# POWER SYSTEMS EMEA 6 kVA - 4 500 kVA MK-IN-FL-BR-EN-221

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# SOLUTIONS FOR ALL SECTORS

With our generator sets, ranging from 2 to 4,500 kVA, we provide energy solutions for different applications (continuous and backup production) and for all sectors: data centers, health, water treatment, telecommunications, construction, energy production, industry, transport, retail trade and distribution, etc.

# OUR TRIED-AND-TESTED PROCESS: TOTAL INTEGRITY AT EVERY STEP

From the initial contact to project planning, execution and maintenance, Kohler offers you complete end-to-end assistance.

Our dedicated project team evaluates the scope, demands and challenges of your project and provides you with full support and transparency at each stage. By working in close collaboration with you, we ensure that your project is equipped with reliable power supply systems tailored to your specifications and your budget.

### SERVICE AND SUPPORT: THE ASSISTANCE YOU NEED. **ANYTIME, ANYWHERE**

With numerous direct service centers and more than 800 distributors worldwide, Kohler's customers are guaranteed an emergency service 24/7 and reactive after sales support. Our certified factory-based technicians enjoy regular training and are always ready to provide a troubleshooting service, advice and post-installation service and support.





### INTRODUCING NEXT-GENERATION RENEWABLE FUELS

Imagine a fossil-free renewable energy source that reduces net carbon dioxide emissions by as much as 90%. It is a liquid fuel that can be used in existing infrastructure, such as mission critical generators, without any modifications. And it has complete blending compatibility with standard diesel, providing end-users with total flexibility in their operations.

Such a compelling set of performance characteristics might seem too good to be true. But this renewable fuel is already available today — and its widespread adoption

is set to accelerate the pace of decarbonization rapidly, supporting organizations embarking on a longer-term journey net zero emissions.

The fuel in question is hydrotreated vegetable oil (HVO), which is made from waste products and residues such as vegetable oils, animal fats and used cooking oils. The refining process means that HVO is a superior, cleaner-burning fuel than traditional first-generation biodiesel, and that feeds through into fewer emissions across its lifecycle. These credentials make HVO a renewable alternative to conventional fossil diesel — providing new environmentally-friendly options for the users of equipment such as diesel generators.



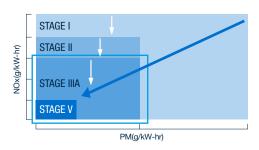
## LIMIT THE USE OF HAZARDOUS SUBSTANCES TO PROTECT HUMAN HEALTH AND ENVIRONMENT

ROHS 2 directive 2011/65/EU aims to limit the use of certain hazardous substances (lead, mercury, cadmium, etc.) in Electrical and Electronic Equipment (EEE) sold in the European Union\* (as well as Norway, Iceland, Turkey and Lichtenstein).

Thanks to the work and collaboration of all our suppliers, we are able to propose a complete industrial range compliant with this directive.

# REDUCING POLLUTANT EMISSIONS WITHOUT COMPROMISING ON POWER STAGE IIIA AND STAGE V APPLICABLE ON THE INDUSTRIAL RANGE

KOHLER goes further to the regulation concerns all off road mobile motorized equipment in the UK & European Union market, especially mobile generating sets, by offering STAGE IIIA and STAGE V certified products in its industrial range. For construction companies, municipalities, police or fire stations, or any other use requiring road mobility. They are also suitable for stationary backup and production applications that require the lowest level of polluting emissions.



# 10 KOHLER FUNDAMENTALS

**ACCESS THE HIGHEST LEVEL OF PERFORMANCE.** 





### ■ 1 OPTIMIZED AND CERTIFIED SOUND LEVELS

Our ranges of enclosures and containers are carefully studied to guarantee the best noise reduction performances. Our sound level measurements are carried out according to European Directives and ISO standards and are certified by CETIM (technical center for the mechanical industry).

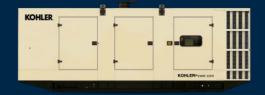


## EVEN IN EXTREME CONDITIONS

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

### $-\ 3$ quality testing

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



## - 4 HOMOLOGATION IN ACCORDANCE WITH THE STRICTEST STANDARDS

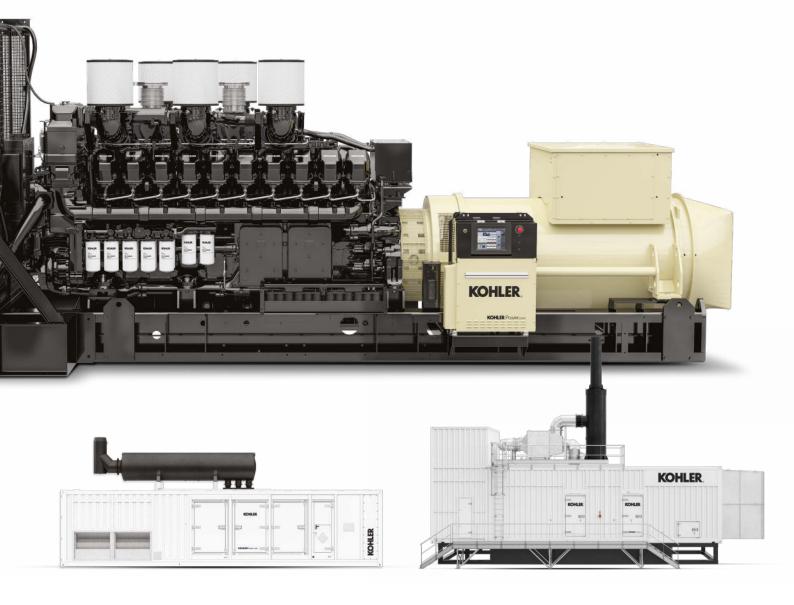
KOHLER does not compromise when it comes to the quality of its products and their compliance with standards. They are designed to meet even more demanding criteria than those set by the directives.

### \_ 5 LOW FUEL CONSUMPTION

Our engineers and technicians develop tailored solutions to further improve consumption of fuel and the components chosen for the high performance they offer.

### ■ ® ROBUST BASE FRAMES AND HIGH-QUALITY ENCLOSURES

A high quality enclosure protects the generator'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.



### — 7 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 PEOPLE AND INSTALLATIONS

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

### SMALL FOOTPRINT, HIGH PERFORMANCE

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

### = 10 REFERENCE IN STOCK ALL OVER THE WORLD

X-PRESS is a range of standard generators stocked across the world, which can be delivered to you within a very short lead time.







# THE KOHLER DIFFERENCE

WE'RE HERE TO BE
YOUR POWER PARTNER.

From initial contact through planning, project execution to maintenance, Kohler provides you with complete end-to-end support. Our dedicated project team assesses your project scope, requirements and challenges, and provides full support and transparency throughout every stage of the project. By working closely with you, we ensure that your project is equipped with reliable, custom-designed power systems tailored to your specifications and budget.

#### — OUR CUSTOM PROCESS: START TO FINISH

This is where reliable products, collaboration and customization come into their own. Increasingly, engineering consultants charged with overseeing generator selection want to work with suppliers who can help smooth the sizing and selection process from start to finish. It requires dealing with a supplier who can offer access to a multi-disciplinary team - including engineering, tendering and sales - to help progress through to detailed designs.



# 

### - TOTAL SYSTEM INTEGRATION

As a single-source provider, you can be confident that every power system features components designed, manufactured, and tested by Kohler. Total system integration assures you that no matter how large or complex the project, everything works together seamlessly-from packaged generators and transfer switches to paralleling switchgear and controllers.

#### 1 KOHLER CONTROLLER APM403 or APM802

controls paralleling breaker and enables load sharing and synchronization for up to eight generators. The APM802 can also handle load add/shed as well as number of generators online if used without a master control panel

**SWITCHBOARD** Accomodates paralleling and distribution breakers if not installed

and transfers loads

POWER DISTRIBUTION

on the generator 4 AUTOMATIC TRANSFER SWITCH Intelligently selects the power source

MASTER CONTROL PANEL Handles load add/shed, number of gensets online, monitors event logging and alarms



Walk-in container solution

### - CUSTOMIZED SOLUTIONS

Your power system is customized, built and tested by a dedicated team of experienced engineers and technicians, which means it can meet the most demanding specifications. Our team has designed power systems for hundreds of power plants. When you combine our industry experience with our agile manufacturing process, you get reliable, purpose-built solutions.

