



High & Low Corp.
One brand, More options

Profile

High & Low is a professional manufacturer developing the EMI/RFI filter solutions.

The head office is based in Taipei Taiwan and factory in Shenzhen China. Combing award-winning technology, expertise and advantageous conditions of location, H&L provides customers with highly relevant results, competitive price, rapid delivery, good quality and full support for marketing demands.



3 Phase Noise Filter

Description

3 - 400A current rating
Delta or WYE configuration
Safety approvals UL, cUL, ENEC, CQC
Voltage ratings up to 600V
RoHS compliance

Solutions

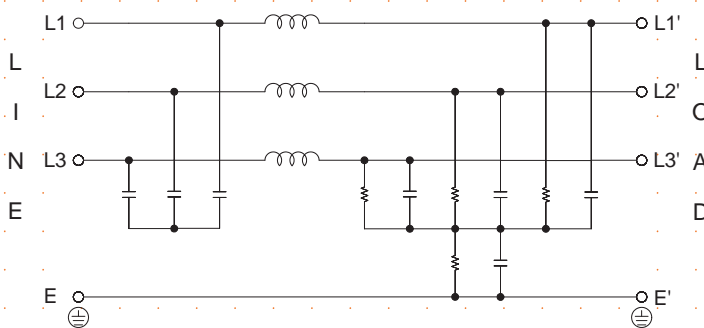
- Collaborative robotics
- Drilling industry
- Factory automation
- Heavy electric machinery
- Portable power generator
- Motors / Controllers
- Food processing equipment
- Elevators
- Frequency converters

Technical data and measuring conditions

- Rated current: 7~180A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2250 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 300,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- HVAC system
- Motor driver
- Process control system
- Power management system
- Robotics

Features

- Excellent conducted attenuation performance
- Current rating 7~180A
- Extremely low leakage current values
- Light weight metal housing design
- Alternative performance grade
- Touch-safe connections with hinged safety covers for quick, reliable ring lug wiring

Filter selection table

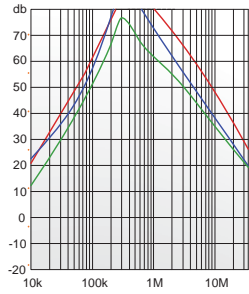
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 07SCB58 | 7 | 4 | 4.7 | 3.8 |
| 16SCB58 | 16 | 7.5 | 4.7 | 6.1 |
| 30SCB58 | 30 | 18.5 | 4.7 | 11.8 |
| 42SCB58 | 42 | 22 | 4.7 | 15.7 |
| 55SCB58 | 55 | 37 | 4.7 | 25.9 |
| 75SCB58 | 75 | 45 | 4.7 | 32.2 |
| 100SCB58 | 100 | 55 | 4.7 | 34.5 |
| 130SCB58 | 130 | 75 | 4.7 | 43.1 |
| 180SCB58 | 180 | 110 | 4.7 | 58.3 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

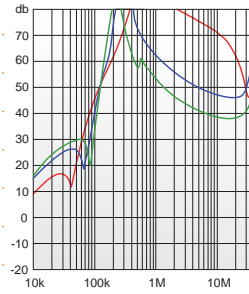
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

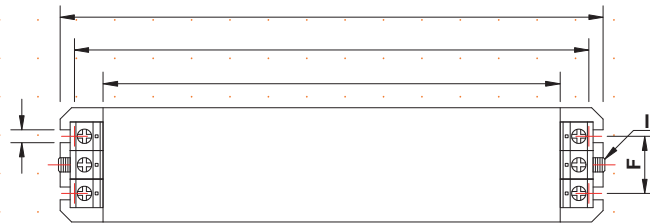
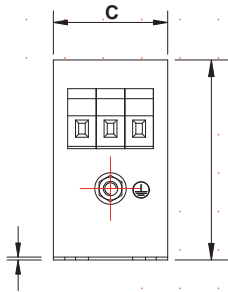


Differential mode / Symmetrical (P-P)



7A~42A ————
 55A~100A ————
 130A~180A ————

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | | | 3 | | | | | | 3 | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 160 | 220 | 240 | 280 | 220 | 240 | 240 | 240 | 240 | 350 |
| B | 70 | 70 | 85 | 85 | 90 | 135 | 150 | 150 | 150 | 170 |
| C | 40 | 45 | 50 | 50 | 85 | 80 | 90 | 90 | 90 | 120 |
| D | 180 | 235 | 255 | 295 | 235 | 255 | 255 | 255 | 255 | 365 |
| E | 190 | 250 | 270 | 310 | 250 | 270 | 270 | 270 | 270 | 380 |
| | 20 | 25 | 30 | 30 | 60 | 60 | 65 | 65 | 65 | 102 |
| G | 4.5 | 5.4 | 5.4 | 5.4 | 5.4 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| H | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1.2 |
| I | M5 | M5 | M5 | M5 | M6 | M6 | M10 | M10 | M10 | M10 |

Input output connectors cross sections

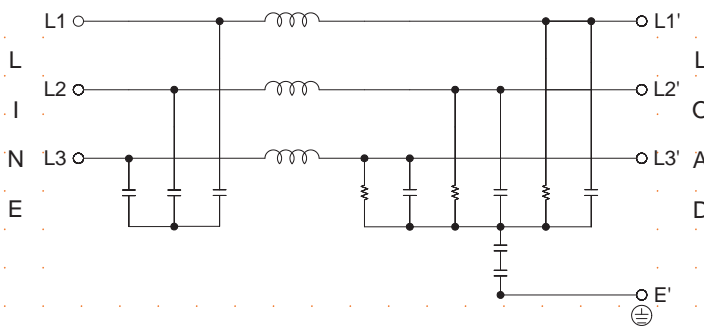
| Input output connectors | | 3 | | 3 | |
|-------------------------|---------|---------|---------|-----------|---------|
| Solid wire | 10mm | 16mm | 35mm | 50mm | 95mm |
| flex wire | 6mm | 10mm | 25mm | 50mm | 95mm |
| A G type wire | A G 8 | A G 6 | A G 2 | A G 1/0 | A G 4/0 |
| Recom. torque | 1~1.2Nm | 1~1.2Nm | 1.8~2Nm | 2.3~2.5Nm | 17~20Nm |

Technical data and measuring conditions

- Rated current: 10~30A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2000 VAC (L type)
P to P: 2250 VDC
- P to E: 3000 VDC (P type)
- Protection category: IP00
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): >200,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Stepping motor
- Electric appliance cabinet
- Smart grid
- AC servo motor
- Medical device (not body-coupled)

Features

- Excellent conducted attenuation performance
- Current rating 10~30A
- Extremely low leakage current values
- Light weight plastic housing design
- Optional DIN-Rail mounting
- Alternative performance grade

Filter selection table

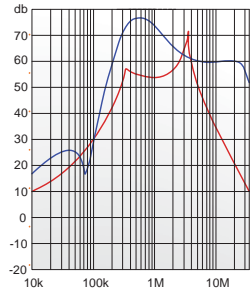
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @480VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 10SCJ25L | 10 | 5.5 | 0.4 | 4.8 |
| 20SCJ25L | 20 | 11 | 0.4 | 5.2 |
| 30SCJ25L | 30 | 18.5 | 0.4 | 7 |
| 10SCJ25P | 10 | 5.5 | 2.5 | 4.8 |
| 20SCJ25P | 20 | 11 | 2.5 | 5.2 |
| 30SCJ25P | 30 | 18.5 | 2.5 | 7 |
| 10SCJ26L | 10 | 5.5 | 0.4 | 4.8 |
| 20SCJ26L | 20 | 11 | 0.4 | 5.2 |
| 30SCJ26L | 30 | 18.5 | 0.4 | 7 |
| 10SCJ26P | 10 | 5.5 | 2.5 | 4.8 |
| 20SCJ26P | 20 | 11 | 2.5 | 5.2 |
| 30SCJ26P | 30 | 18.5 | 2.5 | 7 |

*Calculated at rated current, 480 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

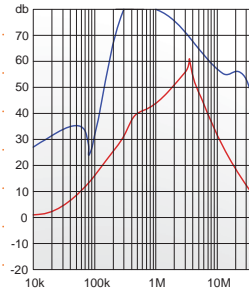
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)



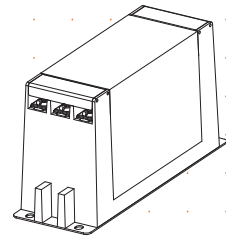
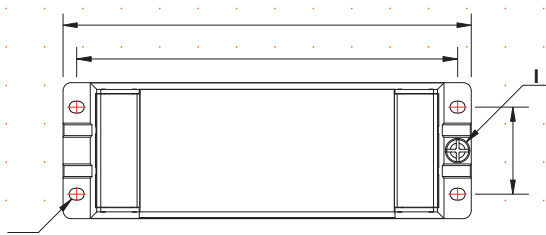
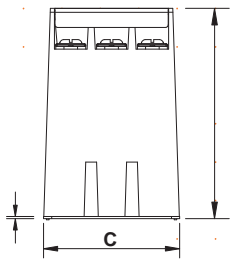
Differential mode / Symmetrical (P-P)



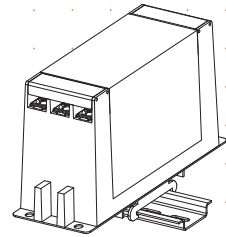
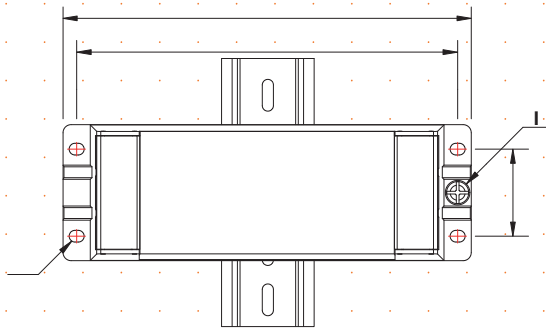
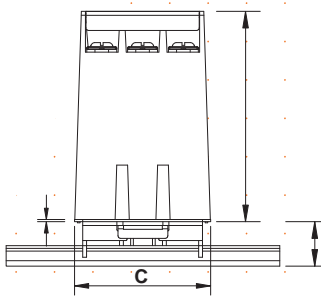
10A~20A ————
30A ————

Mechanical drawing

SCJ25: Chassis mounting



SCJ26: DIN-rail mounting



Dimensions (unit: mm)

Tolerances according to ISO 2768-m / EN 22768-m

| Code | 3 |
|------|---------|
| A | 140 |
| B | 78 |
| C | 50 |
| D | 150 |
| E | 32 |
| G | 4.3x5.5 |
| H | 1.2 |
| I | M4 |
| | 17 |

or DIN-rail only.

