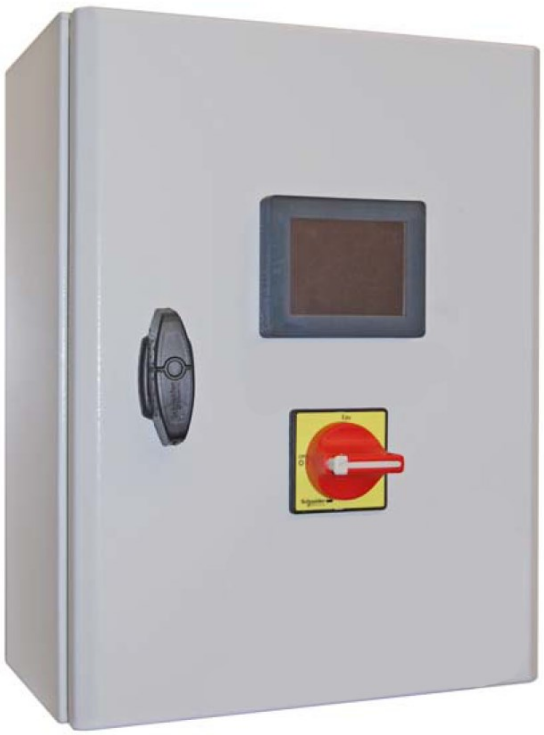
Frequency Converter SRF ATV NFU

Copenhagen Vibrator Products



- Speed Control for Vibrators
- Stepless adjustment of Frequency
- For Multiple Vibrators
- Easy Programming
- Compact Design
- Custom Design

Precise frequency control of electric 230V or 400V vibrators

Easy access programming for customized control

Available in standard sizes or customized enclosures

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SRF Control Cabinets

Model	Supply Voltage [Volt]	Max Motor~		Size (B x H x D) [mm.]
		Power Input [Kw]I	Current [A]	
SRF 1-007 / 4,8	1 ~ 200….240 V 50 / 60 Hz	0,75	4,8	300 x 400 x 200
SRF 1-011 / 6,9		1,1	6,9	
SRF 1-022 / 11		2,2	11,0	400 x 500 x 250
SRF 2-007 / 2,3	3 ~ 380… 415 V 50 / 60 Hz	0,75	2,3	400 x 500 x 250
SRF 2-015 / 4,1		1,5	4,1	
SRF 2-022 / 5,5		2,2	5,5	
SRF 2-040 / 9,5		4,0	9,5	
SRF 2-055 / 14,3		5,50	14,3	600 x 600 x 300
SRF 2-075 / 17		7,50	17,0	
SRF 2-110 / 27,7		11,00	27,7	
SRF 2-150 / 33		15,00	33,0	

Control Cabinet

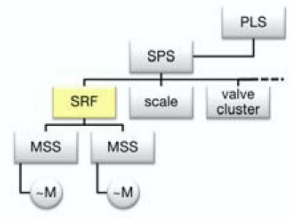
As standard the SRF controls is delivered complete installed in enclosures.
These cabinets is suitable for wall-mounting and provides IP 54 protection against water-splash and dust.

The SRF control is also available in a desk-version for floor-mounting.
Standard enclosures is in steel painted RAL 7035 light grey. Or is available in stainless steel.
Connection output to vibrators is made by build-in terminal strips, or can be delivered with plug connectors on request.

Operation

As standard the SRF control can be operated by the installed 3,5” colour touch panel.
The vibration can be also started & stopped be activated on the touch panel.
By buttons or keyboard the frequency and vibration timing, can be adjusted and displayed.
SRF control offers language option for English, German or French.

Functionality for operation with CC-unbalances, and grouping for more vibrations tables, is stored in the SRF control, and be activated.
Error and alarms is displayed in separated windows for simplified maintenance and service.
Other sizes of colour touch panels, can be supplied on request.



Configuration

SRF controls can be customized and have additional input- and output connections, for communication with external equipment .
An optional mini-control system allows for complex monitoring and controlling.

Bus communication

The SRF control can be used for different kinds of communication with industrial equipment, and is integrated with Modbus and CANopen, Other systems is available on request.

Avoid uncontrolled resonance

The build-in braking function in the SRF control, prevents mechanical resonance in vibration equipment during deceleration of the vibrators.

Depending on the application and the vibrators rated working moment, we recommend the use of a brake resistor.

