ENGINEERING
TOMORROW

Selection Guide | VACON® 100 | 0.55 – 800 kW

VACON® 100 – versatile AC drives designed to **save energy** and **improve process control**

Available from
0.55 to 800 kW
to fit your application

drives.danfoss.com | VACON®

VACON® 100 Innovation and high quality for hundreds of applications

VACON® 100 AC drives are ideal for saving energy, optimizing process control and improving productivity. They are designed for multi-purpose use while remaining easy to install, easy to commission and easy to operate.

However VACON® 100 is not just one type of AC drive - it's a complete product family with great flexibility in both hardware and software.
Furthermore it represents the core of what we do - providing innovative and reliable high quality AC drive solutions for key applications across many industries. The result is improved energy efficiency and productivity.

Wall Mounted drive
IP21/Type1
IP54/Type12

Drive module
IP00/Open Type

Enclosed drive
IP21/Type1
IP54/Type12

Decentral drive
IP66/Type 4X

VACON® 100 INDUSTRIAL and VACON® 100 FLOW
0.55-800 kW [0.75-800 HP)

VACON® 100 X
1.1-37 kW [1.5-50 HP]

VACON® 100 INDUSTRIAL – one drive, extensive applications

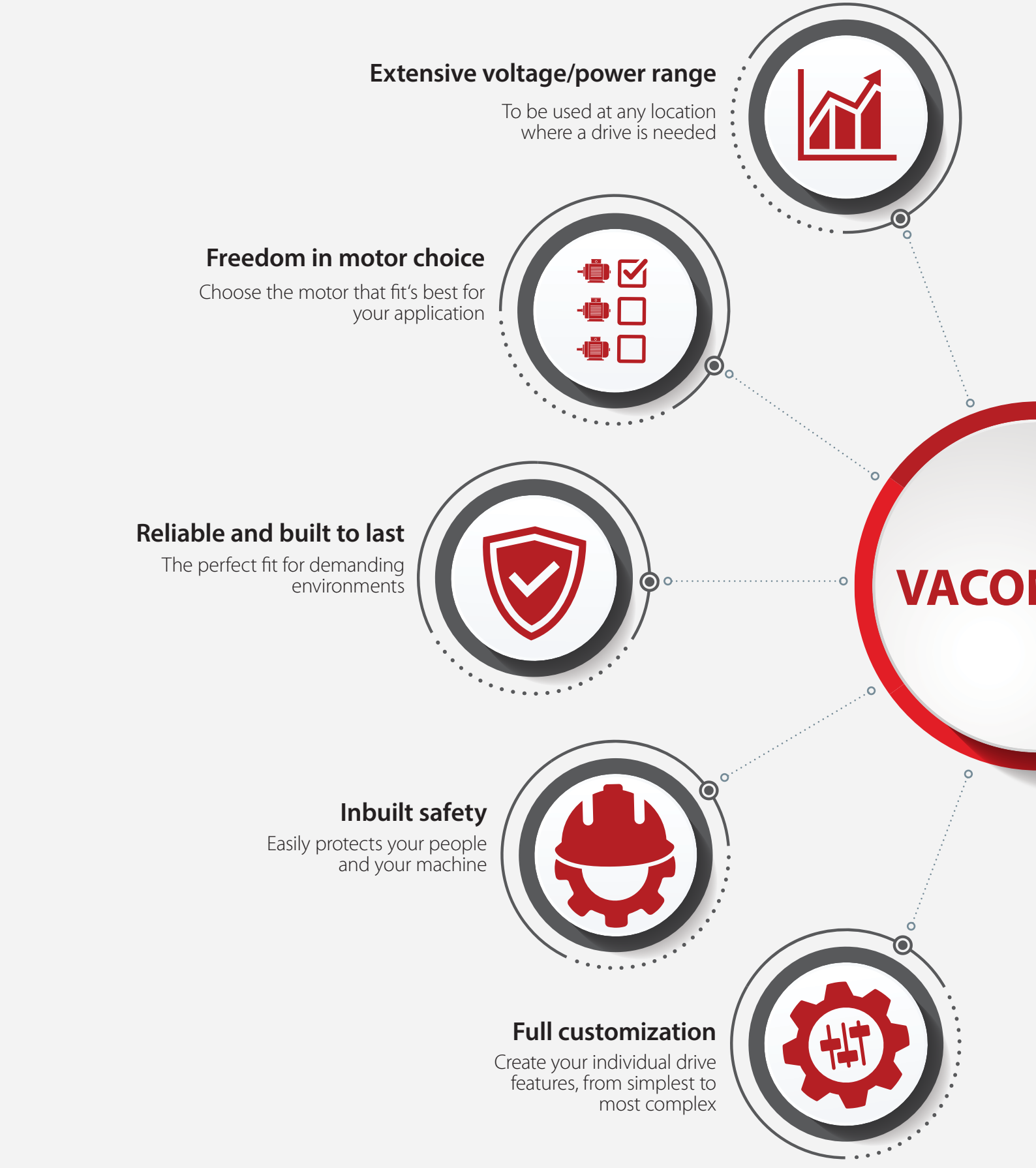
The VACON® 100 INDUSTRIAL is a workhorse for a wide range of industrial applications. It is easy to integrate into all major control systems and is quickly adaptable to different needs. Just choose your application and let the VACON® 100 INDUSTRIAL bring you clear savings. Integrated RS485 and Ethernet interfaces that support major industrial protocols save on the need for additional option cards. For OEMs, VACON® Programming enables the built-in PLC functionality according to IEC61131-3 to integrate their own functionality in the drive. The VACON® Customizer facilitates smaller logic adaptations for special needs or retrofit situations.

VACON® 100 FLOW – dedicated functionality

VACON ®100 FLOW is an AC drive dedicated to improving flow control and saving energy in pumping and ventilating applications. On top of the VACON 100 core functionality, the VACON® 100 FLOW provides specific flow-control functions to enhance pump and fan performance and protect pipes and equipment to ensure reliable operation.

This includes an intelligent and easy-to-use multi-pump controller, PID control with inbuilt sleep mode, pipe-soft filling and many more.

