



Short Circuit Current Ratings (SCCR) and branch circuit protection

The combinations in the table below have been tested per UL61800-5-1. (Reference UL file E116875)

ATV320 are provided with integral overload and over-speed protection for the motor after activation of the function [Mot THR memo] $\pi \text{ E } \pi$.

(For more information refer to the [ATV320 programming manual NVE41295](#)).

Protection at 100% of the full load motor current. The motor thermal protection current [Mot. therm. current] , E H must be set to the rated current indicated on the motor nameplate.

The values for the overcurrent protection devices are the maximum allowable amp rating. Smaller amp ratings may be used.

The opening of the branch circuit protective device may be an indication that a fault current has been interrupted.

⚠ ⚠ DANGER**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Current-carrying parts and other components of the controller should be examined and replaced if damaged.
- If burnout of the current element of an overload relay occurs, the complete overload relay must be replaced.

Failure to follow these instructions will result in death or serious injury.

Altivar 320 AC Drive Short Circuit Current Ratings ¹ With Enclosure, No Line Reactor				SCCR			Minimum Enclosure Volume		With Circuit Breaker	With GV•P			Fuses
										PowerPact ³ Catalog Number	GV2P/3P	GV•P	
Input Voltage	Power Rating		Catalog Number ⁸	(kA)	(liter)	(inch ³)		Type E ⁴	Voltage Rating (V)	Power ⁷ (HP)	(A)		
	(kW)	(HP)											
208/230 V Single phase	0.18	1/4	ATV320U02M2•	1	53	3223	H•L36015	GV2P08	240	1	7		
	0.37	1/2	ATV320U04M2•	1	53	3223	H•L36015	GV2P10	240	1.5	15		
	0.55	3/4	ATV320U06M2•	1	53	3223	H•L36015	GV2P14	240	3	25		
	0.75	1	ATV320U07M2•	1	53	3223	H•L36015	GV3P13 ⁵	240	4	25		
	1.1	1 1/2	ATV320U11M2•	1	53	3223	H•L36020	GV3P18 ⁵	240	5	25		
	1.5	2	ATV320U15M2•	1	53	3223	H•L36030	GV3P25 ⁵	240	7.5	40		
	2.2	3	ATV320U22M2•	1	53	3223	H•L36035	GV3P25 ⁵	240	7.5	45		
	4	5	ATV320U75M3C	1	53	3223	H•L36050	GV3P50 ⁵	240	15	70		
	5.5	7.5	ATV320D11M3C	5	53	3223	H•L36070	GV3P65 ⁵	240	20	100		
7.5	10	ATV320D15M3C	5	53	3223	H•L36090	-	-	-	100			
208/230 V Three phase	0.18	1/4	ATV320U02M3C	5	53	3223	H•L36015	GV2P08	240	1	5		
	0.37	1/2	ATV320U04M3C	5	53	3223	H•L36015	GV2P08	240	1	7		
	0.55	3/4	ATV320U06M3C	5	53	3223	H•L36015	GV2P10	240	1.5	15		
	0.75	1	ATV320U07M3C	5	53	3223	H•L36015	GV2P10	240	1.5	15		
	1.1	1 1/2	ATV320U11M3C	5	53	3223	H•L36015	GV2P14	240	3	25		
	1.5	2	ATV320U15M3C	5	53	3223	H•L36015	GV2P14	240	3	25		
	2.2	3	ATV320U22M3C	5	53	3223	H•L36020	GV3P18 ⁵	240	5	25		
	3	-	ATV320U30M3C	5	53	3223	H•L36020	GV3P18 ⁵	240	5	45		
	4	5	ATV320U40M3C	5	53	3223	H•L36030	GV3P25 ⁵	240	7.5	45		
	5.5	7.5	ATV320U55M3C	22	53	3223	H•L36040	GV3P40 ⁵	240	15	60		
	7.5	10	ATV320U75M3C	22	53	3223	H•L36050	GV3P50 ⁵	240	15	70		
11	15	ATV320D11M3C	22	53	3223	H•L36070	GV3P65 ⁵	240	20	100			
15	20	ATV320D15M3C	22	53	3223	H•L36090	-	-	-	100			
480 V Single phase	0.37	1/2	ATV320U07N4•	5	53	3223	H•L36015	GV2P08	480Y/277	2	6		
	0.55	3/4	ATV320U11N4•	5	53	3223	H•L36015	GV2P08	480Y/277	2	12		
	0.75	1	ATV320U15N4•	5	53	3223	H•L36015	GV2P10	480Y/277	3	12		
	1.1	1 1/2	ATV320U22N4•	5	53	3223	H•L36015	GV2P14	480Y/277	5	15		
	1.5	2	ATV320U30N4•	5	53	3223	H•L36015	GV2P14	480Y/277	5	17.5		
	2.2	3	ATV320U40N4•	5	53	3223	H•L36015	GV3P13 ⁵	480Y/277	7.5	25		
	3	-	ATV320U55N4B	22	53	3223	H•L36020	GV3P18	480Y/277	10	40		
	4	5	ATV320U75N4B	22	53	3223	H•L36030	GV3P25	480Y/277	15	40		
	5.5	7.5	ATV320D11N4B	22	53	3223	H•L36040	GV3P32	480Y/277	20	60		
7.5	10	ATV320D15N4B	22	53	3223	H•L36050	GV3P40	480Y/277	25	60			
480 V Three phase	0.37	1/2	ATV320U04N4•	5	53	3223	H•L36015	GV2P07	480Y/277	1	6		
	0.55	3/4	ATV320U06N4•	5	53	3223	H•L36015	GV2P07	480Y/277	1	6		
	0.75	1	ATV320U07N4•	5	53	3223	H•L36015	GV2P08	480Y/277	2	6		
	1.1	1 1/2	ATV320U11N4•	5	53	3223	H•L36015	GV2P08	480Y/277	2	12		
	1.5	2	ATV320U15N4•	5	53	3223	H•L36015	GV2P10	480Y/277	3	12		
	2.2	3	ATV320U22N4•	5	53	3223	H•L36015	GV2P14	480Y/277	5	15		
	3	4	ATV320U30N4•	5	53	3223	H•L36015	GV2P14	480Y/277	5	17.5		
	4	5	ATV320U40N4•	5	53	3223	H•L36015	GV3P13 ⁵	480Y/277	7.5	25		
	5.5	7.5	ATV320U55N4B	22	53	3223	H•L36020	GV3P18	480Y/277	10	40		
	7.5	10	ATV320U75N4B	22	53	3223	H•L36030	GV3P25	480Y/277	15	40		
	11	15	ATV320D11N4B	22	53	3223	H•L36040	GV3P32	480Y/277	20	60		
15	20	ATV320D15N4B	22	53	3223	H•L36050	GV3P40	480Y/277	25	60			

