

KD SERIES

KOHLER ENGINE

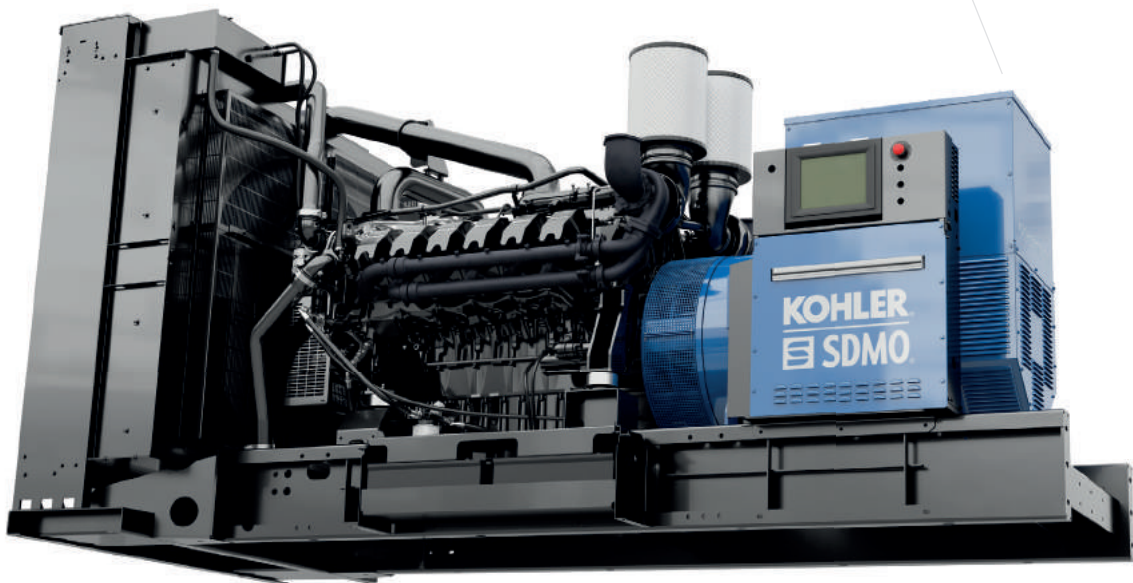
PASSION IS GAINING POWER



KOHLER®
SDMO®

KD SERIES KOHLER-SDMO

THE NEW REFERENCE IN HIGH POWER GENERATING
SETS DESIGNED AND MANUFACTURED IN EUROPE



VISIT THE KD SERIES WEBSITE:
www.kdseries.com

KD SERIES is the new line of generating sets equipped for the first time with state of the art KOHLER diesel engines. These generating sets benefit from unprecedented power density, making the KD SERIES the ideal range to meet your most exacting requirements.

Ranging from 800 kVA/kWe to 4200 kVA /4000 KWe, they are perfectly suited to all industrial applications. Moreover, they benefit from KOHLER-SDMO quality service throughout the world.

The KOHLER Group has been a global provider of energy solutions since 1920. Its emergency power supply, main power supply and energy management systems excel throughout the world and across all sectors.

As the 3rd biggest global player on the market, KOHLER-SDMO now designs its own generating set engines. It has drawn on its experience of generating sets to develop the ideal KOHLER engine in each power category. KOHLER-SDMO perfectly manages the production cycle (engineering, tests, maintenance, etc.), pushing it to its highest possible standard.

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KD SERIES

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NEW

KD SERIES

UP TO 4200 kVA!



SPECIFIC BENEFITS IN EACH APPLICATION



BACK-UP POWER

- ▶ Power
- ▶ Compactness
- ▶ Moderate acquisition costs
- ▶ Reliable power
- ▶ Easy to install



SENSITIVE SITES

- ▶ Stable frequency, voltage and waveform



PRODUCTION APPLICATIONS

- ▶ Reliability
- ▶ Strength
- ▶ Low consumption
- ▶ Extended maintenance intervals
- ▶ Accessibility



MAINS STABILITY / GRID CODE

- ▶ Design adapted to the requirements of new energy markets

HIGH PERFORMANCE IN A WIDE RANGE OF SECTORS



DATA CENTRES



HEALTHCARE
FACILITIES



OIL AND GAS



INDUSTRY



MINING



WATER AND WASTE
TREATMENT



TRANSPORT



CONSTRUCTION



TELECOMMUNICATIONS



ARMY



IPP
(INDEPENDENT POWER
PRODUCERS)



KOHLER-SDMO, THE BEST ENERGY SOLUTIONS ON THE MARKET

From offshore drilling platforms to extreme desert conditions, from building sites to the most demanding industries, KOHLER-SDMO generating sets are proving their reliability and performance. They have made the company one of the top global manufacturers, consolidating its leadership every day through the structure of an international group.

Focusing exclusively on generating sets, KOHLER-SDMO now offers the widest range on the market. The local service provided by its distribution network means it can supply power to anyone, any time, anywhere.

In addition to its role as an industrial manufacturer of generating sets, KOHLER-SDMO is now positioning itself as a serious energy supplier.





SDMO INDUSTRIES

- ① Head office and 3 production sites - France
- ② Production site - Brazil
- Distributors
- SDMO industries facilities

KOHLER POWER SYSTEMS

- ③ Head office and production site - Kohler, WI
- ④ Head office and production site - Singapore
- ⑤ Production site - India
- ⑥ Production site - China
- Offices, dealers and distributors

NATIONAL COVERAGE, INTERNATIONAL PRESENCE. THINK GLOBAL, ACT LOCAL

In order for KOHLER-SDMO to continue to grow and meet the needs of new markets, it relies on:

- ▶ **8 sales offices and 3 regional divisions in France**

And internationally:

- ▶ **a distribution network present in over 150 countries,**
- ▶ **6 subsidiaries,**
- ▶ **8 offices.**

The responsiveness of the company is also based on its development of 6 storage platforms which, in co-operation with the subsidiaries, constitute an efficient commercial network.

In addition, KOHLER and SDMO facilities - now operating as KOHLER-SDMO - are working productively in tandem to offer you an even better service.

EXCELLENT SERVICE THROUGHOUT THE WORLD

The KOHLER-SDMO Service department provides optimal support to guarantee the reliability and performance of your power plant.

Our global coverage means you can count on us for quick support when you need it. Whether it's commissioning, technical documentation, customised maintenance, annual inspections by professionals or product training, KOHLER-SDMO is committed to offering you a complete service to guarantee optimal performance of your installation and extend the service life of your equipment.

DAY-TO-DAY ASSISTANCE FROM EXPERTS

- Our network of experts offers **technical support every day of the year** for all your most demanding applications.



A RAPID RESPONSE TO YOUR NEEDS

To ensure optimal responsiveness, KOHLER-SDMO uses an **international distribution network** and special dedicated tools that guarantee a rapid response to your needs. The parts required for maintenance and repair are stored in four warehouses located in North America, Europe and Asia.

Thanks to the modular design, some components are standardised, which reduces the number of parts held in stock and the operator training requirements. **This reduces costs and improves responsiveness.**

TRAINING FROM OUR EXPERTS LEADING TO QUALIFICATIONS

KOHLER-SDMO has **4 training centres** throughout the world:

- 1 in North America,
- 1 in Europe
- 2 in Asia.

- Maximise the performance of your equipment, minimise its operating costs
- Experienced support for a high level of performance and guaranteed reliability throughout the product life cycle
- Global service capacity
- 4 training centres throughout the world
- Extended warranty



HIGH QUALITY SPARE PARTS AND CONSUMABLES

KOHLER-SDMO generating sets are manufactured to **high quality standards**. Based on their specifications, each spare part and consumable is specially tested and approved for optimal compatibility with your engine.

KOHLER parts and consumables work in perfect harmony with your product. They maximise its performance and extend its service life, thereby **protecting your investment**.

OPTIMISED REPAIR AND MAINTENANCE KITS

These kits are designed to facilitate collective purchase orders for parts that need replacing at the same time. They guarantee a **high level of responsiveness**.

WARRANTY EXTENDED BEYOND MARKET STANDARDS

The KD SERIES range of generating sets are guaranteed for:

- ▶ **3 years 1000 hours** for emergency applications,
- ▶ **2 years 8700 hours** for production applications.



KOHLER-SDMO INNOVATION INTEGRATED IN THE KD SERIES RANGE

KOHLER-SDMO invests heavily in Research & Development, with a view to anticipating demand and offering you the most innovative and high-performance energy solutions on the market.

AN INTEGRATED R&D FUNCTION

► ENGINEERING AND DESIGN OFFICES WITH EXPERTISE IN THE LATEST TECHNICAL DEVELOPMENTS

The engineering and design offices design products inspired by market trends, guided by the marketing department. These teams undergo continuous training in the latest 3D modelling, structural and stress calculation tools and thermodynamic and acoustic simulations.

► STATE OF THE ART LABORATORY

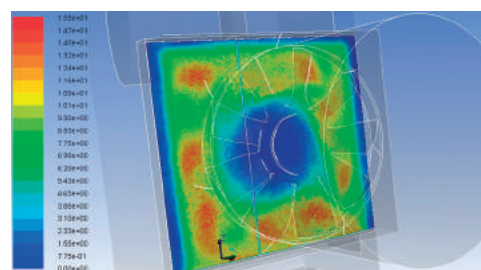
KOHLER-SDMO invests in state of the art technologies to develop customised products and solutions. Thanks to their world-renowned expertise, every day our teams optimise the performance of generating sets and their components. Our independent laboratory conforms to the latest requirements and benefits from specialist infrastructures that cover an area of 2,000 m².

PRODUCTION TOOLS

► A MODERN FACTORY



KOHLER-SDMO's high-performance operational facilities cover 38,000 m². Its teams of specialists are extremely skilled in assembling components.



