

High Performance Output Filter

A High Performance Output Filter designed for those demanding applications;

- Eliminate the need of installing screened motor cables
- Eliminate RF Interference caused by Variable Speed Drives
- Comply with the most rigorous classification of AS 61800.3
- Ultra low dv/dt for use of Variable Speed Drives on motors with poor motor insulation characteristics
- Assurance for old motors, long cable runs and potential bearing currents



**C-Tick Compliance
without screened
motor cables**

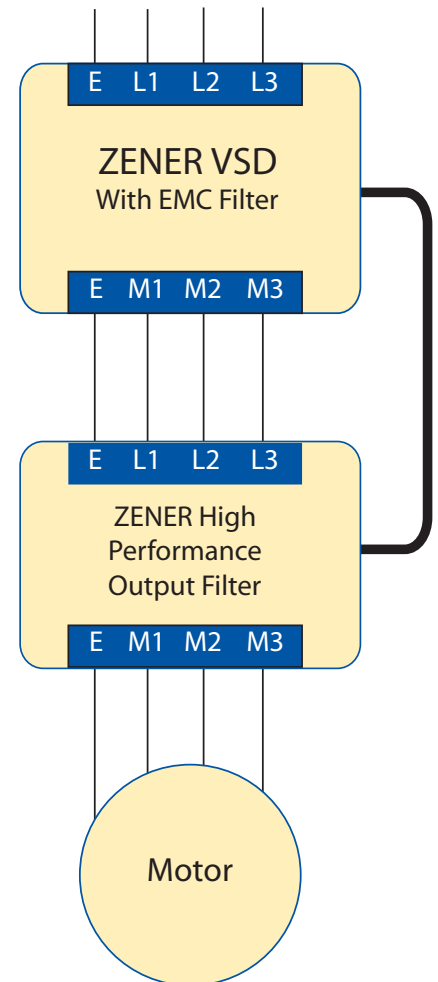
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- ✓ All Zener Variable Speed Drives offer, as standard, an integral EMC filter for compliance with C-Tick requirements and AS 61800.3-2005 : *Adjustable speed electrical power drive systems - EMC requirements and specific test methods* when correctly installed. This provides a low level of emission and ensures electromagnetic compatibility¹ in the vast majority of application scenarios.

There are some situations, in which it is not economic to achieve an electromagnetically compatible installation using the industry standard installation methods that typically require a screened power cable between the inverter and motor. Additionally, there are some special cases where EMC performance significantly beyond the published standards may be required. Zener has developed a High Performance Output Filter to provide a solution in these situations.

- ✓ **EMC compliance without screened cable**
Compliance with the most rigorous classification of AS 61800.3-2005 without the use of screened power cable. Provides an economic alternative to long runs of expensive screened cable and situations where screened cable is impractical.
- ✓ **A tested solution for ultra sensitive environments**
EMC performance can be improved even further with screened cable to assist with ultra sensitive environments.
- ✓ **Extra kind to motor insulation**
Provides dv/dt performance way beyond standard dv/dt filters with typically 100 times better performance than the recommendations of IEC/TS 60034-17 Ed. 4.0 2006: Rotating electrical machines - Part 17: *Cage induction motors when fed from converters - Application guide*. A great solution for motors with insulation of unknown provenance.
- ✓ **Extra kind to bearings**
Extra strong common mode attenuation reduces the high frequency current that can be capacitively coupled between motor winding and the rotor and cause electrical discharge machining (EDM) damage to bearing surfaces.
- ✓ **Extra kind to data communications**
Extra strong common mode attenuation helps keep interfering currents away from RS-485 and other data circuits, even with no screened power cable.

¹ Electromagnetic compatibility is the ability of different equipments or systems to coexist without causing each other harmful interference



For more information contact your nearest ZENER distributor