Altivar® 312 drive selection guide

The Altivar 312 drive is designed to make industrial and commercial machines more energy efficient, while at the same time simplifying its integration into a single control system architecture. With the highest overtorque and the only drive with a remote graphic keypad in its class, the Altivar 312 drive is ideally suited to the needs of material handling, packaging, food & beverage, pump & fan, and other OEM machines. It also comes standard with integrated communications port for Modbus and CANopen networks, and optional cards for CANopen Daisy Chain, DeviceNet and Profibus DP.



Footnotes
[1] Integrated C2 EMC filter. C1 EMC filter available as an option
[2] No integrated EMC filter. C2 EMC filter available as an option
[3] Integrated C2 EMC filter up to 5 HP and C3 EMC filter over 5 HP C1 and C2 EMC filters available as an option

HP	kW	Amps	Drive Reference	Dimensions (in.)		
				W	H	D
Supply Voltage: Single-phase 208…240 V [1]						
0.25	0.18	1.5	ATV312H018M2	2.83	5.71	5.2
0.5	0.37	3.3	ATV312H037M2	2.83	5.71	5.2
0.75	0.55	3.7	ATV312H055M2	2.83	5.71	5.59
1	0.75	4.8	ATV312H075M2	2.83	5.71	5.59
1.5	1.1	6.9	ATV312HU11M2	4.21	5.63	5.98
2	1.5	8	ATV312HU15M2	4.21	5.63	5.98
3	2.2	11	ATV312HU22M2	5.59	7.24	5.98
Supply Voltage: Three-phase 208…240 V [2]						
0.25	0.18	1.5	ATV312H018M3	2.83	5.71	5.2
0.5	0.37	3.3	ATV312H037M3	2.83	5.71	5.2
0.75	0.55	3.7	ATV312H055M3	2.83	5.71	5.2
1	0.75	4.8	ATV312H075M3	2.83	5.71	5.2
1.5	1.1	6.9	ATV312HU11M3	4.13	5.63	5.2
2	1.5	8	ATV312HU15M3	4.13	5.63	5.2
3	2.2	11	ATV312HU22M3	4.21	5.63	5.98
4	3	13.7	ATV312HU30M3	5.59	7.24	5.98
5	4	17.5	ATV312HU40M3	5.59	7.24	5.98
7.5	5.5	27.5	ATV312HU55M3	7.09	9.13	6.77
10	7.5	33	ATV312HU75M3	7.09	9.13	6.77
15	11	54	ATV312HD11M3	9.64	12.99	7.56
20	15	66	ATV312HD15M3	9.64	12.99	7.56

HP	kW	Amps	Drive Reference	Dimensions (in.)		
				W	H	D
Supply Voltage: Three-phase 380...500 V [3]						
0.5	0.37	1.5	ATV312H037N4	4.13	5.63	5.2
0.75	0.55	1.9	ATV312H055N4	4.13	5.63	5.2
1	0.75	2.3	ATV312H075N4	4.13	5.63	5.2
1.5	1.1	3	ATV312HU11N4	4.21	5.63	5.98
2	1.5	4.1	ATV312HU15N4	4.21	5.63	5.98
3	2.2	5.5	ATV312HU22N4	5.59	7.24	5.98
4	3	7.1	ATV312HU30N4	5.59	7.24	5.98
5	4	9.5	ATV312HU40N4	5.59	7.24	5.98
7.5	5.5	14.3	ATV312HU55N4	7.09	9.13	6.77
10	7.5	17	ATV312HU75N4	7.09	9.13	6.77
15	11	27.7	ATV312HD11N4	9.64	12.99	7.56
20	15	33	ATV312HD15N4	9.64	12.99	7.56
Supply Voltage: Three-phase 525...600 V [2]						
1	0.75	1.7	ATV312H075S6	4.21	5.63	5.98
2	1.5	2.7	ATV312HU15S6	4.21	5.63	5.98
4	2.2	3.9	ATV312HU22S6	5.59	7.24	5.98
5	4	6.1	ATV312HU40S6	5.59	7.24	5.98
7.5	5.5	9	ATV312HU55S6	7.09	9.13	6.77
10	7.5	11	ATV312HU75S6	7.09	9.13	6.77
15	11	17	ATV312HD11S6	9.64	12.99	7.56
20	15	22	ATV312HD15S6	9.64	12.99	7.56

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Electrical Specifications

Input voltage	200 V -15% to 240 V +10%
	380 V -15% to 500 V +10%
	525 V -15% to 600 V +10%
Input frequency	50 Hz -5% to 60 Hz +5%
Output frequency	0.5 to 500 Hz
Torque/overtorque	170…200% of nominal motor torque
Current (transient)	150% for 60 seconds
Switching Frequency	Selectable from 2 kHz to 16 kHz (ranges vary depending on drive)
Functions	50
Preset speeds	16
Analogue inputs	3
Analogue outputs	1
Logic inputs	6
Relay outputs	2
Motor control profiles (asynchronous motors)	Voltage/frequency
	Sensorless flux vector control
	Quadratic ratio for pumps and fans
	Energy saving
Speed range	50:1
Codes and standards	UL, CSA, CE, NOM, GOST and C-Tick

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	3300 ft. (1000 m) without derating 3300-9850 ft. (1000-3000 m) derate output current by 1% for each additional 330 ft. (100 m). Limited to 6560 ft. (2000 m) on a single phase or a corner grounded distribution system.
Enclosure rating	IP20 rating with optional conduit kits for UL Type 1
Vibration resistance	Conforming to IEC 60068-2-6: 1.5 mm peak to peak from 3 Hz to 13 Hz, 1 gn from 13 to 150 Hz
Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27

Communication Options

Protocol	Reference
Profibus	VW3A31207
CANopen Daisy Chain	VW3A31208
DeviceNet	VW3A31209

Please contact your local Schneider Electric representative for NEMA Type 1 kits, Din rail mount kits, and any other additional accessories.

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