

VM1000B

High Performance Variable Frequency Drive

VM1000B series inverter, wide power range design, covers most of the load motor range, suitable for all types of motor drives. Standard sufficient control signal terminals to meet the needs of complex automatic linkage control, standard 485 communication terminals can perform online control.



Widely used

- Products cover 0.75-400kW wide power range design, more suitable
- Standard with a variety of industry macro parameters to meet the needs of rapid application, and the variety is constantly expanding

Excellent performance

- Product standard V/F SVC control mode, maximum 1000Hz output (V/F mode), to meet more needs
- The product is equipped with overexciting braking function, which can realize fast braking with five braking resistors in certain occasions

Universal terminal

- Standard with 6 DI, 2 AI and other types of input and output terminals, to meet the needs of various types of signal on-line control

GP integration

- The GP integrated design scheme is more conducive to the selection based on actual needs and light load applications, reducing the additional cost of the system

1PH 200-240VAC 0.75-2.2kW
3PH 380-460VAC 0.75-400kW

Product model	VM1000B
Basic parameter performance	
Input voltage	1PH 200-240VAC, 3PH 380-460VAC, fluctuation range: -15%~+10%
Input frequency	50/60Hz±5%
Output voltage	0-Input voltage, Tolerance < 5%
Output frequency	VF: 0-1000Hz SVC: 320Hz
Control characteristic parameter	
Control mode	V/F mode SVC mode
Torque boost	0.0% automatic torque boost; Manual torque is increased by 0.1% ~ 30.0%
Speed range	1:20
Speed stability accuracy	±1.0%
Carrier frequency	0.6kHz-15kHz
Overload capacity	Model G: 150% rated current 60s, 180% rated current 1s; P-type machine: 120% rated current 60s, 150% rated current 1s
I/O terminal	
Input terminal	AI*2 DI*6
Output terminal	AO*1 (Models above 7.5kW has 2) Relay*1 (Models above 7.5kW has 2) FM*1
Others	RS485*1 10V*1 24V*1
Basic function of product	
Run command channel	Three kinds of channels: 1. Operation keyboard 2. Control terminal 3. RS485 communication port, switchable by many ways
Frequency source	Digital setting, Potentiometer of operation board, Analog Voltage Signal, Analog Current Signal, Communication port setting, switchable by many ways
DC braking function	Braking time: 0.0s ~ 100.0s, Braking action current value: 0.0% ~ 100.0%
V/F Curve	3 methods: linear, multi-point, square type
Simple PLC, multi-speed	Up to 16 segment speeds are possible with built-in PLC or control terminals
Built-in PID	The closed-loop control system can be easily realized
AVR function	When the grid voltage changes, it can automatically keep the output voltage constant
Control of over voltage, Over current, Speed stall	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to over voltage/over current
Rapid current limit	Decrease over current at max, protect VFD to operate regularly
Torque limit and control	Limit the torque automatically and prevent frequent over current tripping during the running process
Power-on safety self-check	To realize self checking of peripheral equipment at power on, such as grounding fault, short circuit fault, etc.
Timing control	Timing control range: 0h~65535h
Protection functions	Input and output phase loss protection, over current protection, over voltage protection, under voltage protection, overheat protection, overload protection, power-on relay fault detection, etc
Display & keyboard	
LED display	5 digit LED display
Parameter lock function	Set parameter read-only control to prevent mis-operations
MFK button	Programmable button: command channel switch/forward and reverse operation/click operation function selection/menu mode switch
Environment	
Place of use	Indoor and outdoor can be, to prevent rain directly, no corrosive/flammable gas, and etc.
Altitude	<1000m if >1000m, please derate 1% by every 100m rising
Ambient temperature	-10°C~40°C (MAX 50°C) if exceeding 40°C, please derate 1% by every 1°C increasing
Humidity	≤95%RH, to avoid condensation
Vibration	< 5.9m/s ² (0.6G)
Storage temperature	-25°C ~ 60°C
Protection class	IP20

