

**INDUSTRY 1.0**



**INDUSTRY 2.0**



**INDUSTRY 3.0**



**INDUSTRY 4.0**



*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



### 3 Phase Filter With Neutral Wire

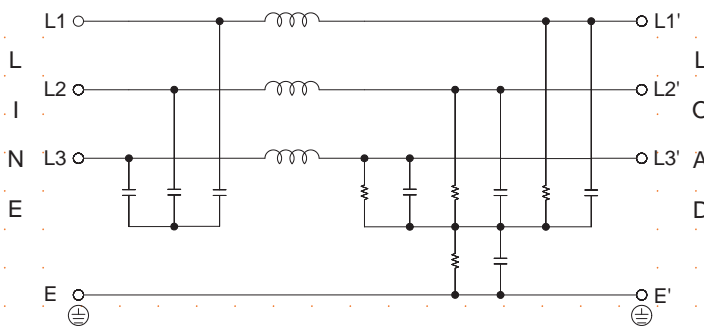
Filter series	Page	Circuit	Performance	Rated current	Features	Marketing application
Operating voltage: 3x600 / 347VAC Operating frequency: dc to 60Hz Operating temp. : -25°~+100° Design corresponding to: UL1283, CSA 22.2 No.8-13, IEC / EN60939-3		[stage]	Attenuation levels of electromagnetic interference (EMI)	@50°C [A]	Safety terminal blocks Offering EMC compliance Low leakage current Optional DIN-rail mounting Metal <span style="color:orange">■</span> / Plastic <span style="color:blue">■</span>	Inverters, Servo motors Automation & control solutions Robotics Elevator General purpose UPS, SMPS Grid automation system Electrical cabinet Distribution network Medical equipment High power office equipment
 SCB56H	25~26	1	Excellent	8~160	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>
 SC56	27~28	1	Superior	16~150	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>
 SC55	29~30	1	Standard	3~20	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>
 SC54	31~32	2	Excellent	4~25	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>
 SCB80H	33~34	2	Superior	8~400	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>	<span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:orange">■</span> <span style="color:blue">■</span>

## 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

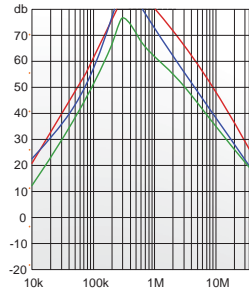
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
07SCB58	7	4	4.7	3.8
16SCB58	16	7.5	4.7	6.1
30SCB58	30	18.5	4.7	11.8
42SCB58	42	22	4.7	15.7
55SCB58	55	37	4.7	25.9
75SCB58	75	45	4.7	32.2
100SCB58	100	55	4.7	34.5
130SCB58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

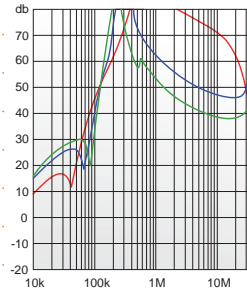
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

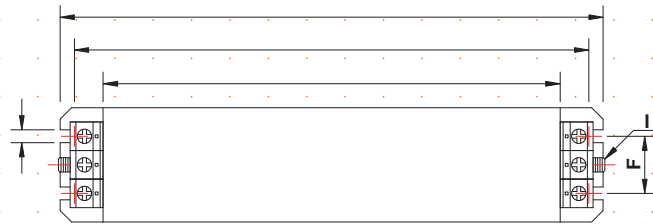
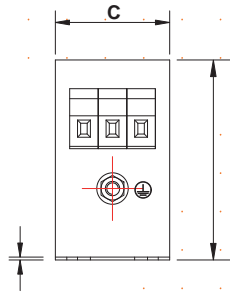


Differential mode / Symmetrical (P-P)



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**

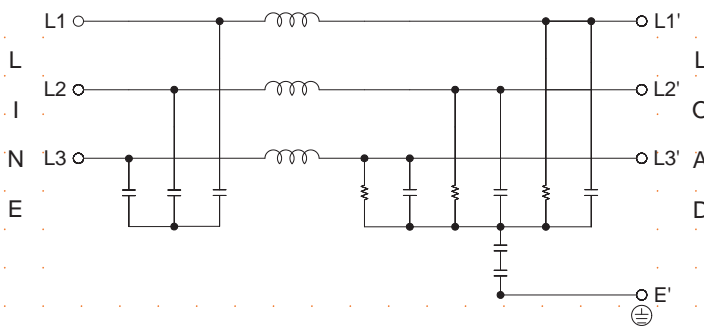
Input output connectors		3 		3 	
Solid wire	10mm	16mm	35mm	50mm	95mm
flex wire	6mm	10mm	25mm	50mm	95mm
A G type wire	A G 8	A G 6	A G 2	A G 1/0	A G 4/0
Recom. torque	1~1.2Nm	1~1.2Nm	1.8~2Nm	2.3~2.5Nm	17~20Nm

## 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

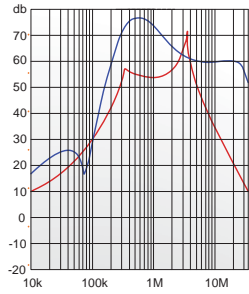
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @480VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
10SCJ25L	10	5.5	0.4	4.8
20SCJ25L	20	11	0.4	5.2
30SCJ25L	30	18.5	0.4	7
10SCJ25P	10	5.5	2.5	4.8
20SCJ25P	20	11	2.5	5.2
30SCJ25P	30	18.5	2.5	7
10SCJ26L	10	5.5	0.4	4.8
20SCJ26L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

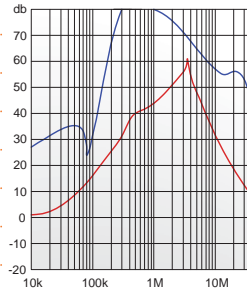
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)



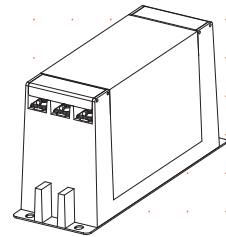
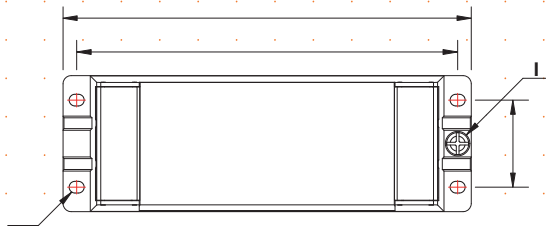
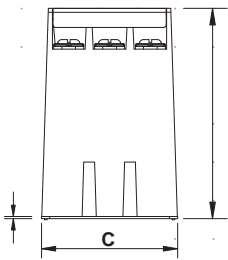
Differential mode / Symmetrical (P-P)



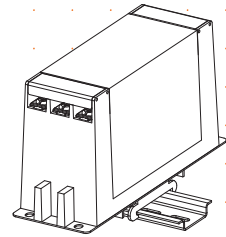
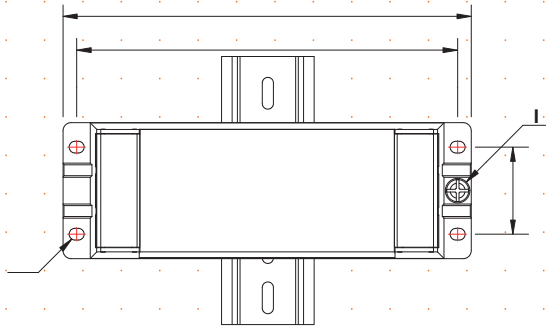
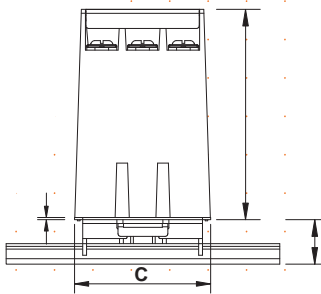
10A~20A ————  
30A ————

