

HV305

HVAC AC MICRODRIVE

The HV305 HVAC AC Microdrive combines sustainability, flexibility and ease of use by providing you with:

- Embedded BACnet MS/TP to connect to your building automation network
- UL/CSA compliance for A2L refrigerants
- Highly visual LED status ring to quickly let you know drive status



RATINGS

Power Output (HP)		208 V Models								480 V Models			
		Single-Phase				Three-Phase				Three-Phase			
Normal Duty (ND)	Heavy Duty (HD)	Catalog Code HV35U □□□□□□□□	Output Amps		Frame	Catalog Code HV35U □□□□□□□□	Output Amps		Frame	Catalog Code HV35U □□□□□□□□	Output Amps		Frame
			ND	HD			ND	HD			ND	HD	
1/6	1/6	BO01ABA	1.2	0.8	1.1	2001ABA	1.2	0.8	1.1				
1/4	1/4	BO02ABA	1.9	1.6	1.1	2002ABA	1.9	1.6	1.1				
1/2	1/2									4001ABA	1.2	1.2	2.1
3/4	1/2	BO04ABA	3.5	3	1.3	2004ABA	3.5	3	1.2				
1	3/4									4002ABA	2.1	1.8	2.2
1.5	1	BO06ABA	6	5	2.4	2006ABA	6	5	1.4				
2	2									4004ABA	4.1	3.4	2.4
3	2	BO10ABA	9.6	8	2.5	2010ABA	9.6	8	2.3				
3	3	BO12ABA	12.2	11	3.2					4005ABA	5.4	4.8	2.5
4	3					2012ABA	12.2	11	2.4	4007ABA	7.1	5.6	2.5
5	4									4009ABA	8.9	7.3	2.5
N/A	5	BO18ABA	N/A	17.6	4								
7.5	5					2021ABA	21	17.6	3.1	4012ABA	11.9	9.2	3.1
10	7.5					2030ABA	30	25	5				
10	10									4018ABA	17.5	14.8	5
15	10					2042ABA	42	33	5	4023ABA	23.4	18	5
20	15					2056ABM	56	47	6	4031ABA	31	24	6
25	20					2070ABM	70	60	7	4038ABA	38	31	6
30	25					2082ABM	82	75	7				

APPROXIMATE DIMENSIONS

Frame Size	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	2.5	3.1	3.2	4	5	6	7
Height	5.04 (128)												10.24 (260)	11.81 (300)	13.78 (350)
Width	2.68 (68)				4.25 (108)				5.51 (140)			6.69 (170)	5.51 (140)	7.09 (180)	8.66 (220)
Depth	2.99 (76)	4.25 (108)	4.65 (118)	5.04 (128)	3.19 (81)	3.90 (99)	5.08 (129)	5.41 (137)	6.06 (154)	5.63 (143)	6.42 (163)	7.09 (180)	5.51 (140)	5.63 (143)	7.36 (187)

Dimensions shown in inches (mm). Information on this page represents IP20 enclosures. For other enclosure types and enclosure adapters, please visit yaskawa.com.

HV305 SPECIFICATIONS

SPECIFICATIONS

Operating Environment	
Ambient Temperature	-10 to +50°C (IP20/Protected Chassis), -10 to +40°C (IP20/UL Type 1), up to +60°C with derating
Storage Temperature	-40 to +70°C (short-term temperature during transportation)
Humidity	95% RH or less (non-condensing)
Altitude	Up to 1000 m without derating, up to 4000 m with derating
Shock	10 to 20 Hz: 9.8 m/s ²
	20 to 55 Hz: 5.9 m/s ²
Protection Design	IP20/Protected Chassis (Standard), IP20/UL Type 1 kit (Optional)
Mounting	Side-by-side, DIN rail, external heatsink
Conformal Coating (PCBs)	IEC 60721-3-3, Class 3C2 (chemical gases), Class 3S2 (solid particles)
Standards	CE, UL, cUL, RCM, RoHS, UL and CSA compliance for A2L refrigerants
Power Ratings	
Overload Capacity	110%/1 min. (Normal Duty) or 150%/1 min. (Heavy Duty)
Rated Voltage	200 to 240 V, -15 to +10%
	380 to 480 V, -15 to +10%
Capacity Range	240 V, Single-phase: 1/6 to 5 HP (0.1 to 3.7 kW)
	240 V, Three-Phase: 1/6 to 30 HP (0.1 to 22 kW)
	480 V, Three-Phase: 1/4 to 25 HP (0.2 to 18.5 kW)
Input Frequency	50/60 Hz, +/-5%
Output Voltage Accuracy	+/-5%
Output Frequency	0 to 590 Hz
Control Method	V/f, Open Loop (IM/PM), Advanced Open Loop (PM), EZ Open Loop Vector
Motor Control	Induction Motor (IM), Interior or Surface Permanent Magnet Motor (IPM/SPM), Synchronous Reluctance Motor (SynRM)
Standard I/O	(7) multi-function digital inputs (24 VDC)
	(2) multi-function analog inputs (0 +/-10 VDC, 4-20 mA)
	(1) multi-function pulse input
	(2) hardware baseblock inputs
	(1) fault relay output (form C)
	(2) multi-function photocoupler outputs
	(1) multi-function analog output (0 - 10 VDC, 4-20 mA)
	(1) multi-function pulse output
Additional Functions	(1) RS-485 (Modbus RTU, BACnet MSTP)
	Integrated PID controller with sleep function, automatic main power loss ride through, speed search function for smooth start of coasting motors, braking with over-magnetization for fast stop without braking resistors, energy-saving function, automatic restart after failure, overvoltage suppression, virtual input/output custom configuration, application presets,vibration suppression
Options	
Communications (*Requires Additional Mounting Kit)	Standard: BACnet MS/TP, Modbus RTU Optional: BACnet/IP EtherNet/IP™, Modbus/TCP, PROFINET, *PROFIBUS, *DeviceNet
Additional Options	Bluetooth keypad, LCD keypad, Attachment for external heatsink, External EMC filters, AC reactors, DC chokes, Network communications adapter, LCD keypad attachment, braking resistors

IT'S PERSONAL

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