Tous les produits SDMO Industries
sont certifiés par un
laboratoire accrédité
ISO 17025

KD SERIES: THE LATEST GENERATION OF GENERATING SETS FROM KOHLER-SDMO

With 100 years of experience as a global specialist in generating sets, the KOHLER and SDMO partnership has entered a new era with the KD SERIES range, equipped with its own KOHLER engines. It can now offer a single point of entry for all the main components of generating sets designed and manufactured in Europe.

KD SERIES generating sets provide reliable solutions characterised by low fuel consumption, long maintenance intervals and unrivalled compactness for a wide range of applications including healthcare, data centres, airports, industry and energy production plants.

6 YEARS OF RESEARCH & DEVELOPMENT

6 years of R&D went into the creation of the KD SERIES range. Each component has been designed and tested in our laboratories to ensure that all the generating sets in the range offer optimal performance while meeting the highest industrial standards.

QUALITY REQUIREMENTS

KD SERIES generating sets are designed with high quality, durable materials for use in demanding environments. KOHLER-SDMO does not compromise when it comes to the quality of its products and their compliance with standards. And better still: the safety and usage levels of KD SERIES generating sets exceed regulatory requirements.

RELIABILITY AND PERFORMANCE

- ▶ An engine with **high power density**, making KD SERIES generating sets particularly **compact**: 1100 kVA with enclosure, up to 1800 kVA in 20-foot container and up to 2800 kVA in 40-foot container
- ▶ A reliable product in all applications. The focus is particularly on the **quality of the energy supplied in transitory systems**. This premium range offers stable frequency and voltage and reduced response time.
- ▶ A **fusion of power and technology**. All generating sets are tested in accordance with performance class G3 (ISO 8528-5) and achieve 100% load acceptance (NFPA110 standard).
- ▶ The largest power range on the market: from 800 kVA/kWe to 4200 kVA / 4000 kWe
- ▶ **Maximum power at high ambient temperature**
- ▶ Common rail injection with electronic control optimises consumption and emissions
- ▶ **High load factors**: 85% in emergency applications and 75% in continuous applications, enabling optimal sizing of your installation
- ▶ High-tech **advanced control and communication system**
- ▶ **Sleek design**

NEW GENERATION KOHLER ENGINES

DEDICATED TO HIGH POWER GENERATING SETS

Engines dedicated to generating sets with the highest power density on the market: a KOHLER-SDMO exclusive. Our global team of engineers has developed a new range of sleek, compact engines offering unrivalled performance. They combine the highest power with superior efficiency specifically for generating sets.

These engines are manufactured in France and Switzerland, in factories offering the highest level of quality. Each product is tested under rigorous operating conditions. The range comprises two K135 and K175 engine blocks which cover a wide power range: from 561 to 4250 kWm.

CONCENTRATED POWER

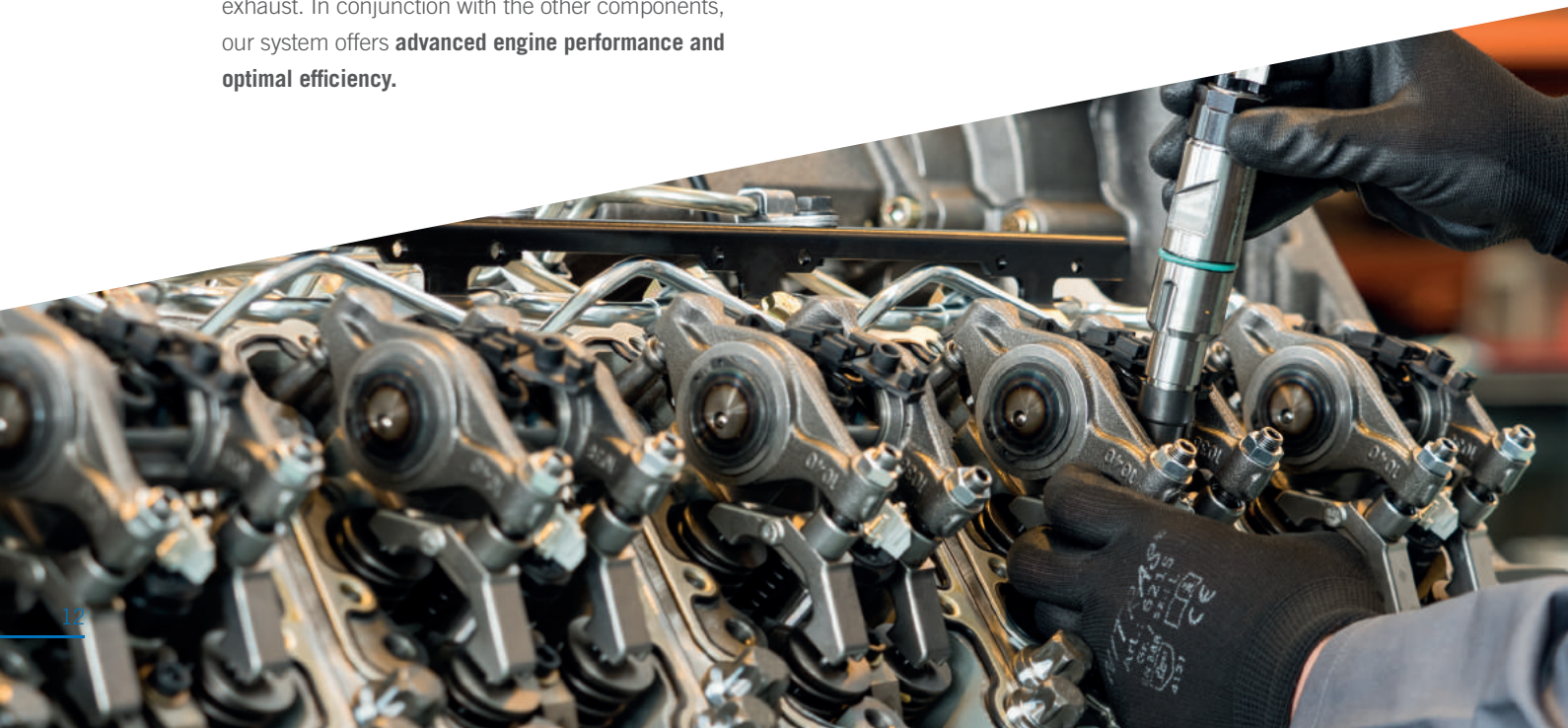
KOHLER diesel engines offer **the best power/compactness/consumption ratio on the market**, guaranteeing **optimal performance at low operating costs**. This efficiency results from perfect compatibility between the injection system and the engine control unit (ECU).

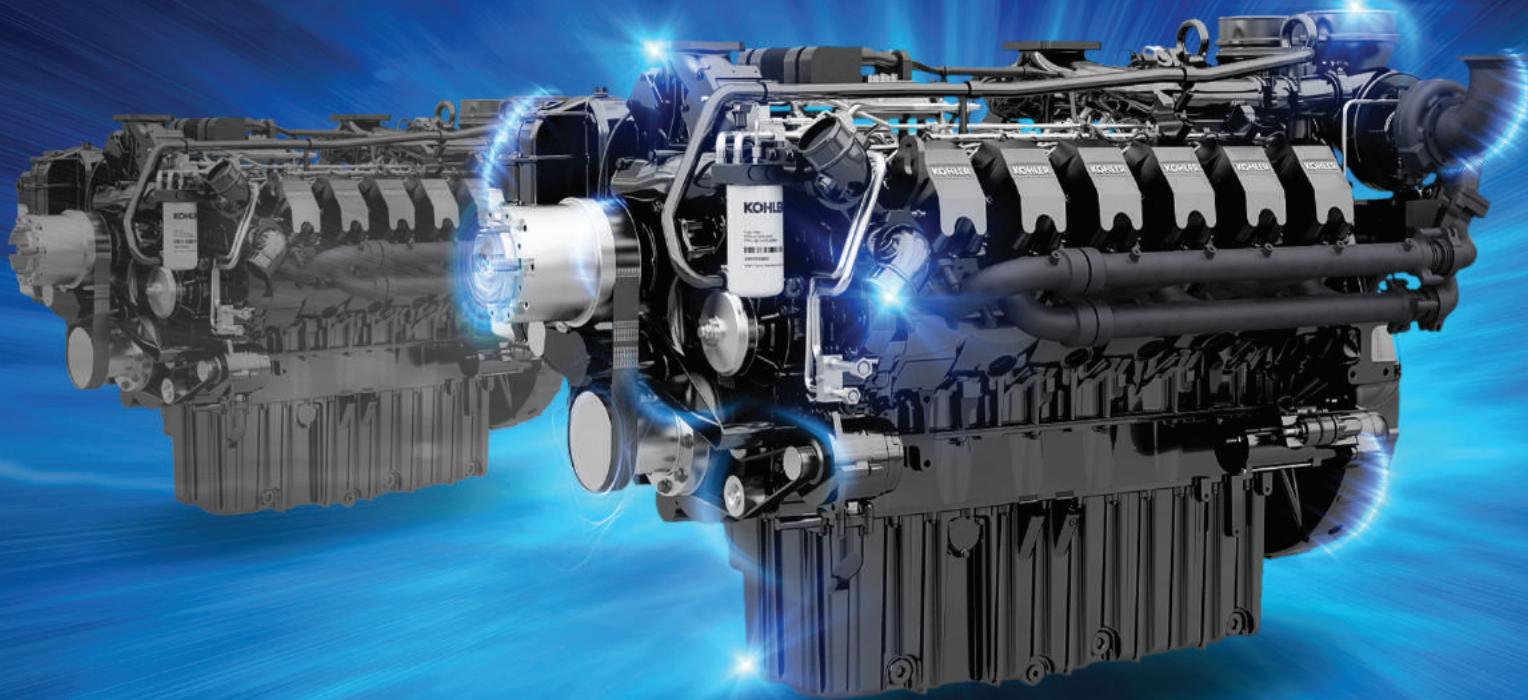
OPTIMISED SOUND LEVEL AND VIBRATIONS

Thanks to its **rigid architecture and optimised combustion**, our engine operates smoothly with a low sound level and low vibration, even under extreme operating conditions. Less friction and vibrations means better reliability, greater strength, a **longer service life and minimised fuel consumption**.

