Altivar 28 – AC Drive

Concentrated technology

The Altivar 28 leads Schneider Electric through to the next generation of drives technology.

- **Easier** system integration
- **0.5 to 20HP** from 200 to 500V
- **RS485 serial communication** with Modbus as standard
- NEMA **Type 1** and **Type 12** motor starter solutions
- Sensorless **flux vector** control
- **"Noise reduction"** function
- **PI controller** (flow rate, pressure,etc)
- Motor and Drive **auto-protection**
- Pre-programmed **I/O functions**
- **Energy Savings** mode
- **Integral braking** (optional resistor)
- **Integrated** RFI filter
- Max. frequency **400Hz**
- 8 **preset speeds**
- **Auto/Manual** operation
- Automatic "catching a spinning load"
- **Analogue** output
- Ramp and reference switching
- 2 or 3 wire control
- **Factory preset** control
- Display speed in **customer unit**
- **Jog** operation
- **Automatic** limiting of operation at low speed
- **Interchangeability and compatibility** with the Altivar 18
- **CSA, UL, CE mark**
- And much more...

Taking control of Power

Features of interest

More compact and rugged, the Altivar 28 combines the functionality and versatility of the Altivar 18, with many new features and a new level of simplicity in selection and performance.

Offering interchangeability and compatibility with the Altivar 18, the Altivar 28 is ready to drive your machine as soon as it is connected, thanks to its factory preset configuration. With two packages offered, in NEMA 1 and NEMA 12, the Altivar 28 covers an extensive range of applications.

An optional PowerSuite® Motor Starter software workshop and PC connection Kit allows:

- Pre-configuration on PC, without the need to connect the Altivar
- Backup on floppy disk or hard disk
- Downloading/uploading of parameters AC Drive
- Printout

A standard RS485 multipoint serial link allows you to connect the AC Drive to PLCs and operator dialogue terminals in a cost-effective way.

Federal Pioneer
Merlin Gerin
Modicon
Square D
Telemecanique

Schneider Electric

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Drive Characteristics

Power supply:

Voltage 200V-15% to 240V +10% single phase
200V-15% to 240V +10% 3-phase
380V-15% to 500V +10% 3-phase

Frequency 50/60Hz ± 5%

Output frequency range: 0.5 to 400Hz

Maximum transient current: 150% of nominal drive current for 60 seconds

Transient overtorque: 150 to 170% of nominal motor torque

Braking Torque: 30% of nominal motor torque without braking resistor (typical value). Up to 150% with optional braking resistor

Analogue inputs: 2 voltage analogue inputs: 0 to +10V
1 current analogue input X-Y mA (X and Y programmable from 0 to 20mA).

Logic inputs: 4 optically isolated logic inputs – configurable

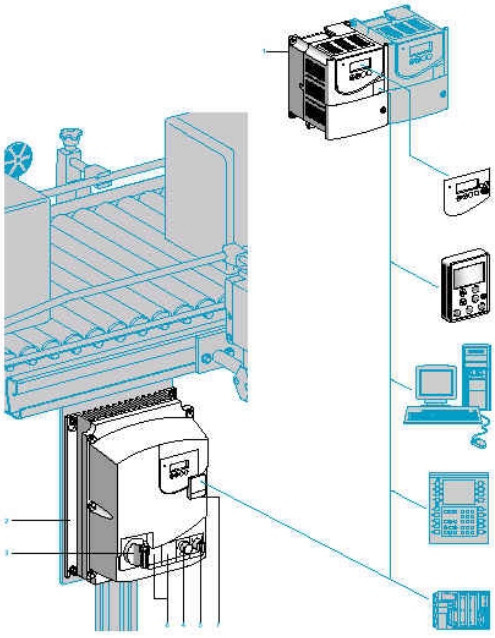
Analogue output: 1 analogue current output. 0/4 to 20mA

Logic output: 1 programmable form C relay

Acceleration and deceleration ramps: Linear ramps which can be adjusted separately from 0.05 to 3,600 sec. Automatic adaptation of ramp times if the torque is exceeded.

Voltage/frequency ratio: Factory set for most constant torque applications with sensorless flux vector control. Adjustment possible: specific ratios for pumps and fans, energy saving, constant torque V/Hz for special motors.

