VLT® AutomationDrive FC 360

Dedicated drive for industrial applications in a compact, energy saving package.

The VLT® AutomationDrive FC 360 is a reliable, energy efficient and user-friendly solution placed in a price/performance sweet spot, making it a preferred choice for OEMs.

Designed to work in harsh and humid environments, the drive provides reliable operation in industries such as textile, plastic & rubber, metal work, material handling, food & beverage, and building materials.

The drive enables precise and efficient motor control of a wide range of industrial applications such as extruders, winders, conveyors, drawing benches, ring frame, texturizing, pumps, and fans.

The efficient cooling concept ensures there is no forced air over the printed circuit board, which improves reliability. Also, a removable fan makes

it possible to clean the inside of the drive quickly and easily, thereby reducing the risk of downtime.

FC 360 reduces initial costs and effort with a wide range of built-in features that simplify installation and commissioning, including an EMC filter, built-in brake chopper up to 22kW, and a user-friendly graphic LCP that supports English and Chinese.

A built-in DC choke reduces harmonics to less than 43% ThiD , significantly extending the lifetime of the DC capacitors. Application selection guides enable users to set up common applications easily.

Product range
3 x 380 – 480 V .... 0.37 – 75 kW

Enclosure ratings
IP 20

450 kg

force at 0.6 Hz

The high torque performance of the 0.75 kW VLT® AutomationDrive FC 360 fully meets the demands of the tensile tester machine at Saumya Technocrates in India.

| Feature	Benefit
Reliable	**Maximum Uptime**
Max ambient temp 50°C (up to 45°C without derating in normal operation)	Reliable operation in many environments
Coated PCB	Prepared for harsh environments
Unique cooling concept with no forced air flow over electronics	Unequalled robustness - maximum uptime
User friendly	**Saves commissioning and operating cost**
Graphic LCP supporting English and Chinese	Easy setup
Enhanced Numeric LCP	Easy setup
Application selection and guidance	Easy commissioning
Removable cooling fan	Fast cleaning and extended lifetime
Integrated DC choke	Small power cables, less harmonics
Built-in EMC filter	Meets class C3
Versatile	**Energy saving**
Automatic Energy Optimizer function	Saves 5-15% energy and reduces operation costs
Built-in PID controller	Eliminates external controller
Feed-forward PID	Higher stability for workbench
Kinetic backup	Controlled ramp down at mains fail can reduce material waste
Built-in brake chopper up to 22kW	Saves panel space and cost (no need to buy external braking chopper)
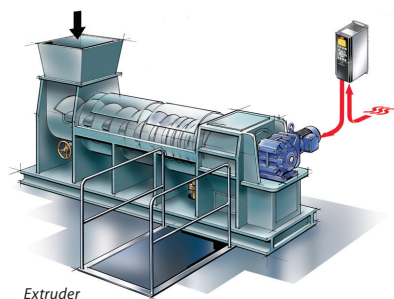
Extruder
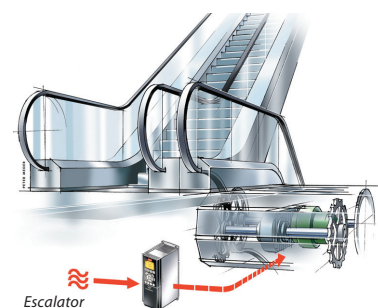
Escalator
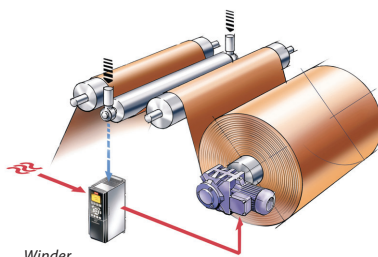
Winder
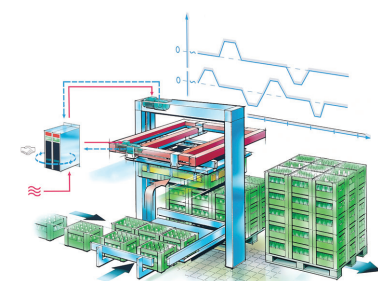
Material handling

Specifications

Mains supply (L1, L2, L3)	
Supply voltage	380 - 480V -15%/+10%
Supply frequency	50/60Hz
Displacement Power Factor(cos φ)	near unity (>0.98)
Switching on input supply L1, L2, L3	"max 2 times/min. (0.37-7.5kW) max 1 times/min. (11-75kW)"

Output data (U, V, W)	
Output voltage	0 - 100% of supply voltage
Switching on output	Unlimited
Ramp times	0.01 - 3600s
Frequency range	0 - 500Hz

Programmable Digital inputs (outputs)	
Digital inputs (outputs)	7 (2 can be configured as digital outputs)
Logic	PNP or NPN
Voltage level	0-24 V DC

Note: Two digital outputs can be configured as pulse outputs

Pulse/encoder inputs	
Pulse/encoder inputs	1/2
Voltage level	0-24 V DC

Note: One digital input can be configured as pulse input.
Two digital inputs can be configured as encoder inputs

Programmable Analog inputs	
Analog inputs	2
Modes	Voltage or current
Voltage level	0 to +10V (scaleable)
Current level	0/4 to 20mA (scaleable)

Programmable Analog outputs (can be used as digital output)	
Analog outputs	2
Current range at analog output	0/4 to 20mA

Programmable Relay outputs	
Relay outputs	2

Approvals	
CE, UL	

Communication	
FC Protocol, Modbus RTU, Profibus (option), ProfiNet (option)	

Dimensions

Voltage [V]	J1	J2	J3	J4	J5	J6	J7
380-480	0.37-2.2	3.0-5.5	7.5	11-15	18.5-22	30-45	55-75

Dimensions [mm]	J1	J2	J3	J4	J5	J6	J7
Height A	210	272.5	272.5	320	410	520	550
Width B	75	90	115	135	150	233	308
Depth C (with option B)	168 (181)	168 (181)	168 (181)	245 (258)	245 (258)	242	332

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