

Altivar® 12 Variable Speed Drives Extended Short Circuit Current Ratings

Retain for future use.

Scope of Bulletin

Table 1: Required Documentation

Document Title	Document No.
<i>Altivar 12 User Manual</i>	BBV28581
<i>Altivar 12 Simplified Manual</i>	BBV28586
<i>Altivar 12 Quick Start Resource</i>	BBV28588

This instruction bulletin contains extended short circuit current ratings (SCCR) for ATV12H and ATV12P drives. Refer to Table 2 on page 2 for the extended ratings. The extended ratings include:

- High fault short circuit current ratings
- Short circuit current ratings for GV2P••H7 and GV3P•• manual self-protected combination starter applications
- Short circuit current ratings for QO circuit breaker applications
- Standard short circuit current ratings for fuse applications
- Types of enclosures: 1, 12, 3, 3R, 4, and 4X—all non-ventilated

This bulletin supplements the documentation listed in Table 1. Read and understand all the instructions in this bulletin and in the other required documentation before using the drives.

Wiring

When using GV2P and GV3P manual self-protected combination starters for single-phase input applications, wire the starter as illustrated in Figure 1.

Figure 1: GV2P/3P Starter with Single-Phase Power Supply

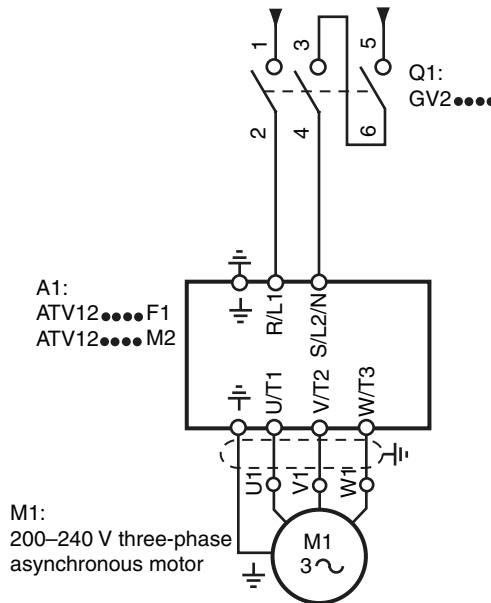


Table 2: Extended Short Circuit Current Ratings

ATV12 Drive:					Short Circuit Current Ratings:										
Input Voltage +10%/-15% 60 Hz	Output Voltage	(kW)	(HP)	Catalog No.	With QO Circuit Breaker ¹					With GV2P/3P Type E ^{2, 3}	SCCR (kA)	With Class J Fuses (A)	SCCR (kA)	Line Reactor ⁴	
					QO	QOB	QOU	A	SCCR (kA)						
120 V, 1 phase	240 V, 3 phase	0.18	0.25	ATV12H018F1	X	X	X	10	1	GV2P10H7	1	For ratings with Class J fuses for drives in this range, refer to documents BBV28581 and BBV28586.	—		
		0.37	0.5	ATV12H037F1	X	X	X	20	1	GV2P14H7	1		—		
		0.75	1	ATV12H075F1	X	X	X	25	1	GV2P20H7	1		—		
240 V, 1 phase	240 V, 3 phase	0.18	0.25	ATV12H018M2	X	X	X	10	1	GV2P08H7	1		—		
		0.37	0.5	ATV12H037M2	X	X	X	10	1	GV2P10H7	1		—		
		0.55	0.75	ATV12H055M2	X	X	X	15	1	GV2P14H7	1		—		
		0.75	1	ATV12H075M2	X	X	X	20	1	GV2P14H7	1		—		
		1.5	2	ATV12HU15M2	—	—	X	25	1	GV2P20H7	1		—		
		2.2	3	ATV12HU22M2	—	—	X	35	1	GV2P22H7	1		—		
240 V, 3 phase	240 V, 3 phase	0.18	0.25	ATV12H018M3	X	X	X	10	5	GV2P07H7	5		—		
		0.37	0.5	ATV12H037M3	X	X	X	10	5	GV2P08H7	5		—		
		0.75	1	ATV12H075M3	X	X	X	15	5	GV2P14H7	5		—		
		1.5	2	ATV12HU15M3	X	X	X	15	5	GV2P16H7	5		—		
		2.2	3	ATV12HU22M3	X	X	X	25	5	GV2P20H7	5		—		
		3	3	ATV12HU30M3	—	—	X	30	5	GV2P21H7	5		—		
240 V, 3 phase	240 V, 3 phase	4	5	ATV12HU40M3	—	—	X	40	5	GV2P22H7	5	—			
		0.18	0.25	ATV12H018M3	X	X	X	10	10	GV2P07H7	50	3	65	3%	
		0.37	0.5	ATV12H037M3	X	X	X	10	10	GV2P08H7	50	8	65	3%	
		0.75	1	ATV12H075M3	X	X	X	15	10	GV2P14H7	50	15	65	3%	
		1.5	2	ATV12HU15M3	X	X	X	15	10	GV3P13	50	25	65	3%	
		2.2	3	ATV12HU22M3	X	X	X	25	10	GV3P18	50	30	65	3%	
120 V, 1 phase	240 V, 3 phase	0.37	0.5	ATV12P037F1	X	X	X	20	1	GV2P14H7	1	For ratings with Class J fuses for drives in this range, refer to documents BBV28581 and BBV28586.	—		
		240 V, 1 phase	240 V, 3 phase	0.37	0.5	ATV12P037M2	X	X	X	10	1		GV2P10H7	1	—
				0.55	0.75	ATV12P055M2	X	X	X	15	1		GV2P14H7	1	—
		240 V, 3 phase	240 V, 3 phase	0.37	0.5	ATV12P037M3	X	X	X	10	5		GV2P08H7	5	—
				0.75	1	ATV12P075M3	X	X	X	15	5		GV2P14H7	5	—
				1.5	2	ATV12PU15M3	X	X	X	15	5		GV2P16H7	5	—
2.2	3			ATV12PU22M3	X	X	X	25	5	GV2P20H7	5		—		
240 V, 3 phase	240 V, 3 phase	3	3	ATV12PU30M3	—	—	X	30	5	GV2P21H7	5		—		
		4	5	ATV12PU40M3	—	—	X	40	5	GV2P22H7	5		—		
240 V, 3 phase	240 V, 3 phase	0.37	0.5	ATV12P037M3	X	X	X	10	10	GV2P08H7	50		8	65	3%
		0.75	1	ATV12P075M3	X	X	X	15	10	GV2P14H7	50		15	65	3%
		1.5	2	ATV12PU15M3	X	X	X	15	10	GV3P13	50		25	65	3%
		2.2	3	ATV12PU22M3	X	X	X	25	10	GV3P18	50		30	65	3%
		3	3	ATV12PU30M3	—	—	X	30	10	GV3P25	50		40	65	3%
240 V, 3 phase	240 V, 3 phase	4	5	ATV12PU40M3	—	—	X	40	10	GV3P32	50		50	65	3%

¹ An "X" in a circuit breaker column indicates that the short-circuit current rating can be achieved with the drive used in combination with that circuit breaker.

² The GV2P••H7 self-protected manual combination starter must be used with the GV2GH7 insulating barrier to meet the UL 508 Type E rating.

³ The GV3P•• self-protected manual combination starter must be used with the GV3G66 insulating barrier and the GVAM11 auxiliary contact block to meet the UL 508 Type E rating.

⁴ The line reactor is required when the ATV12 drive is used in a system with a current availability higher than the drive's SCCR design.