

VS-YMvKafas mb EMC motor cable

Electromagnetic fields are efficiently being utilised on a large scale. Apart from the efficient use of this phenomenon, these fields can also cause interferences. The influence of these fields on installations and systems is called Electromagnetic Interference (EMI). To set a limit to these interferences, the EMC-directive for installations and systems has been drawn up on EEC level.

The conditions for the Electromagnetic Compatibility (EMC) of installations and systems are stated in this directive. It is effective since 1 January 1996.

Operating systems and automation systems are very sensitive to EMI. Possible causes for interference are for example the feeder cables of frequency-controlled motors. The fact is that with frequency control, higher frequencies occur as well apart from the desired frequency. These so-called "higher harmonics" can interfere with other systems in their surroundings. To prevent this, the feeder cables need to have a low transfer impedance (or coupling impedance). According to specification K149 the KEMA has drawn up for this, the transfer impedance for a maximum of 100 MHz may not exceed 100 mΩ/m.

To achieve this TKF has developed a feeder cable with a special shielding. This shield consists of a sophisticated copper braiding in combination with a copper tape. With this construction, the cable is highly absorbent against interferences caused by EMI. Since the connection is also very important, the coppertape is cut off in a special EMC-turnbuckle on completion. In this turnbuckle the braiding is earthed all around. The earthing has to be applied to both ends of the cable and serves as a protection as well.

Construction: VS-YMvKafas mb

conductors:

stranded, pure electrolytic copper (round)

insulation:

Twenkaplus XLPE

filling:

a special PVC filling compound over the stranded cores

inner core:

PVC compound

shielding:

a complex of copper tape with a braiding of copper wires around it

outer sheathing:

PVC flame-retardant

colour:

standard grey



EMC-motor cable 0.6/1 kV