

# Variable speed drives

## Altivar Machine ATV320

Drives with compact control block, IP20



ATV320U02M2C...U07M2C



ATV320U11M2C...U22M2C  
ATV320U04N4C...U15N4C



ATV320U22N4C...  
ATV320U40N4C



ATV320U55M3C



ATV320U07S6C



ATV320U15S6C

### Drives with compact control block

Motor		Line supply				Altivar Machine ATV320				Reference (1)	Weight
Power indicated on rating plate (1)	Max. line current (2) (3)	Apparent power		Max. prospective line Isc (4)	Max. continuous output current (In) (1)	Max. transient current for 60s	Power dissipated at maximum output current (In) (1)				
		at U1	at U2					at U2			
kW	HP	A	A	kVA	kA	A	A			kg/lb	
<b>Single-phase supply voltage: 200...240 V 50/60 Hz, with integrated EMC filter (3) (5) (6)</b>											
0.18	0.25	3.4	2.8	0.7	1	1.5	2.3	21.7	ATV320U02M2C	0.800/1.278	
0.37	0.5	5.9	4.9	1.2	1	3.3	5	32.2	ATV320U04M2C	1.000/2.204	
0.55	0.75	7.9	6.6	1.6	1	3.7	5.6	41.7	ATV320U06M2C	1.100/2.425	
0.75	1	10	8.4	2	1	4.8	7.2	48.3	ATV320U07M2C		
1.1	1.5	13.8	11.6	2.8	1	6.9	10.4	65.6	ATV320U06M2C	1.600/3.527	
1.5	2	17.8	14.9	3.6	1	8	12	82.4	ATV320U15M2C		
2.2	3	24	20.2	4.8	1	11	16.5	109.6	ATV320U22M2C		
<b>Three-phase supply voltage: 200...240 V 50/60 Hz, without integrated EMC filter (3)</b>											
0.18	0.25	1.8	1.5	0.6	5	1.5	2.3	21	ATV320U02M3C	0.800/1.278	
0.37	0.5	3.1	2.6	1.1	5	3.3	5	34	ATV320U04M3C	0.900/1.984	
0.55	0.75	4.3	3.6	1.5	5	3.7	5.6	40	ATV320U06M3C	1.000/2.204	
0.75	1.0	5.6	4.7	2.0	5	4.8	7.2	49	ATV320U07M3C		
1.1	1.5	7.6	6.4	2.7	5	6.9	10.4	66	ATV320U11M3C	1.400/3.086	
1.5	2.0	10.0	8.4	3.5	5	8	12	69	ATV320U15M3C		
2.2	3.0	13.7	11.4	4.7	5	11	16.5	92	ATV320U22M3C		
3.0	3.0	17.4	14.6	6.1	5	13.7	20.6	109	ATV320U30M3C	2.200/4.850	
4.0	5.0	22.4	18.8	7.8	5	17.5	26.3	141	ATV320U40M3C		
5.5	7.5	33.7	28.4	11.8	22	27.5	41.3	261	ATV320U55M3C	3.500/7.716	
7.5	10.0	43.8	36.9	15.3	22	33	49.5	324	ATV320U75M3C	3.600/7.937	
11.0	15.0	60.1	50.7	21.1	22	54	81	528	ATV320D11M3C	6.800/14.991	
15.0	20.0	79.6	67.0	27.9	22	66	99	545	ATV320D15M3C	6.900/15.212	
<b>Three-phase supply voltage: 380...500 V 50/60 Hz, with integrated EMC filter (3) (5) (6)</b>											
0.37	0.5	2.1	1.6	1.4	5	1.5	2.3	28	ATV320U04N4C	1.200/2.646	
0.55	0.75	2.8	2.2	1.9	5	1.9	2.9	33	ATV320U06N4C		
0.75	1	3.6	2.8	2.4	5	2.3	3.5	38	ATV320U07N4C		
1.1	1.5	5	3.8	3.3	5	3	4.5	47	ATV320U11N4C	1.300/2.866	
1.5	2	6.4	4.9	4.2	5	4.1	6.2	61	ATV320U15N4C		
2.2	3	8.7	6.6	5.7	5	5.5	8.3	76	ATV320U22N4C	2.100/4.630	
3	4	11.1	8.4	7.3	5	7.1	10.7	94	ATV320U30N4C		
4	5	13.7	10.6	9.2	5	9.5	14.3	112	ATV320U40N4C	2.200/4.850	
<b>Three-phase supply voltage: 525...600 V 50/60 Hz, without integrated EMC filter (3) (7)</b>											
0.75	1	1.4	1.2	1.2	5	1.7	2.6	31	ATV320U07S6C	1.300/2.866	
1.5	2	2.4	2.1	2.2	5	2.7	4.1	40	ATV320U15S6C		
2.2	3	3.3	2.9	3.0	5	3.9	5.9	50	ATV320U22S6C	2.000/4.409	
4	5	6.0	5.5	5.7	5	6.1	9.2	72	ATV320U40S6C	2.500/5.511	
5.5	7.5	8.0	7.1	7.4	22	9.0	13.5	114	ATV320U55S6C	3.500/7.716	
7.5	10	11.2	10.2	10.6	22	11.0	16.5	136	ATV320U75S6C		
11	15	15.7	14.0	14.5	22	17.0	25.5	197	ATV320D11S6C	6.500/14.330	
15	20	22.1	20.0	20.8	22	22.0	33.0	228	ATV320D15S6C		

