

VECTOR INVERTER

SOHO VD

5.5 ~ 90 kW / 200V

5.5 ~ 800kW / 400V

30 ~ 630 kW / 690V

110 ~ 630kW / 1140V



Drive & Control Systems

SOHO VD

FEATURE

Various Combined Control Functions

- V/F, sensorless vector and sensed vector control methods.
- VD is applied to fan, pump, crane, lifter, presser, extruder and so on.

Counter Deceleration Control Function

- This function is applied to cranes, lifts and etc. that need torque every moment.
- This is the same as negative-phase-sequence control by thyristor.

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.

PID Control Function

- It is valuable in process control. The built-in PID algorithm control flow, temperature, pressure, etc. through the proportional, intergral 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.



Multi-Motor Control Function

- Multi-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.



MMI Program(Seoho Drive Manager)



Monitoring

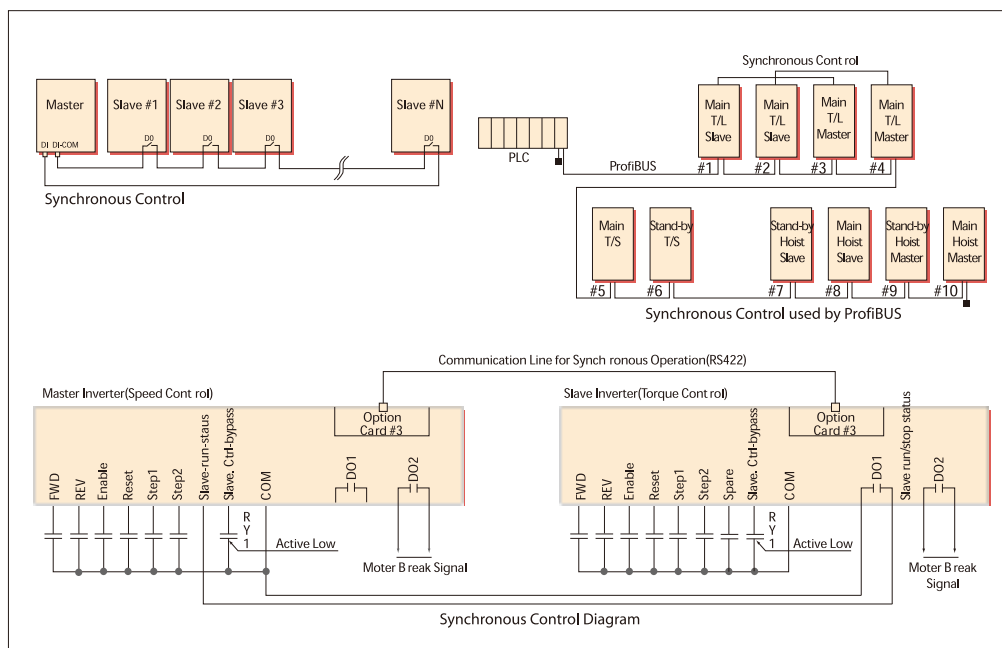


Trace(Waveform)

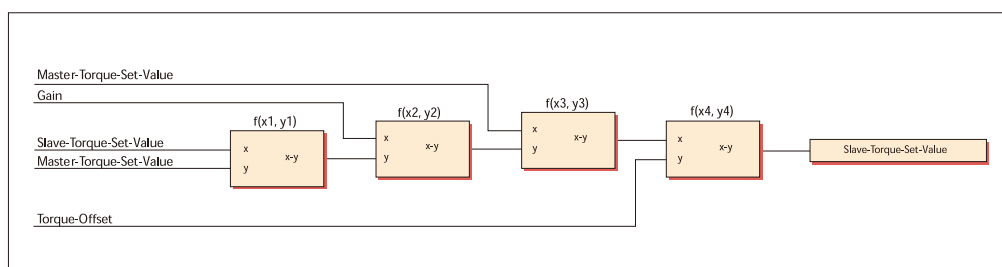


Fault Trace Data

Synchronous Control (Master/Slave)



Free Function Block



SOHO VD

APPLICATION

Crane / Lifter

Sensorless Vector Control / Sensored Vector Control

(Speed and Torque Control)

- The VD inverter realizes the sensorless control method that improves the control performance which is influenced by changing load or dropped torque at low speed.



Fan, Pump

- Applicable to various loads such as booster pump, ventilation facilities and etc.
- The process control through the proportional and integral calculus can maintain the process amount.
- PID Compensation function is available.



