



HELLENIC CABLES S.A.
HELLENIC CABLE INDUSTRY S.A.

■ **Building Wires
& Power Cables**
for voltages up to
and including 33kV



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FLEXIBLE CABLES PVC INSULATED (PARALLEL CONDUCTORS FLAT CABLE)



- 1. Flexible conductor
- 2. PVC insulation.

TYPE OF CABLE: H03VH-H
VOLTAGE: 300/300V
SPECIFICATIONS: ELOT 563.5 - HD 21.5

Applications

Highly flexible cable for very light uses in buildings.
 Not suitable for high temperatures.

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING
mm ²	mm	Kg/Km	Ω/Km	A
2x0,5	3,0x5,9	20	36	3
2x0,75	3,1x6,3	25	24,5	6

FLEXIBLE CABLES PVC INSULATED AND SHEATHED



3 2 1

- 1. Flexible conductor
- 2. PVC insulation
- 3. PVC outersheath

TYPE OF CABLE: H03VV-F
VOLTAGE: 300/300V
SPECIFICATIONS: ELOT 563.5 - HD 21.5

Applications

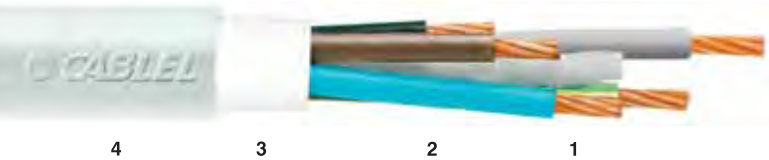
Flexible cable for internal installations, light portable appliances which need flexible cables without severe mechanical stresses.
 Not suitable for high temperatures.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW	WITHOUT GREEN/YELLOW
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING
mm ²	mm	Kg/Km	Ω/Km	A
2x0,5	5,9	35	39	3
2x0,75	6,3	45	26	6
3x0,5	6,3	43	39	3
3x0,75	6,7	54	26	6
4x0,5	6,9	51	39	3
4x0,75	7,3	65	26	6

BUILDING WIRES PVC INSULATED AND SHEATH



- 1. Solid or stranded conductor
- 2. PVC insulation
- 3. Inner covering
- 4. PVC outersheath

TYPE OF CABLE: NYM
VOLTAGE: 300/500V
SPECIFICATIONS: VDE 0250-204

Applications

For installations in dry, damp and wet rooms above and under plaster.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW CORE	WITHOUT GREEN/YELLOW CORE
1	GREEN/YELLOW	BLACK
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY - BLACK
above 5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAYER OF THE LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 phase	3 phase
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m	
1 X 1,5 RE	6	45	12,1	18,5	29	25
1 X 2,5 RE	6	60	7,41	25	18	15
1 X 4 RE	7	85	4,61	34	11	9,5
1 X 6 RE	8	110	3,08	43	7,3	6,4
1 X 10 RE	9	160	1,83	60	4,4	3,8
1 X 16 RM	10	225	1,15	80	2,8	2,4
2 X 1,5 RE	9	115	12,1	18,5	29	-
2 X 2,5 RE	10	155	7,41	25	18	-
3 X 1,5 RE	9	130	12,1	18,5	29	25
3 X 2,5 RE	1	185	7,41	25	18	15
3 X 4 RE	12	260	4,61	34	11	9,5
3 X 6 RE	14	355	3,08	43	7,3	6,4
3 X 10 RE	16	535	1,83	60	4,4	3,8
4 X 1,5 RE	10	155	12,1	18,5	-	25
4 X 2,5 RE	11	220	7,41	25	-	15
4 X 4 RE	14	330	4,61	34	-	9,5
4 X 6 RE	15	430	3,08	43	-	6,4
4 X 10 RE	18	655	1,83	60	-	3,8
4 X 16 RM	21	960	1,15	80	-	2,4
4 X 25 RM	25	1450	0,727	101	-	1,5
4 X 35 RM	28	1885	0,524	126	-	1,1
5 X 1,5 RE	11	180	12,1	18,5	-	25
5 X 2,5 RE	12	255	7,41	25	-	15
5 X 4 RE	15	385	4,61	34	-	9,5
5 X 6 RE	16	510	3,08	43	-	6,4
5 X 10 RE	19	780	1,83	60	-	3,8
5 X 16 RM	23	1160	1,15	80	-	2,4
5 X 25 RM	27	1730	0,727	101	-	1,5
7 X 1,5 RE	11	225	12,1	18,5	-	25
7 X 2,5 RE	14	335	7,41	25	-	15

Note: The above ratings are given for 30°C ambient temperature.
For other ambient temperatures, and number of loaded cores the correction factor is:

Temperature °C	15	20	25	35	40	45	50
Correction factor	1,14	1,09	1,04	0,96	0,91	0,87	0,82

BUILDING WIRES SINGLE CORE, PVC INSULATED NON-SHEATHED



- 1. Single core conductor
- 2. PVC Insulation.

TYPE OF CABLE: H05V-U (UK: 6491X)
VOLTAGE: 300/500V
SPECIFICATION: ELOT 563 - HD 21.3 - BS: 6004

Applications

For internal wiring of switching boxes and other electrical appliances, for installation in closed conduits and tubes. Not for direct installation under plaster.

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					2 cables single phase AC or DC	3 or 4 cables three phase AC
mm ²	mm	Kg/Km	Ω/Km	A	mV / A/m	mV / A/m
0,5	2,3	9	36	3	87	75
0,75	2,5	11	24,5	6	59	51
1	2,7	14	18,1	10	44	38



- 1. Flexible conductor
- 2. PVC insulation

TYPE OF CABLE: H05V-K (UK: 2491X)
VOLTAGE: 300/500V
SPECIFICATION: ELOT 563 - HD 21.3 - BS 6004

Applications

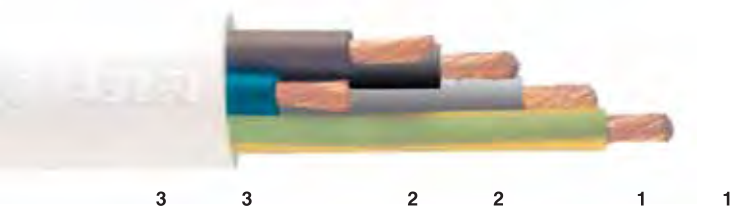
Suitable for fixed protected installations in or on lighting fittings and inside appliances.