OPTIMAL CONTROL OF THE INJECTION SYSTEM

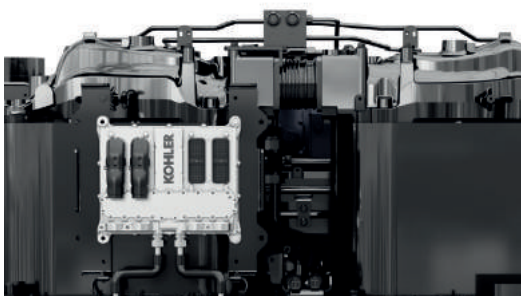
The high fuel pressure common rail injection system reaches an **injection pressure of 2200 bar**. The higher this pressure, the more finely the fuel is vaporised, ensuring more efficient ignition, combustion and exhaust. In conjunction with the other components, our system offers **advanced engine performance and optimal efficiency**.





A ROBUST, RELIABLE DESIGN

The materials have been selected for their high-tech qualities and strength. The products therefore benefit from **excellent strength**, even for the most demanding projects.



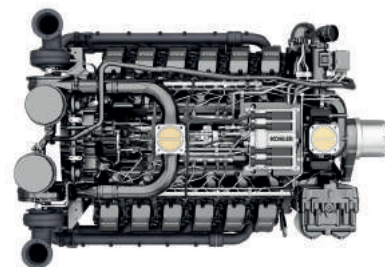
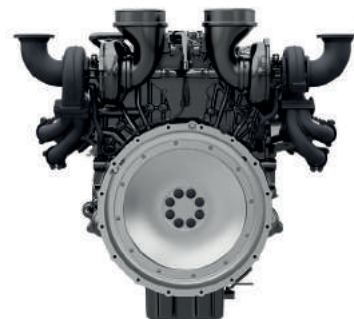
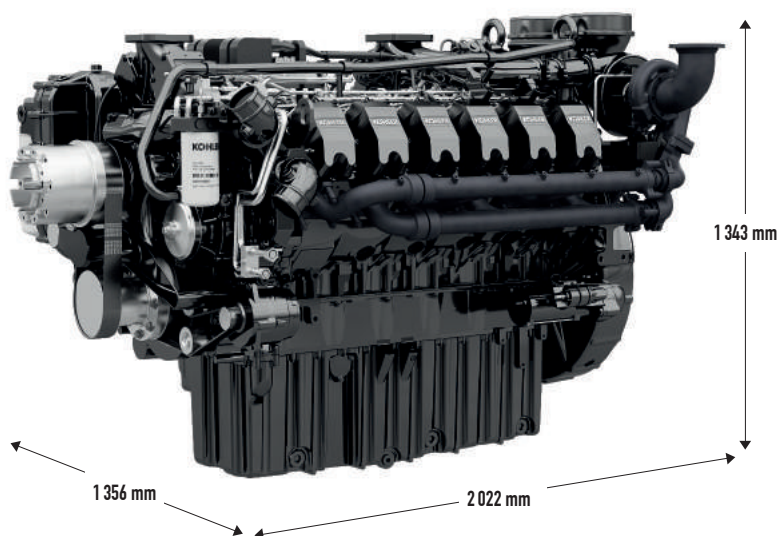
A SLEEK, MODULAR DESIGN

The use of components common to all models means **that stock is rationalised, maintenance facilitated and training simplified**.

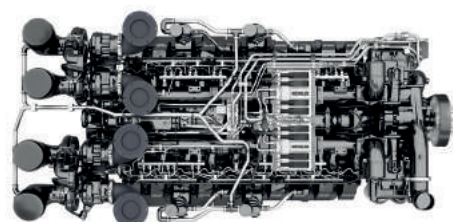
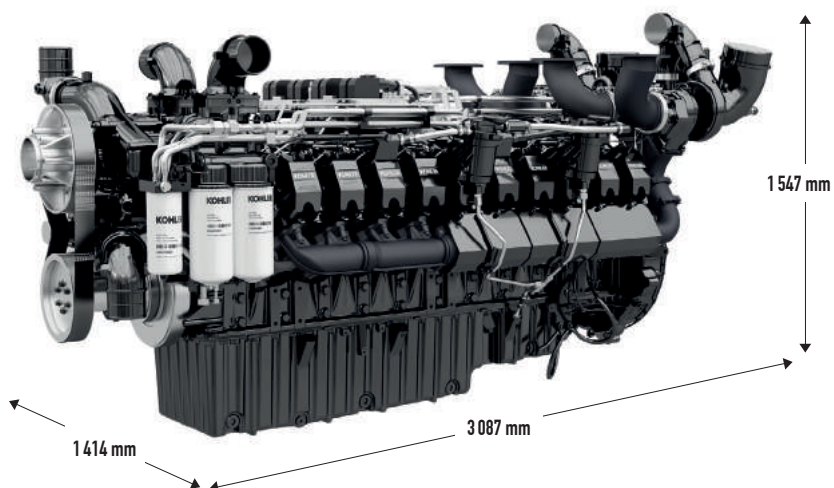
A sleek, minimal design ensures better accessibility to components for optimised maintenance. It all helps to reduce costs.

THE NEW RANGE OF KOHLER DIESEL ENGINES

K135

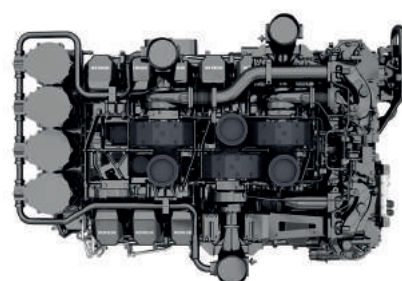
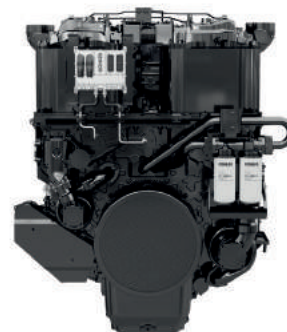
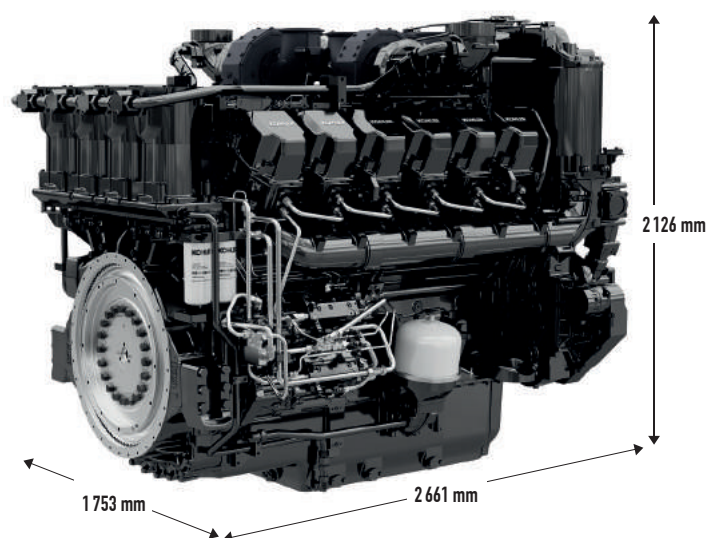


KD27V12



KD45V20

K175



KD62V12

ENGINES	K135 SERIES			K175 SERIES		
	KD27V12	KD36V16*	KD45V20	KD62V12	KD83V16*	KD103V20*
Number of cylinders	12	16	20	12	16	20
Layout of cylinders	90°V	90°V	108°V	60°V	60°V	60°V
Cycles	4 cycles	4 cycles	4 cycles	4 cycles	4 cycles	4 cycles
Bore (mm)	135	135	135	175	175	175
Stroke (mm)	157	157	157	215	215	215
Total displacement (L)	27	36	45	62	83	103
Engine power (kWm)	561-1114	839-1391	1108-1910	1302-2700	2017-3490	2505-4250
Speed (rpm)	1500-1800	1500-1800	1500-1800	1500-1800	1500-1800	1500-1800
Injection pressure (bar)	2200	2200	2200	2200	2200	2200
Emissions certification	EPA Tier 2: compliant at 50 Hz, certified at 60 Hz					

* Available soon

THE KD SERIES RANGE OF GENERATING SETS

The KD SERIES range runs from 800 to 2750 kVA emergency. It will be extended to 4200 kVA, with 5 additional power nodes, currently being tested. Their adaptability and modularity make them the ideal range for tailored power solutions, perfectly suited to your applications.

