Cu or Al - XLPE - PVC - SWA - PVC
Standard Armoured - IEC 60502-1

APPLICATION
Cable for power supply, for rated voltage up to 0.6/1kV. Suitable for outdoor fixed installations when it is necessary to protect the cable against mechanical aggression or against rodents threat. Can be laid in free air, installed in ducts or directly buried. Excellent mechanical protection during laying, installation and service.

CABLE DESIGNATION
Cu / XLPE / PVC / SWA / PVC
Al / XLPE / PVC / SWA / PVC
SWA – Steel wire armour
AWA – Aluminium wire armour

CONSTRUCTION CHARACTERISTICS
Conductor
Copper (plain annealed): solid class 1 or rigid stranded class 2 or class 5 (flexible), circular or sector shaped.
Aluminium: stranded class 2, circular or sector shaped.
Insulation
XLPE – (Cross-linked polyethylene).
Bedding /Inner Sheath
PVC – (Polyvinyl chloride)
Armour
Steel galvanized wires helical applied.
For single core cables steel is substituted by aluminium wires.
Oversheath
PVC (Polyvinyl chloride)

GENERAL CHARACTERISTICS

Construction and test standards	IEC 60228 IEC 60502-1
Rated voltage U_0/U	0.6 / 1 kV
Test voltage	3.5 kV a.c. 5 minutes
Conductor maximum operating temperature	90°C
Maximum short-circuit temperature	250°C (t ≤ 5s)
Minimum bending radius (mm)	8 x d
Maximum pulling force over conductor (N)	Copper – 50 x S Aluminium – 30 x S
Flame retardant	IEC 60332-1-2 • EN 60332-1-2 (cable vertically mounted, length of charred cable ≤ 540 mm)

S – conductor cross-section (mm^2) • d – cable outer diameter (mm).

ADDITIONAL CHARACTERISTICS *

Fire retardant (frt)	IEC 60332-3-24 • EN 60332-3-24 (bunch of cables vertically mounted on a ladder, length of charred cable ≤ 2.5 m)

ELECTRICAL AND DIMENSIONAL CHARACTERISTICS

Cable composition n.° cond. x cross-section (mm^2)	Approximate outer diameter (mm)	Approximate weight (kg/km)	Current carrying capacity Installation directly buried[1] Ts= 20°C (A)	
			2 charged conductors	3 charged conductors
Cu / XLPE / PVC / AWA / PVC				
1x10	12.4	261		
1x16	13.5	334		
1x25	16.0	487		
1x35	17.0	597		
1x50	18.3	756	253	222
1x70	20.3	1020	322	285
1x95	22.9	1309	389	346
1x120	24.6	1584	449	402
1x150	26.7	1881	516	463
1x185	29.0	2279	587	529
1x240	31.8	2955	689	625
1x300	35.4	3623	792	720
1x400	39.0	4831	899	815
1x500	42.5	5676	1016	918
1x630	49.6	7199	1146	1027
Cu / XLPE / PVC / SWA / PVC				
2x1.5	13.4	318	29	
2x2.5	14.2	362	39	
2x4.0	15.3	425	52	
2x6.0	17.1	575	66	
2x10	18.9	722	90	
2x16	21.1	908	115	
2x25	25.0	1329	152	
2x35	27.0	1595	188	
2x50	29.8	1732	228	
2x70	34.6	2364	291	
3x1.5	13.9	350		25
3x2.5	14.8	404		33
3x4.0	16.6	559		44
3x6.0	17.9	668		56
3x10	19.8	843		78
3x16	22.8	1212		99
3x25	23.2	1474		131
3x35	25.2	1820		162
3x50	28.2	2304		197
3x70	31.6	3026		251