Colours

Identification of cores: Green/yellow, light blue, black, brown.

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					2 cables single phase AC or DC	3 or 4 cables three phase AC
mm ²	mm	Kg/Km	Ω/Km	A	mV / A/m	mV / A/m
0,5	2,5	9	39	3	94	81
0,75	2,7	11	26	6	63	54
1	2,8	14	19,5	10	47	41

PVC INSULATED AND SHEATHED FLEXIBLE CABLES



- 1. Flexible copper conductor
- 2. PVC insulation
- 3. PVC outer sheath

TYPE OF CABLE:
VOLTAGE:
SPECIFICATION:

H05VV-F (UK: 318Y)
300/500V
HD 21.5 - BS: 6500

Applications

Flexible cable for general building installation and for appliances in which the cables are exposed to low mechanical stresses. Cables are suitable for dry and damp locations.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW CORE	WITHOUT GREEN/YELLOW CORE
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY - BLACK
above 5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER APPR.	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m
2x0,75	7,2	55	26	6	62
2x1	7,5	65	19,5	10	47
2x1,5	8,6	85	13,3	16	32
2x2,5	10,6	135	7,98	25	16
2x4	12,1	180	4,95	32	12
3x0,75	7,6	65	26	6	54
3x1	8,0	75	19,5	10	41
3x1,5	9,4	105	13,3	16	28
3x2,5	11,4	170	7,98	20	17
3x4	13,1	225	4,95	25	10
* 3x6	14,5	355	3,30	38	6,4
4x0,75	8,3	80	26	6	54
4x1	9,0	95	19,5	10	41
4x1,5	10,5	135	13,3	16	28
4x2,5	12,5	205	7,98	20	17
4x4	14,3	275	4,95	25	10
* 4,6	16,0	435	3,30	38	6,4
5x0,75	9,3	95	26	6	54
5x1	9,8	110	19,5	10	41
5x1,5	11,6	160	13,3	16	28
5x2,5	13,9	245	7,98	20	17
5x4	16,1	340	4,95	25	10
* 5x6	18,0	525	3,30	38	6,4
7x1,0	12,0	145	19,50	13	41
7x1,5	14,0	210	13,3	17	28
7x2,5	17,0	315	7,98	21	17

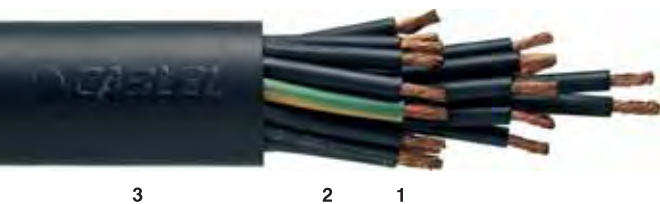
Maximum continuous operating temperature of conductor: 70° C

Note: The above ratings are given for 30°C ambient temperature. For other ambient temperatures the correction factor is:

Temperature °C	15	20	25	30	35	40	45	50
Correction factor	1,17	1,12	1,06	1,0	0,94	0,87	0,79	0,71

For cross sections greater than 4mm², cables will be constructed according to NFC 32-206 specification as FR-N05VV5-F cable type.

PVC INSULATED AND SHEATHED CABLES



1. Flexible Cu conductor
2. PVC insulation
3. PVC outersheath

TYPE OF CABLE:

H05VV5-F (UK: 3185Y)

VOLTAGE:

300/500V

STANDARD SPECIFICATION:

