



# 秦皇岛市燕秦纳米科技有限公司

Qinhuangdao Yanqin Nano Science and Technology Co., Ltd.

## Common-mode choke filter with nanocrystalline core

### ■ Characteristics:

1. Total solution from core manufacture to the finished coil
2. Low core loss and low dissipation heat at high frequency with the nanocrystalline magnetic core
3. Good temperature stability of magnetic properties
4. Products can be customized with other specifications
5. Suitable for small batch delivery with short lead time
6. Low cost when ordering in large quantities
7. Can be applied to large current over 50 Amps
8. Good and stable properties with various frequency

### ■ Applications:

1. Common-mode choke on inverter and large power device
2. Noise suppression of signal lines
3. Filter circuits on semiconductor devices for SiC and GaN
4. Low noise requirement on power circuits

### ✂ Notes

1. Operating temperature range at - 25°C ~ + 120°C ( including spontaneous temperature rise )
2. All products meet RoHS standard



| Product Code/Specification |               | Rated | L Value (μH) |             | DCR (mΩ) max. | Outside Dimension (mm) |        |        |        |        |         |         |        |        |        |        |        | Coil Parameter |                 |                     | Figure |
|----------------------------|---------------|-------|--------------|-------------|---------------|------------------------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|----------------|-----------------|---------------------|--------|
| Product Code               | Specification | A     | 10kHz min.   | 100kHz max. |               | A max.                 | B max. | C max. | D ref. | E ref. | P1 ref. | P2 ref. | F ref. | G ref. | H ref. | I ref. | L ref. | Diameter (mm)  | Parameter Value | Reference Turn (Ts) |        |
| YNC-S15A123-302HB          | 15A/12mH      | 15    | 12,000       | 3,000       | 8.0           | 65                     | 65     | 36     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     |                |                 |                     | Fig. 1 |
| YNC-S15A203-502HB          | 15A/20mH      | 15    | 20,000       | 5,000       | 10.0          | 65                     | 65     | 50     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.0            | 1P              | 13                  | Fig. 1 |
| YNC-S20A103-242HB          | 20A/10mH      | 20    | 10,000       | 2,400       | 5.0           | 65                     | 65     | 36     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.3            | 1P              | 11                  | Fig. 1 |
| YNC-S20A153-402HB          | 20A/15mH      | 20    | 15,000       | 4,000       | 8.0           | 65                     | 65     | 50     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.3            | 1P              | 11                  | Fig. 1 |
| YNC-S25A602-152HB          | 25A/6mH       | 25    | 6,000        | 1,500       | 5.0           | 65                     | 65     | 36     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.5            | 1P              | 10                  | Fig. 1 |
| YNC-S25A103-252HB          | 25A/10mH      | 25    | 10,000       | 2,500       | 7.0           | 65                     | 65     | 50     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.5            | 1P              | 10                  | Fig. 1 |
| YNC-S30A302-801HB          | 30A/3mH       | 30    | 3,000        | 800         | 3.0           | 65                     | 65     | 36     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.0            | 2P              | 7                   | Fig. 1 |

