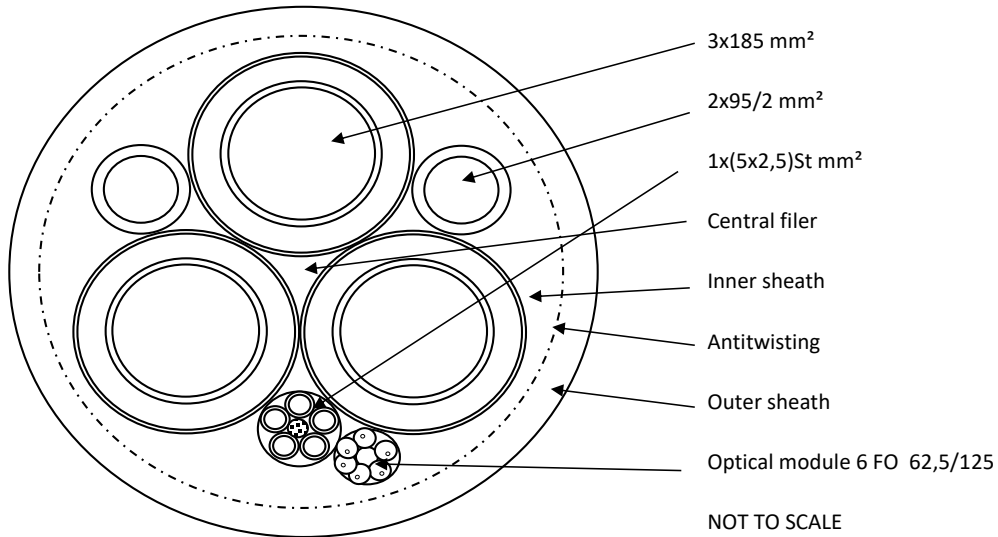


29/06/2017		STSX-1-3132 Rev. 0
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PANZERFLEX 6/10 kV 3x185+2G95/2+1x(5x2,5)St+6FO62,5/125

Analisi : R52103358000047xxx
SAP code : xxxxxxxx
Specifications : General to IEC



GENERAL

Approx weight : **10400 (kg/km)**
Approx diameter: **73,0 (mm)**
External diameter (maximum): **75,0 (mm)**
Phase cores 185 mm²
Rated voltage: U₀/U(U_m) : **6/10 (kV)**
Test voltage x 5 min. : **17 (kV)**
Control cores 2,5 mm²
Rated voltage: U₀/U(U_m) : **0,6/1(1,2) (kV)**
Test voltage x 5 min. : **3,5 (kV)**

CONSTRUCTION

Phase : 3 X 185 mm²

flexible conductor

Copper

type. : Flexible round strand (class 5)
special construction for mobile application
Approx diameter: 18,2 (mm)
Max electrical resistance DC at 20 °C : 0,106 (ohm/km)

Conductor screen

semicond. layer + semiconductive layer

Approx diameter: 20,0 (mm)

Extruded insulation

HEPR

Approx diameter: 27,0 (mm)

Insulation screen

semiconductive layer

Approx diameter: 28,0 (mm)

Identification

cores numbered on semiconducting layer

Earth : 2 X 95/2 mm²

flexible conductor

Copper

type. :	Flexible round strand (class 5) special construction for mobile application
Approx diameter:	9,2 (mm)
Max electrical resistance DC at 20 °C :	0,206 (ohm/km) parallel connected

Extruded layer

Semi-conductive Rubber

Approx diameter:	12,2 (mm)
Colour :	Black

5 cores X 2.5 mm²

flexible conductor

Copper

type. :	Extraflexible round strand (class 6) special construction for mobile application
Approx diameter:	2,1 (mm)
Max electrical resistance DC at 20 °C :	7,98 (ohm/km)

Extruded insulation

EPR

Approx diameter:	3,7 (mm)
Colour :	White, numbered from 1 to 5

cores lay-up

Direction:	Right (Z) T+5
Approx diameter:	9,7 (mm)

Electrostatic Screen

Drain conductor

Tinned copper

Nominal section :	0,75 (mm ²)
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PET laminated aluminium

Nom. overlap :	25 (%)
Tape application type :	Helical

Optical module 6 x 62,5/125

fiber type	graded index 62,5/125
number of loose tube	6
fibers per tube	1
Approx diamete (module):	7,9 (mm)

Cable (see draw)

Lay-up

Direction:	Right (Z)
Approx diameter:	60,3 (mm)

Extruded inner sheath

PCP

Approx diameter:	65,4 (mm)
Colour :	Black

Antitwisting reinforcements

open mesh	synthetic yarns
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Extruded outer sheath

PCP

Approx diameter:	72,9 (mm)
Colour :	Red

Maximum working temperature on conductor	90 °C
Short circuit temperature	250 °C
Ambient temperature (mobile application)	-25 °C / +80 °C
Ambient temperature (fixed installation)	-40 °C / +80 °C
Max permissible tensile load	11100 N (mobile installation)
Minimum bending radius	6 x OD - fixed installation 12 x OD - on reels 15 x OD - guide pulley system

