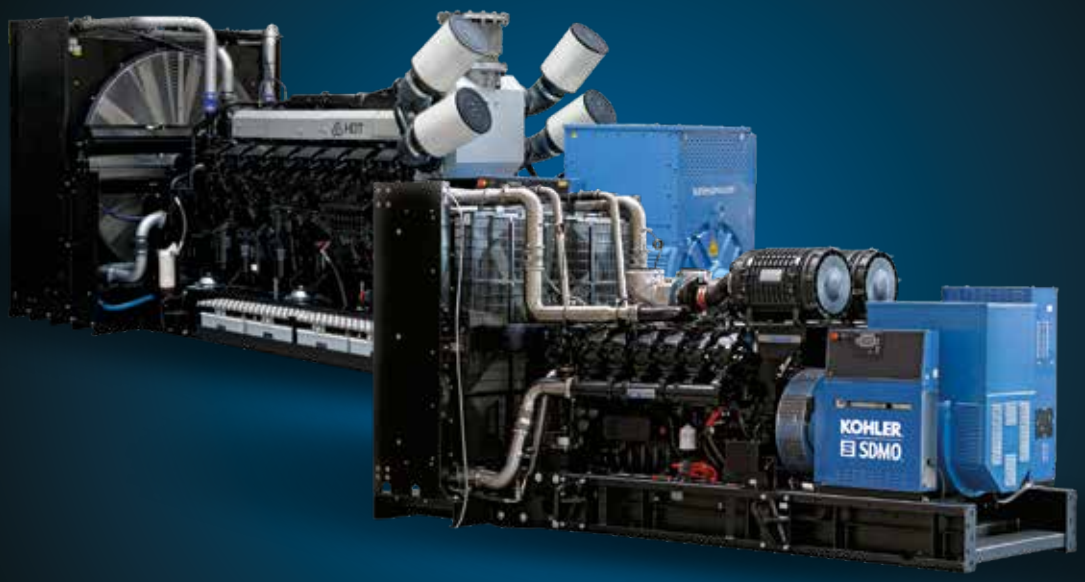
INDUSTRIAL RANGE
X-SERIES

900 - 2800 KVA | 50 HZ
1200 - 2000 KWE | 60 HZ

MK-PP-VR-DO-EN-211

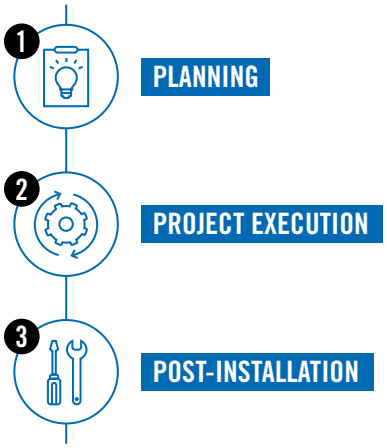


KOHLER®
IN POWER. SINCE 1920.

LET OUR EXPERTS
TAKE CARE OF YOUR PROJECT

Each project submitted to Kohler follows a proven process from planning to the post-installation maintenance. A succession of pre-established steps mastered by all our teams provides you with the guarantee of flawless efficiency

From planning the design and choice of equipment to final testing and commissioning, we have one goal: to offer you reliable power systems, precisely designed to your specifications. Great flexibility in manufacturing, extreme rigor during testing, meticulous precautions during commissioning—everything is done to provide you with a solution adapted to your activity and your budget.



Your power plant has been custom designed, manufactured and tested by a team of experienced engineers. Your dedicated representative coordinates all the steps in your project with each stakeholder, monitors performance quality and works to finalize your project right up to commissioning, all within the agreed deadlines.

X-PRESS RANGE

STANDARD GENERATING SETS HELD IN STOCK

Several 50 Hz references from 900 to 1500 kVA in the X-SERIES industrial range are stocked worldwide for quick delivery. These generating sets are available in open or soundproofed versions. Aftermarket options are available to order (report pack, automatic transfer switch, spare parts kits, etc.).

▶ ORDER DIRECTLY BY MAIL

You can place your order directly by mail using the form attached to the stock list sent each week. Cut out the middle man: your order is registered and shipped in the quickest possible time.

