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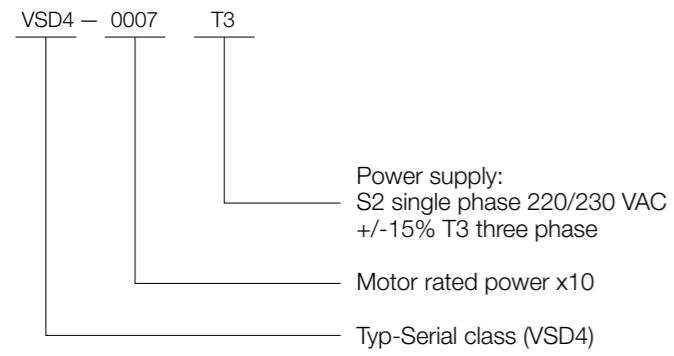
# VSD4

**0.4-90kW  
Frequency  
Inverter**

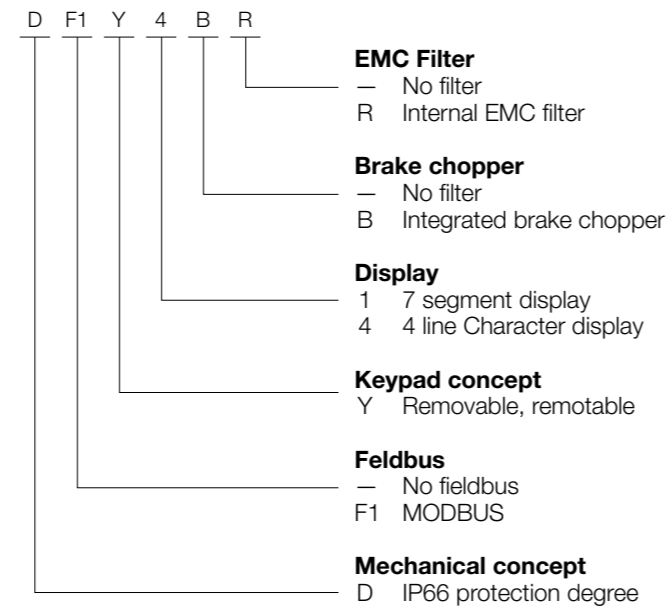


## Product data/product power range

### Product naming convention

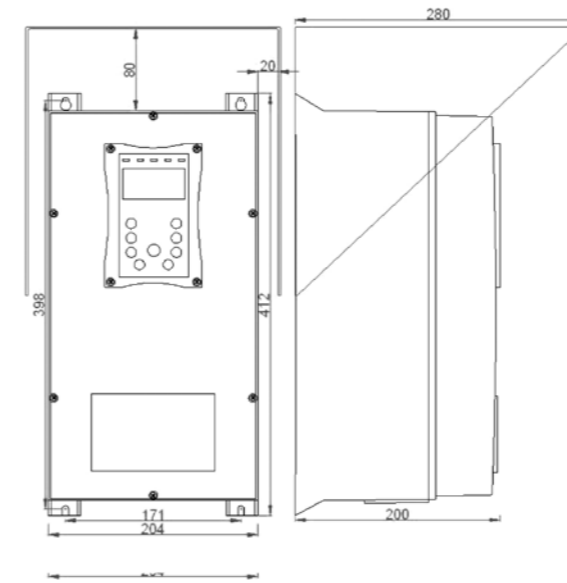


### Options

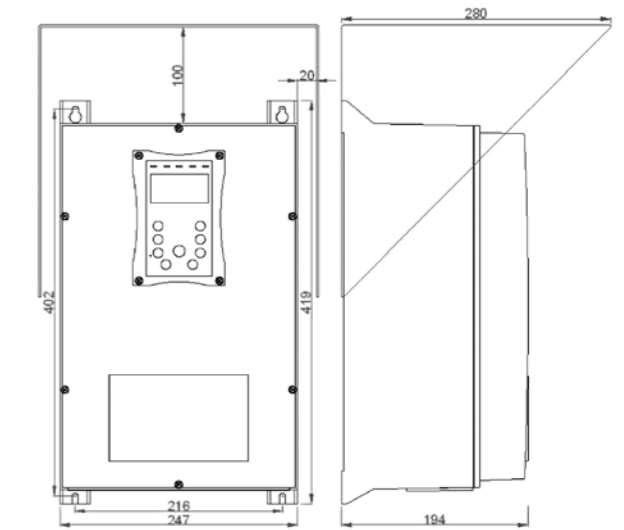


## Dimensions, footprint, shadowing

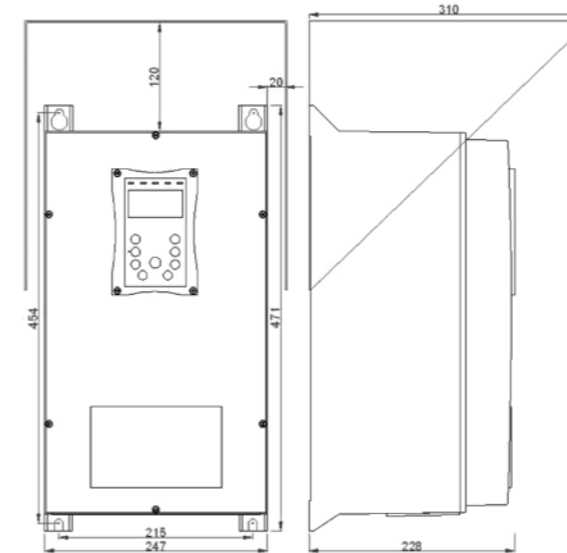