Frequency Converter SRF ATV NFU

Model	Supply Voltage [Volt]	Max Motor~		Size (B x H x D) [mm.]
		Power Input [Kw] I	Current [A]	
ATV-320U07M2C	1 ~ 200….240 V 50 / 60 Hz	0,75	4,8	72 x 143 x 138
ATV-320U11M2C		1,10	6,9	105 x 142 x 158
ATV-320U22M2C		2,20	11,0	105 x 142 x 158
ATV-320U07N4C	3 ~ 380… 415 V 50 / 60 Hz	0,75	2,3	105 x 143 x 158
ATV-320U15N4C		1,50	4,1	
ATV-320U22N4C		2,20	5,5	140 x 184 x 158
ATV-320U40N4C		4,00	9,5	
ATV-320U55N4B		5,50	14,3	150 x 232 x 232
ATV-320U75N4B		7,50	17,0	
ATV-320D11N4B		11,00	27,7	180 x 330 x 232
ATV-320D15N4B		15,00	33,0	

ATV Frequency converters is mounted in an IP 2x enclosure housing for installation in the customer's own existing control cabinet.
The performance data is the same as the SRF control

Model	Supply Voltage [Volt]	Max Motor~		Size (B x H x D) [mm.]
		Power Input [Kw] I	Current [A]	
NFU 1-004 / 3,3	1 ~ 200….240 V 50 / 60 Hz	0,4	3,3	210 x240 x 163
NFU 1-007 / 4,8		0,75	4,8	
NFU 1-011 / 6,9		1,1	6,9	215 x 297 x 192
NFU 1-015 / 8,0		1,5	8,0	
NFU 1-022 / 11		2,2	11,0	230 x 340 x 208
NFU 2-004 / 1,5	3 ~ 380… 415 V 50 / 60 Hz	0,4	1,5	400 x 500 x 250
NFU 2-007 / 2,3		0,75	2,3	
NFU 2-011 / 3,0		1,1	3,0	
NFU 2-015 / 4,1		1,5	4,1	
NFU 2-022 / 5,5		2,2	5,5	230 x 340 x 208
NFU 2-040 / 9,5		4,0	9,5	

NFU Frequency Converter
NFU Frequency converters is encapsulated with IP 54 protection, and is ready for wall-mounting.
Equipment with start & stop, rotation direction control, and potentiometer for speed adjustment (frequency).

The installed digital display will show the output frequency.
The NFU standard version is suitable for one vibrator, but with an optional external terminal box and a motor protection rely, it is possible to connect two vibrators at the same time.
We also offers an option for a brake resistor, to avoid vibration resonance during deceleration of the vibrators.
The NFU is delivered pre-adjusted to the chosen vibrators, and ready for installation.

Choosing the right size frequency converter
Depending on the application and chosen vibrators. It is critical to always calculate the frequency converter, for some extra current, as the vibrators always need some higher start-up current.
If 4- og 6-poles vibrators is requested, we always recommend to use 3-phase frequency converters.

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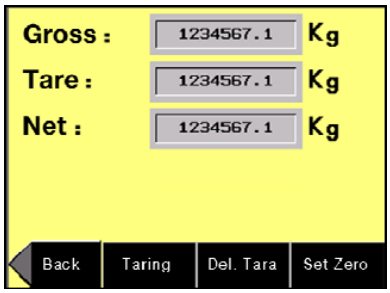

Integration with weighing function
The SRF control can on request, be integrated with external weighing cells, which makes it possible to compact and weigh any bulk material with the same control unit.
The weight will be shown on the installed touch panel

Pre-Adjusted and ready to use
All the required parameters like start & stop timing, run-up ramp, max. motor and pulse frequency, slip compensation and U/K characteristics, will be adjusted according to customers requirements.

Applications
The SRF, NFU and ATV frequency controls is widely used for speed control (frequency) of electric vibrators.
Some applications require certain frequencies, or the option to change frequency for different loads or materials.
These frequency converters with simple and compact design, is the best solution for complete control of your application.

Design and Function
Low-loss power electronic allows the operation at input voltages with high tolerances.

These great frequency converters generates 3-phase voltages with variable frequency of 0 to 100 Hz

The frequency converters is delivered with all necessary operation and installation manuals.

Permissible temperature: 0º C to +40º C

BZ Motor Brake

Type	Voltage [Volt]	Protection Class	Max. Nominal Power 50 Hz/60 Hz
BZ 30	1~230 V eller 3~400 V 50/60 Hz	IP 23	5 kW / 5,5 kW
BZ 70	1~230 V eller 3~400 V 50/60 Hz	IP 23	10 kW / 11 kW
BZ 200	1~230 V eller 3~400 V 50/60 Hz	IP 23	26 kW / 28 kW

Applications
BZ Braking devices are used for efficient deceleration of running vibrators, to a quick standstill.
It is often necessary to brake the rotating vibrators fast on vibration tables or conveyers to avoid resonance in the application.
The BZ Braking device offers a very efficient braking in a very compact design.

Design & Function
Upon activation of the brake, the load-resistant power electronics changes direction of the electronic rotational field, and decelerates the vibrators instantly.
The momentarily high braking currents, are easily tolerated by the vibrator.

The BZ braking device is only suitable for mains frequency of 50 Hz or 60 Hz.

It is not permitted to bed operated in conjunction with a frequency converter.

Operation temperature is 0º C. to +40º C.

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