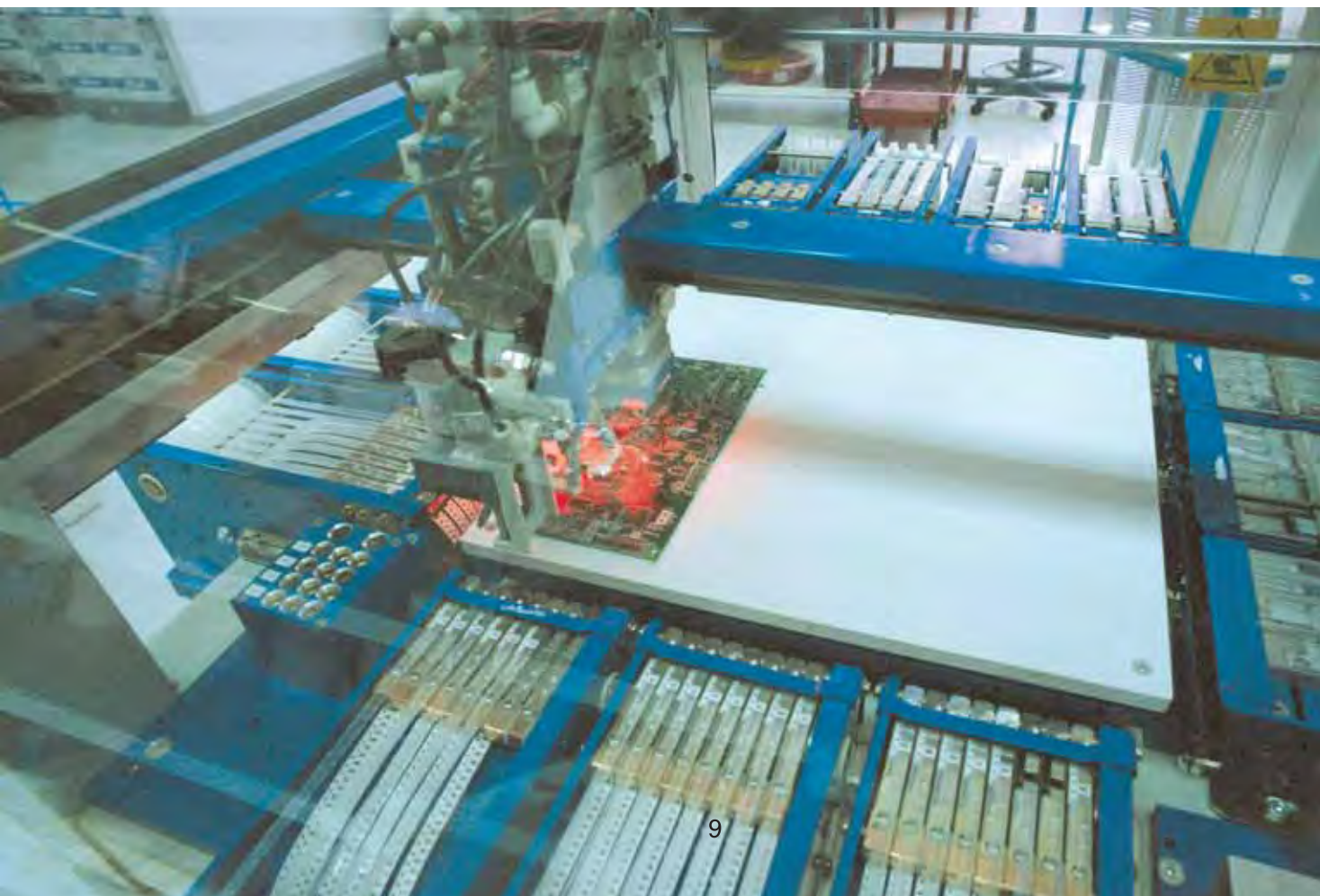
HD 21.13

Applications

Flexible power, process control and instrumentation cables for machinery and for industrial environment . Cables are resistant against most of chemicals, oil and grease.

Colours

black cores with white or yellow numbers, the green/yellow core is located in the outer layer of the laid up cores



NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m
2X0,5	5,7	45	39	6	81
2X0,75	6,3	57	26	12	54
2X1	6,6	65	19,5	15	41
2X1,5	7,6	87	13,3	18	28
2X2,5	9,1	130	7,98	26	17
3X0,5	6,0	52	39	6	81
3X0,75	6,7	67	26	12	54
3X1	7,0	78	19,5	15	41
3X1,5	8,3	109	13,3	18	28
3X2,5	9,9	162	7,98	26	17
4X0,5	6,9	66	39	6	81
4X0,75	7,4	81	26	12	54
4X1	7,9	94	19,5	15	41
4X1,5	9,2	133	13,3	18	28
4X2,5	11,3	204	7,98	26	17
5X0,5	7,4	77	39	6	81
5X0,75	8,1	98	26	12	54
5X1	8,6	115	19,5	15	41
5X1,5	10,1	160	13,3	18	28
5X2,5	12,1	240	7,98	26	17
7X0,5	8,2	101	39	6	81
7X0,75	9,0	129	26	12	54
7X1	9,6	151	19,5	15	41
7X1,5	11,4	216	13,3	18	28
7X2,5	13,6	323	7,98	26	17
12X0,5	11,1	170	39	6	81
12X0,75	11,9	211	26	12	54
12X1	12,9	254	19,5	15	41
12X1,5	15,1	353	13,3	18	28
12X2,5	18,3	539	7,98	26	17
18X0,5	13,1	242	39	6	81
18X0,75	14,3	308	26	12	54
18X1	15,2	363	19,5	15	41
18X1,5	18,0	515	13,3	18	28
18X2,5	22,0	794	7,98	26	17
25X0,5	15,6	329	39	6	81
25X0,75	17,0	417	26	12	54
25X1	18,1	491	19,5	15	41
25X1,5	21,4	694	13,3	18	28

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m
25X2,5	26,0	1066	7,98	26	17
34X0,5	17,9	439	39	6	81
34X0,75	19,6	557	26	12	54
34X1	21,0	668	19,5	15	41
34X1,5	25,0	952	13,3	18	28
34X2,5	30,3	1454	7,98	26	17
40X0,5	18,8	499	39	6	81
40X0,75	20,6	634	26	12	54
40X1	22,1	761	19,5	15	41
40X1,5	26,0	1071	13,3	18	28
40X2,5	31,7	1655	7,98	26	17
41X0,5	19,7	527	39	6	81
41X0,75	21,6	667	26	12	54
41X1	22,9	788	19,5	15	41
41X1,5	27,2	1122	13,3	18	28
41X2,5	33,0	1712	7,98	26	17
60X0,5	22,1	695	39	6	81
60X0,75	24,4	897	26	12	54
60X1	26,1	1077	19,5	15	41
60X1,5	30,9	1527	13,3	18	28
60X2,5	36,7	2280	7,98	26	17

Note: The above ratings are given for up to 4 loaded cores and for 30°C ambient temperature. For other ambient temperatures, and number of loaded cores the correction factor is:

Temperature °C	20	25	30	35	40	45	50
Correction factor	1,12	1,08	1	0,97	0,87	0,79	0,71
Loaded cores	10	14	19	24	40	60	
Correction factor	0,55	0,5	0,45	0,4	0,35	0,2	

BUILDING WIRES PVC INSULATED AND SHEATH (PARALLEL CONDUCTORS FLAT CABLE)



3

2 1

- 1. Single core conductor
- 2. PVC insulation
- 3. PVC outersheath

TYPE OF CABLE:
VOLTAGE:
SPECIFICATION:

NYIFY-O and NYIFY-J
230/400V
VDE 0250.201

Applications

Light cable with rigid conductor suitable for fixed installations.

