

MD310 AC Drive

Open loop, general purpose, compact drive

Features & functions

- Open-loop V/F & sensorless vector control
- Starting torque
 - 150% at 0.5 Hz (SVC)
 - 100% at 1.0 Hz (V/F)
- Modbus or CANlink^{*1} comms
- Automatic torque boost
- Slip compensation
- Simplified parameters for easy set-up
- 4 independent S-Ramps
- Flexible programmable I/Os
- Variable DC-injection braking
- Comprehensive trip diagnostics
- Output frequency: 500 Hz
- Built-in dynamic braking unit

Wide operating voltage
three-phase 323 to 484 Vac
0.4 kW to 18.5 kW



Onboard Modbus RTU
(optional CANlink^{*1})

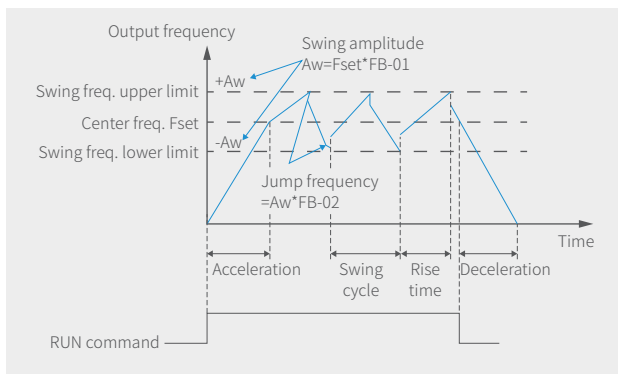
PC based software:
simplified start up and backup^{*2}

Operation in high ambient temperatures $\pm 50^{\circ}\text{C}$
Please note: If operating above 40°C , derating is required

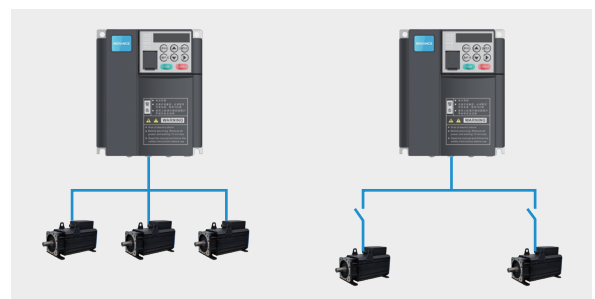


*1 CANlink is Inovance's proprietary serial comms offering.
*2 PC comms kit is required (optional accessory).

Textile wobble control



Able to control multiple motors



Control multiple motors simultaneously in V/F mode

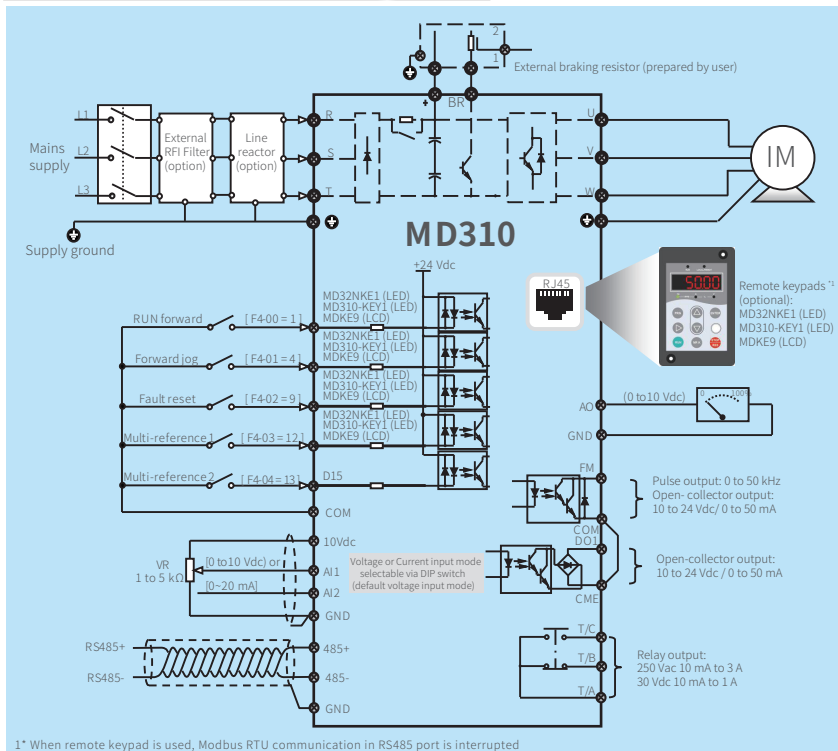
One drive can control 2 motors with different parameter sets at different times (SVC mode)

General specifications

Voltage class		Three-phase 380 Vac									
Drive model: MD310TxxxB-INT		0.4	0.7	1.5	2.2	3.7	5.5	7.5	11	15	18.5
Dimensions	Frame	Size 1				Size 2		Size 3		Size 4	
	Height	[H]: 128 mm				[H1]: 209 mm		[H1]: 260 mm		[H1]: 298 mm	
	Width	[W]: 108 mm				[W]: 130 mm		[W]: 140 mm		[W]: 180 mm	
	Depth	[D]: 158 mm				[D]: 164 mm		[D]: 171 mm		[D]: 176 mm	
Mass [kg]		1.1	1.1	1.3	1.3	2.3	2.3	3.4	3.4	5.6	5.6
Drive input	Rated input voltage	Three-phase 380 to 440 Vac, -15% to +10% (323 to 484 Vac)									
	Rated input current [A]	1.9	3.4	5	5.8	10.5	14.6	20.5	26	35	38.5
	Power capacity [kVA]	1	1.5	3	4	5.9	8.9	11	17	21	24
	Rated input frequency	50/60 Hz, $\pm 5\%$ (47.5 to 63 Hz)									
Drive output	Applicable motor [kW]	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5
	Output current [A] ¹	1.5	2.1	3.8	5.1	9	13	17	25	32	37
	Overload capacity	150% for 60 s & 180% for 2 s									
	Max. output voltage	380 to 440 Vac (proportional to input voltage)									
	Max. output frequency	500 Hz									
Braking resistor	Recommended power [W]	150	150	150	250	300	400	500	800	1,000	1,300
	Minimum resistance [Ω]	≥ 96.5	≥ 96.5	≥ 96.5	≥ 64.3	≥ 38.6	≥ 27.6	≥ 38.6	≥ 38.6	≥ 27.6	≥ 27.6
Enclosure		IP 20									

¹ Rated output current using a carrier frequency of 6 kHz

General connection diagram



¹ When remote keypad is used, Modbus RTU communication in RS485 port is interrupted

Dimensions