PLANNING **PRODUCTION** **STORAGE**

Ordering a generator during the planning or production phase
reduces the lead time to the minimum

Ordering a generating set available on the platform
means it is available immediately

50 HZ CONFIGURATION AVAILABLE

	900 TO 1500 KVA	
	OPEN	SOUNDPROOFED
4-pole circuit breaker	•	•
Control unit	APM403	APM403
U/I measurement board	•	•
Auto pack	•	•
Prewiring for auto start-up	•	•
CE label	•	•
Silencer	X	•

• Included X Not available

X-SERIES

INDUSTRIAL RANGE

FROM 900 KVA TO 1500 KVA

BAUDOUIN ENGINE

OPEN VERSION

B1400 ▸ OPEN VERSION

SOUNDPROOFED VERSION

B900 ▸ SOUNDPROOFED VERSION

SPECIFICATIONS **50 HZ - 400-230 V**

Generating sets			B900	B1000	B1100	B1250	B1400	B1500
kVA Cos phi 0.8[1]	PRP[2]		800	909	1023	1136	1273	1375
	ESP[3]		900	1000	1125	1250	1400	1513
Cons. 3/4 at PRP	(L/h)		127	139	153	154	187	TBC[7]
Engine	Engine type		12M26G/5	12M26G/5	12M26G/5	12M33G/5	12M33G/5	12M33G/5
	CC (qty and configuration)		12 V	12 V	12 V	12 V	12 V	12 V
	Total cubic capacity (L)		31.81	31.81	31.81	39.23	39.23	39.23
Open version[4]	Dimensions	L (m)	4.42	4.42	4.42	4.80	4.80	4.77
		l (m)	1.74	1.74	1.74	2.19	2.19	2.20
		h (m)	2.38	2.38	2.38	2.45	2.45	2.48
	Weight (kg) [5]		7470	7700	7880	8850	9120	9430
Enclosure	M427SI	dB(A) at 7 m[6]	77	77	77	-	-	-
		Weight (kg) [5]	9700	9900	10100	-	-	-
Container	ISO20 SI	dB(A) at 7 m[6]	-	-	-	82	82	84

(1) ISO 8528: power expressed in accordance with the legislation in force
(2) PRP: prime power available continuously with variable load for an unlimited time in accordance with ISO 8528-1. An overload capacity of 10% is available for one hour every twelve hours.
(3) ESP: standby power available for emergency use under variable load, in accordance with ISO 8528-1, no overload available under this service
(4) The dimensions and weights apply to a generating set specified in the price list, without options
(5) Dry weight without fuel
(6) at ¾ load
(7) to be confirmed

PRODUCT
PLUS POINTS

- The KOHLER X-SERIES range of generating sets equipped with Baudouin engines offers an optimized solution for emergency applications, and comes with all of the most popular functions. The product is quick and easy to install, offering excellent value for money and reliability. The generating sets are powered by robust, traditional engines and offer short lead times and easy installation and maintenance. The range comprises 6 output levels from 900 kVA to 1500 kVA, available in open or soundproofed versions to minimize sound levels and protect the product from the weather.

SOUNDPROOFED VERSION

ISO20 ▸ **Silent (SI)**
L x w x h: 6.06 x 2.44 x 2.90 m - 500 l fuel tank

KOHLER offers 4 additional models for sites with a very high ambient temperature.
Their optimized design means these generating sets can deliver their full PRP(2) output at ambient temperatures of 50°C.

OVERSIZED CONFIGURATIONS FOR AMBIENT TEMPERATURES OF 50°C - **50 HZ - 400-230 V**

Generating sets			B900-50C	B1000-50C	B1250-50C	B1400-50C
kVA Cos phi 0.8(1)	PRP(2) at 100 masl (meters above sea level)		800	909	1136	1273
Cons. 3/4 at PRP	(L/h)		132	145	173	188
Engine	Engine type		12M26G/5	12M26G/5	12M33G/5	12M33G/5
	CC (qty and configuration)		12 V	12 V	12 V	12 V
	Total cubic capacity (L)		31.81	31.81	39.23	39.23
Open version(3)	Dimensions	L (m)	4.42	4.42	4.73	4.72
		l (m)	1.74	1.74	2.19	2.20
		h (m)	2.38	2.38	2.45	2.48
	Weight (kg) (4)		7700	7880	9120	9430
Enclosure	M427SI	dB(A) at 7 m(5)	77	77	-	-
		Weight (kg) (4)	9900	10100	-	-
Container	ISO20 SI	dB(A) at 7 m(5)	-	-	82	82

