Altivar® 71 Drive
Selection Guide

Input/Output Cards

Cards	Reference
Basic I/O	VW3A3201
Extended I/O	VW3A3202

Communication Cards

Cards	Reference
Modbus Plus card	VW3A3302
Modbus/Uni-Telway™ card	VW3A3303
Modbus TCP/IP daisy chain	VW3A3310D
Interbus S card	VW3A3304
Profibus DP card	VW3A3307
Profibus DPv1 card	VW3A3307S371
DeviceNet card	VW3A3309
Ethernet card	VW3A3310
Ethernet/IP card	VW3A3316
FIPIO card	VW3A3311

Encoder Interface Cards

Cards	Reference
RS422 outputs, 5 Vdc	VW3A3401
RS422 outputs, 15 Vdc	VW3A3402
Open collector outputs, 12 Vdc	VW3A3403
Open collector outputs, 15 Vdc	VW3A3404
Push-pull outputs, 12 Vdc	VW3A3405
Push-pull outputs, 15 Vdc	VW3A3406
Push-pull outputs, 24 Vdc	VW3A3407
Resolver	VW3A3408 [1]
Universal with SinCos, SinCos Hiperface®, EnDat® or SSI output	VW3A3409 [1]
RS 422 outputs and encoder emulation	VW3A3411 [1]

Please contact your local Schneider Electric representative for control fan kit, heatsink mounting kit, NEMA Type 1 kits and any other additional accessories.

[1] For use with ATV71...383, synchronous motor drive.

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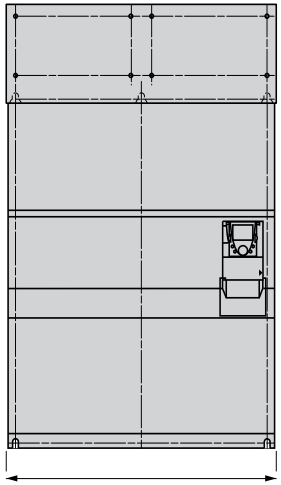
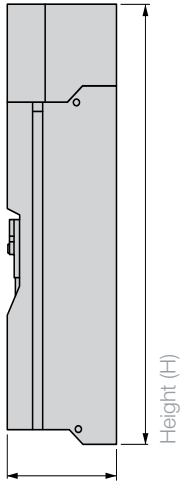
Schneider Electric

Frame size 14 Diagram



Width (W)



Depth (D)

Supply Voltage: 3-phase 208...240 V

kW	HP	Amps	Drive Reference	Dimensions (inches)		
				W	H	D
0.37	0.5	3	ATV71H037M3 [2, 5, 6]	5.12	9.03	6.89
0.75	1	4.8	ATV71H075M3 [2, 5, 6]			
1.5	2	8	ATV71HU15M3 [2, 5, 6]			
2.2	3	11	ATV71HU22M3 [2 ,5, 6]	6.10	10.24	7.36
3	4	13.7	ATV71HU30M3 [2, 5, 6]			
4	5	17.5	ATV71HU40M3 [2, 3, 5, 6]			
5.5	7.5	27.5	ATV71HU55M3 [2, 3, 5, 6]	6.89	11.61	7.36
7.5	10	33	ATV71HU75M3 [3, 5, 6]	8.27	11.61	8.39
11	15	54	ATV71HD11M3X [4, 5, 6]	9.06	15.75	8.39
15	20	66	ATV71HD15M3X [4, 5, 6]			
18	25	75	ATV71HD18M3X [4, 5, 6]	9.45	16.54	9.29
22	30	88	ATV71HD22M3X [4, 5, 6]			
30	40	120	ATV71HD30M3X [4, 5, 6]	12.60	21.65	10.47
37	50	144	ATV71HD37M3X [4, 5, 6]			
45	60	176	ATV71HD45M3X [4, 5, 6]			
55	75	221	ATV71HD55M3X [4, 6]	12.60	36.22	14.84
75	100	285	ATV71HD75M3X [4, 6]	14.17	40.24	14.84