VACON® 100 product family highlights and common features



Free to connect

Quick and easy system integration

Design for environment

High energy savings with less emmissions and pollution

Easy to set-up, easy to operate

Intuitive user interface and smart tools

Easy installation with various enclosure types

Always the right solution for any installation place

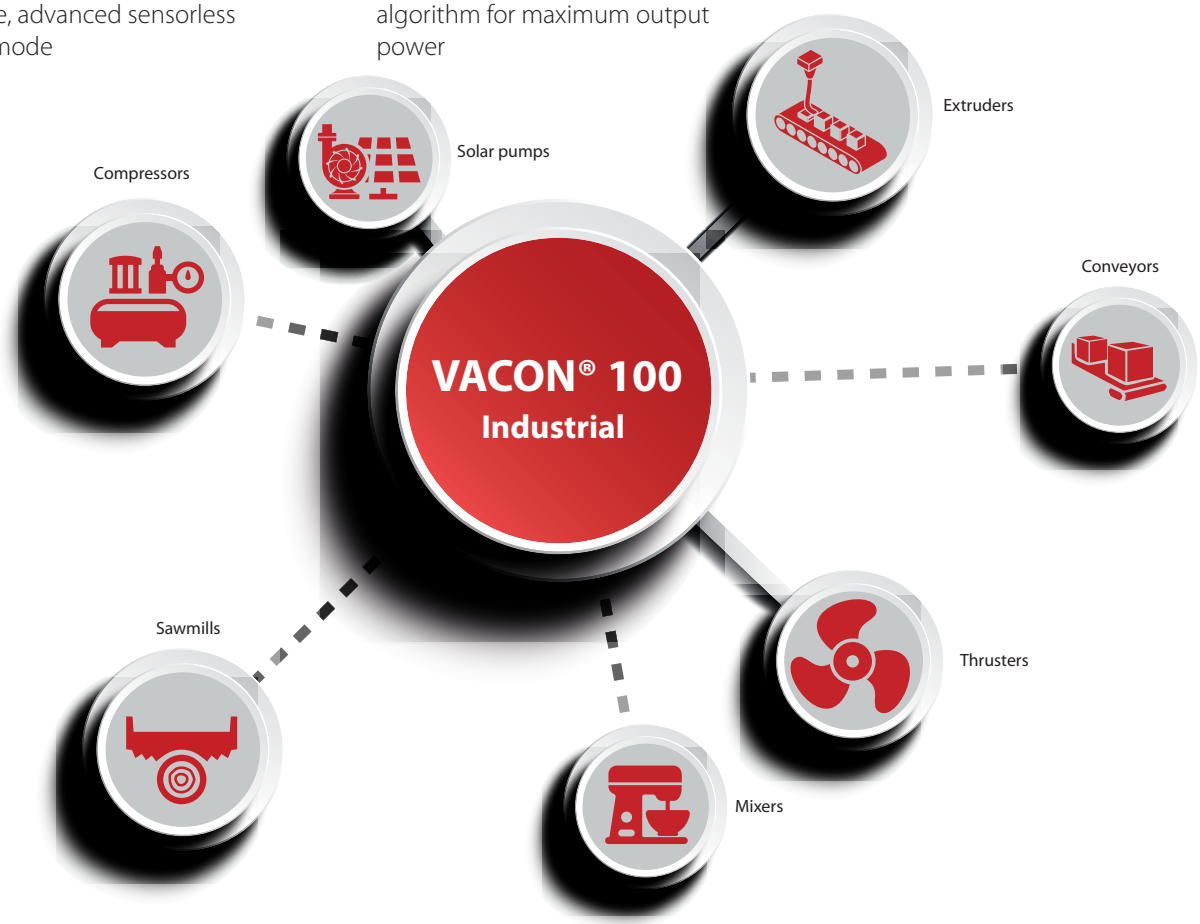
What's in it for you

Common features	Benefits
Free to connect	
Built in Modbus RTU, BACnet MSTP and Metasys N2	No need for option cards for most common protocols saves costs
Built in Modbus TCP, Profinet, Ethernet/IP and BACnet IP	
Option cards for Profibus, DeviceNet, CANopen, LonWorks, EtherCAT	keep same type of drive to cover different PLC brands
Remote access via network connection for monitoring, configuration and trouble shooting	Save time and cost for travelling
Design for environment	
Film capacitors	Extended lifespan: last up to 300,000 hours, equal to about 30 years of reliable operation
	Optimized performance: always ready for immediate use – no stocking problems
	Increased efficiency: reduced losses by additional 2%
	Environmentally friendly: contain no hazardous waste
Easy to set-up, easy to operate	
Dedicated functionality for pump, fan and compressor application	Fast and efficient system integration
Graphical keypad with multi view of 9 status signals	One view to get most relevant status information during operation
Wizard Guides and Application selections	Quick commissioning and start-up
Trend display for two signals at the same time	Simple real time monitoring without the need for additional tools
Advanced Sensorless Motor Control	Saves costs for encoder and increases system reliability in many applications
Energy counter and Real-time clock with calender-based functions	Easy monitoring of energy savings
Optimized control of cooling fan	Reduces noise levels
Standard I/O + 3 free slots	Provides flexibility in Drive selection
Easy installation with various enclosure types	
Integrated RFI filters and DC chokes in all types	No additional components are required
Flange mounting option for through hole mounting	Reduces heat loss and enclosure sizes
Enclosed drives with a wide range of integrated options ready to use	Easy and quick installation on site
Compact IP54/UL Type 12 enclosures with same footprint as IP21/UL Type 1	Saves space and easy to install
>37kW (50hp) also available as IP00 for cabinet installation	Saves cabinet space and provides cost efficient solution
Side-by-side mounting for IP54/UL Type 12	Saves space
Full customization	
VACON Programing with built in programmability according to IEC61131-3	Achieve high level of machine performance with individual drive firmware
	Enables to sell individual drive firmware by protected control logic
VACON Customizer to combine and extend standard drive functionalities	Simple and free to use as part of the standard VACON Live configuration tool
Inbuilt safety	
Safe Torque Off (STO) and Safe Stop1 (SS1)	Saves installation space and costs on additional components
ATEX certified thermistor input, according to EU ATEX directive 94/9/EC	Reduced cabling, less components and increased reliability
Reliable and built to last	
Electrolytic free DC link capacitors	Extended Drive lifetime and minimized lifecycle costs
	No need to reform - always ready for immediate use
Conformal coating	High reliability in challenging environments
IP54 variants	Save space for cabinet or clean rooms
Ruggedized Decentral variant in IP66 enclosure	Save space and cabling costs due to near-by mounting
Freedom in motor choice	
IM, PM and SynRM motor support	Use same type of drive, even when using different motor technologies or switching to new ones
	Meet highest level on system efficiency
	Full flexibility on drive / motor package
Extensive voltage/power range	
Available in many different voltage ranges	Keep same type of drive to be used across the globe
Available from 0,55-800kW [0,75-800HP]	Keep same type of drive to cover all your application range

VACON® 100 INDUSTRIAL
One drive - many industries

VACON® 100 INDUSTRIAL is the right choice for almost any kind of drive application across various industries. It offers great versatility of features and a broad range of hardware variants. The easy-to-use and robust motor control is ideal for constant power/torque applications and improves the reliability and efficiency of your AC motor type.

- Constant torque handling with capacity for high overload and advanced control functions
- Motor control: Open-loop control with frequency, speed, and torque reference, advanced sensorless control mode
- Many advanced functions for motor control setting, such as load drooping
- Supports solar pump application with highly advanced MPPT[4] control algorithm for maximum output power
- Mechanical brake control
- Open for full customized application software packages



VACON® 100 FLOW
Dedicated pump and fan functionality

VACON® 100 FLOW is dedicated to improving flow control and saving energy in commercial pumping and ventilation systems. Combined with all the core features of the VACON® 100 family it offers user-friendliness, energy efficiency and reliable operation for all kinds of pump and fan applications.

Specifically designed features with inbuilt Multi pump control enhance pump performance and protect pipes and equipment to ensure reliable operation. The intelligent PID controller controls pump speed using a sensor, instead of an external controller. This helps the drive to react quickly to fluctuations in demand, ensuring accurate process control and optimal energy savings.

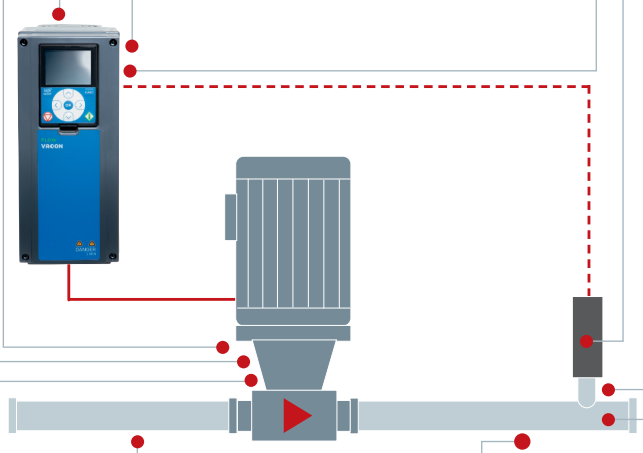
2 x PID controller
Controls pressure, flow, temperature etc. based on measurement signal from sensor 2nd controller e.g for valve control

2-Zone PID controller
Controls two process values in parallel, for example main control value is temperature, secondary control value is flow

Sleep mode
Stops the pump/drive automatically during periods of low demand. Restarts when pressure drops below threshold

Start boost
Increases starting torque to ensure pump starts in all conditions

Sleep boosting
Temporarily increases system pressure before entering sleep mode to maximize restart time



Dry pump / Broken belt protection
Stops the pump or fan when there is not enough torque on the motor shaft

No-demand detection
Ensures that the pump doesn't run at unnecessarily high speeds to maintain pressure during periods of no demand

Auto-cleaning / Anti-ragging
Detects abnormal increase in torque when pump is blocked and runs cleaning sequence

Pressure loss compensation
Compensates pressure reference for drop in pressure in piping or ducting after the measurement sensor