Colours

NUMBER OF CORES	NYIFY-J	NYIFY-O
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK -GREY	BLUE - BROWN - BLACK - GREY - BLACK

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	VOLTAGE DROP		CONTINUOUS CURRENT RATING
				1 phase	3 phase	
mm ²	mmXmm	Kg/Km	Ω/Km	mV/A/m	mV/A/m	A
2x1,5	4,4x12	12,1	29	-	20	
2x2,5	5,2x13,5	85	7,41	18	-	27
2x4	6x15,5	125	4,61	11	-	36
3x1,5	4,4x19	85	12,1	29	25	18
3x2,5	5,2x21,5	125	7,41	18	15	24
3x4	6x25	4,61	11	9,5	32	
4x1,5	4,4x26	110	12,1	-	25	18
4x2,5	5,2x29,5	170	7,41	-	15	24
5x1,5	4,4x33	140	12,1	-	25	18
5x2,5	5,2x37	210	7,41	-	15	24

PVC INSULATED AND SHEATHED TWIN FLAT CABLES WITH PROTECTIVE CONDUCTOR



1. Copper conductor
2. PVC insulation
3. Circuit protective conductor
4. PVC outersheath

TYPE OF CABLE: TWIN FLAT
RATED VOLTAGE: 300/500 V
STANDARD SPECIFICATION: BS: 6004

Applications

Suitable for domestic and industrial wiring, clipped to flat surfaces or embedded in plaster, etc.

Conductors: Solid class 1 (up to and including 2,5mm²) and stranded class 2 (above 2,5mm²) copper conductors.

Protective conductor is positioned centrally between blue and brown cores.

Colours

Identification of cores: blue, brown

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIMENSIONS (HEIGHT x WIDTH) (APPROX.).	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC 20° C	CONTINUOUS CURRENT RATING*	VOLTAGE DROP PHASE AC
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m
2X1+1	5,9X7,6	66	18,1/18,1	15	44
2X1,5+1	6,4X8,5	183	12,1/18,1	19,5	29
2X2,5+1,5	7,4X10,1	125	7,41/12,1	27	18
2X4+1,5	8,1X11,5	170	4,61/12,1	36	11
2X6+2,5	9X13	230	3,08/7,4	46	7,3
2X10+4	10,7X16,5	370	1,83/4,61	63	4,4
2X16+6	12X19,2	230	1,15/3,08	85	2,8

*Clipped direct

Note: The above ratings are given for up to 4 loaded cores and for 30°C ambient temperature. For other ambient temperatures, the correction factor is:

Temperature °C	25	30	35	40	45	50
Correction factor	1,03	1	0,94	0,87	0,79	0,71

PVC INSULATED AND SHEATHED FLAT THREE CORE CABLES WITH PROTECTIVE CONDUCTOR



- 1. Copper conductor
- 2. PVC insulation
- 3. Circuit protective conductor
- 4. PVC outersheath

TYPE OF CABLE: TRIPLE FLAT
RATED VOLTAGE: 300/500 V
STANDARD SPECIFICATION: BS: 6004

Applications

Suitable for domestic and industrial wiring, clipped to flat surfaces or embedded in plaster, etc.

Conductors: Solid class 1 (up to and including 2,5mm²) and stranded class 2 (above 2,5mm²) copper conductors.

Non insulated protective conductor is positioned centrally between black and grey cores.

Colours

Identification of cores: black, black, grey

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIMENSIONS (HEIGHT x WIDTH) (APPROX.).	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC 20° C	CONTINUOUS CURRENT RATING*	VOLTAGE DROP PHASE AC
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m
3X1+1	6X10,9	90	18,1/18,1	13,5	38
3X1,5+1	6,4X11,2	114	12,1/18,1	17,5	25
3X2,5+1,5	7,4X13,4	170	7,4/12,1	24	15

*Clipped direct

Note: The above ratings are given for up to 4 loaded cores and for 30°C ambient temperature. For other ambient temperatures, the correction factor is:

Temperature °C	25	30	35	40	45	50
Correction factor	1,03	1	0,94	0,87	0,79	0,71

FLEXIBLE CABLES WITH RUBBER INSULATION AND SHEATH



- 1. Flexible conductor
- 2. Rubber insulation
- 3. Rubber outersheath

TYPE OF CABLE:
VOLTAGE:
SPECIFICATIONS:

H05RR-F
300/500V
ELOT 623 - HD 22.4

Applications

Flexible cable for general building installations and for appliances in which the cables are exposed to light mechanical stresses.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW CORE	WITHOUT GREEN/YELLOW CORE
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK- GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY - BLACK

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m
2x0,75	7,4	55	26,7	12	64
2x1	8,0	70	20,0	15	48
2x1,5	9,8	100	13,7	18	31
2x2,5	11,6	155	8,21	26	9
3x0,75	8,1	75	26,7	12	56
3x1	8,5	80	20,0	15	42
3x1,5	10,4	120	13,7	18	27
3x2,5	12,4	175	8,21	26	7
3x4	14,5	250	5,09	34	10
3x6	16,3	360	3,39	44	6,7
4x0,75	8,8	80	26,7	12	56
4x1	9,3	110	20,0	15	42
4x1,5	11,6	155	13,7	18	27
4x2,5	13,8	230	8,21	26	17
4x4	16,2	330	5,09	34	10
4x6	18,1	465	3,39	44	6,7
5x0,75	9,9	110	26,7	12	56
5x1	10,3	120	20,0	15	42
5x1,5	12,7	180	13,7	18	27
5x2,5	15,3	270	8,21	26	17

Note: The above ratings are given for 30°C ambient temperature. For other ambient temperatures the correction factor is:

Temperature °C	15	20	25	30	35	40	45
Correction factor	1,22	1,15	1,08	1,0	0,91	0,82	0,71

CABLES FOR FIXED INSTALLATION WITH COPPER CONDUCTOR, PVC INSULATED NON-SHEATHED



2

1

- 1. Solid or stranded conductor
- 2. PVC insulation

TYPE OF CABLE:

H07V-U

and **H07V-R (UK: 6491X)**

RATED VOLTAGE:

450/750V

STANDARD SPECIFICATION: HD 21.3 - BS: 6004

Applications

Suitable for drawing in surface mounted or embedded conduits, in channels with cover, for fixed protected installation in or on lighting fittings and inside appliances, switchgear.