Input output connectors cross sections

| Input output connectors | 3 |
|-------------------------|------------------------------------|
| lex wire | 1.3~2.5mm / 16~22mm |
| A G type wire | A G 16~13 / A G 4~5 |
| Ring / fork lug (/d) | Max.11mm(9.5mm) / Max.16.5mm(15mm) |
| | Min. 4.3mm / Min. 5.3mm |
| Recom. torque | 1~1.2Nm / 1.9~2.2Nm |

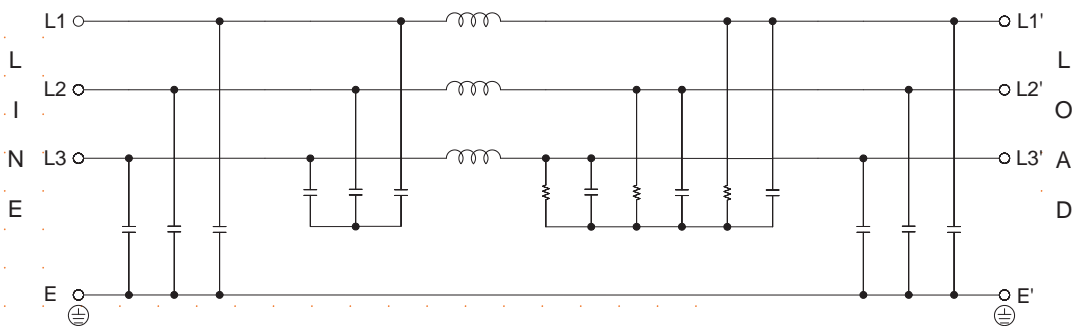
H&L recommends the use of insulated and UL-recognized ring lugs or fork lugs of the appropriate size.

Technical data and measuring conditions

- Rated current: 8~280A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2250 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 135,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Features

- Superior conducted attenuation performance
- Current rating 8~280A
- Significant noise reduction in both common mode and differential mode
- Compact metal-shielded design
- Touch-safe connections with hinged safety covers
- Widely used in industrial inverter

Marketing applications

- Industrial DC/AC inverters
- CNC
- Transformers
- Travelator
- Converters

Filter selection table

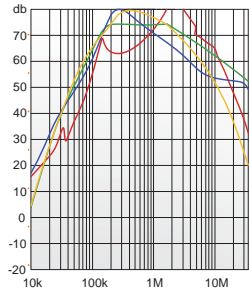
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 08SC51 | 8 | 3 | 0.3 | 8 |
| 16SC51 | 16 | 5.5 | 0.3 | 8 |
| 25SC51 | 25 | 11 | 3.8 | 7 |
| 36SC51 | 36 | 15 | 3.8 | 15 |
| 50SC51 | 50 | 22 | 3.8 | 11 |
| 64SC51 | 64 | 30 | 3.8 | 9 |
| 80SC51 | 80 | 37 | 4.4 | 49 |
| 110SC51 | 110 | 55 | 4.4 | 25 |
| 180SC51 | 180 | 90 | 4.4 | 23 |
| 280SC51 | 280 | 132 | 5.1 | 70 |

*Calculated at rated current, 480 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

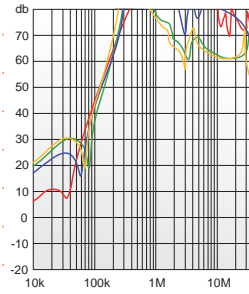
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

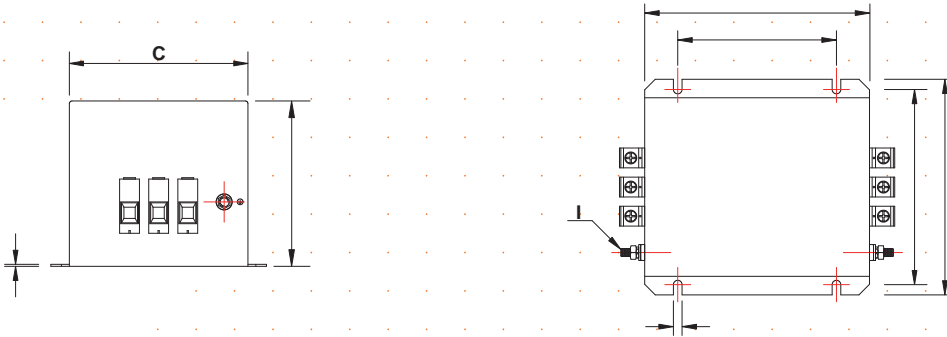


Differential mode / Symmetrical (P-P)



- 8~16A
- 25~64A
- 80~110A
- 180~280A

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | | | | |
|------|-----|--------|------|------|
| A | 200 | 400 | 510 | 700 |
| B | 65 | 90 | 133 | 155 |
| C | 120 | 350 | 360 | 530 |
| D | 136 | 130 | 156 | 220 |
| E | 150 | 170 | 180 | 260 |
| G | 6.5 | 15x6.5 | 16x9 | 16x9 |
| H | 1 | 1 | 2 | 2 |
| I | M6 | M10 | M10 | M10 |
| | 115 | 373 | 470 | 660 |

Input output connectors cross sections

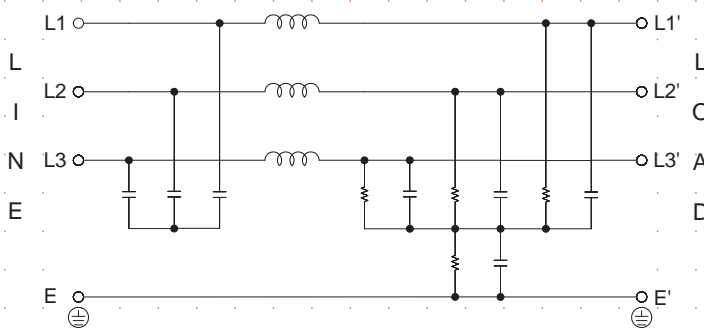
| Input output connectors | | 3 | | | | |
|-------------------------|-----------|---------|---------|-----------|---------|---------|
| Solid wire | 6mm | 16mm | 35mm | 50mm | 95mm | 150mm |
| lex wire | 4mm | 10mm | 25mm | 50mm | 95mm | 150mm |
| A G type wire | A G 10 | A G 6 | A G 2 | A G 1/0 | A G 4/0 | A G 6/0 |
| Recom. torque | 0.6~0.8Nm | 1~1.2Nm | 1.8~2Nm | 2.3~2.5Nm | 17~20Nm | 27~30Nm |

Technical data and measuring conditions

- Rated current: 35~300A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2250 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): >400,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Regenerative motor drivers
- Elevators, Cranes
- UPS
- Automation equipment
- Traction control system

Features

- Excellent conducted attenuation performance
- Current rating 35~300A
- Noise attenuation range from 10kHz~30MHz
- Thin and lightweight, metal chassis construction
- Alternative performance grade
- Touch-safe connections with hinged safety covers for quick, reliable ring lug wiring

Filter selection table

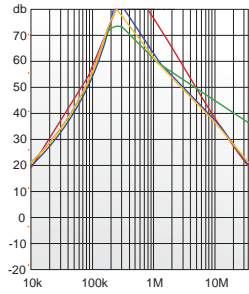
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 35SCA00 | 35 | 22 | 6.8 | 32.7 |
| 50SCA00 | 50 | 30 | 9.3 | 25.9 |
| 80SCA00 | 80 | 45 | 10 | 11.8 |
| 110SCA00 | 110 | 55 | 10 | 18 |
| 150SCA00 | 150 | 75 | 10 | 50.6 |
| 200SCA00 | 200 | 110 | 10 | 67.2 |
| 230SCA00 | 230 | 132 | 10 | 36.5 |
| 300SCA00 | 300 | 160 | 10 | 54 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

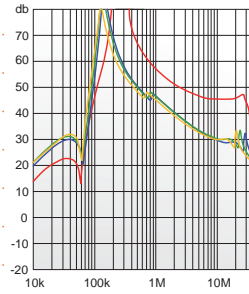
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

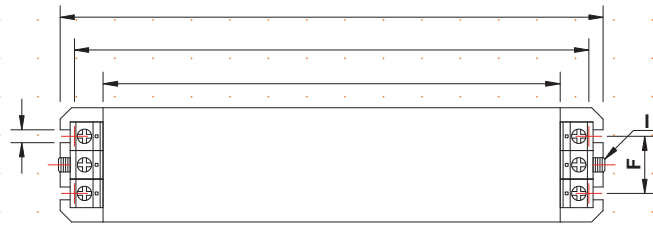
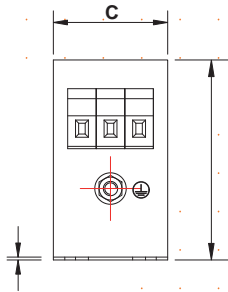


Differential mode / Symmetrical (P-P)



- 35A~80A —
- 110A~150A —
- 200A —
- 230A~300A —

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | 3 | | | | | 3 | 3 |
|------|-----|-----|-----|-----|-----|-----|-----|
| A | 160 | 220 | 240 | 280 | 220 | 240 | 240 |
| B | 70 | 70 | 85 | 85 | 90 | 135 | 150 |
| C | 40 | 45 | 50 | 50 | 85 | 80 | 90 |
| D | 180 | 235 | 255 | 295 | 235 | 255 | 255 |
| E | 190 | 250 | 270 | 310 | 250 | 270 | 270 |
| | 20 | 25 | 30 | 30 | 60 | 60 | 65 |
| G | 4.5 | 5.4 | 5.4 | 5.4 | 5.4 | 6.5 | 6.5 |
| H | 1 | 1 | 1 | 1 | 1 | 1.2 | 1.2 |
| I | M5 | M5 | M5 | M5 | M6 | M6 | M10 |

Input output connectors cross sections

| Input output connectors | 3 | | | 3 | 3 |
|-------------------------|---------|---------|-----------|---------|---------|
| Solid wire | 16mm | 35mm | 50mm | 95mm | - |
| lex wire | 10mm | 25mm | 50mm | 95mm | 150mm |
| A G type wire | A G 6 | A G 2 | A G 1/0 | A G 4/0 | A G 6/0 |
| Recom. torque | 1~1.2Nm | 1.8~2Nm | 2.3~2.5Nm | 17~20Nm | 27~30Nm |

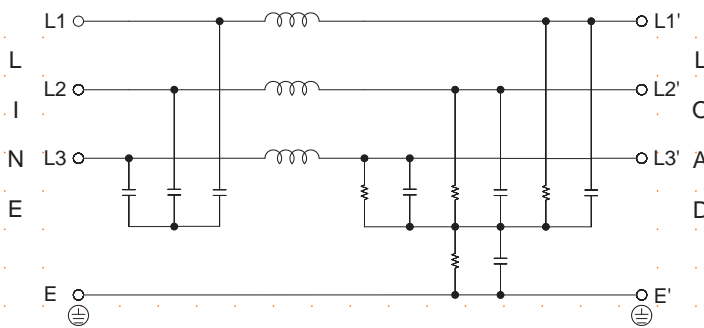
3 Phase Filter SCA20H series

Technical data and measuring conditions

- Rated current: 25~230A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2250 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 300,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Variable-frequency drive
- Lifts. Hoists
- Rectifiers
- Servo motor
- High power office equipment

Features

- Excellent conducted attenuation performance
- Current rating 25~230A
- Noise attenuation range from 10kHz~30MHz
- Thin and lightweight, metal chassis construction
- Alternative performance grade
- Widely use in regenerative motor drivers

Filter selection table

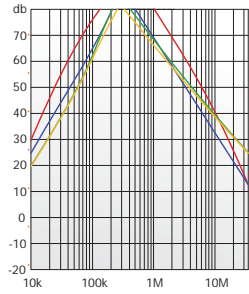
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 25SCA20H | 25 | 15 | 10.5 | 17.1 |
| 50SCA20H | 50 | 30 | 10.5 | 17.5 |
| 80SCA20H | 80 | 45 | 10.5 | 25.9 |
| 110SCA20H | 110 | 55 | 10.5 | 25.4 |
| 150SCA20H | 150 | 75 | 10.5 | 40.5 |
| 230SCA20H | 230 | 132 | 10.5 | 33.5 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

