



RONDOFLEX (C) - FC (N)GRDGCGOEU-J 0,6/1 kV

The new generation has arrived!



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RONDOFLEX (C) - FC - The new generation has arrived!

The RONDOFLEX family has been especially developed for use in festoon operation. One thing is sure, in festoon operation things start to get a little cramped. The power and control cables can get very close to each other, a problem that can introduce yet another; the danger of electromagnetic interference caused by inductive coupling of noise. Interference of this type can occur, for example, if frequency converters are used.

In addition to RONDOFLEX, such unwanted interference during festoon operation was combated by RONDOFLEX (C) cable the “C” standing for “covered”, which meant that a surrounding screen was introduced between the inner and outer sheaths.



Continual improvements in insulating materials coupled with some clever design were conditional for the creation of a new generation of screened RONDOFLEX (C) cables that also took into account the requirements of operation in a frequency converter environment and which complied with all EMC standards.

The result is a new, high-quality cable with smaller diameters, weights, material numbers, new prices and of course, a new name:

RONDOFLEX (C) - FC

What are the main changes?

Design

Cables with a conductor cross-section up to 10 mm² will be designed as 4-core. This has been found to be the geometrically most compact solution as far as small cross-sections are concerned. In cables with a cross-section larger than 10 mm² the protective earth conductor is divided into three and laid in the interstices of the core assembly. The VDE value is calculated taking the screen cross-section and the protective earth cross-section into account.

Technical materials details

An electrically high grade insulating compound is used as the core insulating material for RONDOFLEX (C) - FC. Because of this improved insulating material a thinner wall thickness (lower relative permittivity) can be achieved.

All-in-all, this means a reduction in diameter of up to 20% in comparison to the previous generation. In the same vein, the new generation is up to 26% lighter, depending on cross-section.

CRANE CABLES

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The table below shows all the relevant data.

Please note that new material numbers have been generated for the new generation of cables.



Table

RONDOFLEX (C) - FC (N)GRDGCGOEU-J; black 0.6/1 kV						
No. of cores and cond. cross-section	Maierial-No. NEW	Material-No. Invalid	Outer-diameter	Weight net	Elektr. screen-cross-section	List price [Euro] Cu 150/100 kg
mm ²			mm	kg/km	mm ²	
4x4	5DG6 682	5DG6 111	16.3±1.5	485	8.0	6,122.00
4x6	5DG6 683	5DG6 112	18.7±1.5	700	10.7	7,054.00
4x10	5DG6 684	5DG6 113	21.2±1.5	925	12.7	9,868.00
3x16+3x2.5	5DG6 685	5DG6 114	23.7±1.5	1150	13.3	13,661.00
3x25+3x4	5DG6 686	5DG6 115	26.8±1.5	1610	15.9	17,452.00
3x35+3x6	5DG6 687	5DG6 116	30.8±1.5	2160	21.4	23,418.00
3x50+3x10	5DG6 688	5DG6 117	36.5±1.5	3090	24.9	31,803.00
3x70+3x10	5DG6 690	5DG6 118	42.4±1.5	4100	29.8	40,238.00

What does this all mean in practice?

The significantly smaller diameter allows smaller bend radii. In addition, this means that the cable trailer can be narrower or there is more room for additional cables. Another advantage is the smaller resistance offered to side-winds by the cables.

Because of the reduced cable weight the cable trailer can be made lighter, too, which means that there are more reserves of power for driving the festoon system, or, on the other hand, energy can be saved.

Another positive aspect of the lower weight is easier cable installation.