ENTERPRISE CO., LTD.

Common Mode Choke / Toroid Core, CMC

DCC no. CMV, CMH series released: 2019.12.17

◆ Product introduction

XCX Enterprise is a company specializing in the design and manufacture of common mode choke (Common Mode Choke / Toroid Core, hereinafter referred to as CMC), with many years of experience and technical advantages. We are committed to providing high-quality CMC products to meet the different needs of customers. CMC can effectively reduce power supply noise and suppress electromagnetic interference, and improve system stability and reliability. And provide a variety of customized CMC products to meet the needs of customers in different applications. Our toroidal common mode inductors have high inductive capability and magnetic flux capacity, enabling CMC to have better filtering effect and smaller size. If you need high-quality CMC products, please contact XCX, we will wholeheartedly provide you with high-quality products and services.

◆ Product characteristics

- Wound by nanocrystalline magnetic core.
- Excellent low-frequency and high-frequency common-mode current rejection performance.
- Low iron loss, high efficiency.
- The design is more compact than ferrite CMC.
- Good temperature characteristics, safer and more durable in use.
- Working temperature range: -40℃～+125℃.
- Comply with RoHS, REACH requirements.

◆ Product application

- Power supply: In switching power supplies, CMC is usually used to reduce EMI/RFI noise in the output current of the power supply, thereby ensuring the stability and reliability of the power supply.
- Data communication equipment: In network equipment and communication equipment, CMC is used to suppress high-frequency noise and EMI/RFI interference to improve the stability and reliability of data transmission.

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- Automotive electronic equipment: In automotive electronic equipment, CMC is used to reduce high-frequency noise and EMI/RFI noise generated by engines and other electrical equipment, thereby ensuring the stability and reliability of vehicle electronic systems.
- LED lighting: In LED lighting products, CMC is used to reduce high-frequency noise and EMI/RFI noise in the power supply current, thereby improving the efficiency and reliability of lighting products.
- Smart Grid: It has important application value, which can improve the stability and reliability of data transmission, and at the same time ensure the stable operation of smart grid and the normal operation of data communication.

◆ Corresponding magnetic core material performance comparison table

Core Material	Magnetic permeability (μ)	Bs (mT)	Br (mT)	AL (nH)	Cw (pF)	HL (W/Kg)
Nanocrystalline	15000-20000	1000-1300	10-20	5-15	1-5	10-30
epoxy	200-300	300-500	100-200	60-90	20-30	400-500
aluminum oxide	2-6	250-350	130-200	150-250	70-100	200-300
ferrite	2000-4000	200-400	80-120	50-100	50-80	500-1000

**"Magnetic permeability (μ)"
**"Saturation magnetic induction (Bs,mT)"
**"Residual flux density (Br, mT)"
**"Leakage inductance (AL, nH)"
**"Sink Capacitance (Cw, pF)"
**"Hysteresis loss (W/Kg)"

◆ Product specifications

P/N	Package	Shielded	ID(Φ) mm(Min)	Primary Current(A)	Inductance(H)	Turns ratio 1:{}	DCR(Ω)
CMV-005-00	Vertical		11.5*5.1*5.8	6	customized	1:1	113.0
CMV-011-00	Vertical		19.0*11.0*8.0	20	customized	1:1	69.0
CMV-018-00	Vertical		27.7*17.5*12.8	60	customized	1:1	62.5
CMV-013-00	Vertical		28.0*13.3*12.9	60	customized	1:1	60.0
CMV-018-01	Vertical	V	33.5*17.5*13.5	60	customized	1:1:1	62.0
CMH-018-00	Horizontal		32.8*17.7*12.5	80	customized	1:1	62.5
CMH-023-00	Horizontal	V	43.1*22.5*18.5	80	customized	1:1:1	60.0
CMV-023-00	Vertical		43.1*22.5*18.5	100	customized	1:1	50.0
CMH-023-01	Horizontal	V	43.1*22.5*18.5	100	customized	1:1	55.0
CMV-037-00	Vertical		54.2*36.6*23.5	200	customized	1:1:1	13.5