

CU/PVC-FR 450/750 V, 600/1000 V Flame Retardant Lighting and Earthing Cables

GENERAL INFO

Used in covered, dry places, in fixed plants, in distribution panels, on and under plaster as laid in conduit or on insulating support. When this cable is used in fixed installations with mechanically protected switchgear and control panels, the rated voltage is 600/1000 V. Increased safety with flame-retardant PVC sheath material complying to IEC 60332-3.



CABLE CONSTRUCTION

Conductor material	: Copper
Conductor surface	: Bare
Insulation material	: Flame Retardant Polyvinyl Chloride (PVC-FR)

STANDARDS APPLIED

BSEN 50525-2-31, SS 358-3
IEC 60228 Class 2
BSEN 50525-2-31
IEC 60332-1
IEC 60332-3

Construction
Conductors
Insulation
Flame retardant properties
Flame retardant properties (Bunched)

Special feature available on request:

Anti-termite
Anti-rodent
Oil resistance
UV resistance
Low smoke Low halogen

CORE IDENTIFICATION

1-core	Green/Yellow
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* Other colours available upon request

APPLICATION PROPERTIES

Nominal voltage U ₀ [V]	450, 600
Nominal voltage U [V]	750, 1000
Test voltage [kV / min]	2.5 kV for 5mins [for 450/750V], 3.5 kV for 5mins [for 600/1000V]
Flame retardant	In accordance with IEC 60332-1, IEC 60332-3
Halogen free	No
Low smoke	No
Max. conductor operating temperature [°C]	70
Min. ambient temperature, fixed installation [°C]	-25
Max. ambient temperature, fixed installation [°C]	60
Outdoor installation	Yes
Bending radius (during installation)	8 x OD
Bending radius (fixed installed)	6 x OD

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
1x1.5	1.5	0.7	2.9	21	17	3000
1x2.5	1.9	0.8	3.5	32	21	3000
1x4	2.4	0.8	4.0	48	24	3000
1x6	3.0	0.8	4.6	68	28	3000
1x10	3.9	1.0	5.9	111	35	3000
1x16	5.0	1.0	7.0	172	42	3000
1x25	6.3	1.2	8.7	271	52	3000
1x35	7.3	1.2	9.7	351	58	3000
1x50	8.7	1.4	11.5	476	69	3000
1x70	10.4	1.4	13.2	664	79	3000
1x95	12.3	1.6	15.5	919	93	3000
1x120	13.8	1.6	17.0	1142	102	3000
1x150	15.5	1.8	19.1	1424	115	3000
1x185	17.3	2.0	21.3	1750	128	1900
1x240	19.7	2.2	24.1	2318	145	1400
1x300	22.4	2.4	27.2	2917	163	1100
1x400	25.3	2.6	30.5	3698	183	900
1x500	28.6	2.8	34.2	4682	205	700
1x630	32.4	2.8	38.0	5882	228	500
1x16cc	4.7	1.0	6.8	168	41	3000
1x25cc	5.9	1.2	8.3	262	50	3000
1x35cc	6.9	1.2	9.3	342	56	2000
1x50cc	7.9	1.4	10.7	463	64	2000
1x70cc	9.7	1.4	12.5	654	75	2000
1x95cc	11.4	1.6	14.6	892	88	2000
1x120cc	12.7	1.6	15.9	1125	95	2000
1x150cc	14.2	1.8	17.8	1391	107	2000
1x185cc	15.9	2.0	19.9	1740	119	2000
1x240cc	18.9	2.2	23.3	2253	140	1500
1x300cc	20.3	2.4	25.1	2817	151	1200
1x400cc	23.0	2.6	28.2	3628	169	900
1x500cc	26.0	2.8	31.6	4574	190	700
1x630cc	29.8	2.8	35.4	5739	212	500

cc – circular compacted conductor

Product Electrical Data

Cross Section (mm ²)	Max. Conductor Resistance at 20°C (Ω/km)	Max. Conductor AC Resistance at 70°C (Ω/km)	Min. Insulation Resistance at 70°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
1x1.5	12.1	14.484	0.01	11	60
1x2.5	7.41	8.87	0.009	18	83
1x4	4.61	5.518	0.0077	28	117
1x6	3.08	3.687	0.0065	42	152
1x10	1.83	2.191	0.0065	70	198
1x16	1.15	1.377	0.005	112	267
1x25	0.727	0.87	0.005	175	335
1x35	0.524	0.627	0.0043	245	421
1x50	0.387	0.463	0.0043	350	507
1x70	0.268	0.321	0.0035	490	619
1x95	0.193	0.231	0.0035	665	715
1x120	0.153	0.184	0.0032	840	824
1x150	0.124	0.149	0.0032	1050	916
1x185	0.0991	0.119	0.0032	1295	1013
1x240	0.0754	0.091	0.0032	1680	1162
1x300	0.0601	0.073	0.003	2100	1287
1x400	0.0470	0.058	0.0028	2800	1530
1x500	0.0366	0.046	0.0028	3500	1706
1x630	0.0283	0.036	0.0025	4410	1934
1x16cc	1.15	1.377	0.005	112	273
1x25cc	0.727	0.87	0.005	175	360
1x35cc	0.524	0.627	0.0043	245	439
1x50cc	0.387	0.463	0.0043	350	545
1x70cc	0.268	0.321	0.0035	490	653
1x95cc	0.193	0.231	0.0035	665	759
1x120cc	0.153	0.184	0.0032	840	881
1x150cc	0.124	0.149	0.0032	1050	983
1x185cc	0.0991	0.119	0.0032	1295	1085
1x240cc	0.0754	0.91	0.0032	1680	1202
1x300cc	0.0601	0.073	0.003	2100	1394
1x400cc	0.0470	0.058	0.0028	2800	1655
1x500cc	0.0366	0.046	0.0028	3500	1846
1x630cc	0.0283	0.036	0.0025	4410	2076

cc – circular compacted conductor

Cable Gland Selection Data

Cross Section (mm ²)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
1x1.5	2.9	-	-	-
1x2.5	3.5	-	-	-
1x4	4.0	M16	KM409-51	KM494-51
1x6	4.6	M16	KM409-51	KM494-51
1x10	5.9	M16	KM409-51	KM494-51
1x16	7.0	M16	KM409-51	KM494-51
1x25	8.7	M20S	KM409-52	KM494-52
1x35	9.7	M20S	KM409-52	KM494-52
1x50	11.5	M20	KM409-53	KM494-53
1x70	13.2	M20	KM409-53	KM494-53
1x95	15.5	M25	KM409-55	KM494-55
1x120	17.0	M25	KM409-55	KM494-55
1x150	19.1	M25	KM409-55	KM494-55
1x185	21.3	M32	KM409-56	KM494-56
1x240	24.1	M32	KM409-56	KM494-56
1x300	27.2	M40	KM409-57	KM494-57
1x400	30.5	M40	KM409-57	KM494-57
1x500	34.2	M50S / M50	KM409-58	KM494-59
1x630	38.0	M50	KM409-59	KM494-59
1x16cc	6.8	M16	KM409-51	KM494-51
1x25cc	8.3	M16	KM409-51	KM494-51
1x35cc	9.3	M20S	KM409-52	KM494-52
1x50cc	10.7	M20S	KM409-52	KM494-52
1x70cc	12.5	M20	KM409-53	KM494-53
1x95cc	14.6	M25	KM409-55	KM494-55
1x120cc	15.9	M25	KM409-55	KM494-55
1x150cc	17.8	M25	KM409-55	KM494-55
1x185cc	19.9	M32	KM409-56	KM494-56
1x240cc	23.3	M32	KM409-56	KM494-56
1x300cc	25.1	M32	KM409-56	KM494-56
1x400cc	28.2	M40	KM409-57	KM494-57
1x500cc	31.6	M40	KM409-57	KM494-57
1x630cc	35.4	M50S / M50	KM409-58	KM494-59

cc – circular compacted conductor

CU/XLPE/PVC-FR 0.6/1 kV Flame Retardant Power Cables

GENERAL INFO

Used as energy, utility and lighting cables, for outdoor installations, in cable ducts, underground in normal and salty water if specially produced. Increased safety with flame-retardant PVC sheath material complying to IEC 60332-3.



