

ANNEX for ATV312

Quick Start Guide



Short-Circuit Current Ratings (SCCR) and branch circuit protection

The table shows recommended fuse ratings for UL and CSA requirements. The components are for use together in accordance with standard UL508

ATV312 Drive								Short-Circuit Current Ratings							
Input Voltage +10%/-15% 60 Hz Y	(kW)	(HP)	Reference ⁶	Input AIC Rating (kA)	Minimum Inductance (mH)	Line Reactor Reference	Output Interrupt Rating: (kA) ¹	With Circuit Breaker		With GV●P		With Fuses			
								PowerPact Z1, Z2	SCCR (kA) ³ X	GV2P/3P Type E ^{3,4} Z1, Z2	SCCR (kA)	Fuse (A) ⁵ Z1, Z2	SCCR (kA) ^{2,3} X		
Three-phase with or without line reactor															
208/230V Three-phase	Without line reactor	0.18	0.25	ATV312H018M3	5	-	-	100	HxL36015	22	-	-	3	22	
		0.37	0.5	ATV312H037M3	5	-	-	100	HxL36015	22	-	-	6	22	
		0.55	0.75	ATV312H055M3	5	-	-	100	HxL36015	22	-	-	10	22	
		0.75	1	ATV312H075M3	5	-	-	100	HxL36015	22	-	-	10	22	
		1.1	1.5	ATV312HU11M3	5	-	-	100	HxL36015	22	-	-	15	22	
		1.5	2	ATV312HU15M3	5	-	-	100	HxL36015	22	-	-	15	22	
		2.2	3	ATV312HU22M3	5	-	-	100	HxL36020	22	-	-	20	22	
		3	-	ATV312HU30M3	5	-	-	100	HxL36020	22	-	-	25	22	
		4	5	ATV312HU40M3	5	-	-	100	HxL36030	22	-	-	35	22	
		5.5	7.5	ATV312HU55M3	22	-	-	100	HxL36040	22	-	-	50	22	
		7.5	10	ATV312HU75M3	22	-	-	100	HxL36060	22	-	-	60	22	
		11	15	ATV312HD11M3	22	-	-	100	HxL36070	22	-	-	80	22	
		15	20	ATV312HD15M3	22	-	-	100	HxL36090	22	-	-	110	22	
		With line reactor	0.18	0.25	ATV312H018M3	5	3	RL-00401	100	HxL36015	65	GV2P07	65	3	22
	0.37		0.5	ATV312H037M3	5	3	RL-00401	100	HxL36015	65	GV2P08	65	6	22	
	0.55		0.75	ATV312H055M3	5	3	RL-00401	100	HxL36015	65	GV2P10	65	10	22	
	0.75		1	ATV312H075M3	5	3	RL-00401	100	HxL36015	65	GV2P10	65	10	22	
	1.1		1.5	ATV312HU11M3	5	1.5	RL-00801	100	HxL36015	65	GV2P14	65	15	22	
	1.5		2	ATV312HU15M3	5	1.5	RL-00801	100	HxL36015	65	GV2P14	65	15	22	
	2.2		3	ATV312HU22M3	5	1.25	RL-01201	100	HxL36020	65	GV3P18/ 13	65	20	22	
	3		-	ATV312HU30M3	5	1.25	RL-01801	100	HxL36020	65	GV3P18	65	25	22	
	4		5	ATV312HU40M3	5	1.25	RL-01801	100	HxL36030	65	GV3P25	65	35	22	
	5.5		7.5	ATV312HU55M3	22	0.5	RL-02501	100	HxL36040	65	GV3P40/ 32	65	50	22	
	7.5		10	ATV312HU75M3	22	0.4	RL-03501	100	HxL36060	65	GV3P50	65	60	22	
	11		15	ATV312HD11M3	22	0.3	RL-04501	100	HxL36070	65	GV3P65	65	80	22	
	15		20	ATV312HD15M3	22	0.2	RL-08001	100	HxL36090	65	-	-	110	22	
	400/480 V Three-phase		Without line reactor	0.37	0.5	ATV312H037N4	5	-	-	100	HxL36015	22	-	-	3
		0.55		0.75	ATV312H055N4	5	-	-	100	HxL36015	22	-	-	6	22
0.75		1		ATV312H075N4	5	-	-	100	HxL36015	22	-	-	6	22	
1.1		1.5		ATV312HU11N4	5	-	-	100	HxL36015	22	-	-	10	22	
1.5		2		ATV312HU15N4	5	-	-	100	HxL36015	22	-	-	10	22	
2.2		3		ATV312HU22N4	5	-	-	100	HxL36015	22	-	-	15	22	
3		-		ATV312HU30N4	5	-	-	100	HxL36015	22	-	-	15	22	
4		5		ATV312HU40N4	5	-	-	100	HxL36015	22	-	-	20	22	
5.5		7.5		ATV312HU55N4	22	-	-	100	HxL36020	22	-	-	30	22	
7.5		10		ATV312HU75N4	22	-	-	100	HxL36030	22	-	-	35	22	
11		15		ATV312HD11N4	22	-	-	100	HxL36035	22	-	-	50	22	
15		20		ATV312HD15N4	22	-	-	100	HxL36050	22	-	-	70	22	
With line reactor		0.37		0.5	ATV312H037N4	5	12	RL00201	100	HxL36015	65	GV2P07	65	3	100
		0.55		0.75	ATV312H055N4	5	12	RL00201	100	HxL36015	65	GV2P07	65	6	100
		0.75	1	ATV312H075N4	5	12	RL00201	100	HxL36015	65	GV2P08	65	6	100	
		1.1	1.5	ATV312HU11N4	5	6.5	RL00402	100	HxL36015	65	GV2P08	65	10	100	
		1.5	2	ATV312HU15N4	5	6.5	RL00402	100	HxL36015	65	GV2P10	65	10	100	
		2.2	3	ATV312HU22N4	5	5	RL00803	100	HxL36015	65	GV2P14	65	15	100	
		3	-	ATV312HU30N4	5	3	RL00802	100	HxL36015	65	GV2P14	65	15	100	
		4	5	ATV312HU40N4	5	3	RL00802	100	HxL36015	65	GV3P13	65	20	100	
		5.5	7.5	ATV312HU55N4	22	2.5	RL01202	100	HxL36020	65	GV3P18	65	30	100	
		7.5	10	ATV312HU75N4	22	1.5	RL01802	100	HxL36030	65	GV3P25	65	35	100	
		11	15	ATV312HD11N4	22	1.2	RL02502	100	HxL36035	65	GV3P32	65	50	100	
		15	20	ATV312HD15N4	22	0.8	RL03502	100	HxL36050	65	GV3P40	65	70	100	

