YnOGY 0,6/1 kV

Mining power cables with insulation made of PVC and sheath made of flame retardant PVC. Rated voltage 0,6/1kV	
According to	ZN-FKR-022:2009/A3:2022; PN-EN 60332-1-2:2010/A1:2016-02
CONSTRUCTION	
Conductor	Annealed multi-stranded tinned copper class 5 flexible conductor according to PN-EN 60228
Insulation	PVC with properties corresponding to type TI 1 material acc. to PN-EN 50363-3:2010/A1:2011
Inner sheath	PVC with properties corresponding to type TM 2 acc. to PN-EN 50363-4-1:2010
Outer sheath	Type TM 1 PVC material with self-extinguishing and flame retardant properties according to PN-EN 50363-4-1:2010; PN-EN 60332-1-2:2010
Cable core	In 4 core cables: cable core consists of 3 insulated power cores and 1 insulated, corrugated protective conductor; In 5 core cables: cable core consists of 3 insulated power cores, 1 insulated auxiliary cores and 1 insulated corrugated protective conductor; In 7 core cables: cable core consists of 3 insulated power cores, 3 insulated auxiliary cores stranded together and 1 insulated corrugated protective conductor;
Sheath colour	I layer – white; II layer – yellow
Insulation colour	Power cores: natural (white), red, blue Protective conductor: black, corrugated 1 auxiliary core: brown 3 auxiliary cores: brown, red, blue
CHARACTERISTIC	
Rated voltage Uo/U	0,6/1 kV
Test voltage for power cores	3,2 kV
Test voltage for auxiliary cores	2 kV
Minimum ambient temperature for installation	-5°C
Maximum core temperature during operation	+70°C
Maximum core temperature during short circuit	+160 °C
Minimum ambient temperature for permanently installed cables	-30 °C
Minimum bending radius	Fixed installation – 6D
Cable name explanation	YnOGY – Sheathed (O) power cable made of fire retardant PVC (Yn), for mining application (G) with flexible multi-stranded copper conductor and insulation made of PVC (Y)
Cable marking	YnOGY 0,6/1kV 3x35+16 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 (for cables with power conductors size 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.

APLICATION

CERTIFICATES AND APPROVALS

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

ADDITIONAL INFORMATION

On request there is a possibility:

- to change the color of the sheath

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

CARD NUMBER	1	EDITION	21.03.2023

NUMBER AND TYPE OF CORES

Total number of cores in cable	Type of core		
	Power cores	Protective conductor	Auxiliary cores
n	n	n	n
4	3	1	-
5	3	1	1
7	3	1	3

CABLE CONSTRUCTION

Total number of cores	Number of cores and cross - sectional area Power cores + Protective cores + Auxiliary cores	Cable maximum diameter	Approximated cable weight
n	n x mm²	mm	kg/km
4	3x2,5+2,5	18,2	350
	3x4+4	19,9	440
	3x6+6	23,1	650
	3x10+10	26,9	970
	3x16+16	31,0	1350
	3x25+16	36,9	1900
	3x35+16	41,0	2400
	3x50+25	46,3	3240
	3x70+25	51,8	4130
	3x95+25	58,6	5350
	3x120+25	64,6	6480
5	3x2,5+2,5+2,5	19,5	410
	3x4+4+4	21,7	520
	3x6+6+4	26,0	740
	3x10+10+6	30,0	1100
	3x16+16+16	33,0	1500
7	3x4+4+3x4	23,3	640
	3x6+6+3x6	27,1	950
	3x25+16+3x2,5	40,3	2140
	3x35+16+3x2,5	44,7	2670

PARAMETERS					
Nominal cross-section of the power conductor	Highest core resistance at 20 °C	Current carrying capacity at ambient temperature at 25 °C	Unit inductance	Unit inductive reactance	Unit capacity to ground
mm²	Ω/km	A	mH/km	Ω/km	µF/km
2,5	8,21	27	0,32866	0,10320	0,40107
4	5,09	37	0,31198	0,09796	0,47296
6	3,39	47	0,30624	0,09616	0,50865
10	1,95	66	0,28615	0,08985	0,59486
16	1,24	87	0,26758	0,08402	0,65743
25	0,795	113	0,27203	0,08542	0,69346
35	0,565	140	0,27112	0,08513	0,77942
50	0,393	172	0,24998	0,07849	0,84726
70	0,277	212	0,24511	0,07697	0,98734
95	0,210	257	0,24360	0,07649	1,01722
120	0,164	295	0,24113	0,07572	1,13159

CORRECTION FACTORS (KT) FOR AMBIENT TEMPERATURE GREATER THAN 25 °C	
Ambient temperature	Correction factors (Kt) for cables rated for permissible long-term operation at limit temperature of 70 °C
°C	A
30	0,94
35	0,88
40	0,82
45	0,75
50	0,67
55	0,58