**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.

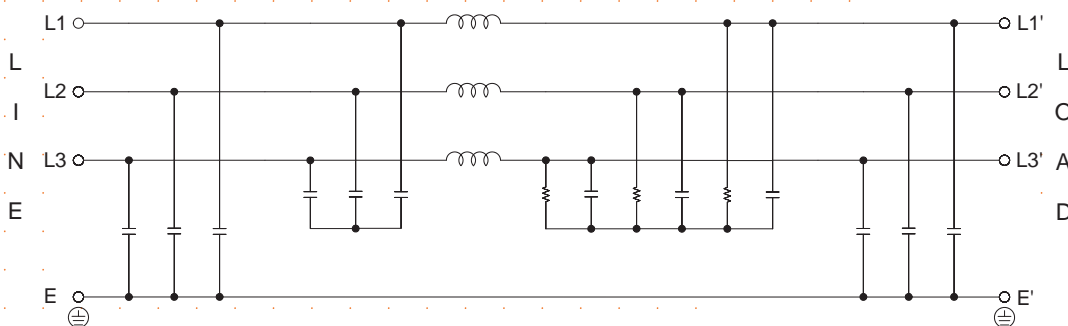


## Technical data and measuring conditions

- 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

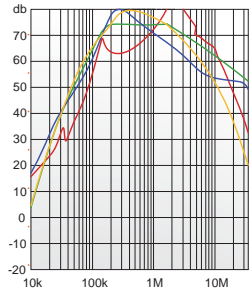
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
08SC51	8	3	0.3	8
16SC51	16	5.5	0.3	8
25SC51	25	11	3.8	7
36SC51	36	15	3.8	15
50SC51	50	22	3.8	11
64SC51	64	30	3.8	9
80SC51	80	37	4.4	49
110SC51	110	55	4.4	25
180SC51	180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

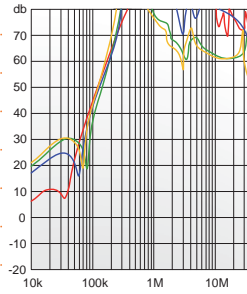
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

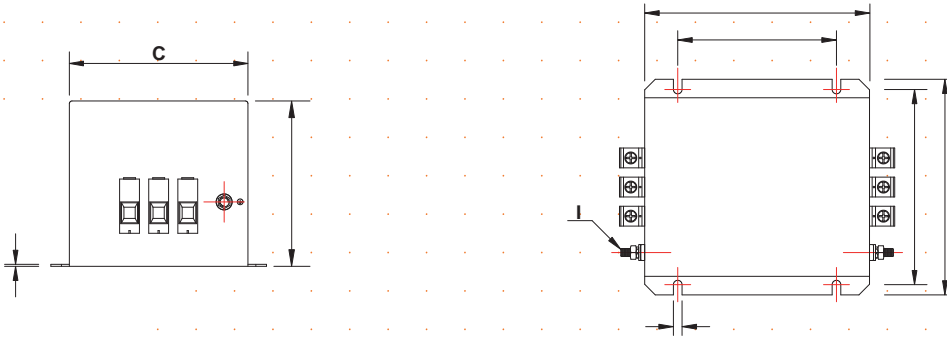


Differential mode / Symmetrical (P-P)



- 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**

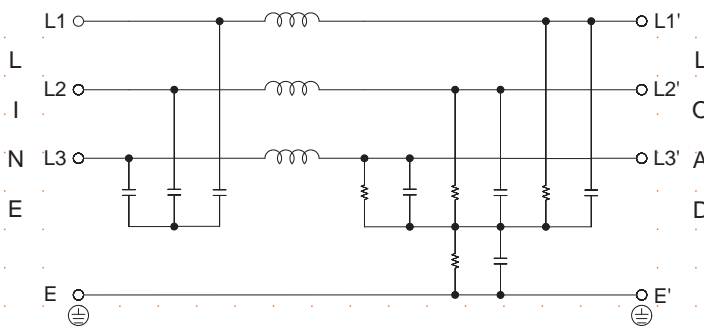
Input output connectors		3				
Solid wire	6mm	16mm	35mm	50mm	95mm	150mm
lex wire	4mm	10mm	25mm	50mm	95mm	150mm
A G type wire	A G 10	A G 6	A G 2	A G 1/0	A G 4/0	A G 6/0
Recom. torque	0.6~0.8Nm	1~1.2Nm	1.8~2Nm	2.3~2.5Nm	17~20Nm	27~30Nm

## 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

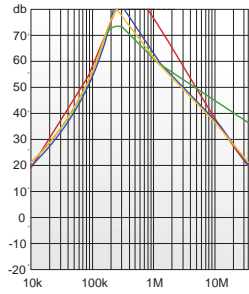
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
35SCA00	35	22	6.8	32.7
50SCA00	50	30	9.3	25.9
80SCA00	80	45	10	11.8
110SCA00	110	55	10	18
150SCA00	150	75	10	50.6
200SCA00	200	110	10	67.2
230SCA00	230	132	10	36.5
300SCA00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

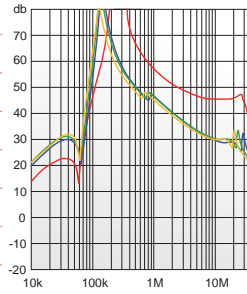
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

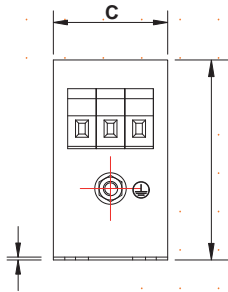


Differential mode / Symmetrical (P-P)



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

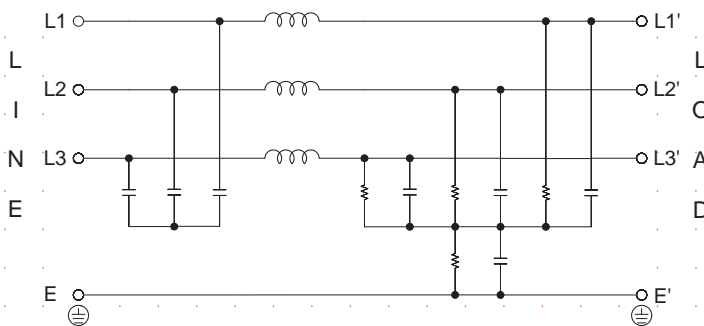
# 3 Phase Filter SCA20H series

## 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

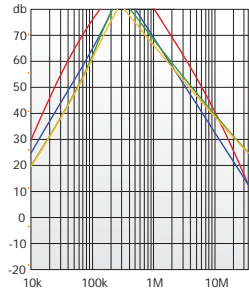
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
25SCA20H	25	15	10.5	17.1
50SCA20H	50	30	10.5	17.5
80SCA20H	80	45	10.5	25.9
110SCA20H	110	55	10.5	25.4
150SCA20H	150	75	10.5	40.5
230SCA20H	230	132	10.5	33.5

\*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.