CABLE CONSTRUCTION

Conductor material	: Copper
Conductor surface	: Bare
Insulation material	: Crosslinked Polyethylene (XLPE)
Sheath material	: Flame Retardant Polyvinyl Chloride (PVC-FR)

STANDARDS APPLIED

IEC 60502-1
IEC 60228 Class 2
IEC 60502-1
IEC 60502-1
IEC 60332-1
IEC 60332-3

Construction
Conductors
Insulation
Sheath
Flame retardant properties
Flame retardant properties (Bunched)

Special feature available on request:

Anti-termite
Anti-rodent
Oil resistance
UV resistance
Low smoke Low halogen

CORE IDENTIFICATION

1-core	Natural
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* Other colours available upon request

APPLICATION PROPERTIES

Nominal voltage U ₀ [V]	600
Nominal voltage U [V]	1000
Test voltage [kV / min]	3.5 kV for 5mins
Flame retardant	In accordance with IEC 60332-1, IEC 60332-3
Halogen free	No
Low smoke	No
Max. conductor operating temperature [°C]	90
Min. ambient temperature, fixed installation [°C]	-25
Max. ambient temperature, fixed installation [°C]	60
Outdoor installation	Yes
Bending radius (during installation)	10 x OD
Bending radius (fixed installed)	8 x OD

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
1x1.5	1.6	3.0	5.8	48	46	3000
1x2.5	2.0	3.4	6.2	60	50	2000
1x4	2.5	3.9	6.8	79	54	1000
1x6	3.1	4.5	7.3	102	58	1000
1x10	3.9	5.3	8.2	144	66	3000
1x16	5.0	6.4	9.3	208	74	3000
1x25	6.3	8.1	11.0	313	88	1000
1x35	7.4	9.2	12.2	399	98	1000
1x50	8.7	10.7	13.7	525	110	1000
1x70	10.5	12.7	15.7	723	126	3000
1x95	12.4	14.6	17.8	978	142	2800
1x120	13.9	16.3	19.5	1215	156	1000
1x150	15.6	18.4	21.9	1509	175	2800
1x185	17.4	20.6	24.0	1836	192	2800
1x240	19.8	23.2	26.8	2412	214	2500
1x300	22.5	26.1	29.9	3017	239	1000
1x400	25.4	29.4	33.4	3813	267	1000
1x500	28.6	33.0	37.3	4813	298	800
1x630	32.5	37.3	41.9	6109	335	550
1x16cc	4.7	6.1	8.9	199	71	2000
1x25cc	6.0	7.8	10.6	297	85	2000
1x35cc	7.0	8.8	11.8	393	94	2000
1x50cc	8.0	10.0	13.0	512	104	2000
1x70cc	9.8	12.0	15.0	715	120	1000
1x95cc	11.5	13.7	16.9	955	135	1000
1x120cc	12.8	15.2	18.4	1201	147	1000
1x150cc	14.3	17.1	20.5	1479	164	1000
1x185cc	16.0	19.2	22.6	1830	181	2000
1x240cc	19.0	22.4	26.0	2354	208	800
1x300cc	20.4	24.0	27.8	2922	222	1000
1x400cc	23.1	27.1	31.1	3694	249	1000
1x500cc	26.1	30.5	34.7	4710	278	1000
1x630cc	29.9	34.7	39.3	6014	314	550

cc – circular compacted conductor

Product Technical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. Conductor AC Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
1x1.5	12.1	15.428	2000	11	23
1x2.5	7.41	9.448	2000	18	35
1x4	4.61	5.878	2000	28	51
1x6	3.08	3.927	2000	42	72
1x10	1.83	2.333	2000	70	107
1x16	1.15	1.466	2000	112	151
1x25	0.727	0.927	2000	175	199
1x35	0.524	0.668	2000	245	251
1x50	0.387	0.493	2000	350	319
1x70	0.268	0.342	2000	490	390
1x95	0.193	0.246	2000	665	467
1x120	0.153	0.195	2000	840	538
1x150	0.124	0.159	2000	1050	599
1x185	0.0991	0.127	2000	1295	674
1x240	0.0754	0.097	2000	1680	784
1x300	0.0601	0.078	2000	2100	878
1x400	0.047	0.061	2000	2800	1048
1x500	0.0366	0.048	2000	3500	1173
1x630	0.0283	0.038	2000	4410	1316
1x16cc	1.15	1.466	2000	199	279
1x25cc	0.727	0.927	2000	175	206
1x35cc	0.524	0.668	2000	245	260
1x50cc	0.387	0.493	2000	350	337
1x70cc	0.268	0.342	2000	490	408
1x95cc	0.193	0.246	2000	665	492
1x120cc	0.153	0.195	2000	840	571
1x150cc	0.124	0.159	2000	1050	640
1x185cc	0.0991	0.127	2000	1295	716
1x240cc	0.0754	0.097	2000	1680	808
1x300cc	0.0601	0.078	2000	2100	944
1x400cc	0.047	0.061	2000	2800	1125
1x500cc	0.0366	0.048	2000	3500	1261
1x630cc	0.0283	0.038	2000	4410	1403

cc – circular compacted conductor

Cable Gland Selection Data

Cross Section (mm ²)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
1x1.5	5.8	M16	KM409-51	KM494-51
1x2.5	6.2	M16	KM409-51	KM494-51
1x4	6.8	M16	KM409-51	KM494-51
1x6	7.3	M16	KM409-51	KM494-51
1x10	8.2	M20SS	KM409-71	KM494-71
1x16	9.3	M20S	KM409-52	KM494-52
1x25	11.0	M20S	KM409-52	KM494-52
1x35	12.2	M20	KM409-53	KM494-53
1x50	13.7	M25	KM409-55	KM494-55
1x70	15.7	M25	KM409-55	KM494-55
1x95	17.8	M25	KM409-55	KM494-55
1x120	19.5	M32	KM409-56	KM494-56
1x150	21.9	M32	KM409-56	KM494-56
1x185	24.0	M32	KM409-56	KM494-56
1x240	26.8	M40	KM409-57	KM494-57
1x300	29.9	M40	KM409-57	KM494-57
1x400	33.4	M50S / M50	KM409-58	KM494-59
1x500	37.3	M50	KM409-59	KM494-59
1x630	41.9	M50 / M63	KM409-59	KM494-61
1x16cc	8.9	M20S	KM409-52	KM494-52
1x25cc	10.6	M20S	KM409-52	KM494-52
1x35cc	11.8	M20	KM409-53	KM494-53
1x50cc	13.0	M20	KM409-53	KM494-53
1x70cc	15.0	M25	KM409-55	KM494-55
1x95cc	16.9	M25	KM409-55	KM494-55
1x120cc	18.4	M25	KM409-55	KM494-55
1x150cc	20.5	M32	KM409-56	KM494-56
1x185cc	22.6	M32	KM409-56	KM494-56
1x240cc	26.0	M40	KM409-57	KM494-57
1x300cc	27.8	M40	KM409-57	KM494-57
1x400cc	31.1	M40	KM409-57	KM494-57
1x500cc	34.7	M50S / M50	KM409-58	KM494-59
1x630cc	39.3	M50	KM409-59	KM494-59

cc – circular compacted conductor

CU/XLPE/PVC-FR 0.6/1 kV Flame Retardant Power and Control Cables

GENERAL INFO

Used as energy, utility and lighting cables, for outdoor installations, in cable ducts, underground in normal and salty water if specially produced. Increased safety with flame-retardant PVC sheath material complying to IEC 60332-3.



CABLE CONSTRUCTION

Conductor material	: Copper
Conductor surface	: Bare
Insulation material	: Crosslinked Polyethylene (XLPE)
Filler material	: Non-hygroscopic filler
Binder material	: Polyester tape
Sheath material	: Flame Retardant Polyvinyl Chloride (PVC-FR)

STANDARDS APPLIED

IEC 60502-1
IEC 60228 Class 2
IEC 60502-1
IEC 60502-1
IEC 60332-1
IEC 60332-3

Construction
Conductors
Insulation
Sheath
Flame retardant properties
Flame retardant properties (Bunched)

Special feature available on request:

Anti-termite
Anti-rodent
Oil resistance
UV resistance
Low smoke Low halogen

CORE IDENTIFICATION

2-cores	Brown, blue
3-cores	Brown, black, blue
4-cores	Brown, black, grey, blue
Multi-cores	Black with core numbering

* Other colours available upon request

APPLICATION PROPERTIES

Nominal voltage U ₀ [V]	600
Nominal voltage U [V]	1000
Test voltage [kV / min]	3.5 kV for 5mins
Flame retardant	In accordance with IEC 60332-1, IEC 60332-3
Halogen free	No
Low smoke	No
Max. conductor operating temperature [°C]	90
Min. ambient temperature, fixed installation [°C]	-25
Max. ambient temperature, fixed installation [°C]	60
Outdoor installation	Yes
Bending radius (during installation)	10 x OD
Bending radius (fixed installed)	8 x OD

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
2x1.5	1.6	3.0	8.9	110	71	2000
2x2.5	2.0	3.4	9.7	141	78	2000
2x4	2.5	3.9	10.8	187	86	2000
2x6	3.1	4.5	11.9	245	95	2000
2x10	3.9	5.3	13.8	301	110	1500
2x16	5.0	6.4	15.9	436	127	1500
2x25	6.3	8.1	19.4	657	155	1500
2x35	7.4	9.2	21.6	851	173	2300
2x50	8.7	10.7	24.7	1125	198	2300
2x70	10.5	12.7	28.6	1566	229	2300
2x95	12.4	14.6	33.0	2151	264	1800
2x120	13.9	16.3	36.7	2661	294	1500
2x150	15.6	18.4	41.1	3371	329	1200
2x185	17.4	20.6	45.6	4059	365	1000
2x240	19.8	23.2	51.3	5307	410	800
2x300	22.5	26.1	57.5	6677	460	500
2x400	25.4	29.4	64.4	7873	515	400
2x16cc	4.7	6.1	15.3	420	122	1500
2x25cc	5.9	7.7	18.5	628	148	1500
2x35cc	6.9	8.7	20.7	833	166	1000
2x50cc	8.2	10.2	23.6	1126	189	1000
2x70cc	9.7	11.9	27.0	1532	216	1000
2x95cc	11.5	13.7	31.0	2076	248	1000
2x120cc	12.8	15.2	34.5	2629	276	1000
2x150cc	14.3	17.1	38.5	3306	308	1000
2x185cc	16.0	19.2	42.9	4042	343	1000
2x240cc	19.0	22.4	49.7	5262	398	800
2x300cc	20.4	24.0	53.3	6474	426	700
2x400cc	23.1	27.1	59.8	8128	478	500

