KAESER COMPRESSORS®

MOBILAIR® M 27E, M 31E, M 50E

Portable Compressors

Portable e-power: 400V-3ph-50Hz
Flow rate 1.9 to 5.0 m³/min

www.kaeser.com

e-power

The new M 27E, M 31E and M 50E portable compressors truly come into their own wherever an electrical power connection is available. Their whisper-quiet electric drive makes them the perfect choice for use in noise protection and low emission zones. Compressed air applications in tunnels, excavation pits and buildings, for example, are tamed by the compressors' exhaust-free drive.

Meticulous construction ensures trouble-free operation in ambient temperatures ranging from -10 °C to +40 °C. A low-temperature version is also optionally available for use in colder conditions. Versatility is further enhanced by the chassis, which can be equipped with or without an overrun brake and is available with a fixed or height-adjustable tow bar.

M 27E

A 32A CEE power socket is all it takes to connect the M 27E to the necessary power supply. This compact powerhouse delivers 2.6 m³/min at 7 bar and can be adjusted to requirement thanks to integrated compressed air treatment equipment.

M 31E

The M 31E can be configured with pressure stages of 7, 10, 12 or 14 bar. Pressure can be reduced easily in steps of 0.5 bar down to 6 bar, using the SIGMA CONTROL SMART's simple arrow keys to adapt to the specific work process.

M 50E

The M 50E's 25 kW drive power delivers an impressive 5.0 m³/min at 7 bar, or 3.8 m³/min with the 10 bar version. With an operating weight of well under 750 kg – even with the integrated compressed air aftercooler – the chassis-mounted version can also be towed without need of a service brake.

IE3 – Premium Efficiency motor

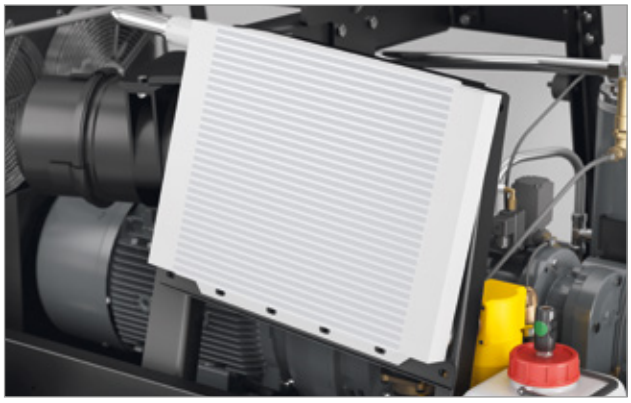
Featuring IE3 Premium Efficiency motors (with star-delta start-up) suitable for construction site use, with IP55 protection and Class F insulation, the road-going compressors are an excellent choice for flexible bridging of industrial compressor stations – as may be necessary when performing service work, for example – thanks to their low energy and maintenance costs.

Rotary screw compressors for outdoor installation

MOBILAIR e-power compressors can also be used to provide a temporary or permanent compressed air supply. The polyethylene enclosure of the road-going versions and the galvanised, powder-coated steel enclosure of the stationary models are resistant to all weather conditions and consequently eliminate the need for an additional protective cover. Stationary versions can safely be installed on machine feet or galvanised skids.

AESER
M31E
SIGMA

e-power – The alternative for an emissions-free construction site



Anti-Frost Control

Specially developed by KAESER for portable compressors, the Anti-Frost Control automatically adjusts operating temperature in relation to ambient. In combination with the optional tool lubricator, this feature prevents air tools from freezing up and significantly extends their service life. Where required, due to climatic conditions or the application itself, the Anti-Frost Control can be replaced by a normal thermostatic valve.

On-board compressed air treatment

The compressor units can be optionally equipped with a compressed air aftercooler to provide cool and condensate-free compressed air. Accumulated condensate is collected in a canister to safeguard the environment. Furthermore, the M27E and M31E models are available with a plate-type heat exchanger to enable compressed air reheating.