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation. The switching frequency is adjustable from 2 to 16 kHz. Above 4 kHz, derate the nominal drive current. The nominal motor current should not exceed this value (see derating curves).  
 (2) Typical value for a 4-pole motor and a maximum switching frequency of 4 kHz, with no line choke for max. prospective line Isc (4).  
 (3) Nominal supply voltage, min. U1, max. U2: 200 (U1)...240 V (U2), 380 (U1)...500 V (U2).  
 (4) If line Isc is greater than the values in the table, add line chokes.  
 (5) Drives supplied with category C2 integrated EMC filter. This filter can be disconnected.  
 (6) Drives are supplied with an EMC plate, for assembly by the customer.  
 (7) A line choke is mandatory with ATV320...S6C drives. To be ordered separately, see page 30.

ATV320\_63440\_OPF16028



ATV320U02M2B...U07M2B  
ATV320U04N4B...U15N4B

ATV320\_63440\_OPF160318



ATV320U11M2B...U22M2B  
ATV320U22N4B...U40N4B

ATV320\_63440\_OPF16036



ATV320U55N4B

ATV320\_63440\_OPF16038



ATV320D15N4B

Drives with book control block											
Motor		Line supply				Altivar Machine ATV320				Reference (1)	Weight
Power indicated on rating plate (1)		Max. line current (2),(3)		Apparent power	Max. prospective line Isc (4)	Max. continuous output current (In) (1)	Max. transient current for 60s	Power dissipated at maximum output current (In) (1)			
		at U1	at U2						at U2		
kW	HP	A	A	kVA	kA	A	A				kg/lb
<b>Single-phase supply voltage: 200...240 V 50/60 Hz, with integrated EMC filter (3) (5) (6)</b>											
0.18	0.25	3.4	2.8	0.7	1	1.5	2.3	25		ATV320U02M2B	2.400/5.291
0.37	0.5	6	5	1.2	1	3.3	5	38		ATV320U04M2B	2.500/5.511
0.55	0.75	7.9	6.7	1.6	1	3.7	5.6	42		ATV320U06M2B	
0.75	1	10.1	8.5	2	1	4.8	7.2	51		ATV320U07M2B	2.400/5.291
1.1	1.5	13.6	11.5	2.8	1	6.9	10.4	64		ATV320U11M2B	2.900/6.393
1.5	2	17.6	14.8	3.6	1	8	12	81		ATV320U15M2B	
2.2	3	23.9	20.1	4.8	1	11	16.5	102		ATV320U22M2B	
<b>Three-phase supply voltage: 380...500 V 50/60 Hz, with integrated EMC filter (3) (5) (6)</b>											
0.37	0.5	2.1	1.6	1.4	5	1.5	2.3	27		ATV320U04N4B	2.500/5.511
0.55	0.75	2.8	2.2	1.9	5	1.9	2.9	31		ATV320U06N4B	2.600/5.732
0.75	1	3.6	2.7	2.3	5	2.3	3.5	37		ATV320U07N4B	
1.1	1.5	5	3.8	3.3	5	3	4.5	50		ATV320U11N4B	2.500/5.511
1.5	2	6.5	4.9	4.2	5	4.1	6.2	63		ATV320U15N4B	
2.2	3	8.7	6.6	5.7	5	5.5	8.3	78		ATV320U22N4B	3.000/6.614
3	4	11.1	8.4	7.3	5	7.1	10.7	100		ATV320U30N4B	
4	5	13.7	10.5	9.1	5	9.5	14.3	125		ATV320U40N4B	
5.5	7.5	20.7	14.5	12.6	22	14.3	21.5	233		ATV320U55N4B	7.500/16.534
7.5	10	26.5	18.7	16.2	22	17	25.5	263		ATV320U75N4B	
11	15	36.6	25.6	22.2	22	27.7	41.6	403		ATV320D11N4B	8.700/19.180
15	20	47.3	33.3	28.8	22	33	49.5	480		ATV320D15N4B	8.800/19.401