cc – circular compacted conductor

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
3x1.5	1.6	3.0	9.3	129	74	2000
3x2.5	2.0	3.4	10.3	168	82	2000
3x4	2.5	3.9	11.4	229	91	2000
3x6	3.1	4.5	12.6	304	101	2000
3x10	3.9	5.3	14.6	406	117	2000
3x16	5.0	6.4	16.9	597	135	2000
3x25	6.3	8.1	20.7	915	166	2000
3x35sh	15.1	16.9	20.0	1133	160	2300
3x50sh	17.9	19.9	23.0	1499	184	2300
3x70sh	21.0	23.2	26.6	2127	213	2300
3x95sh	24.1	26.3	29.9	2879	239	1800
3x120sh	27.2	29.6	33.5	3620	268	1600
3x150sh	30.5	33.3	37.6	4476	301	1400
3x185sh	33.9	37.1	41.6	5580	333	1100
3x240sh	38.3	41.7	46.6	7246	373	800
3x300sh	42.7	46.3	51.5	9017	412	700
3x400sh	49.1	53.1	58.9	11526	471	400
3x16cc	4.7	6.1	16.3	571	130	2000
3x25cc	6.0	7.8	19.9	869	159	1800
3x35cc	6.9	8.7	22.0	1155	176	2300
3x50cc	8.2	10.2	25.2	1584	202	2000
3x70cc	9.7	11.9	29.1	2177	233	1800
3x95cc	11.5	13.7	33.3	2921	266	1600
3x120cc	12.8	15.2	36.9	3680	295	1500
3x150cc	14.3	17.1	41.4	4583	331	1200
3x185cc	16.0	19.2	46.1	5707	369	1000
3x240cc	19.0	22.4	53.4	7455	427	600
3x300cc	20.4	24.0	57.2	9239	458	500
3x400cc	23.1	27.1	64.4	11617	515	400

sh – shaped conductor

cc – circular compacted conductor

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
4x1.5	1.6	3.0	10.1	155	81	2000
4x2.5	2.0	3.4	11.1	204	89	2000
4x4	2.5	3.9	12.4	280	99	2000
4x6	3.1	4.5	13.8	376	110	2000
4x10	3.9	5.3	16.0	512	128	1500
4x16	5.0	6.4	18.6	771	149	1500
4x25	6.3	8.1	22.8	1180	182	1000
4x35sh	18.0	19.8	22.9	1502	183	2300
4x50sh	21.3	23.3	26.6	1999	213	2300
4x70sh	24.9	27.1	30.7	2831	246	2000
4x95sh	28.5	30.7	34.7	3843	278	1600
4x120sh	32.1	34.5	38.8	4823	310	1300
4x150sh	36.0	38.8	43.3	5937	346	1000
4x185sh	40.1	43.3	48.2	7407	386	800
4x240sh	45.3	48.7	54.0	9622	432	600
4x300sh	50.3	53.9	59.6	11980	477	500
4x400sh	57.8	61.8	68.1	15301	545	300
4x16cc	4.7	6.1	17.8	736	142	900
4x25cc	6.0	7.8	22.0	1120	176	900
4x35cc	6.9	8.7	24.4	1512	195	2300
4x50cc	8.2	10.2	28.1	2030	225	2000
4x70cc	9.7	11.9	32.4	2887	259	1800
4x95cc	11.5	13.7	37.1	3822	297	1500
4x120cc	12.8	15.2	41.2	4860	330	1200
4x150cc	14.3	17.1	46.0	5994	368	1000
4x185cc	16.0	19.2	51.5	7545	412	800
4x240cc	19.0	22.4	59.6	9870	477	500
4x300cc	20.4	24.0	63.8	12077	510	400
4x400cc	23.1	27.1	71.8	15218	574	300

sh – shaped conductor

cc – circular compacted conductor

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
5x1.5	1.6	3.0	11.1	163	89	2000
6x1.5	1.6	3.0	11.9	192	95	2000
7x1.5	1.6	3.0	11.9	204	95	2000
12x1.5	1.6	3.0	15.3	324	122	1800
19x1.5	1.6	3.0	17.7	466	142	1600
21x1.5	1.6	3.0	18.7	510	150	1500
27x1.5	1.6	3.0	21.1	640	169	1500
30x1.5	1.6	3.0	21.8	698	174	1500
37x1.5	1.6	3.0	23.5	837	188	1500
40x1.5	1.6	3.0	24.5	900	196	1500
48x1.5	1.6	3.0	26.9	1066	215	1000
5x2.5	2.0	3.4	12.2	218	98	2000
6x2.5	2.0	3.4	13.2	258	106	1500
7x2.5	2.0	3.4	13.2	278	106	1500
12x2.5	2.0	3.4	17.0	448	136	1500
19x2.5	2.0	3.4	19.8	657	158	1500
21x2.5	2.0	3.4	20.9	721	167	1500
27x2.5	2.0	3.4	23.6	909	189	1500
30x2.5	2.0	3.4	24.5	995	196	1500
37x2.5	2.0	3.4	26.5	1201	212	1500
40x2.5	2.0	3.4	27.8	1305	222	1500
48x2.5	2.0	3.4	30.5	1549	244	1000
5x4	2.5	3.9	13.6	306	109	2000
6x4	2.5	3.9	14.8	395	118	1500
7x4	2.5	3.9	14.8	624	118	1500
12x4	2.5	3.9	19.2	644	154	1500
19x4	2.5	3.9	22.5	961	180	1500
21x4	2.5	3.9	23.7	1057	190	1500
27x4	2.5	3.9	26.9	1338	215	1500
30x4	2.5	3.9	28.1	1483	225	1500
37x4	2.5	3.9	30.4	1797	243	1300
40x4	2.5	3.9	31.8	1950	254	1200
48x4	2.5	3.9	35.2	2335	282	1000

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. Conductor AC Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
2x1.5	12.1	15.43	2000	21	29
2x2.5	7.41	9.45	2000	35	45
2x4	4.61	5.88	2000	56	65
2x6	3.08	3.93	2000	84	88
2x10	1.83	2.33	2000	140	127
2x16	1.15	1.47	2000	224	176
2x25	0.727	0.927	2000	350	226
2x35	0.524	0.668	2000	490	284
2x50	0.387	0.493	2000	700	354
2x70	0.268	0.342	2000	980	428
2x95	0.193	0.246	2000	1330	504
2x120	0.153	0.196	2000	1680	572
2x150	0.124	0.159	2000	2100	639
2x185	0.0991	0.128	2000	2590	710
2x240	0.0754	0.098	2000	3360	819
2x300	0.0601	0.08	2000	4200	913
2x400	0.047	0.064	2000	5600	1087
2x16cc	1.15	1.47	2000	224	183
2x25cc	0.727	0.927	2000	350	236
2x35cc	0.524	0.668	2000	490	296
2x50cc	0.387	0.493	2000	700	371
2x70cc	0.268	0.342	2000	980	454
2x95cc	0.193	0.246	2000	1330	536
2x120cc	0.153	0.196	2000	1680	609
2x150cc	0.124	0.159	2000	2100	682
2x185cc	0.0991	0.128	2000	2590	755
2x240cc	0.0754	0.098	2000	3360	845
2x300cc	0.0601	0.08	2000	4200	985
2x400cc	0.047	0.064	2000	5600	1171

cc – circular compacted conductor

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. Conductor AC Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
3x1.5	12.1	15.43	2000	31	42
3x2.5	7.41	9.45	2000	52	63
3x4	4.61	5.88	2000	84	92
3x6	3.08	3.93	2000	126	125
3x10	1.83	2.33	2000	210	180
3x16	1.15	1.47	2000	336	249
3x25	0.727	0.927	2000	525	317
3x35sh	0.524	0.668	2000	735	459
3x50sh	0.387	0.493	2000	1050	571
3x70sh	0.268	0.342	2000	1470	691
3x95sh	0.193	0.246	2000	1995	834
3x120sh	0.153	0.196	2000	2520	940
3x150sh	0.124	0.159	2000	3150	1047
3x185sh	0.0991	0.128	2000	3885	1167
3x240sh	0.0754	0.098	2000	5040	1352
3x300sh	0.0601	0.08	2000	6300	1529
3x400sh	0.047	0.064	2000	8400	1783
3x16cc	1.15	1.47	2000	336	258
3x25cc	0.727	0.927	2000	525	330
3x35cc	0.524	0.668	2000	735	418
3x50cc	0.387	0.493	2000	1050	521
3x70cc	0.268	0.342	2000	1470	631
3x95cc	0.193	0.246	2000	1995	749
3x120cc	0.153	0.196	2000	2520	854
3x150cc	0.124	0.159	2000	3150	951
3x185cc	0.0991	0.128	2000	3885	1053
3x240cc	0.0754	0.098	2000	5040	1180
3x300cc	0.0601	0.08	2000	6300	1377
3x400cc	0.047	0.064	2000	8400	1630