Electrical parameters

Current carrying capacity

Cable up to 10 kV

Cable cross section	Stretched laying	Suspended in free air	1 layer	2 layer	3 layer*	4 layer	5 layer	6 layer
Factor	1	1,05	0,8	0,61	0,49	0,42	0,34	0,27
mm ²	A	A	A	A	A	A	A	A
1	18	19	14	11	9	8	6	5
1,5	23	24	18	14	11	10	8	6
2,5	30	32	24	18	15	13	10	8
4	41	43	33	25	20	17	14	11
6	53	56	42	32	26	22	18	14
10	74	78	59	45	36	31	25	20
16	99	104	79	60	49	42	34	27
25	131	138	105	80	64	55	45	35
35	162	170	130	99	79	68	55	44
50	202	212	162	123	99	85	69	55
70	250	263	200	153	123	105	85	68
95	301	316	241	184	147	126	102	81
120	352	370	282	215	172	148	120	95
150	404	424	323	246	198	170	137	109
185	461	484	369	281	226	194	157	124
240	540	567	432	329	265	227	184	146
300	620	651	496	378	304	260	211	167

Cable above 10 kV

Cable cross section	Stretched laying	Suspended in free air	1 layer	2 layer	3 layer*	4 layer	5 layer	6 layer
Factor	1	1,05	0,8	0,61	0,49	0,42	0,34	0,27
mm ²	A	A	A	A	A	A	A	A
16	105	-	84	64	51	44	36	28
25	139	-	111	85	68	58	47	38
35	172	-	138	105	84	72	58	46
50	215	-	172	131	105	90	73	58
70	265	-	212	162	130	111	90	72
95	319	-	255	195	156	134	108	86
120	371	-	297	226	182	156	126	100
150	428	-	342	261	210	180	146	116
185	488	-	390	298	239	205	166	132
240	574	-	459	350	281	241	195	155
300	660	-	528	403	323	277	224	178

* This reduction factor is also valid for flat reeling cables

De-rating factor for multicore cables with conductor cross-section up to 10 mm²

loaded cores	5	7	10	12	14	18	19	24	30	36	42	48	54
factor	0,75	0,65	0,55	0,53	0,50	0,44	0,43	0,40	0,37	0,36	0,35	0,32	0,30

De-rating factor for varying ambient temperatures

°C	10	15	20	25	30	35	40	45	50	55	60	65	70	75
factor	1,15	1,12	1,08	1,04	1,00	0,96	0,91	0,87	0,82	0,76	0,71	0,65	0,58	0,50

Electrical parameters

Cable cross section mm ²	DC resistance at 20 °C		Short circuit Short circuit current 1 second kA	De-rating factors for intermittent periodic duty Ambient temperature 30 °C Duty cycle 10 minutes Duty factors ED %			
	Tinned	Bare		60	40	25	15
	Ohm/km	Ohm/km					
1	20,0	19,5	0,143	1,00	1,00	1,00	1,00
1,5	13,7	13,3	0,215	1,00	1,00	1,00	1,00
2,5	8,21	7,98	0,358	1,00	1,00	1,04	1,07
4	5,09	4,95	0,572	1,00	1,03	1,05	1,19
6	3,39	3,30	0,858	1,00	1,04	1,13	1,27
10	1,95	1,91	1,43	1,03	1,09	1,21	1,44
16	1,24	1,21	2,29	1,07	1,16	1,34	1,62
25	0,795	0,780	3,58	1,10	1,23	1,46	1,79
35	0,565	0,554	5,01	1,13	1,28	1,53	1,90
50	0,393	0,386	7,15	1,16	1,34	1,62	2,03
70	0,277	0,272	10,01	1,18	1,38	1,69	2,13
95	0,210	0,21	13,59	1,20	1,42	1,74	2,21
120	0,164	0,161	17,16	1,21	1,44	1,78	2,26
150	0,132	0,129	21,45	1,22	1,46	1,81	2,30
185	0,108	0,106	26,46	1,23	1,48	1,82	2,32
240	0,0817	0,0801	34,32	1,23	1,49	1,85	2,36
300	0,0654	0,0641	42,90	1,23	1,50	1,87	2,39

Low voltage cables

Rated voltage	Max operating voltage		Test voltage
	AC system	DC system	
U ₀ /U	U _m	V _m	main cores
300/500 V	550 V	825 V	2 kV
450/750 V	825 V	1238 V	2,5 kV
0,6/1 kV	1,2 kV	1,8 kV	3,5 kV

Medium voltage cables

Rated voltage	Max operating voltage		Test voltage
	AC system	DC system	
U ₀ /U	U _m	V _m	main cores
3,6/6 kV	7,2 kV	10,8 kV	11 kV
6/10 kV	12 kV	18 kV	17 kV
8,7/15 kV	17,5 kV	27 kV	24 kV
12/20 kV	24 kV	36 kV	29 kV
18/30 kV	36 kV	54 kV	43 kV