

hydroo®

VSD5

**0.4 kW-400 kW
Frequency
Inverter**



VSD5

0.4 kW - 800 kW
Frequency
Inverter

Description

High-tech motor control concept, based on advanced DSP-technology - ready for V/Hz, SENSORLESS VECTOR, CLV and permanent magnet synchronous motor control PMSM.

Solar mode included on the standard version.

Intelligent AUTOTUNING functions for easy setup.

Compact in size, modular in concept, rugged construction, build for the worldwide market.

Flexible inverter control, dual high resolution analogue inputs, free mapping for all I/O channels.

Ready for all commonly used fieldbus systems.

Universal parameter-set for all kind of industrial and residential applications, including integrated PID/ controller routines.

Smart PC-tools for inverter control, parametrization and troubleshooting.

Parameter-duplication stick.

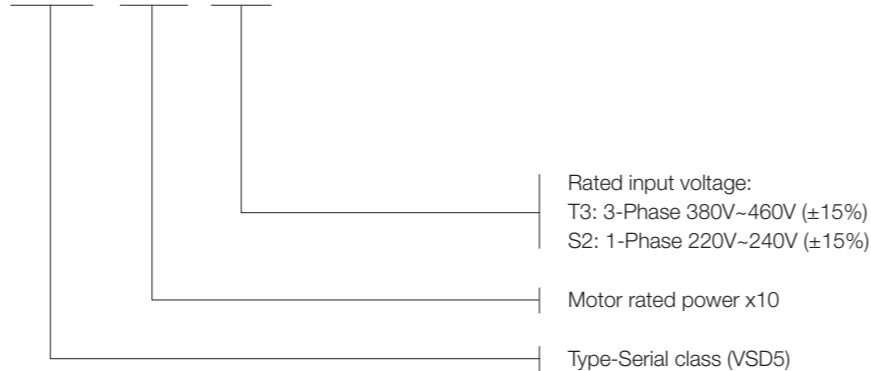
EMC filter(C3 class) integrated, optional C1 footprint filter.

Approved and certified for worldwide standards, by independent bodies.



Definition of model

VSD5 - 0007 T3



Products and framesizes

Model	Rated current	Dimensions (WxHxD-mm)
VSD5-0004 S2	0,4 kW - 2.5 A	80x138x135
VSD5-0007 S2	0,75 kW - 4,5 A	80x138x135
VSD5-0015 S2	1,5 kW - 7 A	106x180x150
VSD5-0022 S2	2,2 kW - 10 A	106x180x150
VSD5-0007 T3	0,75 kW - 2 A	106x180x150
VSD5-0015 T3	1,5 kW - 4 A	106x180x150
VSD5-0022 T3	2,2 kW - 6,5 A	106x180x150
VSD5-0030 T3	3,0 kW - 7 A	106x180x170
VSD5-0040 T3	4,0 kW - 9 A	138x235x152
VSD5-0055 T3	5,5 kW - 12 A	138x235x152
VSD5-0075 T3	7,5 kW - 17 A	156x265x170
VSD5-0110 T3	11 kW - 23 A	156x265x170
VSD5-0150 T3	15 kW - 32 A	205x340x196
VSD5-0185 T3	18,5 kW - 38 A	205x340x196
VSD5-0220 T3	22 kW - 44 A	205x340x196
VSD5-0300 T3	30 kW - 60 A	270x435x235
VSD5-0370 T3	37 kW - 75 A	315x480x235
VSD5-0450 T3	45 kW - 90 A	315x480x235
VSD5-0550 T3	55 kW - 110 A	360x555x265
VSD5-0750 T3	75 kW - 150 A	360x555x265
VSD5-0900 T3	90 kW - 180 A	410x630x300
VSD5-1100 T3	110 kW - 220 A	410x630x300
VSD5-1320 T3	132 kW - 265 A	516x765x326
VSD5-1600 T3	160 kW - 320 A	560x910x342
VSD5-1800 T3	180 kW - 360 A	560x910x342
VSD5-2000 T3	200 kW - 400 A	400x1310x385
VSD5-2200 T3	220 kW - 440 A	535x1340x380
VSD5-2500 T3	250 kW - 480 A	535x1340x380
E2000-2800 T3	280 kW - 530 A	600x1463x380
E2000-3150 T3	315 kW - 580 A	600x1463x380
E2000-3550 T3	355 kW - 640 A	600x1463x380
E2000-4000 T3	400 kW - 690 A	600x1593x380