Kohler power system has developed a unique walk-in container solution for mission critical customers. This solution, designed by the power systems teams, allows us to integrate our entire KD range, up to the KD4500, into a modular design.

Based on oversized dimensions compared to our enclosure solutions, this solution allows easy access for maintenance, integration of many equipment and quick installation on site.

### **END TO END MANAGEMENT**

From planning the design and selecting the equipment to testing and commissioning, we're focused on delivering reliable, custom-designed power systems tailored to your specifications. Agile manufacturing, rigorous testing and careful commissioning assure you of a solution that fits your business-and your budget.





# INDUSTRIAL GENERATORS

### **POWER SOLUTIONS | 50-60 HZ**

Power solutions generators 14

KD series generators 18

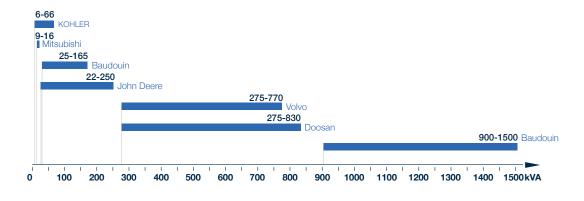


### **RETAIL | 50-60 HZ**

Configured generators 20

X-Press generators 24









# POWER SOLUTIONS GENERATORS

50 Hz - 60 Hz

### **OUR POWER GENERATOR RANGE**

Our power generators provide a reliable source of energy for critical applications (data centers, airports, hospitals, water treatment plants, etc.) that must never be without power – no matter what happens. KOHLER's KD series generator meets the latest technology standards with a high-pressure common-rail fuel system, emissions-optimized configuration and hydrotreated vegetable oil (HVO) compatibility to reduce your greenhouse gas balance for a more sustainable world.

To meet all the challenges of the market, KOHLER also offers an alternative range with Mitsubishi engines.

This range offers a winning combination of robust design and ease of use.

### POWER SOLUTIONS

### **GENERATORS**

50 Hz

## INDUSTRIAL SOLUTIONS FULL LINE





| MODEL                 | STANDBY<br>50 HZ (kVA) | PRIME<br>50 HZ (kVA) | RPM  | ENGINE<br>MANUFACTURER | EMISSIONS                                  | CONTROLLERS         |
|-----------------------|------------------------|----------------------|------|------------------------|--------------------------------------------|---------------------|
| KD800 (4)             | 800                    | 727                  | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD900 <sup>(4)</sup>  | 900                    | 818                  | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD1000 (4)            | 1000                   | 909                  | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD1100 (4)            | 1100                   | 1000                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD1250 (4)            | 1250                   | 1136                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T1250                 | 1250                   | 1136                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| T1400                 | 1403                   | 1275                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| KD1400 <sup>(4)</sup> | 1420                   | 1291                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD1500 (4)            | 1500                   | 1364                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T1540                 | 1540                   | 1400                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| T1650C                | 1640                   | 1500                 | 1500 | Mitsubishi             | Emission optimization - Low NOx (<=2000mg) | M80/APM403/APM802   |
| KD1650 (4)            | 1650                   | 1500                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T1650                 | 1650                   | 1500                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| KD1800 (4)            | 1800                   | 1636                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T1900                 | 1900                   | 1727                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| KD2000 (4)            | 2000                   | 1818                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T2200C                | 2200                   | 2000                 | 1500 | Mitsubishi             | Emission optimization - Low NOx (<=2000mg) | M80/APM403/APM802   |
| KD2250 (4)            | 2250                   | 2045                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T2200                 | 2255                   | 2050                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| KD2500 (4)            | 2500                   | 2273                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T2500                 | 2500                   | 2273                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| T2500C                | 2500                   | 2273                 | 1500 | Mitsubishi             | Emission optimization - Low NOx (<=2000mg) | M80/APM403/APM802   |
| KD2800 (4)            | 2800                   | 2545                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| T2800                 | 2800                   | 2538                 | 1500 | Mitsubishi             | Fuel Optimisation                          | M80/APM403/APM802   |
| KD3100 (4)            | 3100                   | 2818                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD3300 (4)            | 3300                   | 3000                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD3500 (4)            | 3500                   | 3182                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD3750 (4)            | 3750                   | 3409                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM403/APM802 |
| KD4000 (4)            | 4050                   | 3680                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM802        |
| KD4500 (4)            | 4500                   | 4090                 | 1500 | Kohler                 | Fuel Optimisation/Emission optimisation    | M80-D/APM802        |

(4) exists in Fuel optimsation | Emission optimisation versions







# RELIABLE POWER FOR CRITICAL INDUSTRIES

We deliver integrated industrial power systems for emergency, prime and continuous applications worldwide – from data centers and hospitals to water treatment facilities.

With a deep understanding of your industry, we excel in designing customized power systems that simplify your most complex challenges.



### — THE POWER THAT PROTECTS YOUR DATA

KOHLER generators are built to power data centers of all sizes in every location around the world.

### **LEARN MORE ABOUT OUR CAPABILITIES**



### POWER SOLUTIONS

### **GENERATORS**

60 Hz

## INDUSTRIAL SOLUTIONS FULL LINE





**KD2000U** with CPU 40 container

| MODEL       | STANDBY<br>60 HZ (kW) | PRIME<br>60 HZ (kW) | RPM  | ENGINE<br>Manufacturer | EMISSIONS                               | CONTROLLERS         |
|-------------|-----------------------|---------------------|------|------------------------|-----------------------------------------|---------------------|
| KD800U (4)  | 800                   | 727                 | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD900U (4)  | 900                   | 818                 | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD1000U (4) | 1000                  | 909                 | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| T1200U      | 1200                  | 1091                | 1800 | Mitsubishi             | Fuel Optimisation                       | M80/APM403/APM802   |
| KD1250U (4) | 1250                  | 1136                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD1350U (4) | 1339                  | 1218                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD1500U (4) | 1500                  | 1364                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD1600U (4) | 1600                  | 1454                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| T1600U      | 1600                  | 1454                | 1800 | Mitsubishi             | Fuel Optimisation                       | M80/APM403/APM802   |
| KD1750U (4) | 1750                  | 1591                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD2000U (4) | 2000                  | 1818                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| T2000U      | 2000                  | 1818                | 1800 | Mitsubishi             | Fuel Optimisation                       | M80/APM403/APM802   |
| KD2250U (4) | 2250                  | 2046                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD2500U (4) | 2500                  | 2273                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD2800U (4) | 2814                  | 2558                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD3000U (4) | 3000                  | 2727                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD3250U (4) | 3250                  | 2954                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM403/APM802 |
| KD3500U (4) | 3500                  | 3180                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM802/APM603 |
| KD4000U (4) | 4000                  | 3640                | 1800 | Kohler                 | Fuel Optimisation/Emission optimisation | M80-D/APM802/APM603 |

(4) exists in Fuel optimsation | Emission optimisation versions



### — CONCENTRATED POWER

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

### OPTIMAL CONTROL OF THE INJECTION SYSTEM

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

### OPTIMIZED VIBRATIONS AND SOUND LEVEL

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

### — A ROBUST, RELIABLE DESIGN

The materials have been selected for their high-tech qualities and strength. The products are therefore highly robust, even for the most demanding projects.

### A SLEEK, MODULAR DESIGN

The use of components common to all models means stock is rationalized, maintenance facilitated and training simplified. A sleek, minimal design ensures better accessibility to components for optimized maintenance. It all helps to reduce costs.







# CONFIGURED GENERATORS

50 Hz - 60 Hz

Protect your infrastructure from power outages and invest in quality standby power to ensure business continuity.

KOHLER-configured generators are built to power any applications that require a backup power supply, such as retirement homes, shopping centers and tertiary buildings.