(1) ISO 8528: power expressed in accordance with the legislation in force
(2) PRP: prime power available continuously with variable load for an unlimited time in accordance with ISO 8528-1. An overload capacity of 10% is available for one hour every twelve hours.
(3) The dimensions and weights apply to a generating set specified in the price list, without options
(4) Dry weight, without fuel
(5) at ¾ load

X-SERIES

INDUSTRIAL RANGE

FROM 1200 KVA TO 2800 KVA

MITSUBISHI ENGINE

T1400 ▸ **OPEN VERSION**

CPU40 ▸ **Silent (SI) or Super Silent (SSI)**
L x w x h: 12.19 x 2.44 x 2.90 m – 500 L fuel tank

SPECIFICATIONS **50 HZ - 400-230 V**

Generating sets[1]	**Consumption optimization variant**		T1250	T1400	T1540	T1650	-	T1900	T2200	-	T2500	-	T2800
	Emissions optimization variant		-	-	-	-	T1650C	-	-	T2200C		T2500C	-
kVA Cos phi 0.8[2]	**PRP**[3]		1136	1275	1400	1500	1500	1727	2050	2000	2273	2273	2545
	DCP[4]		1250	1403	1540	1650	1650	1900	2255	2200	2500	2500	2800
	ESP[5]		1250	1403	1540	1650	1650	1900	2255	2200	2500	2500	2800
Cons. 3/4 (L/h)	**Consumption optimization variant at PRP**		162	195	199	237	-	265	317	-	347	-	388
	Emissions Optimization Variant in ESP		-	-	-	-	234	-	-	314	-	357	-
Engine	**Engine type**		S12R-PTA -3 /S12R-PTA	S12R-PTA -3 /S12R-PTA	S12R-PTA2	S12R-PTAA2	S12R-F1PTAW2	S16R-Y1PTA-4 / S16R-PTA	S16R-Y1PTAA2-3 / S16R-PTAA2	S16R-F1PTAW2	S16R2-PTAW	S16R2-F1PTAW	S16R2-PTAW2-E
	CC (qty and configuration)		12 V	12 V	12 V	12 V	12 V	16 V	16 V	16 V	16 V	16 V	16 V
	Total cubic capacity (L)		49.03	49.03	49.03	49.03	49.03	65.37	65.37	65.37	79.90	79.90	79.90
Open version[6]	**Dimensions**	**L (m)**	4.31	4.32	4.40	4.98	5.09	5.52	5.97	4.58[9]	6.08	6.08	6.70
		l (m)	2.00	2.00	2.00	2.24	2.20	2.29	2.20	1.90[9]	2.36	2.36	2.36
		h (m)	2.29	2.36	2.36	2.46	2.39	2.48	2.48	2.39[9]	2.82	2.82	2.82
	Weight (kg) [7]		10100	10370	10680	10870	12041	12979	14215	12160[9]	15500	15500	17000
Enclosure	**M428 SI**	**dB(A) at 7 m**[8]	80	80	80	-	-	-	-	-	-		-
		Weight (kg) [7]	12430	12700	13010	-	-	-	-	-	-		-
	M428 SSI	**dB(A) at 7 m**[8]	77	77	77	-	-	-	-	-	-		-
		Weight (kg) [7]	12570	12850	13150	-	-	-	-	-	-		-
Containers	**ISO20 SI**	**dB(A) at 7 m**[8]	-	80	80	89	89	-	-	-	-		-
	ISO20 SSI	**dB(A) at 7 m**[8]	-	76	76	76	76	-	-	-	-		-
	ISO40	**dB(A) at 7 m**[8]	-	-	-	-	-	83	85	85	-		-
	CPU40 SI	**dB(A) at 7 m**[8]	-	-	-	-	78	-	-	80	82	TBC[10]	-
	CPU40 SSI	**dB(A) at 7 m**[8]	-	-	-	-	72	-	-	74	78	TBC[10]	-

(1) Also available in the following voltages: 415/240 V – 380/220 V
(2) ISO 8528: power expressed in accordance with the legislation in force
(3) PRP: prime power available continuously with variable load for an unlimited time in accordance with ISO 8528-1. An overload capacity of 10% is available for one hour every twelve hours.
(4) DCP: data center power, applies to data center installations where a reliable network 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 in case of a mains outage. Output 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) The dimensions and weights apply to a generating set specified in the price list, without options
(7) Dry weight, without fuel
(8) at ¾ load
(9) Dimensions and weights without cooling
(10) to be confirmed

PRODUCT
PLUS POINTS

- Generating sets in the X-SERIES range equipped with Mitsubishi engines feature a winning combination: robust design and ease of use.
- All generating sets in this range are available with DCP power for data centers.