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation. The switching frequency is adjustable from 2 to 16 kHz. Above 4 kHz, derate the nominal drive current. The nominal motor current should not exceed this value (see derating curves).

(2) Typical value for a 4-pole motor and a maximum switching frequency of 4 kHz, with no line choke for max. prospective line Isc (4).

(3) Nominal supply voltage, min. U1, max. U2: 200 (U1)...240 V (U2), 380 (U1)...500 V (U2), 525 (U1)...600 V (U2).

(4) If line Isc is greater than the values in the table, add line chokes.

(5) Drives supplied with category C2 integrated EMC filter. This filter can be disconnected.

(6) Connection in compliance with EMC standards:

- ATV320●●●M2B, ATV320U04N4B...ATV320U40N4B drives are supplied with an EMC plate. This is integral part of the power terminal; these 2 components cannot be separated.
- ATV320U55N4B...D15N4B drives are supplied with an EMC plate, for assembly by the customer.

# Variable speed drives

## Altivar Machine ATV320

IP66 drive without Vario and IP65 drive with Vario

ATV320\_63440\_CPMIGU18024



ATV320U02M2W  
...U40N4W

ATV320\_63440\_CPMIGU17058B



ATV320U55N4W,  
ATV320U75N4W

ATV320\_63440\_CPMIGU17056C



ATV320U02M2WS  
...U40N4WS

ATV320\_63440\_CPMIGU17060B



ATV320U55N4WS,  
ATV320U75N4WS

ATV320\_63440\_CPMIGU17068B



Drives for harsh environment IP66/IP65										
Motor		Line supply				Altivar Machine ATV320				
Power indicated on rating plate (1)	Max. line current (2) (3)	Apparent power		Max. prospective line Isc (4)	Max. continuous output current (In) (1)	Max. transient current for 60s	Power dissipated at maximum output current (In) (1)	Reference (1)	Weight	
		at U1	at U2							at U2
kW	HP	A	A	kVA	kA	A	A		kg/lb	
<b>Single-phase supply voltage: 200...240 V 50/60 Hz, with integrated EMC filter, IP66 (3) (5) (6)</b>										
0.18	0.25	3.4	2.8	0.7	1	1.5	2.3	22	ATV320U02M2W	5.000/11.023
0.37	0.5	5.9	4.9	1.2	1	3.3	5	32	ATV320U04M2W	5.100/11.243
0.55	0.75	7.9	6.6	1.6	1	3.7	5.6	42	ATV320U06M2W	
0.75	1	10	8.4	2	1	4.8	7.2	48	ATV320U07M2W	
1.1	1.5	13.8	11.6	2.8	1	6.9	10.4	66	ATV320U11M2W	7.400/16.314
1.5	2	17.8	14.9	3.6	1	8	12	82	ATV320U15M2W	
2.2	3	24	20.2	4.8	1	11	16.5	110	ATV320U22M2W	
<b>Three-phase supply voltage: 380...500 V 50/60 Hz, with integrated EMC filter, IP66 (3)</b>										
0.37	0.5	2.1	1.6	1.4	5	1.5	2.3	28	ATV320U04N4W	5.900/13.007