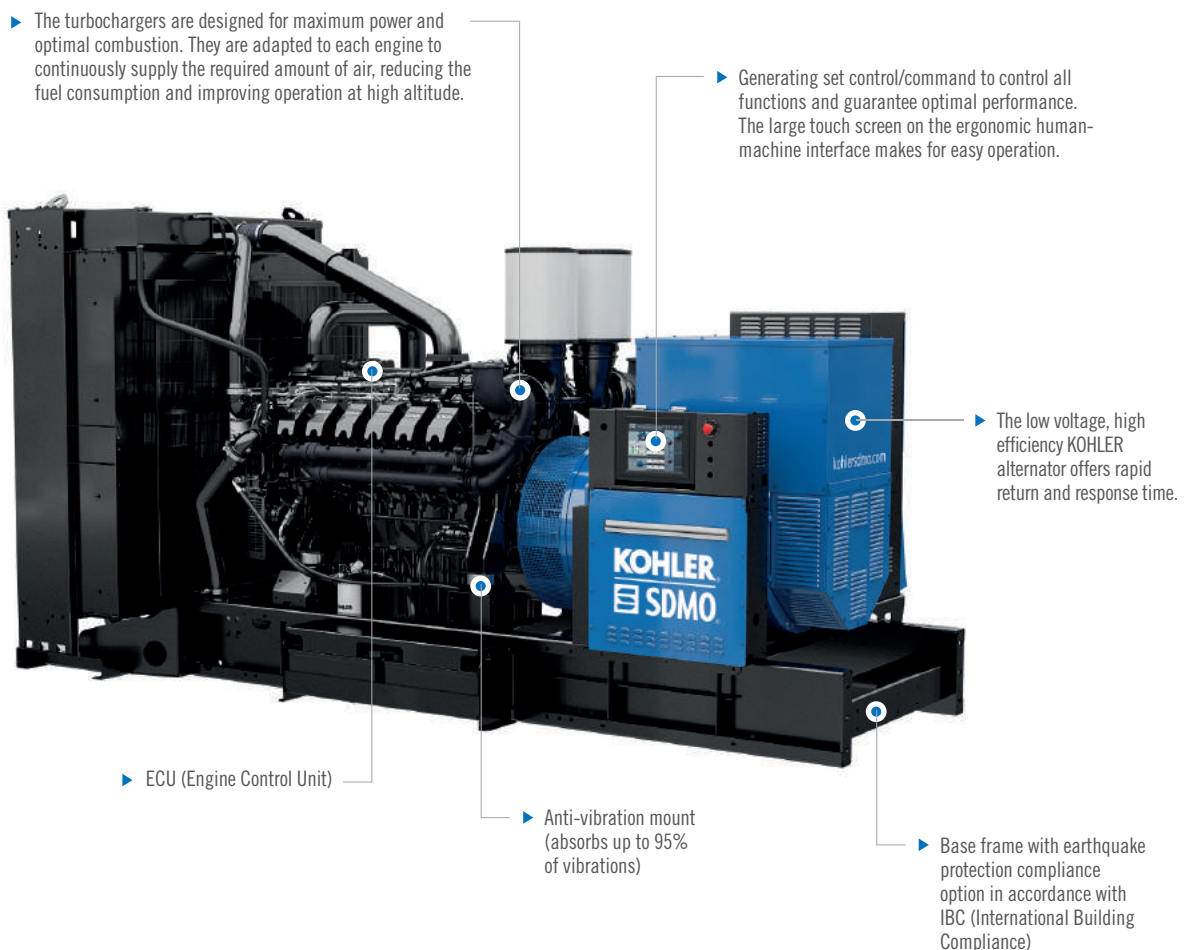
Common rail injection with electronic control enables optimisation of both fuel consumption (VOC) and emissions (VOE). Emission Optimised Versions conform to EPA Tier 2 requirements at 50 Hz and are EPA Tier 2 certified at 60 Hz.

KD SERIES generating sets are available with DCC power for data centres. They comply with the G3 performance class.

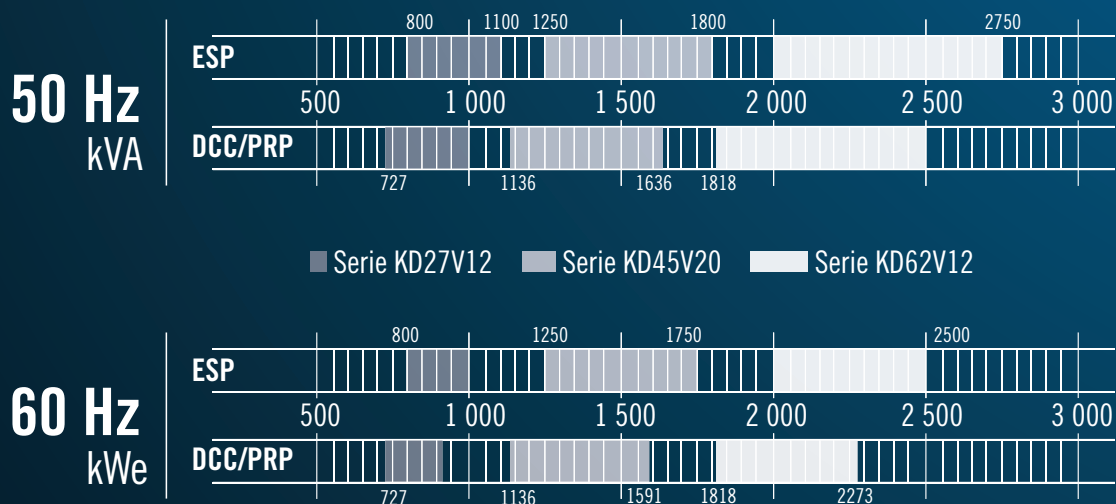
The KD SERIES range includes a large number of options and accessories:

control/command, enclosures and containers, fuel tanks, silencers, circuit breakers, etc.

A design that meets American standards is available on request
(NFPA110, IBC, UL, etc.)



AVAILABLE POWER FOR THE RANGE



- An innovative cylinder head design enabling better circulation of fuel, more efficient combustion and optimised exhaust gas emission flow

- The innovative common rail injection system enables injection at a pressure up to 2200 bar for maximum efficiency



- Circuit breaker unit with easy power connection

- Coolant system designed to give full power up to ambient temperatures of 50°C.

KD SERIES K135

FROM 800 TO 1800 kVA EMERGENCY (800 TO 1750 kWe)

Major strengths:

- ▶ Latest generation engine technology
- ▶ The best fuel consumption in its category
- ▶ A more compact design
- ▶ A large power range covered by a single product family
- ▶ A direct-fit radiator for a small footprint and a complete solution
- ▶ Superior transient response
- ▶ A design that optimises performance at high temperature
- ▶ Enclosure installation possible up to 1100 kVA emergency and in 20-foot container up to 1800 kVA emergency
- ▶ Low sound level

► SPECIFICATIONS 50 HZ - 400-230 V

GENERATING SET ⁽¹⁾			KD800	KD900	KD1000	KD1100	KD1250	KD1440	KD1500	KD1650	KD1800
kVA Cos Φ 0.8	PRP ⁽²⁾		727	818	909	1 000	1 136	1 309	1 364	1 500	1 636
	DCC ⁽³⁾		727	818	909	1 000	1 136	1 309	1 364	1 500	1 636
	ESP ⁽⁴⁾		800	900	1 000	1 100	1 250	1 440	1 500	1 650	1 800
Cons. 3/4 (L/h)	VOC ⁽⁵⁾ with PRP		101	111	125	135	165	183	193	210	219
	VOE ⁽⁶⁾ with ESP		127	139	157	170	211	232	246	271	280
Engine	Engine type		KD27V12	KD27V12	KD27V12	KD27V12	KD45V20	KD45V20	KD45V20	KD45V20	KD45V20
	Cyl. (no. and layout)		12V	12V	12V	12V	20V	20V	20V	20V	20V
	Total cubic capacity (L)		27	27	27	27	45	45	45	45	45
Open version	Dim. ⁽⁷⁾	L (m)	4.19	4.19	4.19	4.19	5.09	5.09	5.09	5.09	5.09
		W (m)	1.75	1.75	1.75	1.75	2.12	2.12	2.12	2.12	2.12
		H (m)	2.28	2.28	2.28	2.28	2.48	2.48	2.48	2.48	2.48
Enclosure	M427	dB(A)@7m	77	77	77	78	-	-	-	-	-
20-foot container	ISO 20 SI	dB(A)@7m	75	75	77	77	90	90	90	90	90
	ISO 20 SSI	dB(A)@7m	66	66	69	69	72	72	72	72	72

⁽¹⁾ Also available in the following voltages: 415/240 V - 380/220 V

⁽²⁾ PRP: main power available continuously with variable load for an unlimited time in accordance with ISO 8528-1

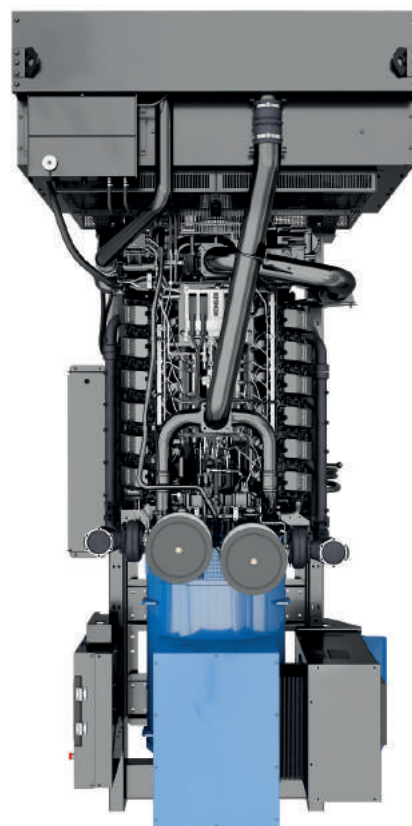
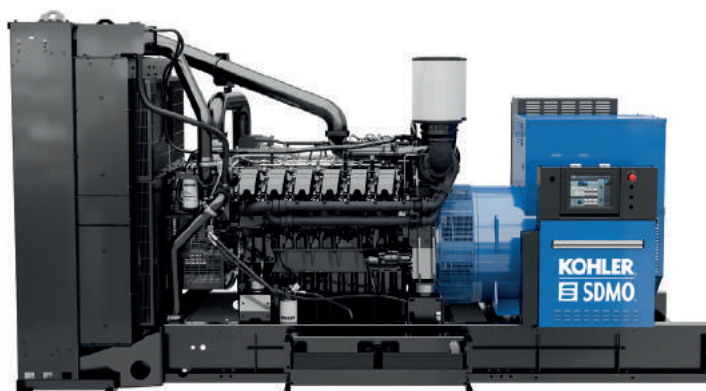
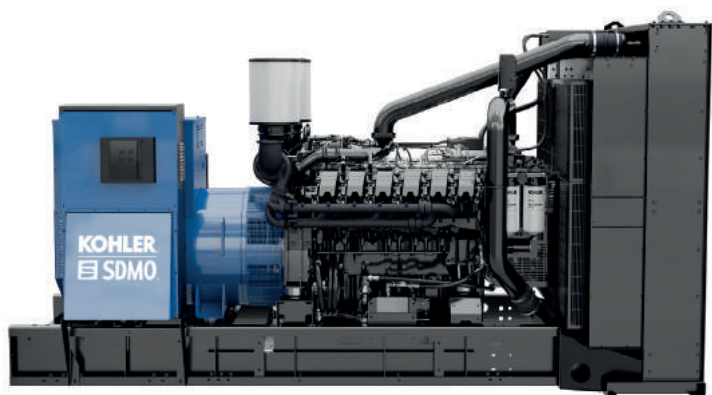
⁽³⁾ DCC: Data Centre Continuous power applies to installations in data centres where a reliable power infrastructure is available. This definition complies with the requirements of the Uptime Institute Tier III and IV. At constant or variable load, the generating set can run for an unlimited number of hours. An overload capacity of 10% is available for one hour every twelve hours. Power in accordance with the ISO 8528-1, ISO 3046-1, BS 5514 and AS 2789 standards. Average load factor: $\leq 100\%$

