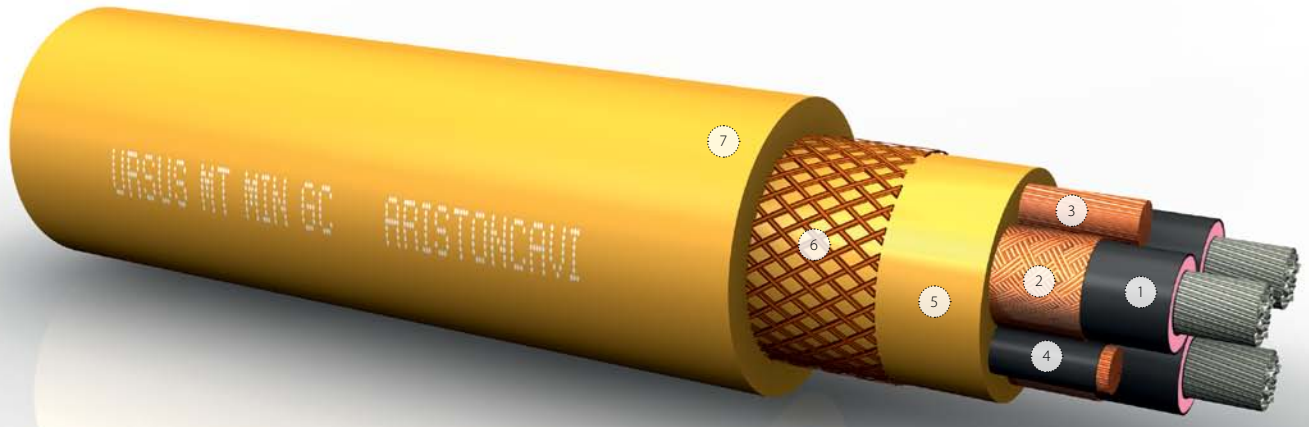
URSUS® MT MIN GC 1,8/3 ÷ 12/20 kV

Based on DIN VDE 0250 Part 813



Cable construction

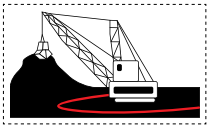
1 **Phase Conductors**	Conductor material	Tinned copper
	Conductor construction	Class 5 VDE 0295 (IEC 60228)*
	Insulation material	3GI3 quality rubber compound, according to VDE 0207 Part 20
	Insulation thickness	According to VDE 0250 Part 813 (table 1)
	Semiconductive layers	Semiconductive tape over the conductor and inner and outer semiconductive rubber layer on the insulation, from 3,6/6 kV
2 3 4 **Earth Conductors**	Material	Bare copper
	Construction	Individual copper braid +2 earth conductors + 1 checking earth wiring conductor
Central Filler	Material	Rubber compound on textile polyester support
Cores Assembly	Assembly	Twisted cores with earth conductor split into 3 parts
	Separator on the twisted assembly	1,8/3 kV cables: TNT tape wound on the twisted cores From 3,6/6 kV: semiconductive tape wound on the twisted cores
5 **Inner Sheath**	Material	Special abrasion resistant rubber compound 5GM5 quality, according to VDE 0207 Part 21
	Thickness	According to VDE 0250 Part 813 (table 2)
6 **Antitwisting element**	Material	Polyester braid between inner and outer sheath
7 **Outer Sheath**	Material	Special abrasion resistant rubber compound 5GM5 quality, according to VDE 0207 Part 21
	Thickness	According to VDE 0250 Part 813 (table 2)
	Colour	Yellow

* Special construction for higher flexibility

Upon request:
URSUS® MIN GC PUR HF: special version with halogen free polyurethane outer sheath
URSUS® MIN GC PUR HF RFB: special version with reflecting tape and halogen free transparent polyurethane outer sheath, without textile braid



Main applications



Applications Flexible cable for energy supply of heavy mobile equipment such as drag lines, shovels, dredges, drills, under extreme mechanical stresses and abrasion during trailing operation in opencast mine. Special construction with additional ground check conductor.