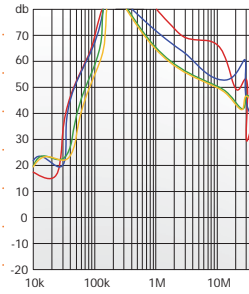
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

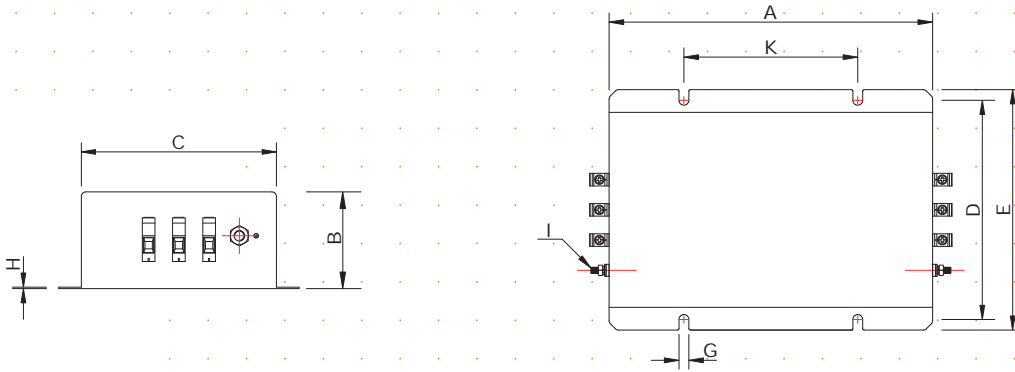


Differential mode / Symmetrical (P-P)



- 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**

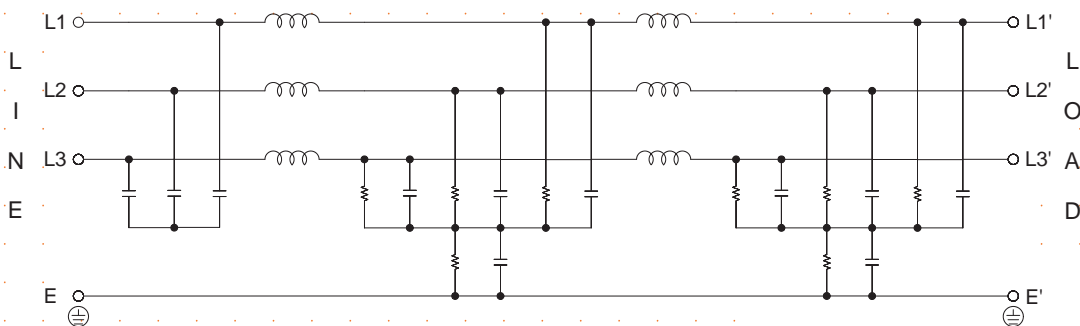
Input / Output connectors	25A	50A	80-110A	150-230A
Solid wire	16mm <sup>2</sup>	35mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
Flex wire	10mm <sup>2</sup>	25mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
AWG type wire	AWG 6	AWG 2	AWG 1/0	AWG 4/0
Recom. torque	1-1.2Nm	1.8-2Nm	2.3-2.5Nm	17-20Nm

## 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

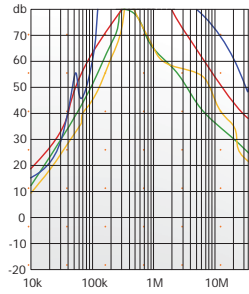
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
07SB58	7	4	2.0	21
16SB58	16	7.5	2.1	20
30SB58	30	15	2.9	9
42SB58	42	22	3.0	24
55SB58	55	30	3.0	30
75SB58	75	37	3.0	30
100SB58	100	55	3.0	73
130SB58	130	75	3.5	50
180SB58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

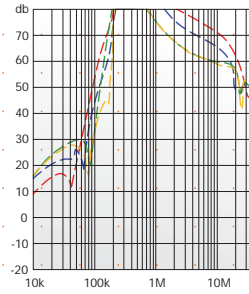
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

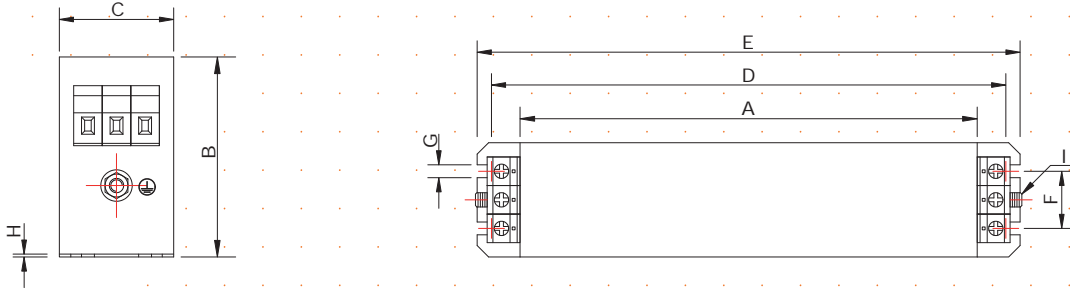


Differential mode / Symmetrical (P-P)



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 <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
Flex wire	6mm <sup>2</sup>	10mm <sup>2</sup>	25mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
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

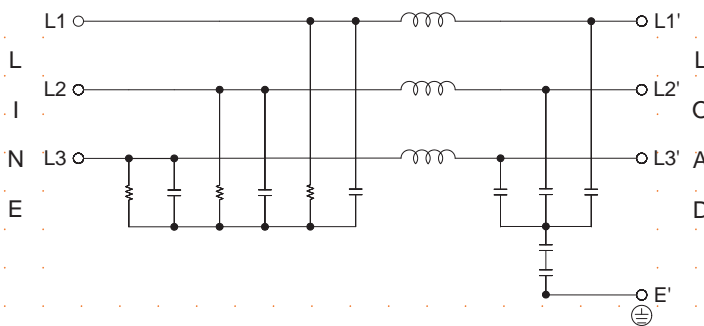


## Technical data and measuring conditions

- 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.

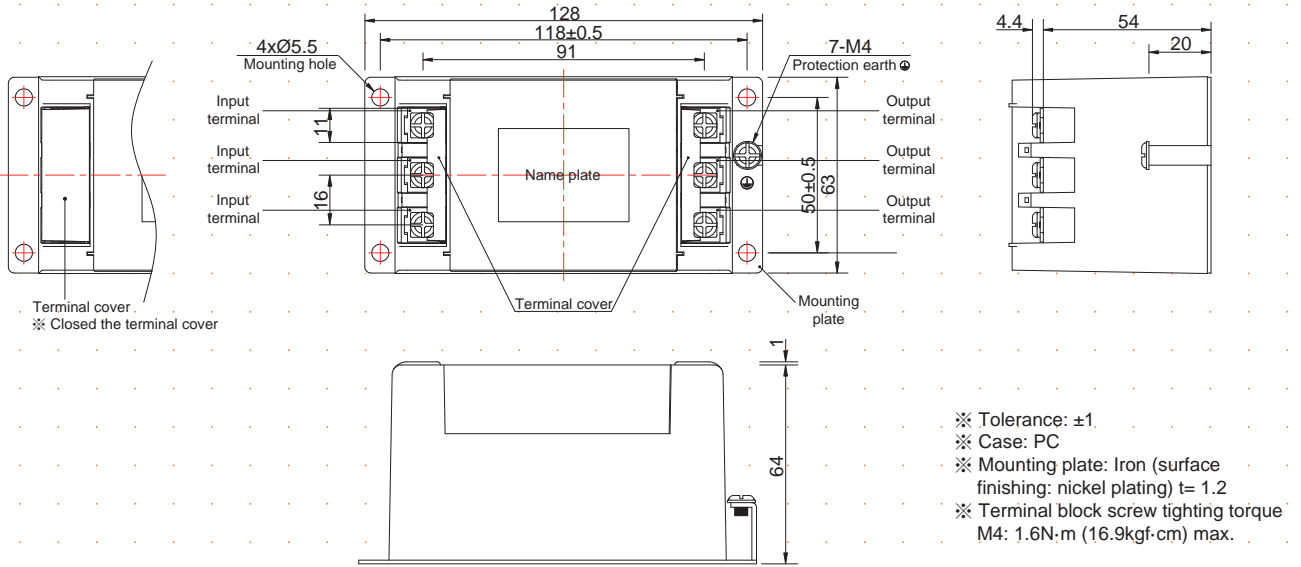
## Filter selection table

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 <sup>2</sup> (2G), 3 min. period, 1 hour each X,Y,Z axis							
14	Impact	196.1m/s <sup>2</sup> (20G), 11ms, once along X,Y,Z axis							
15	Safety approvals	UL1283, CSA C22.2 No.8 (C-UL), VDE0565 Teil3-1, IEC/EN60939							