LCD remote keypad cabinet **IP66**



Parameter **copy stick**

Technical data

Power input	Rated input voltage	3-Phase 380V-460V (+/-15%) 1-Phase 220V~240V (+/-15%)
	Input frequency	44...67 Hz
	EMC Filter	Integrated for 2. environment (C3) – C1 footprint filter as option
Motor output	Output voltage	0.....V-input
	Output frequency	0.....650 Hz (1500HZ OPTION)
	Frequency resolution	0,01 Hz
	Overload capability	150% - 60 sec / 10 min
Control Mode	Motor control algorithm	V/Hz-SpaceVector, SLV-SENSORLESS VECTOR,Torque/Speed control mode, CLV-Closed loop vector, Sensorless permanentmagnet synchronous motor control PMSM
	Chopper frequency	0.8...16 kHz (fixed / random pattern)
	V/Hz curve	Linear, exponential, and user-programmable curve
	Starting torque	150% rated torque at 0,5 Hz (in SLV Mode)
	Torque compensation	Automatic / Manual
	Motor data input	Manual, from nameplate / AUTOTUNING
	Control range	1:100 in SLV mode,1:1000 in CLV mode,1:20 in PMSM mode
	Speed precision	± 0,5% (SLV), ± 0.02% (CLV)
	Torque precision	± 5% (SLV)
	DC-Brake	User programmable functions
	Brake chopper	Chopper transistor integrated (up to 110 kW)
	Display	7 segment, 4 characters display
I/O channels, control functions	Inverter control	Via terminals / Keypad / Serial link (or combination of all)
	Digital inputs	6 (8) Dig. inputs (NPN-PNP selectable) pulstrain-input
	Speed reference input	Potentiometer (on keypad unit, external), analogue signal (terminals), Keypad control, pulstrain, serial link
	Analogue channels	2 analogue channels - 12 BIT: 0...10V, 0...5V, -10V...0...10V, 0...(4)20 mA, all free scalable in gain and offset, and mathematically concatenable
	Analogue outputs	2 analogue outputs, programmable in gain and function (0...10V, 0(4)..20 mA)
	Digital outputs	1(2) digital OC outputs (free mapping to different functions)
	Relais output	1 switchover contact 3A 250VAC/30VDC (programmable assignment)
	Data link	Serial link RS 485 (MODBUS ASCI/RTU)
Electronic protections with fault memory	Electrical	Over-voltage, under-voltage Over-current, overload, short circuit
	Thermal	Inverter over temperature, motor-overload I2xt simple PTC read-in
Options	Display	Remote display / keypad unit
	Brake chopper	Brake resistors for all kind of applications
	PC-software	Configuration-, control- and diagnosis-tools, parameter duplicating stick, IP66 remote keypad with 4 line
	Parameter stick	Character display
Environmental and operating conditions	Protection class	IP20 / IP21(optional)
	Working temperature	-10.....+50 °C
	Humidity	0 to 95% RH, non-condensing, non-corrosive
	Altitude	1000 m, above 1% derating / 100m
Power range	Vibration	Max. 0,5 g
	Power range	0,4.....400 kW
Standards	Electromagnetic compatibility	EN61800-3(2004)
	Safety	EN61800-5-1 2003

hydroo[®]
Be pumping partners

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subject to amendments