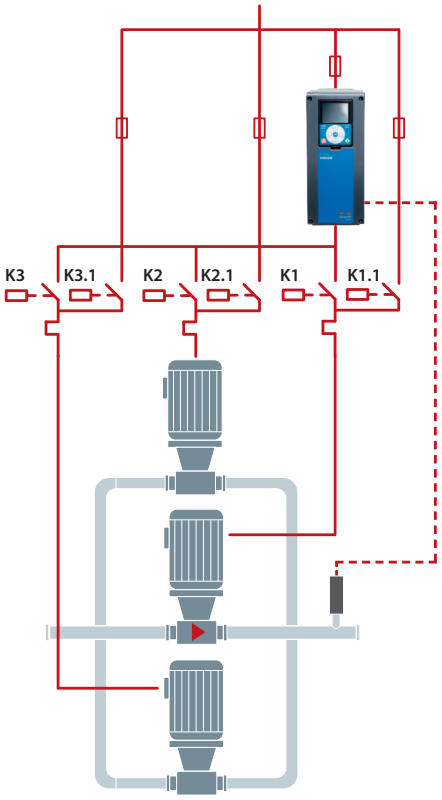
Frost protection
Restarts the pump automatically when in sleep mode to avoid risk of pump freezing

Soft filling of pipes
Runs the pump at a lower fixed speed until a pressure increase indicates that the pipe is full

Intelligent Multipump control solutions

Multipump – Single drive system

- Up to 8 pumps can be controlled and operated through one single Drive
- Increases system efficiency in applications with large flow variations
- Individual pumps can be disconnected, increasing system redundancy
- Diverse set-ups possible
  - Fixed connection of drive to one pump allows fixed control or alternation of auxiliary pumps only
  - Dual contactors to each pump allow full alternation of all pumps in the system



Multipump - Single drive system

Multipump – Multi drive system

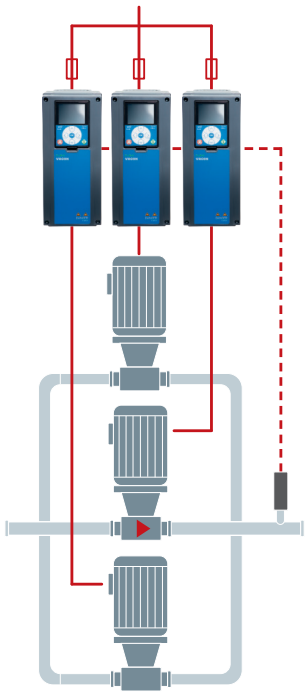
- Connect up to 8 pumps in one system
- No additional controller or PLC needed
  - Fully redundant system
  - Interaction through RS485 (Drive to Drive communication)
- Integrated pump control functionality
  - No need for additional cabling, motor protections, contactors
  - Automatic alternation of pumps
- Automatic test run to avoid pump blocking
- Master pump definition available

Multi Master Mode

- Several pumps operate in order to cover demand situation
- One pump runs in speed control mode
- The other pumps operate close to maximum frequency

Multi Follower Mode

- Several pumps operate in order to meet the load demand
- All operating pumps run in speed control mode
- Ensures increased efficiency, reduces noise levels



Multipump - Multi drive system

VACON® 100 Wall Mounted Drive
Fulfills a multitude of installation needs

The Wall Mounted Drives come as a compact and comprehensive drive package, with all the necessary components integrated into a single unit.
They are available in IP21/UL Type 1 or IP54/UL Type 12 enclosures for a wide range of power supply voltages.

MR4 MR5 MR6 MR7 MR8 MR9

Power range

Supply voltage	MR4	MR5	MR6	MR7	MR8	MR9
208-240 Vac	0.55-3 kW [0.75-4 HP]	4-7.5 kW [5.5-10 HP]	11-15 kW [15-20 HP]	18.5-30 kW [25-40 HP]	37-55 kW [50-75 HP]	75-90 kW [100-125 HP]
380-500 Vac	1.1-5.5 kW [1.5-7.5 HP]	7.5-15 kW [10-20 HP]	18.5-30 kW [25-40 HP]	37-55 kW [50-75 HP]	75-110 kW [100-150 HP]	132-200 kW [200-300 HP]
525-600 Vac	-	3-10 HP	15-30 HP	40-60 HP	75-125 HP	150-250 HP
525-690 Vac	-	-	5.5-30 kW [5-30 HP]	37-55 kW [40-60 HP]	75-110 kW [75-125 HP]	132-250 kW [150-250 HP]

Features

- Conformal coating
- IP54/UL Type 12 has the same footprint as IP21/UL Type 1
- Flange mounting
- Side-by-side mounting for both IP21/UL Type 1 and IP54/UL Type 12
- Integrated DC choke and EMC filters
- Integrated brake chopper as standard or factory option

Benefits

- Reduced installation space and costs
- Higher reliability in demanding environments

VACON® 100 X Decentral Drive

With a power range from 1.1 kW to 37 kW the VACON® 100 X sets a new benchmark for decentral drives. It comes with IP66/Type 4X outdoor protection rating and has highly advanced control capability which guarantees processes run exactly how you want them to. On top of all this, it has built-in harmonic filtering chokes, making it suitable for public networks.

The robust, die-cast metal enclosure is strong enough to withstand 3g vibrations, and its cooling capabilities are excellent. The enclosure is powder coated for protection against corrosion and is designed to be fully operational in outdoor environments.

MM4 MM5 MM6

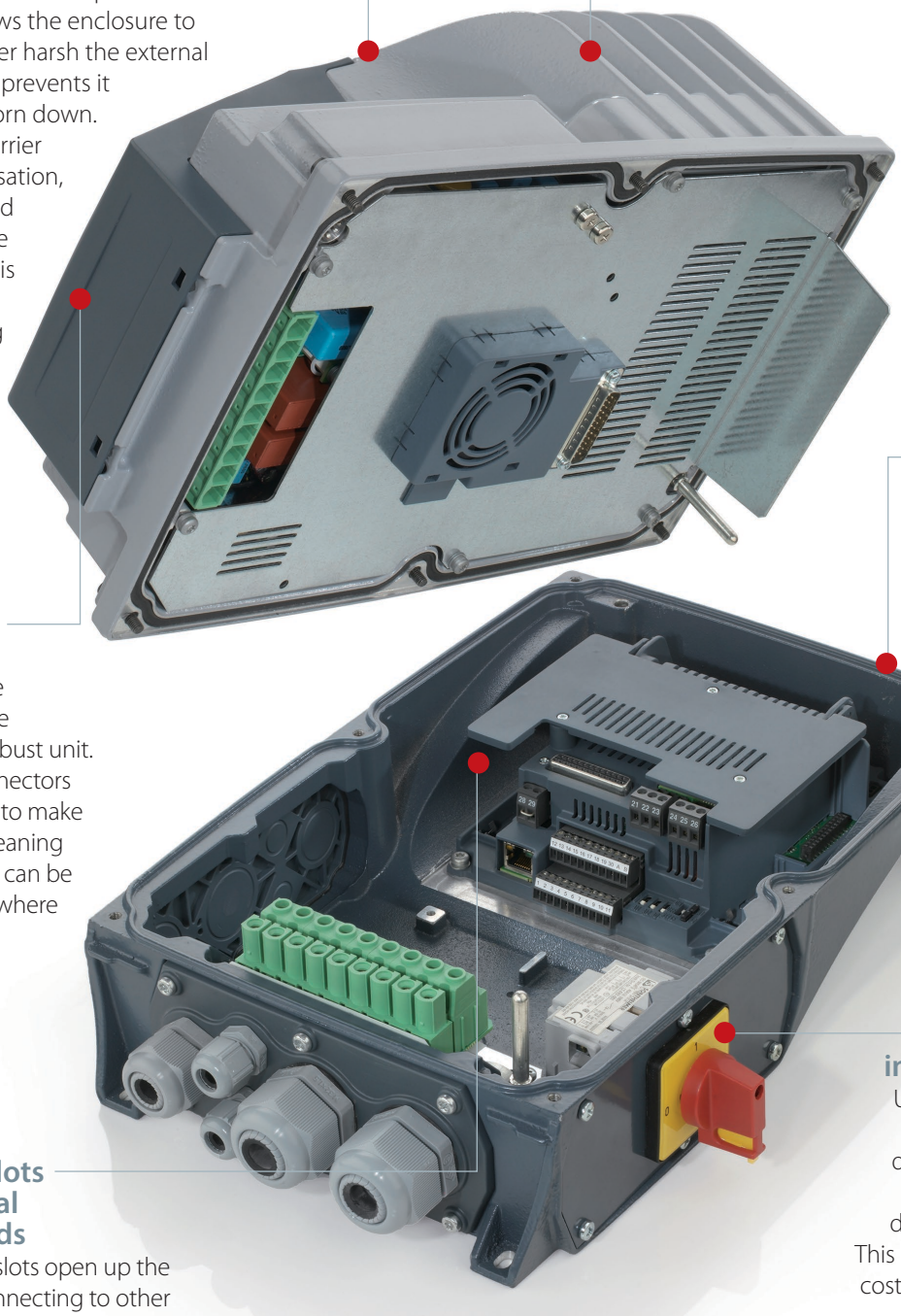
Power range

Supply voltage	MR4	MR5	MR6
208-240 Vac	1.1-3 kW [1.5-4 HP]	4-7.5 kW [5.5-10 HP]	11-15 kW [15-20 HP]
380-500 Vac	1.1-5.5 kW [1.5-7.5 HP]	7.5-15 kW [10-20 HP]	18.5-37 kW [25-50 HP]

What's inside VACON® 100 X

Pressure equalizer vent
The VACON® 100 X comes with a pressure equalizer vent which allows the enclosure to breathe, however harsh the external conditions, and prevents it from getting worn down. This acts as a barrier against condensation, dust and dirt and ensures pressure inside the drive is equalized with the surrounding environment.

