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds
- 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.

Peak motor starting (kVA) based on x% voltage dip power factor at 0.3

(%)





### Dimensions compact version with baseframe fuel tank

Length (mm) \* Width (mm) \* Height (mm) Dry weight (kg) Tank capacity (L) 4417 \* 1740 \* 2384 7470 500



## M427 - Dimensions soundproofed version

Length (mm) * Width (mm) * Height (mm)	6413 * 2160 * 2753
Dry weight (kg)	9700
Tank capacity (L)	1035
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	86
Sound power level guaranteed (Lwa) 50Hz (75% PRP)	107
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	77
* dimensions and weight without options	





BASIC GENERATING SET AND POWER PLANT CONTROL The APM403 is a versatile control unit which allows operation in manual or automatic mode
<ul> <li>Measurements : voltage and current</li> <li>kW/kWh/kVA power meters</li> </ul>
- Standard specifications: Voltmeter, Frequency meter.
<ul><li>Optional : Battery ammeter.</li><li>J1939 CAN ECU engine control</li></ul>

- Alarms and faults: Oil pressure, Coolant temperature, Overspeed, Startup 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





# STANDARD DELIVERY

All our electrical generating sets (compact version) are equipped with:

- Water-cooled DIESEL engine
- Electronic control device and mechanical injection
- High filtration air filter
- Radiator without coolant
- Electric starter & 24 VDC charging alternator
- Single-bearing alternator, IP 23, H/H Class Insulation/Temp
- Welded steel base frame with vibration damping supports
- Flexible fuel lines and lubrication oil drainage pump
- Primary filter
- Exhaust outlet with hose and clamps
- Included in your preconfigured pack:
  - Starter batteries
  - o Automatic start-up pack including a battery charger and a preheating kit
  - o APM403 control/command (P or S) depending on configuration
  - 4-pole circuit breakers, manual or motorized depending on configuration
- User documentation (1 copy)
- Packaged in film

### Excluded from the supply:

- For Baudouin XPRESS products, from 25 to 1500 kVA: oil and antifreeze liquid
- For Baudouin XPRESS products, from 25 to 165 kVA: batteries

# **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



# **TERMS OF USE**

According to the standard, the nominal power assigned by the genset is given for 25°C Air Intlet Temperature, of a barometric pressure of 100 kPA (100 m A.S.L), and 30% relative humidity. For particular conditions in your installation, refer to the derating table.

# WARRANTY INFORMATIONS

Standard Warranty Period:

- for Products in "back-up" service
  - $\circ$  30 months from the date the Product leaves the plant
  - o 24 months from the Product's commissioning date
  - 1,000 running hours

The warranty expires when one of the above conditions is met.

- for Products in "prime" or "continuous" service (continuous supply of electricity, either in the absence of any normal electricity grid or to complement the grid),
  - 18 months from the date the Product leaves the plant
  - 12 months from the Product's commissioning date
  - 2,500 running hours

The warranty expires when one of the above conditions is met.

For more details regarding conditions of application and scope of the warranty please refer to our General "terms & conditions of sales".