⁽⁴⁾ ESP: emergency standby power available for supplying emergency power in variable load applications in accordance with ISO 8528-1, no overload available for this service

⁽⁵⁾ VOC: Consumption Optimisation Variant

⁽⁶⁾ VOE: Emissions Optimisation Variant

⁽⁷⁾ The dimensions apply to a generating set specified in the price list, without options



► SPECIFICATIONS 60 HZ - 480-277 V

GENERATING SET ⁽¹⁾			KD800 ⁽²⁾	KD900 ⁽²⁾	KD1000 ⁽²⁾	KD1250	KD1500	KD1600	KD1750
kWe ISO 8528 ⁽³⁾	PRP ⁽⁴⁾		727	818	909	1 136	1 364	1 454	1 591
	DCC ⁽⁵⁾		727	818	909	1 136	1 364	1 454	1 591
	ESP ⁽⁶⁾		800	900	1 000	1 250	1 500	1 600	1 750
Cons. 3/4 (L/h)	VOC ⁽⁷⁾ with PRP		142	160	175	224	264	278	305
	VOE ⁽⁸⁾ with ESP		169	192	209	267	316	334	364
Engine	Engine type		KD27V12	KD27V12	KD27V12	KD45V20	KD45V20	KD45V20	KD45V20
	Cyl. (no. and layout)		12V	12V	12V	20V	20V	20V	20V
	Total cubic capacity (L)		27	27	27	45	45	45	45
Open version	Dim. ⁽⁹⁾	L (m)	4.19	4.19	4.19	5.21	5.21	5.21	5.21
		I (m)	1.75	1.75	1.75	2.10	2.10	2.10	2.10
		h (m)	2.28	2.28	2.28	2.48	2.48	2.48	2.48
Enclosure	M427	dB(A)@7m	82	82	82	-	-	-	-
20-foot container	ISO 20 SI	dB(A)@7m	79	79	81	93	93	93	93
	ISO 20 SSI	dB(A)@7m	71	71	73	79	79	79	79

⁽¹⁾ Also available at 380/220 V

⁽²⁾ Also available in the following voltages: 208/120 V and 220/127 V

⁽³⁾ ISO 8528: power expressed in accordance with the legislation in force

⁽⁴⁾ PRP: main power available continuously with variable load for an unlimited time annually, in accordance with ISO 8528-1

⁽⁵⁾ DCC: Data Centre Continuous power, applies to data centre installations where a reliable power infrastructure is available. This definition complies with the requirements of the Uptime Institute Tier III and IV. At constant or variable load, the generating set can run for an unlimited number of hours. An overload capacity of 10% is available for one hour every twelve hours. Power in accordance with the ISO 8528-1, ISO 3046-1, BS 5514 and AS 2789 standards. Average load factor: ≤ 100%

⁽⁶⁾ ESP: emergency standby power available for supplying emergency power in variable load applications in accordance with ISO 8528-1, no overload available for this service

⁽⁷⁾ VOC: Consumption Optimisation Variant

⁽⁸⁾ VOE: Emissions Optimisation Variant

⁽⁹⁾ The dimensions apply to a generating set specified in the price list, without options

KD SERIES K175

FROM 2000 TO 2750 kVA EMERGENCY (2000 TO 2500 kWe)

Major strengths:

- ▶ Latest generation engine technology
- ▶ The best fuel consumption in its category
- ▶ A more compact design
- ▶ Large power range covered by a single product family
- ▶ Separate cooling for smoother installation
- ▶ Up to 2750 kVA emergency power in our 40-foot CPU container, the best-performing container on the market in terms of sound level and accessibility for operation and maintenance
- ▶ A design adapted to the most demanding applications and environments

► SPECIFICATIONS 50 HZ - 400-230 V

GENERATING SET ⁽¹⁾			KD2000	KD2250	KD2500	KD2800
kVA Cos φ 0.8	PRP ⁽²⁾		1 818	2 045	2 273	2 500
	DCC ⁽³⁾		1 818	2 045	2 273	2 500
	ESP ⁽⁴⁾		2 000	2 250	2 500	2 750
Cons. 3/4 (L/h)	VOC ⁽⁵⁾ with PRP		257	282	313	344
	VOE ⁽⁶⁾ with ESP		330	375	408	478
Engine	Engine type		KD62V12	KD62V12	KD62V12	KD62V12
	Cyl. (no. and layout)		12V	12V	12V	12V
	Total cubic capacity (L)		62	62	62	62
Open version	Dim. ⁽⁷⁾	L (m)	4.45	4.45	4.48	4.48
		W (m)	2.11	2.11	2.11	2.11
		H (m)	2.56	2.56	2.56	2.56
40-foot container	CPU 40 SI	dB(A)@7m	82	82	82	82
	CPU 40 SSI	dB(A)@7m	75	75	75	75

⁽¹⁾ Also available in the following voltages: 415/240 V - 380/220 V

⁽²⁾ PRP: main power available continuously with variable load for an unlimited time in accordance with ISO 8528-1

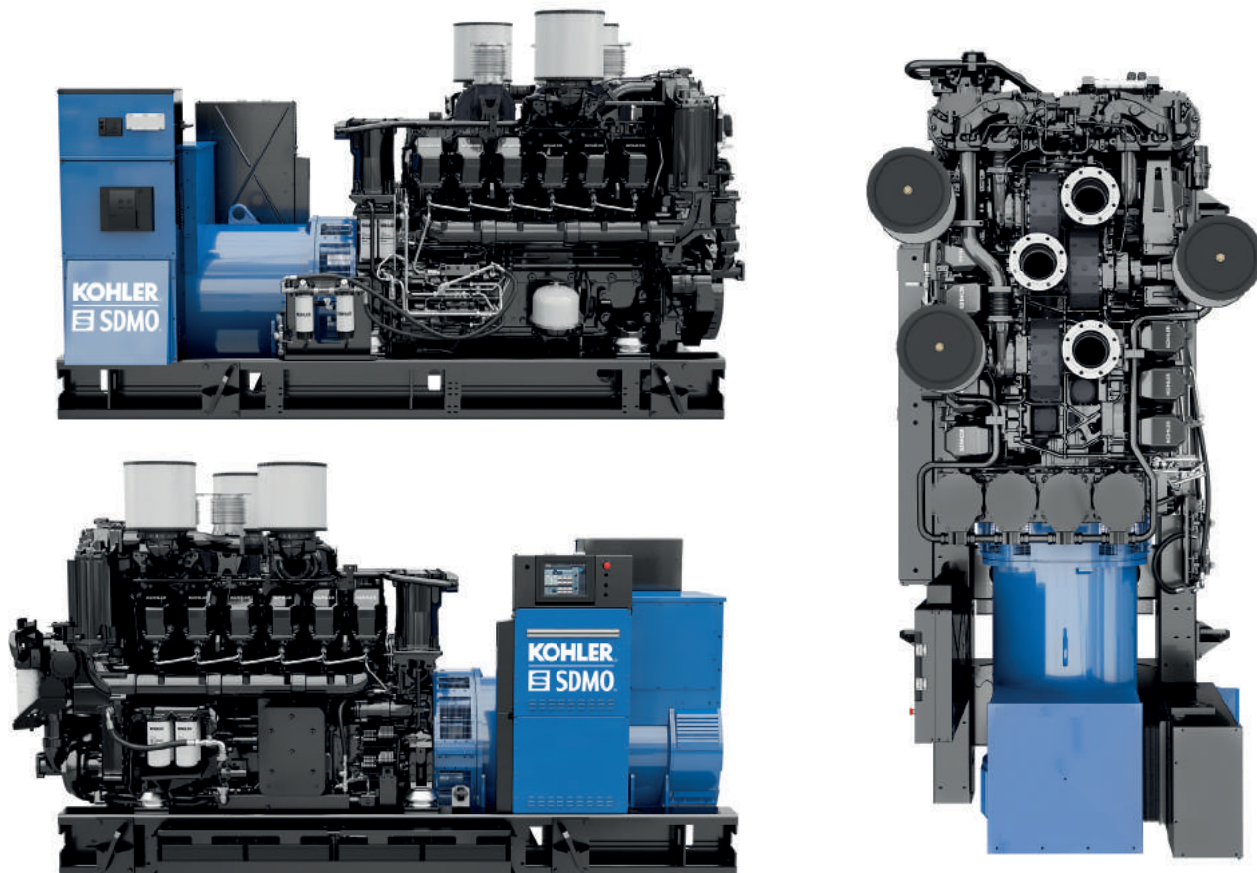
⁽³⁾ DCC: Data Centre Continuous power, applies to data centre installations where a reliable power infrastructure is available. This definition complies with the requirements of the Uptime Institute Tier III and IV. At constant or variable load, the generating set can run for an unlimited number of hours. An overload capacity of 10% is available for one hour every twelve hours. Power in accordance with the ISO 8528-1, ISO 3046-1, BS 5514 and AS 2789 standards. Average load factor: ≤ 100%