Colours

NUMBER OF CORE: 1	Green/yellow, blue, black, brown, grey, orange, pink, red, turquoise, violet and white.
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NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (UPPER LIMIT)	NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20°C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	mV	mV
1x1,5*	3,2	19	12,1	16	29	25
1x1,5	3,3	22	12,1	16	29	25
1x2,5*	3,9	30	7,41	20	18	15
1x2,5	4,0	34	7,41	20	18	15
1x4*	4,4	43	4,61	26	11	9,5
1x4	4,6	47	4,61	26	11	9,5
1x6*	5,0	60	3,08	34	7,3	6,4
1x6	5,2	65	3,08	34	7,3	6,4
1x10*	6,4	105	1,83	46	4,4	3,8
1x10	6,7	110	1,83	46	4,4	3,8
1x16	7,8	165	1,15	61	2,8	2,4
1x25	9,7	260	0,727	80	1,75	1,5
1x35	10,9	350	0,524	99	1,25	1,1
1x50	12,8	480	0,387	119	0,95	0,82
1x70	14,6	675	0,268	151	0,66	0,57
1x95	17,1	930	0,193	182	0,50	0,43
1x120	18,8	1150	0,153	210	0,41	0,36
1x150	20,9	1420	0,124	240	0,34	0,30
1x185	23,3	1790	0,0991	273	0,28	0,26
1x240	26,6	2350	0,0754	320	0,25	0,22
1x300	29,6	2920	0,0601	367	0,22	0,19
1x400	33,2	3720	0,0470	441	0,19	0,16

* Solid conductors (Type U)
Stranded conductors (Type R)

Note: The current rating is given for an ambient temperature 30° C. For other ambient temperature the correction factor is:

Temperature °C	15	20	25	30	35	40	45	50
Correction factor	1,17	1,12	1,06	1,0	0,94	0,87	0,79	0,71

LOW SMOKE ZERO HALOGEN NON SHEATHED SINGLE CORE CABLES



2

1

1. Solid or stranded conductor
2. LSF insulation

TYPE OF CABLE:

**H07Z-U
and H07Z-R (UK: 6491B)**

RATED VOLTAGE:

450/750V

STANDARD SPECIFICATION: HD 22.9 - BS: 7211

Applications

Suitable for fixed or protected installation in or on lighting and control gear, in surface mounted or embedded circuits, or similar closed systems, in particular for situations in which low emission of smoke and acid gases is required in case of burning.

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 PHASE	3 PHASE
n x mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m	mV/A/m
1 x 1,5	3,0	22	12,10	22	31	27
1 x 2,5	3,6	35	7,41	30	19	16
1 x 4	4,1	50	4,61	40	12	10
1 x 6	4,7	70	3,08	51	7,90	6,8
1 x 10	5,8	115	1,83	71	4,70	4
1 x 16	6,8	175	1,15	95	2,90	2,50
1 x 25	8,6	270	0,727	126	1,90	1,65
1 x 35	10,2	380	0,524	156	1,35	1,15
1 x 50	11,9	510	0,387	189	1,05	0,90
1 x 70	12,8	700	0,268	240	0,75	0,65
1 x 95	15	960	0,193	290	0,58	0,50
1 x 120	16,6	1205	0,153	336	0,48	0,42
1 x 150	18,5	1510	0,124	375	0,43	0,37
1 x 185	20,8	1875	0,0991	426	0,37	0,32
1 x 240	25,4	2450	0,0754	500	0,33	0,29
1 x 300	28,1	3035	0,0601	573	0,31	0,27
1 x 400	31,6	3900	0,0470	683	0,29	0,25

- Cables up to 10mm² can be produced with solid or stranded and compacted conductor. Cables with greater cross section have stranded and compacted conductor.

- Permitted current ratings are for continuous operation in air with ambient temperature 30°C and conductor temperature 90°C.

For other ambient temperatures,
the correction factor is:

Ambient Temperature °C	25	30	35	40	50	55	60	65
Correction factor	1,02	1,00	0,96	0,87	0,82	0,76	0,71	0,65

CABLES FOR FIXED INSTALLATION WITH COPPER CONDUCTOR, PVC INSULATED NON-SHEATHED



- 1. Flexible conductor
- 2. PVC insulation

TYPE OF CABLE: H07V-K (UK: 2491X)
RATED VOLTAGE: 450/750V
STANDARD SPECIFICATION: HD 21.3 BS: 6004

Applications

Suitable for drawing in surface mounted or embedded conduits, in channels with cover, for fixed protected installation in or on lighting fittings and inside appliances, switchgear.

Colours

NUMBER OF CORE: 1	Green/yellow, black, blue, brown, grey, orange, pink, red, turquoise, violet and white.
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NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (UPPER LIMIT)	NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20°C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	mV	mV
1x1,5	3,4	20	13,3	16	29	25
1x2,5	4,1	32	7,98	20	18	15
1x4	4,8	48	4,95	26	11	9,5
1x6	5,3	65	3,30	34	7,3	6,4
1x10	6,8	120	1,91	46	4,4	3,8
1x16	8,1	175	1,21	61	2,8	2,4
1x25	10,2	270	0,780	80	1,75	1,5
1x35	11,7	370	0,554	99	1,25	1,11
1x50	13,9	500	0,386	119	0,95	0,82
1x70	16,0	700	0,272	151	0,66	0,57
1x95	18,2	955	0,206	182	0,50	0,43
1x120	20,2	1180	0,161	210	0,41	0,36
1x150	22,5	1460	0,129	240	0,34	0,30
1x185	24,9	1840	0,106	273	0,28	0,26
1x240	28,4	2400	0,0801	320	0,25	0,22

Note: The current rating is given for an ambient temperature 30° C. For other ambient temperatures the correction factor is:

Temperature °C	15	20	25	30	35	40	45	50
Correction factor	1,17	1,12	1,06	1,0	0,94	0,87	0,79	0,71

PVC INSULATED FLEXIBLE CABLES



- 1. Flexible copper conductor
- 2. PVC insulating sheath

TYPE OF CABLE: NO7V-K
RATED VOLTAGE: 450/750V
STANDARD SPECIFICATION: CEI-UNEL 35752

Applications

Non fire propagating cables with reduced emission of corrosive gases for indoors and wiring.