Supply Voltage: 3-phase 380...480 V

kW	HP	Amps	Drive Reference	Dimensions (inches)		
				W	H	D
0.75	1	2.3	ATV71H075N4 [5, 6]	5.12	9.03	6.89
1.5	2	4.1	ATV71HU15N4 [5, 6]			
2.2	3	5.8	ATV71HU22N4 [5, 6]			
3	4	7.8	ATV71HU30N4 [5, 6]	6.10	10.24	7.36
4	5	10.5	ATV71HU40N4 [5, 6]			
5.5	7.5	14.3	ATV71HU55N4 [5, 6]	6.89	11.61	7.36
7.5	10	17.6	ATV71HU75N4 [5, 6]			
11	15	27.7	ATV71HD11N4 [5, 6]	8.27	11.61	8.39
15	20	33	ATV71HD15N4 [5, 6]	9.06	15.75	8.39
18	25	41	ATV71HD18N4 [6]			
22	30	48	ATV71HD22N4 [6]	9.45	16.54	9.29
30	40	66	ATV71HD30N4 [6]	9.45	21.65	10.47
37	50	79	ATV71HD37N4 [6]			
45	60	94	ATV71HD45N4 [6]	12.60	24.80	11.42
55	75	116	ATV71HD55N4 [6]			
75	100	160	ATV71HD75N4 [6]			
90	125	179	ATV71HD90N4 [6]	12.60	36.22	14.84
110	150	215	ATV71HC11N4 [6]	14.17	40.24	14.84
130	200	259	ATV71HC13N4 [6]	13.39	46.85	14.84
160	250	314	ATV71HC16N4 [6]	17.32	46.85	14.84
200	300	287	ATV71HC20N4 [6]	23.43	46.85	14.84
250	400	481	ATV71HC25N4 [6]			
280	450	550	ATV71HC28N4 [6]			
310	500	616	ATV71HC31N4 [6]	35.04	54.72	14.84
400	600	759	ATV71HC40N4 [6]			
500	700	941	ATV71HC50N4 [6]	44.09	54.72	14.84

[2] For single-phase 0.5 HP - 7 HP range, select the next rating up (Example: 3 HP - reference = ATV71HU30M3).
[3] A line choke is required when using this drive in single phase.
[4] Without EMC filter.

[5] For up to 15kW, add the letter “Z” to the end of the reference for an Altivar 71 drive incorporating a 7-segment LED display terminal.
[6] Add “383” at the end of the refernce for an Altivar 71 drive synchorous/ asynchronous motors.

Supply Voltage: 3-phase 500...690 V

kW	HP	Amps	Drive Reference	Dimensions (inches)		
				W	H	D
2.2	2	2.7	ATV71HU22Y	9.45	16.54	9.29
3	3	3.9	ATV71HU30Y			
4	4	–	ATV71HU40Y			
5.5	5	6.1	ATV71HU55Y			
7.5	7.5	9	ATV71HU75Y			
11	10	11	ATV71HD11Y			
15	15	17	ATV71HD15Y			
18.5	20	22	ATV71HD18Y			
22	25	27	ATV71HD22Y			
30	30	32	ATV71HD30Y			
37	40	41	ATV71HD37Y	12.60	24.80	11.42
45	50	52	ATV71HD45Y			
55	60	62	ATV71HD55Y			
75	75	77	ATV71HD75Y			
90	100	99	ATV71HD90Y			
110	125	125	ATV71HC11Y [7, 8]	13.39	46.85	14.84
132	150	150	ATV71HC13Y [7, 8]			
160	175	–	ATV71HC16Y [7, 8]			
200	200	220	ATV71HC20Y [7, 8]	23.43	46.85	14.84
250	250	290	ATV71HC25Y [7, 8]			
315	350	355	ATV71HC31Y [7, 8]			
400	450	420	ATV71HC40Y [7, 8]	44.09	54.72	14.84
500	550	543	ATV71HC50Y [7, 8]			
630	700	675	ATV71HC63Y [7, 8]			

