



ATV12H018M2



ATV12H075M2



ATV12HU40M3



ATV12HU15M2TQ (8)

Drives with heatsink

Motor	Line supply				Altivar 12					
Power indicated on rating plate (1)	Max. line current (2)		Apparent power	Max. prospective line lsc	Maximum continuous output current (In) (1)	Maximum transient current for 60 s	Dissipated power at maximum output current (In) (1)	Reference	Weight (3)	
	at U1		at U2		at U2					
kW	HP	A	A	kVA	kA	A	A	W	kg	
Single-phase supply voltage: 100...120 V 50/60 Hz (4)										
0.18	0.25	6	5	0.6	1	1.4	2.1	18	ATV12H018F1 (5)	0.700
0.37	0.5	11.4	9.3	1.1	1	2.4	3.6	29	ATV12H037F1	0.800
0.75	1	18.9	15.7	1.9	1	4.2	6.3	48	ATV12H075F1	1.300
Single-phase supply voltage: 200...240 V 50/60 Hz (4) (6)										
0.18	0.25	3.4	2.8	0.7	1	1.4	2.1	18	ATV12H018M2 (5) (7) (10)	0.700
0.37	0.55	5.9	4.9	1.2	1	2.4	3.6	27	ATV12H037M2 (7) (10)	0.700
0.55	0.75	8	6.7	1.6	1	3.5	5.3	34	ATV12H055M2 (7) (10)	0.800
0.75	1	10.2	8.5	2	1	4.2	6.3	44	ATV12H075M2 (7) (10)	0.800
1.5	2	17.8	14.9	3.6	1	7.5	11.2	72	ATV12HU15M2 (8) (9)	1.400
2.2	3	24	20.2	4.8	1	10	15	93	ATV12HU22M2 (8) (9)	1.400
Three-phase supply voltage: 200...240 V 50/60 Hz (4)										
0.18	0.25	2	1.7	0.7	5	1.4	2.1	16	ATV12H018M3 (5)	0.700
0.37	0.55	3.6	3	1.2	5	2.4	3.6	24	ATV12H037M3	0.800
0.75	1	6.3	5.3	2.2	5	4.2	6.3	41	ATV12H075M3	0.800
1.5	2	11.1	9.3	3.9	5	7.5	11.2	73	ATV12HU15M3	1.200
2.2	3	14.9	12.5	5	5	10	15	85	ATV12HU22M3	1.200
3	–	19	15.9	6.6	5	12.2	18.3	94	ATV12HU30M3	2.000
4	5	23.8	19.9	8.3	5	16.7	25	128	ATV12HU40M3	2.000
Dimensions (overall)										
Drives with heatsinks						W x H x D				
						EMC plate fixed		EMC plate not fixed		
						mm		mm		
ATV12H018F1, H018M2, H018M3						72 x 189.5 x 102.2		72 x 143 x 102.2		
ATV12H037F1, H037M2, H037M3						72 x 189.5 x 121.2		72 x 143 x 121.2		
ATV12H055M2, H075M2, H075M3						72 x 189.5 x 131.2		72 x 143 x 131.2		
ATV12H075F1, HU15M2, HU22M2						105 x 188.2 x 156.2		105 x 142 x 156.2		
ATV12HU15M3, HU22M3						105 x 189.3 x 131.2		105 x 143 x 131.2		
ATV12HU30M3, HU40M3						140 x 230.6 x 141.2		140 x 184 x 141.2		

(1) These values are given for a nominal switching frequency of 4 kHz, for use in continuous operation.

If operation above 4 kHz needs to be continuous, the nominal drive current should be derated by 10% for 8 kHz, 20% for 12 kHz and 30% for 16 kHz.

The switching frequency can be set between 2 and 16 kHz for all ratings.

Above 4 kHz, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise.

See the derating curves in the User Manual, available on our website at "www.schneider-electric.com".

(2) Typical value for the indicated motor power and for the maximum prospective line lsc.

(3) Weight of product without packaging.

(4) Min. (U1) and max. (U2) nominal supply voltage: 100 (U1)...120 V (U2), 200 (U1)...240 V (U2).

(5) Due to the poor heat dissipation, the ATV12H018M3 drive is only supplied as a base plate version.

(6) This drive is delivered with a disconnectable category C1 EMC filter. This drive complies with the IEC/EN 61800-3 standard, Environment 1 (public network), category C1, at 2, 4, 8, 12 and 16 kHz for a shielded motor cable length inferior or equal to 5 m.