⁽⁴⁾ ESP: standby power available for emergency use under variable load, in accordance with ISO 8528-1, no overload available under this service

⁽⁵⁾ VOC: Consumption Optimisation Variant

⁽⁶⁾ VOE: Emissions Optimisation Variant

⁽⁷⁾ The dimensions apply to a generating set specified in the price list, without options



► SPECIFICATIONS 60 HZ - 480-277 V

GENERATING SET ⁽¹⁾			KD2000	KD2250	KD2500
kWe ISO 8528 ⁽²⁾	PRP ⁽³⁾		1 818	2 046	2 273
	DCC ⁽⁴⁾		1 818	2 046	2 273
	ESP ⁽⁵⁾		2 000	2 250	2 500
Cons. 3/4 (L/h)	VOC ⁽⁶⁾ with PRP		362	407	438
	VOE ⁽⁷⁾ with ESP		433	518	572
Engine	Engine type		KD62V12	KD62V12	KD62V12
	Cyl. (no. and layout)		12V	12V	12V
	Total cubic capacity (L)		62	62	62
Open version	Dim. ⁽⁸⁾	L (m)	4.45	4.45	4.48
		W (m)	2.11	2.11	2.11
		H (m)	2.56	2.56	2.56
40-foot container	CPU 40 SI	dB(A)@7m	85	85	85
	CPU 40 SSI	dB(A)@7m	77	77	77

⁽¹⁾ Also available at 380/220 V

⁽²⁾ ISO 8528: power expressed in accordance with the legislation in force

⁽³⁾ PRP: main power available continuously with variable load for an unlimited time annually, in accordance with ISO 8528-1

⁽⁴⁾ DCC: Data Centre Continuous power, applies to data centre installations where a reliable power infrastructure is available. This definition complies with the requirements of the Uptime Institute Tier III and IV. At constant or variable load, the generating set can run for an unlimited number of hours. An overload capacity of 10% is available for one hour every twelve hours. Power in accordance with the ISO 8528-1, ISO 3046-1, BS 5514 and AS 2789 standards. Average load factor: ≤ 100%

⁽⁵⁾ ESP: standby power available for emergency use under variable load, in accordance with ISO 8528-1, no overload available under this service

⁽⁶⁾ VOC: Consumption Optimisation Variant

⁽⁷⁾ VOE: Emissions Optimisation Variant

⁽⁸⁾ The dimensions apply to a generating set specified in the price list, without options

SCOPE OF SUPPLY

MODULAR GENERATING SETS, AN ADAPTED RESPONSE

For each of its generating sets, KOHLER-SDMO offers a large range of options to facilitate maintenance operations, enhance user safety and provide solutions for specific user requirements or demanding environments.

		K135 SERIES	K175 SERIES
Engine	4 stroke water-cooled diesel engine	•	•
	Electronic control device	•	•
	Standard air filter	•	•
	Air filter with interchangeable cartridge	EN02 ⁽¹⁾	EN02
	Pre-lubrication pump	X	EN25
	Dual starting	S0007	S0007
Alternator	IP 23 single bearing alternator, T° class =H, insulation class H/H	•	•
	Anti-condensation resistor	AL01	AL01
	Type D impregnation	•	•
	Type R impregnation	AL06	AL06
	CT parallel operation	σ ⁽²⁾	σ ⁽²⁾
	Oversized alternator	A0001B	A0001B
Generating set	CE compliance of the control unit	•	•
	Mechanically welded base frame with antivibration dampers	•	•
	High-efficiency vibration damping	IS01	•
Lubrication	Automatic oil make up with tank	EN18	EN18
	Oil centrifuging system	X	EN19
	Oil drainage pump	•	•
Cooling	Protective grille for fan and rotating parts	•	X
	Vertical air cooler supplied separately	X	CS001B
	Kit for assembling the air cooler on the unit	X	MA001
	Protective grille for radiator core	EN14	X
	Electrical louvers	X	CS003
Exhaust	Exhaust compensators with clamps	•	•
	Protective grille for hot parts	CEL02	X
	9 dB(A) silencer supplied separately	EN07	EN07
	29 dB(A) silencer supplied separately	EN08	EN08
	40 dB(A) silencer supplied separately	EN09	EN09
Starting	24 V charging alternator and starter	•	•
	Starter batteries	S0001	S0001
	Battery isolating switch	EN16	EN16
Fuel	Generating set without fuel tank	• ⁽³⁾	•
	Separate fuel tank on 500 L bund	FD06	FD06
	Separate fuel tank on 1000 L bund	FD07	FD07
	500 L base frame fuel tank	FD03 ⁽³⁾	X
	930 L base frame fuel tank, enclosed version	•	X
	Retention bund level alarm	FD14	FD14
	1 m³/h 1-pump auto kit	FD08	FD08
	1 m³/h 2-pump auto kit	FD09	FD09
	Diesel separator pre-filter	•	•
	Fuel cooler	X	•

• As standard

X Not available

0 Several options available - please contact us

EN01: option code

⁽¹⁾ Please contact us for ISO20 container versions

⁽²⁾ CT parallel operation not necessary with APM802

⁽³⁾ Except enclosed gensets

1 DIESEL SEPARATOR PRE-FILTER

This is a filter enabling water contained in the diesel to be removed, thereby improving the engine's protection.

2 FILTER WITH INTERCHANGEABLE CARTRIDGE (EN02)

These dry air filters with removable and interchangeable cartridge for dusty environments can be removed and cleaned with blown air. This option is required when the generating set is used in dusty environments.

3 OVERSIZED ALTERNATOR (A0001B)

For installations with significant electrical constraints, this option ensures improved performance.

4 IMPREGNATION

- D-type: for tropical type environments with relative humidity > 95%, excluding coastal environments
- R-type: for harsh industrial environments with humidity level > 95% and coastal environments

5 SILENCER IN OPEN VERSION (EN07, EN08, EN09)

For "open" version generating sets, 3 noise reduction levels are available to meet the constraints of various installations: 9 dB(A), 29 dB(A) et 40 dB(A).

6 OIL CENTRIFUGE (EN19 ONLY FOR K175 SERIES)

This allows the maintenance interval to be increased from 500 hours to 1500 hours (depending on the oil quality).

7 AUTOMATIC OIL MAKE UP WITH TANK (EN18)

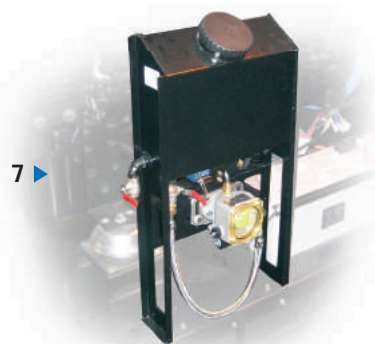
Automatic oil make up system enabling a constant oil level to be maintained in the crankcase during operation. It comprises a new oil reserve, an oil level regulator and a hose and valve assembly mounted on the generating set's base frame.

8 AUTOMATIC FUEL FILLING KIT (FD08)

This kit allows the fuel tank to be automatically filled from an external storage tank. It includes:

- an electric pump with automatic control governed by a gauge with level contacts
- a manual back-up pump.

It can be used for extended periods of time without topping up the diesel. It is therefore particularly well-suited to remote locations.



CONTAINERS

A VERSATILE RANGE OF SOUNDPROOFED CONTAINERS

You are faced with numerous installation constraints. Our containers can be adapted to meet all your needs. Thanks to their standard dimensions, they are easy to transport. Our turnkey containers have an integrated fuel tank which means they are ready to run. Their coolant systems, with an integrated silencer and sound traps, provide a highly economical solution.

ISO CONTAINERS

ISO containers are adapted to emergency applications with no harsh environmental constraints.

Available as 20-foot High Cube



CSC* certified



Adapted to standard environments

PRODUCT PLUS POINTS

► FLEXIBLE INTEGRATION



MODEL	ISO CONTAINERS	CPU CONTAINERS
Dimensions	20-foot High Cube	40-foot High Cube
CSC* certified	•	•
Standard sound level at 50 Hz, at 1 m, 3/4 load	- 75 to 90 dB(A) with Silent option - 66 to 72 dB(A) with Super Silent** option	- 82 dB(A) with Silent option - 75 dB(A) with Super Silent option
Double maintenance door	-	•
Target environments	Standard environment	Harsh atmospheres (heat, dust)

*CSC: the International Convention for Safe Containers (CSC) is a regulation which ensures that containers used for transporting goods retain the specifications required to "...maintain a high level of safety of human life in the handling, storage and transport of containers" over time.

**with the Super Silent soundproofing kit option

CPU CONTAINERS

CPU type containers are designed to be adapted to the most demanding environments. Robust and modular, they are specially conceived to meet the very stringent constraints of production applications.