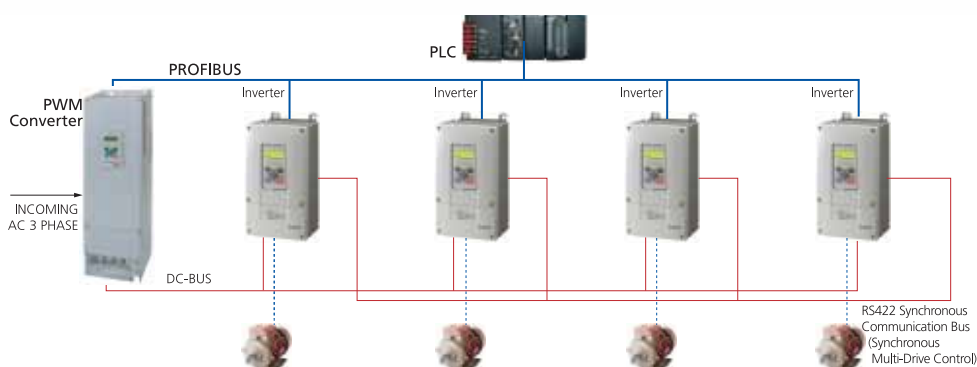
Extruder Control

- Controls torques, precision speed, and it has built-in over load protection function
- Realize precision control of speed within 0.3%



Winder

- Easy system design using the Free Function Block
- Tension control, and perform various math function



SOHO VD SPECIFICATION



Main Voltage 200V-230V, 50/60Hz

Inverter Type	P[kW]	I _{CT} [A]	Size	WxHxD(mm)	Kg
SOHO 5.5 VD2	5.5	22	K3B	195 X 368 X 183	13
SOHO 7.5 VD2	7.5	30			
SOHO 11 VD2	11	43			
SOHO 15 VD2	15	57	K4	285 X 490 X 246	18
SOHO 18.5 VD2	18.5	70			
SOHO 22 VD2	22	83			
SOHO 30 VD2	30	113	M7	250 X 850 X 330	41
SOHO 37 VD2	37	139			
SOHO 45 VD2	45	165			
SOHO 55 VD2	55	200	M8B	496 X 860 X 419	91
SOHO 75 VD2	75	270	(K8A)	(368 X 965 X 380)	-
SOHO 90 VD2	90	325	M8B	496 X 860 X 419	91
			(K8B)	(400 X 1040 X 417)	-

Main Voltage 380V-460V, 50/60Hz

Inverter Type	P[kW]	I _{CT} [A]	Size	WxHxD(mm)	Kg
SOHO 5.5 VD4	5.5	12	K3	195 X 368 X 183	7
SOHO 7.5 VD4	7.5	16			
SOHO 11 VD4	11	23.5			
SOHO 15 VD4	15	31	K3B	195 X 368 X 279	13
SOHO 18.5 VD4	18.5	38			
SOHO 22 VD4	22	45			
SOHO 30 VD4	30	61	K4	285 X 490 X 244	18
SOHO 37 VD4	37	72			
SOHO 45 VD4	45	88			
SOHO 55 VD4	55	107	M7	250 X 850 X 335	41
SOHO 75 VD4	75	146			
SOHO 90 VD4	90	174			
SOHO 110 VD4	110	212	M8B	496 X 860 X 435	91
SOHO 132 VD4	132	252	(K8A)	(368 X 965 X 382)	-
SOHO 160 VD4	160	305	M8B	496 X 860 X 435	91
SOHO 200 VD4	200	382	(K8B)	(400 X 1040 X 424)	-
SOHO 250 VD4	250	478	K9B	554 X 1050 X 443	150
SOHO 315 VD4	315	596			
SOHO 400 VD4	400	756			
SOHO 800 VD4	800	1430	K10	Contact us	192
			K11	Contact us	Contact us

Main Voltage 660V-690V, 50/60Hz

Inverter Type	P[kW]	I _{CT} [A]	Size	WxHxD(mm)	Kg
SOHO 30 VD6	30	35	N5	285 X 490 X 312	15
SOHO 37 VD6	37	42			
SOHO 45 VD6	45	50			
SOHO 55 VD6	55	61	N6	250 X 650 X 333	25
SOHO 75 VD6	75	84			
SOHO 90 VD6	90	100			
SOHO 110 VD6	110	122	N7	260 X 850 X 345	50
SOHO 132 VD6	132	145			
SOHO 160 VD6	160	175			
SOHO 200 VD6	200	220	N9	563 X 1000 X 434	110
SOHO 250 VD6	250	275			
SOHO 315 VD6	315	343			
SOHO 400 VD6	400	435	N10	743 X 1400 X 432	290
SOHO 500 VD6	500	544			