Motor protection: Thermal protection integrated in the drive by calculation of connected motor $\mathbf{I^2t}$.



Selection information

ATV28H. on Heatsink – Nema 1 optional

Rated output (nominal FLA)	Motor (HP)	Catalogue Number	Dimensions W x H x D (mm)
Single-phase supply voltage: 200...240V 50/60 Hz			
3.3	0.5	ATV28HU09M2	105 x 130 x 140
4.8	1	ATV28HU18M2	105 x 130 x 140
7.8	2	ATV28HU29M2	130 x 150 x 150
11	3	ATV28HU41M2	140 x 195 x163
3-phase supply voltage: 200...240V..50/60Hz			
13.7	-	ATV28HU54M2	140 x 195 x163
17.5	5	ATV28HU72M2	140 x 195 x163
27.5	7.5	ATV28HU90M2	200 x 270 x 170
33	10	ATV28HD12M2	200 x 270 x 170
3-phase supply voltage: 380...500V 50/60 Hz			
3.5	1	ATV28HU18N4	130 x 150 x 150
6.2	2	ATV28HU29N4	130 x 150 x 150
8.3	3	ATV28HU41N4	140 x 195 x163
10.6	-	ATV28HU54N4	140 x 195 x163
14.3	5	ATV28HU72N4	140 x 195 x163
21.5	7.5	ATV28HU90N4	200 x 270 x 170
25.5	10	ATV28HD12N4	200 x 270 x 170
41.6	15	ATV28HD16N4	245 x 330 x 195
49.5	20	ATV28HD23N4	245 x 330 x 195

ATV28E. Equipped – Nema 12

Rated output (nominal FLA)	Motor (HP)	Catalogue Number	Dimensions W x H x D (mm)
Single-phase supply voltage: 200...240V 50/60 Hz			
3.3	0.5	ATV28EU09M2	219 x 297 x 177
4.8	1	ATV28EU18M2	219 x 297 x 177
7.8	2	ATV28EU29M2	219 x 297 x 201
11	3	ATV28EU41M2	230 x 347 x 222
3-phase supply voltage: 200...240V..50/60Hz			
13.7	-	ATV28EU54M2	230 x 347 x 222
17.5	5	ATV28EU72M2	230 x 347 x 222
3-phase supply voltage: 380...500V 50/60 Hz			
3.5	1	ATV28EU18N4	219 x 297 x 201
6.2	2	ATV28EU29N4	219 x 297 x 201
8.3	3	ATV28EU41N4	230 x 347 x 222
10.6	-	ATV28EU54N4	230 x 347 x 222
14.3	5	ATV28EU72N4	230 x 347 x 222

Two standard versions:

- **ATV28H** AC Drive (1): for normal environments, such as mounting in an enclosure. This AC Drive is very compact, and several can be mounted side-by-side saving a considerable amount of space.

- **ATV28E** ready assembled AC Drive (2):
  This Nema Type 12 dust and damp-proof enclosure is equipped with an ATV28 AC Drive, a "Vario" switch disconnect with external padlock control (3), a potentiometer (4) for speed control, a 3 position selector switch (5) (Stop and 2 operating directions), two free slots (6) for any additional control, and a cover (7) for access to the RS485 serial link.
  The lower part of the enclosure can be fitted with cable glands for cable access. This enclosure, wired and ready-to-use, can be installed next to the motor.

- **Options**:
  - Options specific to the ATV28H: A local control option, with its potentiometer and 2 push buttons to control the motor from the AC Drive. A DIN rail mounting kit. A NEMA type 1 Kit.
  - Common options: A motor starter software workshop and PC connection kit. An RS485 multipoint serial link connection kit to communicate to PLC and HMI. A remote display keypad for mounting on the enclosure door.

Schneider Electric

6630 Campobello Road
Mississauga, Ontario L5N 2L8
Tel.: (905) 821-8200
Fax: (905) 821-9557

Head Office
19 Waterman Avenue
Toronto, Ontario M4B 1Y2
www.schneider-electric.ca
Tel.: (416) 752-8020
Fax: (416) 752-6230

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