Available as 40-foot High Cube



CSC* certified



Double maintenance door



Harsh atmospheres (heat, dust)

PRODUCT PLUS POINTS

- ▶ **LOW SOUND LEVEL**
- ▶ **NO LOSS OF POWER UP TO 40°C**
- ▶ **SIMPLIFIED MAINTENANCE**
- ▶ **ACCESSIBLE CONTROL/COMMAND AND POWER COMPONENTS**
- ▶ **SHORT PRODUCTION LEAD TIMES**





STANDARD EQUIPMENT AND CONTAINER OPTIONS

		SILENT		SUPER SILENT
		ISO20 Si	CPU40 Si	CPU40 SSi
Generating set	Complies with CSC certification	•	•	•
	Base generating set	•	•	•
	Starter, charging alternator	•	•	•
	Batteries filled with electrolyte	S0001	S0001	S0001
	Standard air filter	•	•	•
	Oil drainage pump	•	•	•
Filtration	Reinforced fuel filtration	X	CT022	CT022
	Air filter for dusty environments	X	CT024	CT024
Container specifications	Super Silent soundproofing kit	ISO20SSI	X	X
	High performance 30 dB(A) silencer	• ⁽¹⁾	• ⁽²⁾	• ⁽²⁾
	Integrated exhaust module	X	CT028	CT028
	Floor	Treadplate	Treadplate	Treadplate
	Number of side doors	2	2 + 2 double	2 + 2 double
	Galvanised air outlet rain grille	CT005	X	X
	Air intake protective rain grille	•	•	•
	Safety lighting and shut-off valve	CT007	CT007	CT007
	Exhaust outlet on bracket	CT011	X	X
	RAL 9010 white painted finish for container	•	•	•
Fuel	Special colour from list	CT016	X	X
	Power cable outlet on lower section	CT015	•	•
	Retention bund under genset assembly	•	•	•
	500 L base frame fuel tank	•	X	X
	Tank on bund (500 L)	X	•	•
	Tank on bund (1000 L)	X	CT021	CT021
	1500 L base frame tank ⁽⁴⁾	CT019	X	X
	Tank on bund (2000 L)	X	X	X
Control units	1 m³/h 1-pump auto kit	CT008	CT008	CT008
	1 m³/h 2-pump auto kit	X	CT009	CT009
	CE compliance of the control unit	•	•	•
	TELYS console	CM40	CM40	CM40
Dimensions	APM802 console	A802	A802	A802
	Control unit under console	X	E05	E05
	Length (mm)	6 058 ⁽⁵⁾	12192	12192
	Width (mm)	2 438	2 438	2 438
	Height (mm)	2 896	2 896 ⁽³⁾	2 896 ⁽³⁾

• As standard
X Not available

EN01 Option code
(1) inside the container

(2) on the container roof
(3) without silencer

(4) up to 1100 kVA only
(5) length without Super Silent option. This option requires the baffles to be transported separately

CONTROL UNITS

M80-D, TELYS, APM802: A KOHLER-SDMO EXCLUSIVE

KOHLER-SDMO offers a unique range of specific control units: M80-D, TELYS and APM802.

These control units offer a wide range of possibilities, from simplified running to management of the most complex parallel operations, and can be adapted to suit every need. This modularity is made even easier by the fact that each optional peripheral device (air cooler, daily service tank, oil make up, etc.) has its own protection.

For power plants, separate control boxes may be used in place of the control units. Please do not hesitate to contact us.

COMPARISON OF THE 3 CONTROL UNITS

SPECIFICATIONS	M80-D	TELYS	APM802
DISPLAY			
Frequency	X	•	•
Phase to neutral voltages	X	•	•
Phase to phase voltages	X	•	•
Currents	X	•	•
Active/reactive/apparent power	X	•	•
Power factor	X	•	•
Battery voltage	•	•	•
Battery current	X	0	0
Start-up delay	X	•	•
Fuel level	X	•	•
Oil pressure	•	•	•
Coolant temperature	•	•	•
Oil temperature	•	0	0
Total working hours counter	•	•	•
Partial working hours counter	X	•	•
Total active/reactive energy meter	X	•	•
Genset speed	•	•	•
FAULT INFORMATION (fault or alarm)			
Min/max alternator voltage	X	•	•
Min/max alternator frequency	X	•	•
Min/max battery voltage	X	•	•
Overload and/or short circuit	X	•	•
Active/reactive power return	X	•	•
Oil pressure	•	•	•
Coolant temperature	•	•	•
Speed too high	•	•	•
Underspeed	X	•	•
Low fuel level	X	•	•
Emergency stop fault	X	•	•
Non-starting fault	X	•	•
Charging alternator fault	X	•	•
Differential relay activation fault	X	•	•
General alarm	X	•	•
General fault	X	•	•
Sound alarm	X	•	•

SPECIFICATIONS	M80-D	TELYS	APM802
OPERATION			
Power ON	X	•	•
Manual genset starting	X	•	•
Automatic genset starting	X	•	•
Genset shut down	X	•	•
Emergency stop	•	•	•
Menu navigation using colour touch-screen	X	X	•
Menu navigation using wheel	X	•	X
Operating configuration selector	X	•	•
Remote starting control	X	0	X
Speed adjustment	•	0	•
Voltage adjustment	X	0	•
Dual frequency	•	0	0
Delayed start programming	X	•	•
Multilingual using pictograms	•	•	X
Multilingual text	X	•	•
CONNECTIVITY			
Ethernet port (website)	X	•	•
RS485 (JBUS protocol)	X	•	•
Engine CAN Bus (J1939)	•	•	•
USB port (config and software downloading)	X	•	•
PARALLEL OPERATION			
Under load	X	0	•
Stopped	X	X	•
Droop distribution of active and reactive power	X	0	•
Parallel line distribution of active and reactive power	X	X	•
CAN Bus distribution of active/reactive power	X	X	•
Power plant wattmeter control	X	X	•
Temporary parallel operation of Out/Return grid	X	0	•
Power plant parallel operation to grid (temporary, permanent, etc.)	X	X	•
GENERAL			
Downloading of a customised configuration via USB port	X	•	•

• As standard
X Not available
0 Optional

CONTROL UNITS

DUAL-FUNCTION M80-D CONTROL UNIT

The M80-D can be used as a basic terminal block for connecting an electrical cabinet box and as an instrument panel with a highly intuitive LCD screen giving an overview of your generating set's basic parameters. It is equipped with an emergency stop button and a customer terminal block, and has CE conformity.

The screen can display all of the engine's physical values:

- ▶ oil gauge
- ▶ coolant temperature
- ▶ oil temperature
- ▶ engine speed
- ▶ battery voltage
- ▶ charge air temperature
- ▶ fuel consumption
- ▶ etc.

The engine faults can also be displayed. The M80-D records several events to facilitate diagnostics and can control the main engine functions:

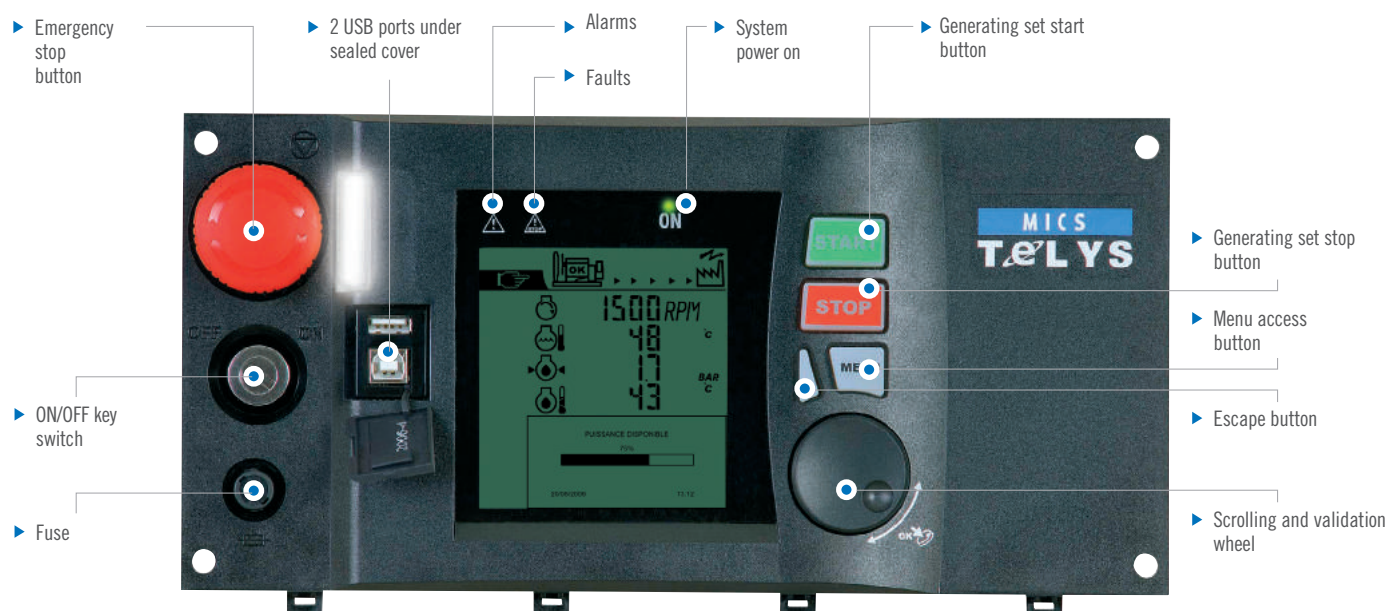
- ▶ starting
- ▶ speed adjustment
- ▶ stopping
- ▶ droop
- ▶ etc.



CONTROL UNITS

TELYS, ERGONOMIC AND INTUITIVE

As KOHLER-SDMO's flagship product, the TELYS integrates new options.
More straightforward than ever, its focus is on communication
(USB connections, PC connections, control software and remote operation).



SCREEN

Screen with contrast which adjusts to all types of light.
Viewing and remote control functions with option to send an e-mail,
text message or fax in the event of an alarm or a fault (optional).

FUNCTIONS

Compliance with numerous legal and regulatory requirements (EC).
Integrated diagnostic tool to guide the user when alarms or faults
appear. Integrated maintenance monitoring (screen display of planned
maintenance procedures).

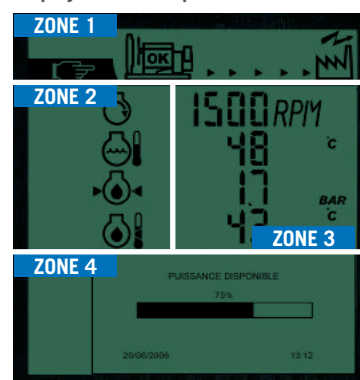
CONNECTIVITY

2 USB ports under sealed cover.

OPERATION CONDITIONS

Tropicalisation of the electronic board to withstand conditions of
extreme humidity.