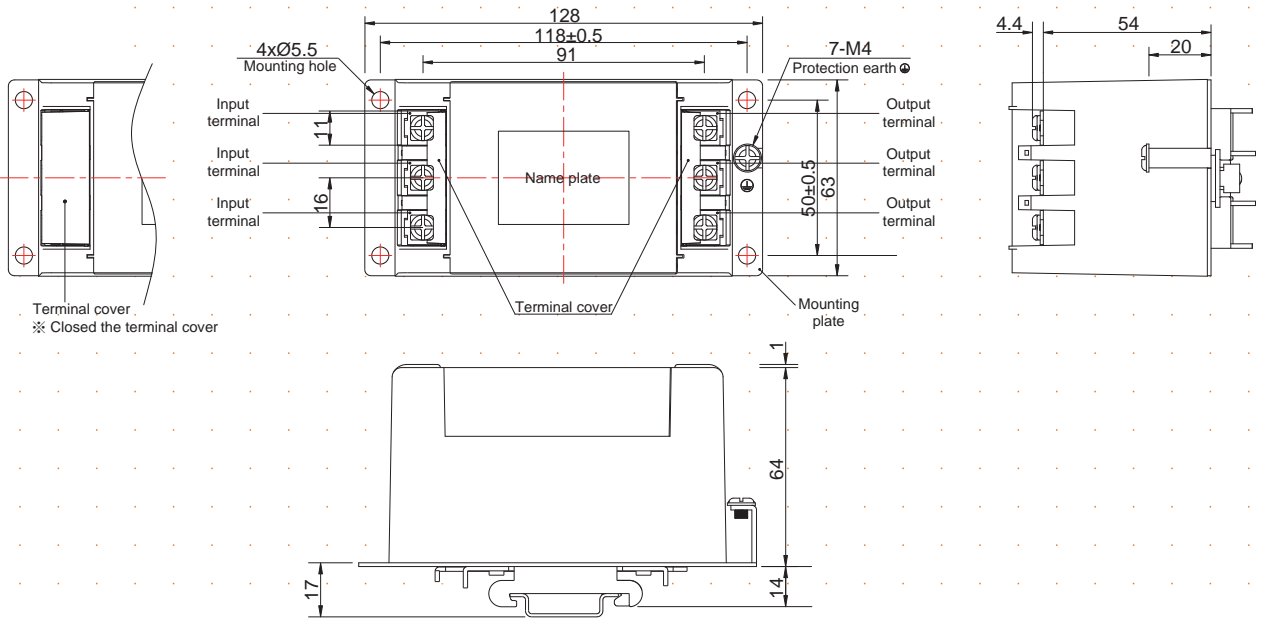
● call for alternatives.

## Mechanical drawing

### Chassis mounting

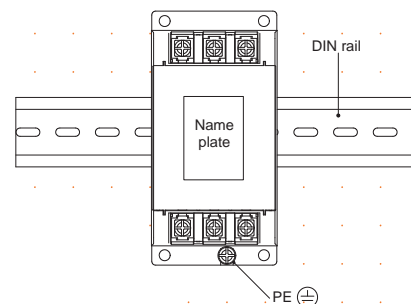


### DIN-rail mounting



#### 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.

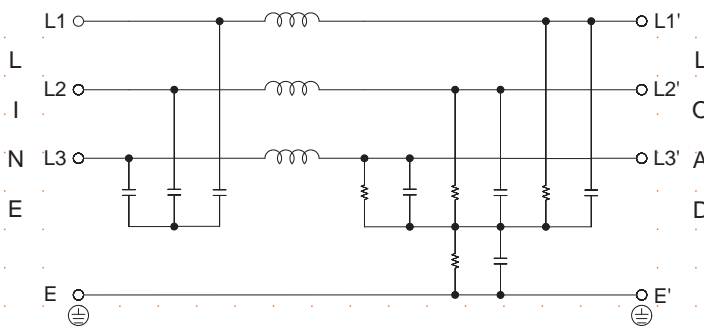


## Technical data and measuring conditions

- 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

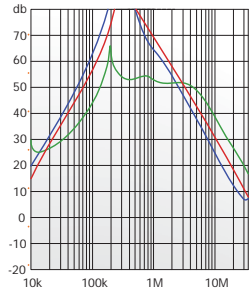
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
07SCB68	7	4	2.6	17.4
16SCB68	16	7.5	2.6	13.5
30SCB68	30	18.5	2.6	4.5
42SCB68	42	22	2.6	6.1
55SCB68	55	37	2.6	18.1
75SCB68	75	45	10.8	25.3
100SCB68	100	55	9.6	30
130SCB68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

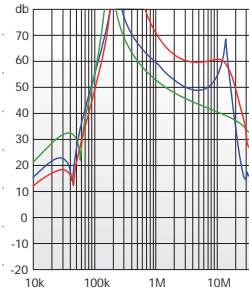
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

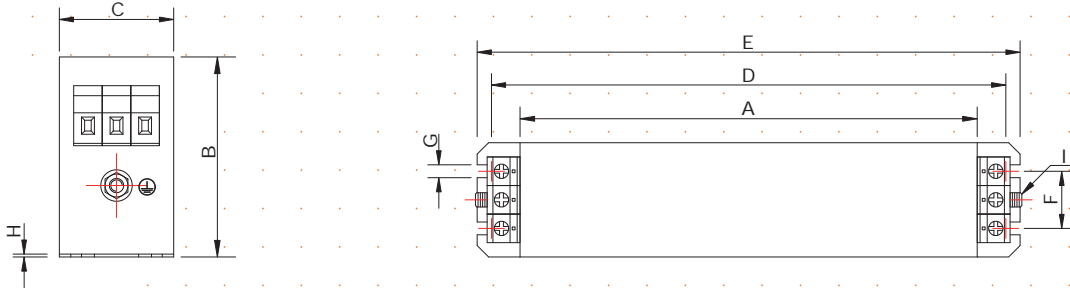


Differential mode / Symmetrical (P-P)



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 <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
Flex wire	6mm <sup>2</sup>	10mm <sup>2</sup>	25mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
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

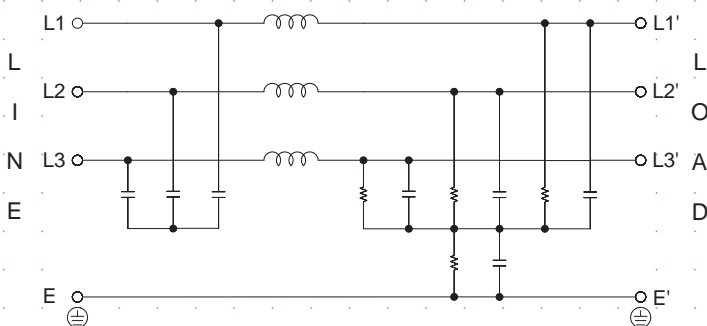
# 3 Phase Filter SCB70H series

## 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

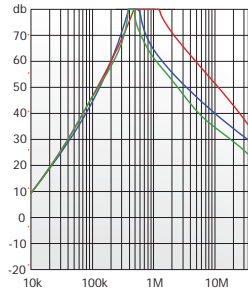
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
10SCB70H	10	5.5	3.1	2.4
20SCB70H	20	11	3.1	4.1
35SCB70H	35	22	3.4	6.8
50SCB70H	50	30	3.4	12.8
65SCB70H	65	37	3.4	13.5
80SCB70H	80	45	3.4	13.5
100SCB70H	100	55	3.4	17.1

\*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.