(7) Complies with the IEC/EN 61800-3 standard, Environment 1 (public network), category C2, from 2 to 12 kHz for a shielded motor cable length inferior or equal to 5 m; and at 2, 4, 8, 12 and 16 kHz for a shielded motor cable length inferior or equal to 10 m.

(8) Complies with the IEC/EN 61800-3 standard, Environment 1 (public network), category C2, from 4 to 16 kHz for a shielded motor cable length inferior or equal to 5 m; and at 2, 4 and 16 kHz for a shielded motor cable length inferior or equal to 10 m.

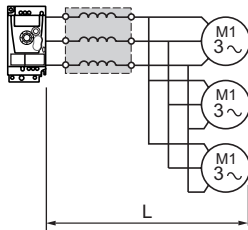
(9) Available in lots of 7: add **TQ** at the end of the reference. ATV12HU22M2 becomes **ATV12HU22M2TQ**.

(10) Available in lots of 14: add **TQ** at the end of the reference. For example, ATV12H018M2 becomes **ATV12H018M2TQ**.

Variable speed drives

Altivar 12

Motor chokes, ferrite suppressors, Modbus serial links, and replacement parts



ATV12VW3A455●
Motor choke

Motor chokes

Description	Nominal current A	For drives	Reference	Weight kg
Motor chokes Required: ■ When connecting more than 2 motors in parallel ■ When the motor cable length (L), including tap-offs, is: □ 50...100 m for a shielded motor cable (1), □ 100...200 m for an unshielded motor cable (1).	4	ATV12H018F1, H037F1 ATV12H018M2...H055M2 ATV12H018M3, H037M3 ATV12P037F1 ATV12P037M2, P055M2 ATV12P037M3	VW3A4551	1.880
	10	ATV12H075F1 ATV12H075M2, HU15M2 ATV12H075M3, HU15M3 ATV12P075M2 ATV12P075M3, PU15M3	VW3A4552	3.700
	16	ATV12HU22M2 ATV12HU22M3, HU30M3 ATV12PU22M3, PU30M3	VW3A4553	4.100
	30	ATV12HU40M3 ATV12PU40M3	VW3A4554	6.150

Dimensions (overall)

Motor chokes	W x H x D mm
VW3A4551	100 x 135 x 60
VW3A4552, A4553	130 x 155 x 90
VW3A4554	155 x 170 x 135

Ferrite suppressors for downstream contactor opening

Description	For drives	Sold in lots of	Unit reference	Weight kg
Ferrite suppressors 2 for downstream contactor opening 3 and for use with ATV12HU●●M2 or ATV12HU●●M3 drives 1	ATV12H018M2	3	VW3A31451	0.300
	ATV12H037M2, ATV12H018M3, H037M3	3	VW3A31452	0.200
	ATV12H055M2...HU22M2, ATV12H075M3...HU22M3	3	VW3A31453	0.100

Dimensions (overall)

Ferrite suppressors	W x H x D mm
VW3A31451	33 x 33 x 33.5
VW3A31452	22.5 x 21.5 x 33
VW3A31453	19 x 19 x 30

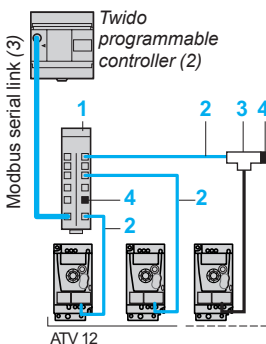
Modbus serial link

Description	Item no.	Length m	Unit reference	Weight kg
Connection via splitter box and RJ45 connectors				
Modbus splitter box 10 RJ45 connectors and 1 screw terminal	1	—	LU9GC3	0.500
Cordsets for Modbus serial link equipped with 2 RJ45 connectors	2	0.3	VW3A8306R03	0.025
		1	VW3A8306R10	0.060
		3	VW3A8306R30	0.130
Modbus T-junction boxes (with integrated cable)	3	0.3	VW3A8306TF03	0.190
		1	VW3A8306TF10	0.210
Line terminators (4) (5) For RJ45 connector	R = 120 Ω	4	VW3A8306RC	0.010
	C = 1 nf			
	R = 150 Ω	4	VW3A8306R	0.010

Replacement parts

Description	For drives	Reference	Weight kg
Fans	ATV12H075F1, ATV12HU15M2, ATV12HU22M2	VZ3V1301	0.160
	ATV12HU15M3...HU40M3	VZ3V1302	0.150

- (1) Motor cable length given for a switching frequency of 4 kHz.
 (2) Please refer to the Twido programmable controller catalogue.
 (3) Cable depends on the type of controller or PLC.
 (4) Order in multiples of 2.
 (5) Depends on the bus architecture.