FROM 1200 KWE TO 2000 KWE

T2000U ▸ **OPEN VERSION**

ISO20 ▸ **Silent (SI)**
L x w x h: 6.06 x 2.44 x 2.90 m – 500 L tank
Super Silent (SSI)
L x w x h: 9.15 x 2.44 x 2.90 m – 500 L tank

ALSO AVAILABLE IN 40-FOOT VERSION: ISO40 (SILENT)
L x w x h: 12.19 x 2.44 x 2.90 m – 500 L fuel tank

SPECIFICATIONS **60 HZ - 480-227 V**

Generating sets[1]	Consumption optimization variant		T1200U	T1600U	T2000U
kWe ISO 8528[2]	PRP[3]		1091	1454	1818
	DCP[4]		1200	1600	2000
	ESP[5]		1200	1600	2000
Cons. 3/4 at PRP (L/h)	Consumption optimization variant at PRP		232	304	364
Engine	Engine type		S12R-Y1PTA-2 / S12R-PTA	S16R-Y1PTA-2 / S16R-PTA	S16R-Y1PTAA2-1 S16R-PTAA2
	CC (qty and configuration)		12 V	16 V	16 V
	Total cubic capacity (L)		49.03	65.37	65.37
Open version[6]	Dimensions	L (m)	4.31	5.52	5.60
		l (m)	2.00	2.29	2.29
		h (m)	2.29	2.48	2.56
	Weight (kg) [7]		10034	12979	13970
Containers	ISO20 SI	dB(A) at 7 m[8]	83	-	-
	ISO20 SSI	dB(A) at 7 m[8]	78	-	-
	ISO40	dB(A) at 7 m[8]	-	85	86
	CPU40 SI	dB(A) at 7 m[8]	-	80	-
	CPU40 SSI	dB(A) at 7 m[8]	-	75	-

(1) Also available in the following voltages: 440/254 V and 380/220 V
(2) ISO 8528: power expressed in accordance with the legislation in force
(3) PRP: prime power available continuously with variable load for an unlimited time in accordance with ISO 8528-1. An overload capacity of 10% is available for one hour every twelve hours.
(4) DCP: data center power, applies to data center installations where a reliable network 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 in case of a mains outage. Output 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) The dimensions and weights apply to a generating set specified in the price list, without options
(7) Dry weight, without fuel
(8) at ¾ load

SCOPE OF SUPPLY

MODULAR GENERATING SETS, AN ADAPTED RESPONSE

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

		MITSUBISHI ENGINE	BAUDOUIN ENGINE
ENGINE	4 stroke water-cooled diesel engine	•	•
	Electronic regulation	•	•
	Standard air filter	•	•
	Air filter with interchangeable cartridge	0(1)	-
	Preheating resistor	0	•
ALTERNATOR	IP 23 single bearing alternator, T° class = H, insulation class H/H	•	•
	Anti-condensation heater	0	-
	Type D impregnation	•	•
	Type R impregnation	0	-
	Short circuit current maintained at 3 In for 10 s	•	•
	Oversized alternator	0	-
GENERATING SET	CE compliance of the control unit	•	•
	Mechanically welded base frame with anti-vibration dampers	•	•
LUBRICATION	Automatic oil make up with tank	0	-
	Oil drainage pump	•	•
COOLING	Protective grille for fan and rotating parts	•	•
EXHAUST	Stainless steel compensators	•	•
	9 dB(A) silencer supplied separately(2)	0	•
	29 dB(A) silencer supplied separately(2)	0	-
	40 dB(A) silencer supplied separately(2)	0	-
STARTING	24 V charging alternator and starter	•	•
	Batteries with cables and battery support bracket	0	•
	Battery isolating switch	0	-
FUEL	Genset with fuel tank	0(3)	•
	Separate fuel tank on 500 L container	0	-
	Separate fuel tank on 1000 L container	0	-
	Retention container level alarm	0	-
	1 m^3/h 1-pump auto kit	0	-
	2 m^3/h 2-pump auto kit	0	-
	Diesel separator pre-filter	0	•