Large cooling ribs
The front of the drive's enclosure offers cooling protection with ribs that don't collect dust. They allow full access to the heatsink and can be cleaned with pressurized water. This makes them easy to maintain and ensures reliable operation.



Terminal box
A single box that contains all the drive's wiring and the control unit, freeing up space elsewhere.

Power head
All the power components are contained in one compact and robust unit. Removable connectors are always used to make connections, meaning the power head can be easily removed where needed.

Mains switch integrated as option
Using the integrated drive supply switch option, the drive's main supply can be disconnected and locked during maintenance work. This helps save on investment costs and space and provides safety during the job.

Expansion slots for additional option boards
Two expansion slots open up the possibility of connecting to other fieldbuses and I/O boards.

Mountable in four orientations
Both the drive and the keypad can be mountable in four positions. This means that however you set up the VACON® 100 X, the keypad will remain easily operable. Since there are no electrical cable connections to worry about, it can even be rotated in the field.

Motor mountable
The drive can be mounted onto any flat surface. Motor mounting is done using additional adaptable parts.

VACON® 100 Drive modules for system integration

The IP00 Drive Modules are intended for installation into any enclosure.
Module installation in standard enclosures is easy due to the compact design.

The VACON® 100 IP00 Drive Module range starts at enclosure size MR8 and extends up to MR12.
The modules contain all necessary components including DC chokes and brake choppers (optional). Module enclosure sizes MR10 and MR12 include an options module to house optional output filters and brake choppers. The options are integrated into the main cooling channel.

Features

- Wide power range using only four frames
- Integrated DC chokes
- Integrated brake chopper (optional)
- Integrated output filters (optional)
- Options module for easy integration (MR10 and MR12)
- Remotely mountable control box
- IP54 main cooling channel

Benefits

- Reduced installation space and costs
- Easier integration
- Improved reliability by separating the main cooling air flow from the rest of the drive electronics

MR8

MR9
MR11 = 2 X MR9

MR10
MR12 = 2 X MR10

Power range

Supply voltage	MR8	MR9	MR10	MR11	MR12
208-240 Vac	37-55 kW [50-75 HP]	75-90 kW [100-125 HP]	-	-	-
380-500 Vac	75-110 kW [100-150 HP]	132-200 kW [200-300 HP]	250-315 kW [350-500 HP]	355-400 kW [500-600 HP]	450-630 kW [700-1000 HP]
525-690 Vac	75-110 kW [75-125 HP]	132-250 kW [150-250 HP]	315-355 kW [300-400 HP]	400-500 kW [450-500 HP]	560-800 kW [600-800 HP]

VACON® 100 Enclosed Drive meets diverse needs

The VACON 100® Enclosed Drive is designed to meet the most demanding requirements for flexibility, robustness, compactness and service-friendliness. They are a smart choice for many applications and come as a ready-made "plug and play" solution with many options for customization.

MR8
Enclosed Drives

MR9
Enclosed Drives

MR10
Enclosed Drives

MR11 and MR12
Enclosed Drives

Power range

Supply voltage	MR8	MR9	MR10	MR11	MR12
380-500 Vac	75-110 kW [100-150 HP]	132-200 kW [200-300 HP]	250-315 kW [350-500 HP]	355-400 kW [500-600 HP]	450-630 kW [700-1000 HP]
525-690 Vac	75-110 kW [75-125 HP]	132-250 kW [150-250 HP]	315-355 kW [300-400 HP]	400-500 kW [450-500 HP]	560-800 kW [600-800 HP]

Flexible interface

The VACON 100® Enclosed Drive features an accessible door-mounted control compartment for the relays, auxiliary terminals and other control options. All standard I/O's are wired to control terminal blocks simplifying the installation and commissioning. The control door has a dedicated area for signal lights and switches based on the product configuration options.

Proven solution

The VACON® 100 Enclosed Drive is compact and tested to meet harsh operating conditions. It can be installed in many different standard applications such as pumps or conveyors. The innovative air-cooling channel ensures reliable thermal handling of the enclosure and extends the lifetime of the drive with trouble-free operation in tough environments. Approved EMC solutions ensure reliable operation of the drive without disturbing other electrical equipment.

Integrated options ready to use

The VACON® 100 Enclosed Drive is configurable with power, control and enclosure options to meet the needs of the application. Output filter options, input disconnects and brake choppers are integrated into the cabinet solution eliminating the need for additional equipment outside of the enclosure. Power options, such as output filters, are integrated into the air-cooling solution and provide a thermally proven cabinet design.

Features

- Separate cooling air channel
- Common mode and dU/dt filters integrated in cooling air channel
- Back-channel cooling option available
- Fast acting aR input fuses as standard
- Integrated output filters and fuse switch as options
- Configured to order with pre-engineered options
- Door-mounted control compartment separate from the main drive
- I/O wired to standard terminal blocks
- Dedicated area for signal lights and control switches
- All components accessible from the front of the enclosure

Benefits

- IP54/UL without derating
- Reduced installation space and costs
- Higher reliability in demanding environments
- Safe, complete, integrated solution
- Standard product configured to user's needs
- Safe access to controls
- Easier installation
- Complete solutions
- Faster commissioning and serviceability

Voltage and power ranges

208-240V - Power ratings for VACON® 100 INDUSTRIAL and VACON® 100 FLOW
Wall Mounted Drives and Drive Modules

AC drive type	Low loadability (110% 1min/10min) INDUSTRIAL and FLOW variants			High loadability(150% 1min/10min) INDUSTRIAL variants			Max current Is (2s) [A]	Hardware variant and enclosure size	
	Continuous current IL [A]	Motor shaft power		Continuous current IH [A]	Motor shaft power			Wall Mounted (IP 21/IP54)	Modules (IP00)
		[kW] @ 230V	[HP] @ 230V		[kW] @ 230V	[HP] @ 230V			
VACON 0100-3L-0003-2	3.7	0.55	0.75	2.6	0.37	0.5	5.2	MR4	
VACON 0100-3L-0004-2	4.8	0.75	1	3.7	0.55	0.75	7.4		
VACON 0100-3L-0007-2	6.6	1.1	1.5	4.8	0.75	1	9.6		
VACON 0100-3L-0008-2	8	1.5	2	6.6	1.1	1.5	13.2		
VACON 0100-3L-0011-2	11	2.2	3	8	1.5	2	16		
VACON 0100-3L-0012-2	12.5	3	4	9.6	2.2	3	19.6		
VACON 0100-3L-0018-2	18	4	5	12.5	3	4	25	MR5	
VACON 0100-3L-0024-2	24	5.5	7.5	18	4	5	36		
VACON 0100-3L-0031-2	31	7.5	10	25	5.5	7.5	46		
VACON 0100-3L-0048-2	48	11	15	31	7,5	10	62	MR6	
VACON 0100-3L-0062-2	62	15	20	48	11	15	96		
VACON 0100-3L-0075-2	75	18.5	25	62	15	20	124	MR7	
VACON 0100-3L-0088-2	88	22	30	75	18.5	25	150		
VACON 0100-3L-0105-2	105	30	40	88	22	30	176		
VACON 0100-3L-0140-2	140	37	50	114	30	40	210	MR8	MR8
VACON 0100-3L-0170-2	170	45	60	140	37	50	280		
VACON 0100-3L-0205-2	205	55	75	170	45	60	340		
VACON 0100-3L-0261-2	261	75	100	211	55	75	410	MR9	MR9
VACON 0100-3L-0310-2	310	90	125	251	75	100	502		