Altivar 320 AC Drive Short Circuit Current Ratings ² With Enclosure And Line Reactor				Line Reactor Minimum Value	Minimum Enclosure Volume		With Circuit Breaker		With GV•P				Fuses	
Input Voltage 60 Hz	Power Rating		Catalog Number ⁸				PowerPact ³ Catalog Number	SCCR	GV2P/3P	GV•P		SCCR	600 V Class J ⁶	SCCR
	(kW)	(HP)							Type E ⁴	Voltage Rating	Power ⁷			
				(mH)	(liter)	(inch3)		–						
208/ 230 V Single phase	0.18	1/4	ATV320U02M2•	2.5	53	3223	H•L36015	65	GV2P08	240	1	65	7	100
	0.37	1/2	ATV320U04M2•	2.5	53	3223	H•L36015	65	GV2P10	240	1.5	65	15	100
	0.55	3/4	ATV320U06M2•	2.5	53	3223	H•L36015	65	GV2P14	240	3	65	25	100
	0.75	1	ATV320U07M2•	2.5	53	3223	H•L36015	65	GV3P13 ⁵	240	4	65	25	100
	1.1	1 1/2	ATV320U11M2•	1	53	3223	H•L36020	65	GV3P18 ⁵	240	5	65	25	100
	1.5	2	ATV320U15M2•	1	53	3223	H•L36030	65	GV3P25 ⁵	240	7.5	65	40	100
	2.2	3	ATV320U22M2•	1	53	3223	H•L36035	65	GV3P25 ⁵	240	7.5	65	45	100
	4	5	ATV320U75M3C	0.4	53	3223	H•L36050	65	GV3P50 ⁵	240	15	65	70	100
	5.5	7.5	ATV320D11M3C	0.3	53	3223	H•L36070	65	GV3P65 ⁵	240	20	65	100	100
	7.5	10	ATV320D15M3C	0.2	53	3223	H•L36090	65	-	-	-	65	100	100
208/ 230 V Three phase	0.18	1/4	ATV320U02M3C	6.4	53	3223	H•L36015	65	GV2P08	240	1	65	5	100
	0.37	1/2	ATV320U04M3C	6.4	53	3223	H•L36015	65	GV2P08	240	1	65	7	100
	0.55	3/4	ATV320U06M3C	6.4	53	3223	H•L36015	65	GV2P10	240	1.5	65	15	100
	0.75	1	ATV320U07M3C	6.4	53	3223	H•L36015	65	GV2P10	240	1.5	65	15	100
	1.1	1 1/2	ATV320U11M3C	1.5	53	3223	H•L36015	65	GV2P14	240	3	65	25	100
	1.5	2	ATV320U15M3C	1.5	53	3223	H•L36015	65	GV2P14	240	3	65	25	100
	2.2	3	ATV320U22M3C	1	53	3223	H•L36020	65	GV3P18 ⁵	240	5	65	25	100
	3	–	ATV320U30M3C	0.8	53	3223	H•L36020	65	GV3P18 ⁵	240	5	65	45	100
	4	5	ATV320U40M3C	0.8	53	3223	H•L36030	65	GV3P25 ⁵	240	7.5	65	45	100
	5.5	7.5	ATV320U55M3C	0.5	53	3223	H•L36040	65	GV3P40 ⁵	240	15	65	60	100
	7.5	10	ATV320U75M3C	0.4	53	3223	H•L36050	65	GV3P50 ⁵	240	15	65	70	100
	11	15	ATV320D11M3C	0.3	53	3223	H•L36070	65	GV3P65 ⁵	240	20	65	100	100
15	20	ATV320D15M3C	0.2	53	3223	H•L36090	65	-	-	-	65	100	100	
480 V Single phase	0.37	1/2	ATV320U07N4•	12	53	3223	H•L36015	65	GV2P08	480Y/277	2	65	6	100