(1) Except T1650C. Contact us for containers or enclosures.
(2) Only on open version
(3) Up to T1650C
• As standard
0 Optional

1 DIESEL SEPARATOR PRE-FILTER

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

1 ▶

2 FILTERS WITH INTERCHANGEABLE CARTRIDGE

Dry air filters with removable and interchangeable cartridges for dusty environments, which can be removed and cleaned with an air gun, if required. This option is required when the generating set is used in dusty environments.

2 ▶

3 OVERSIZED ALTERNATOR

For installations with significant electrical or climate constraints, this option allows greater operating flexibility for a better guarantee of performance.

3 ▶

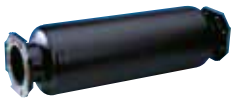
4 IMPREGNATION

- Type D: for tropical type environments with relative humidity > 95%, outside coastal areas
- Type R: for harsh industrial environments with humidity > 95% and coastal environments

5 SILENCER ON OPEN VERSION

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

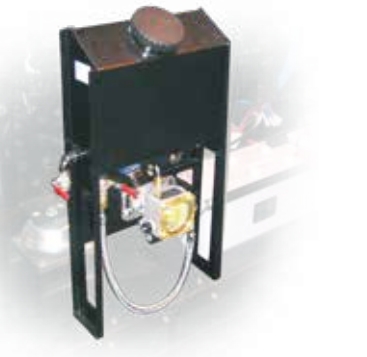
5 ▶



6 AUTOMATIC OIL MAKE UP WITH TANK

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.

6 ▶



7 AUTOMATIC FUEL FILLING KIT

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 gage with level contacts
- a stand-by manual pump.

7 ▶

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 system, with an integrated silencer and sound traps, provides a highly economical solution.

ISO CONTAINERS

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

Available in 20- and 40-foot High Cube versions

CSC* certified

Adapted to standard environments

PRODUCT PLUS POINTS

- Flexible integration
- Available in Silent and Super Silent versions

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 (Silent and Super Silent versions)

CSC* certified

Double maintenance door

Harsh environments (heat, dust)

PRODUCT PLUS POINTS

- Low sound level
- Simplified maintenance
- No loss of power up to 40°C
- Accessibility of the command/control and power supply devices
- Short production lead times
- Available in Silent and Super Silent versions

*CSC: the International Convention for Safe Containers (CSC) is a regulation that ensures 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.

STANDARD EQUIPMENT **AND OPTIONS FOR CONTAINERS**

		SILENT			SUPER SILENT	
		ISO20 Si	ISO40 Si	CPU40 Si	ISO20 SSi	CPU40 SSi
GENERATING SET	Complies with CSC certification	•	•	•	•	•
	Base member	•	•	•	•	•
	Starter, charging alternator	•	•	•	•	•
	Batteries filled with electrolyte	0	0	0	0	0
	Standard air filter	•	•	•	•	•
	Oil drainage pump	•	•	•	•	•
FILTRATION	Reinforced fuel filtration	X	X	0	X	0
CONTAINER SPECIFICATIONS	High performance 30 dB(A) silencer	•(1)	•(2)	•(2)	•(1)	•(2)
	Floor	Steel sheet	Steel sheet	Steel sheet	Steel sheet	Steel sheet
	Number of side doors	2	2 + 1 double	3 + 2 double	2	3 + 2 double
	Galvanized air outlet rain grille	0	0	X	0	X
	Air intake protective rain grille	•	•	•	•	•
	Safety lighting and shut-off valve	0	0	0	0	0
	Exhaust outlet on clamp	0	X	X	0	X
	RAL 9010 white painted finish for container	•	•	•	•	•
	Special color from list	0	0	0	0	0
	Power cable outlet on lower section	•	0	•	•	•
FUEL	Retention container under genset assembly	•	•	•	•	•
	500 L base frame fuel tank	•	•	X	•	X
	Tank on 500 L container	X	X	•	X	•
	Tank on 1000 L container	X	X	0	X	0
	1500 L base frame tank(4)	0	0	X	0	X
	1 m^3/h 1-pump auto kit	0	0	0	0	0
	1 m^3/h 2-pump auto kit	X	X	0	X	0
CONTROL UNITS	CE compliance of the control unit	•	•	•	•	•
	APM403 central console	0	0	0	0	0
	APM802 central console	0	0	0	0	0
DIMENSIONS	Length (m)	6.06	12.19	12.19	6.06	12.19
	Width (m)	2.44	2.44	2.44	2.44	2.44
	Height (m)	2.90	2.90	2.90(3)	2.90	2.90(3)