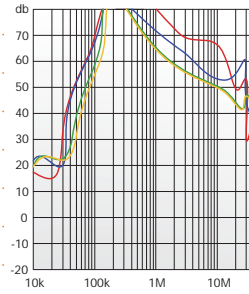
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

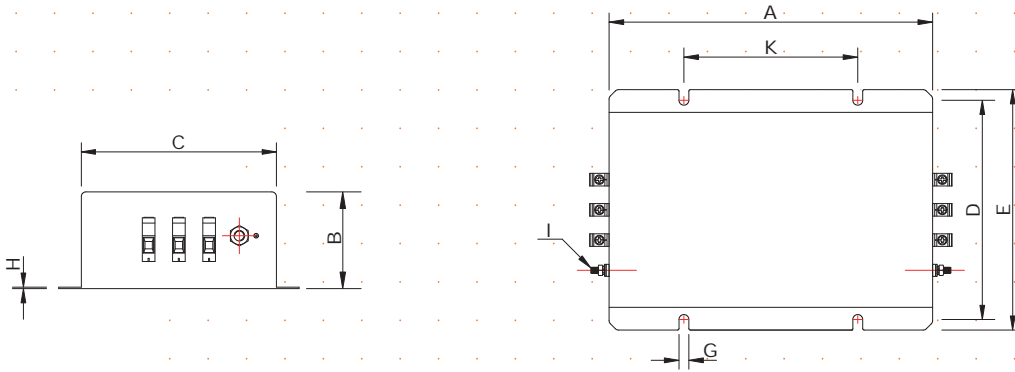


Differential mode / Symmetrical (P-P)



25A ———
 50A ———
 80A-150A ———
 230A ———

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | 25-50A | 80-150A | 230A |
|------|--------|---------|------|
| A | 214 | 221 | 300 |
| B | 64 | 140 | 140 |
| C | 129 | 140 | 140 |
| D | 145 | 155 | 155 |
| E | 159 | 169 | 168 |
| G | 6.5 | 6.5 | 6.5 |
| H | 1 | 1 | 2 |
| I | M6 | M10 | M10 |
| K | 115 | 115 | 165 |

Input / Output connectors cross sections

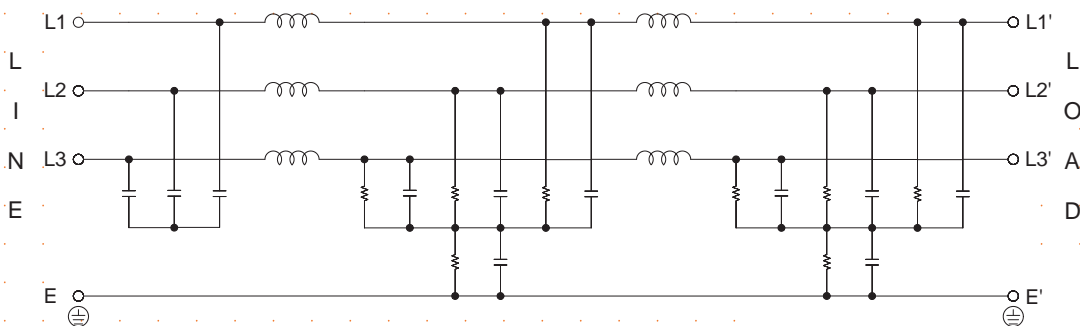
| Input / Output connectors | 25A | 50A | 80-110A | 150-230A |
|---------------------------|-------------------|-------------------|-------------------|-------------------|
| Solid wire | 16mm ² | 35mm ² | 50mm ² | 95mm ² |
| Flex wire | 10mm ² | 25mm ² | 50mm ² | 95mm ² |
| AWG type wire | AWG 6 | AWG 2 | AWG 1/0 | AWG 4/0 |
| Recom. torque | 1-1.2Nm | 1.8-2Nm | 2.3-2.5Nm | 17-20Nm |

Technical data and measuring conditions

- Rated current: 7~250A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 3000 VDC
P to P: 2100 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 220,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Features

- Superior conducted attenuation performance
- Current rating 7~250A
- Two-stage circuit is ideal for very noisy environments
- Thin & lightweight metal housing book-style design
- Alternative performance grade
- Compliance with medical-grade standards.

Marketing applications

- IT distribution network
- Inverters
- PV system
- Process control systems (PCS)
- Wind turbine

Filter selection table

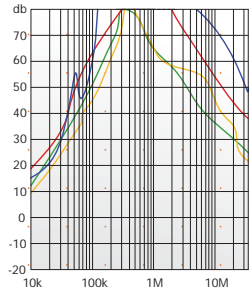
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|------------------|-------------------------------|--|---|---------------------------------|
| 07SB58 | 7 | 4 | 2.0 | 21 |
| 16SB58 | 16 | 7.5 | 2.1 | 20 |
| 30SB58 | 30 | 15 | 2.9 | 9 |
| 42SB58 | 42 | 22 | 3.0 | 24 |
| 55SB58 | 55 | 30 | 3.0 | 30 |
| 75SB58 | 75 | 37 | 3.0 | 30 |
| 100SB58 | 100 | 55 | 3.0 | 73 |
| 130SB58 | 130 | 75 | 3.5 | 50 |
| 180SB58 | 180 | 90 | 3.5 | 51 |
| 250SB58 | 250 | 132 | 3.4 | 79 |
| 07SB58L / SB58P | 7 | 4 | 0.1 / 0.4 | 9 |
| 16SB58L / SB58P | 16 | 7.5 | 0.1 / 0.4 | 20 |
| 30SB58L / SB58P | 30 | 15 | 0.1 / 0.4 | 21 |
| 42SB58L / SB58P | 42 | 22 | 0.1 / 0.4 | 30 |
| 55SB58L / SB58P | 55 | 30 | 0.1 / 0.4 | 30 |
| 75SB58L / SB58P | 75 | 37 | 0.1 / 0.4 | 24 |
| 100SB58L / SB58P | 100 | 55 | 0.1 / 0.4 | 51 |
| 130SB58L / SB58P | 130 | 75 | 0.1 / 0.4 | 50 |
| 180SB58L / SB58P | 180 | 90 | 0.1 / 0.4 | 73 |
| 250SB58L / SB58P | 250 | 132 | 0.1 / 0.4 | 79 |

*Calculated at rated current, 480 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

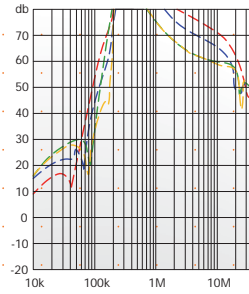
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

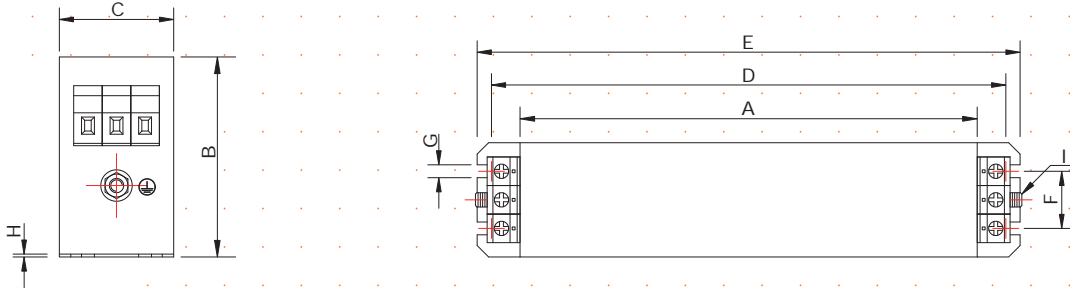


Differential mode / Symmetrical (P-P)



7A-30A
42A-100A
130A
180A-250A

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | A | 1 A | 30A | 2A | 55A | 5A | 100A | 130A | 180A | 250A |
|------|-----|-----|-----|-----|-----|-----|------|------|------|------|
| A | 225 | 275 | 305 | 300 | 300 | 300 | 350 | 400 | 400 | 440 |
| B | 126 | 142 | 150 | 185 | 185 | 220 | 220 | 240 | 240 | 240 |
| C | 50 | 55 | 60 | 70 | 80 | 80 | 90 | 110 | 110 | 110 |
| D | 240 | 290 | 320 | 314 | 314 | 314 | 364 | 414 | 413 | 453 |
| E | 255 | 305 | 335 | 329 | 329 | 329 | 379 | 439 | 438 | 478 |
| F | 25 | 30 | 35 | 45 | 55 | 55 | 65 | 80 | 80 | 80 |
| G | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| H | 1 | 1 | 1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 2 | 2 |
| I | M5 | M5 | M5 | M6 | M6 | M6 | M10 | M10 | M10 | M10 |

Input / Output connectors cross sections

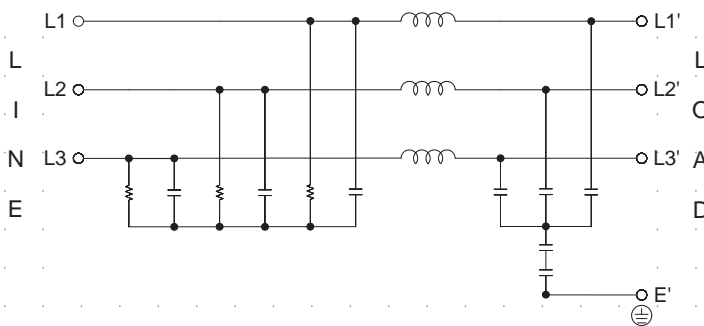
| Input / Output connectors | ~1 A | 30- 2A | 55- 5A | 100-130A | 180-250A |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Solid wire | 10mm ² | 16mm ² | 35mm ² | 50mm ² | 95mm ² |
| Flex wire | 6mm ² | 10mm ² | 25mm ² | 50mm ² | 95mm ² |
| AWG type wire | AWG 8 | AWG 6 | AWG 2 | AWG 1/0 | AWG 4/0 |
| Recom. torque | 1-1.2Nm | 1-1.2Nm | 1.8-2Nm | 2.3-2.5Nm | 17-20Nm |

Technical data and measuring conditions

- Rated current: 7~30A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25° ~ +100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2000 VAC
P to P: 2250 VDC
- Protection category: IP00
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): >200,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Electric motor driven systems
- Frequency inverters
- Power management system
- Servo motor
- High power office equipment

Features

- Provide excellent attenuation of common-mode noise
- Current rating 7~30A
- Leakage current values 2.5mA~5mA (Max.)
- Light weight plastic housing design
- Integrated nut is in hinged cover for quick, reliable ring lug wiring
- Single stage circuit is ideal for general applications.