	0.55	3/4	ATV320U11N4•	6.8	53	3223	H•L36015	65	GV2P08	480Y/277	2	65	12	100
	0.75	1	ATV320U15N4•	6.8	53	3223	H•L36015	65	GV2P10	480Y/277	3	65	12	100
	1.1	1 1/2	ATV320U22N4•	5	53	3223	H•L36015	65	GV2P14	480Y/277	5	65	15	100
	1.5	2	ATV320U30N4•	3	53	3223	H•L36015	65	GV2P14	480Y/277	5	65	17.5	100
	2.2	3	ATV320U40N4•	3	53	3223	H•L36015	65	GV3P13 ⁵	480Y/277	7.5	65	25	100
	3	–	ATV320U55N4B	2.5	53	3223	H•L36020	65	GV3P18	480Y/277	10	65	40	100
	4	5	ATV320U75N4B	1.5	53	3223	H•L36030	65	GV3P25	480Y/277	15	65	40	100
	5.5	7.5	ATV320D11N4B	1.2	53	3223	H•L36040	65	GV3P32	480Y/277	20	65	60	100
7.5	10	ATV320D15N4B	0.8	53	3223	H•L36050	65	GV3P40	480Y/277	25	65	70	100	
480 V Three phase	0.37	1/2	ATV320U04N4•	12	53	3223	H•L36015	65	GV2P07	480Y/277	1	65	6	100
	0.55	3/4	ATV320U06N4•	12	53	3223	H•L36015	65	GV2P07	480Y/277	1	65	6	100
	0.75	1	ATV320U07N4•	12	53	3223	H•L36015	65	GV2P08	480Y/277	2	65	6	100
	1.1	1 1/2	ATV320U11N4•	6.8	53	3223	H•L36015	65	GV2P08	480Y/277	2	65	12	100
	1.5	2	ATV320U15N4•	6.8	53	3223	H•L36015	65	GV2P10	480Y/277	3	65	12	100
	2.2	3	ATV320U22N4•	5	53	3223	H•L36015	65	GV2P14	480Y/277	5	65	15	100
	3	4	ATV320U30N4•	3	53	3223	H•L36015	65	GV2P14	480Y/277	5	65	17.5	100
	4	5	ATV320U40N4•	3	53	3223	H•L36015	65	GV3P13 ⁵	480Y/277	7.5	65	25	100
	5.5	7.5	ATV320U55N4B	2.5	53	3223	H•L36020	65	GV3P18	480Y/277	10	65	40	100
	7.5	10	ATV320U75N4B	1.5	53	3223	H•L36030	65	GV3P25	480Y/277	15	65	40	100
	11	15	ATV320D11N4B	1.2	53	3223	H•L36040	65	GV3P32	480Y/277	20	65	60	100
15	20	ATV320D15N4B	0.8	53	3223	H•L36050	65	GV3P40	480Y/277	25	65	60	100	
600 V Three phase	0.75	1	ATV320U07S6C	9	53	3223	H•L36015	22	GV3P13	600Y/347	10	22	6	22
	1.5	2	ATV320U15S6C	9	53	3223	H•L36015	22	GV3P13	600Y/347	10	22	6	22
	2.2	3	ATV320U22S6C	5	53	3223	H•L36015	22	GV3P13	600Y/347	10	22	10	22
	4	5	ATV320U40S6C	5	53	3223	H•L36015	22	GV3P13	600Y/347	10	22	15	22
	5.5	7.5	ATV320U55S6C	2.5	53	3223	H•L36025	22	GV3P13	600Y/347	10	22	20	22
	7.5	10	ATV320U75S6C	2.5	53	3223	H•L36030	22	GV3P18	600Y/347	15	22	25	22
	11	15	ATV320D11S6C	1.2	53	3223	H•L36045	22	GV3P25	600Y/347	20	22	35	22
15	20	ATV320D15S6C	1.2	53	3223	H•L36060	22	GV3P32	600Y/347	25	22	45	22	

