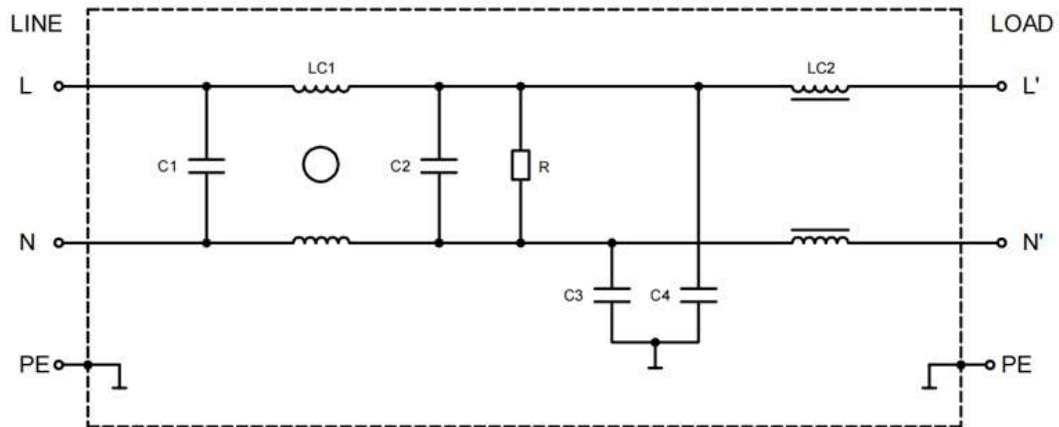


DAQI® SD1 Series EMC Filter

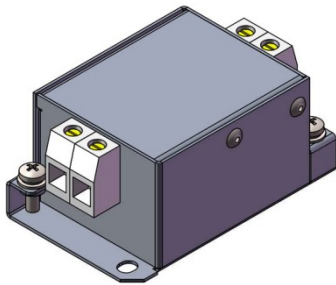
Single Phase Two Stages Enhanced Filter

Customized service is available.

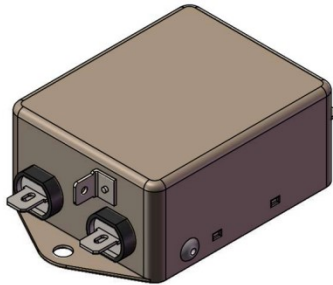
1. Electrical Circuit Design



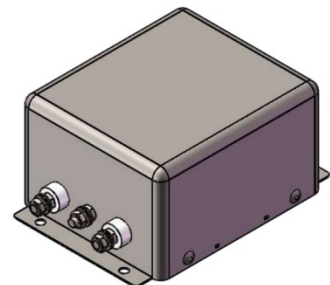
2. Structure Design



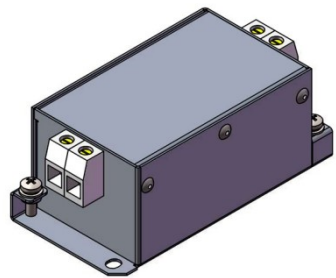
SD1-3A-8A-C4N



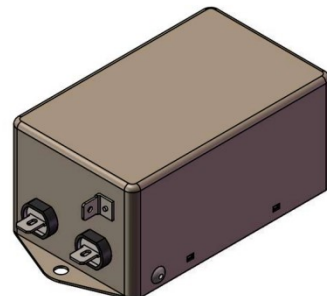
SD1-3A-10A-H1



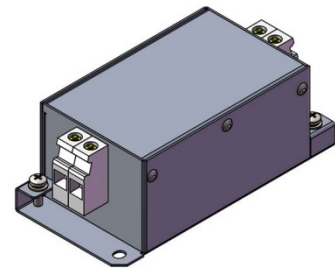
SD1-8A-20A-SM4



SD1-10A-16A-C4N



SD1-12A-20A-H1



SD1-20A-25A-C6N

3. Electrical Installation Guide

The device contains the following terminals:

[L, N] – Input terminals for main power supply.

[L', N'] – Output terminals.

[PE] – Protecting earthing.

4. Electrical Specifications

| | |
|--------------------------------------|--|
| Maximum continuous operating voltage | 250VAC |
| Operating frequency | 50/60 |
| Rated currents | 3-20A@40°C |
| High potential test voltage | L-N: 1200VDC, 5s; L/N-E: 2000VDC, 5s; L/N-E: 2500VDC, 5s (SD13 types); |
| Overload capability | 3x rated current at switch on 1.4x rated current for 1 minute once per hour |
| Temperature range | -25°C to +100°C (25/100/21) |
| Design corresponding to | UL 1283, CSA 22.2 No.8 1986, IEC/EN 60939 GB15287 |
| Flammability corresponding to | UL 94 V-0 or better |
| MTBF @40°C/230 V (Mil-HB-217F) | >1,650,000 hours |
| | |
| | |

5. Advantages

- ✧ Two-stage filtering design, with separate differential mode yoke flow coil.
- ✧ Excellent differential mode and common mode attenuation.
- ✧ Good low frequency attenuation.
- ✧ Optional low leakage current version (SD12) and medical version (SD13).
- ✧ The medical version (SD13) conforms to the medical equipment standard IEC 60601-1.
- ✧ Various terminal connection modes are available.