Environmental Specifications

Operating Temperature	+14° to +122° F (-10° to +50° C) without derating, Up to 140° F (60° C) with derating
Storage Temperature	-13° to +158° F (-25° to +70° C)
Humidity	95% with no condensation or dripping water, conforming to IEC 600068-2-3
Altitude	3,300 ft. (1,000 m) without derating
	3,300-9,850 ft. (1,000-3,000 m) derate output current by 1% for each additional 330 ft. (100 m). Limited to 6,560 ft. (2,000 m) on a corner grounded distribution system.
Enclosure Rating	IP20 rating with optional conduit kits for UL Type 1
Pollution Degree	Pollution degree 2 and 3 per IEC/EN 61800-5-1 (depending on drive size). Option S337 provides protection per IEC 60721-3-3 Class 3C2
Vibration Resistance	1.5 mm peak to peak from 3 Hz to 13 Hz, 1gn from 13 Hz to 200 Hz conforming to IEC/EN 60068-2-6 or 1.5 mm peak to peak from 3 Hz to 10 Hz, 0.6 gn from 10 Hz to 200 Hz conforming to IEC/EN 60068-2-6 (depending on drive)
Shock Resistance	4, 7 or 15 gn for 11 milliseconds conforming to IEC/EN 600068-2-27 (depending on drive size)

The Altivar 71 drive gives you the resources to create unlimited machine possibilities.

[7] Line choke mandatory for ATV71HC11Y…HC63Y drives, unless a special transformer is used (12-pulse). The line choke must be ordered separately.
[8] Drive supplied without EMC mounting plate. This is included in the UL Type 1 to be ordered separately.

Electrical Specifications

Input Voltage	200 V -15% to 240 V +10%
	380 V -15% to 480 V +10%
	500 V -15% to 690 V +10%
Input Frequency	50 Hz -5% to 60 Hz +5%
Frequency Range of Power Converter	0 to 1600 Hz (depending on drive size)
Torque/overtorque	220% of nominal motor torque for 2 seconds, 170% for 60 seconds
Current (transient)	165% of nominal current for 2 seconds, 150% for 60 seconds
Switching Frequency	Selectable from 1 kHz to 16 kHz (ranges vary depending on drive)
Analog Inputs	0 V to +10 V and 4 mA to 20 mA
Analog Reference Resolution	0.1 Hz for 100 Hz (11 bits)
I/O Sampling Time	2 milliseconds ± 0.5 milliseconds on analog inputs and outputs, and logic inputs, 7 milliseconds ± 0.5 milliseconds on relay outputs
Power Removal/Run Permissive Input	24 Vdc input, for use to prohibit unitended equipment operation
Efficiency	98% at full load typical
Acceleration and Deceleration Ramps	0.1 to 999.9 seconds (definition in 0.1 second increments)
Skip Frequencies	Three configurable skip frequency/jump frequency bands
Motor Control Profiles	Flux vector control
	Sensorless vector (in current or voltage)
	V/Hz ratio (2 or 5 points)
	ENA system (energy adaptation for unbalanced loads)
	Synchronous motor with or without speed feedback (ATV71…383)
Speed Range	1001:1 closed loop
	100:1 open loop
	50:1 closed loop (ATV71…383)
Motor Protection	Class 10 electronic overload protection or PTC probe
Compliance	RoHS and WEEE (Waste Electrical and Electronic Equipment) compliant
Codes and Standards	UL, CSA, NOM 117, DNV, CE, C-Tick, GOST, ATEX, ABS. UL 1995 Plenum-rated, SEMI-F47 certified for voltage dip ride through

220%

Up to 220% overtorque

Schneider Electric - North American Operating Division

Automation and Control Center of Excellence
8001 Knightdale Blvd.
Knightdale, NC 27545
Tel: 919-266-3671
www.us.Schneider-Electric.com/Drives

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