sh – shaped conductor

cc – circular compacted conductor

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. Conductor AC Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
4x1.5	12.1	15.43	2000	42	52
4x2.5	7.41	9.45	2000	70	79
4x4	4.61	5.88	2000	112	113
4x6	3.08	3.93	2000	168	152
4x10	1.83	2.33	2000	280	219
4x16	1.15	1.47	2000	448	301
4x25	0.727	0.927	2000	700	384
4x35	0.524	0.668	2000	980	535
4x50	0.387	0.493	2000	1400	658
4x70	0.268	0.342	2000	1960	798
4x95	0.193	0.246	2000	2660	958
4x120	0.153	0.196	2000	3360	1082
4x150	0.124	0.159	2000	4200	1212
4x185	0.0991	0.128	2000	5180	1343
4x240	0.0754	0.098	2000	6720	1556
4x300	0.0601	0.08	2000	8400	1762
4x400	0.047	0.064	2000	11200	2056
4x16cc	1.15	1.47	2000	448	315
4x25cc	0.727	0.927	2000	700	398
4x35cc	0.524	0.668	2000	980	502
4x50cc	0.387	0.493	2000	1400	623
4x70cc	0.268	0.342	2000	1960	756
4x95cc	0.193	0.246	2000	2660	896
4x120cc	0.153	0.196	2000	3360	1019
4x150cc	0.124	0.159	2000	4200	1141
4x185cc	0.0991	0.128	2000	5180	1257
4x240cc	0.0754	0.098	2000	6720	1409
4x300cc	0.0601	0.08	2000	8400	1646
4x400cc	0.047	0.064	2000	11200	1950

cc – circular compacted conductor

Product Technical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. Conductor AC Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
5x1.5	12.1	15.43	2000	52	59
6x1.5	12.1	15.43	2000	63	66
7x1.5	12.1	15.43	2000	73	77
12x1.5	12.1	15.43	2000	126	103
19x1.5	12.1	15.43	2000	199	141
21x1.5	12.1	15.43	2000	220	147
27x1.5	12.1	15.43	2000	283	168
30x1.5	12.1	15.43	2000	315	181
37x1.5	12.1	15.43	2000	388	206
40x1.5	12.1	15.43	2000	420	214
48x1.5	12.1	15.43	2000	504	234
5x2.5	7.41	9.45	2000	87	89
6x2.5	7.41	9.45	2000	105	99
7x2.5	7.41	9.45	2000	122	116
12x2.5	7.41	9.45	2000	210	154
19x2.5	7.41	9.45	2000	332	210
21x2.5	7.41	9.45	2000	367	219
27x2.5	7.41	9.45	2000	472	250
30x2.5	7.41	9.45	2000	525	268
37x2.5	7.41	9.45	2000	647	305
40x2.5	7.41	9.45	2000	700	315
48x2.5	7.41	9.45	2000	840	344
5x4	4.61	5.88	2000	140	129
6x4	4.61	5.88	2000	168	142
7x4	4.61	5.88	2000	196	166
12x4	4.61	5.88	2000	336	219
19x4	4.61	5.88	2000	532	296
21x4	4.61	5.88	2000	588	310
27x4	4.61	5.88	2000	756	351
30x4	4.61	5.88	2000	840	374
37x4	4.61	5.88	2000	1036	426
40x4	4.61	5.88	2000	1120	440
48x4	4.61	5.88	2000	1344	477

Cable Gland Selection Data

Cross Section (mm ²)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
2x1.5	8.9	M20S	KM409-52	KM494-52
2x2.5	9.7	M20S	KM409-52	KM494-52
2x4	10.8	M20S	KM409-52	KM494-52
2x6	11.9	M20	KM409-53	KM494-53
2x10	13.8	M25	KM409-55	KM494-55
2x16	15.9	M25	KM409-55	KM494-55
2x25	19.4	M32	KM409-56	KM494-56
2x35	21.6	M32	KM409-56	KM494-56
2x50	24.7	M32	KM409-56	KM494-56
2x70	28.6	M40	KM409-57	KM494-57
2x95	33.0	M50S / M50	KM409-58	KM494-59
2x120	36.7	M50	KM409-59	KM494-59
2x150	41.1	M50	KM409-59	KM494-59
2x185	45.6	M63S / M63	KM409-60	KM494-61
2x240	51.3	M63	KM409-61	KM494-61
2x300	57.5	M75S	KM409-62	KM494-62
2x400	64.4	M75	KM409-63	KM494-63
2x16cc	15.3	M25	KM409-55	KM494-55
2x25cc	18.5	M25	KM409-55	KM494-55
2x35cc	20.7	M32	KM409-56	KM494-56
2x50cc	23.6	M32	KM409-56	KM494-56
2x70cc	27.0	M40	KM409-57	KM494-57
2x95cc	31.0	M40	KM409-57	KM494-57
2x120cc	34.5	M50S / M50	KM409-58	KM494-59
2x150cc	38.5	M50	KM409-59	KM494-59
2x185cc	42.9	M63S / M63	KM409-60	KM494-61
2x240cc	49.7	M63S / M63	KM409-60	KM494-61
2x300cc	53.3	M63	KM409-61	KM494-61
2x400cc	59.8	M75S	KM409-62	KM494-62

cc – circular compacted conductor

Cable Gland Selection Data

Cross Section (mm ²)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
3x1.5	9.3	M20S	KM409-52	KM494-52
3x2.5	10.3	M20S	KM409-52	KM494-52
3x4	11.4	M20	KM409-53	KM494-53
3x6	12.6	M20	KM409-53	KM494-53
3x10	14.6	M25	KM409-55	KM494-55
3x16	16.9	M25	KM409-55	KM494-55
3x25	20.7	M32	KM409-56	KM494-56
3x35sh	20.0	M32	KM409-56	KM494-56
3x50sh	23.0	M32	KM409-56	KM494-56
3x70sh	26.6	M40	KM409-57	KM494-57
3x95sh	29.9	M40	KM409-57	KM494-57
3x120sh	33.5	M50S / M50	KM409-58	KM494-59
3x150sh	37.6	M50	KM409-59	KM494-59
3x185sh	41.6	M50	KM409-59	KM494-59
3x240sh	46.6	M63S / M63	KM409-60	KM494-61
3x300sh	51.5	M63	KM409-61	KM494-61
3x400sh	58.9	M75S	KM409-62	KM494-62
3x16cc	16.3	M25	KM409-55	KM494-55
3x25cc	19.9	M32	KM409-56	KM494-56
3x35cc	22.0	M32	KM409-56	KM494-56
3x50cc	25.2	M32	KM409-56	KM494-56
3x70cc	29.1	M40	KM409-57	KM494-57
3x95cc	33.3	M50S / M50	KM409-58	KM494-59
3x120cc	36.9	M50S / M50	KM409-58	KM494-59
3x150cc	41.4	M50	KM409-59	KM494-59
3x185cc	46.1	M63S / M63	KM409-60	KM494-61
3x240cc	53.4	M63	KM409-61	KM494-61
3x300cc	57.2	M75S	KM409-62	KM494-62
3x400cc	64.4	M75	KM409-63	KM494-63

sh – shaped conductor

cc – circular compacted conductor

Cable Gland Selection Data

Cross Section (mm ²)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
4x1.5	10.1	M20S	KM409-52	KM494-52
4x2.5	11.1	M20S	KM409-52	KM494-52
4x4	12.4	M20	KM409-53	KM494-53
4x6	13.8	M25	KM409-55	KM494-55
4x10	16.0	M25	KM409-55	KM494-55
4x16	18.6	M25	KM409-55	KM494-55
4x25	22.8	M32	KM409-56	KM494-56
4x35sh	22.9	M32	KM409-56	KM494-56
4x50sh	26.6	M40	KM409-57	KM494-57
4x70sh	30.7	M40	KM409-57	KM494-57
4x95sh	34.7	M50S / M50	KM409-58	KM494-59
4x120sh	38.8	M50	KM409-59	KM494-59
4x150sh	43.3	M63S / M63	KM409-60	KM494-61
4x185sh	48.2	M63S / M63	KM409-60	KM494-61
4x240sh	54.0	M63	KM409-61	KM494-61
4x300sh	59.6	M75S / M75	KM409-62	KM494-63
4x400sh	68.1	M90	KM409-65	-
4x16cc	17.8	M25	KM409-55	KM494-55
4x25cc	22.0	M32	KM409-56	KM494-56
4x35cc	24.4	M32	KM409-56	KM494-56
4x50cc	28.1	M40	KM409-57	KM494-57
4x70cc	32.4	M50S / M50	KM409-58	KM494-59
4x95cc	37.1	M50	KM409-59	KM494-59
4x120cc	41.2	M50 / M63	KM409-59	KM494-61
4x150cc	46.0	M63	KM409-61	KM494-61
4x185cc	51.5	M63	KM409-61	KM494-61
4x240cc	59.6	M75S / M75	KM409-62	KM494-63
4x300cc	63.8	M75	KM409-63	KM494-63
4x400cc	71.8	M90	KM409-65	-