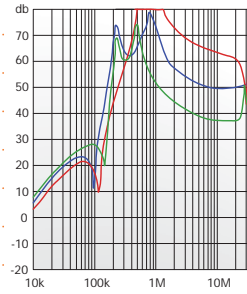
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

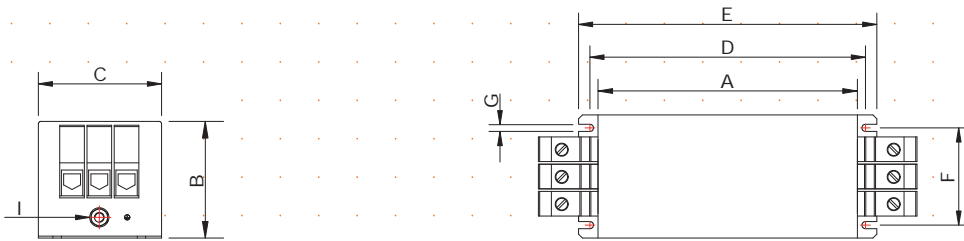


Differential mode / Symmetrical (P-P)



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 <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	50mm <sup>2</sup>
Flex wire	6mm <sup>2</sup>	10mm <sup>2</sup>	25mm <sup>2</sup>	50mm <sup>2</sup>
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

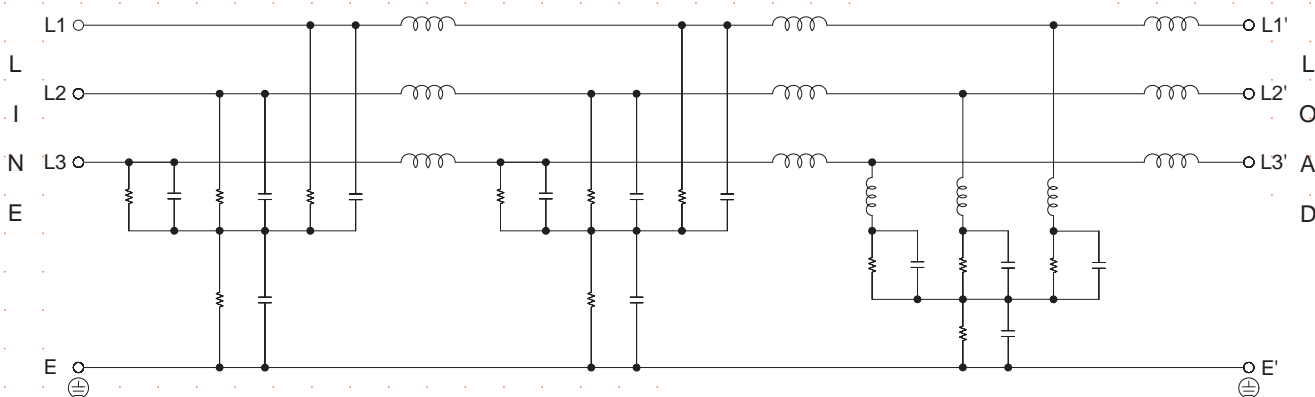
# 3 Phase Filter SCB70H series

## 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

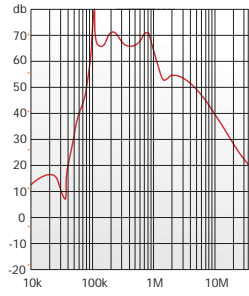
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
150SCB70HQ	150	75	6.9	7.5
200SCB70HQ	200	110	6.9	13.2
250SCB70HQ	250	132	6.9	20.6
320SCB70HQ	320	160	6.9	12.2
400SCB70HQ	400	220	6.9	19.2

\*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.

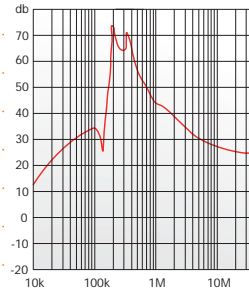
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

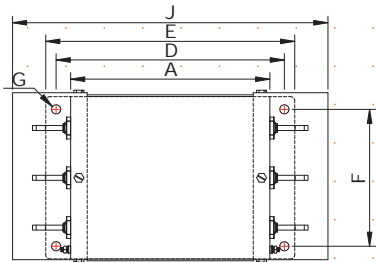
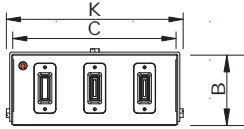


Differential mode / Symmetrical (P-P)

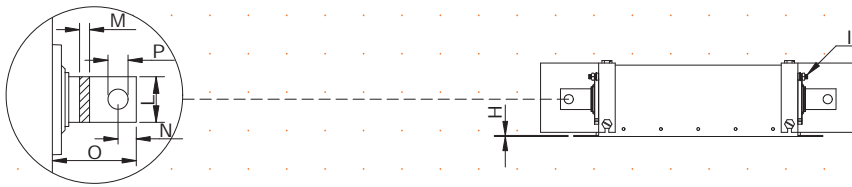


150A-400A —————

**Mechanical drawing**



Magnifying view



**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
K	380	380
L	20	25
M	3	6
N	10	12.5
O	37	37
P	9	11

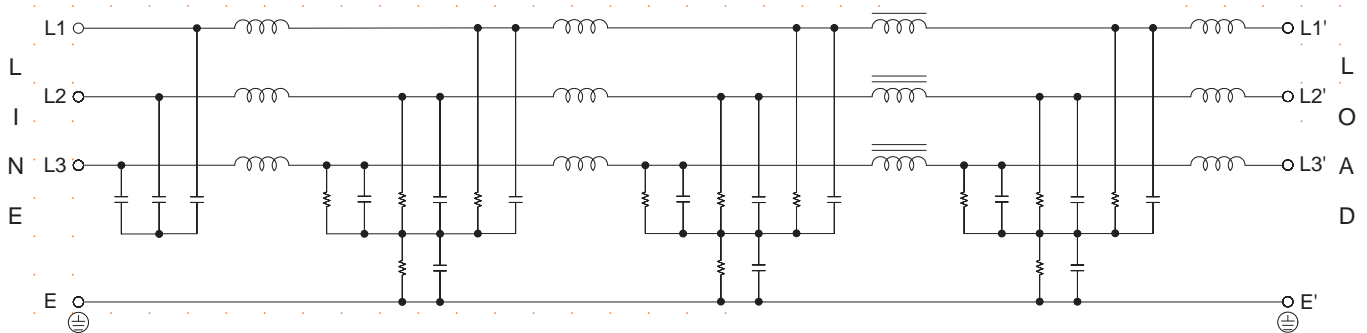


## Technical data and measuring conditions

- 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

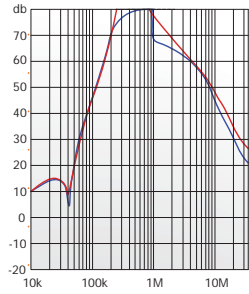
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
150SCC59S	150	75	5.1	3.8
180SCC59S	180	90	5.1	6.1
250SCC59S	250	130	5.1	7.8
320SCC59Q	320	160	5.1	11.8
400SCC59Q	400	220	5.1	15.7

\*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.