Configured generators

J200 in M139 enclosure

### RETAIL

### **CONFIGURED GENERATORS**



## INDUSTRIAL SOLUTIONS FULL LINE



50 Hz

|                                              | STANDBY      | PRIME        |              |                                                    |                                                                                       |                                        |
|----------------------------------------------|--------------|--------------|--------------|----------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|
| MODEL                                        | 50 HZ (kVA)  | 50 HZ (kVA)  | RPM          | ENGINE MANUFACTURER                                | EMISSIONS                                                                             | CONTROLLERS                            |
| K6M                                          | 6,3          | 5,7          | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| T9KM                                         | 8,6          | 7,8          | 1500         | Mitsubishi                                         | Fuel Optimisation                                                                     | M80/APM303/APM403<br>M80/APM303/APM403 |
| K9<br>K10M                                   | 8,9<br>9     | 8,1<br>8,2   | 1500<br>1500 | Kohler Fuel Optimisation  Kohler Fuel Optimisation |                                                                                       | M80/APM303/APM403<br>M80/APM303/APM403 |
| T12K                                         | 11,5         | 10,5         | 1500         | Mitsubishi                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| K12M                                         | 11,8         | 10,7         | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| T12KM                                        | 11,8         | 10,7         | 1500         | Mitsubishi                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| K12                                          | 12           | 10,9         | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| K12C5                                        | 12           | 10,9         | 1500         | Kohler                                             | Emission Optimisation - Stage V Certified                                             | M80/APM303/APM403                      |
| K17M                                         | 15,5         | 14,1         | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| K16H                                         | 16           | -            | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| T16K                                         | 16           | 14,5         | 1500         | Mitsubishi                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| K20C5<br>K21H                                | 20<br>21     | 18,2         | 1500<br>1500 | Kohler<br>Kohler                                   | Emission Optimisation - Stage V Certified Fuel Optimisation                           | M80/APM303/APM403<br>M80/APM303/APM403 |
| K22                                          | 21,5         | 19,5         | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| J22                                          | 22           | 20           | 1500         | John Deere                                         | Fuel Optimisation                                                                     | APM303/APM403                          |
| B25                                          | 25           | 23           | 1500         | Baudouin                                           | Fuel Optimisation                                                                     | APM303                                 |
| K26M                                         | 26           | 23,6         | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| K27                                          | 26,5         | 24,1         | 1500         | Kohler                                             | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| K33                                          | 33           | 30           | 1500         | Kohler                                             | Fuel Optimisation                                                                     | APM303/APM403                          |
| J33                                          | 33           | 30           | 1500         | John Deere                                         | Fuel Optimisation                                                                     | APM303/APM403                          |
| K33C3                                        | 33           | 30           | 1500         | Kohler                                             | Emission Optimisation - Stage IIIA Compliant                                          | APM303/APM403                          |
| K44C3<br>J44                                 | 44<br>44     | 40<br>40     | 1500<br>1500 | Kohler<br>John Doore                               | Emission Optimisation - Stage IIIA Compliant                                          | APM303/APM403                          |
| K44                                          | 44           | 40           | 1500         | John Deere<br>Kohler                               | Fuel Optimisation Fuel Optimisation                                                   | APM303/APM403<br>APM303/APM403         |
| B44                                          | 44           | 40           | 1500         | Baudouin                                           | Fuel Optimisation                                                                     | APM303                                 |
| J66                                          | 66           | 60           | 1500         | John Deere                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| J66C3                                        | 66           | 60           | 1500         | John Deere                                         | Emission Optimisation - Stage IIIA Compliant                                          | M80/APM303/APM403                      |
| K66                                          | 66           | 60           | 1500         | Kohler                                             | Fuel Optimisation                                                                     | APM303/APM403                          |
| J88                                          | 88           | 80           | 1500         | John Deere                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| J110                                         | 110          | 100          | 1500         | John Deere                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| J110C3                                       | 110          | 100          | 1500         | John Deere                                         | Emission Optimisation - Stage IIIA Compliant                                          | M80/APM303/APM403                      |
| J130                                         | 130          | 118          | 1500         | John Deere                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| J165                                         | 165          | 150          | 1500         | John Deere                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| J165C3                                       | 165          | 150          | 1500         | John Deere                                         | Emission Optimisation - Stage IIIA Compliant                                          | M80/APM303/APM403                      |
| B165<br>J200                                 | 165<br>200   | 150<br>182   | 1500<br>1500 | Baudouin<br>John Deere                             | Fuel Optimisation Fuel Optimisation                                                   | APM303<br>M80/APM303/APM403            |
| J220                                         | 220          | 200          | 1500         | John Deere                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| J220C3                                       | 220          | 200          | 1500         | John Deere                                         | Emission Optimisation - Stage IIIA Compliant                                          | M80/APM303/APM403                      |
| J250                                         | 250          | 227          | 1500         | John Deere                                         | Fuel Optimisation                                                                     | M80/APM303/APM403                      |
| V275C2                                       | 275          | 250          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| D275                                         | 275          | 250          | 1500         | Doosan                                             | Emission Optimisation - Stage II Compliant                                            | M80/APM303/APM403/APM802               |
| D300                                         | 300          | 273          | 1500         | Doosan                                             | Emission Optimisation - Stage II Compliant                                            | M80/APM303/APM403/APM802               |
| V350C2_VDE(2)                                | 318          | 318          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | APM802                                 |
| D330                                         | 330          | 300          | 1500         | Doosan                                             | Fuel Optimisation                                                                     | M80/APM303/APM403/APM802               |
| V350C2                                       | 350          | 318          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| V400C2_VDE <sup>(2)</sup><br>V400C2          | 355          | 355          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant Emission Optimisation - Stage II Compliant | APM802                                 |
| V440C2_VDE <sup>(2)</sup>                    | 390<br>400   | 355<br>400   | 1500<br>1500 | Volvo<br>Volvo                                     | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802<br>APM802            |
| V440C2_VDL                                   | 440          | 400          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| D440                                         | 440          | 400          | 1500         | Doosan                                             | Fuel Optimisation                                                                     | M80/APM303/APM403/APM802               |
| V500C2_VDE(2)                                | 455          | 455          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | APM802                                 |
| V500C2                                       | 500          | 455          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| V550C2_VDE(2)                                | 500          | 500          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | APM802                                 |
| V550C2                                       | 550          | 500          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| V550C3                                       | 550          | 500          | 1500         | Volvo                                              | Emission Optimisation - Stage IIIA Compliant                                          | M80/APM403/APM802                      |
| D550                                         | 550<br>591   | 500<br>591   | 1500         | Doosan                                             | Fuel Optimisation                                                                     | M80/APM303/APM403/APM802<br>APM802     |
| V650C2_VDE <sup>(2)</sup><br>D630            | 630          | 573          | 1500<br>1500 | Volvo                                              | Emission Optimisation - Stage II Compliant Fuel Optimisation                          | M80/APM303/APM403/APM802               |
| V650C2                                       | 650          | 591          | 1500         | Doosan<br>Volvo                                    | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| V715C2_VDE <sup>(2)</sup>                    | 650          | 650          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | APM802                                 |
| D700                                         | 697          | 634          | 1500         | Doosan                                             | Fuel Optimisation                                                                     | M80/APM303/APM403/APM802               |
| V770C2_VDE <sup>(2)</sup>                    | 700          | 700          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | APM802                                 |
| V715C2                                       | 715          | 650          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| V770C2                                       | 770          | 700          | 1500         | Volvo                                              | Emission Optimisation - Stage II Compliant                                            | M80/APM403/APM802                      |
| D830                                         | 825          | 750          | 1500         | Doosan                                             | Fuel Optimisation                                                                     | M80/APM303/APM403/APM802               |
| B900 <sup>(3)</sup>                          | 900          | 800          | 1500         | Baudouin                                           | Fuel Optimisation                                                                     | APM403                                 |
| B1000 <sup>(3)</sup>                         | 1000         | 909          | 1500         | Baudouin                                           | Fuel Optimisation                                                                     | APM403                                 |
| B1100 <sup>(3)</sup>                         | 1125         | 1023         | 1500         | Baudouin                                           | Fuel Optimisation                                                                     | APM403                                 |
| B1250 <sup>(3)</sup><br>B1400 <sup>(3)</sup> | 1250         | 1136         | 1500<br>1500 | Baudouin                                           | Fuel Optimisation                                                                     | APM403<br>APM403                       |
| B1500 <sup>(3)</sup>                         | 1400<br>1513 | 1273<br>1375 | 1500         | Baudouin                                           | Fuel Optimisation Fuel Optimisation                                                   | APM403<br>APM403                       |
| D 1000 <sup>-9</sup>                         | 1013         | 13/5         | 1300         | Baudouin                                           | Fuel Optimisation                                                                     | AF1VI4U3                               |