Altivar 320 With Conduit Box (Type 1) AC Drive Short Circuit Current Ratings

Input Voltage 60 Hz	Power Rating		Catalog Number	SCCR	Fuses ⁶	Line Reactor min. value
	(kW)	(HP)		(kA)	–	(mH)
208/230 V Single phase	0.18	1/4	ATV320U02M2C	1	7	-
	0.37	1/2	ATV320U04M2C	1	15	-
	0.55	3/4	ATV320U06M2C	1	25	-
	0.75	1	ATV320U07M2C	1	25	-
	1.1	1 1/2	ATV320U11M2C	1	25	-
	1.5	2	ATV320U15M2C	1	40	-
	2.2	3	ATV320U22M2C	1	45	-
	4	5	ATV320U75M3C	1	70	-
	7.5	10	ATV320D15M3C	1	100	-
208/230 V Three phase	0.18	1/4	ATV320U02M3C	5	5	-
	0.37	1/2	ATV320U04M3C	5	7	-
	0.55	3/4	ATV320U06M3C	5	15	-
	0.75	1	ATV320U07M3C	5	15	-
	1.1	1 1/2	ATV320U11M3C	5	25	-
	1.5	2	ATV320U15M3C	5	25	-
	2.2	3	ATV320U22M3C	5	25	-
	3	–	ATV320U30M3C	5	45	-
	4	5	ATV320U40M3C	5	45	-
	5.5	7.5	ATV320U55M3C	5	60	-
	7.5	10	ATV320U75M3C	5	70	-
	11	15	ATV320D11M3C	5	100	-
	15	20	ATV320D15M3C	5	100	-
480 V Single phase	0.37	1/2	ATV320U07N4C	5	6	-
	0.55	3/4	ATV320U11N4C	5	12	-
	0.75	1	ATV320U15N4C	5	12	-
	1.1	1 1/2	ATV320U22N4C	5	15	-
	1.5	2	ATV320U30N4C	5	17.5	-
	2.2	3	ATV320U40N4C	5	25	-
	3	–	ATV320U55N4B	5	40	-
	4	5	ATV320U75N4B	5	40	-
	7.5	10	ATV320D15N4B	22	60	-
480 V Three phase	0.37	1/2	ATV320U04N4C	5	6	-
	0.55	3/4	ATV320U06N4C	5	6	-
	0.75	1	ATV320U07N4C	5	6	-
	1.1	1 1/2	ATV320U11N4C	5	12	-
	1.5	2	ATV320U15N4C	5	12	-
	2.2	3	ATV320U22N4C	5	15	-
	3	4	ATV320U30N4C	5	17.5	-
	4	5	ATV320U40N4C	5	25	-
	5.5	7.5	ATV320U55N4B	5	40	-
	7.5	10	ATV320U75N4B	5	40	-
	11	15	ATV320D11N4B	22	60	-
15	20	ATV320D15N4B	22	60	-	
600 V Three phase	0.75	1	ATV320U07S6C	5	6	9
	1.5	2	ATV320U15S6C	5	6	9
	2.2	3	ATV320U22S6C	5	10	5
	4	5	ATV320U40S6C	5	15	5
	5.5	7.5	ATV320U55S6C	5	20	2.5
	7.5	10	ATV320U75S6C	5	25	2.5
	11	15	ATV320D11S6C	5	35	1.2
15	20	ATV320D15S6C	5	45	1.2	