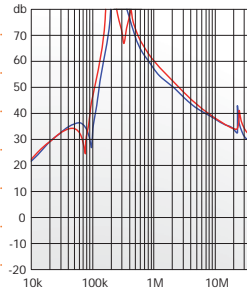
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)



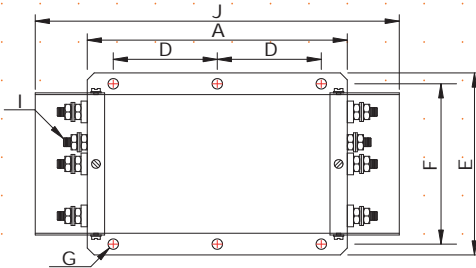
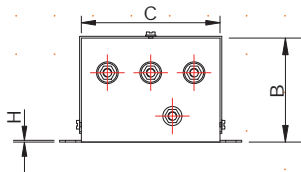
Differential mode / Symmetrical (P-P)



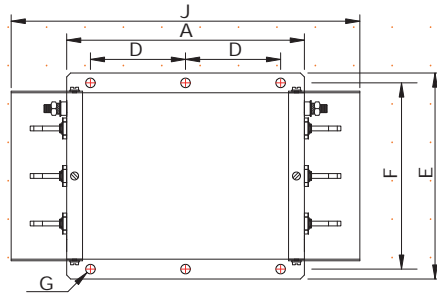
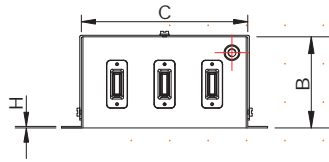
150A-180A ————  
 250A-400A ————

**Mechanical drawing**

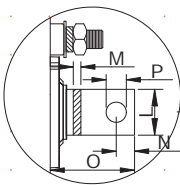
150-250A



320-400A



Magnifying view



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

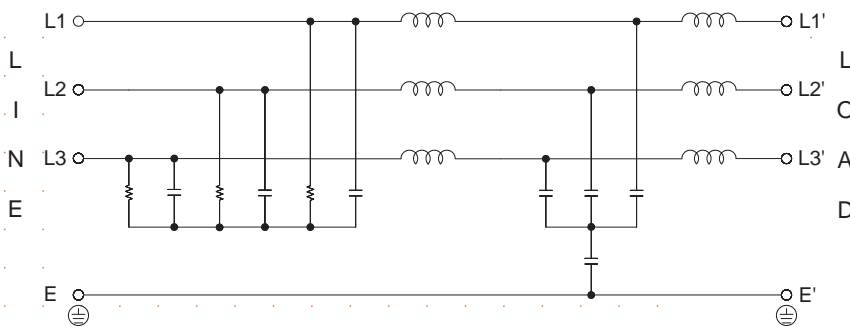
Code	150-180A	250A	320- 00A
A	300	300	300
B	120	125	115
C	160	180	210
D	120	120	120
E	210	230	260
F	185	205	235
G	12	12	12
H	1.2	1.2	1.2
I	M10	M10	M10
J	420	420	440
K	211	211	211
L	-	-	25
M	-	-	6
N	-	-	15
O	-	-	40
P	-	-	10.5

## 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

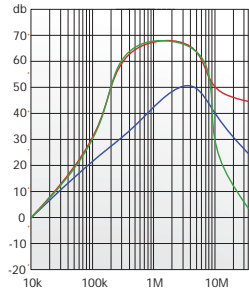
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
10H2DG7TW01	10	6	1.3	3.8
16H2DG7TW01	16	9.6	1.3	6.1
20H2DG7TW01	20	12	1.3	11.8
30H2DG7TW01	30	18	1.3	15.7

\*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.

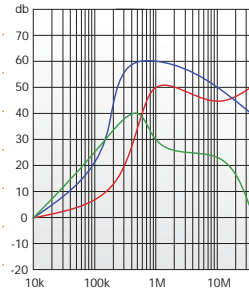
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

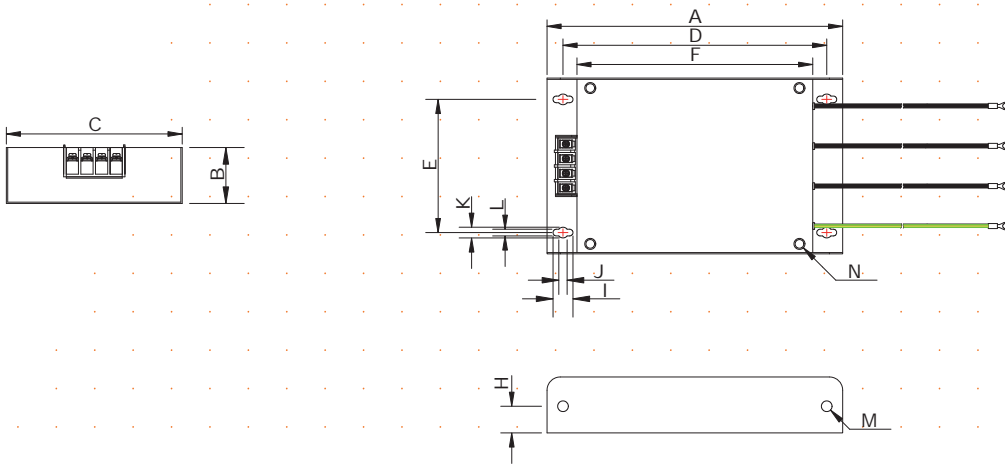


Differential mode / Symmetrical (P-P)



10A-16A ————  
 20A ————  
 30A ————

**Mechanical drawing**



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

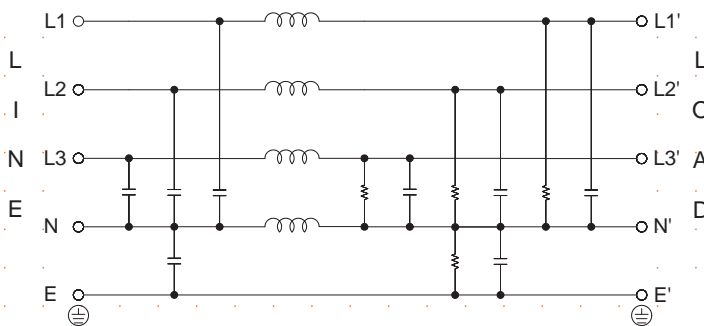
Code	10A	1 ~20A	30A
A	222	270	277
B	42	40	52
C	132	175	202
D	198	246	253
E	100	160	170
F	175	230	230
H	20	20	25
I	15	15	15
J	8	8	8
K	8	8	8
L	5	5	5
M	8	8	8
N	M4	M4	M4

## 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

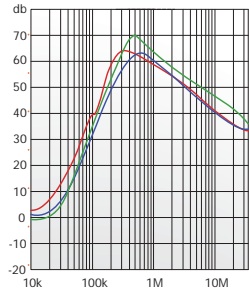
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
08SCB56H	8	4	0.6	2.7
16SCB56H	16	7.5	0.6	5
25SCB56H	25	10	0.6	9.8
36SCB56H	36	15	0.6	11.3
64SCB56H	64	22	0.6	17.2
80SCB56H	80	30	0.6	14.5
120SCB56H	120	37	0.6	25
160SCB56H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

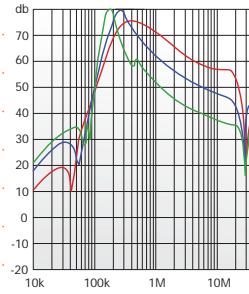
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