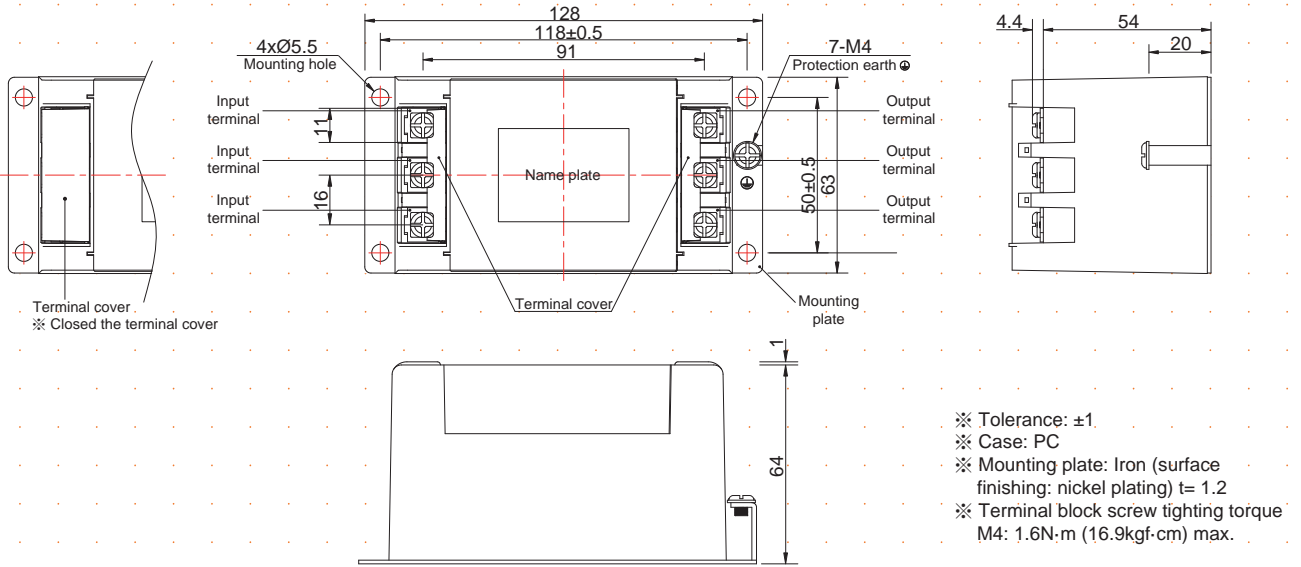
Filter selection table

| No. | CTAC series Filter PRJ No. | 07CTAC | 08CTAC | 10CTAC | 16CTAC | 20CTAC | 25CTAC | 30CTAC | |
|-----|--|---|--------|--------|--------|-----------|--------|--------|--|
| | CTAH series Filter PRJ No. | 07CTAH | 08CTAH | 10CTAH | 16CTAH | 20CTAH | 25CTAH | 30CTAH | |
| 1 | Rated voltage | AC Three phase 500V, 50/60Hz | | | | | | | |
| 2 | Rated current | 7A | 8A | 10A | 16A | 20A | 25A | 30A | |
| 3 | Test voltage (Terminal-mounting plate) | 2,000 VAC (Cutoff current: 100mA), 1 min. at room temperature and humidity | | | | | | | |
| 4 | Isolation resistance (Terminal-mounting plate) | 500VDC 100MΩ min. at room temperature and humidity | | | | | | | |
| 5 | Leakage current | 5mA @500V / 60Hz (max.) | | | | | | | |
| 6 | Cy cap. value ● | 68nF | | | | | | | |
| 7 | Voltage drop | 1.5V max. | | | | 1.0V max. | | | |
| 8 | Best frequency bands | CTAC series: 150kHz ~ 1MHz; CTAH series: 10kHz ~ 1MHz | | | | | | | |
| 9 | Safety approval temp. | -25° ~ +100° | | | | | | | |
| 10 | Operating temperature | -40° ~ +100° | | | | | | | |
| 11 | Operating humidity | 20 ~ 95%RH (Non condensing) | | | | | | | |
| 12 | Storage temp./ humidity | -40° ~ +100°; 20 ~ 95%RH (Non condensing) | | | | | | | |
| 13 | Vibration | 10 ~ 55Hz, 19.6m/s ² (2G), 3 min. period, 1 hour each X,Y,Z axis | | | | | | | |
| 14 | Impact | 196.1m/s ² (20G), 11ms, once along X,Y,Z axis | | | | | | | |
| 15 | Safety approvals | UL1283, CSA C22.2 No.8 (C-UL), VDE0565 Teil3-1, IEC/EN60939 | | | | | | | |

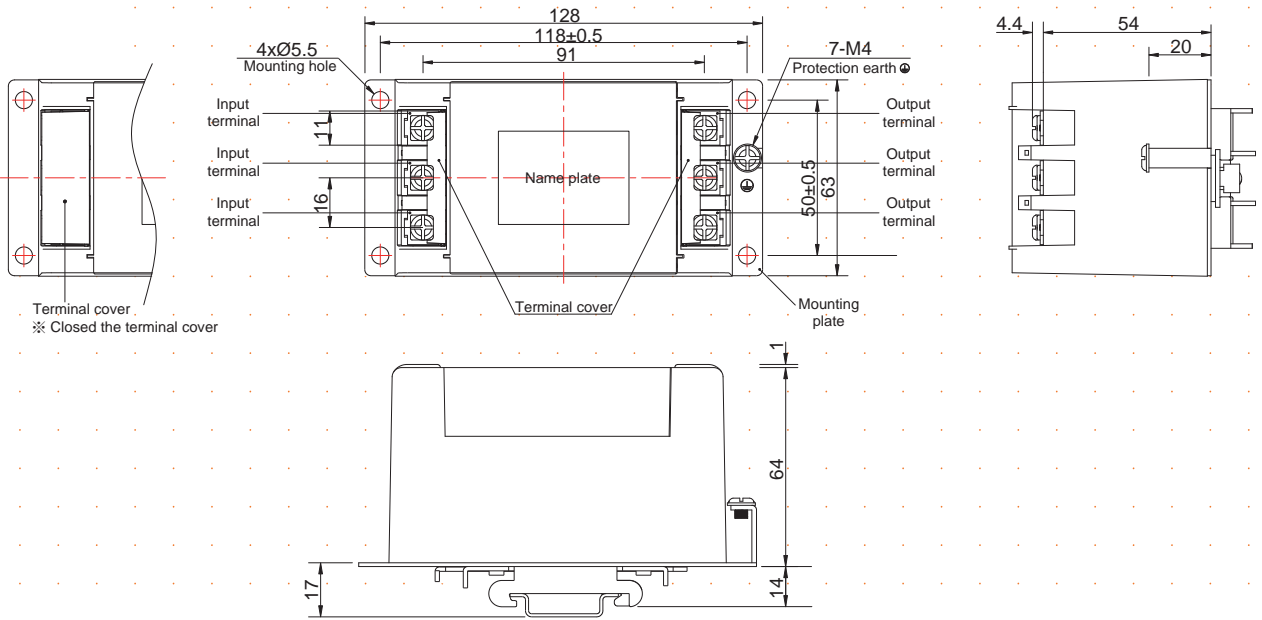
● call for alternatives.

Mechanical drawing

Chassis mounting

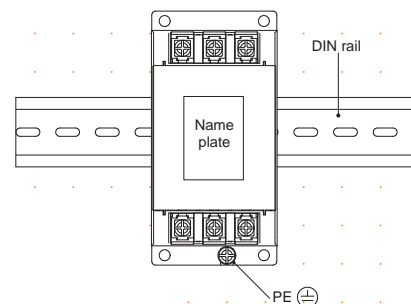


DIN-rail mounting



Note when installing the EMI filter on a DIN rail:

When the EMI filter is grounded through the DIN rail, the proper noise attenuation may not be achieved.
 Be sure to connect the protection earth (PE) of the EMI filter body to the earth.

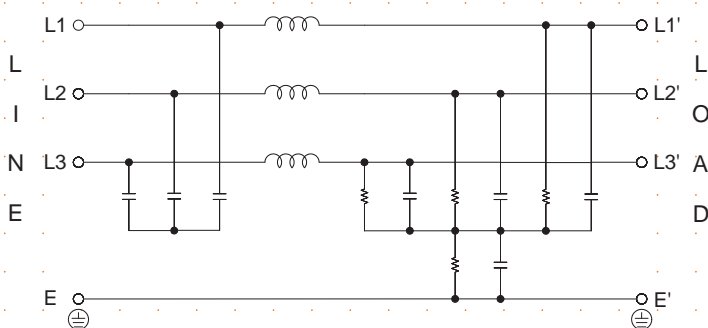


Technical data and measuring conditions

- Rated current: 7~180A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2200 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 300,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- HVAC system
- Motor driver
- Process control system
- Power management system
- Robotics

Features

- Superior conducted attenuation performance
- Current rating 7~180A
- Lower leakage current values than SCB58 series
- Light weight metal housing design
- Alternative performance grade
- Touch-safe connections with hinged safety covers for quick, reliable ring lug wiring

Filter selection table

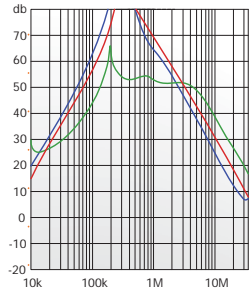
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------|----------------------------------|-------------------------------------|---------------------------|
| 07SCB68 | 7 | 4 | 2.6 | 17.4 |
| 16SCB68 | 16 | 7.5 | 2.6 | 13.5 |
| 30SCB68 | 30 | 18.5 | 2.6 | 4.5 |
| 42SCB68 | 42 | 22 | 2.6 | 6.1 |
| 55SCB68 | 55 | 37 | 2.6 | 18.1 |
| 75SCB68 | 75 | 45 | 10.8 | 25.3 |
| 100SCB68 | 100 | 55 | 9.6 | 30 |
| 130SCB68 | 130 | 75 | 14.2 | 38 |
| 180SCB68 | 180 | 110 | 17.4 | 48.6 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

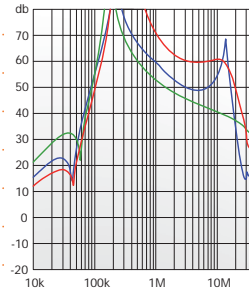
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

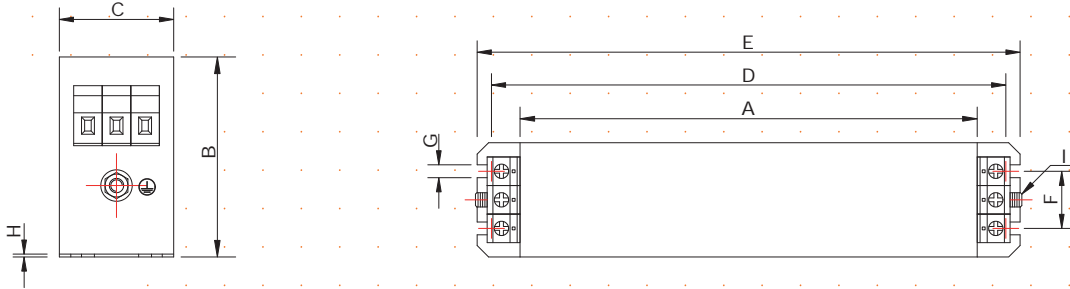


Differential mode / Symmetrical (P-P)



7A-42A ————
 55A-100A ————
 130A-180A ————

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | A | 1 A | 30A | 2A | 55A | 5A | 100A | 130A | 180A |
|------|-----|-----|-----|-----|-----|-----|------|------|------|
| A | 160 | 220 | 240 | 280 | 220 | 240 | 240 | 240 | 350 |
| B | 70 | 70 | 85 | 85 | 90 | 135 | 150 | 150 | 170 |
| C | 40 | 45 | 50 | 50 | 85 | 80 | 90 | 90 | 120 |
| D | 180 | 235 | 255 | 295 | 235 | 255 | 255 | 255 | 365 |
| E | 190 | 250 | 270 | 310 | 250 | 270 | 270 | 270 | 380 |
| F | 20 | 25 | 30 | 30 | 60 | 60 | 65 | 65 | 102 |
| G | 4.5 | 5.4 | 5.4 | 5.4 | 5.4 | 6.5 | 6.5 | 6.5 | 6.5 |
| H | 1 | 1 | 1 | 1 | 1 | 1.2 | 1.2 | 1.2 | 1.2 |
| I | M5 | M5 | M5 | M5 | M6 | M6 | M10 | M10 | M10 |