Colours

NUMBER OF CORE: 1	black, blue, brown, grey, orange, pink, red, violet, white, green/yellow
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NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE AT 20° C	CURRENT CARRYING CAPACITY 30°C/in air	INSULATION RESISTANCE MIN 70° C	VOLTAGE DROP	
						1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	MΩ/KM	mV/A/m	
1X1,5	3	21	13,3	15,5	0,082	29	25
1X2,5	3,7	33	7,98	21	0,077	18	15
1X4	4,2	47	4,95	28	0,062	11	9,5
1X6	5,2	68	3,3	36	0,05	7,3	6,4
1X10	6,3	114	1,91	50	0,049	4,4	3,8
1X16	8	173	1,21	68	0,039	2,8	2,4
1X25	9,9	265	0,78	89	0,039	1,75	1,5
1X35	11,1	358	0,554	110	0,034	1,25	1,1
1X50	13,3	512	0,386	154	0,033	0,94	0,81
1X70	15,2	702	0,272	171	0,029	0,65	0,57
1X95	17,3	925	0,206	207	0,028	0,49	0,42
1X120	20	1178	0,161	239	0,025	0,4	0,35
1X150	22	1468	0,129	275	0,025	0,34	0,29
1X185	25	1812	0,106	314	0,025	0,29	0,25
1X240	28,1	2377	0,0801	269	0,024	0,24	0,21

POWER CABLE PVC INSULATED



- 1. Copper Conductor
- 2. PVC insulation
- 3. Inner covering
- 4. PVC outersheath

TYPE OF CABLE:
VOLTAGE:
SPECIFICATION:

NYY
600/1000V
VDE 0276

Applications

Power cable for fixed installations in wet or dry places in air or ground. For industrial installations that are not subject to severe mechanical stresses.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW CORE	WITHOUT GREEN/YELLOW CORE
1	GREEN/YELLOW	BLACK
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY - BLACK
above 5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAYER OF THE LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS



NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				30°C in air	20°C in ground	1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
1 X 4 RE	8	105	4,61	47	71	11	9,5
1 X 6 RE	9	130	3,08	59	90	7,3	6,4
1 X 10 RE	10	175	1,83	81	124	4,4	3,8
1 X 16 RE	11	240	1,15	107	160	2,8	2,4
1 X 25 RM	12	350	0,727	144	208	1,75	1,5
1 X 35 RM	13	455	0,524	176	250	1,25	1,1
1 X 50 RM	15	595	0,387	214	296	0,94	0,81
1 X 70 RM	17	810	0,268	270	365	0,65	0,57
1 X 95 RM	19	1085	0,193	334	438	0,49	0,42
1 X 120 RM	20	1320	0,153	389	501	0,40	0,35
1 X 150 RM	22	1605	0,124	446	563	0,34	0,29
1 X 185 RM	24	1990	0,0991	516	639	0,29	0,25
1 X 240 RM	27	2560	0,0754	618	746	0,24	0,21
1 X 300 RM	31	3200	0,0601	711	845	0,21	0,18
1 X 400 RM	33	1035	0,0470	843	975	0,19	0,17
1 X 500 RM	37	5110	0,0366	994	1125	0,18	0,16
2 X 1.5 RE	11	190	12,1	19,5	27	29	-
2 X 2.5 RE	12	225	7,41	26	36	18	-
2 X 4 RE	14	315	4,61	34	46	11	-
2 X 6 RE	15	385	3,08	43	58	7,3	-
2 X 10 RE	17	510	1,83	59	78	4,4	-
2 X 16 RE	18	685	1,15	78	101	2,8	-
2 X 25 RM	22	1025	0,727	105	132	1,75	-
3 X 1.5 RE	12	210	12,1	19,5	27	29	25
3 X 2.5 RE	13	260	7,41	26	36	18	15
3 X 4 RE	15	365	4,61	34	46	11	9,5
3 X 6 RE	16	455	3,08	43	58	7,3	6,4
3 X 10 RE	18	610	1,83	59	78	4,4	3,8
3 X 16 RE	20	840	1,15	78	101	2,8	2,4
3 X 25 RM	24	1260	0,727	105	132	1,75	1,5
3 X 35 SM	23	1305	0,524	129	159	1,25	1,1
3 X 50 SM	26	1740	0,387	157	188	0,94	0,81
3 X 70 SM	30	2405	0,268	199	232	0,65	0,57
3 X 95 SM	34	3230	0,193	246	280	0,49	0,42
3 X 120 SM	37	3975	0,153	285	318	0,40	0,35
3 X 150 SM	40	4810	0,124	326	359	0,34	0,29
3 X 185 SM	46	6085	0,0991	374	406	0,29	0,25
3 X 240 SM	53	7940	0,0754	445	473	0,24	0,21
3X25 RM/16 RE	25	1230	0,727/1,15	105	132	-	1,5
3X35 SM/16 RE	25	1495	0,524/1,15	129	159	-	1,1
3X50 SM/35 SM	29	2050	0,387/0,727	157	188	-	0,81

