

OnGcekgz-G FLEX 8,7/15kV 4-cores



Mining sheathed power cables for mobile and portable power devices, shielded. Rated voltage 8,7/15 kV

According to	ZN-FKR-021:2008/A3:2022; PN-EN 60332-1-2:2010/A1:2016-02
CONSTRUCTION	
Conductor	Annealed, multi-stranded, tinned copper, class 5 flexible conductor acc. to PN-EN 60228
Insulation	Heat resistant polymer material with properties corresponding to IEP type material acc. to PN-89/E-29100
Shield	Non-metallic, conductive polymer material with properties corresponding to GP type material acc. to PN-E-29100:1989 covering power cores conductor, protective conductor and power cores insulation
Protective conductor	Protective conductor split into 3 parts placed symmetrically between power cores
Cradle separator	Non-metallic, conductive polymer material with properties corresponding to GP type material acc. to PN-E-29100:1989
Cable core	Cable core consists of 3 power cores and non-insulated protective conductor split into 3 parts placed between power cores. Power cores and protective conductor stranded around cradle separator made out of conductive non-metallic material. Cable core wrapped in a layer of conductive tape.
Sheath	Polymer material with flame retardant and oil-proof properties, corresponding to material type ON4 acc. to PN-E-90140:1986
Colour of sheath	Red or black
CHARACTERISTIC	
Rated voltage U₀/U	8,7/15kV
Test voltage for power cores	24 kV
Maximum core temperature during operation	+90 °C
Maximum core temperature during short circuit	+250 °C
Ambient temperature range for permanently installed cables	-40°C to +90°C
Ambient temperature range for mobile connections	-25°C to +80°C
Minimum bending radius	Fixed installation – 6D; Mobile connections – 12D
Cable name explanation	OnGcekgz-G FLEX – Sheathed (O) power cable for mining applications (G) with flexible copper conductors, insulation made of heatproof polymer material (Gc), sheath made of flame retardant elastomeric polymer material (n), cores individually shielded by a layer of conductive polymer material (ekgz) and increased flexibility (FLEX)
Cable marking	OnGcekgz-G FLEX 8,7/15kV 3x50+3x50/3 mm ² ROGUM KABLE Sp. z o.o. + cable ID + meter mark + year of production Each cable has a legible and permanent marking repeated cyclically, printed or embossed (in case of power cores with diameter equal or greater than 25 mm ²) longitudinally on outer sheath including in particular: manufacturer's name, cable / wire type, cross-section, number of wires, rated voltage, identifier, year of production and the length of the delivered section.

APPLICATION

Power cable for open-pit mining machines

CERTIFICATES AND APPROVALS

EMAG certificate (Łukasiewicz Research Network – Institute of Innovative Technologies)

ADDITIONAL INFORMATION

On request there is a possibility:

- to change the colour of the sheath

In all cases concerning detailed technical data please contact our Client Advisor: doradztwotechniczne@rogum.com.pl

CARD NUMBER

78

EDITION

21.03.2023

CABLE CONSTRUCTION

Total number of cores	Number of cores and cross-sectional area	Maximum cable diameter	Approximated cable weight
	Power cores + protective conductor*		
n	n x mm ²	mm	kg/km
4	3x10+3x10/3	46,2	2150
	3x16+3x16/3	48,0	2500
	3x25+3x16/3	52,2	3100
	3x35+3x16/3	54,3	3700
	3x50+3x25/3	59,3	4500
	3x70+3x35/3	64,8	5700
	3x95+3x50/3	69,0	7000
	3x120+3x70/3	73,8	8150
	3x150+3x70/3	77,5	9450
	3x185+3x95/3	84,8	11480

*given value is a minimal cross-sectional area value for protective conductor and could be different. In case of 35 mm² and 50 mm² protective cores sets of 3x10 mm² and 3x16 mm² conductors could be used accordingly

PARAMETERS

Nominal cross-sectional area of the power core conductor	Highest core resistance at 20 °C	Unit inductance	Current carrying capacity at ambient temperature at 25 °C
mm ²	Ω/km	[mH/km]	A
10	1,95	0,47	85
16	1,24	0,44	110
25	0,795	0,40	142
35	0,565	0,38	174
50	0,393	0,36	215
70	0,277	0,34	265
95	0,210	0,32	318
120	0,164	0,31	365
150	0,132	0,30	415
185	0,108	0,29	474