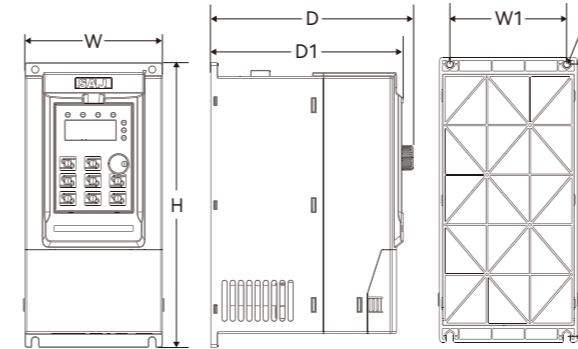
Model Description

VM1000B - 4 T 5R5 GB / PB - E						
Product series: VM1000B		E: English standard				
Voltage level: 2: 220V; 4: 380V; 5: 440V		P: Variable torque load; B: Built-in brake unit				
Phase: S : Single phase; T : Three phase		G: Constant torque load; B: Built-in brake unit				
Suitable motor power: R is the decimal point; For example 5R5 stands for 5.5kW						

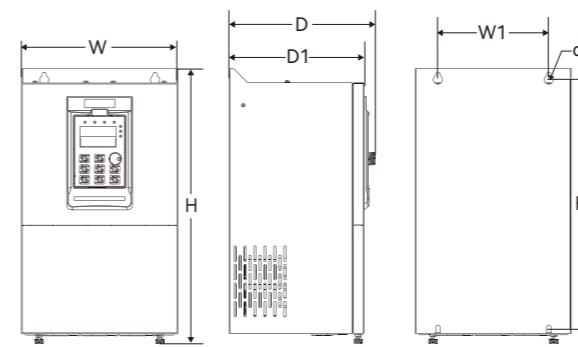
Selection List

Product model	Rated power (kW)	Power capacity (kVA)	Input current (A)	Output current (A)	Suitable motor B/P	
					kW	HP
1PH 200-240VAC Input, 3PH 0-220V Output						
VM1000B-2SR75GB-E	0.75	1.5	8.2	4.5	0.75	1
VM1000B-2S1R5GB-E	1.5	3	14	7	1.5	2
VM1000B-2S2R2GB-E	2.2	4	23	9.6	2.2	3
3PH 380-460VAC Input, 3PH 0-380V Output						
VM1000B-4TR75GB-E	0.75	1.5	3.4	2.5	0.75	1
VM1000B-4T1R5GB-E	1.5	3	5	3.8	1.5	2
VM1000B-4T2R2GB-E	2.2	4	5.8	5.1	2.2	3
VM1000B-4T004GB/5R5PB-E	4/5.5	5.9/8.9	10.5/14.6	9/13	4/5.5	5.5/7.5
VM1000B-4T5R5GB/7R5PB-E	5.5/7.5	8.9/11	14.6/20.5	13/17	5.5/7.5	7.5/10
VM1000B-4T7R5GB-E	7.5	11	20.5	17	7.5	10
VM1000B-4T011GB/015PB-E	11/15	17/21	26/35	25/32	11/15	15/20
VM1000B-4T015GB/018R5PB-E	15/18.5	21/24	35/38.5	32/37	15/18.5	20/25
VM1000B-4T018R5GB/022PB-E	18.5/22	24/30	38.5/46	37/45	18.5/22	25/30
VM1000B-4T022GB/030PB-E	22/30	30/40	46.5/62	45/60	22/30	30/40
VM1000B-4T030G/037P-E	30/37	40/57	62/76	60/75	30/37	40/50
VM1000B-4T037G/045P-E	37/45	57/69	76/92	75/91	37/45	50/60
VM1000B-4T045G/055P-E	45/55	69/85	92/113	91/110	45/55	60/70
VM1000B-4T055G/075P-E	55/75	85/114	113/157	112/150	55/75	70/100
VM1000B-4T075G/093P-E	75/93	114/134	157/180	150/170	75/93	100/125
VM1000B-4T093G/110P-E	93/110	134/160	180/214	170/210	93/110	125/150
VM1000B-4T110G/132P-E	110/132	160/192	214/256	210/253	110/132	150/180
VM1000B-4T132G/160P-E	132/160	192/231	256/307	253/304	132/160	180/220
VM1000B-4T160G/185P-E	160/185	231/245	307/345	304/340	160/185	220/250
VM1000B-4T185G/200P-E	185/200	245/260	345/385	340/377	185/220	250/275
VM1000B-4T200G/220P-E	200/220	260/280	385/430	377/426	200/220	275/300
VM1000B-4T220G/250P-E	220/250	280/355	430/468	426/465	220/250	300/340
VM1000B-4T250G/280P-E	250/280	355/396	468/525	465/520	250/280	340/380
VM1000B-4T280G/315P-E	280/315	396/445	525/590	520/585	280/315	380/430
VM1000B-4T315G/355P-E	315/355	445/500	590/665	585/650	315/355	430/480
VM1000B-4T355G/400P-E	355/400	500/565	665/785	650/725	355/400	480/545
VM1000B-4T400G-E	400	565	785	725	400	545