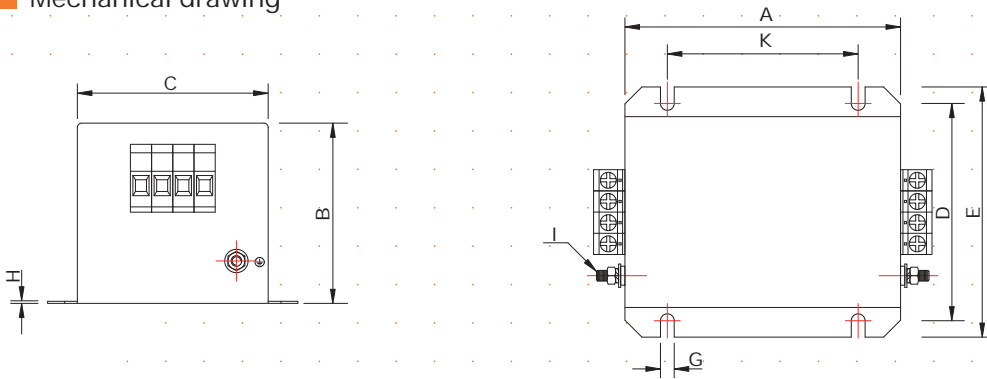


Differential mode / Symmetrical (P-P)



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**

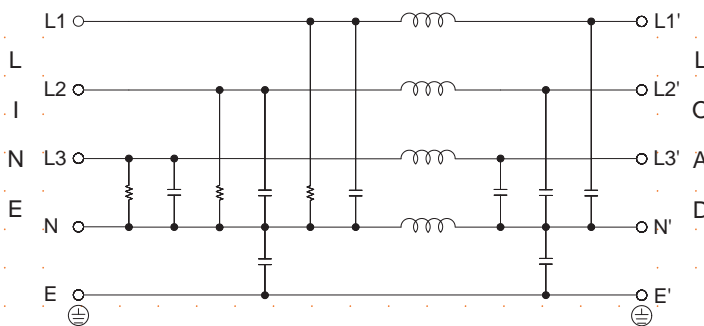
Input / Output connectors	8-1 A	25-3 A	A	80-120A	1 0A
Solid wire	6mm <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
Flex wire	4mm <sup>2</sup>	10mm <sup>2</sup>	25mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
AWG type wire	AWG 10	AWG 6	AWG 2	AWG 1/0	AWG 4/0
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

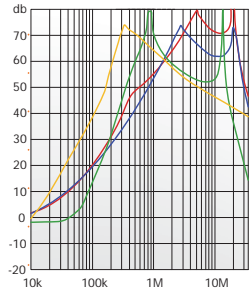
Filter PRJ No.	Rated Current @50°C [A]	Typical Drive* Power Rating [kW]	Leakage Current** @600VAC/50Hz [mA]	Power Loss @25°C/50Hz [W]
16SC56	16	7.5	0.1	.7
25SC56	25	10	0.1	10.1
36SC56	36	15	0.1	10.9
50SC56	50	19	0.1	15.8
100SC56	100	22	0.1	24
100SC56S	100	22	0.1	24
150SC56S	150	30	0.1	45.9

\*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.

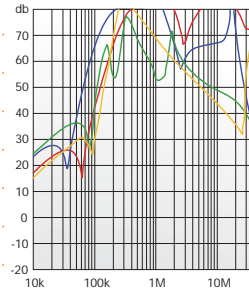
\*\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)



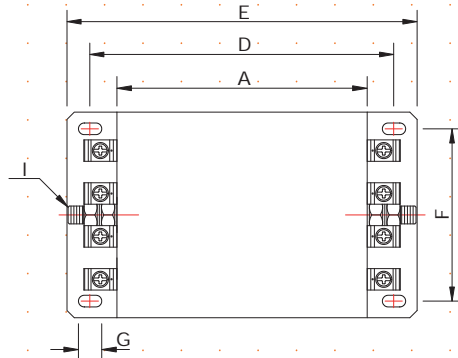
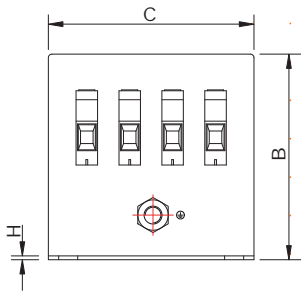
Differential mode / Symmetrical (P-P)



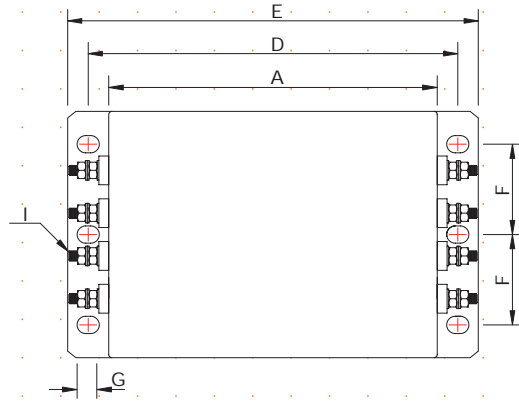
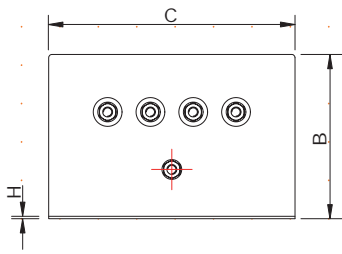
- 16A ———
- 25-50A ———
- 100A ———
- 150A ———

**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

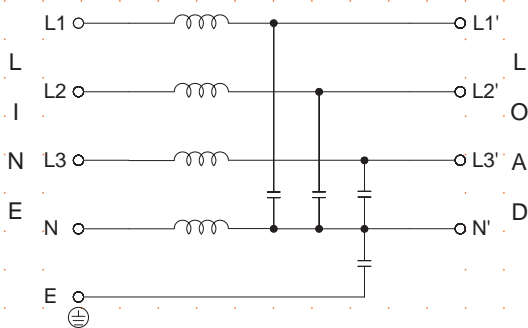


## Technical data and measuring conditions

- 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

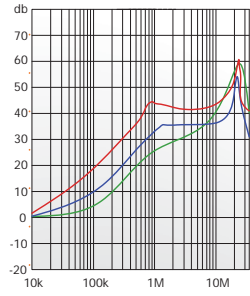
## Filter selection table

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

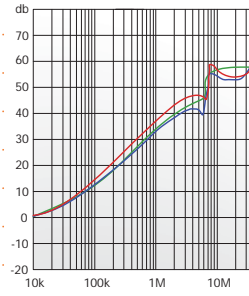
\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)

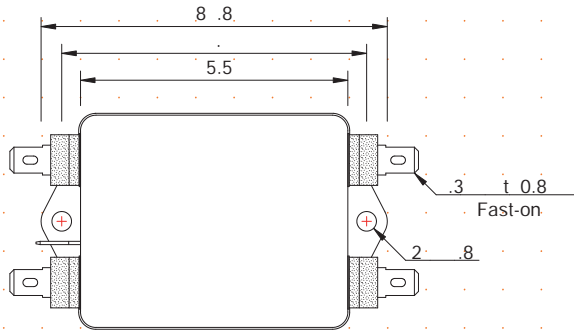
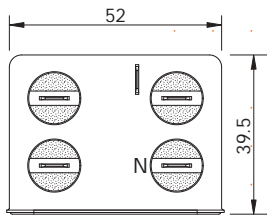


Differential mode / Symmetrical (P-P)