ELECTRICAL AND DIMENSIONAL CHARACTERISTICS

Cable composition n.° cond. x cross-section (mm^2)	Approximate outer diameter (mm)	Approximate weight (kg/km)	Current carrying capacity Installation directly buried[1] Ts= 20°C (A)	
			2 charged conductors	3 charged conductors
3x95	35.9	4136		304
3x120	39.1	4992		353
3x150	42.9	5965		406
3x185	48.4	7668		463
3x240	53.2	9532		546
3x300	57.7	11580		628
3x400	65.2	14330		728
3x16+1x10	24.5	1378		99
3x25+1x16	26.8	1778		131
3x35+1x16	29.5	2168		162
3x50+1x25	34.3	2997		197
3x70+1x35	39.0	3928		251
3x95+1x50	42.9	4975		304
3x120+1x70	48.5	6527		353
3x150+1x70	53.4	7632		406
3x185+1x95	58.3	9237		463
3x240+1x120	64.9	11543		546
3x300+1x150	70.6	13946		628
3x400+1x185	81.4	18108		728
4x1.5	14.6	392		25
4x2.5	16.4	537		33
4x4.0	17.7	641		44
4x6.0	19.0	789		56
4x10	21.9	1104		78
4x16	24.5	1434		99
4x25	26.8	1864		131
4x35	29.5	2339		162
4x50	34.3	3202		197
4x70	39.0	4236		251
4x95	42.9	5408		304
4x120	48.5	7001		353
4x150	53.4	8360		406
4x185	58.3	10075		463
4x240	64.9	12670		546
4x300	70.6	15398		628
4x400	81.4	19944		728

ELECTRICAL AND DIMENSIONAL CHARACTERISTICS

Cable composition n.° cond. x cross-section (mm^2)	Approximate outer diameter (mm)	Approximate weight (kg/km)	Current carrying capacity Installation directly buried[(1)] Ts= 20°C (A)	
			2 charged conductors	3 charged conductors
Al / XLPE / PVC / AWA / PVC				
1x16	13.5	251		
1x25	16.0	362		
1x35	17.0	412		
1x50	18.3	482	192	162
1x70	20.3	599	244	207
1x95	22.9	762	294	252
1x120	24.6	887	340	292
1x150	26.7	1037	390	337
1x185	29.0	1221	444	391
1x240	31.8	1475	521	465
1x300	35.4	1830	597	540
1x400	39.0	2188	688	625
1x500	42.5	2628	786	714
1x630	49.6	3373	880	801
Al / XLPE / PVC / SWA / PVC				
3x16	22.8	1086		74
3x25	23.2	1226		98
3x35	25.2	1405		120
3x50	28.2	1666		145
3x70	31.6	1977		185
3x95	35.9	2647		224
3x120	39.1	3072		264
3x150	42.9	3540		305
3x185	48.4	4622		350
3x240	53.2	5445		418
3x300	57.7	6425		488
3x25+1x16	26.8	1360		98
3x35+1x16	29.5	1580		120
3x50+1x25	34.3	2100		145
3x70+1x35	39.0	2564		185
3x95+1x50	42.9	3097		224
3x120+1x70	48.5	4046		264
3x150+1x70	53.4	4658		305
3x185+1x95	58.3	5494		350
3x240+1x120	64.9	6512		418

ELECTRICAL AND DIMENSIONAL CHARACTERISTICS

Cable composition n.° cond. x cross-section (mm^2)	Approximate outer diameter (mm)	Approximate weight (kg/km)	Current carrying capacity Installation directly buried[(1)] Ts= 20°C (A)	
			2 charged conductors	3 charged conductors
4x16	24.5	1224		74
4x25	26.8	1444		98
4x35	29.5	1696		120
4x50	34.3	2270		145
4x70	39.0	2737		185
4x95	42.9	3292		224
4x120	48.5	4250		264
4x150	53.4	5005		305
4x185	58.3	5829		350
4x240	64.9	6991		418
4x300	70.6	8199		488

Other compositions are available, contact info@fast-cables.com for information.

(1) Phase conductors sector shape.
(2) Thermal resistivity of soil = 1.0 K.m/W.
Single core cable – higher values of current may be considered depending on installation conditions.

Only one circuit is considered
Cables with 2 and 3 conductors: 2 charged conductors.
Cables with 4 and 5 conductors: 3 charged conductors.
For compositions of 4 conductors, the same characteristics apply if the fourth conductor is the earth conductor or neutral conductor.