

All-pole sine filter
SFA 400



General Data

| |
|--|
| Rated voltage 3 x 400 Vac |
| Rated current 1.3 - 60 A |
| Designed for inverter with DC link connector (+Vg/+Ug), positive or negative or mid point and and works with continuous PWM (please contact our technical support staff) |
| For motor rated output 1.5 - 30 kW |
| For switching frequencies \geq 8 kHz |
| Rated frequency from 0 to 60 Hz |
| Insulation class H |
| Maximum ambient temperature 45 °C |

Advantages

| |
|--|
| Prevention of overvoltages on the motor |
| Long cable lengths possible |
| Reduction in motor noise |
| Minimisation of bearing currents |
| Minimisation of leakage currents (is beneficial in the event of incorrect RCD tripping) |
| Reduction in line-borne and field-borne emitted interference: can be omitted from shielded cables, where necessary |
| Reduction in motor losses |

Applications

Sine filter for the suppression of differential mode interference and common mode interference. Designed for inverter with DC link connector (+Vg/+Ug), positive or negative or mid point and and works with continuous PWM (please contact our technical support staff).

Standards

Output filter with capacitor for frequency inverters complying with IEC 61558-2-20, UL 508, CSA 22.2 No. 14-10

Approvals



UL 5085-1/-2, CSA 22.2 No.66

1.1

1.2

1.3

2.1

2.2

3.1

3.2

3.3

4.0

5.1

5.2



All-pole sine filter

SFA 400



| Typ | SFA 400/1,3 | SFA 400/2,5 | SFA 400/4 | SFA 400/6 | SFA 400/10 | SFA 400/16,5 |
|--------------------------------|--------------------|--------------------|------------------|------------------|-------------------|---------------------|
| Electrical data | | | | | | |
| Operating data | | | | | | |
| Rated voltage | 3 x 400 Vac | 3 x 400 Vac | 3 x 400 Vac | 3 x 400 Vac | 3 x 400 Vac | 3 x 400 Vac |
| Voltage range | 380 - 480 Vac | 380 - 480 Vac | 380 - 480 Vac | 380 - 480 Vac | 380 - 480 Vac | 380 - 480 Vac |
| Voltage drop | <5% @ 400 Vac | <5% @ 400 Vac | <5% @ 400 Vac | <5% @ 400 Vac | <5% @ 400 Vac | <5% @ 400 Vac |
| Rated current | 1.3 A | 2.5 A | 4 A | 6 A | 10 A | 16.5 A |
| for motor rated output approx. | 0.55 kW | 1.10 kW | 1.50 kW | 2.20 kW | 4.00 kW | 7.50 kW |
| Rated frequency | ≤60 Hz | ≤60 Hz | ≤60 Hz | ≤60 Hz | ≤60 Hz | ≤60 Hz |
| Switching frequency | ≥8 kHz | ≥8 kHz | ≥8 kHz | ≥8 kHz | ≥8 kHz | ≥8 kHz |
| Approvals | | | | | | |
| Approvals | cURus | cURus | cURus | cURus | cURus | cURus |
| Environment | | | | | | |
| Ambient temperature max. | 45 °C | 45 °C | 45 °C | 45 °C | 45 °C | 45 °C |
| Safety and protection | | | | | | |
| Type | Metal enclosure | Metal enclosure | Metal enclosure | Metal enclosure | Metal enclosure | Metal enclosure |
| Class of Insulation System | F | F | F | F | F | F |
| Protection index | IP 20 | IP 20 | IP 20 | IP 20 | IP 20 | IP 20 |
| Safety class (prepared) | I | I | I | I | I | I |
| Test voltage | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz |
| Order numbers | | | | | | |
| Order Number | SFA 400/1,3 | SFA 400/2,5 | SFA 400/4 | SFA 400/6 | SFA 400/10 | SFA 400/16,5 |

| Typ | SFA 400/24 | SFA 400/32 | SFA 400/40 | SFA 400/50 | SFA 400/60 |
|--------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Electrical data | | | | | |
| Operating data | | | | | |
| Rated voltage | 3 x 400 Vac | 3 x 400 Vac | 3 x 400 Vac | 3 x 400 Vac | 3 x 400 Vac |
| Voltage range | 380 - 480 Vac | 380 - 480 Vac | 380 - 480 Vac | 380 - 480 Vac | 380 - 480 Vac |
| Voltage drop | <5% @ 400 Vac | <5% @ 400 Vac | <5% @ 400 Vac | <5% @ 400 Vac | <5% @ 400 Vac |
| Rated current | 24 A | 32 A | 40 A | 50 A | 60 A |
| for motor rated output approx. | 11.00 kW | 15.00 kW | 18.50 kW | 22.00 kW | 30.00 kW |
| Rated frequency | ≤60 Hz | ≤60 Hz | ≤60 Hz | ≤60 Hz | ≤60 Hz |
| Switching frequency | ≥8 kHz | ≥8 kHz | ≥8 kHz | ≥8 kHz | ≥8 kHz |
| Approvals | | | | | |
| Approvals | cURus | cURus | cURus | cURus | cURus |
| Environment | | | | | |
| Ambient temperature max. | 45 °C | 45 °C | 45 °C | 45 °C | 45 °C |
| Safety and protection | | | | | |
| Type | Metal enclosure | Metal enclosure | Metal enclosure | Metal enclosure | Metal enclosure |
| Class of Insulation System | F | F | F | F | F |
| Protection index | IP 20 | IP 20 | IP 20 | IP 20 | IP 20 |
| Safety class (prepared) | I | I | I | I | I |
| Test voltage | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz | 2500 Vac, 50 Hz |
| Order numbers | | | | | |
| Order Number | SFA 400/24 | SFA 400/32 | SFA 400/40 | SFA 400/50 | SFA 400/60 |