• As standard
X Not available
0 Optional

(1) inside the container
(2) on the container roof
(3) excluding silencer
(4) up to 1100 kVA only

THE POWER MODULES

CENTRAL CONSOLES, AIPR, VERSO

AIPR

Each generating set may be supplied with a protection unit, incorporating the power circuit breaker. This unit is mounted on the chassis and is connected to the alternator via cables. 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
MOTORIZED CONTROL OPTION (1)		
With 3 or 4-pole open circuit breaker only		0
Voltage 380-480 V		•
Auxiliary unit option(2)		0
Large range power connection bus bars, outlet on lower section		•(3)
Remote control terminal block		•
Protection rating		IP20
Dimensions (without air cooler unit)	height (mm)	1260
	width (mm)	683
	depth (mm)	365
Dimensions (with air cooler unit)	height (mm)	1664
	width (mm)	683
	depth (mm)	365
Dimensions (unit with connection from above)	height (mm)	1883
	width (mm)	683
	depth (mm)	365

(1) The motorized control comprises: a closing electromagnet, a transmitting 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

• As 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, 1000, 1250	1600	2000, 2500, 3200
Type	Three phase		
Nominal voltage/frequency	208/220/230/240 V & 380/400/415/440 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 @400 V		
Protects against a change in the phase rotation direction	0		
Lightning arrester	0		
EJP pack (for France only)	•		
Confirmation of mains return	0		
Protection rating	IP55		
Inputs/outputs	3 configurable dry contact inputs/2 configurable relay outputs		
Dimensions (h x l x d) in mm	2000 x 806 x 642	2000 x 1006 x 642	2000 x 806 x 542

≥ 800 A

• As standard 0 Optional

CONTROL UNITS

M80, APM403, APM802:
ONLY FROM KOHLER

KOHLER offers a unique range of specific control units: M80, APM403 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, fuel pump, 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.

INDUSTRIAL RANGE	MITSUBISHI	BAUDOUIN
M80	0	X
APM403	•	•
APM802	0	X

• Standard X Not available 0 Optional

COMPARISON OF THE 3 CONTROL UNITS

SPECIFICATIONS	M80	APM403 S/P	APM802
DISPLAY			
Frequency	X	•	•
Phase to neutral voltages	X	•	•
Phase to phase voltages	X	•	•
Currents	X	•	•
Active/reactive/apparent power	X	•	•
Power factor	X	•	•
Grid detection	X	• (P)	•
Battery voltage	X	•	•
Battery current	X	0	0
Start-up delay	X	•	•
Fuel level	X	•	•
Oil pressure	•	•	•
Coolant temperature	•	•	•
Oil temperature	X	•	•
Total working hours counter	•	•	•
Partial working hours counter	X	•	•
Total active/reactive energy meter	X	•	•
Generating set 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	X (S) / • (P)	•
Oil pressure	X	•	•
Coolant temperature	X	•	•
Overspeed	X	•	•
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	0	0
Fully compatible with SAE J1939	X	•	•

SPECIFICATIONS	M80	APM403 S/P	APM802
OPERATION			
Power ON	X	•	X
Manual genset starting	X	•	•
Automatic genset starting	X	•	•
Genset shut down	X	•	•
Emergency stop	•	•	•
Menu navigation using color touch screen	X	X	•
Speed adjustment	X	0 (S) / • (P)	•
Voltage adjustment	X	0 (S) / • (P)	•
Controller redundancy	X	X	0
Dual frequency	X	•	0
Delayed start programming	X	•	•
Multilingual text	X	•	•
CONNECTIVITY			
MODBUS TCP/IP	X	0	•
RS 485 interface (mdBUS RTU protocol)	X	•	•
SNMP protocol	X	•	•
Local web access	X	•	•
Remote web access	X	0	0
USB port (config. and software downloading)	X	•	•
Remote control HMI	X	X	0
PARALLEL OPERATION			
Under load	X	• (P)	•
Stopped	X	X	0
Power plant continuity in case of inter controller communication fault	X	• (P)	•
Power plant wattmeter control	X	• (P)	•
Temporary parallel operation of Out/Return grid, single generating set	X	• (P)	•
Power plant parallel operation to grid (temporary, permanent, etc.)	X	X	•
GENERAL			
Downloading of a customized configuration via USB port	X	•	•
Recovery of the firmware config.+ existing settings via USB port	X	•	•