# MODULAR EQUIPMENT FOR GENERATING SETS: AN ADAPTED RESPONSE

For each configured generator, KOHLER offers a wide range of options to facilitate maintenance operations, enhance user safety and provide solutions for specific use requirements or unusual environments.

|                                    | KOHLER engine    | MITSUBISHI engine | JOHN DEERE engine | BAUDOUIN engine | VOLVO engine     | DOOSAN engine    |
|------------------------------------|------------------|-------------------|-------------------|-----------------|------------------|------------------|
| Protection of hot parts            | 0                | 0                 | 0                 | 0               | 0                | 0                |
| Fuell separator pre-filter         | 0                | 0                 | 0                 | X               | •                | 0                |
| Battery isolating switch           | 0                | 0                 | 0                 | X               | 0                | 0                |
| Automatic pack                     | 0                | 0                 | 0                 | 0               | 0                | 0                |
| Electronic control device          | 0                | 0                 | 0                 | X               | •                | •                |
| Automatic filling kit              | O <sup>(1)</sup> | O <sup>(1)</sup>  | O <sup>(1)</sup>  | X               | O <sup>(1)</sup> | O <sup>(1)</sup> |
| Drainage pump                      | 0                | 0                 | 0                 | X               | •                | 0                |
| Analog measurements display        | 0                | 0                 | 0                 | X               | •                | •                |
| Oversized alternator               | Χ                | 0                 | O <sup>(4)</sup>  | X               | O <sup>(4)</sup> | O <sup>(4)</sup> |
| Air discharge duct                 | 0                | 0                 | 0                 | X               | 0                | 0                |
| 9 dB(A) silencer in open version   | <b>●</b> (2)     | <b>●</b> (2)      | •(2)              | •(2)            | <b>●</b> (2)     | <b>●</b> (2)     |
| High autonomy, double wall chassis | 0                | 0                 | 0                 | X               | 0                | 0                |
| Base frame with 48-hour tank       | O <sup>(3)</sup> | X                 | 0                 | X               | X                | X                |
| 40 dB(A) silencer                  | 0                | 0                 | 0                 | 0               | 0                | 0                |

Standard

<sup>0</sup> Optional

<sup>(1)</sup> Not possible on 48-hour and double wall base frame (2) 29 dB(A) and 40 dB(A) silencer available as an option (3) above 33kVA with Kohler Engines and below 66kVA with John Deere Engine

<sup>(4)</sup> Depending on the power node for enclosure configuration

### RETAIL

### **CONFIGURED GENERATORS**

INDUSTRIAL SOLUTIONS FULL LINE



60 Hz





**K 44** in open version

| MODEL          | STANDBY<br>60 Hz (kW) | PRIME<br>60 HZ (kW) | RPM          | ENGINE<br>Manufacturer | EMISSIONS                                  | CONTROLLERS                    |
|----------------|-----------------------|---------------------|--------------|------------------------|--------------------------------------------|--------------------------------|
| K9UM           | 8                     | 7,3                 | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| K9U            | 8,4                   | 7,6                 | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| T11UM          | 10                    | 9,1                 | 1800         | Mitsubishi             | Fuel Optimisation                          | M80/APM303/APM403              |
| K12UM          | 11                    | 10                  | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| T11U           | 11,2                  | 10,2                | 1800         | Mitsubishi             | Fuel Optimisation                          | M80/APM303/APM403              |
| K12U           | 11,6                  | 10,6                | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| K16UM          | 15                    | 13,6                | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| T16UM          | 15                    | 13,6                | 1800         | Mitsubishi             | Fuel Optimisation                          | M80/APM303/APM403              |
| K16U           | 15,5                  | 14,1                | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| T16U           | 16                    | 14,6                | 1800         | Mitsubishi             | Fuel Optimisation                          | M80/APM303/APM403              |
| K20UM          | 18                    | 16,4                | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| K20U           | 19                    | 17,3                | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| J20UM          | 20                    | 18,2                | 1800         | John Deere             | Fuel Optimisation                          | APM303/APM403                  |
| K25U           | 24,8                  | 22,6                | 1800         | Kohler                 | Fuel Optimisation                          | M80/APM303/APM403              |
| J30UM<br>K30UM | 30                    | 25,5                | 1800<br>1800 | John Deere<br>Kohler   | Fuel Optimisation                          | APM303/APM403                  |
| J30U           | 30,4                  | 27,3<br>27,6        | 1800         | John Deere             | Fuel Optimisation Fuel Optimisation        | APM303/APM403<br>APM303/APM403 |
| K30U           | 30,7                  | 27,0                | 1800         | Kohler                 | Fuel Optimisation                          | APM303/APM403                  |
| J40UM          | 39                    | 35,5                | 1800         | John Deere             | Fuel Optimisation                          | APM303/APM403                  |
| K40UM          | 40                    | 36,4                | 1800         | Kohler                 | Fuel Optimisation                          | APM303/APM403                  |
| J40U           | 40                    | 36                  | 1800         | John Deere             | Fuel Optimisation                          | APM303/APM403                  |
| K40U           | 40                    | 36                  | 1800         | Kohler                 | Fuel Optimisation                          | APM303/APM403                  |
| J60U           | 58                    | 52                  | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| K60U           | 58                    | 52                  | 1800         | Kohler                 | Fuel Optimisation                          | APM303/APM403                  |
| J60UM          | 60                    | 55                  | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| J80U           | 80                    | 73                  | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| J100U          | 100                   | 91                  | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| J120U          | 118                   | 108                 | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| J150U          | 149                   | 135                 | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| J175U          | 175                   | 159                 | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| J210U          | 210                   | 191                 | 1800         | John Deere             | Fuel Optimisation                          | M80/APM303/APM403              |
| D250U          | 227                   | 250                 | 1800         | Doosan                 | Emission Optimisation - Stage II Compliant | M80/APM303/APM403/APM802       |
| V250U          | 234                   | 213                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| D300U          | 273                   | 300                 | 1800         | Doosan                 | Fuel Optimisation                          | M80/APM303/APM403/APM802       |
| V300U          | 300                   | 273                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| V350U          | 350                   | 318                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| D400U          | 364                   | 400                 | 1800         | Doosan                 | Fuel Optimisation                          | M80/APM303/APM403/APM802       |
| V400U          | 400                   | 364                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| D500U          | 454                   | 500                 | 1800         | Doosan                 | Fuel Optimisation                          | M80/APM303/APM403/APM802       |
| V500UC2        | 500                   | 454                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| D600U          | 546                   | 600                 | 1800         | Doosan                 | Fuel Optimisation                          | M80/APM303/APM403/APM802       |
| V550UC2        | 550                   | 500                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| V600U          | 600                   | 546                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| V640UC2        | 640                   | 582                 | 1800         | Volvo                  | Emission Optimisation - Stage II Compliant | M80/APM403/APM802              |
| D750U          | 691                   | 760                 | 1800         | Doosan                 | Fuel Optimisation                          | M80/APM303/APM403/APM802       |







# RETAIL OFFER

# X-PRESS GENERATORS

### **STANDARD GENERATORS HELD IN STOCK.**

Thirty 50 Hz models from 9 to 1500 kVA and twenty-six 60 Hz models from 9 to 750 kW in the industrial range are held in stock around the world and can be delivered to you within a very short lead time.

These generators are available in open or enclosed versions. Aftermarket options are available to order (silencers, differential protection, normal/emergency switches, Service First, etc.).

#### ORDER DIRECTLY BY MAIL

You can place your order directly by mail using the form attached to the stock list sent each week. Your order will be registered and shipped in the quickest possible time.