### Framesize I1



### Framesize I2



### Framesize I3



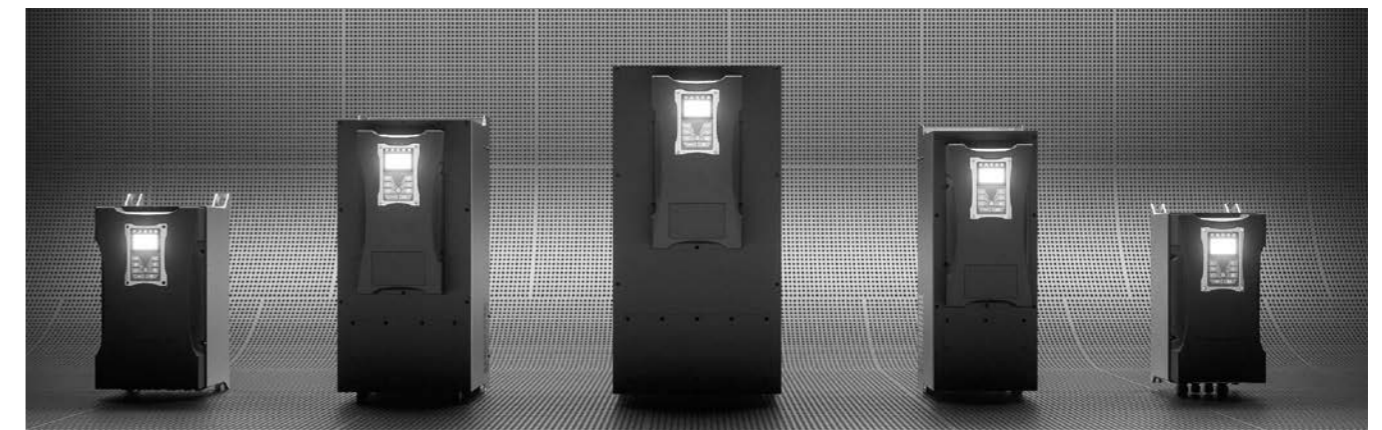
## Product range, framesizes

### 230V single phase/three phase

Model	Rated power / current	Input current	Framesize	Dimension (WxHxD - mm)	Weight (kg)	Brake chopper	Min. brake resistance value
VSD4-0004S211	0,4 kW - 2,5A	5A	I1	200x412x198	6,2	Integrated	80 Ohm
VSD4-0007S211	0,75 kW - 4,5A	9A					
VSD4-0015S211	1,5 kW - 7A	15A					
VSD4-0022S211	2,2 kW - 10A	22A					