208-240V - Power ratings for VACON® 100 X Decentral Drive IP66/Type 4X

AC drive type	High loadability (150% 1min/10min)			Max current Is (2s) [A]	Hardware variant and Enclosure size
	Continuous current IH [A]	Motor shaft power			100X drives (IP66)
		[kW] @ 230V	[HP] @ 230V		
VACON 0100-3L-0006-2-X	6.6	1.1	1.5	9.9	MM4
VACON 0100-3L-0008-2-X	8.0	1.5	2	12.0	
VACON 0100-3L-0011-2-X	11.0	2.2	3	16.5	
VACON 0100-3L-0012-2-X	12.5	3	4	18.8	
VACON 0100-3L-0018-2-X	18.0	4	5	27.0	MM5
VACON 0100-3L-0024-2-X	24.2	5.5	7.5	36.3	
VACON 0100-3L-0031-2-X	31.0	7.5	10	46.5	
VACON 0100-3L-0048-2-X	48.0	11	15	72.0	MM6
VACON 0100-3L-0062-2-X	62.0	15	20	93.0	

Voltage and power ranges

380-500V - Power ratings for VACON® 100 INDUSTRIAL and VACON® 100 FLOW
Wall Mounted Drives, Drive Modules and Enclosed Drives

AC drive type	Low loadability (110% 1min/10min) INDUSTRIAL and FLOW variants			High loadability (150% 1min/10min) INDUSTRIAL variants			Max current Is (2s) [A]	Hardware variant and enclosure size		
	Continuous current IL [A]	Motor shaft power		Continuous current IH [A]	Motor shaft power			Wall Mounted (IP 21/IP54)	Modules (IP00)	Enclosed drive (IP21/IP54)
		[kW] @ 400V	[HP] @ 480V		[kW] @ 400V	[HP] @ 480V				
VACON 0100-3L-0003-5	3.4	1.1	1.5	2.6	0.75	1	5.2	MR4		
VACON 0100-3L-0004-5	4.8	1.5	2	3.4	1.1	1.5	6.8			
VACON 0100-3L-0005-5	5.6	2.2	3	4.3	1.5	2	8.6			
VACON 0100-3L-0008-5	8	3	4	5.6	2.2	3	11.2			
VACON 0100-3L-0009-5	9.6	4	5	8	3	4	16			
VACON 0100-3L-0012-5	12	5.5	7.5	9.6	4	5	19.2			
VACON 0100-3L-0016-5	16	7.5	10	12	5.5	7.5	24	MR5		
VACON 0100-3L-0023-5	23	11	15	16	7.5	10	32			
VACON 0100-3L-0031-5	31	15	20	23	11	15	46			
VACON 0100-3L-0038-5	38	18.5	25	31	15	20	62	MR6		
VACON 0100-3L-0046-5	46	22	30	38	18.5	25	76			
VACON 0100-3L-0061-5	61	30	40	46	22	30	92			
VACON 0100-3L-0072-5	72	37	50	61	30	40	122	MR7		
VACON 0100-3L-0087-5	87	45	60	72	37	50	144			
VACON 0100-3L-0105-5	105	55	75	87	45	60	174			
VACON 0100-3L-0140-5	140	75	100	105	55	75	210	MR8	MR8	MR8
VACON 0100-3L-0170-5	170	90	125	140	75	100	280			
VACON 0100-3L-0205-5	205	110	150	170	90	125	340			
VACON 0100-3L-0261-5	261	132	200	205	110	150	410	MR9*	MR9	MR9
VACON 0100-3L-0310-5	310	160	250	251	132	200	502			
VACON 0100-3L-0386-5	385	200	300	310	160	250	620			
VACON 0100-3L-0460-5	460	250	350	385	200	300	770		MR10	MR10
VACON 0100-3L-0520-5	520	250	450	460	250	350	920			
VACON 0100-3L-0590-5	590	315	500	520	250	450	1040			
VACON 0100-3L-0651-5	650	355	500	590	315	500	1180		MR11	MR11
VACON 0100-3L-0731-5	730	400	600	650	355	500	1300			
VACON 0100-3L-0820-5	820	450	700	730	400	600	1460		MR12	MR12
VACON 0100-3L-0920-5	920	500	800	820	450	700	1640			
VACON 0100-3L-1040-5	1040	560	900	920	500	800	1840			
VACON 0100-3L-1180-5	1180	630	1000	920	500	800	1840			

* VACON 0100-3L-0386-5 not available in IP54

380-500V - Power ratings for VACON® 100 X Decentral Drive IP66/Type 4X

AC drive type	High loadability (150% 1min/10min) INDUSTRIAL variants			Max current Is (2s) [A]	Hardware variant and Enclosure size
	Continuous current IH [A]	Motor shaft power			100X drives (IP66)
		[kW] @ 400V	[HP] @ 480V		
VACON 0100-3L-0003-5-X	3.4	1.1	1.5	5.2	MM4
VACON 0100-3L-0004-5-X	4.8	1.5	2	6.8	
VACON 0100-3L-0005-5-X	5.6	2.2	3	8.6	
VACON 0100-3L-0008-5-X	8	3	4	11.2	
VACON 0100-3L-0009-5-X	9.6	4	5	16	
VACON 0100-3L-0012-5-X	12	5.5	7.5	19.2	
VACON 0100-3L-0016-5-X	16	7.5	10	24	MM5
VACON 0100-3L-0023-5-X	23	11	15	32	
VACON 0100-3L-0031-5-X	31	15	20	46	
VACON 0100-3L-0038-5-X	38	18.5	25	62	MM6
VACON 0100-3L-0046-5-X	46	22	30	76	
VACON 0100-3L-0061-5-X	61	30	40	92	
VACON 0100-3L-0072-5-X*	72	37	50	122	

* 37kW [50HP] variant only for low loadability (110% 1min/10min)

Voltage and power ranges

525-600V - Power ratings for VACON® 100 INDUSTRIAL and VACON® 100 FLOW
Wall Mounted Drives

AC drive type	Low loadability (110% 1min/10min) INDUSTRIAL and FLOW variants		High loadability (150% 1min/10min) INDUSTRIAL variants		Max current Is (2s) [A]	Hardware variant and Enclosure size
	Continuous current IL [A]	Motor shaft power [HP] @ 600V	Continuous current IH [A]	Motor shaft power [HP] @ 600V		Wall Mounted (IP 21/IP54)
VACON 0100-3L-0004-6	3.9	3	2.7	2	5.4	MR5
VACON 0100-3L-0006-6	6.1	5	3.9	3	7.8	
VACON 0100-3L-0009-6	9	7.5	6.1	5	12.2	
VACON 0100-3L-0011-6	11	10	9	7.5	18	
VACON 0100-3L-0018-6	18	15	13.5	10	27	MR6
VACON 0100-3L-0022-6	22	20	18	15	36	
VACON 0100-3L-0027-6	27	25	22	20	44	
VACON 0100-3L-0034-6	34	30	27	25	54	
VACON 0100-3L-0041-6	41	40	34	30	68	MR7
VACON 0100-3L-0052-6	52	50	41	40	82	
VACON 0100-3L-0062-6	62	60	52	50	104	
VACON 0100-3L-0080-6	80	75	62	60	124	MR8
VACON 0100-3L-0100-6	100	100	80	75	160	
VACON 0100-3L-0125-6	125	125	100	100	200	
VACON 0100-3L-0144-6	144	150	125	125	250	MR9*
VACON 0100-3L-0208-6	208	200	170	150	340	
VACON 0100-3L-0262-6	261	250	208	200	416	

* VACON 0100-3L-0262-6 not available in IP54

525-690 V - Power ratings for VACON® 100 INDUSTRIAL and VACON® 100 FLOW
Wall Mounted Drives, Drive Modules and Enclosed Drives