Input / Output connectors cross sections

| Input / Output connectors | ~1 A | 30- 2A | 55- 5A | 100-130A | 180A |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Solid wire | 10mm ² | 16mm ² | 35mm ² | 50mm ² | 95mm ² |
| Flex wire | 6mm ² | 10mm ² | 25mm ² | 50mm ² | 95mm ² |
| AWG type wire | AWG 8 | AWG 6 | AWG 2 | AWG 1/0 | AWG 4/0 |
| Recom. torque | 1-1.2Nm | 1-1.2Nm | 1.8-2Nm | 2.3-2.5Nm | 17-20Nm |

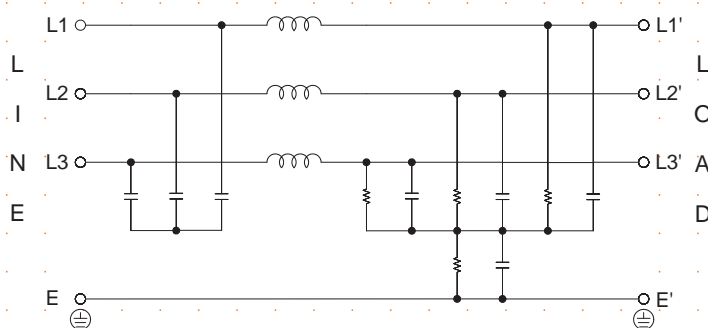
3 Phase Filter SCB70H series

Technical data and measuring conditions

- Rated current: 10~100A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2250 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 320,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Motor drive
- Process control system
- Power management system
- Robotics

Features

- Superior conducted attenuation performance
- Current rating 10~100A
- Widely used in motor drive
- Compact and lightweight
- Easy to install
- Touch-safe connections with hinged safety covers

Filter selection table

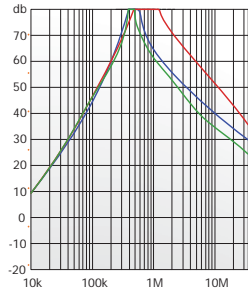
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 10SCB70H | 10 | 5.5 | 3.1 | 2.4 |
| 20SCB70H | 20 | 11 | 3.1 | 4.1 |
| 35SCB70H | 35 | 22 | 3.4 | 6.8 |
| 50SCB70H | 50 | 30 | 3.4 | 12.8 |
| 65SCB70H | 65 | 37 | 3.4 | 13.5 |
| 80SCB70H | 80 | 45 | 3.4 | 13.5 |
| 100SCB70H | 100 | 55 | 3.4 | 17.1 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

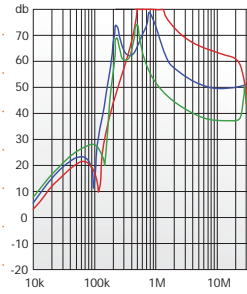
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

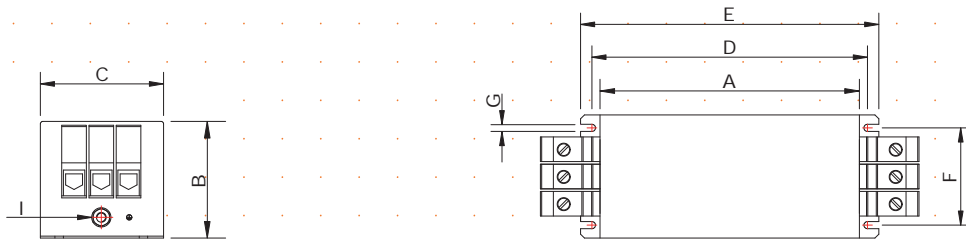


Differential mode / Symmetrical (P-P)



10A~20A ————
 35A~65A ————
 80A~100A ————

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | 10~20A | 35A | 50~ 5A | 80A | 100A |
|------|--------|-------|--------|-------|-------|
| A | 120 | 130 | 140 | 170 | 200 |
| B | 58 | 68 | 80 | 90 | 90 |
| C | 58 | 70 | 85 | 95 | 95 |
| D | 132.5 | 142.5 | 152.5 | 182.5 | 212.5 |
| E | 150 | 160 | 170 | 200 | 230 |
| F | 42 | 50 | 65 | 75 | 75 |
| G | 4.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| H | 1 | 1 | 1 | 1 | 1 |
| I | M4 | M5 | M6 | M8 | M8 |

Input / Output connectors cross sections

| Input / Output connectors | 10~20A | 35A | 50~ 5A | 80~100A |
|---------------------------|-------------------|-------------------|-------------------|-------------------|
| Solid wire | 10mm ² | 16mm ² | 35mm ² | 50mm ² |
| Flex wire | 6mm ² | 10mm ² | 25mm ² | 50mm ² |
| AWG type wire | AWG 8 | AWG 6 | AWG 2 | AWG 1/0 |
| Recom. torque | 1~1.2Nm | 1~1.2Nm | 1.8~2Nm | 2.3~2.5Nm |

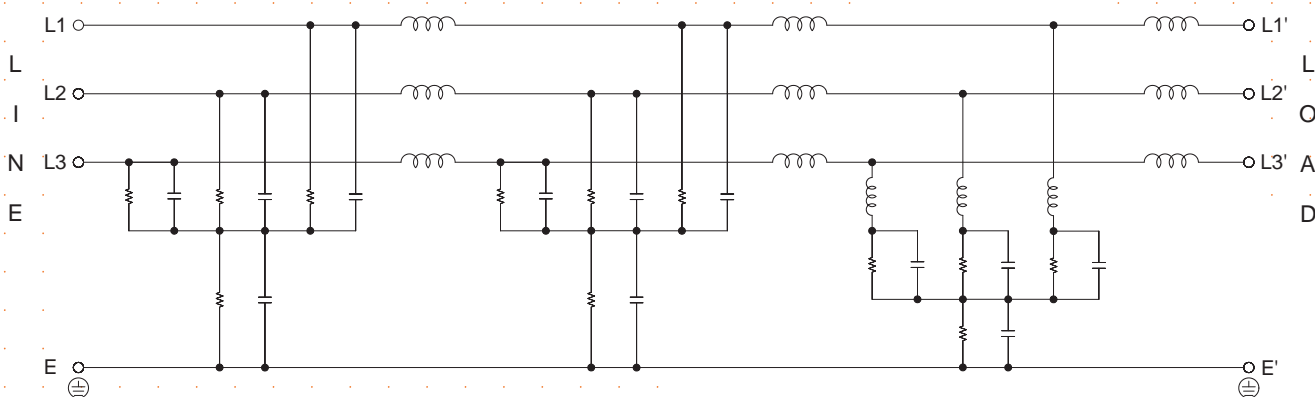
3 Phase Filter SCB70H series

Technical data and measuring conditions

- Rated current: 150-400A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2250 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 320,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Features

- Excellent conducted attenuation performance
- Current rating 150-400A
- Widely used in motor drive
- Compact and lightweight
- Easy to install
- With fast-on connections

Marketing applications

- Motor drive
- Process control system
- Power management system
- Robotics

Filter selection table

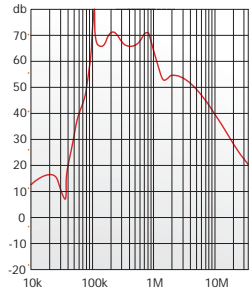
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------|----------------------------------|-------------------------------------|---------------------------|
| 150SCB70HQ | 150 | 75 | 6.9 | 7.5 |
| 200SCB70HQ | 200 | 110 | 6.9 | 13.2 |
| 250SCB70HQ | 250 | 132 | 6.9 | 20.6 |
| 320SCB70HQ | 320 | 160 | 6.9 | 12.2 |
| 400SCB70HQ | 400 | 220 | 6.9 | 19.2 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

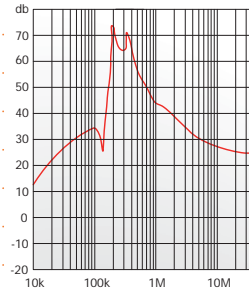
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

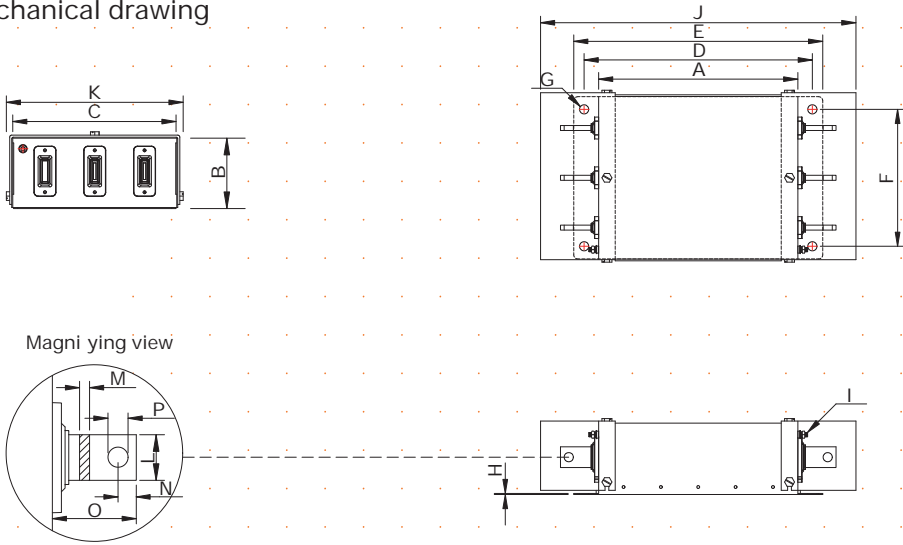


Differential mode / Symmetrical (P-P)



150A-400A

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

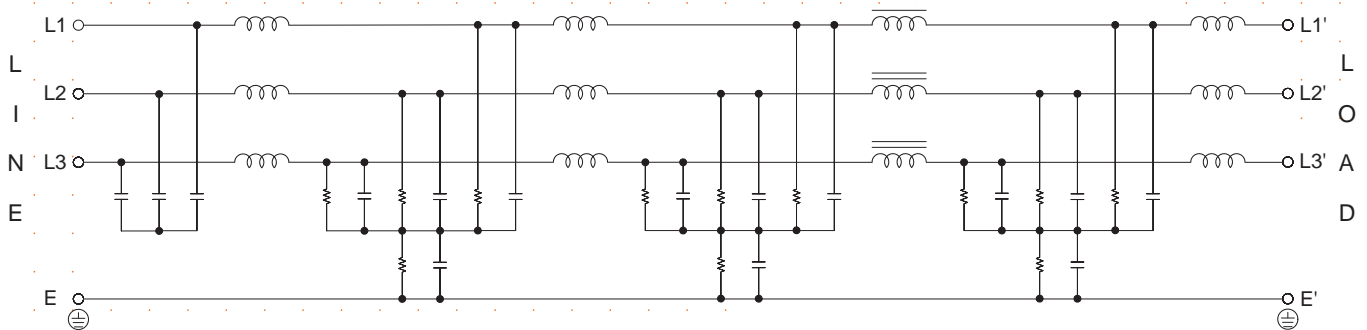
| Code | 150-250A | 320- 00A |
|------|----------|----------|
| A | 240 | 240 |
| B | 86 | 86 |
| C | 200 | 200 |
| D | 275 | 275 |
| E | 300 | 300 |
| F | 165 | 165 |
| G | 11 | 11 |
| H | 1.2 | 1.2 |
| I | M10 | M10 |
| J | 380 | 380 |
| K | 211 | 211 |
| L | 20 | 25 |
| M | 3 | 6 |
| N | 10 | 12.5 |
| O | 37 | 37 |
| P | 9 | 11 |

