

SOHO VD  
INVERTER  
SERIES

# SOHO VD INVERTER 1000VAC



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## Features

### Various Combined Control Functions

- ☞ V/F, sensorless vector and sensed vector control methods.
- ☞ Synchronous control function (Master/Slave)
- ☞ MMI Program supported (Seoho Drive Manager)
- ☞ Variety of communications supported (Profibus, RS485/232C)
- ☞ VD is applied to fan, pump, blower, conveyor, compressor, presser, extruder and so on.

### PID Control Function

- ☞ It is valuable in process control. The built-in PID algorithm control flow, temperature, pressure, etc. through the proportional, integral and differential calculus between the feedback value and reference value in closed loop. The high speed CPU makes the calculation easy and fast
- ☞ PID Compensation function is available.
- ☞ General PID control function.

### Zero Torque Function

- ☞ Generates 150 - 200% torque at zero speed.

### Auto Tuning Function

- ☞ When vector control function (sensorless or sensed control) is used, Auto tuning function made the usage more convenient and easy to set parameters for optimized operation.

### Two Motors Control Function

- ☞ Two motors that are connected to the same shaft can be controlled by one inverter

### Improved Trouble Shooting

- ☞ Saving the conditions (trace data) of current, voltage, frequency, torque and etc. for 1 sec. before the inverter trip occurs



Main Connection	Input Voltage Range $V_{in}$		3 Phase 1000V <sub>ac</sub> ±10%
	Input Frequency		45Hz~66Hz
Rated Output	Output Voltage		0 ~ $V_{in}$
	Continuous Output current		$I_{CT}$ : ambient +40°C / +50°C Over load $1.5 \times I_{CT}$ (1min./10min.)
	Starting Torque		150%~200% (0.5Hz) in Sensorless V/F Control 150% ~200% (0Hz) in Sensorless Vector Control
	Output Frequency/speed		Sensorless : 0.0~300.0[Hz] Sensored : 0~8000 [rpm]
	Frequency/speed resolution		Sensorless V/F : 0.01Hz / 0.1Hz Sensorless & Sensored Vector : 1[rpm]
Control	Control Method		Sensorless V/F Frequency Control Sensorless Vector Speed Control Sensorless Torque Control Sensored Vector Speed Control Sensored Torque Control
	Acceleration/Deceleration Time		V/F Control 0.5~3000.0[sec] Sensorless & Sensored Vector Control - 0.00~3000.00[sec]
Environmental Limits	Ambient Operating Temperature		-10°C (no frost) ~ +50°C (refer to selection table)
	Storage Temperature		-40°C ~ +70°C
	Relative Humidity		0 to 95%RH, no condensation allowed
	Altitude		100% load capacity(no derating) up to 1000m 1-% derating for each 100m above 1000m, max.3000m
Protection Function	Over Voltage, Short Current, Over Current, Over Load, Zero Phase Current, Low Current, Low Voltage. Motor Over Speed, Out of Control, Initial Recharge Fault, External Fault Signal Detection, Signal Detection of Gate Drive Main Power and Wiring, Keypad Fault Detection, Auto Tuning Fault Detection, Software Default Detection.		
Control I/O Specification	Analog Input voltage		0V(-10V) ~ +10V <sub>DC</sub> , resolution 10bit
	Analog Input current		0(4) ~ 20mA, resolution 10bit
	Analog Output		0 (or 4) ~ 20mA, $R_L < 500\Omega$ , resolution 10bit
	Digital Output(DO3)		Multi-Function Output : 24Vdc, 50mA
	Relay Output	DO1	Multi-Function Output : AC 250V/1A or DC 30V/1A
		DO2	Multi-Function Output : AC 250V/1A or DC 30V/1A

## SOHO VD 1000V INVERTER Selection Table

MODEL	Frame	Ambient Operation Temperature @40°C			Ambient Operation Temperature @50°C (max)		
		I <sub>CT</sub> [A] Rated Continuous Current	I <sub>max</sub> [A] <sup>1)</sup> 150% Over Load Current	P[kW] <sup>2)</sup>	I <sub>CT</sub> [A] Rated Continuous Current	I <sub>max</sub> [A] <sup>1)</sup> 150% Over Load Current	P[kW] <sup>2)</sup>
SOHO 90 VD 12 N	L7B	55	83	90	44	66	72
SOHO 110 VD 12 N	L7B	73	101	110	54	81	88
SOHO 132 VD 12 N	L7B	82	122	132	57	85	92
SOHO 160 VD 12 N	L8B	103	147	160	84	125	136
SOHO 200 VD 12 N	L8B	128	184	200	98	147	160
SOHO 250 VD 12 N	L8B	160	230	250	109	164	178
SOHO 315 VD 12 N	L9B	202	290	315	159	238	258
SOHO 400 VD 12 N	L9B	255	369	400	177	265	288
SOHO 500 VD 12 N	L10B	307	461	500	246	369	400
SOHO 630 VD 12 N	L10B	403	605	630	271	406	441

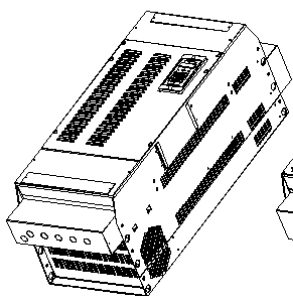
<sup>1)</sup> 60sec. per 600sec.

<sup>2)</sup> V<sub>n</sub> & V<sub>out</sub> = 1140VAC

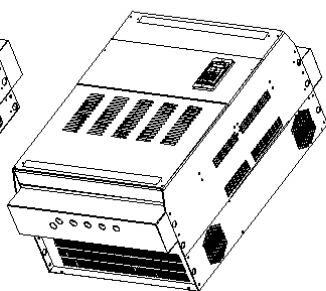
## SOHO VD 1000V INVERTER Dimensions

FRAME		W	H	D
IP00	L7B	404	938	431
IP00	L8B	740	1027	528
IP00	L9B	1000	1300	530
IP00	L10B	1200	1300	550

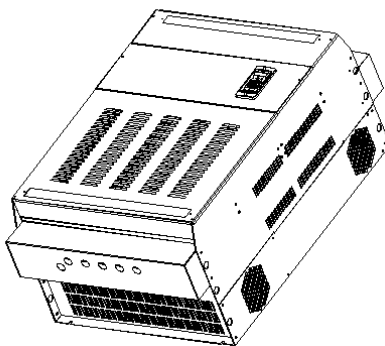
FRAME		W	H	D
IP20	L7B	404	1091	431
IP20	L8B	740	1180	528
IP20	L9B	1000	1435	530
IP20	L10B	1200	1435	550



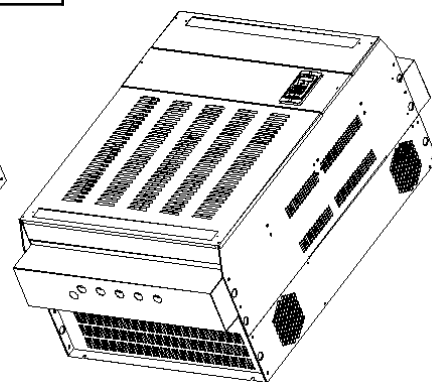
L7B



L8B



L9B



L10B