AC drive type	Low loadability (110% 1min/10min @ 40°C) INDUSTRIAL and FLOW variants			High loadability (150% 1min/10min @ 50°C) INDUSTRIAL variants			Max current Is (2s) [A]	Hardware variant and enclosure size		
	Continuous current IL [A]	Motor shaft power [kW] @ 690V	Motor shaft power [HP] @ 690V	Continuous current IH [A]	Motor shaft power [kW] @ 690V	Motor shaft power [HP] @ 690V		Wall Mounted (IP 21/IP54)	Modules (IP00)	Enclosed drive (IP21/ IP54)
VACON 0100-3L-0007-7	7.5	5.5	5	5.5	4	3	11	MR6		
VACON 0100-3L-0010-7	10	7.5	7.5	7.5	5.5	5	15			
VACON 0100-3L-0013-7	13.5	11	10	10	7.5	7.5	20			
VACON 0100-3L-0018-7	18	15	15	13.5	11	10	27			
VACON 0100-3L-0022-7	22	18.5	20	18	15	15	36			
VACON 0100-3L-0027-7	27	22	25	22	18.5	20	44			
VACON 0100-3L-0034-7	34	30	30	27	22	25	54			
VACON 0100-3L-0041-7	41	37	40	34	30	30	68	MR7		
VACON 0100-3L-0052-7	52	45	50	41	37	40	82			
VACON 0100-3L-0062-7	62	55	60	52	45	50	104			
VACON 0100-3L-0080-7	80	75	75	62	55	60	124	MR8	MR8	MR8
VACON 0100-3L-0100-7	100	90	100	80	75	75	160			
VACON 0100-3L-0125-7	125	110	125	100	90	100	200			
VACON 0100-3L-0144-7	144	132	150	125	110	125	250	MR9*	MR9	MR9
VACON 0100-3L-0170-7	170	160	150	144	132	150	288			
VACON 0100-3L-0208-7	208	200	200	170	160	150	340			
VACON 0100-3L-0262-7	261	250	250	208	200	200	416			
VACON 0100-3L-0325-7	325	315	300	261	250	250	522		MR10	MR10
VACON 0100-3L-0385-7	385	355	400	325	315	300	650			
VACON 0100-3L-0416-7	416	400	450	385	355	300	770		MR11	MR11
VACON 0100-3L-0461-7	460	450	450	416	400	400	832			
VACON 0100-3L-0521-7	520	500	500	460	450	450	920			
VACON 0100-3L-0590-7	590	560	600	520	500	500	1040		MR12	MR12
VACON 0100-3L-0650-7	650	630	650	590	560	600	1180			
VACON 0100-3L-0750-7	750	710	700	650	630	650	1300			
VACON 0100-3L-0820-7	820	800	800	650	630	650	1300			

* VACON 0100-3L-0262-7 not available in IP54

Technical data

Mains connection	Input voltage	208-240 V; 380-500 V; 525-600 V; 525-690 V
	Input frequency	50-60 Hz
	Connection to mains	Once per minute or less (normal case)
	Displacement power factor (cos ϕ) near unity	> 0.98
Motor connection	Output voltage	0-Input voltage
	Continuous output current and overloadability	IL with low overloadability: 1,1x IL (1 min/10 min) IH with high overloadability: 1,5 x IH (1 min/10 min)
	Output frequency	0-320 Hz
Control performance	Control performance (VACON 100 INDUSTRIAL and VACON 100 X)	Open loop vector control (5-150% of base speed): speed control 0.5%, dynamic 0.3%/sec, torque linearity <2%, torque rise time ~5 ms
	Ramp times (acceleration and deceleration)	0.1-3000 s
Ambient conditions	Ambient operating temperature for wall mounted, modules and enclosed drive variants	-10 °C-50 °C (14 °F-122 °F), derating 1.5%/1 °C above 40 °C (104 °F)
	Ambient operating temperature for 100 X (IP66)	-40 °C-60 °C (14 °F-122 °F), derating 2.5%/1 °C above 40 °C (104 °F) for ambient temperatures below -10°C the "Auxiliary Frame Heater" option is required
	Relative humidity	0-95% RH, non-condensing, non-corrosive
	Storage temperature	-40 °C…+70 °C (-40 °F-158 °F)
	Altitude	100% nominal rating (no derating) up to 1000 m. 1% derating for each 100 m above 1000 m Maximum altitudes: • 208-240 V: 4000 m (TN and IT systems) • 380-500 V: 4000 m (TN and IT systems) • 380-500 V: 2000 m (corner-grounded network) • 525-690 V: 2000 m (TN and IT systems, no corner grounding)
	Vibration	1g (VACON 100 INDUSTRIAL and VACON 100 FLOW frames) 3g (VACON 100 X)
	Enclosure class	IP21/UL Type 1
		IP54/UL Type 12
		IP00 for MR8 to MR12 Modules IP66 (VACON 100 X)
EMC	Immunity	IEC 61800-3, first and second environment
	Emissions	IEC 61800-3, Category C2 for wall mounted drives (240 V and 500 V)*
		IEC 61800-3, Category C3 for IP00 modules, enclosed drives and wall mounted 690 V drives
Functional safety	Safe Torque Off for wall mounted, IP00 modules and enclosed drive variants	SIL 3 (with option board OPTBJ)
	Safe Torque Off for 100 X (IP66)	SIL 3 with external safety device
Control connection	I/O	2 x AI, 6 x DI, 1 x AO, 10 Vref, 24 Vin, 2 x 24 Vout, 3 x RO or 2 x RO + TI More I/Os available with B-series option cards
	Ethernet	Built-in: Modbus TCP/IP, BACnet IP, PROFINET**, EtherNet/IP** Others supported with optional Fieldbus communication boards - refer to table on page 27 for more details
	RS485	Others supported with optional Fieldbus communication boards - refer to table on page 27 for more details
	I/O characteristics	Analogue inputs: 0...+10 V (Ri = 200 kΩ) or 4-20 mA (Ri =250 Ω) Resolution 0.1 %, Accuracy ±1 %
		Analogue output: 0 -20 mA or 0-10 V Load max 500 Ω Resolution 0.1 %, Accuracy ±2 %
		Digital inputs: Positive or negative logic, Ri = min. 5 kΩ 0-5 V = 0, 15-30 V = 1
		Auxiliary voltage: +24 V, ±10%, max volt. ripple < 100mVrms, max. 250 mA Short-circuit protected
		Relay outputs: Change-over contact (SPDT) relay. 5.5 mm isolation between channels. Switching capacity 24 VDC/8 A, 250 VAC/8 A, 125 VDC/0.4 A. Minimum switching load 5 V/10 mA
		Thermistor input: Rtrip = 4.7 kΩ (PTC), Measuring voltage 3.5V
Approvals	General	UL 508 C, CE, UL, cUL, EAC, RCM
	Marine certificates	DNV -GL, BV, LR, ABS and RINA

* VACON 0100-3L-0386-5 class C3

** Built-in: Modbus RTU, Metasys N2, BACnet MSTP

Dimensions and weights

Enclosure size	Wall Mounted (IP21/IP54)				Modules IP00				Enclosed Drives (IP21/IP54)				100 X Drives (IP66)			
	Width	Height	Depth	Weight	Width	Height	Depth	Weight	Width	Height	Depth	Weight	Width	Height	Depth	Weight
	[mm]			[kg]	[mm]			[kg]	[mm]			[kg]	[mm]			[kg]
MR4	128	328	190	6												
MR5	144	419	214	10												
MR6	195	557	229	20												
MR7	237	660	259	37.5												
MR8	290	966	343	66	290	794	343	50	406	2155	639	200				
MR9	480	1150	365	120	480	971	365	107	606	2155	639	280				
MR10					507	980	525	221	606	2155	639	420				
MR11					960	971	365	214	1206	2155	639	545				
MR12					1014	980	525	442	1206	2155	639	825				
MM4													190.7	315.3	196.4	8.8
MM5													232.6	367.4	213.5	14.9
MM6													349.5	499.8	235.4	31.5
	[in]			[lb]	[in]			[lb]	[in]			[lb]	[in]			[lb]
MR4	5.03	12.91	7.48	13.22												
MR5	5.66	16.50	8.425	22.04												
MR6	7.68	21.93	9.01	44.09												
MR7	9.33	25.98	10.19	82.67												
MR8	11.42	38.03	13.50	145.5	11.42	31.26	13.50	110.23	15.98	84.84	25.16	440.92				
MR9	18.90	45.27	14.37	264.55	18.9	38.23	14.37	235.89	23.86	84.84	25.16	617.29				
MR10					19.96	38.58	20.67	487.22	23.86	84.84	25.16	925.94				
MR11					37.79	38.23	14.38	471.79	47.48	84.84	25.16	1201.5				
MR12					39.92	38.58	20.67	974.44	47.48	84.84	25.16	1818.8				
MM4													7.51	12.41	7.73	19.40
MM5													9.16	14.46	8.41	32.85
MM6													13.76	19.68	9.27	69.45