SIGMA CONTROL SMART

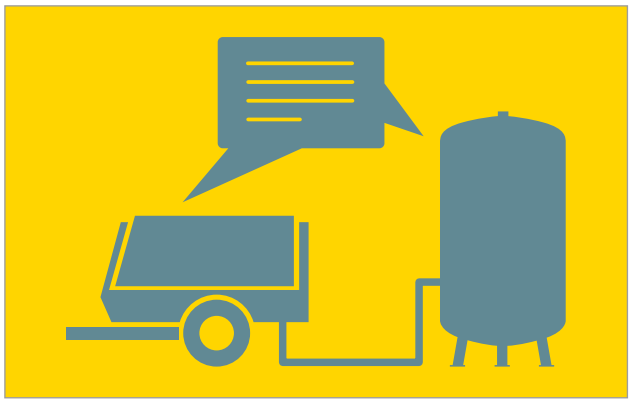
Operation of e-power compressors is performed using just six keys, making them exceptionally simple and intuitive to use – start/stop control and pressure adjustment could not be easier. The colour display indicates any faults, shows operating status and even features a countdown to the next scheduled service. A lockable metal flap protects the control panel from malicious damage and unauthorised access.

Pole-reversing switch

Should the SIGMA CONTROL SMART indicate that the compressor will not start due to incorrect motor rotation, there is no need for rewiring. The phase sequence can be corrected simply via the pole-reversing switch, fitted as standard, ensuring that nothing stands in the way of the task at hand.

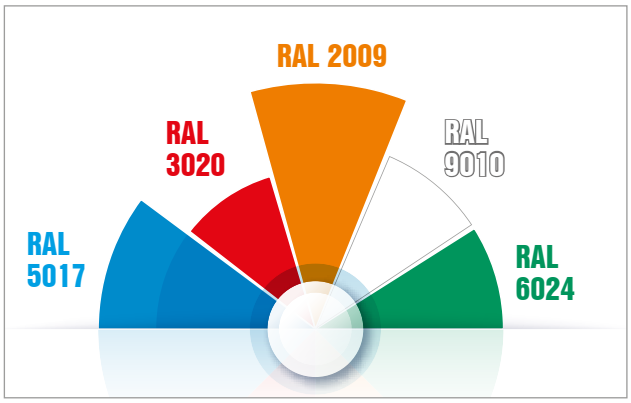
Your benefits at a glance:

- Easy power connection: electrical outlet (32A or 63A) on the unit
- Suitable for indoor and outdoor use
- Hose reel option (does not need to be fully reeled out during operation)
- Compressed air aftercooler for condensate-free compressed air
- Anti-Frost Control: Protects tools from freezing up
- Reduces operating costs (electrical power installed on-site)
- Required pressure adjustable in 0.1 bar steps
- Low operating weight (less than 750 kg) – also without overrun brake
- Perfect for use in noise protection and low emission zones
- Significantly lower maintenance costs compared to diesel-powered machines
- No noise nuisance: super-quiet performance



Automatic operation

If the compressor is equipped with the optional DUAL Control, the required cut-in and cut-out pressure can be configured simply via the SIGMA CONTROL SMART. Information about the prevailing air network pressure is sent to the machine (via an additional quick coupling), where it is processed for control and regulation purposes. The DUAL control mode option also features the automatic start-stop function, which can be configured individually.



PE enclosure

Constructed from rotomoulded polyethylene, the double-walled sound enclosure ensures long-term residual value retention and is both corrosion- and scratch-resistant. The following special colours for the PE enclosure are readily available: Blue (equivalent to RAL 5017), Green (equivalent to RAL 6024), Red (equivalent to RAL 3020), Orange (equivalent to RAL 2009), White (equivalent to RAL 9010). Further enclosure colours and custom paintwork for metal components are available upon request.

Available equipment

Tool lubricator

Depending on the application, an optional 2.5-litre tool lubricator can be installed to provide integrated air tool lubrication. An adjustment wheel regulates the intensity of the oil mist in the compressed air. We recommend the use of an external hose lubricator from our accessories range for long hose lengths and whenever a height difference exists between the compressor and tool.

Hose reel

The pre-installed hose reel holds 20 m of lightweight hose which does not need to be fully reeled out for operation. Safe stowing not only enhances hose service life and availability, but also protects it from damage (kinking, stretching, being run over) and soiling.

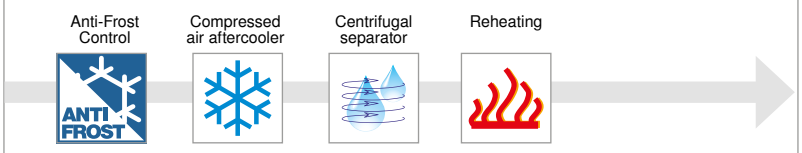
Environmental protection

Should any leakage occur during the service life of the unit, the optional closed floor pan reliably collects all service fluids. If required, the compressors can also be filled ex works with food-grade fluid.