sh – shaped conductor

cc – circular compacted conductor

Cable Gland Selection Data

Cross Section (mm ²)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
5x1.5	11.1	M20S	KM409-52	KM494-52
6x1.5	11.9	M20	KM409-53	KM494-53
7x1.5	11.9	M20	KM409-53	KM494-53
12x1.5	15.3	M25	KM409-55	KM494-55
19x1.5	17.7	M25	KM409-55	KM494-55
21x1.5	18.7	M25	KM409-55	KM494-55
27x1.5	21.1	M32	KM409-56	KM494-56
30x1.5	21.8	M32	KM409-56	KM494-56
37x1.5	23.5	M32	KM409-56	KM494-56
40x1.5	24.5	M32	KM409-56	KM494-56
48x1.5	26.9	M40	KM409-57	KM494-57
5x2.5	12.2	M20	KM409-53	KM494-53
6x2.5	13.2	M25	KM409-55	KM494-55
7x2.5	13.2	M25	KM409-55	KM494-55
12x2.5	17.0	M25	KM409-55	KM494-55
19x2.5	19.8	M32	KM409-56	KM494-56
21x2.5	20.9	M32	KM409-56	KM494-56
27x2.5	23.6	M32	KM409-56	KM494-56
30x2.5	24.5	M32	KM409-56	KM494-56
37x2.5	26.5	M40	KM409-57	KM494-57
40x2.5	27.8	M40	KM409-57	KM494-57
48x2.5	30.5	M40	KM409-57	KM494-57
5x4	13.6	M25	KM409-55	KM494-55
6x4	14.8	M25	KM409-55	KM494-55
7x4	14.8	M25	KM409-55	KM494-55
12x4	19.2	M32	KM409-56	KM494-56
19x4	22.5	M32	KM409-56	KM494-56
21x4	23.7	M32	KM409-56	KM494-56
27x4	26.9	M40	KM409-57	KM494-57
30x4	28.1	M40	KM409-57	KM494-57
37x4	30.4	M40	KM409-57	KM494-57
40x4	31.8	M50S / M50	KM409-58	KM494-59
48x4	35.2	M50	KM409-59	KM494-59

CU/XLPE/PVC/AWA/PVC-FR 0.6/1 kV Flame Retardant Power Cables

GENERAL INFO

Suitable for heavy operating conditions, laying and installation. Used underground and under normal and salty water if specially produced. Increased safety with flame-retardant PVC sheath material complying to IEC 60332-3

CABLE CONSTRUCTION



Conductor material	: Copper
Conductor surface	: Bare
Insulation material	: Crosslinked Polyethylene (XLPE)
Inner sheath material	: Polyvinyl Chloride (PVC)
Armour material	: Aluminium Wires
Sheath material	: Flame Retardant Polyvinyl Chloride (PVC-FR)

STANDARDS APPLIED

IEC 60502-1
IEC 60228 Class 2
IEC 60502-1
IEC 60502-1
IEC 60502-1
IEC 60332-1
IEC 60332-3

Construction
Conductors
Insulation
Armour
Sheath
Flame retardant properties
Flame retardant properties (Bunched)

Special feature available on request:

Anti-termite
Anti-rodent
Oil resistance
UV resistance
Low smoke Low halogen

CORE IDENTIFICATION

1-core	Natural
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* Other colours available upon request

APPLICATION PROPERTIES

Nominal voltage U ₀ [V]	600
Nominal voltage U [V]	1000
Test voltage [kV / min]	3.5 kV for 5mins
Flame retardant	In accordance with IEC 60332-1, IEC 60332-3
Halogen free	No
Low smoke	No
Max. conductor operating temperature [°C]	90
Min. ambient temperature, fixed installation [°C]	-25
Max. ambient temperature, fixed installation [°C]	60
Outdoor installation	Yes
Bending radius (during installation)	12 x OD
Bending radius (fixed installed)	10 x OD

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
1x50	8.7	1.0	12.9	1.6	19.3	764	193	2000
1x70	10.5	1.1	14.8	1.6	21.3	991	213	1800
1x95	12.4	1.1	16.7	1.6	23.4	1280	234	1600
1x120	13.9	1.2	18.5	1.6	25.4	1553	254	1400
1x150	15.6	1.4	20.6	1.6	27.5	1872	275	1200
1x185	17.4	1.6	22.8	1.6	29.9	2242	299	1000
1x240	19.8	1.7	25.4	1.6	32.7	2865	327	1000
1x300	22.5	1.8	28.3	1.6	35.8	3511	358	800
1x400	25.4	2.0	32.0	2.0	40.7	4510	407	600
1x500	28.6	2.2	35.6	2.0	44.5	5576	445	600
1x630	32.5	2.4	39.9	2.0	49.0	6942	490	500
1x50cc	8.2	1.0	12.3	1.6	18.8	756	188	2000
1x70cc	9.7	1.1	14.0	1.6	20.5	978	205	1800
1x95cc	11.5	1.1	15.8	1.6	22.5	1242	225	1600
1x120cc	12.8	1.2	17.0	1.6	23.2	1461	232	1400
1x150cc	14.3	1.4	18.9	1.6	25.1	1753	251	1200
1x185cc	16.0	1.6	21.4	1.6	28.5	2217	285	1000
1x240cc	18.4	1.7	24.0	1.6	31.3	2841	313	1000
1x300cc	20.4	1.8	26.2	1.6	33.7	3386	337	800
1x400cc	23.1	2.0	29.7	2.0	38.4	4345	384	600
1x500cc	26.1	2.2	33.1	2.0	42.0	5428	420	600
1x630cc	29.9	2.4	37.3	2.0	46.4	6938	464	500

cc – circular compacted conductor

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. AC Conductor Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
1x50	0.387	0.493	2000	350	181
1x70	0.268	0.342	2000	490	230
1x95	0.193	0.246	2000	665	284
1x120	0.153	0.195	2000	840	331
1x150	0.124	0.159	2000	1050	382
1x185	0.0991	0.127	2000	1295	433
1x240	0.0754	0.097	2000	1680	514
1x300	0.0601	0.078	2000	2100	587
1x400	0.047	0.061	2000	2800	688
1x500	0.0366	0.048	2000	3500	787
1x630	0.0283	0.038	2000	4410	900
1x50cc	0.387	0.493	2000	350	186
1x70cc	0.268	0.342	2000	490	239
1x95cc	0.193	0.246	2000	665	296
1x120cc	0.153	0.195	2000	840	362
1x150cc	0.124	0.159	2000	1050	418
1x185cc	0.0991	0.127	2000	1295	454
1x240cc	0.0754	0.097	2000	1680	537
1x300cc	0.0601	0.078	2000	2100	623
1x400cc	0.047	0.061	2000	2800	729
1x500cc	0.0366	0.048	2000	3500	833
1x630cc	0.0283	0.038	2000	4410	950

cc – circular compacted conductor

Cable Gland Section Data

Cross Section (mm ²)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
1x50	12.9	1.6	19.3	M25	KA422-55	KCA455-55
1x70	14.8	1.6	21.3	M25	KA422-55	KCA455-55
1x95	16.7	1.6	23.4	M25	KA422-55	KCA455-55
1x120	18.5	1.6	25.4	M25	KA422-55	KCA455-55
1x150	20.6	1.6	27.5	M32	KA422-56	KCA455-56
1x185	22.8	1.6	29.9	M32	KA422-56	KCA455-56
1x240	25.4	1.6	32.7	M32	KA422-56	KCA455-56
1x300	28.3	1.6	35.8	M40	KA422-57	KCA455-57
1x400	32.0	2.0	40.7	M50S	KA422-58	KCA455-58
1x500	35.6	2.0	44.5	M50S	KA422-58	KCA455-58
1x630	39.9	2.0	49.0	M50	KA422-59	KCA455-59
1x50cc	12.3	1.6	18.8	M25	KA422-55	KCA455-55
1x70cc	14.0	1.6	20.5	M25	KA422-55	KCA455-55
1x95cc	15.8	1.6	22.5	M25	KA422-55	KCA455-55
1x120cc	17.0	1.6	23.2	M25	KA422-55	KCA455-55
1x150cc	18.9	1.6	25.1	M25	KA422-55	KCA455-55
1x185cc	21.4	1.6	28.5	M32	KA422-56	KCA455-56
1x240cc	24.0	1.6	31.3	M32	KA422-56	KCA455-56
1x300cc	26.2	1.6	33.7	M40	KA422-57	KCA455-57
1x400cc	29.7	2.0	38.4	M40	KA422-57	KCA455-57
1x500cc	33.1	2.0	42.0	M50S	KA422-58	KCA455-58
1x630cc	37.3	2.0	46.4	M50	KA422-59	KCA455-59

cc – circular compacted conductor

CU/XLPE/PVC/SWA/PVC-FR 0.6/1 kV Flame Retardant Power and Control Cables

GENERAL INFO

High resistant against outer mechanical reactions with introduction of galvanized steel wires. Suitable for heavy operating conditions, laying and installation. Used underground and under normal and salty water if specially produced. Increased safety with flameretardant PVC sheath material complying to IEC 60332-3.