Note: IP00 Modules and Enclosed drive dimensions and weight without options

Wall Mounted Drives

MR4 MR5 MR6 MR7 MR8 MR9

Modules IP00

MR8 MR9 MR11 = 2 X MR9 MR10 MR12 = 2 X MR10

Enclosed Drives

MR8 MR9 MR10 MR11 and MR12

100 X Drives (IP66)

MM4 MM5 MM6

Options

Displays, Panel adapters, cables and hardware options

Group	Description	Loose option	Built in Factory option	for Drive type			
				Wall Mounted (IP21/IP54)	Modules (IP00)	Enclosed drives (IP21/ IP54)	100X drives (IP66)
Control options	Graphical keypad	VACON-PAN-HMGR-MK01		▯	▯	▯	
	Text keypad	VACON-PAN-HMTX-MK01	+HMTX	▯	▯	▯	
	Panel adapter IP54 (dummy keypad)	PAN-HMPA-MK01	+HMPA	▯	▯		
	Door mounting kit, xx = cable lengths: NM (no cable), 2M, 3M, 6M, 15M (2, 3, 6, 15 meter)	VACON-PAN-HMDR-MK01-xx		▯	▯		
	RJ45 cable for door mounting kit, xx= cable lengths: 2M, 3M, 6M, 15M (2, 3, 6, 15 meter)	CAB-RJ45P-xx		▯	▯		
	Hand held panel kit	VACON-PAN-HMHH-MK01		▯	▯		
	Handheld/Magnetic fixing IP66 graphical keypad w/ cable, l=0,5m / 19,68 inches	VACON-PAN-HMGR-MC05-X	+HMGR				▯
	Keypad Wallmounting Kit	PAN-HMWM-MK02					▯
	HMI cable (2 meters) for VACON 100 X keypad options	CAB-HMI2M-MC05-X					▯
	HMI cable (5 meters) for VACON 100 X keypad options	CAB-HMI5M-MC05-X					▯
	PC cable for SW tools, USB to RS-485, cable length 3 m	CAB-USB/RS485		▯	▯	▯	▯
	Real-time clock battery		+SRBT	▯	▯		▯
Enclosure options	IP54 loose option for MR4, MR5, MR6	VACON-ENC-IP54-MR04/05/06		▯			
	Type 12 kit MR4, MR5, MR6	VACON-ENC-IN12-MR04/05/06		▯			
	Flange mounting MR4-MR7 / IP00 Modules MR8-MR12 (Loose option only available for MR4-MR7)	ENC-QFLG-MR04/05/06/07	+QFLG	▯	▯		
	Conduit plate with inch holes, MR4-MR9		+QGLC	▯	▯		
Hardware options	Change to EMC-level C4 for IT networks, also MR11 and MR12 IP00		+EMC4	▯	▯	▯	▯
	Internal integrated dynamic braking (brake chopper) MR7-MR12		+DBIN	▯	▯	▯	
	Drive supply switch for MR4-MR7 (IP54 variants) (Not available for VACON 100 FLOW)		+QDSS	▯			▯
	Disconnect switch for frame size MM4-MM6	POW-QDSS-MM04/05/06					▯
	Auxiliary Frame Heater option size for VACON 100 X frames MM4-MM6	ENC-QAFH-MM04/05/06					▯
	Motor Mount Flange for VACON 100 X frames MM4-MM6	ENC-QMMF-MM04/05/06					▯
	Hardware extension box for IP00 modules MR10 and MR12	+QEPO			▯		
	Fuse switch and AC fuses for IP00 modules MR10 and MR12 (also requires +QEPO)		+CFID		▯		
	Installation kit for a detached control unit for IP00 modules MR10 and MR12	ENC-QCDU			▯		
	Integrated common mode filter for IP00 modules MR10 and MR12 and enclosed drives		+POCM		▯	▯	
	Integrated dU/dt filter for IP00 enclosure sizes MR10 and MR12 (also requires +QEPO) and enclosed drives		+PODU		▯	▯	
	External power connection block for IP00 enclosure sizes MR10 and MR12		+PCTB		▯		
	Marine construction		+EMAR	▯		▯	▯
Package options	Sea container shipping package		+GSSE	▯	▯	▯	▯
Applications	Solar pump application (not for VACON 100 FLOW)		+A1181	▯	▯	▯	▯

Options

Options for Enclosed Drives

Group	Description	Factory option
Auxiliary Equipment	Motor heater control	+CAMH
	Cabinet heater	+CACH
	Cabinet light	+CACL
cabinet power supply for accessories	Auxiliary voltage transformer	+CAPT
	24 V DC power supply	+CAPD
	AC customer socket	+CAPS
	Auxiliary AC supply terminals	+CAPU
Door mounted options	Signal lights and reset button	+CDLP
Control terminals	Extended I/O terminals	+CTID
Protection devices	STO with emergency stop push button on door	+CPS0
	SS1 with emergency stop push button on door	+CPS1
	Emergency switch off	+CPSB
	Insulation monitoring	+CPIF
Input devices	AC fuses and fuse switch	+CIFD
	Input contactor	+CICO
Cabling options	Input cabling from top	+CHIT
	Output cabling from top	+CHOT
	Cabling from top	+CHCT
Base plinth options	Base plinth 200 mm	+CHPH
Cooling options	Back channel cooling	+CHCB
Output filters	Sine Filter Output	+COSI
Cabinet section options	Empty cabinet section, 400 mm, left side	+CH4L
	Empty cabinet section, 400 mm, right side	+CH4R
	Empty cabinet section, 600 mm, left side	+CH6L
	Empty cabinet section, 600 mm, right side	+CH6R

I/O Options

Description	Loose option card	Built in factory option	Option board slots in Drive types			
			IP21/IP54 standalone	IP00 modules	Enclosed drives	IP66 (100X)
Standard I/O board: 2 x AI, 6 x DI, 1 x AO, 10 Vref, 24 Vin, 2 x 24 Vout, RS485, 3 x RO	OPT-F3-V	n.a	B			n.a.
Optional I/O board: 2 x AI, 6 x DI, 1 x AO, 10 Vref, 24 Vin, 2 x 24 Vout, RS485, 2 x RO, Thermistor input	OPT-F4-V	+SBF4	B			n.a.
6 x DI / DO, programmable	OPT-B1-V	+S_B1*	C, D, E			D, E
2 x RO, Thermistor input	OPT-B2-V	+S_B2*	C, D, E			D, E
1 x AI, 2 x AO (isolated)	OPT-B4-V	+S_B4*	C, D, E			D, E
3 x RO	OPT-B5-V	+S_B5*	C, D, E			D, E
1 x RO, 5 x DI (42-240 VAC)	OPT-B9-V	+S_B9*	C, D, E			D, E
1 x AO, 1 x DO, 1 x RO	OPT-BF-V	+S_BF*	C, D, E			D, E
3 x Temp sensor inputs (PT100, PT1000, KTY84-130, KTY84-150, KTY84-131, NI1000)	OPT-BH-V	+S_BH*	C, D, E			D, E
Safe Torque Off (STO) / Safe Stop 1 (SS1) / ATEX	OPT-BJ-V	+S_BJ*	E			n.a.