Footnotes are on the reverse side.

ATV312 Drive								Short-Circuit Current Ratings						
Input Voltage +10%/-15% 60 Hz Y	(kW)	(HP)	Reference ⁶	Input AIC Rating (kA)	Minimum Inductance (mH)	Line Reactor Reference	Output Interrupt Rating: (kA) ¹	With Circuit Breaker		With GV●P		With Fuses		
								PowerPact Z1, Z2	SCCR (kA) ³ X	GV2P/3P Type E ^{3,4} Z1, Z2	SCCR (kA)	Fuse (A) ⁵ Z1, Z2	SCCR (kA) ^{2,3} X	
Three-phase with line reactor														
575/600 V Three-phase	With line reactor	0.75	1	ATV312H075S6	5	20	RL-00202	100	FAL36015	22	-	-	6	22
		1.5	2	ATV312HU15S6	5	9	RL-00403	100	FAL36015	22	-	-	6	22
		2.2	3	ATV312HU22S6	5	6.5	RL-00402	100	FAL36015	22	-	-	10	22
		4	5	ATV312HU40S6	5	5	RL-00803	100	FAL36025	22	-	-	15	22
		5.5	7.5	ATV312HU55S6	22	2.5	RL-01202	100	FAL36040	22	-	-	20	22
		7.5	10	ATV312HU75S6	22	2.5	RL-01202	100	FAL36050	22	-	-	25	22
		11	15	ATV312HD11S6	22	1.5	RL-01802	100	FAL36070	22	-	-	35	22
15	20	ATV312HD15S6	22	1.2	RL-02502	100	FAL36080	22	-	-	45	22		
Single-phase with or without line reactor														
208/230 V Single-phase	Without line reactor	0.18	0.25	ATV312H018M2	1	-	-	100	-	-	-	-	6	22
		0.37	0.5	ATV312H037M2	1	-	-	100	-	-	-	-	10	22
		0.55	0.75	ATV312H055M2	1	-	-	100	-	-	-	-	10	22
		0.75	1	ATV312H075M2	1	-	-	100	-	-	-	-	15	22
		1.1	1.5	ATV312HU11M2	1	-	-	100	-	-	-	-	20	22
		1.5	2	ATV312HU15M2	1	-	-	100	-	-	-	-	20	22
		2.2	3	ATV312HU22M2	1	-	-	100	-	-	-	-	30	22
		4	5	ATV312HU75M3	2	-	-	100	HxL36060	22	-	-	60	22
		5.5	7.5	ATV312HD11M3	2	-	-	100	HxL36070	22	-	-	80	22
	7.5	10	ATV312HD15M3	2	-	-	100	HxL36090	22	-	-	110	22	
	With line reactor	4	5	ATV312HU75M3	22	0.75	RL-03502	100	HxL36060	65	GV3P50	65	60	22
		5.5	7.5	ATV312HD11M3	22	0.375	RL-05502	100	HxL36070	65	GV3P65	65	80	22
		7.5	10	ATV312HD15M3	22	0.278	RL-08002	100	HxL36090	65	-	-	110	22
		0.37	0.5	ATV312H075N4	5	-	-	100	HxL36015	22	-	-	6	22
0.55		0.75	ATV312HU11N4	5	-	-	100	HxL36015	22	-	-	10	22	
400/480 V Single-phase	Without line reactor	0.75	1	ATV312HU15N4	5	-	-	100	HxL36015	22	-	-	10	22
		1.1	1.5	ATV312HU22N4	5	-	-	100	HxL36015	22	-	-	15	22
		1.5	2	ATV312HU30N4	5	-	-	100	HxL36015	22	-	-	15	22
		2.2	3	ATV312HU40N4	5	-	-	100	HxL36015	22	-	-	20	22
		2.2	3	ATV312HU55N4	22	-	-	100	HxL36020	22	-	-	30	22
		4	5	ATV312HU75N4	22	-	-	100	HxL36030	22	-	-	35	22
		5.5	7.5	ATV312HD11N4	22	-	-	100	HxL36035	22	-	-	50	22
		7.5	10	ATV312HD15N4	22	-	-	100	HxL36050	22	-	-	70	22
		With line reactor	0.37	0.5	ATV312H075N4	5	5.79	RL-00402	100	HxL36015	65	GV2P08	65	6
	0.55		0.75	ATV312HU11N4	5	4.27	RL-00402	100	HxL36015	65	GV2P08	65	10	22
	0.75		1	ATV312HU15N4	5	4.27	RL-00803	100	HxL36015	65	GV2P10	65	10	22
	1.1		1.5	ATV312HU22N4	5	2.77	RL-00802	100	HxL36015	65	GV2P14	65	15	22
	1.5		2	ATV312HU30N4	5	2.77	RL-00802	100	HxL36015	65	GV2P14	65	15	22
	2.2	3	ATV312HU40N4	5	1.68	RL-01202	100	HxL36015	65	GV3P13	65	20	22	
2.2	3	ATV312HU55N4	22	1.29	RL-01802	100	HxL36020	65	GV3P18	65	30	22		
4	5	ATV312HU75N4	22	0.912	RL-02502	100	HxL36030	65	GV3P25	65	35	22		
5.5	7.5	ATV312HD11N4	22	0.694	RL-03502	100	HxL36035	65	GV3P32	65	50	22		
7.5	10	ATV312HD15N4	22	0.569	RL-04502	100	HxL36050	65	GV3P40	65	70	22		