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				30°C in air	20°C in ground	1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
3X70 SM/35 SM	33	2810	0,268/0,524	199	232	-	0,57
3X95 SM/50 SM	38	3800	0,193/0,387	246	280	-	0,42
3X120 SM/70 SM	43	4755	0,153/0,268	285	318	-	0,35
3X150 SM/70 SM	45	5595	0,124/0,268	326	359	-	0,29
3X185 SM/95 SM	51	7150	0,0991/0,193	374	406	-	0,25
3X240 SM/120 SM	59	9245	0,0754/0,153	445	473	-	0,21
3X300 SM/150 SM	62	11315	0,0601/0,124	510	535	-	0,18
4X1,5 RE	13	245	12,1	19,5	27	-	25
4X2,5 RE	14	305	7,41	26	36	-	15
4X4 RE	16	430	4,61	34	46	-	9,5
4X6 RE	17	540	3,08	43	58	-	6,4
4X10 RE	19	740	1,83	59	78	-	3,8
4X16 RE	21	1025	1,15	78	101	-	2,4
4X25 RM	26	1545	0,727	105	132	-	1,5
4X35 SM	25	1690	0,524	129	159	-	1,1
4X50 SM	29	2275	0,387	157	188	-	0,81
4X70 SM	33	3155	0,268	199	232	-	0,57
4X95 SM	38	4250	0,193	246	280	-	0,42
4X120 SM	42	5250	0,153	285	318	-	0,35
4X150 SM	45	6390	0,124	326	359	-	0,29
4X185 SM	51	8035	0,0991	374	406	-	0,25
4X240 SM	59	10480	0,0754	445	473	-	0,21
5X1,5 RE	13	275	12,1	19,5	27	-	25
5X2,5 RE	15	345	7,41	26	36	-	15
5X4 RE	17	490	4,61	34	46	-	9,5
5X6 RE	18	630	3,08	43	58	-	6,4
5X10 RE	20	870	1,83	59	78	-	3,8
5X16 RE	23	1210	1,15	78	101	-	2,4
5X25 RM	28	1835	0,727	105	132	-	1,5
5X35 SM	31	2400	0,524	129	159	-	1,1

Note: The above ratings are given for 30°C ambient temperature, temperature of ground 20°C and thermal resistivity of soil 1 Km/W. For other conditions, the correction factors are:

Air Temperature °C	15	20	25	35	40	45	50
Correction factor	1,17	1,12	1,06	0,94	0,87	0,79	0,71
Ground Temperature °C	15	20	25	30	35	40	
Correction factor	1,08	1	0,95	0,89	0,84	0,77	
Ground Thermal resistivity Km/W:	0,8	1	1,2	1,5	2,0	2,5	3,0
Correction factor	1,07	1	0,93	0,87	0,79	0,71	0,65

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

CONTROL CABLE PVC INSULATED AND SHEATHED



1. Solid or stranded copper round conductor
2. PVC insulation
3. Inner covering
4. PVC outersheath.

TYPE OF CABLE:
VOLTAGE:
SPECIFICATION:

NYN
600/1000V
VDE 0276

Applications

Control cables are suitable for industrial installations, for transmission of electrical signals.

Colours

Number of cores	NYN-J	NYN-O
1	GREEN/YELLOW	
>1	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAYER OF THE LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	VOLTAGE DROP
mm ²	mm	Kg/Km	Ω/Km	mV/ A/m
7x1,5	14	300	12,1	25
7x2,5	15	400	7,41	15
10x1,5	17	420	12,1	25
10x2,5	19	570	7,41	15
12x1,5	17,5	480	12,1	25
12x2,5	19	610	7,41	15
14x1,5	18,5	520	12,1	25
14x2,5	21	750	7,41	15
16x1,5	19,5	570	12,1	25
16x2,5	21	760	7,41	15
19x1,5	20	690	12,1	25
19x2,5	24	970	7,41	15
21x1,5	21	740	12,1	25
21x2,5	24	980	7,41	15
24x1,5	23	830	12,1	25
24x2,5	25	1100	7,41	15
27x1,5	23,5	880	12,1	25
27x2,5	26	1190	7,41	15
30x1,5	24	950	12,1	25
30x2,5	26,5	1280	7,41	15
37x1,5	26	1120	12,1	25
37x2,5	29	1540	7,41	15
40x1,5	27	1190	12,1	25
40x2,5	30	1650	7,41	15
48x1,5	29,5	1435	12,1	25
48x2,5	33,5	2010	7,41	15
61x1,5	32,5	1780	12,1	25
61x2,5	36	2460	7,41	15

Note:

- All the above cables can be manufactured also with 7 wire stranded conductor.
- The permitted rating depends on number of loaded cores as it is depicted below

Number of loaded cores	5	7	10	12	14	16	19	21	24
Rating factor for ground	0,7	0,60	0,50	0,48	0,45	0,43	0,40	0,38	0,35
Rating factor for air	0,75	0,65	0,55	0,53	0,50	0,48	0,45	0,43	0,40

Initial rating for ground and free air in A

	20°C (ground)	30°C (air)
1,5 mm ²	27	20
2,5 mm ²	36	25

Note: The above ratings are given for 30°C ambient temperature, temperature of ground 20°C and thermal resistivity of soil 1 Km/W. For other conditions, the correction factors are:

Air Temperature °C	15	20	25	35	40	45	50
Correction factor	1,17	1,12	1,06	0,94	0,87	0,79	0,71
Ground Temperature °C	15	20	25	30	35	40	
Correction factor	1,08	1,0	0,95	0,89	0,84	0,77	
Ground Thermal resistivity Km/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,07	1,0	0,93	0,87	0,79	0,71	0,65

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

POWER CABLE PVC INSULATED



1. Aluminium Conductor
2. PVC insulation
3. Inner covering
4. PVC outersheath

TYPE OF CABLE:
VOLTAGE:
SPECIFICATION:

NAYY
600/1000V
VDE 0276

Applications

Power cable for fixed installations in wet or dry places in air or ground. For industrial installations that are not subject to severe mechanical stresses.