* Replace '_' with preferred option slot (Example +SCB5 means option board B5 will installed to option slot C in factory), not available for VACON(R) 100 X / IP66

User interface language packages

Factory option	included languages for Drive menu and parameters
+FL01	English, German, Finnish, Swedish, Italian, French
+FL02	English, German, Finnish, Swedish, Danish, Norwegian
+FL03	English, Italian, French, Spanish, Portuguese Brazil, Dutch, Greek
+FL04	English, German, Polish, Russian, Czech, Slovak, Lithuanian, Latvian
+FL05	English, German, Estonian, Hungarian, Romanian, Turkish
+FL06	English, Chinese, Russian, Korean
+FL07	English, German, Slovenian, Croatian, Serbian, Bulgarian

Options

Fieldbus communication

Description	Loose option card	Built in factory option	Option board slots in Drive types			
			IP21/IP54 standalone	IP00 modules	Enclosed drives	IP66 (100X)
Industrial Ethernet protocols: PROFINET IO and EtherNet/IP (software option onboard)	n.a.	+FBIE	n.a.			
AS-i	OPT-BK-V**	S_BK*	n.a.			D,E
LonWorks	OPT-C4-V	+S_C4*	D, E			
RS485 (Modbus/N2)	OPT-E2-V	+S_E2*	D, E			
PROFIBUS DPV1	OPT-E3-V	+S_E3*	D, E			
PROFIBUS DPV1 (D9)	OPT-E5-V	+S_E5*	D, E			
CANopen	OPT-E6-V	+S_E6*	D, E			
DeviceNet	OPT-E7-V	+S_E7*	D, E			
RS485 (Modbus/N2) (D9)	OPT-E8-V	+S_E8*	D, E			
Dual Ethernet communication board (Modbus TCP, PROFINET, EtherNet/IP)	OPT-E9-V	+S_E9*	D, E			
Dual Ethernet communication board Advanced (Modbus TCP, PROFINET, EtherNet/IP)	OPT-EA-V	+S_EA*	D, E			
EtherCAT	OPT-EC-V	+S_EC*	D, E			

* Replace '_' with preferred option slot (Example +SDE9 means option board E9 will installed to option slot D in factory), not available for VACON 100 X / IP66
** Only supported by VACON 100 X

Documentation options

Factory options	Description
+DNOT	Only Safety Guide and UL Guide for North America, no other printed docs included Normally used by OEM customers
+DQCK	Safety Guide, Quick Guide in 8 languages (UK, FR, DE, IT, ES, PT-BR, CN, FI), UL guide for North America and guidance on effectively finding all documentation on Danfass.com
+DPAP	Safety Guide, Operating Guide (former VACON Installation Manual), guidance on effectively finding all documentation on Danfoss.com
+DINS	Safety Guide, Operating Guide (former VACON installation Manual) and Possible option guides (this is the maximum possible amount of printed documents in the delivery)
Factory options	**Documentation language (availability varies with product)**
+DLUK	English *(included as default)*
+DLBR	Portuguese (Brazilian version)
+DLCN	Chinese
+DLCZ	Czech
+DLDE	German
+DLDK	Danish
+DLEE	Estonian
+DLES	Spanish
+DLFI	Finnish
+DLFR	French

Note: VACON 100 X has always a multi language Quick Guide included, no specific +Code is needed. All further documentation can be ordered separately or downloaded from www.danfoss.com

Factory options	Documentation language (availability varies with product)
+DLGR	Greek
+DLHU	Hungarian
+DLIT	Italian
+DLLT	Lithuanian
+DLLV	Latvian
+DLNL	Dutch
+DLNO	Norwegian
+DLPL	Polish
+DLPT	Portuguese
+DLRO	Romanian
+DLRU	Russian
+DLSE	Swedish
+DLSI	Slovenian
+DLSK	Slovak
+DLTR	Turkish

Product selection with type code key

VACON0100	3L	Nominal current	Supply Voltage	Enclosure type	Application / Drive Type	Region	Protection class	Additional options (depending on Drive type/variant)
VACON0100	3~ supply	0003 = 3,4 A up to 1180 =1180A	2 = 208-240 Vac	Empty = wall mounted or Drive module	Empty = INDUSTRIAL (General Purpose)	Empty = international	Empty = IP21 / Type 1 (or IP66 / Type 4 X when Enclosure type = "X")	Built in options can be added as "+ codes" for more info refer to "Options" tables on pages 25-26
			5 = 380-500 Vac	ED = Enclosed Drive	FLOW = Pumps/Fans	R02 = North America	IP00 = IP00 / Open type	
			6 = 525-600 Vac	X = Decentral / IP66/4X			IP54 = IP54 / Type 12	
			7 = 525-690 Vac					

Example 1

VACON 0100	3L	0009	5		FLOW			+FBIE
		9,6 Amps	380-500 Vac	Wall Mounted Drive	with dedicated pump/fan features			PROFINET IO and Ether-Net/IP single port

Example 2

VACON 0100	3L	0731	5	ED			IP54	+CAPT+CAPS
		730 Amps	380-500 Vac	Enclosed Drive	General Purpose		cabinet in IP 54 protection class	AC customer socket

Example 3

VACON 0100	3L	0048	2	X		R02		+HMGR
		48 Amps	208-240 Vac	Decentral Drive	General Purpose	for North America	IP66 / Type 4X	Inbuilt control panel

Example 4

VACON 0100	3L	0100	7		FLOW		IP00	
		100 Amps	525-690 Vac		with dedicated pump/fan features		Drive Module in IP00 / Open type	

100 reasons to choose VACON® 100

This one-drive-for-all-applications makes VACON 100 your easy, economical solution to improved process control and energy savings.

DrivePro® Life Cycle services
Delivering a customized service experience!

We understand that every application is different. Having the ability to build a customized service package to suit your specific needs is essential.

DrivePro® Life Cycle Services is a collection of tailormade products designed around you. Each one engineered to support your business through the different stages of your AC drive's life cycle.

From optimized spare-part packages to condition-monitoring solutions, our products can be customized to help you achieve your business goals.

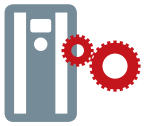
With the help of these products, we add value to your application by ensuring you get the most out of your AC drive.

When you deal with us, we also offer you access to training, as well as the application knowledge to help you in planning and preparation. Our experts are at your service.

You're covered
with DrivePro® Life Cycle service products

DrivePro® Retrofit
Minimize the impact and maximize the benefit

Manage the end of product lifecycle efficiently, with professional help to replace your legacy drives.
The DrivePro® Retrofit service ensures optimal uptime and productivity during the smooth replacement process.



DrivePro® Spare Parts
Plan ahead with your spare part package

In critical situations, you want no delays. With DrivePro® Spare Parts you always have the right parts on hand, on time. Keep your drives running at top efficiency, and optimize system performance.

DrivePro® Extended Warranty
Long-term peace of mind

Get the longest coverage available in the industry, for peace of mind, a strong business case and a stable, reliable budget. You know the annual cost of maintaining your drives, up to six years in advance.

DrivePro® Exchange
The fast, most cost-efficient alternative to repair

You obtain the fastest, most cost-efficient alternative to repair, when time is critical. You increase uptime, thanks to quick and correct replacement of the drive.

DrivePro® Upgrade
Maximize your AC drive investment

Use an expert to replace parts or software in a running unit, so your drive is always up-to-date. You receive an on-site evaluation, an upgrade plan and recommendations for future improvements.

DrivePro® Start-up
Fine-tune your drive for optimal performance today

Save on installation and commissioning time and cost. Get help from professional drives experts during start-up, to optimize drives safety, availability and performance.

DrivePro® Preventive Maintenance
Take preventive action

You receive a maintenance plan and budget, based on an audit of the installation. Then our experts perform the maintenance tasks for you, according to the defined plan.

DrivePro® Remote Expert Support
You can rely on us every step of the way

DrivePro® Remote Expert Support offers speedy resolution of on-site issues thanks to timely access to accurate information. With the secure connection, our drives experts analyze issues remotely reducing the time and cost involved in unnecessary service visits.

DrivePro® Remote Monitoring
Fast resolution of issues

DrivePro® Remote Monitoring offers you a system that provides online information available for monitoring in real time.
It collects all the relevant data and analyzes it so that you can resolve issues before they affect your processes.

To learn which products are available in your region, please reach out to your local Danfoss Drives sales office or visit our website
http://drives.danfoss.com/danfoss-drives/local-contacts/

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VACON® 100 **Innovation** and **high quality** for **hundreds** of **applications**

VACON® 100 AC drives are ideal for saving energy, optimizing process control and improving productivity. They are designed for multi-purpose use while remaining easy to install, easy to commission and easy to operate.

However VACON® 100 is not just one type of AC drive - it's a complete product family with flexibility in hardware and dedicated application packages. Furthermore it represents the core of what we do - providing innovative and reliable high quality AC drive solutions for key applications across many industries. The result is improved energy efficiency and productivity.

Quintex chooses **VACON® AC drives** -3,500 times!
Berkshire, UK

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VACON® 100 FLOW **improves water pumping**
Kristinestad, Finland

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VACON® 100 X to control **RUBBLE MASTER's** Compact crushers
Linz, Austria

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Discover more case stories for the VACON® 100 Drives family here:
https://www.danfoss.com/en/service-and-support/case-studies/

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