6. Typical Applications

- ✧ Electrical and electronic equipment
- ✧ Single-phase motor driver and servo driver
- ✧ Lighting application equipment
- ✧ Household electrical equipment
- ✧ industrial equipment
- ✧ medical apparatus and instruments
- ✧ Office automation and data control equipment

Please kindly send an inquiry for more details.

We will offer the solution according to the exact uses.

Contact Us:

Email: sales@daqidevice.com

SD11 Series

Rated voltage 250VAC

| Ordering code | Rated current @45°C (A) | Typical drive power rating (KW) | Leakage current @250VAC, 50Hz (@120VAC, 60Hz) | Typical Power loss @25°C/DC (W) | Approx. weight (Kg) | Input/Output connections |
|------------------|----------------------------|------------------------------------|--|------------------------------------|------------------------|--------------------------|
| DQ-SD11-0003-02H | 3 | 0.5 | ≤0.8(0.45)mA | 3.8 | 0.2 | H1 |
| DQ-SD11-0005-02H | 5 | 0.85 | ≤0.8(0.45)mA | 6.2 | 0.25 | H1 |
| DQ-SD11-0010-02H | 10 | 1.75 | ≤0.8(0.45)mA | 8.5 | 0.3 | H1 |
| DQ-SD11-0012-02H | 12 | 2.0 | ≤0.8(0.45)mA | 12.5 | 0.55 | H1 |
| DQ-SD11-0015-02H | 15 | 2.5 | ≤0.8(0.45)mA | 10.5 | 0.55 | H1 |
| DQ-SD11-0020-02H | 20 | 3.2 | ≤0.8(0.45)mA | 9.0 | 0.62 | H1 |
| DQ-SD11-0003-02C | 3 | 0.5 | ≤0.8(0.45)mA | 3.8 | 0.25 | C4N |
| DQ-SD11-0008-02C | 8 | 1.2 | ≤0.8(0.45)mA | 8.3 | 0.3 | C4N |
| DQ-SD11-0010-02C | 10 | 1.75 | ≤0.8(0.45)mA | 8.5 | 0.32 | C4N |
| DQ-SD11-0016-02C | 16 | 2.7 | ≤0.8(0.45)mA | 10.5 | 0.35 | C4N |
| DQ-SD11-0020-02C | 20 | 3.2 | ≤0.8(0.45)mA | 9.0 | 0.5 | C6N |
| DQ-SD11-0025-02C | 25 | 4.2 | ≤0.8(0.45)mA | 9.6 | 0.55 | C6N |
| DQ-SD11-0008-02S | 8 | 1.2 | ≤0.8(0.45)mA | 8.3 | 0.45 | SM4 |
| DQ-SD11-0012-02S | 12 | 2.0 | ≤0.8(0.45)mA | 12.5 | 0.52 | SM4 |
| DQ-SD11-0016-02S | 16 | 2.7 | ≤0.8(0.45)mA | 10.5 | 0.65 | SM4 |
| DQ-SD11-0020-02S | 20 | 3.0 | ≤0.8(0.45)mA | 9.0 | 0.65 | SM4 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

SD12 Series

Rated voltage 250VAC

| Ordering code | Rated current @45°C (A) | Typical drive power rating (KW) | Leakage current @250VAC, 50Hz (@120VAC, 60Hz) | Typical Power loss @25°C/DC (W) | Approx. weight (Kg) | Input/Output connections |
|------------------|----------------------------|------------------------------------|--|------------------------------------|------------------------|--------------------------|
| DQ-SD12-0003-02H | 3 | 0.5 | ≤0.07(0.04)mA | 3.8 | 0.2 | H1 |
| DQ-SD12-0005-02H | 5 | 0.85 | ≤0.07(0.04)mA | 6.2 | 0.25 | H1 |
| DQ-SD12-0010-02H | 10 | 1.75 | ≤0.07(0.04)mA | 8.5 | 0.3 | H1 |
| DQ-SD12-0012-02H | 12 | 2.0 | ≤0.07(0.04)mA | 12.5 | 0.55 | H1 |
| DQ-SD12-0015-02H | 15 | 2.5 | ≤0.07(0.04)mA | 10.5 | 0.55 | H1 |
| DQ-SD12-0020-02H | 20 | 3.2 | ≤0.07(0.04)mA | 9.0 | 0.62 | H1 |
| DQ-SD12-0003-02C | 3 | 0.5 | ≤0.07(0.04)mA | 3.8 | 0.25 | C4N |
| DQ-SD12-0008-02C | 8 | 1.2 | ≤0.07(0.04)mA | 8.3 | 0.3 | C4N |
| DQ-SD12-0010-02C | 10 | 1.75 | ≤0.07(0.04)mA | 8.5 | 0.32 | C4N |
| DQ-SD12-0016-02C | 16 | 2.7 | ≤0.07(0.04)mA | 10.5 | 0.35 | C4N |
| DQ-SD12-0020-02C | 20 | 3.2 | ≤0.07(0.04)mA | 9.0 | 0.5 | C6N |
| DQ-SD12-0025-02C | 25 | 4.2 | ≤0.07(0.04)mA | 9.6 | 0.55 | C6N |
| DQ-SD12-0008-02S | 8 | 1.2 | ≤0.07(0.04)mA | 8.3 | 0.45 | SM4 |
| DQ-SD12-0012-02S | 12 | 2.0 | ≤0.07(0.04)mA | 12.5 | 0.52 | SM4 |
| DQ-SD12-0016-02S | 16 | 2.7 | ≤0.07(0.04)mA | 10.5 | 0.65 | SM4 |
| DQ-SD12-0020-02S | 20 | 3.0 | ≤0.07(0.04)mA | 9.0 | 0.65 | SM4 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