### — ORDER THROUGH OUR DISTRIBUTION NETWORK

Many items will be in stock near you. To find your nearest distributor, click here.

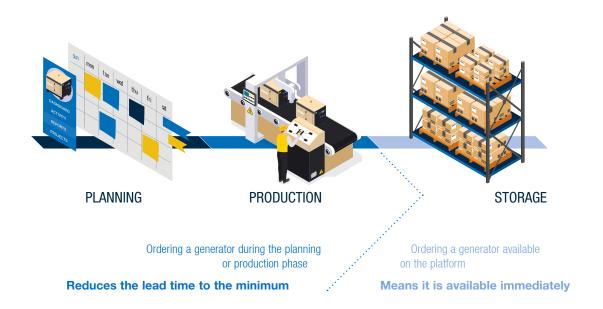




### **X-PRESS GENERATORS**







### 50 HZ | 400 V **CONFIGURATION AVAILABLE**

|                             | 9 to 250 kVA |              | 275 to        | 830 kVA       | 900 to 1500 KVA |              |
|-----------------------------|--------------|--------------|---------------|---------------|-----------------|--------------|
|                             | OPEN         | SOUNDPROOFED | OPEN          | SOUNDPROOFED  | OPEN            | SOUNDPROOFED |
| 4-pole circuit breaker      | •            | •            | •             | •             | •               | •            |
| Control unit                | APM303       | APM303       | APM303/APM403 | APM303/APM403 | APM403          | APM403       |
| Card for measurement        | •            | •            | •             | •             | •               | •            |
| Auto pack                   | <b>●</b> (1) | <b>●</b> (1) | •             | •             | •               | •            |
| Prewiring for auto start-up | •            | •            | •             | •             | •               | •            |
| CE label                    | •            | •            | •             | •             | •               | •            |
| Silencer                    | •            | •            | •             | •             | •               | •            |

<sup>(1)</sup> For generators from 22 to 66 kVA with KOHLER engines and generators from 33 to 250 kVA with John Deere engines, the preheating wiring harness is supplied

### 60 HZ | 208 V

### **CONFIGURATION AVAILABLE**

|                             | 11 to 60 kW<br>Single Phase |              |              | 210 kW<br>Phase | 250 to 750 kW<br>THREE PHASE |               |      |              |
|-----------------------------|-----------------------------|--------------|--------------|-----------------|------------------------------|---------------|------|--------------|
|                             | OPEN SOUNDPROOFED           |              | OPEN SOUNDPR |                 | OPEN                         | SOUNDPROOFED  | OPEN | SOUNDPROOFED |
| Circuit breaker             | 2 poles                     | 2 poles      | 3 poles      | 3 poles         | 3 poles                      | 3 poles       |      |              |
| Control unit                | APM303                      | APM303       | APM303       | APM303          | APM303/APM403                | APM303/APM403 |      |              |
| Card for measurement        | •                           | •            | •            | •               | •                            | •             |      |              |
| Prewiring for auto start-up | •                           | •            | •            | •               | •                            | •             |      |              |
| Silencer                    | •                           | •            | •            | •               | •                            | •             |      |              |
| Analog pack                 | <b>●</b> (1)                | <b>●</b> (1) | •(1)         | <b>●</b> (1)    | •                            | •             |      |              |

Included

separately.
• Included
X Not available

# **UNITS**

### M80, APM303, APM403, APM802:

### A KOHLER EXCLUSIVE

KOHLER offers a unique range of specific control units: M80, APM303, APM403 and APM802. These control units offer a wide range of possibilities, from simplified running to the option of managing the most complex coupling operations. They can be adapted to suit every need.

| INDUSTRIAL RANGE | Engine         | M80              | APM303 | APM403            | APM802 |
|------------------|----------------|------------------|--------|-------------------|--------|
| RETAIL           | Kohler         | O <sup>(*)</sup> | •      | 0                 | X      |
| RETAIL           | Mitsubishi     | 0                | •      | 0                 | X      |
| RETAIL           | Baudouin small | X                | •      | X                 | X      |
| RETAIL           | John Deere     | O <sup>(*)</sup> | •      | O <sup>(**)</sup> | Х      |
| RETAIL           | Volvo          | 0                | X      | •                 | 0      |
| RETAIL           | Doosan         | 0                | •      | 0                 | 0      |
| RETAIL           | Baudouin large | X                | X      | •                 | Х      |
| POWER SOLUTIONS  | Mitsubishi     | 0                | Х      | •                 | 0      |
| POWER SOLUTIONS  | KD SERIES      | O(***)           | Х      | •                 | 0      |

- Standard
- X Not available 0 Optional
- \*\* up to 27 kVA for KOHLER engines and from 66 kVA for John Deere engines

  \*\* from 66 kVA for the paralleling version

  \*\*\* M80-D version



M80-D



**APM303** 



**APM403** 



**APM802** 

### **— COMPARISON OF THE 3 CONTROL UNITS**

| SPECIFICATIONS                     | M80         | APM303 | APM403 | APM802 |
|------------------------------------|-------------|--------|--------|--------|
| DISF                               | PLAY        | '      |        |        |
| Frequency                          | Х           | •      | •      | •      |
| Phase to neutral voltages          | Х           | •      | •      | •      |
| Phase to phase voltages            | Х           | •      | •      | •      |
| Currents                           | Х           | •      | •      | •      |
| Active/reactive/apparent power     | Х           | •      | •      | •      |
| Power factor                       | Х           | •      | •      | •      |
| Mains power detection              | Х           | Х      | •*     | •      |
| Battery voltage:                   | X (1) • (2) | •      | •      | •      |
| Battery current                    | Х           | Х      | 0      | 0      |
| Start-up delay                     | Х           | •      | •      | •      |
| Fuel level                         | Х           | •      | •      | •      |
| Oil pressure                       | •           | •      | •      | •      |
| Coolant temperature                | •           | •      | •      | •      |
| Oil temperature                    | X (1) • (2) | Х      | 0      | 0      |
| Total working hours counter        | •           | •      | •      | •      |
| Partial working hours counter      | Х           | Х      | •      | •      |
| Total active/reactive energy meter | Х           | •      | •      | •      |
| Generator speed                    | •           | •      | •      | •      |

| FAULT INFORMATION                   | N (FAULT    | OR ALA | RM) |   |
|-------------------------------------|-------------|--------|-----|---|
| Min/max alternator voltage          | Х           | •      | •   | • |
| Min/max alternator frequency        | Х           | •      | •   | • |
| Min/max battery voltage             | Х           | •      | •   | • |
| Overload and/or short circuit       | Х           | •      | •   | • |
| Active/reactive power return        | Х           | Х      | •*  | • |
| Oil pressure                        | X (1) • (2) | •      | •   | • |
| Coolant temperature                 | X (1) • (2) | •      | •   | • |
| Speed too high                      | X (1) • (2) | •      | •   | • |
| Speed too low                       | Х           | •      | •   | • |
| Low fuel level                      | Х           | •      | •   | • |
| Emergency stop fault                | Х           | •      | •   | • |
| Non-starting fault                  | Х           | •      | •   | • |
| Charging alternator fault           | Х           | •      | •   | • |
| Differential relay activation fault | Х           | 0      | •   | • |
| General alarm                       | Х           | •      | •   | • |
| General fault                       | Х           | •      | •   | • |
| Sound alarm                         | Х           | 0      | 0   | • |
| Fully compatible with SAE J1939     | X (1) • (2) | Х      | •   | • |