Technical data and measuring conditions

- Rated current: 150-400A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2200 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 130,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Features

- Excellent conducted attenuation performance
- Current rating 150-400A
- Widely used in regenerative motor drivers
- Extremely compact high-current filter
- Easy to install
- With protective plastic covers

Marketing applications

- Regenerative motor drivers
- Power management system
- Motor drive & Control
- Automation & Process control

Filter selection table

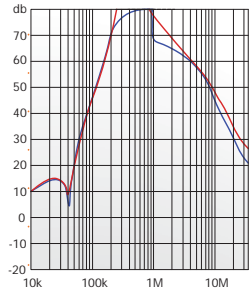
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 150SCC59S | 150 | 75 | 5.1 | 3.8 |
| 180SCC59S | 180 | 90 | 5.1 | 6.1 |
| 250SCC59S | 250 | 130 | 5.1 | 7.8 |
| 320SCC59Q | 320 | 160 | 5.1 | 11.8 |
| 400SCC59Q | 400 | 220 | 5.1 | 15.7 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

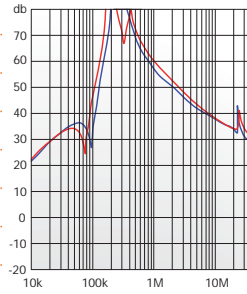
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)



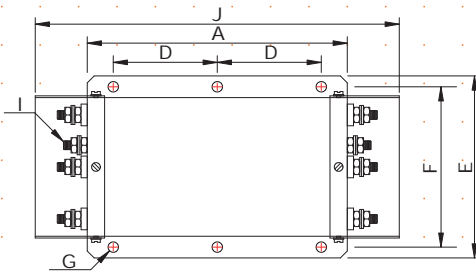
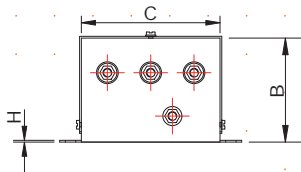
Differential mode / Symmetrical (P-P)



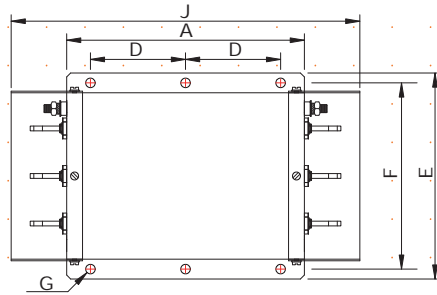
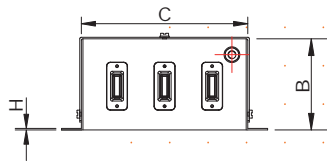
150A-180A ———
250A-400A ———

Mechanical drawing

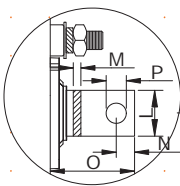
150-250A



320-400A



Magnifying view



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

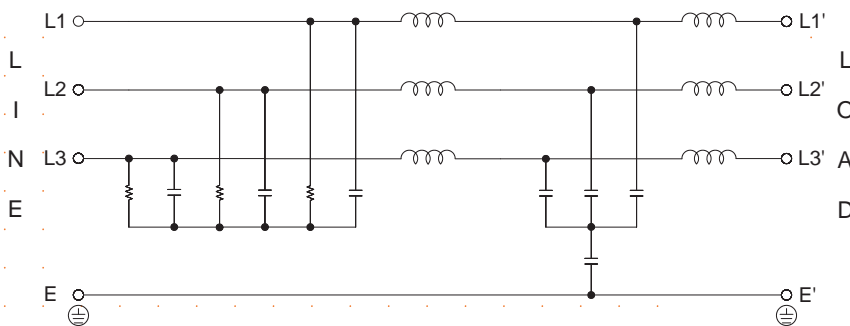
| Code | 150-180A | 250A | 320- 00A |
|------|----------|------|----------|
| A | 300 | 300 | 300 |
| B | 120 | 125 | 115 |
| C | 160 | 180 | 210 |
| D | 120 | 120 | 120 |
| E | 210 | 230 | 260 |
| F | 185 | 205 | 235 |
| G | 12 | 12 | 12 |
| H | 1.2 | 1.2 | 1.2 |
| I | M10 | M10 | M10 |
| J | 420 | 420 | 440 |
| K | 211 | 211 | 211 |
| L | - | - | 25 |
| M | - | - | 6 |
| N | - | - | 15 |
| O | - | - | 40 |
| P | - | - | 10.5 |

Technical data and measuring conditions

- Rated current: 10~30A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P to E: 2750 VDC
P to P: 2250 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 300,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Features

- Premium conducted attenuation performance
- Current rating 10~30A
- 2-stage circuit is ideal for noisy environments
- Optimized for inverter
- Compact and lightweight
- Touch-safe connections with hinged safety covers

Marketing applications

- Inverters
- UPS
- Power management system
- Automation equipment

Filter selection table

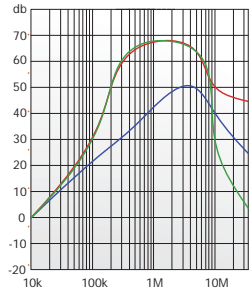
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------|----------------------------------|-------------------------------------|---------------------------|
| 10H2DG7TW01 | 10 | 6 | 1.3 | 3.8 |
| 16H2DG7TW01 | 16 | 9.6 | 1.3 | 6.1 |
| 20H2DG7TW01 | 20 | 12 | 1.3 | 11.8 |
| 30H2DG7TW01 | 30 | 18 | 1.3 | 15.7 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

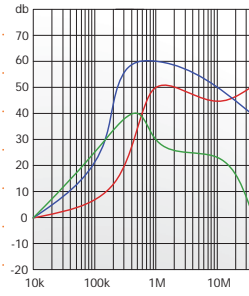
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

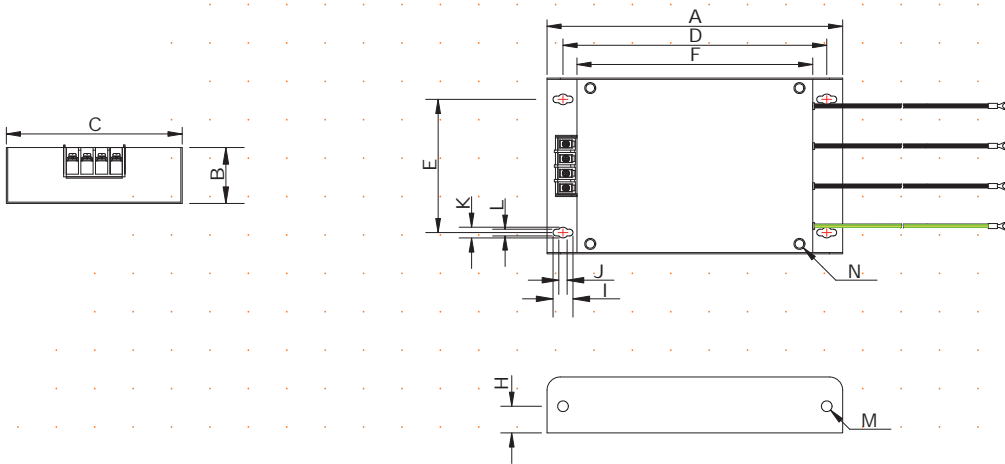


Differential mode / Symmetrical (P-P)



10A-16A ———
 20A ———
 30A ———

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

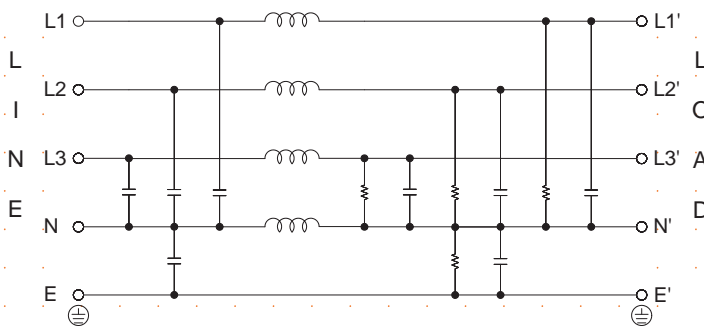
| Code | 10A | 1 ~20A | 30A |
|------|-----|--------|-----|
| A | 222 | 270 | 277 |
| B | 42 | 40 | 52 |
| C | 132 | 175 | 202 |
| D | 198 | 246 | 253 |
| E | 100 | 160 | 170 |
| F | 175 | 230 | 230 |
| H | 20 | 20 | 25 |
| I | 15 | 15 | 15 |
| | 8 | 8 | 8 |
| K | 8 | 8 | 8 |
| L | 5 | 5 | 5 |
| M | 8 | 8 | 8 |
| N | M4 | M4 | M4 |

Technical data and measuring conditions

- Rated current: 8-160A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
 P/N - E: 3000 VDC
 P to P: 2250 VDC
 P to N: 1300 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): >410,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Three-phase four-wire networks
- Automation
- Power distribution box
- Mainframe operation system
- UPS

Features

- Excellent conducted attenuation performance
- Current rating 8-160A
- Very low leakage current values
- Extremely compact and lightweight design.
- Integrated nut is in hinged cover for quick, reliable ring lug wiring
- Touch-safe connections with hinged safety covers

Filter selection table

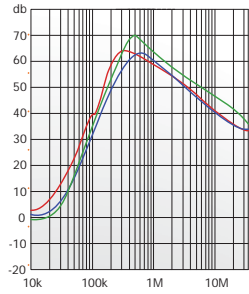
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 08SCB56H | 8 | 4 | 0.6 | 2.7 |
| 16SCB56H | 16 | 7.5 | 0.6 | 5 |
| 25SCB56H | 25 | 10 | 0.6 | 9.8 |
| 36SCB56H | 36 | 15 | 0.6 | 11.3 |
| 64SCB56H | 64 | 22 | 0.6 | 17.2 |
| 80SCB56H | 80 | 30 | 0.6 | 14.5 |
| 120SCB56H | 120 | 37 | 0.6 | 25 |
| 160SCB56H | 160 | 37 | 1.3 | 26.9 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

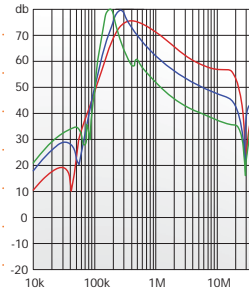
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