• As standard — X Not available — 0 Optional

CONTROL UNITS

THE M80

DUAL-FUNCTION CONTROL UNIT

The M80 uses a terminal block to connect a remote control/command unit and a dashboard with a direct read facility. It is fitted with display screens that provide a global view of your electrical generating set's basic settings, as well as an emergency stop button and a terminal block. It also conforms to EC standards.

ADDITIONAL SPECIFICATIONS

		TERMINAL BLOCK	M80
MEASUREMENTS	Tachometer and working hours counter (54 mm)	X	•
ENGINE PARAMETERS	Oil pressure gage	X	•
	Coolant temperature	X	•
	Oil temperature indicator	X	0
CONTROLS	Emergency stop	•	•
MISCELLANEOUS	CE compliant	•	•
	Terminal block for connecting remote unit	•	•

• As standard
X Not available
0 Optional

APM403,
INTUITIVE, SIMPLE AND CONNECTED

DESCRIPTION OF THE APM403*

*APM403P

ADVANTAGES OF THE APM403

FLEXIBLE CONFIGURATION

- **Technical solution can be broken down for multi-configuration – SOLO or PARALLEL OPERATION applications (up to 8 generating sets)**
- **Specific application variables can be customized.**

FOCUS

▸ APM403S

The APM403S is dedicated to SOLO operation only. No grid electrical measurements or associated circuit breaker control.

FLEXIBLE COMMUNICATION TOOLS

- **Remote configuration and supervision thanks to the WEBSUPERVISOR application (optional)**
- **Standard communication tools:**
  - CAN USB Host, USB device, RS485
  - MODBUS, RTU
- **Optional:**
  - 4G, Ethernet, GPRS, Airgate
  - TCP/IP, SNMP protocol

INTUITIVE NAVIGATION AND SIMPLIFIED GENERATING SET OR POWER PLANT OPERATION

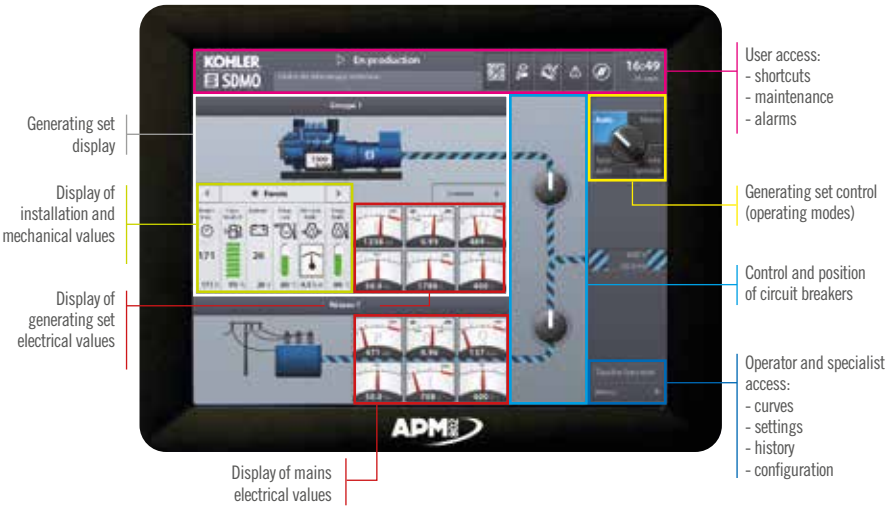
- **Multilingual support**
- **Simple, intuitive configuration specific to operating scenarios**