(1) M80 (2) M80-D

| SPECIFICATIONS                           | M80         | APM303 | APM403   | APM802 |
|------------------------------------------|-------------|--------|----------|--------|
| OPERATIO                                 | N           |        |          |        |
| Power ON                                 | Х           | 0      | •        | Х      |
| Manual generator starting                | Х           | •      | •        | •      |
| Automatic generator starting             | Х           | •      | •        | •      |
| Generator shutdown                       | Х           | •      | •        | •      |
| Emergency stop                           | •           | •      | •        | •      |
| Menu navigation using color touch screen | Х           | Х      | Х        | •      |
| Navigation in menu using button          | X (1) • (2) | •      | •        | Х      |
| Speed adjustment                         | Х           | 0      | O** / •* | •      |
| Voltage adjustment                       | Х           | 0      | O** / •* | •      |
| Controller redundancy                    | X (1) • (2) | Х      | Х        | 0      |
| Dual frequency                           | Х           | Х      | •        | 0      |
| Delayed start programming                | X (1) • (2) | Х      | •        | 0      |
| Multilingual using pictograms            | X (1) • (2) | •      | Х        | Х      |
| Multilingual text                        |             | Х      | •        | •      |

| CONNECTIVITY                               |   |   |   |   |
|--------------------------------------------|---|---|---|---|
| MODBUS TCP/IP                              | Х | Х | 0 | • |
| RS485 (MODBUS RTU protocol)                | Х | • | • | • |
| SNMP protocol                              | Х | Х | 0 | Х |
| Local WEB access                           | Х | Х | 0 | Х |
| Remote WEB access                          | Х | Х | 0 | Х |
| USB port (config and software downloading) | Х | • | • | • |
| Remote control HMI                         | Х | Х | Х | 0 |

| COUPLING                                                                                                                                     | ì |   |    |   |
|----------------------------------------------------------------------------------------------------------------------------------------------|---|---|----|---|
| Stopped                                                                                                                                      | X | Х | Х  | • |
| Under load                                                                                                                                   | Х | Х | •* | • |
| Continuity of the power plant in the event of a failure in communication between control units                                               | Х | х | •* | • |
| Power management of the plant "Start up<br>and shutdown of one or several generators<br>based on the power requested by the<br>installation" | х | х | •* | • |
| Temporary coupling of grid Out/Return                                                                                                        | Х | Х | •* | • |
| Power plant coupling to grid (temporary, permanent, etc.)                                                                                    | Х | Х | Х  | • |

| GENERAL                                                                 |   |   |   |   |
|-------------------------------------------------------------------------|---|---|---|---|
| Downloading of a customized configuration via USB port                  | Х | • | • | • |
| Download of the firmware configuration + existing settings via USB port | Х | • | • | • |

Standard
 X Not available
 O Optional
 \*APM403P (paralleling version)
 \*APM403S (solo version)

# CONTROL UNITS

M80 I M80-D

# M80/ M80-D

— The M80-D can be used as a terminal block for connection and as a dashboard (M80 version) with a direct read facility or as an instrument panel (M80-D version) 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.





### **— FUNCTIONS**

The screen (M80-D version) can display all of the engine's physical values:

- Oil pressure
- Coolant temperature
- Oil temperature
- Engine speed
- Battery voltage
- Charge air temperature
- Fuel consumption
- \_\_ etc.

The M80-D also records several events to facilitate diagnostics.



APM303

# APM303 THE ESSENTIALS MADE SIMPLE

— The APM303 is a versatile unit equipped with a particularly intuitive LCD screen. It offers high-quality basic functions, allowing easy and reliable operation of your generator. This unit is mounted on a console on all generators designed for LV industrial applications with and without a source transfer switch.



### **FUNCTIONS**

- Manual and automatic mode (with auto start input)
- Generator protection and management
- Electrical measurements, including output (option)
- Mechanical value measurements (option)
- Automatic voltage and frequency detection
- Secure configuration on the APM303 or on PC

#### — CONNECTIVITY

- 2 configurable reports
- MODBUS RTU RS485

### - OPERATION CONDITIONS

- Front of IP54 controller
- Protection against humidity and dust with tropicalized varnish

### **BENEFITS**

#### **RS485 SUPERVISION**

MODBUS RTU supervision is available as standard via an RS485 link. This link can be configured for the customer's installation.

- 1 Ergonomic, universal LCD screen
- 2 Alarm/fault report indicator
- 3 STOP/START/AUTO buttons and AUTO mode indicator light
- 4 Generating set operating indicator
- 5 Screen scroll keys

#### MEASUREMENTS

LCD display examples



| $\sigma_{v}$ | erview | r wiop | IU y |
|--------------|--------|--------|------|

| © 11                 | 156H                   |
|----------------------|------------------------|
| 13                   | 159A                   |
| L1N 231U<br>L2N 231U | L1L2 400U<br>L1L2 400U |
| L3N 2310             | L1L2 400V              |

**Current and voltage** 

| <b>(G)</b>     | k₩             | PF                   | kVA            |
|----------------|----------------|----------------------|----------------|
| L1<br>L2<br>L3 | 33<br>34<br>33 | 0.92<br>0.92<br>0.89 | 36<br>37<br>37 |
| Σ              | 100            | 0.91                 | 110            |

**Outputs** 

|          | 6.1bar |
|----------|--------|
| a.E.     | 60 °C  |
|          | 54%    |
| <b>=</b> | 12.3V  |

**Mechanical measurements** 

| Ŷ          | 500 | k₩h |
|------------|-----|-----|
| 9          | 50  | h   |
| <b>③</b> ) | 10  | -   |

Counters

| 01 &FOk     | 19397.0 |
|-------------|---------|
| 02 (3))±    | 19397.0 |
| 03 AUTO     | 19397.0 |
| 04 <b>(</b> | 19397.0 |

**History and alerts** 

## CONTROL UNITS

APM403 - APM403P - AMP403S

# APM403 INTUITIVE, SIMPLE AND CONNECTED



\*APM403P

### **FOCUS APM403S**

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

- Screen a/menu change keys
- <sup>2</sup> Screen scroll keys
- 3 Operation modes
- <sup>4</sup> Navigating between menus
- Button for confirming, editing or returning to the home screen

- Generator start/ stop button
- Fault reset button
- B Horn deactivation button
- Gircuit breaker opening/closing buttons

### - FLEXIBLE CONFIGURATION

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

### INTUITIVE NAVIGATION AND SIMPLIFIED GENERATOR OR POWER PLANT OPERATION

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

### - 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

### CONTROL UNITS

APM802

## **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, created 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...



### **BENEFITS**

#### 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.

- 1 Generator display
- Display of installation and mechanical values of the genset
- 3 Display of generator electrical values
- Display of power grid electrical values
- Derator and specialist access:
- curves
- settings
- history
- configuration

- 6 Control and position of circuit breakers
- Generator control (operating modes)
- <sup>8</sup> User access:
- shortcuts
- maintenance
- alarms

#### 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.





Remote control HMI



Control roon

### — 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.

# **ENCLOSURES**

### **HIGHEST-QUALITY**

### **COMPONENTS**

The service life of the electrical generating set is optimized, thanks to the high quality of its enclosure and base frame. These protect its components and ensure it operates correctly, even in the most extreme conditions (e.g., high temperatures, dust, humidity, sand). Made from carefully selected materials, they are subjected to numerous tests to ensure their resistance against bad weather and difficult climate conditions.

KOHLER Power Systems EMEA selects its base frames and enclosures according to very strict criteria. KOHLER's design teams can offer you the best enclosure design, with the aim of optimizing the performance of generating sets while also offering enhanced ergonomics, a more compact design and greater modularity.



### STANDARD FEATURES

### **High-quality materials**

- \_\_ Enclosure made from European grade electro-galvanized steel
- \_\_ Base frame with two coats of paint
- Optimized design protects against corrosion (preventing water ingress and stagnation)
- \_\_ Highly durable QUALICOAT-certified epoxy paint, specially developed for KOHLER

#### Numerous resistance tests to ensure an optimum service life

- \_\_ Enclosures and base frames tested and analyzed by the French Corrosion Institute
- \_\_ Enclosures guaranteed to withstand the most extreme conditions with exposure to salt spray (according to ISO12944 standard)
- Monthly conformity tests according to requirements via supplier samples
- Annual UV resistance testing
- Evaluation of corrosion resistance and spread prevention
- \_\_ 100% of tanks are tested for permeability, to prevent any risk of leaks

#### Safety of people and property

- \_\_ Electrical continuity ensured for the enclosure/base frame assembly
- \_\_ Personal protection ensured by protective grilles
- Hot and rotating parts of the enclosures meet the strictest standards (machinery directive 2006/42/EC)
- \_\_ Ergonomic access to allow easy maintenance and connection
- \_\_ Base frame with retention to protect the environment
- \_\_ Stainless IP64 locks
- \_\_ Modular circuit breaker adapted to the short-circuit current of the generating set.

