

HV600

Variable Frequency Drives for HVAC Building Automation

Pushing Expectations

The HV600 builds on decades of experience providing variable frequency drives for HVAC applications. Specifically designed for building automation applications, the HV600 helps minimize energy costs and maximize occupant comfort. The HV600 features a simple, efficient setup with a high contrast display and supports connection to your mobile device while using Yaskawa's free DriveWizard Mobile.

Available in IP20/UL Type 1, IP55/UL Type 12, and IP20/Protected Chassis versions, the HV600 is the perfect choice for reliable fan and pump control.



Drives Ratings

208V Models						
HP	NEMA kW (208 V) IEC kW (220 V)	Output Amps	Frame	Catalog Code HV60U□□□□□□□□		
				IP20/UL Type 1	IP55/UL Type 12	IP20/Protected Chassis
3	2.2	10.6	1	2011CFA	2011CVA	--
5	3.7	16.7	1	2017CFA	2017CVA	--
7.5	5.5	24.2	2	2024CFA	2024CVA	--
10	7.5	30.8	2	2031CFA	2031CVA	--
15	11	46.2	3	2046CFA	2046CVA	--
20	15	59.4	3	2059CFA	2059CVA	--
25	18.5	74.8	4	2075CFA	2075CVA	--
30	22	88	4	2088CFA	2088CVA	--
40	30	114	4	2114CFA	2114CVA	--
50	37	143	6	2143CFA	--	--
60	45	169	6	2169CFA	--	--
75	55	211	9	--	--	2211CBA
100	75	273	9	--	--	2273CBA

480V Models							
HP	NEMA kW (460V)	IEC kW (400V)	Output Amps	Frame	Catalog Code HV60U□□□□□□□□		
					IP20/UL Type 1	IP55/UL Type 12	IP20/Protected Chassis
3	2.2	1.5	4.8	1	4005CFA	4005CVA	--
5	3.7	3	7.6	1	4008CFA	4008CVA	--
7.5	5.6	4	11	1	4011CFA	4011CVA	--
10	7.5	5.5	14	1	4014CFA	4014CVA	--
15	11.2	7.5	21	2	4021CFA	4021CVA	--
20	15	11	27	2	4027CFA	4027CVA	--
25	18.6	15	34	2	4034CFA	4034CVA	--
30	22	18.5	40	3	4040CFA	4040CVA	--
40	30	22	52	3	4052CFA	4052CVA	--
50	37	30	65	3	4065CFA	4065CVA	--
60	45	37	77	4	4077CFA	4077CVA	--
75	56	45	96	4	4096CFA	4096CVA	--
100	75	55	124	4	4124CFA	4124CVA	--
125	93	75	156	6	4156CFA	--	--
150	112	90	180	9	--	--	4180CBA
200	150	110	240	9	--	--	4240CBA
250	186	160	302	10	--	--	4302CBA

Approximate Dimensions [in (mm)]

IP20/UL Type 1			
Frame	Height	Width	Depth
1	14.1 (357)	4.9 (124)	8.6 (218)
2	17.6 (447)	4.9 (124)	9.2 (233)
3	20.1 (510)	7.9 (200)	9.3 (237)
4	21.3 (542)	10 (255)	10.4 (263)
6	30.5 (774)	12.3 (312)	15.7 (400)

IP55/UL Type 12			
Frame	Height	Width	Depth
1	14.1 (357)	4.9 (124)	9 (228)
2	17.6 (447)	4.9 (124)	9.6 (243)
3	20.1 (510)	7.9 (200)	9.7 (247)
4	21.3 (542)	10 (255)	10.7 (273)

IP20/Protected Chassis			
Frame	Height	Width	Depth
9	27.6 (701)	12.3 (312)	16.5 (419)
10	31.5 (800)	17.3 (439)	18.6 (472)

Specifications

Item	Specifications
Input Voltage	Three-phase 200 to 240 VAC, 380 to 480 VAC, +10%/-15%, 50/60 Hz +/-5% For single phase input ratings, Contact Factory
Ambient Operating Temperature	-10°C to +50°C (14°F to 122°F), up to 60°C (140°F) with derating
Ambient Storage Temperature	-20°C to +70°C (-4°F to 158°F)
Overload Capacity	110% for 60 seconds, 140% for 2 seconds, 175% instantaneous
Output Frequency	0 to 400 Hz
Environmental	1,000 meters altitude, up to 4,000 meters with derating Class 3C2 and 3S2 operation for IP20/UL Type 1, Class 3C2 and 3S3 for IP55/UL Type 12 95% humidity, non-condensing IP20/UL Type 1 and IP55/Type 12 plenum rated
EMC and Harmonics	EMC filter built in; complies with IEC 61800-3 restricted distribution for first environment 5% split choke built in both positive and negative DC bus leg as standard
Control Methods	Open Loop V/f Open Loop Vector (PM motors only)
Motor Types	Induction Permanent Magnet Synchronous Reluctance
Protective Design Types	IP20/UL Type 1 IP55/UL Type 12 IP20/Protected Chassis
Interface	LCD keypad with Hand-Off-Auto and Status Ring, Bluetooth option
Global Certifications	UL, cUL, CE, RoHS 2, WEEE, TUV SUD
Functional Safety	Safe Torque Off, SIL3 according to IEC 62061, PLe according to ISO 1384
Standard I/O	(7) programmable multi-function digital inputs (24 VDC) (2) programmable multi-function analog inputs (0 to +10 VDC, 0-20 mA, 4-20 mA) (2) Functional Safety inputs (1) fault relay output (Form C) (3) programmable multi-function relay outputs (Form A) (2) programmable multi-function analog output (0 to +10 VDC, 0-20 mA, 4-20 mA)
24 VDC power	External supply input to maintain communications without main power 150 mA output for customer use
Network Communications	Built in: BACnet® MSTP, Siemens APOGEE® FLN P1, Johnson Controls Metasys® N2, and Modbus® RTU Optional: LonWorks®, EtherNet/IP™ and Modbus® TCP/IP
Software Support Tools	DriveWizard® HVAC DriveWizard Mobile Programming Simulator Energy Savings Predictor Harmonics Estimator DriveWorksEZ®