CONTROL UNITS

APM802,
DEDICATED TO POWER PLANT MANAGEMENT

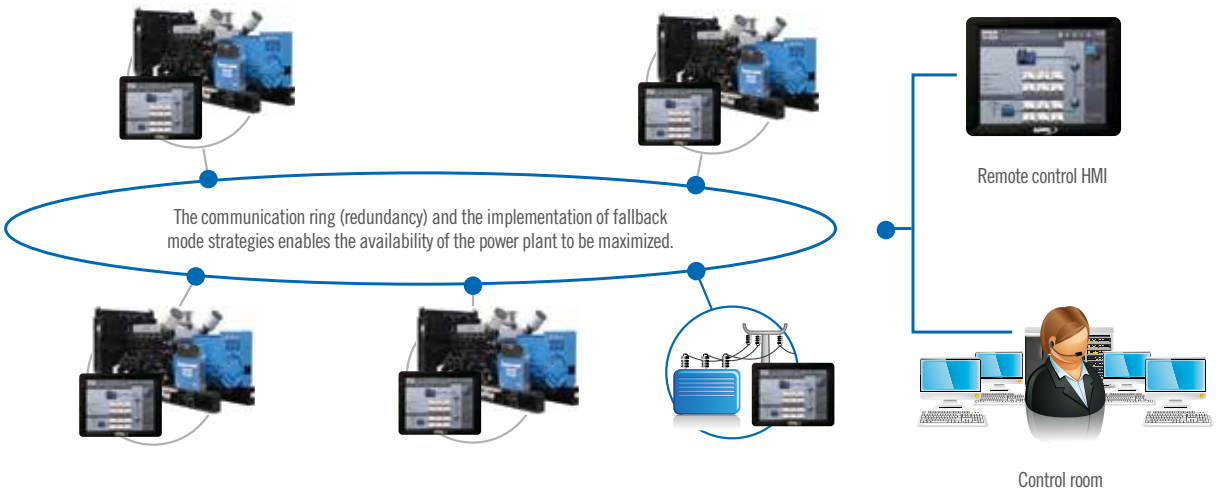
Fully developed by KOHLER, the APM802 command/control system is specifically designed for operating and monitoring power plants for hospitals, data centers, banks, the oil and gas sector, industries, IPP, rental, mining, etc.

The Human-Machine Interface, designed in collaboration with a company specializing in interface design, facilitates operations via its large touch screen. The pre-configured system for power plant applications features a brand new customization function that 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 to enhance its use. Additionally, various connections can be made via the Ethernet, using fiber optics or combined with copper wire. For full control of risk management, the system communications are separate 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 their access level, making it easy to get started and reducing the risk of errors.

KEY POINTS

KOHLER®

OPTIMIZED AND CERTIFIED SOUND LEVELS

Optimized and certified sound levels. Measurements:

- conducted using acoustic intensimetry (the most accurate method on the market)
- carried out in a laboratory accredited by COFRAC (The French Accreditation Committee).

POWER MAINTAINED EVEN IN EXTREME CONDITIONS

Our engineering department ensures the coolant systems are adapted perfectly so that maximum power can be provided, even at high temperatures.

QUALITY TESTS AND ANALYSES

Each KOHLER generating set is prototyped in the laboratory and tested in production to ensure it operates exactly as it should.

APPROVED IN LINE WITH THE MOST STRINGENT STANDARDS

KOHLER does not compromise when it comes to the quality of its products and their compliance with standards. They are designed to meet even more demanding criteria than those set by the directives.

ROBUST BASE FRAMES AND HIGH-QUALITY ENCLOSURES

A high-quality enclosure protects the generating set's components whilst enabling it to run under the most extreme conditions (high temperatures, dusty or sandy environments, etc.). KOHLER base frames and enclosures are designed in France, and their suppliers selected according to very strict criteria.

QUALITY OF THE ELECTRICITY PRODUCED

A high quality current, in voltage and frequency in compliance with the ISO 8528-5 standard, provides a high starting and loading capacity for critical applications.

SAFETY OF PERSONS AND INSTALLATIONS

KOHLER is developing solutions on a daily basis to further enhance the safety of the generating set and its users (modular management of neutral connections, precision circuit breakers, engine preheating, etc.).

SMALL DIMENSIONS. BIG PERFORMANCE!

The footprint of a generating set, in both surface area and volume, is key to ensuring its integration, regardless of space constraints. Thanks to their innovative engineering, KOHLER generating sets pack big performance into a compact frame.

KOHLER®
IN POWER. SINCE 1920.

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