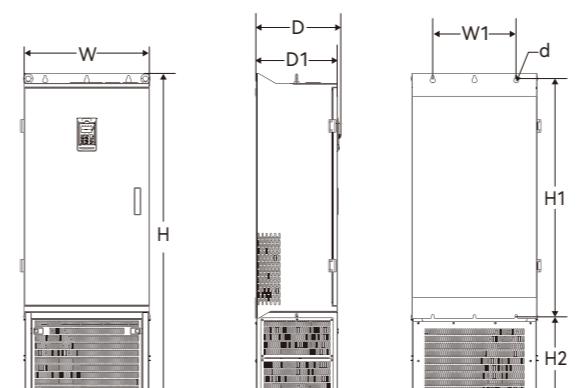
Size Specification (mm)



Product model	Dimensions				Installation		Hole
	H	W	D	D1	H1	W1	d
VM1000B-2SR75GB-E							
VM1000B-2S1R5GB-E							
VM1000B-2S2R2GB-E							
VM1000B-4TR75GB-E	187	88	138	130	177	73	5
VM1000B-4T1R5GB-E							
VM1000B-4T2R2GB-E							
VM1000B-4T004GB/5R5PB-E	207	100	147	139	197	85	5
VM1000B-4T5R5GB/7R5PB-E	247	130	167	159	237	113	5
VM1000B-4T7R5GB-E							



Product model	Dimensions				Installation		Hole
	H	W	D	D1	H1	W1	d
VM1000B-4T011GB/015PB-E	348	182	211	196	331	156	6
VM1000B-4T015GB/018R5PB-E							
VM1000B-4T018R5GB/022PB-E	373	220	205	190	356	156	6
VM1000B-4T022GB/030PB-E							
VM1000B-4T030G/037P-E	435	256	222	208	419	170	6
VM1000B-4T037G/045P-E							
VM1000B-4T045G/055P-E	543	310	280	265	523	245	10
VM1000B-4T055G/075P-E							
VM1000B-4T075G/093P-E							
VM1000B-4T093G/110P-E	580	358	328	314	560	270	10
VM1000B-4T110G/132P-E							



Note: H2 is the height of the base, 132-185kW base is not standard, 200-400kW base coordinate.

Product model	Dimensions				Installation		Hole	
	H	H2	W	D	D1	H1	W1	d
VM1000B-4T132G/160P-E								
VM1000B-4T160G/185P-E	1199	350	502	355	342	842	320	10
VM1000B-4T185G/200P-E								
VM1000B-4T200G/220P-E								
VM1000B-4T220G/250P-E	1570	426	600	408	398	1147	400	12
VM1000B-4T250G/280P-E								
VM1000B-4T280G/315P-E								
VM1000B-4T315G/355P-E	1696	426	800					