



RATINGS 400 V - 50 Hz		
Standby	kVA	900
	kWe	720
Prime	kVA	800
	kWe	640

Benefits & features

KOHLER SDMO premium quality

- KOHLER SDMO 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

KOHLER SDMO 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% I_n, during 10 sec
- Built with a class H insulation and IP23

Cooling

- A compact and complete solution using a mechanical or an electrical radiator fan (depending of genset type)
- High temperature and altitude product capacity available

Control Panel

- The KOHLER SDMO 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

KOHLER SDMO 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

GENERAL SPECIFICATIONS

Engine brand	BAUDOUIN
Alternator commercial brand	KOHLER
Voltage (V)	400/230
Standard Control Panel	APM403
Consumption @ 100% load ESP (L/h)	188
Consumption @ 100% load PRP (L/h)	166
Type of Cooling	Mechanical driven fan
Performance class	G2

GENERATOR SETS RATINGS

B900	Voltage	PH	Hz	Standby Rating			Prime Rating	
				kWe	kVA	Amps	kWe	kVA
				415/240	3	50	720	900
400/230	3	50	720	900	1299	640	800	
380/220	3	50	690	863	1311	614	767	

DIMENSIONS COMPACT VERSION

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

DIMENSIONS SOUNDPROOFED VERSION

Type soundproofing	M4275I
Length (mm)	6413
Width (mm)	2160
Height (mm)	2753
Tank capacity (L)	1035
Dry weight (kg)	9700
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	86
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	77

Engine

General

Engine brand	BAUDOUIIN
Engine ref.	12M26G900_5
Air inlet system	Turbo
Fuel	Diesel Fuel
Cylinders configuration	V
Number of cylinders	12
Displacement (l)	31.81
Bore (mm) * Stroke (mm)	150 * 150
Compression ratio	15.7 : 1
Speed (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)	5.90
Maximum allowed inlet fuel temperature (°C)	70

Consumption with cooling system

Specific consumption 100% ESP load (g/kW.h)	202.10
Specific consumption 100% PRP load (g/kW.h)	201.30
Specific consumption 75% PRP load (g/kW.h)	205.60
Specific consumption 50% PRP load (g/kW.h)	210.50

Lubrication System

Oil system capacity including filters (l)	114
Min. oil pressure (bar)	2
Max. oil pressure (bar)	7
Oil sump capacity (l)	109
Oil consumption 100% ESP 50Hz (l/h)	0.5660

Air Intake system

Max. intake restriction (mm H2O)	663
Intake air flow (l/s)	1000

Exhaust system

	PRP	ESP
Exhaust gas temperature (°C)	550	550
Exhaust gas flow (L/s)	2298	2245
Max. exhaust back pressure (mm H2O)	765	

Cooling system

Radiator & Engine capacity (l)	108
Fan power 50Hz (kW)	30
Fan air flow w/o restriction (m3/s)	24
Available restriction on air flow (mm H2O)	20
Type of coolant	Gencool
Coolant capacity HT, engine only (l)	191
Max coolant temperature, Shutdown (°C)	103
Thermostat begin of opening HT (°C)	77
Thermostat end of opening HT (°C)	87

Alternator Specifications

Alternator commercial brand	KOHLER
Alternator ref.	KH02970T
Number of pole	4
Number of bearing	Single Bearing
Technology	Brushless
Indication of protection	IP23
Insulation class	H
Number of wires	12
Capacity for maintaining short circuit at 3 In for 10 s	Yes
AVR Regulation	Yes
Coupling	Direct

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% transient) (ms)	200

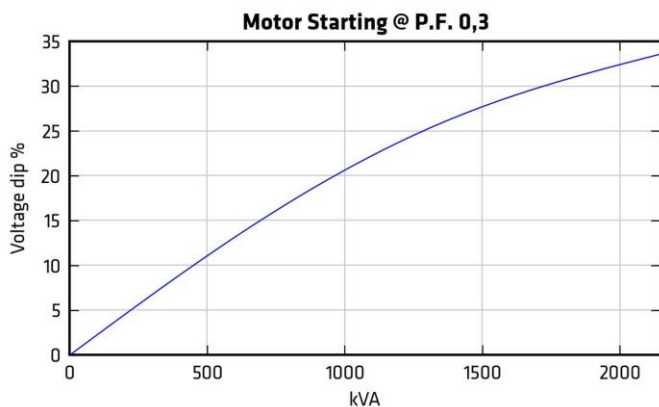
Performance datas

Continuous Nominal Rating 40°C (kVA)	800
Unbalanced load acceptance ratio (%)	100
Peak motor starting (kVA) based on x% voltage dip power factor at 0.3	

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.



Dimensions compact version with baseframe fuel tank

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



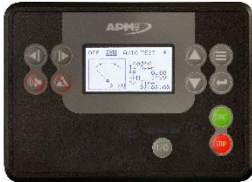
Dimensions soundproofed version

M427

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
Measured acoustic power level (Lwa) 50Hz (75% PRP)	107
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	77



APM403



BASIC GENERATING SET AND POWER PLANT CONTROL

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

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:
 - o 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
 - o 4-pole circuit breakers, manual or motorized depending on configuration
- User documentation (1 copy)
- Packaged in film
- Supplied without oil
- Supplied without coolant

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 Directive 2014/30/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%.

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.