Example of Modbus diagram
with connection via splitter box
and RJ45 connectors



VZ3V1302

Variable speed drives

Altivar 12

Motor starters: Single-phase supply voltages
100...120 V and 200...240 V

Applications

The proposed combinations can:

- Protect people and equipment (when a short-circuit occurs)
- Maintain protection upstream of the drive in the event of a short-circuit on the power stage

Two types of combination are possible:

- Drive + circuit-breaker: Minimum combination
- Drive + circuit-breaker + contactor: Minimum combination with contactor when a control circuit is needed

Motor starters

Standard power ratings of three-phase 4-pole 50/60 Hz motors (2)		Variable speed drive	Combination with control circuit (circuit-breaker + contactor)			
			Minimum combination (circuit-breaker only)			TeSys contactor (1)
			TeSys motor circuit-breaker (3)	Operating range or rating	Maximum short-circuit current Icu	
			Modular circuit-breaker (4)			
kW	HP			A	kA	
M1		A1	Q1			KM1
Single-phase supply voltage: 100...120 V 50/60 Hz (5)						
0.18	0.25	ATV12H018F1	GV2ME14	6...10	> 100	LC1K09
			GV2L10	6.3	> 100	
			2-pole C60N	10	10	
0.37	0.5	ATV12●037F1	GV2ME16	9...14	> 100	LC1K12
			GV2L16	14	> 100	
			2-pole C60N	16	10	
0.75	1	ATV12H075F1	GV2ME21	17...23	50	LC1D25
			GV2L22	25	> 50	
			2-pole C60N	20	10	
Single-phase supply voltage: 200...240 V 50/60 Hz (5)						
0.18	0.25	ATV12H018M2	GV2ME08	2.5...4	> 100	LC1K09
			GV2L08	4	> 100	
			2-pole C60N	6	10	
0.37	0.55	ATV12●037M2	GV2ME14	6...10	> 100	LC1K09
			GV2L10	6.3	> 100	
			2-pole C60N	10	10	
0.55	0.75	ATV12●055M2	GV2ME14	6...10	> 100	LC1K09
			GV2L14	10	> 100	
			2-pole C60N	10	10	
0.75	1	ATV12●075M2	GV2ME16	9...14	> 100	LC1K12
			GVL16	14	> 100	
			2-pole C60N	16	10	
1.5	2	ATV12HU15M2	GV2ME21	17...23	50	LC1D18
			GV2L20	18	> 100	
			2-pole C60N	20	10	
2.2	3	ATV12HU22M2	GV2ME32	24...32	50	LC1D25
			GV2L22	25	50	
			2-pole C60N	32	10	

(1) For a complete list of references for TeSys contactors, please refer to the "Motor starter solutions - Control and protection components" and "Motor starters up to 150 A" catalogues or visit "www.schneider-electric.com".

(2) Motor power indicated for combination with an ATV12H●●●●● drive with the same rating. For combination with an ATV12P●●●●● drive, refer to the specific manual for the Altivar 12 base plate version, available on our website at "www.schneider-electric.com".

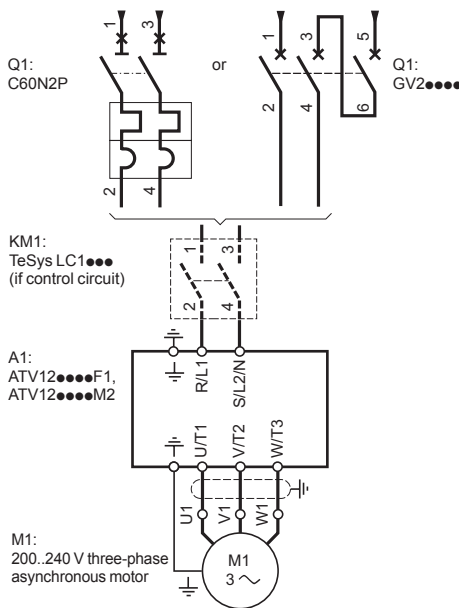
(3) TeSys motor circuit-breakers:

- GV2 ME●●: Thermal magnetic motor circuit-breakers with pushbutton control
- GV2 L●●: Magnetic motor circuit-breakers with control by rotary knob

(4) 2-pole C60N modular circuit-breaker

(5) Can be integrated in devices connected to a power socket:

- If the line current is ≤ 16 A, connection to a single-phase power socket, 10/16 A 250 V ~
- If the line current is > 16 A, connection to a single-phase power socket conforming to standard IEC 60309



Motor starter with single-phase power supply