SD13 Series

Rated voltage 250VAC

| Ordering code | Rated current @45°C (A) | Typical drive power rating (KW) | Leakage current @250VAC, 50Hz (@120VAC, 60Hz) | Typical Power loss @25°C/DC (W) | Approx. weight (Kg) | Input/Output connections |
|------------------|----------------------------|---------------------------------------|---|---------------------------------------|---------------------------|-----------------------------|
| DQ-SD13-0003-02H | 3 | 0.5 | 0.00mA | 3.8 | 0.2 | H1 |
| DQ-SD13-0005-02H | 5 | 0.85 | 0.00mA | 6.2 | 0.25 | H1 |
| DQ-SD13-0010-02H | 10 | 1.75 | 0.00mA | 8.5 | 0.3 | H1 |
| DQ-SD13-0012-02H | 12 | 2.0 | 0.00mA | 12.5 | 0.55 | H1 |
| DQ-SD13-0015-02H | 15 | 2.5 | 0.00mA | 10.5 | 0.55 | H1 |
| DQ-SD13-0020-02H | 20 | 3.2 | 0.00mA | 9.0 | 0.62 | H1 |
| DQ-SD13-0003-02C | 3 | 0.5 | 0.00mA | 3.8 | 0.25 | C4N |
| DQ-SD13-0008-02C | 8 | 1.2 | 0.00mA | 8.3 | 0.3 | C4N |
| DQ-SD13-0010-02C | 10 | 1.75 | 0.00mA | 8.5 | 0.32 | C4N |
| DQ-SD13-0016-02C | 16 | 2.7 | 0.00mA | 10.5 | 0.35 | C4N |
| DQ-SD13-0020-02C | 20 | 3.2 | 0.00mA | 9.0 | 0.5 | C6N |
| DQ-SD13-0025-02C | 25 | 4.2 | 0.00mA | 9.6 | 0.55 | C6N |
| DQ-SD13-0008-02S | 8 | 1.2 | 0.00mA | 8.3 | 0.45 | SM4 |
| DQ-SD13-0012-02S | 12 | 2.0 | 0.00mA | 12.5 | 0.52 | SM4 |
| DQ-SD13-0016-02S | 16 | 2.7 | 0.00mA | 10.5 | 0.65 | SM4 |
| DQ-SD13-0020-02S | 20 | 3.0 | 0.00mA | 9.0 | 0.65 | SM4 |
| | | | | | | |
| | | | | | | |

Cautions:

1. Typical drive power rating: Calculated at rated current, 220VAC(Rated voltage 250VAC) and Power Factor=0.8.

The exact value depends upon the efficiency of the drive, the motor and the entire application.

2.The filter leakage currents specified in the data book are intended for user information only.The maximum leakage current of the entire electrical equipment or appliance has to be limited for safety reasons.

Please obtain the applicable limits for your application from the relevant regulations, provisions and standards.

| Terminal Connection Information | | | |
|---------------------------------|-----------------------|-----------------------|-------------------------------------|
| Input/Output connections | Solid wire | AWG type wire | Screw/Recommended torque |
| C4N | 0.05-6mm ² | 30-10AWG | M3/5.3-7lbf.in(0.59-0.79Nm) |
| C6N | 0.2-10mm ² | 24-8AWG | M4/10.6-13lbf.in(1.2-1.46Nm) |
| | Connections | Specifications | |
| H1 | Sheet copper | 6.3*0.8m ² | |
| SM4 | Screw | M4 | Recommended torque: 1.2-1.3 (Nm) |

DAQI® Products Series

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- Passive Harmonic Filter
- EMC Filter
- Reactors
- Transformers
- Load Banks
- Active Filter

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