CABLE CONSTRUCTION

Conductor material	: Copper
Conductor surface	: Bare
Insulation material	: Crosslinked Polyethylene (XLPE)
Filler material	: Non-hygroscopic filler
Binder material	: Polyester tape
Inner sheath material	: Polyvinyl Chloride (PVC)
Armour material	: Aluminium Wires
Sheath material	: Flame Retardant Polyvinyl Chloride (PVC-FR)

STANDARDS APPLIED

IEC 60502-1
IEC 60228 Class 2
IEC 60502-1
IEC 60502-1
IEC 60502-1
IEC 60332-1
IEC 60332-3

Construction
Conductors
Insulation
Armour
Sheath
Flame retardant properties
Flame retardant properties (Bunched)

Special feature available on request:

Anti-termite
Anti-rodent
Oil resistance
UV resistance
Low smoke Low halogen

CORE IDENTIFICATION

2-cores	Brown, blue
3-cores	Brown, black, blue
4-cores	Brown, black, grey, blue
Multi-cores	Black with core numbering

* Other colours available upon request

APPLICATION PROPERTIES

Nominal voltage U ₀ [V]	600
Nominal voltage U [V]	1000
Test voltage [kV / min]	3.5 kV for 5mins
Flame retardant	In accordance with IEC 60332-1, IEC 60332-3
Halogen free	No
Low smoke	No
Max. conductor operating temperature [°C]	90
Min. ambient temperature, fixed installation [°C]	-25
Max. ambient temperature, fixed installation [°C]	60
Outdoor installation	Yes
Bending radius (during installation)	12 x OD
Bending radius (fixed installed)	10 x OD

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
2x1.5	1.6	3.0	7.5	0.9	12.3	290	123	2000
2x2.5	2.0	3.4	8.3	0.9	13.2	334	132	2000
2x4	2.5	3.9	9.4	0.9	14.2	401	142	2000
2x6	3.1	4.5	10.5	0.9	15.4	484	154	2000
2x10	3.9	5.3	12.4	1.25	17.9	661	179	1800
2x16	5.0	6.4	14.5	1.25	20.1	842	201	1800
2x25	6.3	8.1	18.0	1.6	24.2	1269	242	1800
2x35	7.4	9.2	20.3	1.6	26.4	1522	264	2300
2x50	8.7	10.7	23.4	1.6	29.5	1885	295	1200
2x70	10.5	12.7	27.4	1.6	33.8	2477	338	1700
2x95	12.4	14.6	31.8	2.0	39.2	3450	392	1200
2x120	13.9	16.3	35.2	2.0	42.9	4103	429	1000
2x150	15.6	18.4	39.5	2.0	47.4	4963	474	800
2x185	17.4	20.6	44.2	2.5	53.4	6309	534	600
2x240	19.8	23.2	49.5	2.5	59.1	7793	591	500
2x300	22.5	26.1	55.7	2.5	65.5	9506	655	400
2x400	25.4	29.4	62.2	2.5	72.6	11059	726	300
2x16cc	4.7	6.1	13.9	1.25	19.4	798	194	2000
2x25cc	6.0	7.8	17.1	1.6	23.3	1196	233	1800
2x35cc	7.0	8.8	19.4	1.6	25.5	1471	255	1800
2x50cc	8.0	10.0	22.4	1.6	28.5	1851	285	1400
2x70cc	9.8	12.0	25.8	1.6	32.2	2374	322	1400
2x95cc	11.5	13.7	29.8	2.0	37.2	3285	372	1200
2x120cc	12.8	15.2	33.1	2.0	40.7	3986	407	1000
2x150cc	14.3	17.1	36.9	2.0	44.7	4810	447	1000
2x185cc	16.0	19.2	41.5	2.5	50.7	6120	507	600
2x240cc	19.0	22.4	47.9	2.5	57.5	7622	575	500
2x300cc	20.4	24.0	51.5	2.5	61.3	9041	613	400
2x400cc	23.1	27.1	57.6	2.5	68.0	11009	680	300

cc – circular compacted conductor

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
3x1.5	1.6	3.0	8.0	0.9	12.8	315	128	2000
3x2.5	2.0	3.4	8.9	0.9	13.7	373	137	2000
3x4	2.5	3.9	10.0	0.9	14.8	453	148	2000
3x6	3.1	4.5	11.2	0.9	16.1	554	161	2000
3x10	3.9	5.3	13.2	1.25	18.8	788	188	1800
3x16	5.0	6.4	15.5	1.25	21.1	1027	211	1800
3x25	6.3	8.1	19.3	1.6	25.5	1563	255	1500
3x35sh	15.1	16.9	18.8	1.6	24.9	1777	249	2300
3x50sh	17.9	19.9	21.7	1.6	28.0	2244	280	2300
3x70sh	21.0	23.2	25.5	2.0	32.8	3207	328	1800
3x95sh	24.1	26.3	28.6	2.0	36.3	4092	363	1400
3x120sh	27.2	29.6	32.0	2.0	39.9	4985	399	1200
3x150sh	30.5	33.3	36.1	2.5	45.4	6392	454	800
3x185sh	33.9	37.1	40.0	2.5	49.4	7684	494	800
3x240sh	38.3	41.7	45.0	2.5	54.8	9633	548	600
3x300sh	42.7	46.3	49.5	2.5	59.7	11604	597	500
3x400sh	49.1	53.1	56.3	2.5	66.9	14459	669	300
3x16cc	4.7	6.1	14.9	1.25	20.4	988	204	1000
3x25cc	6.0	7.8	18.5	1.6	24.8	1499	248	1000
3x35cc	7.0	8.8	20.9	1.6	27.0	1834	270	1000
3x50cc	8.0	10.0	23.5	1.6	29.8	2334	298	1000
3x70cc	9.8	12.0	28.2	2.0	35.5	3334	355	1000
3x95cc	11.5	13.7	32.1	2.0	39.7	4259	397	1000
3x120cc	12.8	15.2	35.4	2.0	43.3	5143	433	1000
3x150cc	14.3	17.1	39.9	2.5	49.2	6651	492	800
3x185cc	16.0	19.2	44.5	2.5	53.9	7965	539	600
3x240cc	19.0	22.4	51.8	2.5	61.6	10009	616	500
3x300cc	20.4	24.0	55.2	2.5	65.4	12057	654	400
3x400cc	23.1	27.1	61.8	2.5	72.4	14694	724	300

sh – shaped conductor

cc – circular compacted conductor

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
4x1.5	1.6	3.0	8.7	0.9	13.5	353	135	2000
4x2.5	2.0	3.4	9.7	0.9	14.6	422	146	2000
4x4	2.5	3.9	11.0	0.9	15.8	523	158	2000
4x6	3.1	4.5	12.4	1.25	17.9	740	179	2000
4x10	3.9	5.3	14.6	1.25	20.1	918	201	1500
4x16	5.0	6.4	17.2	1.6	23.4	1364	234	1500
4x25	6.3	8.1	21.4	1.6	27.6	1898	276	1000
4x35sh	18.0	19.8	21.6	1.6	27.9	2220	279	2300
4x50sh	21.3	23.3	25.2	1.6	31.6	2827	316	2000
4x70sh	24.9	27.1	29.4	2.0	37.1	4054	371	1500
4x95sh	28.5	30.7	33.2	2.0	41.1	5219	411	1200
4x120sh	32.1	34.5	37.4	2.5	46.6	6758	466	800
4x150sh	36.0	38.8	41.7	2.5	51.1	8061	511	700
4x185sh	40.1	43.3	46.2	2.5	56.0	9758	560	600
4x240sh	45.3	48.7	52.0	2.5	62.1	12299	621	400
4x300sh	50.3	53.9	57.2	2.5	67.7	14896	677	300
4x400sh	57.8	61.8	65.5	3.15	77.9	19478	779	250
4x16cc	4.7	6.1	16.4	1.6	22.7	1295	227	2000
4x25cc	6.0	7.8	20.3	1.6	26.5	1785	265	1800
4x35cc	7.0	8.8	23.1	1.6	29.4	2267	294	2000
4x50cc	8.0	10.0	26.6	1.6	33.1	2895	331	1800
4x70cc	9.8	12.0	31.1	2.0	38.8	4149	388	1200
4x95cc	11.5	13.7	35.6	2.0	43.5	5261	435	1000
4x120cc	12.8	15.2	39.8	2.5	49.0	6850	490	800
4x150cc	14.3	17.1	44.4	2.5	53.8	8213	538	600
4x185cc	16.0	19.2	49.5	2.5	59.3	9995	593	500
4x240cc	19.0	22.4	57.6	2.5	67.8	12744	678	300
4x300cc	20.4	24.0	61.4	2.5	72.0	15142	720	300
4x400cc	23.1	27.1	69.3	3.15	81.7	19550	817	250

sh – shaped conductor

cc – circular compacted conductor

Product Dimensional Data

Cross Section (mm ²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
5x1.5	1.6	3.0	9.7	0.9	14.5	378	145	2000
6x1.5	1.6	3.0	10.5	0.9	15.4	410	154	2000
7x1.5	1.6	3.0	10.5	0.9	15.4	437	154	2000
12x1.5	1.6	3.0	13.9	1.25	19.4	718	194	2000
19x1.5	1.6	3.0	16.3	1.25	21.9	917	219	2000
21x1.5	1.6	3.0	17.5	1.6	23.5	1109	235	1800
27x1.5	1.6	3.0	19.7	1.6	25.9	1305	259	1600
30x1.5	1.6	3.0	20.4	1.6	26.6	1381	266	1600
37x1.5	1.6	3.0	22.1	1.6	28.3	1573	283	1500
40x1.5	1.6	3.0	23.1	1.6	29.5	1685	295	1400
48x1.5	1.6	3.0	25.5	1.6	31.9	1923	319	1200
5x2.5	2.0	3.4	10.8	0.9	15.6	457	156	2000
6x2.5	2.0	3.4	11.8	1.25	17.3	595	173	1800
7x2.5	2.0	3.4	11.8	1.25	17.3	616	173	2000
12x2.5	2.0	3.4	15.6	1.25	21.2	887	212	2000
19x2.5	2.0	3.4	18.4	1.6	24.6	1286	246	1800
21x2.5	2.0	3.4	19.6	1.6	25.7	1381	257	1600
27x2.5	2.0	3.4	22.2	1.6	28.5	1646	285	1400
30x2.5	2.0	3.4	23.1	1.6	29.5	1780	295	1300
37x2.5	2.0	3.4	25.1	1.6	31.5	2041	315	1100
40x2.5	2.0	3.4	26.2	1.6	32.8	2184	328	1000
48x2.5	2.0	3.4	29.3	2.0	36.9	2791	369	800
5x4	2.5	3.9	12.2	1.25	17.8	655	178	2000
6x4	2.5	3.9	13.4	1.25	18.9	752	189	2000
7x4	2.5	3.9	13.4	1.25	18.9	777	189	2000
12x4	2.5	3.9	17.8	1.6	24.1	1255	241	1800
19x4	2.5	3.9	21.1	1.6	27.3	1663	273	1400
21x4	2.5	3.9	22.3	1.6	28.6	1895	286	1200
27x4	2.5	3.9	25.5	1.6	31.9	2195	319	1000
30x4	2.5	3.9	26.5	1.6	33.1	2378	331	1000
37x4	2.5	3.9	29.2	2.0	36.8	3038	368	700
40x4	2.5	3.9	33.6	2.0	38.1	3239	381	700
48x4	2.5	3.9	33.6	2.0	41.4	3744	414	600