Anti-theft device

Effective property protection does not necessarily require a high-tech solution. The compressors can be fitted with a heavy-duty bracket and storage enclosure for a security chain (not supplied) that extends from the chassis, thereby ensuring that nothing disappears from the construction site.

Compressed air treatment variants

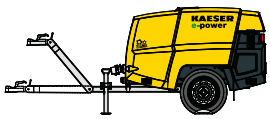
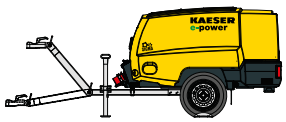
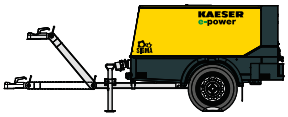
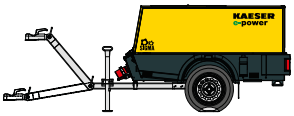
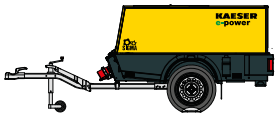
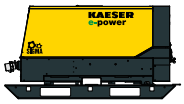
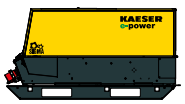
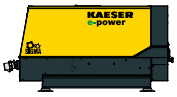
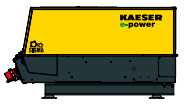
System A **M 27E/ M 31E/ M 50E** - Cool - Condensate-free		Cool, condensate-free compressed air (100% saturated), **for compressed air tools and temporary replacement of stationary compressors**
System B **M 27E/ M 31E** - Warmed - Dried		Dried compressed air, reheated to at least 20°C, **for working at sub-zero temperatures and with longer air lines**

Technical specifications

Model	Compressor				Electric motor (IE3) – 400V			Complete system			
	Flow rate		Working pressure		Make	Rated motor power	CEE power socket	Operating weight [1]	Sound power level [2]	Sound pressure level [3]	Compressed air outlet
	m³/min	cfm	bar	PSI		kW	A	kg	dB(A)	dB(A)	
M 27E	2.6	92	7	100	Siemens	15	32	530	≤ 97	63	2 x G ¾
M 31E	3.15 2.6 2.3 1.9	110 92 81 67	7 10 12 14	100 145 175 200	Siemens	22	63	585	≤ 98	64	2 x G ¾
M 50E	5.0 3.8	180 135	7 10	100 145	Siemens	25	63	690	≤ 98	62	2 x G ¾ 1 x G 1

[1] Standard unit with PE enclosure without treatment system on unbraked, height-adjustable chassis
[2] Guaranteed sound power level as per Directive 2000/14/EC
[3] Measuring surface sound pressure level as per ISO 3744 (r=10m)

Dimensions

	M 27E / M 31E		M 50E	
PE	Height-adjustable		Height-adjustable	
	 2890-3245	1260 / 1330	 3035-3450	1440 / 1370
PE	Fixed		Fixed	
	2940-3015	1260 / 1330	3090-3215	1440 / 1370
Metal	Height-adjustable		Height-adjustable	
	 2955-3315	1260 / 1270	 3055-3475	1410 / 1280
Metal	Fixed		Fixed	
	3010-3080	1260 / 1270	 3090-3215	1410 / 1280
Metal	Skids		Skids	
	 2025	970 / 1075	 2050	1160 / 1065
Metal	Stationary		Stationary	
	 1795	1030 / 995-1015	 2010	1130 / 1065-1080

The world is our home

As one of the world's largest manufacturers of compressors, blowers and compressed air systems, KAESER KOMPRESSOREN is represented throughout the world by a comprehensive network of wholly owned subsidiaries and authorised distribution partners in over 140 countries.

By offering innovative, efficient and reliable products and services, KAESER KOMPRESSOREN's experienced consultants and engineers work in close partnership with customers to enhance their competitive edge and to develop progressive system concepts that continuously push the boundaries of performance and technology. Moreover, decades of knowledge and expertise from this industry-leading systems provider are made available to each and every customer via the KAESER group's advanced global IT network.

These advantages, coupled with KAESER's worldwide service organisation, ensure that every product operates at the peak of its performance at all times, providing optimal efficiency and maximum availability.

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
ISO 50001:2018
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