Main Voltage 1140V, 50/60Hz

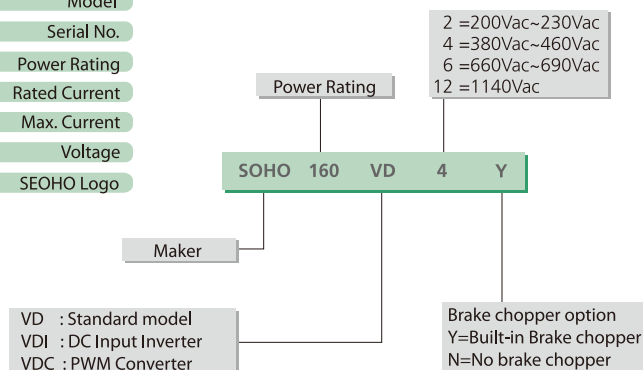
Inverter Type	P[kW]	I _{CT} [A]	Size	WxHxD(mm)	Kg
SOHO 250 VD12	250	160	L10	650x1500x433	180
SOHO 400 VD12	400	255			
SOHO 560 VD4	560	359	L11	Contact us	256
SOHO 630 VD4	630	403			

SPECIFICATION

Main Connection	Input Voltage V_{in}		▲ 3Phase 200Vac~230Vac, 380Vac~460Vac, 660Vac~690Vac 3Phase 1140Vac
	Input Frequency		▲ 50Hz ~ 60Hz (± 10%)
	Connection to the Main		▲ Don't turn on and off the inverter more than 1 time within 1 min.
Rated Output	Output Voltage		▲ 0 ~ 95% of V_{in}
	Continuous Output Current		▲ I_{ct} : ambient max. +40 °C ▲ Over load 1.5 X 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] / 0.0 ~ 3000.0[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 ▲ Sensored Vector Speed Control Sensorless V/F Speed Control Sensored Torque Control Sensorless Vector Speed Control Sensorless Torque Control
	Frequency reference	Analog I/P	▲ Resolution 10bit, accuracy ± 0.1%
		Keypad	▲ Resolution 0.01Hz / 0.1Hz
	Field weakening point		▲ Auto Tuning
	Acceleration Time		▲ V/F Control : 0.5 ~ 3000.0[sec] Sensorless & Sensored Vector Control : 0.00 ~ 3000.00[sec]
	Deceleration Time		▲ V/F Control : 0.5 ~ 3000.0[sec] Sensorless & Sensored Vector Control : 0.00 ~ 3000.00[sec]
Environmental Limits	Surrounding Temperature		▲ -10 °C ~ +40 °C
	Relative Humidity		▲ 90%, no condensation allowed
Protection Function	▲ Over Voltage, Over Current, Over Load, Zero Phase Current, Low Voltage, Low Current, 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, etc.		
Control I/O Specification	Analog Input Voltage		▲ 0V(-10V) ~ +10V _{DC} , resolution 10bit
	Analog Input Current		▲ 0(4) ~ 20mA, resolution 10bit
	Digital Input		▲ Negative Logic
	Aux. supply Voltage		▲ +24V ±20%, Max. 100mA
	Analog Output		▲ 0 (or 4) ~ 20mA, $R_L < 500 \Omega$, resolution 10bit
	Digital Output		▲ Multi-Function Output : 24V _{DC} , 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

INVERTER TYPE

Type	SOHO 160VD 4Y	Model
Serial No.	0701001D	Serial No.
Power Rating	160(kW)	Power Rating
Rated Current	325(A)	Rated Current
Max. Current	473(A)	Max. Current
Voltage	380(V)~460(V)	Voltage
 Seoho Electric		SEOHO Logo



Dynamic Brake Resistor

Please, ask the factory or the head office for details on recommended DBR for vertical loads and equipments that have a high frequency in use.

Capacity (kW) (400V Motor)	DBR Resistor (Ω)	60%ED (kW)	25%ED (kW)	Note
5.5	70.7	3.3	1.4	DBU Built-in
7.5	51.9	4.5	1.9	
11	35.4	6.6	2.8	
15	24.2	9.0	3.8	
18.5	19.6	11.1	4.6	
22	16.5	13.2	5.5	
30	12.1	18.0	7.5	
37	9.8	22.2	9	
45	8.1	27.0	11	
55	6.6	33.0	14	
75	4.8	45.0	19	
90	4.0	54.0	23	
110	3.3	66.0	28	
132	2.7	79.2	33	
160	2.3	96.0	40	
200	1.8	120.0	50	

Capacity (kW) (200V Motor)	DBR Resistor (Ω)	60%ED (kW)	25%ED (kW)	Note
5.5	18.1	3.3	1.4	DBU Built-in
7.5	13.3	4.5	1.9	
11	9.0	6.6	2.8	
15	6.2	9.0	3.8	
18.5	5.0	11.1	4.6	
22	4.2	13.2	5.5	
30	3.1	18.0	7.5	
37	2.5	22.2	9	
45	2.1	27.0	11	
55	1.7	33.0	14	
75	1.2	45.0	19	
90	1.0	54.0	23	