Electrical working data

Nominal rated voltage U_0 / U	kV	1,8/3	3,6/6	6/10	8,7/15	12/20
Test voltage	kV	6	11	17	24	29
Max AC voltage	kV	2,1/3,6	4,2/7,2	6,9/12	10,4/18	13,9/24
Electrical field control		Inner and outer semiconductive layers extruded in a single pass with the insulation				
Current rating	A	According to VDE 0298 Part 4				

Thermal working data

Maximum short circuit temperature	°C	250
Maximum working temp. on the conductor	°C	90
Ambient temperature: mobile condition	°C	- 25 to + 80
Ambient temperature: static condition	°C	- 40 to + 80

Mechanical working data

Bending radius	mm	According to VDE 0298 Part 3
Maximum tensile load*	N/mm^2	15

* Referred to the total phase conductors cross section

Chemical working data

Burning behaviour	Flame retardant according to IEC 60332-1-2
Resistance to oil	According to IEC 60811-2-1
Ozone resistance	According to IEC 60811-2-1
Weather resistance	For indoor and outdoor application

URSUS® MT MIN GC 1,8/3 ÷ 12/20 kV

Voltage	Cores x cross section	Conductor Ø	Min overall Ø	Max overall Ø	Approx weight	Max tensile load
kV	Nr x mm²	mm	mm	mm	kg/km	N
1,8/3	3x25 + 2x25/2 + 10	6,8	38,2	42,3	2530	1125
1,8/3	3x35 + 2x25/2 + 10	7,8	39,7	44,0	2930	1575
1,8/3	3x50 + 2x25/2 + 10	9,4	42,7	47,2	3540	2250
1,8/3	3x70 + 2x35/2 + 10	11,2	48,1	53,0	4730	3150
1,8/3	3x95 + 2x50/2 + 10	12,7	53,0	58,3	5930	4275
1,8/3	3x120 + 2x70/2 + 10	14,4	57,4	63,1	7270	5400
1,8/3	3x150 + 2x70/2 + 10	16,3	63,8	70,0	8920	6750
1,8/3	3x185 + 2x95/2 + 10	17,6	65,6	71,9	10220	8325
3,6/6	3x25 + 2x25/2 + 10	6,8	45,4	50,1	3300	1125
3,6/6	3x35 + 2x25/2 + 10	7,8	46,7	51,5	3710	1575
3,6/6	3x50 + 2x25/2 + 10	9,4	51,5	56,7	4600	2250
3,6/6	3x70 + 2x35/2 + 10	11,2	55,2	60,7	5710	3150
3,6/6	3x95 + 2x50/2 + 10	12,7	58,9	64,8	6820	4275
3,6/6	3x120 + 2x70/2 + 10	14,4	65,1	71,4	8540	5400
3,6/6	3x150 + 2x70/2 + 10	16,3	69,6	76,3	9890	6750

Voltage	Cores x cross section	Conductor Ø	Min overall Ø	Max overall Ø	Approx weight	Max tensile load
kV	Nr x mm²	mm	mm	mm	kg/km	N
6/10	3x25 + 2x25/2 + 10	6,8	48,1	53,0	3640	1125
6/10	3x35 + 2x25/2 + 10	7,8	49,5	54,6	4070	1575
6/10	3x50 + 2x25/2 + 10	9,4	54,2	59,7	4980	2250
6/10	3x70 + 2x35/2 + 10	11,2	57,9	63,6	6070	3150
6/10	3x95 + 2x50/2 + 10	12,7	61,6	67,7	7280	4275
6/10	3x120 + 2x70/2 + 10	14,4	67,9	74,4	9070	5400
8,7/15	3x25 + 2x25/2 + 10	6,8	53,9	59,3	4490	1125
8,7/15	3x35 + 2x25/2 + 10	7,8	55,3	60,8	4920	1575
8,7/15	3x50 + 2x25/2 + 10	9,4	58,5	64,2	5700	2250
8,7/15	3x70 + 2x35/2 + 10	11,2	64,2	70,5	7200	3150
8,7/15	3x95 + 2x50/2 + 10	12,7	67,9	74,4	8480	4275
12/20	3x25 + 2x25/2 + 10	6,8	58,2	63,9	5110	1125
12/20	3x35 + 2x25/2 + 10	7,8	59,8	65,7	5580	1575
12/20	3x50 + 2x25/2 + 10	9,4	64,6	70,9	6550	2250
12/20	3x70 + 2x35/2 + 10	11,2	68,3	74,8	7800	3150