Suitable for use on a circuit capable of delivering not more than ___X___rms symmetrical kiloAmperes, ___Y___ Volts maximum, when protected by ___Z1___ with a maximum rating of ___Z2___.

¹. The Altivar 312 has a 100k SCC rating on the output of the drive as many other drives are rated. In addition to providing a rating based on shorting the output of the drive, these short-circuit rating have been obtained by testing the weakest point internal to the ATV312 per UL508C. These ratings allow proper coordination of short-circuit protection. The amp rating of the short-circuit protection devices in the table are maximum values. Smaller amp sizes may be used.

². Ratings also apply to ATV312 Type 1 product, ie: an ATV312 fitted with a conduit box.

³. Ratings apply to an ATV312 mounted in a non-ventilated Type 1, 3R, 4(X) or 12 rated enclosure. Minimum enclosure volume is 3.375 times the drive volume.

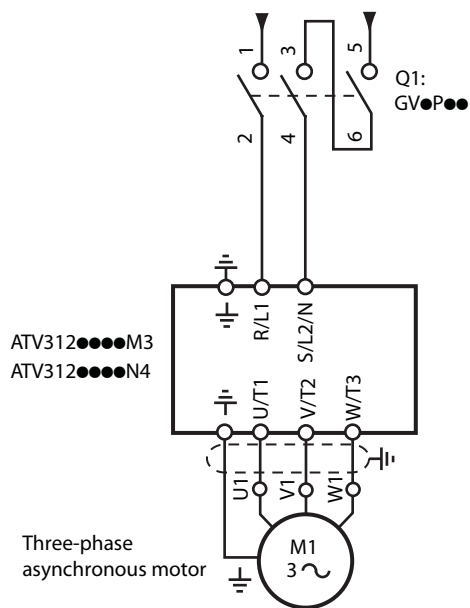
⁴. 480 V ratings are for Wye connected electrical distribution systems. GV2P●● self protected manual combination starter must be used with GV2GH7 insulating barrier to meet UL 508 Type E rating. GV3P●● must be used with GV3G66 and GVAM11 in order to meet UL508 rating.

⁵. Fuse type can be Class J, fast acting or time delay, or Class CC.

⁶. Available also for B products. Example: ATV312H018M3B

Wiring three-phase ATV312 on single-phase power supply

When using GV2P or GV3P manual self-protected combination starters for single-phase input applications, wire the drive as illustrated :



Notes: