

FOR OUR VERY FLEXIBLE LIGHTWEIGHTS

Frequency control up to 6A (optionally up to 10A)



SFA06/08-...-3

Energy efficient

Applicable worldwide

A few simple steps to commissioning:

1. Connect the SFAE06/08 control unit and attach the acceleration sensor. Plug in the connector for the acceleration sensor, mains and magnet.
2. Set the desired acceleration, e.g. via the quick selection button +
3. Start device 'RUN'

HIGHLIGHTS

- Very energy-efficient compared to the market alternatives
- Can be used worldwide: Multi-voltage input and independent of mains frequency
- Once mechanical basic tuning of the spring system has been completed, manual fine tuning is not necessary
- This means that other pots and troughs can be changed quickly without mechanical adjustment
- Spring breakage detection
- Operation via display and buttons or via PC (RS485 interface)
- Continuous readjustment of the optimum output frequency and voltage
- Adjustable overload protection for the solenoid coils
- Covers a wide range of desired functions thanks to individually assignable inputs and outputs
- Constant acceleration with mains voltage fluctuations

Additional options:

Master-slave operation, 10A version with heat sink,
Sensor made of Stainless Steel

PARAMETERS	VALUE
Mains voltage	100/240VAC +-10%
Oscillation frequency	5-300Hz
Limit current	6/10 AAC mit Zusatzkühlkörper
Output power	1200/2000VA
Inputs	5 (freely configurable: analogue or digital)
Outputs	4 (digital) x 24V + potential-free NO contact
Power supply for external consumers	24 V, 100 mA
Ambient temperature	0 up to +40°C
Storage temperature	-10 up to +80°C
Humidity	max. 80%, non-condensing
Fieldbus interfaces	on request: Profinet, Ethernet IP
Interface	optional RS485
Protection class	IP54

TECHNICAL INFORMATION

Frequency Control (SFA) vs. Thyristor Control (SDE)

When is frequency control the best choice?

Frequency control offers maximum flexibility and efficiency for applications where operating conditions frequently change. It is particularly suitable when:

- ✓ External troughs are built, eliminating the need for complex mechanical tuning.
- ✓ Troughs are regularly changed, so mechanical tuning is not required.
- ✓ Energy savings are a priority – the operation can be made more efficient.
- ✓ Integration into Profinet is required to enable a modern control solution with real-time monitoring.
- ✓ Operation at different mains frequencies (50 Hz / 60 Hz) is needed without changing the drive – reducing inventory costs and ensuring independence from the power supply.
- ✓ Advanced protection functions, such as spring break monitoring and impact protection, are required.
- ✓ Lower interference in adjacent systems is necessary.

Disadvantages of frequency control:

- ✗ The start-stop process for conveying bulk materials is slower than with thyristor control.
- ✗ Higher investment costs.

When is thyristor control the better choice?

Thyristor control is a cost-effective solution for stable applications with fixed equipment (steel structures that need to be excited by vibrations). It is ideal when:

- ✓ The equipment (trough, screen, pipe, etc.) is fixed and unchangeable – a one-time mechanical tuning is sufficient.
- ✓ Sufficient expertise is available for tuning, especially for self-built systems. Alternatively, the system can be delivered pre-tuned to customer specifications.
- ✓ A cost-effective solution is the main priority.

Disadvantages of thyristor control:

- ✗ The drive must be mechanically tuned to the specific equipment.
- ✗ Changes to the equipment require re-tuning.
- ✗ Separate drives are needed for different mains and vibration frequencies.

Our sales team is happy to assist you! Send us an email at: sales@aviteq.com