### 400V three phase

Model	Rated power / current	Input current	Framesize	Dimension (WxHxD - mm)	Weight (kg)	Brake chopper	Min. brake resistance value	
VSD4-0007T311	0,75kW-2A	2,4A	I1	200x412x200	6,2	Integrated	150 Ohm/150W	
VSD4-0015T311	1,5kW-4A	4,6A						
VSD4-0022T311	2,2kW-6,5A	7A						
VSD4-0030T311	3,0kW-7A	9A						
VSD4-0040T311	4,0kW-9A	11A	I2	242x418x200	8,2		75 Ohm/500W	
VSD4-0055T3 I2	5,5kW-12A	16A						
VSD4-0075T3 I2	7,5kW-17A	20A	I3	242x471x230	11,3		75 Ohm/1000W	
VSD4-0110T3 I3	11kW-23A	29A						
VSD4-0150T3 I3	15kW-32A	37A	I4	241x650x325	25		30Ohm/1500W	
VSD4-0185T3 I4	18,5kW-38A	45A						
VSD4-0220T3 I4	22kW-44A	54A	I5	308x680x380	40		20Ohm/2000W	
VSD4-0300T3 I4	30kW-60A	72A						
VSD4-0370T3 I5	37kW-75A	85A	I6	370x770x405	57		15Ohm/3000W	
VSD4-0450T3 I5	45kW-90A	110A						
VSD4-0550T3 I5	55kW-110A	132A						
VSD4-0750T3 I1	75kW-150A	180A						
VSD4-0900T3 I1	90kW-180A	220A						



## Technical data Inverter series VSD4

<b>Power supply</b>	Rated voltage	3-phase 380...460V +/- 15% - 1phase 230V +/- 15%
	Input frequency	44...67 Hz
	EMC filter	Integrated for 2. environment (up to 90 kW)
<b>Output</b>	Output voltage	0.....U-input
	Output frequency	0.....650 Hz
	Resolution of output frequency	0,01 Hz
	Overload capability	150% - 60 sec. / 10 Min
<b>Control mode</b>	PWM control-modes	V/Hz - Mode SENSORLESS VECTOR (SLV) – Speed / torque control Permanentmagnet Synchronous Motor PMM control
	PWM frequency	0,8.....16 kHz
	V/Hz characteristic	Linear, quadratic, and user-programmable curve – Voltage setpoint
	Starting torque	150% rated torque at 0,5 Hz (in SLV mode)
	Torque boost	Automatic / manual
	Motor data input	Manual input / intelligent AUTOTUNING function
	Speed range	1:100 in SLV mode
	Speed precision	+/- 0,5% (SLV)
	Torque precision	+/- 5% (SLV)
	DC-Brake	Freq. threshold, duration and intensity programmable – DC injection
	Brake chopper	Integrated chopper transistor (Brake resistors – see product table)
<b>I/O Channels, control functions</b>	4 line LCD character display	For programming and visualization of different operating parameters
	Inverter control - Start/Stop	To configure: terminals / operation panel / serial link
	Digital control inputs	8 (6) digital inputs (HIGH/LOW configurable), pulse input
	Speed / torque reference signal	Potentiometer (on operating panel / Extern), analogue input (terminals), operating panel keys, pulse input, serial link
	Reference analogue channels	2 Analogue channels 0...10V, -10V/+10V, 0..(4)20 mA (with programmable offset, gain – to concatenate mathematically each other)
	Analogue outputs	2 (1) analogue output channels, both programmable in gain, different functions to assign (0...10V, 0..20 mA)
	Digital outputs	2 (1) digital outputs (different functions to assign)
	Relays output	1 switchover contact 5 A 230 V (programmable for different functions)
	Interface	Serial link (MODBUS – ASCII/RTU)
	Special function - control options	Jog mode, 12V / 50 mA auxiliary power supply on terminals PI-control / Pump control, Master/Slave control Fixed frequency control, programmable cycling frequency sequence "Catch on the fly function", AUTORESET/RESTART function
<b>Protections with fault memory</b>	Electrical protections	Overvoltage, undervoltage
		Overcurrent, overload, motor overload short circuit
		Phaseloss, moptor phase imbalance
Thermal protections	Ovetemperature, motor I2xt, motor PTC/KLIXON protection	
<b>Optionals</b>	Operating panel	Remote keypad / programming tool
	Brake resistors	High power resistors for heavy duty operation
	Filter / chokes	PFC chokes – dv/dt limiting output filter - sinusfilter
	Parameter copy stick	USB Stick with parameter duplication function – USB/RS485 converter k
	PC-Link Software (via MODBUS)	Special tool for programming, control and diagnostic (parameter set memory)
	Parameter copy	Parameter copy-stic
<b>Environmental conditions</b>	Protection	IP66
	Operating temperature	-10.....+50 °C
	Humidity	Max. 90 % not condensing, no corrosion
	Elavation	1000 m - 1% derating / 100m above
	Vibration	Max. 0,5 g
<b>Power range</b>	Size I1.....I6	0,2.....90 kW
<b>Standards</b>	EMC	EN61800-3(2004)
	Safety	EN61800-5-1 2003

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Be pumping partners

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subject to amendments