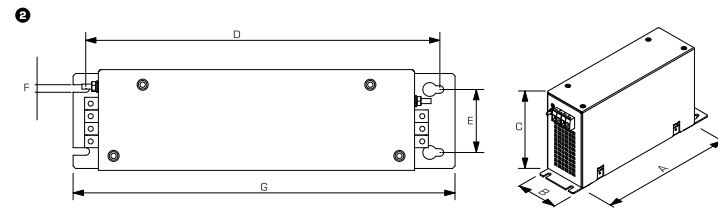
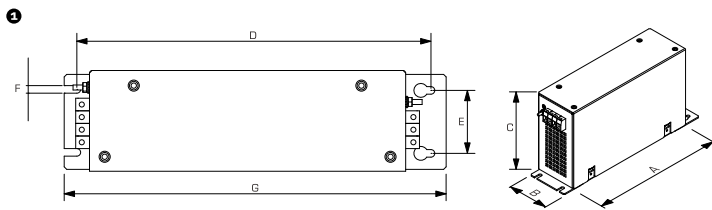


All-pole sine filter
SFA 400



| Mechanical data | Typ | Fixing method | Fixing screws | Connections phase | Connections PE | Weight | Dimension picture (in mm) | Dimension picture (in mm) | | | | | | |
|-----------------|--------------|---------------|---------------|---------------------------------|----------------|----------|---------------------------|---------------------------|-----|-----|-----|-----|-----|-----|
| | | | | | | | | A | B | C | D | E | F | G |
| | SFA 400/1.3 | Mounting lugs | M5 | Screw clamp, 4 mm ² | Bolt, M4 | 3.20 kg | 1 | 250 | 80 | 150 | 280 | 50 | 6 | 302 |
| | SFA 400/2.5 | Mounting lugs | M5 | Screw clamp, 4 mm ² | Bolt, M4 | 4.70 kg | 1 | 250 | 80 | 150 | 280 | 50 | 6 | 302 |
| | SFA 400/4 | Mounting lugs | M5 | Screw clamp, 4 mm ² | Bolt, M4 | 7.40 kg | 2 | 290 | 80 | 170 | 320 | 50 | 6 | 342 |
| | SFA 400/6 | Mounting lugs | M5 | Screw clamp, 10 mm ² | Bolt, M4 | 8.10 kg | 2 | 290 | 80 | 170 | 320 | 50 | 6 | 342 |
| | SFA 400/10 | Mounting lugs | M6 | Screw clamp, 10 mm ² | Bolt, M5 | 11.00 kg | 1 | 320 | 135 | 200 | 355 | 100 | 6.5 | 372 |
| | SFA 400/16,5 | Mounting lugs | M6 | Screw clamp, 10 mm ² | Bolt, M5 | 17.00 kg | 1 | 320 | 135 | 200 | 355 | 100 | 6.5 | 372 |
| | SFA 400/24 | Mounting lugs | M6 | Screw clamp, 16 mm ² | Bolt, M6 | 25.00 kg | 2 | 370 | 260 | 200 | 400 | 230 | 6.5 | 430 |
| | SFA 400/32 | Mounting lugs | M6 | Screw clamp, 16 mm ² | Bolt, M6 | 27.00 kg | 2 | 400 | 280 | 200 | 430 | 230 | 6.5 | 460 |
| | SFA 400/40 | Mounting lugs | M6 | Screw clamp, 16 mm ² | Bolt, M6 | 34.00 kg | 2 | 450 | 310 | 250 | 480 | 250 | 6.5 | 510 |
| | SFA 400/50 | Mounting lugs | M6 | Screw clamp, 16 mm ² | Bolt, M6 | 45.00 kg | 2 | 500 | 310 | 250 | 530 | 250 | 6.5 | 560 |

Dimension pictures



| Mechanical data | Typ | Fixing method | Fixing screws | Connections phase | Connections PE | Weight | Dimension picture (in mm) | Dimension picture (in mm) | | | | | | |
|-----------------|------------|---------------|---------------|---------------------------------|----------------|----------|---------------------------|---------------------------|-----|-----|-----|-----|-----|-----|
| | | | | | | | | A | B | C | D | E | F | G |
| | SFA 400/60 | Mounting lugs | M6 | Screw clamp, 35 mm ² | Bolt, M8 | 56.00 kg | 2 | 550 | 310 | 250 | 580 | 250 | 6.5 | 610 |

Dimension pictures