0.55	0.75	2.8	2.2	1.9	5	1.9	2.9	33	ATV320U06N4W	
0.75	1	3.6	2.8	2.4	5	2.3	3.5	38	ATV320U07N4W	
1.1	1.5	5	3.8	3.3	5	3	4.5	47	ATV320U11N4W	6.000/13.227
1.5	2	6.4	4.9	4.2	5	4.1	6.2	61	ATV320U15N4W	
2.2	3	8.7	6.6	5.7	5	5.5	8.3	76	ATV320U22N4W	7.700/16.975
3	4	11.1	8.4	7.3	5	7.1	10.7	94	ATV320U30N4W	
4	5	13.7	10.6	9.2	5	9.5	14.3	112	ATV320U40N4W	7.800/17.196
5.5	7.5	20.7	14.5	12.6	5	14.3	21.5	233	ATV320U55N4W	22.000/48.501
7.5	10	26.5	18.7	16.2	5	17.0	25.5	263	ATV320U75N4W	
<b>Single-phase supply voltage: 200...240 V 50/60 Hz, with integrated EMC filter, IP65, with vario (3) (5) (6)</b>										
0.18	0.25	3.4	2.8	0.7	1	1.5	2.3	22	ATV320U02M2WS	5.400/11.904
0.37	0.5	5.2	4.3	1.0	1	3.3	5	32	ATV320U04M2WS	5.500/12.125
0.55	0.75	6.8	5.7	1.4	1	3.7	5.6	42	ATV320U06M2WS	5.500/12.125
0.75	1	8.8	7.4	1.8	1	4.8	7.2	48	ATV320U07M2WS	
1.1	1.5	12.2	10.3	2.5	1	6.9	10.4	66	ATV320U11M2WS	7.800/17.196
1.5	2	16.0	13.4	3.2	1	8	12	82	ATV320U15M2WS	
2.2	3	22.1	18.5	4.4	1	11	16.5	110	ATV320U22M2WS	
<b>Three-phase supply voltage: 380...500 V 50/60 Hz, with integrated EMC filter, IP65, with vario (3)</b>										
0.37	0.5	1.8	1.4	1.2	5	1.5	2.3	28	ATV320U04N4WS	6.300/13.889
0.55	0.75	2.4	1.9	1.6	5	1.9	2.9	33	ATV320U06N4WS	
0.75	1	3.2	2.4	2.1	5	2.3	3.5	38	ATV320U07N4WS	
1.1	1.5	4.4	3.4	2.9	5	3	4.5	47	ATV320U11N4WS	6.400/14.109
1.5	2.0	5.8	4.4	3.8	5	4.1	6.2	61	ATV320U15N4WS	
2.2	3.0	8.0	6.1	5.3	5	5.5	8.3	76	ATV320U22N4WS	8.100/17.857
3.0	3.0	10.3	7.8	6.8	5	7.1	10.7	94	ATV320U30N4WS	
4.0	5.0	12.9	9.9	8.6	5	9.5	14.3	112	ATV320U40N4WS	8.200/18.077
5.5	7.5	19.8	15.2	13.2	5	14.3	21.5	233	ATV320U55N4WS	22.700/50.044
7.5	10.0	25.5	19.6	17.0	5	17.0	25.5	263	ATV320U75N4WS	

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation. The switching frequency is adjustable from 2 to 16 kHz. Above 4 kHz, derate the nominal drive current. The nominal motor current should not exceed this value (see derating curves).

(2) Typical value for a 4-pole motor and a maximum switching frequency of 4 kHz, with no line choke for max. prospective line Isc (4).

(3) Nominal supply voltage, min. U1, max. U2: 200 (U1)...240 V (U2), 380 (U1)...500 V (U2).

(4) If line Isc is greater than the values in the table, add line chokes.

(5) Drives supplied with category C2 integrated EMC filter. This filter can be disconnected.

(6) Drives are supplied with an EMC plate, for assembly by the customer.