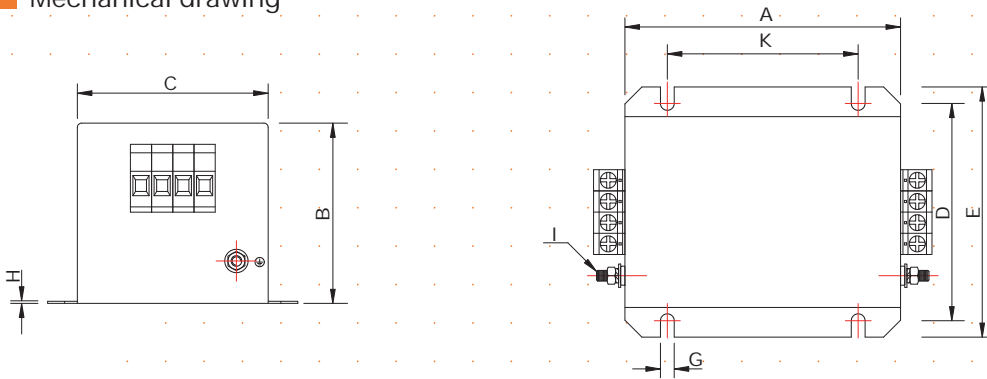


Differential mode / Symmetrical (P-P)



8A-36A ————
 64-80A ————
 120-160A ————

Mechanical drawing



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

| Code | 8-1 A | 25-3 A | A | 80A | 120A | 1 0A |
|------|-------|--------|-------|-------|-------|-------|
| A | 110 | 130 | 140 | 170 | 210 | 200 |
| B | 70 | 85 | 115 | 125 | 125 | 130 |
| C | 82 | 90 | 115 | 135 | 140 | 160 |
| D | 94.5 | 102.5 | 127.5 | 147.5 | 153.5 | 173.5 |
| E | 110 | 118 | 143 | 163 | 170 | 190 |
| G | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| H | 1 | 1 | 1 | 1 | 1 | 1 |
| I | M6 | M6 | M10 | M10 | M10 | M10 |
| K | 70 | 90 | 100 | 120 | 160 | 150 |

Input / Output connectors cross sections

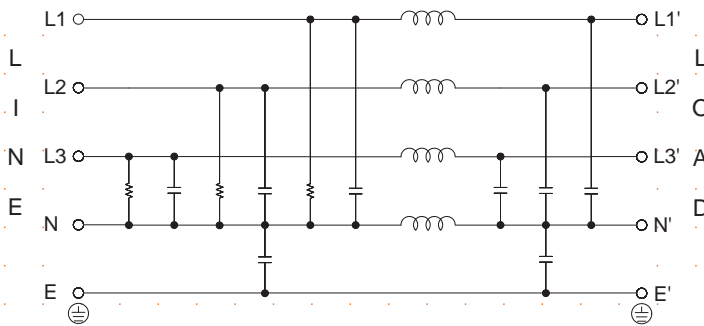
| Input / Output connectors | 8-1 A | 25-3 A | A | 80-120A | 1 0A |
|---------------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| Solid wire | 6mm ² | 16mm ² | 35mm ² | 50mm ² | 95mm ² |
| Flex wire | 4mm ² | 10mm ² | 25mm ² | 50mm ² | 95mm ² |
| AWG type wire | AWG 10 | AWG 6 | AWG 2 | AWG 1/0 | AWG 4/0 |
| Recom. torque | 0.6-0.8Nm | 1-1.2Nm | 1.8-2Nm | 2.3-2.5Nm | 17-20Nm |

Technical data and measuring conditions

- Rated current: 16~150A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
P/N - E: 2000 VDC
P. to P: 1900 VDC
P to N: 1100 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 410,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Three-phase four-wire networks
- Medical device (not body-coupled)
- Industrial electric appliances
- High power office equipment
- Power management system

Features

- Superior conducted attenuation performance
- Current rating 16~150A
- Low leakage current values
- Compact and lightweight design
- Metal chassis mounted
- Touch-safe connections with hinged safety covers

Filter selection table

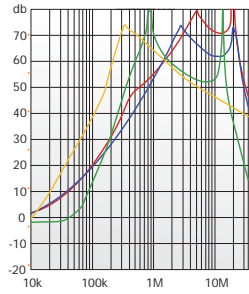
| Filter PRJ No. | Rated Current @50°C [A] | Typical Drive* Power Rating [kW] | Leakage Current** @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---|---------------------------------|
| 16SC56 | 16 | 7.5 | 0.1 | .7 |
| 25SC56 | 25 | 10 | 0.1 | 10.1 |
| 36SC56 | 36 | 15 | 0.1 | 10.9 |
| 50SC56 | 50 | 19 | 0.1 | 15.8 |
| 100SC56 | 100 | 22 | 0.1 | 24 |
| 100SC56S | 100 | 22 | 0.1 | 24 |
| 150SC56S | 150 | 30 | 0.1 | 45.9 |

*Calculated at rated current, 600 VAC and cos phi = 0.8. The exact value depends upon the efficiency of the drive, the motor and the entire application.

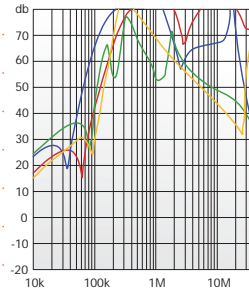
**Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)



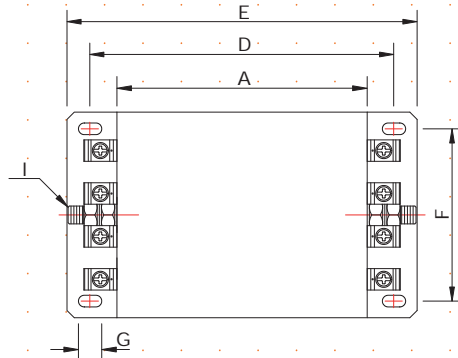
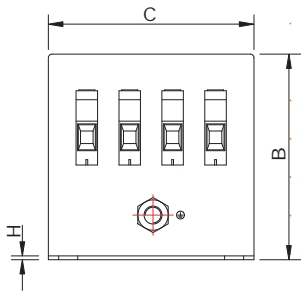
Differential mode / Symmetrical (P-P)



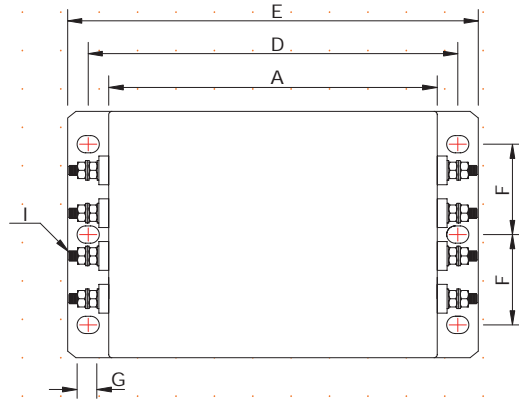
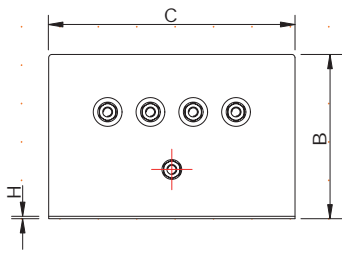
- 16A ———
- 25-50A ———
- 100A ———
- 150A ———

Mechanical drawing

16-100A



100-150A



Dimensions (unit: mm) Tolerances according to ISO 2768-m / EN 22768-m

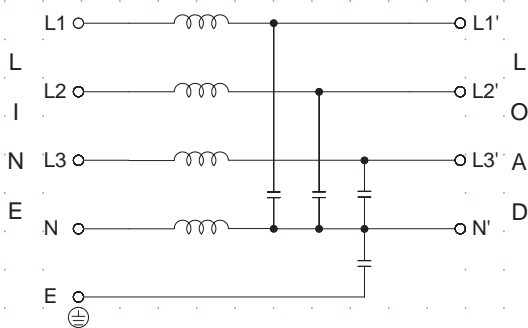
| Code | 1 -3 A | 50A | 100A | 150A |
|------|--------|--------|--------|--------|
| A | 140 | 142.5 | 210 | 300 |
| B | 80 | 102 | 130 | 130 |
| C | 105 | 122 | 160 | 160 |
| D | 165.5 | 168 | 230 | 320 |
| E | 189 | 192 | 250 | 340 |
| F | 80 | 98 | 65 | 60 |
| G | 13x6.5 | 13x6.5 | 13x6.5 | 13x6.5 |
| H | 1 | 1 | 1 | 1 |
| I | M6 | M6 | M10 | M10 |

Technical data and measuring conditions

- Rated current: 3~20A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
 P/N - E: 2000 VAC
 P to P: 1350 VDC
 P to N: 800 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF @50°C/400V(Mill-HB-217F): 850,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Three-phase four-wire networks
- Control units
- Pumps
- HVAC system
- Security system

Features

- Extremely compact and space-saving
- Current rating 3~20A
- Low leakage current values
- Metal chassis mounted
- With fast-on quick connection
- Cost-effective solution

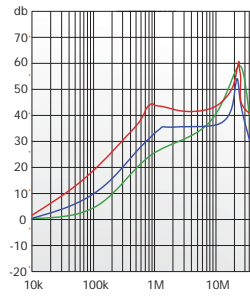
Filter selection table

| Filter PRJ No. | Rated Current @50°C [A] | Leakage Current* @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---------------------------------|
| 03SC55 | 3 | 0.05 | 1.4 |
| 06SC55 | 6 | 0.05 | 1.5 |
| 10SC55 | 10 | 0.05 | 1.8 |
| 20SC55 | 20 | 0.1 | 3.4 |

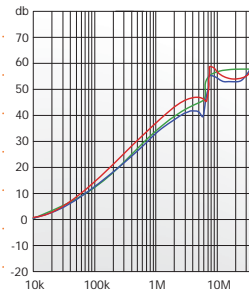
*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)

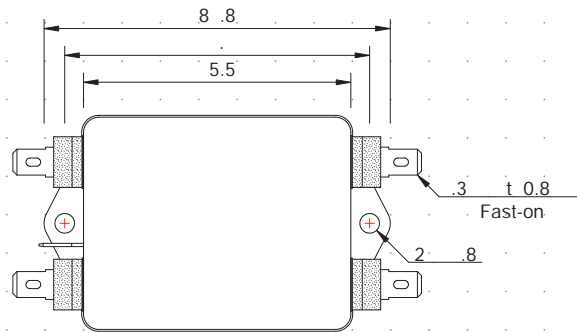
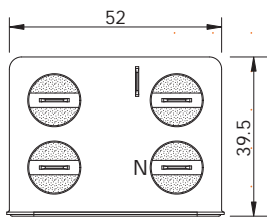


Differential mode / Symmetrical (P-P)



3A —————
 6A —————
 10-20A —————

Mechanical drawing

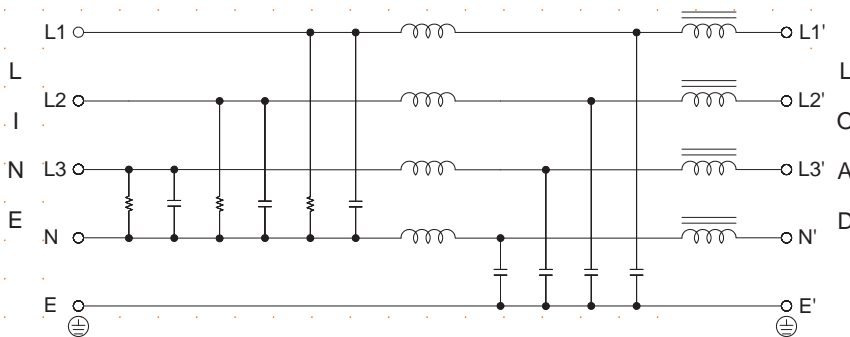


Technical data and measuring conditions

- Rated current: 4-25A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
 P/N - E: 2000 VDC
 P. to P: 1900 VDC
 P to N: 1100 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 500,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Features