1. This table shows the maximum Short Circuit Current Rating the Altivar 320 drive can be installed on without adding impedance to the drive. Ratings apply to an Altivar 320 mounted in a Type 1, 3R, 4(X) or 12 rated enclosure. Minimum enclosure volume allows for specified SCCR. Thermal requirements may require a larger enclosure.

2. Ratings apply to an Altivar 320 drive mounted in a Type 1, 3R, 4(X) or 12 rated enclosure. Minimum enclosure volume allows for specified SCCR. Thermal requirements may require a larger enclosure. The listed line reactor minimum inductance is required to get these higher ratings.

3. Circuit Breaker part number designations: • = short circuit current rating.

For 208 / 230 V range, use: • = D for 25 kA, G for 65 kA, J for 65 kA, L for 65kA. For 480 V range, use: • = D for 18 kA, G for 35 kA, J for 65 kA, L for 65 kA.

4. For GV2P/3P use, 480 V and 600 V ratings are for Wye connected electrical distribution systems. GV2P•• self protected manual combination starter must be used with GV2GH7 insulating barrier to meet UL 508 Type E rating. GV3P•• self protected manual combination starter must be used with GV3G66 + GVAM11 insulating barrier and auxiliary contact to meet UL 508 Type E rating. The GVAM11 provides a visual indication if the GV3P has tripped.

5. GV2P products detailed below can be used in place of the GV3P products for obtaining the ratings listed in the SCCR column. GV2P16 for GV3P13, GV2P20 for GV3P18, GV2P22 for GV3P25.

6. Fuse type can be fast acting or time delay Class J, or Class CC.

7. UL508C Par. 57.1 & UL61800-5-1 Par. 6.3.7DV.2.1.1 require publishing the standard Type E combination motor controller power rating since this is a basic identification marking of the Type E devices. However, when applied as an input overcurrent protective device for a drive, the rated current of the Type E combination motor controller, not the rated power, is the key parameter for dimensioning (reference UL61800-5-1 Par. 5.2.3.6.2DV.4.1.11 & 5.2.3.6.2DV.4.1.12).

Schneider Electric GV•P Type E combination motor controllers are adjustable, their current range is shown on the adjustment dial and their selection is based on the input current and not power rating of the drive.

8. Catalog Number designations: • = B for the book form factor drives and C for compact form factor drives.

Note:

- Integral solid state short circuit protection in the drive does not provide branch circuit protection. Branch circuit protection must be provided in accordance with the National Electrical Code and any local codes.

- The Altivar 320 drive has a 100 kA interrupt rating on the output of the drive. In addition to providing a rating based on shorting the output of the drive, these short circuit current ratings have been obtained by shorting components internal to the Altivar 320. These ratings allow proper coordination of short circuit protection.