3A —————  
 6A —————  
 10-20A —————

Mechanical drawing

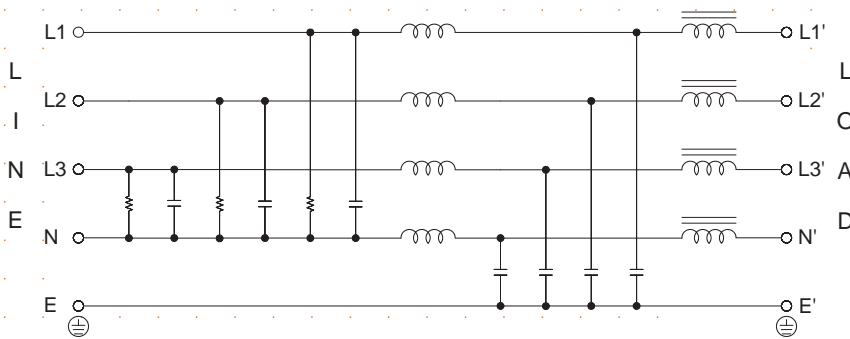


## Technical data and measuring conditions

- 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

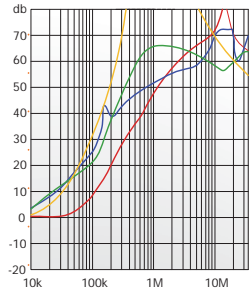
## Filter selection table

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

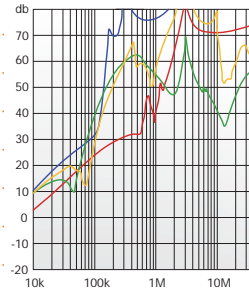
\*Standardized calculated leakage current acc. IEC60939 under normal operating conditions.

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

Common mode / Asymmetrical (P-E)



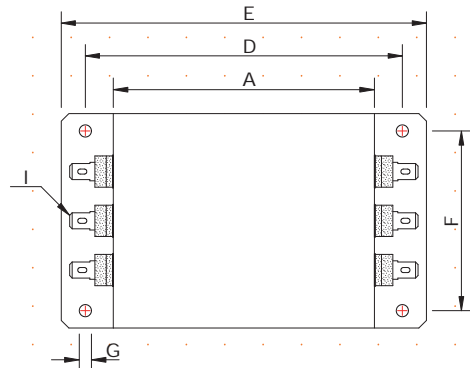
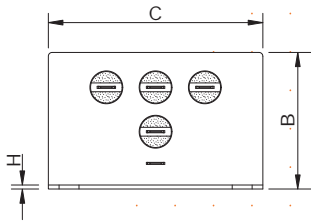
Differential mode / Symmetrical (P-P)



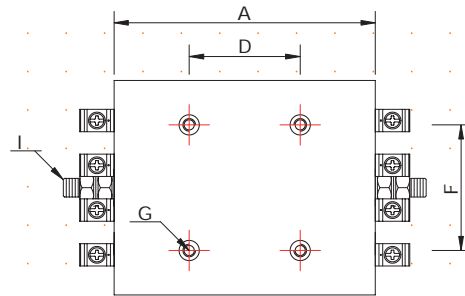
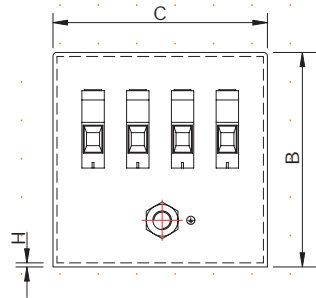
- 4A-6A
- 12A
- 15A
- 25A

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

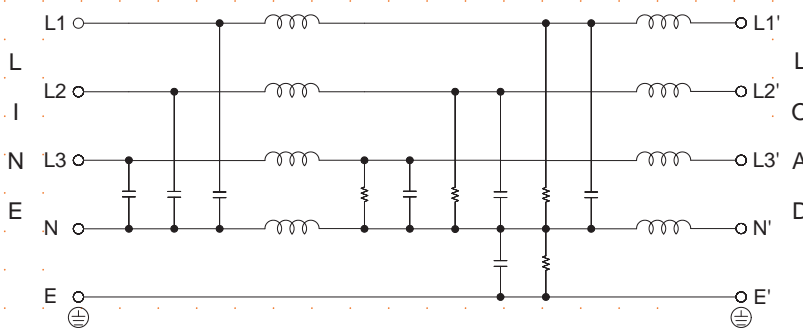
Input / Output connectors	15-25A
Solid wire	16mm <sup>2</sup>
Flex wire	10mm <sup>2</sup>
AWG type wire	AWG 6
Recom. torque	1.5~1.8Nm

## 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

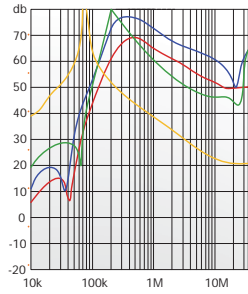
## Filter selection table

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.

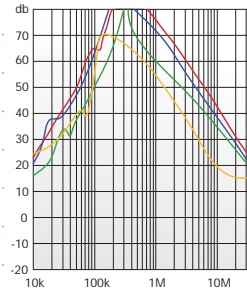
**Filter attenuation Insertion loss (dB) in 50Ω system CISPR 17**

Common mode / Asymmetrical (P-E)



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

Differential mode / Symmetrical (P-P)



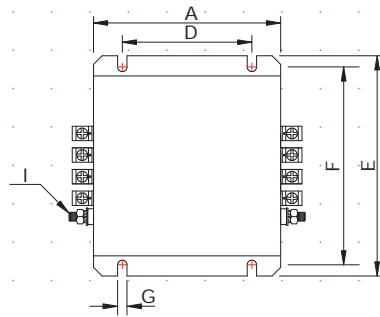
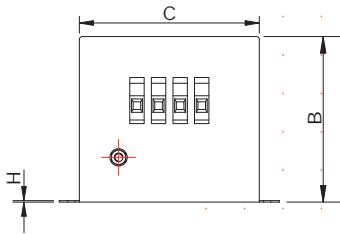
**Dimensions (unit: mm)**

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

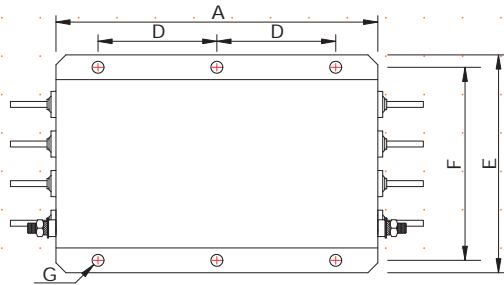
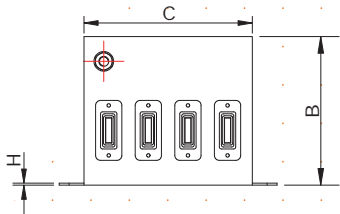
Code	8-1 A	25-3 A	A	80A	120A	1 0 ~200A	300 ~ 00A
A	120	130	160	230	250	280	325
B	80	115	125	125	140	170	150
C	115	125	125	135	140	140	170
D	80	90	100	120	200	230	120
E	143	153	153	163	170	220	220
F	127.5	137.5	137.5	147.5	153.5	153.5	195
G	6.5	6.5	6.5	6.5	6.5	6.5	12
H	1	1	1.2	1.2	1.2	1.2	1.5
I	M6	M6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

**Mechanical drawing**

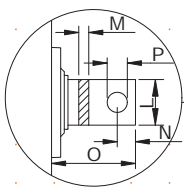
**8-200A**



**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 <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
Flex wire	6mm <sup>2</sup>	10mm <sup>2</sup>	25mm <sup>2</sup>	50mm <sup>2</sup>	95mm <sup>2</sup>
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.









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