- High attenuation performance up to 300MHz
- Current rating 4-25A
- 2-stage circuit is ideal for noisy environments
- Compact four-wire filter for applications with limited space
- Metal chassis mounted
- Space-saving solution

Marketing applications

- Process control systems (PCS)
- Power management system
- High power office equipment

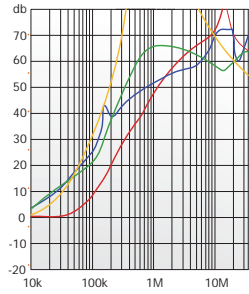
Filter selection table

| Filter PRJ No. | Rated Current @50°C [A] | Leakage Current* @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---------------------------------|
| 04SC54Q | 4 | 0.1 | 2 |
| 06SC54Q | 6 | 0.1 | 3.9 |
| 12SC54Q | 12 | 0.1 | 7.8 |
| 15SC54 | 15 | 0.1 | 10.8 |
| 25SC54 | 25 | 0.2 | 16.9 |

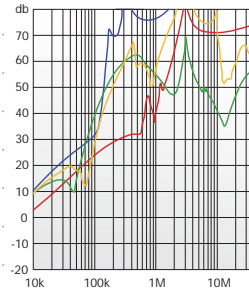
*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)



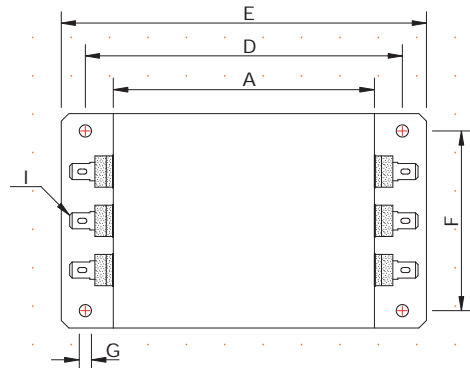
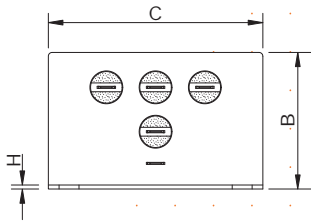
Differential mode / Symmetrical (P-P)



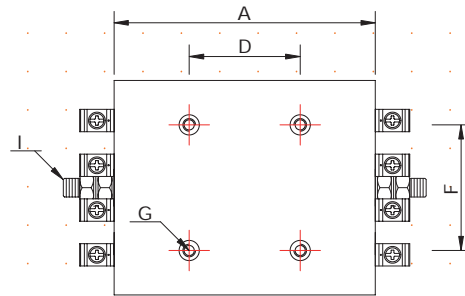
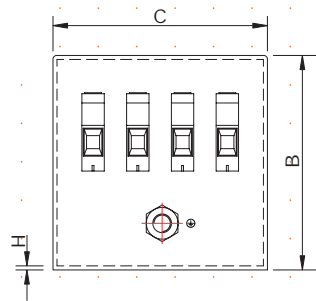
- 4A-6A
- 12A
- 15A
- 25A

Mechanical drawing

4-12A



15-25A



Dimensions (unit: mm)

Tolerances according to ISO 2768-m / EN 22768-m

| Code | A | A | 12A | 15-25A |
|------|---------|---------|---------|--------|
| A | 80 | 90 | 125 | 273.6 |
| B | 40.5 | 50.5 | 60 | 107 |
| C | 43 | 55 | 65 | 158.6 |
| D | 95 | 110 | 140 | 230 |
| E | 103 | 120 | 150 | - |
| F | 35 | 45 | 55 | 115 |
| G | 3.8 | 3.8 | 7.5x4.4 | M8 |
| H | 1 | 1 | 1 | 1 |
| I | 6.3x0.8 | 6.3x0.8 | 6.3x0.8 | M4 |

Input / Output connectors cross sections

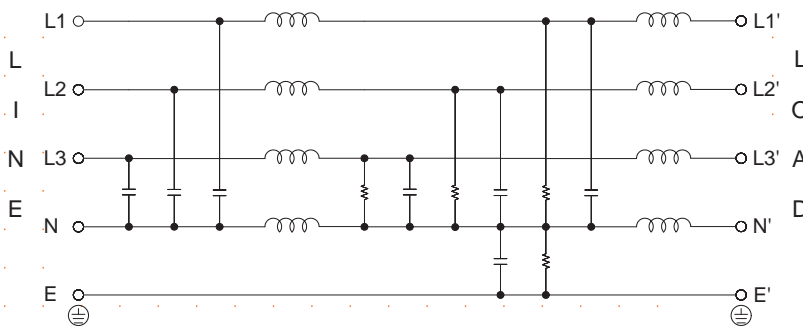
| Input / Output connectors | 15-25A |
|---------------------------|-------------------|
| Solid wire | 16mm ² |
| Flex wire | 10mm ² |
| AWG type wire | AWG 6 |
| Recom. torque | 1.5~1.8Nm |

Technical data and measuring conditions

- Rated current: 8-400A@50°C
- Max. continuous operating voltage: 3x600 / 347VAC
- Operating frequency: dc to 60Hz
- Operating temp. : -25°~ + 100° (25/100/21)
- Hi-pot. test voltage (for 2 sec.):
 P/N - E: 2750 VDC
 P to P: 2250 VDC
 P to N: 1300 VDC
- Protection category: IP20
- Flammability corresponding to: UL 94V-2 or better
- MTBF@50°C/400V(Mill-HB-217F): 360,000 hours
- Design corresponding to: UL1283, UL60939, CSA 22.2 No.8-13, IEC/EN60939
- Overload capability: 4 x rated current at switch on; 1.5 x rated current for 1 min., once per hour



Electrical schematic



Marketing applications

- Automation & Process Control
- High power office equipment
- Renewable energy applications

Features

- Exceptional attenuation
- Current rating 8-400A
- 2-stage circuit is ideal for noisy environments
- Suitable for devices require minimal mounting space
- Alternative performance grade
- Optimized for industrial machinery

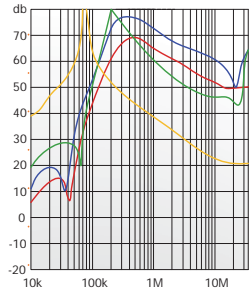
Filter selection table

| Filter PRJ No. | Rated Current @50°C [A] | Leakage Current* @600VAC/50Hz [mA] | Power Loss @25°C/50Hz [W] |
|----------------|-------------------------------|--|---------------------------------|
| 08SCB80H | 8 | 10.7 | 14.8 |
| 16SCB80H | 16 | 10.7 | 11.6 |
| 25SCB80H | 25 | 10.7 | 2 |
| 36SCB80H | 36 | 10.7 | 6 |
| 64SCB80H | 64 | 10.7 | 18.4 |
| 80SCB80H | 80 | 10.7 | 18.9 |
| 120SCB80H | 120 | 10.7 | 28.5 |
| 160SCB80H | 160 | 10.7 | 30.7 |
| 200SCB80H | 200 | 10.7 | 46.8 |
| 300SCB80HQ | 300 | 42.1 | 20.3 |
| 400SCB80HQ | 400 | 42.1 | 36 |

*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

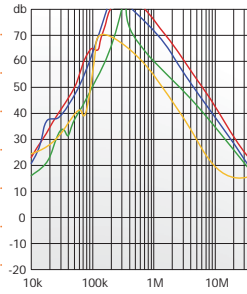
Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17

Common mode / Asymmetrical (P-E)



8A-16A
25A-36A
64A-200A
300A-400A

Differential mode / Symmetrical (P-P)



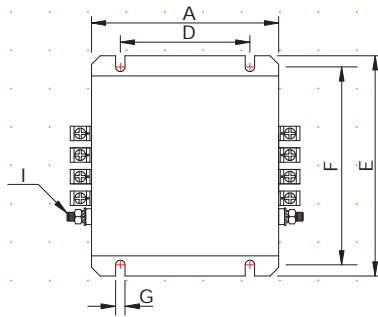
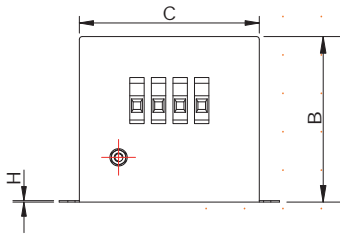
Dimensions (unit: mm)

Tolerances according to ISO 2768-m / EN 22768-m

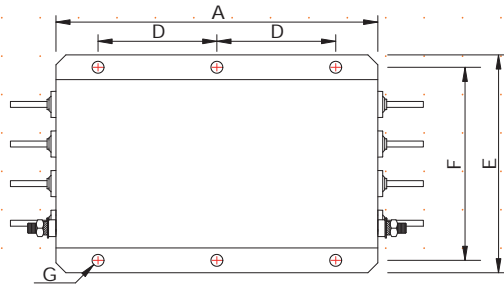
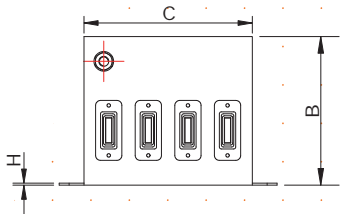
| Code | 8-1 A | 25-3 A | A | 80A | 120A | 1 0 ~200A | 300 ~ 00A |
|------|-------|--------|-------|-------|-------|-----------|-----------|
| A | 120 | 130 | 160 | 230 | 250 | 280 | 325 |
| B | 80 | 115 | 125 | 125 | 140 | 170 | 150 |
| C | 115 | 125 | 125 | 135 | 140 | 140 | 170 |
| D | 80 | 90 | 100 | 120 | 200 | 230 | 120 |
| E | 143 | 153 | 153 | 163 | 170 | 220 | 220 |
| F | 127.5 | 137.5 | 137.5 | 147.5 | 153.5 | 153.5 | 195 |
| G | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 12 |
| H | 1 | 1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 |
| I | M6 | M6 | M10 | M10 | M10 | M10 | M10 |
| L | - | - | - | - | - | 25 | 25 |
| M | - | - | - | - | - | 6 | 6 |
| N | - | - | - | - | - | 15 | 15 |
| O | - | - | - | - | - | 58 | 58 |
| P | - | - | - | - | - | 10.5 | 10.5 |

Mechanical drawing

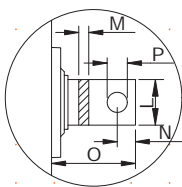
8-200A



300-400A



Magnifying view



Input / Output connectors cross sections

| Input / Output connectors | 8-1 A | 25-3 A | A | 80-120A | 1 0-200A |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Solid wire | 10mm ² | 16mm ² | 35mm ² | 50mm ² | 95mm ² |
| Flex wire | 6mm ² | 10mm ² | 25mm ² | 50mm ² | 95mm ² |
| AWG type wire | AWG 8 | AWG 6 | AWG 2 | AWG 1/0 | AWG 4/0 |
| Recom. torque | 1-1.2Nm | 1-1.2Nm | 1.8-2Nm | 2.3-2.5Nm | 17-20Nm |



A series of 20 horizontal dashed lines spanning the width of the page, providing a guide for writing.