## INDUSTRIAL SOLUTIONS FULL LINE





| Power (kVA) | Enclosure | Engine manufacturer       | Acoustic pressure level<br>@7m in dB(A) | Sound power level guaranteed (Lwa) |
|-------------|-----------|---------------------------|-----------------------------------------|------------------------------------|
| 9-27        | M126      | KOHLER Engines/Mitsubishi | 54-67                                   | 84-96                              |
| 22-66       | M137      | KOHLER Engines/John Deere | 62-66                                   | 91-93                              |
| 66-130      | M138      | John Deere                | 62-68                                   | 92-97                              |
| 165-250     | M139      | John Deere                | 67-71                                   | 95-97                              |
| 275-300     | M227      | Volvo/Doosan              | 67-72                                   | 97-102                             |
| 330-500     | M228      | Volvo/Doosan              | 67-72                                   | 97-102                             |
| 440-550     | M229      | Volvo/Doosan              | 72-75                                   | 102-105                            |
| 550-830     | M230      | Volvo/Doosan              | 70-78                                   | 100-108                            |
| 800-1100    | M427      | KD SERIES/Baudouin        | 73-78                                   | 104-108                            |
| 1250-1540   | M428      | KD SERIES/Mitsubishi      | 75-80                                   | 105-111                            |



Enclosures M139

# CONTAINERS

### — ISO CONTAINERS

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

Available in 20- and 40-foot High Cube versions



CSC\* certified



Adapted to standard environments

### - CPU CONTAINERS

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

Available in 40- and 45-foot High Cube versions



40-foot version is CSC certified\*



Double maintenance door



Suited to harsh environments (heat, dust)

### **WALKIN ENCLOSURES**

Directly inspired by data center customers, KOHLER's walk-in enclosures combine performance, reliability, strength, safety, modularity and competitiveness.



Suited to mission critical applications (Data Centers)

\*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.



### **ADVANTAGES**

- Flexible integration
- Available in Silent and Super Silent versions



### **ADVANTAGES**

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



### **ADVANTAGES**

- \_\_ Optimal noise reduction
- \_\_ Maximum interior accessibility for maintenance
- Very fast installation on site with your preconnected, pre-tested options
- Wide range of options or specific adaptations to meet your needs

### **VERSATILE RANGE**

### **OF SOUNDPROOFED CONTAINERS**

You're faced with many installation constraints, and you want a turnkey solution. Our container solutions are adapted to meet all your needs. The containers can be equipped with many options, from a built-in tank to a cooling system for high temperatures, or an acoustic silencer for low noise. Our sales and engineering teams can work with you to define the best solution. Pre-assembled and factory tested, these containers offer an economical solution and are delivered ready to use.

### STANDARD EQUIPMENT AND OPTIONS FOR CONTAINERS

|                                    | SILENT   |                     | SUPER     | SILENT                |  |
|------------------------------------|----------|---------------------|-----------|-----------------------|--|
|                                    | ISO20 SI | CPU40 SI / CPU45 SI | ISO20 SSI | CPU40 SSI / CPU45 SSI |  |
| GENERATING SET                     |          |                     |           |                       |  |
| Complies with CSC certification    | •        | ●(6)                | •         | <b>●</b> (6)          |  |
| Base member                        | •        | •                   | •         | •                     |  |
| Starter motor, charging alternator | •        | •                   | •         | •                     |  |
| Batteries filled with electrolyte  | 0        | 0                   | 0         | 0                     |  |
| Standard air filter                | •        | •                   | •         | •                     |  |
| Oil drainage pump                  | •        | •                   | •         | •                     |  |

| FILTRATION                        |   |   |   |   |  |
|-----------------------------------|---|---|---|---|--|
| Reinforced fuel filtration        | X | 0 | X | 0 |  |
| Air filter for dusty environments | Χ | 0 | X | 0 |  |

| CONTAINER SPECIFICATIONS                    |             |              |             |              |  |  |
|---------------------------------------------|-------------|--------------|-------------|--------------|--|--|
| High performance 30 dB(A) silencer          | (1)         | •(2)         | •(1)        | •(2)         |  |  |
| Floor                                       | Steel sheet | Steel sheet  | Steel sheet | Steel sheet  |  |  |
| Number of side doors                        | 2           | 3 + 2 double | 2           | 3 + 2 double |  |  |
| Galvanized air outlet rain grille           | 0           | X            | 0           | Х            |  |  |
| Air outlet protective rain grille           | •           | •            | •           | •            |  |  |
| Safety lighting and shut-off valve          | 0           | 0            | 0           | 0            |  |  |
| Exhaust outlet on clamp                     | 0           | 0            | 0           | 0            |  |  |
| RAL 9010 white painted finish for container | •           | •            | •           | •            |  |  |
| Special color from list                     | 0           | 0            | 0           | 0            |  |  |
| Power cable outlet on lower section         | •           | •            | •           | •            |  |  |

| FUEL PURCHASION OF THE PROPERTY OF THE PROPERT |         |                    |         |               |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|---------|---------------|--|--|
| Retention container under genset assembly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | •       | •                  | •       | •             |  |  |
| 500-liter base frame fuel tank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | •       | X                  | •       | X             |  |  |
| Tank on 500-liter container                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Х       | •                  | Х       | •             |  |  |
| Tank on 1000-liter container                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Х       | 0                  | Х       | 0             |  |  |
| 1500-liter base frame tank <sup>(4)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0       | X                  | 0       | X             |  |  |
| Automatic fuel filling kit 1 pump                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | •       | •                  | •       | •             |  |  |
| Automatic fuel filling kit 2 pumps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Х       | 0                  | Х       | 0             |  |  |
| CE compliance of the control unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | •       | •                  | •       | •             |  |  |
| M80-D central console                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | •       | •                  | •       | •             |  |  |
| APM403 central console                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0       | 0                  | 0       | 0             |  |  |
| APM802 central console                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0       | 0                  | 0       | 0             |  |  |
| Control unit under console                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Х       | 0                  | Х       | 0             |  |  |
| Length (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.06(5) | 12.19 / 13.72      | 6.06(5) | 12.19 / 13.72 |  |  |
| Width (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.44    | 2.44               | 2.44    | 2.44          |  |  |
| Height (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.90    | 2.90 <sup>3)</sup> | 2.90    | 2.90(3)       |  |  |

<sup>(1)</sup> Inside the container

X Not available O Optional

<sup>(2)</sup> On the roof of the container, not available on CPU 45
(3) Excluding silencer

<sup>(4)</sup> Up to 1100 kVA only

<sup>(5)</sup> Length without Super Silent option. With this option, allow for separate transportation of baffles
(6) Only in 40-feet

# 

# TRANSFER SWITCHES

### **PROTECTING YOUR POWER**

### **AND YOUR BUSINESS**

With a wealth of expertise in the energy business, KOHLER Power Systems EMEA offers a range of three automatic transfer switches, to meet all your requirements and adapt to your specific needs:



IP54

IP31



IP65 control unit



IP20 control unit IP55 control unit

### VERSO 100

Reliable and simple to use, VERSO 100 models are equipped with the main functions of this type of equipment, making them among the most compact solutions on the market.

### \_\_ VERSO 150D

The VERSO 150 D is a robust changeover switch sized to operate at an ambient temperature of 50°C. The built-in mains detection relay has two fixed delays that prevent unwanted start-ups following mains microdisconnections and allow the controlled return of power when it has become stable again. This range has been developed for markets subject to frequent and significant fluctuations in the mains power.

### **- VERSO 200**

The VERSO 200, available from 200 to 3200 A, is autonomous and complete. This changeover switch is perfectly suited to low-voltage industrial applications.