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. AC Conductor Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
2x1.5	12.1	15.43	2000	21	17
2x2.5	7.41	9.45	2000	35	27
2x4	4.61	5.88	2000	56	39
2x6	3.08	3.93	2000	84	55
2x10	1.83	2.33	2000	140	78
2x16	1.15	1.47	2000	224	111
2x25	0.727	0.927	2000	350	145
2x35	0.524	0.668	2000	490	186
2x50	0.387	0.493	2000	700	237
2x70	0.268	0.342	2000	980	290
2x95	0.193	0.246	2000	1330	339
2x120	0.153	0.196	2000	1680	392
2x150	0.124	0.159	2000	2100	443
2x185	0.0991	0.128	2000	2590	485
2x240	0.0754	0.098	2000	3360	569
2x300	0.0601	0.08	2000	4200	641
2x400	0.047	0.064	2000	5600	771
2x16cc	1.15	1.47	2000	224	115
2x25cc	0.727	0.927	2000	350	150
2x35cc	0.524	0.668	2000	490	192
2x50cc	0.387	0.493	2000	700	246
2x70cc	0.268	0.342	2000	980	304
2x95cc	0.193	0.246	2000	1330	358
2x120cc	0.153	0.196	2000	1680	413
2x150cc	0.124	0.159	2000	2100	470
2x185cc	0.0991	0.128	2000	2590	511
2x240cc	0.0754	0.098	2000	3360	584
2x300cc	0.0601	0.08	2000	4200	685
2x400cc	0.047	0.064	2000	5600	824

cc – circular compacted conductor

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. AC Conductor Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
3x1.5	12.1	15.43	2000	31	24
3x2.5	7.41	9.45	2000	52	38
3x4	4.61	5.88	2000	84	57
3x6	3.08	3.93	2000	126	78
3x10	1.83	2.33	2000	210	112
3x16	1.15	1.47	2000	336	159
3x25	0.727	0.927	2000	525	206
3x35sh	0.524	0.668	2000	735	295
3x50sh	0.387	0.493	2000	1050	375
3x70sh	0.268	0.342	2000	1470	448
3x95sh	0.193	0.246	2000	1995	550
3x120sh	0.153	0.196	2000	2520	632
3x150sh	0.124	0.159	2000	3150	694
3x185sh	0.0991	0.128	2000	3885	786
3x240sh	0.0754	0.098	2000	5040	920
3x300sh	0.0601	0.08	2000	6300	1055
3x400sh	0.047	0.064	2000	8400	1256
3x16cc	1.15	1.47	2000	336	165
3x25cc	0.727	0.927	2000	525	212
3x35cc	0.524	0.668	2000	735	272
3x50cc	0.387	0.493	2000	1050	352
3x70cc	0.268	0.342	2000	1470	414
3x95cc	0.193	0.246	2000	1995	503
3x120cc	0.153	0.196	2000	2520	582
3x150cc	0.124	0.159	2000	3150	640
3x185cc	0.0991	0.128	2000	3885	721
3x240cc	0.0754	0.098	2000	5040	818
3x300cc	0.0601	0.08	2000	6300	963
3x400cc	0.047	0.064	2000	8400	1160

sh – shaped conductor

cc – circular compacted conductor

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. AC Conductor Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
4x1.5	12.1	15.43	2000	42	31
4x2.5	7.41	9.45	2000	70	48
4x4	4.61	5.88	2000	112	71
4x6	3.08	3.93	2000	168	94
4x10	1.83	2.33	2000	280	139
4x16	1.15	1.47	2000	448	191
4x25	0.727	0.927	2000	700	254
4x35sh	0.524	0.668	2000	980	351
4x50sh	0.387	0.493	2000	1400	443
4x70sh	0.268	0.342	2000	1960	528
4x95sh	0.193	0.246	2000	2660	647
4x120sh	0.153	0.196	2000	3360	721
4x150sh	0.124	0.159	2000	4200	822
4x185sh	0.0991	0.128	2000	5180	925
4x240sh	0.0754	0.098	2000	6720	1082
4x300sh	0.0601	0.08	2000	8400	1241
4x400sh	0.047	0.064	2000	11200	1438
4x16cc	1.15	1.47	2000	448	197
4x25cc	0.727	0.927	2000	700	264
4x35cc	0.524	0.668	2000	980	333
4x50cc	0.387	0.493	2000	1400	423
4x70cc	0.268	0.342	2000	1960	505
4x95cc	0.193	0.246	2000	2660	611
4x120cc	0.153	0.196	2000	3360	686
4x150cc	0.124	0.159	2000	4200	781
4x185cc	0.0991	0.128	2000	5180	874
4x240cc	0.0754	0.098	2000	6720	991
4x300cc	0.0601	0.08	2000	8400	1167
4x400cc	0.047	0.064	2000	11200	1371

sh – shaped conductor

cc – circular compacted conductor

Product Electrical Data

Cross Section (mm ²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. AC Conductor Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Max. Cable Pulling Tension (kgf)	Max. Sidewall Pressure to Cable (kgf/m)
5x1.5	12.1	15.43	2000	52	36
6x1.5	12.1	15.43	2000	63	41
7x1.5	12.1	15.43	2000	73	47
12x1.5	12.1	15.43	2000	126	65
19x1.5	12.1	15.43	2000	199	91
21x1.5	12.1	15.43	2000	220	94
27x1.5	12.1	15.43	2000	283	109
30x1.5	12.1	15.43	2000	315	118
37x1.5	12.1	15.43	2000	388	137
40x1.5	12.1	15.43	2000	420	142
48x1.5	12.1	15.43	2000	504	158
5x2.5	7.41	9.45	2000	87	56
6x2.5	7.41	9.45	2000	105	61
7x2.5	7.41	9.45	2000	122	71
12x2.5	7.41	9.45	2000	210	99
19x2.5	7.41	9.45	2000	332	135
21x2.5	7.41	9.45	2000	367	143
27x2.5	7.41	9.45	2000	472	166
30x2.5	7.41	9.45	2000	525	178
37x2.5	7.41	9.45	2000	647	205
40x2.5	7.41	9.45	2000	700	213
48x2.5	7.41	9.45	2000	840	228
5x4	4.61	5.88	2000	140	79
6x4	4.61	5.88	2000	168	89
7x4	4.61	5.88	2000	196	104
12x4	4.61	5.88	2000	336	139
19x4	4.61	5.88	2000	532	195
21x4	4.61	5.88	2000	588	205
27x4	4.61	5.88	2000	756	237
30x4	4.61	5.88	2000	840	254
37x4	4.61	5.88	2000	1036	282
40x4	4.61	5.88	2000	1120	294
48x4	4.61	5.88	2000	1344	325