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| Product Code/Specification |               | Rated | L Value (μH) |             | DCR (mΩ) max. | Outside Dimension (mm) |        |        |        |        |         |         |        |        |        |        |        | Coil Parameter |      |      | Figure |
|----------------------------|---------------|-------|--------------|-------------|---------------|------------------------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|----------------|------|------|--------|
| Product Code               | Specification |       | 10kHz min.   | 100kHz min. |               | A max.                 | B max. | C max. | D ref. | E ref. | P1 ref. | P2 ref. | F ref. | G ref. | H ref. | I ref. | L ref. | 线径 (mm)        | 绕组股数 | 参考匝数 |        |
| YNC-S30A502-132HB          | 30A/5mH       | 30    | 5000         | 1300        | 3.0           | 65                     | 65     | 50     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.0            | 2P   | 7    | Fig. 1 |
| YNC-S45A222-501HB          | 45A/2.2mH     | 45    | 2200         | 500         | 1.2           | 65                     | 65     | 36     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.0            | 3P   | 5    | Fig. 1 |
| YNC-S45A352-801HB          | 45A/3.5mH     | 45    | 3500         | 800         | 1.6           | 65                     | 65     | 50     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.0            | 3P   | 5    | Fig. 1 |
| YNC-S50A202-401HB          | 50A/2mH       | 50    | 2000         | 400         | 2.0           | 65                     | 65     | 36     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.4            | 2P   | 5    | Fig. 1 |
| YNC-S50A322-601HB          | 50A/3.2mH     | 50    | 3200         | 600         | 2.0           | 65                     | 65     | 50     | -      | -      | 20      | 50      | -      | -      | -      | -      | 10     | 2.4            | 2P   | 5    | Fig. 1 |
| YNC-T15A143-352VB          | 15A/14mH      | 15    | 14000        | 3500        | 9.0           | 68                     | 68     | 40     | 28     | 42     | -       | -       | 66     | 50     | 2.1    | 2.1    | 10     | 2.0            | 1P   | 13   | Fig. 2 |
| YNC-T20A123-302VB          | 20A/12mH      | 20    | 12000        | 3000        | 8.0           | 68                     | 68     | 40     | 28     | 42     | -       | -       | 66     | 50     | 2.4    | 2.4    | 10     | 2.3            | 1P   | 12   | Fig. 2 |
| YNC-T25A103-242VB          | 25A/10mH      | 25    | 10000        | 2400        | 6.0           | 68                     | 68     | 40     | 28     | 42     | -       | -       | 66     | 50     | 2.6    | 2.6    | 10     | 2.5            | 1P   | 11   | Fig. 2 |
| YNC-T30A602-122VB          | 30A/6mH       | 30    | 6000         | 1200        | 3.5           | 68                     | 68     | 40     | 28     | 42     | -       | -       | 66     | 50     | 4.2    | 2.1    | 10     | 2.0            | 2P   | 8    | Fig. 2 |
| YNC-T50A322-801VB          | 50A/3.2mH     | 50    | 3200         | 800         | 2.5           | 68                     | 68     | 40     | 28     | 42     | -       | -       | 66     | 50     | 4.8    | 2.4    | 10     | 2.3            | 2P   | 7    | Fig. 2 |
| YNC-T55A252-501VB          | 55A/2.5mH     | 55    | 2500         | 500         | 2.0           | 68                     | 68     | 40     | 28     | 42     | -       | -       | 66     | 50     | 6.3    | 2.1    | 10     | 2.0            | 3P   | 5    | Fig. 2 |
| YNC-T60A282-801VB          | 60A/2.8mH     | 60    | 2800         | 800         | 2.5           | 85                     | 80     | 58     | 40     | 48     | -       | -       | 100    | 65     | 6.9    | 2.3    | 10     | 2.2            | 3P   | 5    | Fig. 2 |
| YNC-S70A122-241V           | 70A/1.2mH     | 70    | 1200         | 240         | 1.0           | 60                     | -      | 34     | -      | -      | -       | -       | -      | -      | -      | -      | 50     | 2.4            | 3P   | 4    | Fig. 3 |
| YNC-T70A122-501VB          | 70A/1.2mH     | 70    | 1200         | 500         | 1.5           | 85                     | 80     | 58     | 40     | 48     | -       | -       | 100    | 65     | 7.5    | 2.5    | 10     | 2.4            | 3P   | 4    | Fig. 2 |
| YNC-T80A122-501VB          | 80A/1.3mH     | 80    | 1200         | 500         | 1.5           | 85                     | 80     | 58     | 40     | 48     | -       | -       | 100    | 65     | 9.6    | 2.4    | 10     | 2.3            | 4P   | 4    | Fig. 2 |
| YNC-S100A102-401V          | 100A/1mH      | 100   | 1000         | 400         | 1.0           | 80                     | -      | 50     | -      | -      | -       | -       | -      | -      | -      | -      | 50     | 2.4            | 4P   | 4    | Fig. 3 |

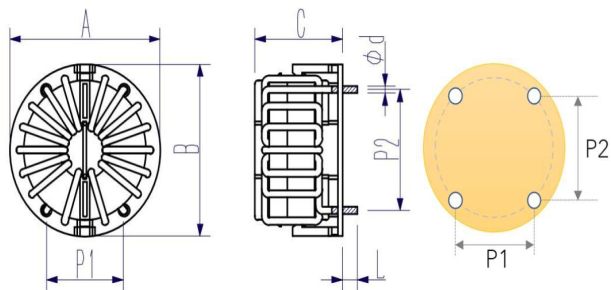


Fig. 1

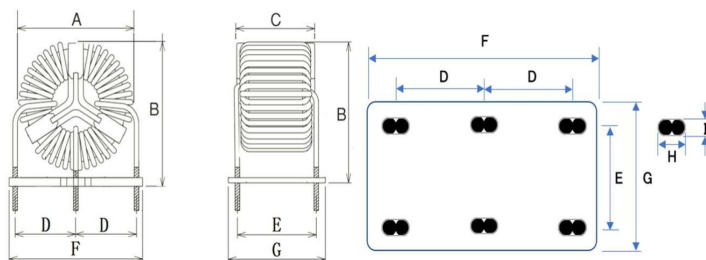


Fig. 2

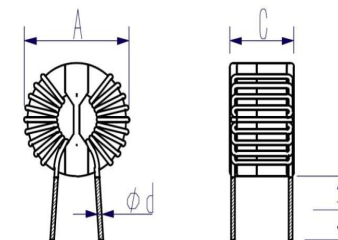


Fig. 3

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## Typical curve for impedance vs. frequency