### STANDARD FEATURES OF THE ATS RANGE

#### Complete product

\_ Fully assembled solution tested according to the IEC\* 60947-6-1 standard

### **Autonomous**

Double integrated power supply

Padlocking can be configured in three positions (I-O-II)

Automatic genset start-up

Intrinsic mechanical locking

### High dynamic resistance

- \_\_ For even greater safety, in case of short circuit closure
- \_\_ Manual control for all emergency interventions



VERSO 200 control automaton

### **— TECHNICAL SPECIFICATIONS**

| VERSO 100                                                 | VERSO 100 S                                    |                                  | VERSO 100 S VERSO 100 D                                |                                                |     |             |           |        |     |     |
|-----------------------------------------------------------|------------------------------------------------|----------------------------------|--------------------------------------------------------|------------------------------------------------|-----|-------------|-----------|--------|-----|-----|
| RATINGS (A)                                               | 35                                             | 63                               | 100                                                    | 125                                            | 160 | 35          | 63        | 100    | 125 | 160 |
| Туре                                                      | Three phase                                    |                                  |                                                        |                                                |     | Three phase |           |        |     |     |
| Voltage range - Frequency                                 | 208/220/230/240v & 380/400/415/440 V - 50-60Hz |                                  |                                                        | 208/220/230/240v & 380/400/415/480 V - 50-60Hz |     |             |           | 0-60Hz |     |     |
| Display and setting                                       |                                                | Potentiometer                    |                                                        | Via LCD display                                |     |             |           |        |     |     |
| Voltage drop tolerated                                    |                                                | 20% of the nominal voltage @400V |                                                        | 30% of the nominal voltage @400V               |     |             |           |        |     |     |
| Maximum voltage tolerated by the equipment                | 288 V                                          |                                  | 305 V                                                  |                                                |     |             |           |        |     |     |
| Protects against a change in the phase rotation direction | •                                              |                                  | •                                                      |                                                |     |             |           |        |     |     |
| Protection in "0" position                                | X                                              |                                  | Immediate return to position 0 in the event of a fault |                                                |     |             | f a fault |        |     |     |
| Lightning arrester                                        | Х                                              |                                  | 0                                                      |                                                |     |             |           |        |     |     |
| Confirmation of mains return                              | •                                              |                                  | •                                                      |                                                |     |             |           |        |     |     |
| EJP (for France only)                                     | •                                              |                                  | •                                                      |                                                |     |             |           |        |     |     |
| Protection index                                          | IP31                                           |                                  | IP54                                                   |                                                |     |             |           |        |     |     |
| Dimensions (h x w x d) mm                                 | 385 x 385 x 193                                |                                  | 600 x 400 x 200                                        |                                                |     |             |           |        |     |     |

| VERSO 150D                                                |                            |     |                 |  |  |
|-----------------------------------------------------------|----------------------------|-----|-----------------|--|--|
| RATINGS (A)                                               | 63                         | 100 | 160             |  |  |
| Туре                                                      | Three phase                |     |                 |  |  |
| Voltage range - Frequency                                 | 230/400Vac 50-60Hz         |     |                 |  |  |
| Display and setting                                       | Potentiometer              |     |                 |  |  |
| Adjustable voltage threshold                              | (+/-) 30% of 400Vac        |     |                 |  |  |
| Voltage drop tolerated                                    | 320/480 Vac between phases |     |                 |  |  |
| Protects against a change in the phase rotation direction | •                          |     |                 |  |  |
| Lightning arrester                                        | 0                          |     |                 |  |  |
| EJP (for France only)                                     | X                          |     |                 |  |  |
| Confirmation of mains return                              | X                          |     |                 |  |  |
| Protection index                                          | IP65                       |     |                 |  |  |
| Dimensions (h x w x d) mm                                 | x d) mm 500 x 400 x 200    |     | 500 x 500 x 200 |  |  |

| VERSO 200                                                 |                                                                                |                                                |                   |  |
|-----------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------|-------------------|--|
| RATINGS (A)                                               | 200, 250, 400, 630                                                             | 800, 1000, 1250, 1600 *                        | 2000, 2500, 3200  |  |
| Туре                                                      | Three phase                                                                    |                                                |                   |  |
| Voltage range - Frequency                                 | 208/220/230/240v & 380/400/415/440 V - 50-60Hz                                 |                                                |                   |  |
| 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                                               |                                                |                   |  |
| Maximum voltage tolerated by the equipment                | 332 V                                                                          |                                                |                   |  |
| Protects against a change in the phase rotation direction | •                                                                              |                                                |                   |  |
| Lightning arrester                                        | O (IP55)                                                                       |                                                |                   |  |
| EJP (for France only)                                     | (configurable)                                                                 | (configurable)                                 | (configurable)    |  |
| Confirmation of mains return                              | (configurable)                                                                 |                                                |                   |  |
| Protection index                                          | IP20 (55 on request)                                                           | IP55                                           | IP55              |  |
| Inputs/outputs                                            | 3 configurable dry contact inputs/2 configurable relay outputs                 |                                                |                   |  |
| Dimensions (h x w x d) mm                                 | 840 x 640 x 450<br>IP55 : 1750 x 700 x 500                                     | 2150 x 900 x 700<br>*1600A : 2150 x 1100 x 700 | 2150 x 1100 x 900 |  |

• Standard 0 Option X Not available AUTOMATIC TRANSFER SWITCHES

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# AFTERMARKET PARTS AND SERVICES

### AT THE HEART OF OUR EXPERTISE

### You can count on KOHLER to take care of your equipment

- \_\_ 24/7/365 support
- \_\_ Distribution network of 800 partners around the world
- \_\_ Maintenance and warranty coverage for your peace of mind
- \_\_ Spare parts availability
- International training centers

No one knows your KOHLER generators like the Kohler expert engineers and factory-trained and certified technicians to take care of your equipment.



### **SERVICE**

### AND TECHNICAL SUPPORT

KOHLER generators operate reliably and with minimal maintenance work. In addition, we offer various services for your generator that ensure long-term value, guarantee optimal operation and minimize life cycle cost.

Our factory-trained and certified technicians are equipped with the knowledge and latest diagnostic and digital tools to keep you up and running.

- \_ Field service engineers support critical installations and field issues as needed
- \_\_ 24/7 service available nationwide
- Supply high-quality KOHLER genuine parts and guarantee short delivery times
- Hands-on technical support is available from KOHLER service centers and distributor service personnel
- Over 800 distributors and 10,000 dealers worldwide
- Remote virtual Merged Reality (MR)/Augmented Reality (AR) assistance saving cost in travels and helping to get the job done right the first time

For your company and your KOHLER generator this means:

- Decreased life cycle costs
- \_ Long-term value preservation
- Sustainable quality assurance
- \_ Lower follow-up costs for maintenance and repairs
- Increased profitability and efficiency

### WARRANTY

We stand behind the quality of our products by offering a standard warranty and an optional extended warranty to protect your investment.

Factory-trained technicians complete all covered repairs using genuine KOHLER parts. Equipment is supported by a global network of certified KOHLER distributor technicians and backed by a factory-direct technical support service. Optional extended warranty solutions reduce the risk of unexpected failure costs beyond standard factory warranty. Multiple options are available for extended warranties – so you can choose the one that's right for your application.

### **GENUINE PARTS**

KOHLER® genuine parts are built specifically for your industrial generator to optimize it performance, extend the service life and reduce maintenance cost –and will be available when you need them.

From turbochargers to oil filters, we ensure every part that goes into our generators meets the highest standards for performance and durability. Keep your generator running at peak performance by replacing your parts with KOHLER genuine parts

- \_ Extensive parts inventory is available through our Spare parts logistic centers, Service centers and global network of distributors to be delivered quickly to any location
- Preventative maintenance kits provide all the parts required to complete scheduled maintenance events extending the service life and protecting your generator
- Parts are available to support your generator through its lifecycle

Why KOHLER genuine parts?

When you use KOHLER® genuine parts, you are using the same parts validated through reliability testing during development and selected for final production.

- Proven reliability
- \_ Trusted performance
- \_ KOHLER quality standards
- Expert support
- Reduced total cost of ownership

### **TRAINING**

At Kohler to consistently delight our customers, we ensure our worldwide network of technicians have completed a customized factory-based training curriculum (with three progressive levels), and we continue to innovate our advanced training methods and diagnostic tools.

- Our International Training centers
- Expert Instructors
- Innovation





