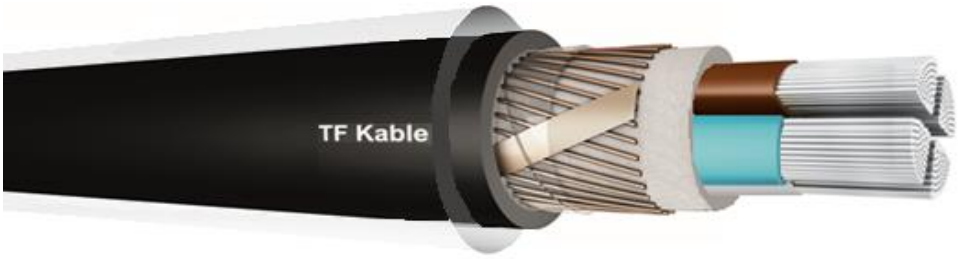
A2XCY11Y 0,6/1kV

IEC 60502-1

Cables with aluminium conductor, XLPE insulated, copper concentric screen, PVC sheath and polyurethane TPU protect cover



CONSTRUCTION	
Conductors ***A***	Aluminium circular conductor solid class 1(RE), circular or circular compacted stranded conductor class 2 (RM) or stranded sector – shaped conductor class (SM) acc. to EN 60228
Insulation ***2X***	special XLPE compound type XLPE acc. to IEC 60502-1
Inner covering:	Non-vulcanised rubber compound
Concentric conductor ***C***	round copper wires and copper tape + binder polyester tape
Sheath ***Y***	special PVC compound type ST_2 acc. to IEC 60502-1
Cover (protect sheath) ***11Y***	Polyurethane TPU

CHARACTERISTIC		
Colour of sheath: black (*other colours, included in standard RAL pallet available at customer*)		
Colour of cover: black (*other colours, available at customer request*) *or natural*		
Core identification: HD 308 *S2* *(other colours available at customer request)*		
	3-core:	brown, black, grey
	4-core:	blue, brown, black, grey
Maximum conductor operating temperature:		+90°C
Lowest ambient temperature for fixed installation:		-30°C
Lowest installation temperature:		-30°C
Maximum short-circuit conductor temperature:		+250°C
Minimum bending radius:		12 x D multicore cables, D – overall diameter
Maximum permissible tensile strength of cable: **- pulling in the conductors** **- pulling grip around the cable over sheath**		 **3**0N/mm2 30N/mm2
Current of short-circuit (1 sec):		94 x nominal cross section conductor (A)
Retention of mechanical properties		after water ageing 80 Celsius degrees in 7 hours – about 30% of elongation and tensile strength.

FIRE PERFORMANCE	
▪ **Flame retardant:**	EN 60332-1-2

A2XCY11Y 0,6/1kV MK-23-05-2019
Replace A2XCY11Y 0,6/1kV MK-13-03-2019

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APPLICATIONS

XLPE insulated and sheathed power cables for the supply of electrical energy where greater mechanical protection is required. Special for installations in the open air, in underground and water, indoors, in cable ducts. The concentric conductor is allowed to use as neutral, protective or earthed conductor. Simultaneously, this also is permitted to apply as a screen for example earth-connected protection against contact.

Standard length cable packing	500 on drums. Other forms of packing and delivery are available on request

Number and cross-sectional area of conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C
n x mm²	**mm**	**kg/km**	**Ω/km**
3x25RE/16	26,1	801	1,2 / 1,15
3x50SM/25	29,7	1176	0,641 / 0,727
3x95SM/50	37,3	2053	0,32 / 0,387
3x150SM/70	46	3043	0,206 / 0,268
3x240SM/70	55,5	4264	0,125/ 0,268
3x240SM/120	56,5	4767	0,125 / 0,153
4x25RE/16	28	920	1,2 / 1,15
4x50SM/25	33	1416	0,641 / 0,727
4x95SM/50	41,7	2485	0,32 / 0,387
4x150SM/70	51,4	3689	0,206 / 0,268
4x240SM/70	62,3	5287	0,125 / 0,268
4x240SM/120	63,3	5792	0,125 / 0,153

Current ratings*

Operating temperature at conductor 70°C; ambient air temperature 30°C, ground temperature 20°C

Installation		
Number of loaded cores	3	3
	laying in ground	laying in air
Cross-section, mm²	Current ratings in Ampere (A)	
25	113	104
35	136	128
50	159	152
70	197	194
95	236	239
120	269	278
150	302	316
185	342	365
240	397	430
300	454	506

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The values are referred to the following basic conditions:

Laying in ground		Laying in air	
Ground temperature at installation depth:	20°C	Ambient temperature:	30°C
Load factor:	0,7	Load factor:	1,0
Soil-thermal resistivity of moist area:	1,0 K · m/W	Arrangement: free in air, protection against direct solar radiation, no external heat sources, unrestricted dissipation of heat.	
Soil-thermal resistivity of dry area:	2,5 K · m/W		
Laying depth:	0,7 m		

Correction factors for various ambient air temperatures

Ambient temperature, °C	10	15	20	25	30	35	40	45	50
Rating factor	1,22	1,17	1,12	1,06	1,00	0,94	0,87	0,79	0,71

* As defined in DIN VDE 0276-603, DIN VDE 0276-627, HD 603 S1, HD 627 S1.
Conversion factors for deviating ambient temperature defined in DIN VDE 0298 part 4.

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