Cable Gland Section Data

Cross Section (mm ²)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
2x1.5	7.5	0.9	12.3	M16	KAA413-51	KCA472-51
2x2.5	8.3	0.9	13.2	M20S	KAA413-52	KCA472-52
2x4	9.4	0.9	14.2	M20S	KAA413-52	KCA472-52
2x6	10.5	0.9	15.4	M20	KAA413-53	KCA472-53
2x10	12.4	1.25	17.9	M20	KAA413-53	KCA472-53
2x16	14.5	1.25	20.1	M20	KAA413-53	KCA472-53
2x25	18.0	1.6	24.2	M25	KAA413-55	KCA472-55
2x35	20.3	1.6	26.4	M25	KAA413-55	KCA472-55
2x50	23.4	1.6	29.5	M32	KAA413-56	KCA472-56
2x70	27.4	1.6	33.8	M40	KAA413-57	KCA472-57
2x95	31.8	2.0	39.2	M40	KAA413-57	KCA472-57
2x120	35.2	2.0	42.9	M50S	KAA413-58	KCA472-58
2x150	39.5	2.0	47.4	M50	KAA413-59	KCA472-59
2x185	44.2	2.5	53.4	M63S	KAA413-60	KCA472-60
2x240	49.5	2.5	59.1	M63	KAA413-61	KCA472-61
2x300	55.7	2.5	65.5	M75S	KAA413-62	KCA472-62
2x400	62.2	2.5	72.6	M75	KAA413-63	KCA472-63
2x16cc	13.9	1.25	19.4	M20	KAA413-53	KCA472-53
2x25cc	17.1	1.6	23.3	M25	KAA413-55	KCA472-55
2x35cc	19.4	1.6	25.5	M25	KAA413-55	KCA472-55
2x50cc	22.4	1.6	28.5	M32	KAA413-56	KCA472-56
2x70cc	25.8	1.6	32.3	M40	KAA413-57	KCA472-57
2x95cc	29.8	2.0	37.2	M40	KAA413-57	KCA472-57
2x120cc	33.1	2.0	40.7	M50S	KAA413-58	KCA472-58
2x150cc	36.9	2.0	44.7	M50S	KAA413-58	KCA472-58
2x185cc	41.5	2.5	50.7	M50	KAA413-59	KCA472-59
2x240cc	47.9	2.5	57.5	M63S	KAA413-60	KCA472-60
2x300cc	51.5	2.5	61.3	M63	KAA413-61	KCA472-61
2x400cc	57.6	2.5	68.0	M75S	KAA413-62	KCA472-62

cc – circular compacted conductor

Cable Gland Section Data

Cross Section (mm ²)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
3x1.5	8.0	0.9	12.8	M16	KAA413-51	KCA472-51
3x2.5	8.9	0.9	13.7	M20S	KAA413-52	KCA472-52
3x4	10.0	0.9	14.8	M20S	KAA413-52	KCA472-52
3x6	11.2	0.9	16.1	M20	KAA413-53	KCA472-53
3x10	13.2	1.25	18.8	M20	KAA413-53	KCA472-53
3x16	15.5	1.25	21.1	M25	KAA413-55	KCA472-55
3x25	19.3	1.6	25.5	M25	KAA413-55	KCA472-55
3x35sh	18.8	1.6	24.9	M25	KAA413-55	KCA472-55
3x50sh	21.7	1.6	28.0	M32	KAA413-56	KCA472-56
3x70sh	25.5	2.0	32.8	M32	KAA413-56	KCA472-56
3x95sh	28.6	2.0	36.3	M40	KAA413-57	KCA472-57
3x120sh	32.0	2.0	39.9	M40	KAA413-57	KCA472-57
3x150sh	36.1	2.5	45.4	M50S	KAA413-58	KCA472-58
3x185sh	40.0	2.5	49.4	M50	KAA413-59	KCA472-59
3x240sh	45.0	2.5	54.8	M63S	KAA413-60	KCA472-60
3x300sh	49.5	2.5	59.7	M63	KAA413-61	KCA472-61
3x400sh	56.3	2.5	66.9	M75	KAA413-63	KCA472-63
3x16cc	14.9	1.25	20.4	M25	KAA413-55	KCA472-55
3x25cc	18.5	1.6	24.8	M25	KAA413-55	KCA472-55
3x35cc	20.9	1.6	27.0	M32	KAA413-56	KCA472-56
3x50cc	23.5	1.6	29.8	M32	KAA413-56	KCA472-56
3x70cc	28.2	2.0	35.5	M40	KAA413-57	KCA472-57
3x95cc	32.1	2.0	39.7	M50S	KAA413-58	KCA472-58
3x120cc	35.4	2.0	43.3	M50S	KAA413-58	KCA472-58
3x150cc	39.9	2.5	49.2	M50	KAA413-59	KCA472-59
3x185cc	44.5	2.5	53.9	M63S	KAA413-60	KCA472-60
3x240cc	51.8	2.5	61.6	M63	KAA413-61	KCA472-61
3x300cc	55.2	2.5	65.4	M75S	KAA413-62	KCA472-62
3x400cc	61.8	2.5	72.4	M75	KAA413-63	KCA472-63

sh – shaped conductor

cc – circular compacted conductor

Cable Gland Section Data

Cross Section (mm ²)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
4x1.5	8.7	0.9	13.5	M20S	KAA413-52	KCA472-51
4x2.5	9.7	0.9	14.6	M20S	KAA413-52	KCA472-52
4x4	11.0	0.9	15.8	M20	KAA413-53	KCA472-52
4x6	12.4	1.25	17.9	M20	KAA413-53	KCA472-53
4x10	14.6	1.25	20.1	M25	KAA413-55	KCA472-53
4x16	17.2	1.6	23.4	M25	KAA413-55	KCA472-53
4x25	21.4	1.6	27.6	M32	KAA413-56	KCA472-55
4x35sh	21.6	1.6	27.9	M32	KAA413-56	KCA472-55
4x50sh	25.2	1.6	31.6	M32	KAA413-56	KCA472-56
4x70sh	29.4	2.0	37.1	M40	KAA413-57	KCA472-57
4x95sh	33.2	2.0	41.1	M50S	KAA413-58	KCA472-58
4x120sh	37.4	2.5	46.6	M50	KAA413-59	KCA472-59
4x150sh	41.7	2.5	51.1	M50	KAA413-59	KCA472-59
4x185sh	46.2	2.5	56.0	M63S	KAA413-60	KCA472-60
4x240sh	52.0	2.5	62.1	M63	KAA413-61	KCA472-61
4x300sh	57.2	2.5	67.7	M75S	KAA413-62	KCA472-62
4x400sh	65.5	3.15	77.9	M85	KAA413-64	KCA472-64
4x16cc	16.4	1.6	22.7	M25	KAA413-55	KCA472-55
4x25cc	20.3	1.6	26.5	M25	KAA413-55	KCA472-55
4x35cc	23.1	1.6	29.4	M32	KAA413-56	KCA472-56
4x50cc	26.6	1.6	33.1	M32	KAA413-56	KCA472-56
4x70cc	31.1	2.0	38.8	M40	KAA413-57	KCA472-57
4x95cc	35.6	2.0	43.5	M50S	KAA413-58	KCA472-58
4x120cc	39.8	2.5	49.0	M50	KAA413-59	KCA472-59
4x150cc	44.4	2.5	53.8	M63S	KAA413-60	KCA472-60
4x185cc	49.5	2.5	59.3	M63	KAA413-61	KCA472-61
4x240cc	57.6	2.5	67.8	M75S	KAA413-62	KCA472-62
4x300cc	61.4	2.5	72.0	M75	KAA413-63	KCA472-63
4x400cc	69.3	3.15	81.7	M85	KAA413-64	KCA472-64

sh – shaped conductor

cc – circular compacted conductor

Cable Gland Section Data

Cross Section (mm ²)	Inner Covering Diameter (mm)	Armour Wire Diameter (mm)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
5x1.5	9.7	0.9	14.5	M20S	KAA413-52	KCA472-52
6x1.5	10.5	0.9	15.4	M20	KAA413-53	KCA472-53
7x1.5	10.5	0.9	15.4	M20	KAA413-53	KCA472-53
12x1.5	13.9	1.25	19.4	M20	KAA413-53	KCA472-53
19x1.5	16.3	1.25	21.9	M25	KAA413-55	KCA472-55
21x1.5	17.5	1.6	23.5	M25	KAA413-55	KCA472-55
27x1.5	19.7	1.6	25.9	M25	KAA413-55	KCA472-55
30x1.5	20.4	1.6	26.6	M32	KAA413-56	KCA472-56
37x1.5	22.1	1.6	28.3	M32	KAA413-56	KCA472-56
40x1.5	23.1	1.6	29.5	M32	KAA413-56	KCA472-56
48x1.5	25.5	1.6	31.9	M32	KAA413-56	KCA472-56
5x2.5	10.8	0.9	15.6	M20	KAA413-53	KCA472-53
6x2.5	11.8	1.25	17.3	M20	KAA413-53	KCA472-53
7x2.5	11.8	1.25	17.3	M20	KAA413-53	KCA472-53
12x2.5	15.6	1.25	21.2	M25	KAA413-55	KCA472-55
19x2.5	18.4	1.6	24.6	M25	KAA413-55	KCA472-55
21x2.5	19.6	1.6	25.7	M25	KAA413-55	KCA472-55
27x2.5	22.2	1.6	28.5	M32	KAA413-56	KCA472-56
30x2.5	23.1	1.6	29.5	M32	KAA413-56	KCA472-56
37x2.5	25.1	1.6	31.5	M32	KAA413-56	KCA472-56
40x2.5	26.2	1.6	32.8	M32	KAA413-56	KCA472-56
48x2.5	29.3	2.0	36.9	M40	KAA413-57	KCA472-57
5x4	12.2	1.25	17.8	M20	KAA413-53	KCA472-53
6x4	13.4	1.25	18.9	M20	KAA413-53	KCA472-53
7x4	13.4	1.25	18.9	M20	KAA413-53	KCA472-53
12x4	17.8	1.6	24.1	M25	KAA413-55	KCA472-55
19x4	21.1	1.6	27.3	M32	KAA413-56	KCA472-56
21x4	22.3	1.6	28.6	M32	KAA413-56	KCA472-56
27x4	25.5	1.6	31.9	M32	KAA413-56	KCA472-56
30x4	26.5	1.6	33.1	M40	KAA413-57	KCA472-57
37x4	29.2	2.0	36.8	M40	KAA413-57	KCA472-57
40x4	30.4	2.0	38.1	M40	KAA413-57	KCA472-57
48x4	33.6	2.0	41.4	M50S	KAA413-58	KCA472-58

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