Display screen composed of 4 zones:



ZONE 1: Operation mode (auto/manual/GS output, etc.)

ZONE 2: Display of functions as pictograms

ZONE 3: Display of mechanical and electrical values and the
associated measurements

ZONE 4: Operating messages and parameter settings menu

CONTROL UNITS

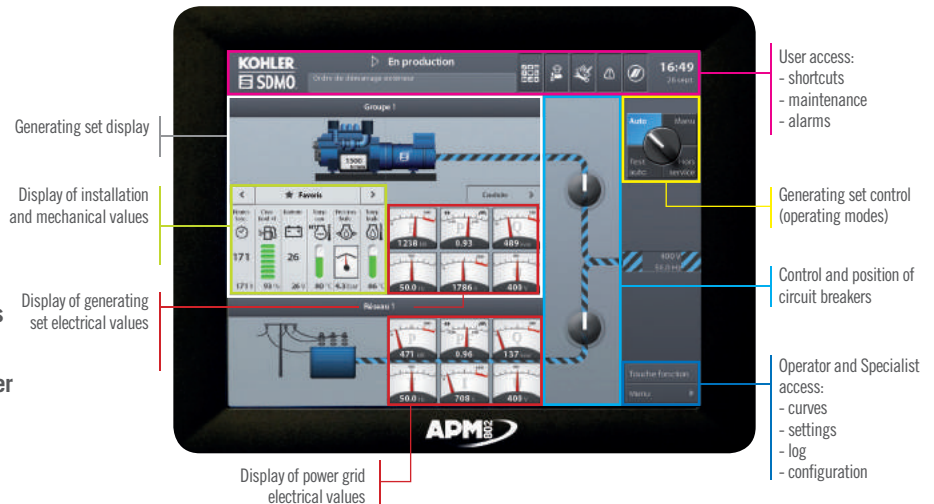
APM802

DEDICATED TO POWER PLANT MANAGEMENT

Fully developed by KOHLER-SDMO, the APM802 command/control system is specifically designed for operating and monitoring power plants for hospitals, data centres, banks, the oil and gas sector, industries, IPP, rental, mining, etc.

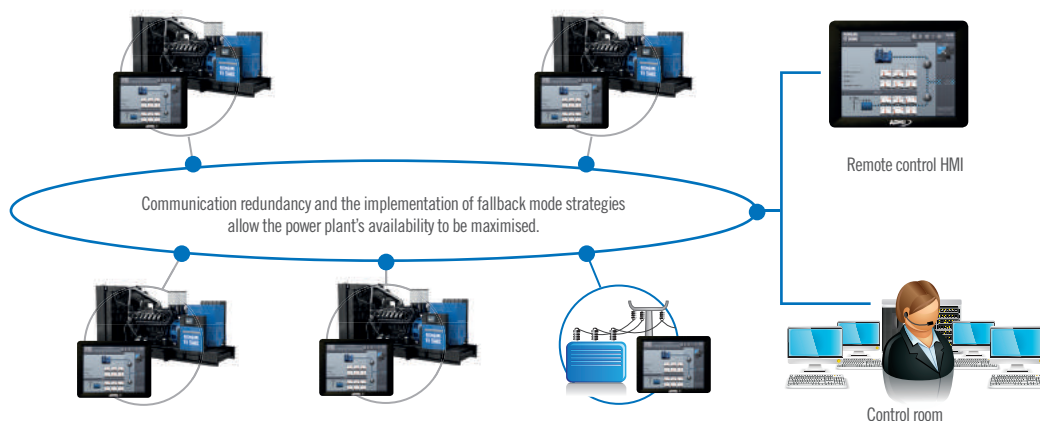
The human-machine interface, designed in collaboration with a company specialising in interface design, facilitates operations via its large touch screen.

The pre-configured system for power plant applications features a brand new customisation function which complies with the international standard IEC 61131-3.



THE APM802 FOR ENHANCED COMMUNICATIONS

Communication via the APM802 guarantees a high level of equipment availability and facilitates the remote control of the HMI for enhanced usage. Additionally, various connections can be made via the Ethernet, using fibre optics or combined with copper wire. For full control of risk management, the system communications are separated from the external communications.



INTUITIVE AND ERGONOMIC TO USE

The ergonomics of the APM802 has been carefully designed in conjunction with users to ensure optimum user comfort. The operator is guided through how to operate the product according to its access level, making it easy to get started and reducing the risk of errors.

POWER MODULES

AIPR

Each generating set may be supplied with a protection unit. This unit is mounted on the chassis with connection cables to the alternator. This AIPR function is also adapted for containers.

		AIPR
WITH MANUAL CONTROL ON THE FRONT		
3-pole open circuit breaker		0
4-pole open circuit breaker		0
MOTORISED CONTROL OPTION ⁽¹⁾		
With 3 or 4-pole open circuit breaker only		0
Voltage 208-440 V		•
Auxiliary unit option ⁽²⁾		0
Large range power connection bus bars		● ⁽³⁾
Remote control terminal block		•
Protection index		IP120
Dimensions (without air cooler unit)	height (mm)	1 260
	width (mm)	683
	depth (mm)	365
Dimensions (with air cooler unit)	height (mm)	1 664
	width (mm)	683
	depth (mm)	365
Dimensions (unit with connection from above)	height (mm)	1 883
	width (mm)	683
	depth (mm)	365

(1) The motorised control comprises: a closing electromagnet, a shunt trip coil and an AC motor

(2) The auxiliary option unit is mounted above the main unit. It is used for the power connections of generating set auxiliaries, e.g.: air cooler/fan output.

(3) Standard at the bottom and optional at the top
• Standard
0 Optional



VERSO

In industrial applications, the transfer of the main source to the replacement source is crucial for the running of your installations. The Verso 200 is the perfect solution for this situation from **800 A to 3200 A**.

VERSO 200			
Ratings (A)	800, 1 000, 1 250	1 600	2 000, 2 500, 3 200
Type	Three phase		
Nominal voltage/frequency	127 / 230 V / 50-60 Hz - 230 / 400 V / 50-60 Hz		
Configuration	Auto-configuration of voltage/frequency min/max and configurable thresholds		
Display and setting	By LCD - Supplied with manually-operated key - Can be padlocked in manual mode		
Voltage drop tolerated	30% of the nominal voltage @400V		
Protects against a change in the phase rotation direction	0		
Lightning arrester	0		
EJP pack (for France only)	•		
Confirmation of mains return	0		
Protection index	IP55		
Inputs/outputs	3 configurable dry contact inputs / 2 configurable relay outputs		
Dimensions (h x l x d) in mm	2 000 x 800 x 695	2 000 x 1 000 x 695	2 000 x 1 000 x 895

• As standard 0 Optional



≥ 800 A

SALES OFFICES FRANCE

WEST

SDMO BREST

TEL. 02 98 41 13 48
FAX 02 98 41 13 57

CENTRAL WEST

SDMO CHOLET

TEL. 02 41 75 96 70
FAX 02 41 75 96 71

PARIS/NORTH & NORMANDY

SDMO GENNEVILLIERS

TEL. 01 41 88 38 00
FAX 01 41 88 38 37

SDMO ARRAS

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SDMO METZ

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SOUTH EAST

SDMO VALENCE

TEL. 04 75 81 31 00
FAX 04 75 81 31 10

SDMO AIX-EN-PROVENCE

TEL. 04 42 52 51 60
FAX 04 42 52 51 61

SOUTH WEST

SDMO TOULOUSE

TEL. 05 61 24 75 75
FAX 05 61 24 75 79

SUBSIDIARIES

GERMANY

SDMO GMBH

TEL. +49 (0) 63 32 97 15 00
FAX +49 (0) 63 32 97 15 11

BELGIUM

SDMO NV/SA

TEL. +32 36 46 04 15
FAX +32 36 46 06 25

SPAIN

SDMO INDUSTRIES IBERICA

TEL. +34 (9) 35 86 34 00
FAX +34 (9) 35 86 31 36

UK

SDMO ENERGY LTD

TEL. +44 (0) 16 06 83 81 20 FAX +44
(0) 16 06 83 78 63

LATIN AMERICA

& CARIBBEAN

SDMO GENERATING SETS

TEL. +1 305 863 0012
FAX +1 954 432 8330

BRAZIL

SDMO MAQUIGERAL

TEL. +55 (11) 37 89 60 00

OFFICES

SOUTH AFRICA

SDMO SOUTH AFRICA

TEL. +27 (0) 8 32 33 55 61
FAX +33 (0) 1 72 27 61 51

ALGERIA

SDMO ALGIERS

TEL. +213 (0) 21 68 12 12
FAX +213 (0) 21 68 14 14

DUBAI

SDMO MIDDLE EAST

TEL. +971 4 458 70 20
FAX +971 4 458 69 85

EGYPT

SDMO CAIRO

TEL./ FAX+ 20 2 22 67 12 78

KENYA

SDMO NAIROBI

TEL.: +25 47 07 60 54 00

RUSSIA

SDMO MOSCOW

TEL/ FAX +7 495 665 16 98

TOGO

SDMO WEST AFRICA

TEL. + 228 22 22 65 65

TURKEY

SDMO ISTANBUL

TEL. +90 53 07 35 09 10



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KOHLER®

SDMO®

SDMO Industries
Headquarters: 270 rue de Kerervern - 29490 Guipavas - France
SDMO Industries - CS 40047 - 29801 Brest cedex 9 - France
Tel. +33 (0)2 98 41 41 41 - www.kohlersdmo.com

VISIT THE KD SERIES WEBSITE:
www.kdseries.com