Colours

NUMBER OF CORES	NAYY-J	NAYY-O
1	GREEN/YELLOW	-
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY

CONDUCTOR NOMINAL	EXTERNAL DIAMETER (APPROX.)	ATE CABLE WEIGHT (APPROX.)	MAX. DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				IN GROUND	IN AIR	1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
1X150 RM	22	705	0,206	246	275	0,45	-
1X185 RM	24	855	0,164	285	313	0,37	-
1X240 RM	27	1080	0,125	338	364	0,30	-
1X300 RM	30	1340	0,100	400	419	0,25	-
1X400 RM	33	1680	0,0778	472	484	0,21	-
1X500 RM	36	2070	0,0605	534	551	0,18	-
1X630 RM	41	2600	0,0469	-	-	0,16	-
4X25 RE	25	875	1,20	81	102	-	2,5
4X35 RE	27	1075	0,868	99	122	-	1,8
4X50 SE	27	1130	0,641	119	144	-	1,35
4X70 SE	30	1510	0,443	152	179	-	0,92
4X95 SE	35	1955	0,320	186	215	-	0,68
4X120 SE	38	2405	0,253	216	245	-	0,54
4X150 SE	41	2810	0,206	246	275	-	0,45

Note: The above ratings are given for 30°C ambient temperature, temperature of ground 20°C and thermal resistivity of soil 1 Km/W. For other conditions, the correction factors are:

Air Temperature °C	15	20	25	35	40	45	50
Correction factor	1,17	1,12	1,06	0,94	0,87	0,79	0,71
Ground Temperature °C	15	20	25	30	35	40	
Correction factor	1,08	1,0	0,95	0,89	0,84	0,77	
Ground Thermal resistivity Km/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,07	1,0	0,93	0,87	0,79	0,71	0,65

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

POWER CABLE AND CONTROL CABLE, PVC INSULATED, CONCENTRIC CONDUCTOR PVC SHEATHED



- 1. Copper Conductor
- 2. PVC insulation
- 3. Inner covering
- 4. Concentric conductor
- 5. PVC outersheath

TYPE OF CABLE:

NYCY and NYCWY

VOLTAGE:

600/1000V

SPECIFICATION:

VDE 0276-603, VDE 0276-627

Applications

Power cable and control cable for fixed installations and wet or dry places in the air or in the ground, and in cases where the use of concentric conductor is necessary.

Colours

NUMBER OF CORES	WITHOUT GREEN/YELLOW
1	BLACK
2	BLUE - BROWN
3	BROWN - BLACK - GREY
4	BLUE - BROWN - BLACK - GREY
5	BLUE - BROWN - BLACK - GREY - BLACK
above 5	BLACK WITH NUMBERS

Note:

For NYCY cables, the concentric conductor is applied with a constant direction of lay over the phase cores. For NYCWY cables, the concentric conductor is applied with an alternating direction of lay over the phase cores.

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				IN GROUND	IN AIR	1 PHASE AC or DC	3 PHASES AC
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
3x1,5/1,5	14	255	12,1/12,1	27	18	29	25
3x2,5/2,5	15	315	7,41/7,41	36	25	18	15
3x4/4	17	430	4,61/4,61	46	34	11	9,5
3x6/6	18	530	3,08/3,08	58	44	7,3	6,4
3x10/10	20	740	1,83/1,83	77	60	4,4	3,8
3x16/16	22	1020	1,15/1,15	100	80	2,8	2,4
3x25/25	26	1530	0,727/0,727	130	105	1,75	1,5
3x25/16	26	1445	0,727/1,15	130	105	1,75	1,5
3x35/35	30	1990	0,524/0,524	155	130	1,25	1,1
3x35/16	30	1800	0,524/1,15	155	130	1,25	1,1
3x50/50	31	2280	0,387/0,387	185	160	0,94	0,81
3x50/25	31	2025	0,387/0,727	185	160	0,94	0,81
3x70/70	34	3120	0,268/0,268	230	200	0,65	0,57
3x70/35	33	2790	0,268/0,524	230	200	0,65	0,57
3x95/95	39	4240	0,193/0,193	275	245	0,49	0,42
3x95/50	38	3785	0,193/0,387	275	245	0,49	0,42
3x120/120	42	5200	0,153/0,153	315	285	0,40	0,35
3x120/70	41	4715	0,153/0,268	315	285	0,40	0,35
3x150/150	46	6330	0,124/0,124	355	325	0,34	0,29
3x150/70	45	5550	0,124/0,268	355	325	0,34	0,29
3x185/95	50	7040	0,0991/0,193	400	370	0,29	0,25
3x240/120	57	9140	0,0754/0,153	465	435	0,24	0,21
4x1,5/1,5	15	210	12,1/12,1	27	18	-	25
4x2,5/1,5	16	360	7,41/7,41	36	25	-	15
4x4/4	18	500	4,61/4,61	46	34	-	9,5
4x6/6	19	620	3,08/3,08	58	44	-	6,4
4x10/10	22	875	1,83/1,83	77	60	-	3,8
4x16/16	24	1210	1,15/1,15	100	80	-	2,4
4x25/16	28	1740	0,727/1,15	130	105	-	1,5
4x35/16	29	1870	0,524/1,15	155	130	-	1,1
4x50/25	33	2565	0,387/0,727	185	160	-	0,81
4x70/35	37	3525	0,268/0,524	230	200	-	0,57
4x95/50	43	4785	0,193/0,387	275	245	-	0,42
4x120/70	48	5975	0,153/0,268	315	285	-	0,35
4x150/70	52	7100	0,124/0,268	355	325	-	0,29
4x185/95	57	8990	0,0991/0,193	400	370	-	0,25
4x240/120	64	11700	0,0754/0,153	465	435	-	0,21

Note:

Conductors 1.5 - 2.5 - 4 - 6 mm² are usually round solid.
Conductors 10 - 16 - 25 mm² are round stranded.
Larger conductors are stranded sector shaped.
2.3 or 4 core cables with a larger cross section have sector shaped conductors.

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE AT 20° C	VOLTAGE DROP 3 PHASES AC
mm ²	mm	Kg/Km	Ω/Km	mV/A/m
7x1,5/2,5	16	390	12,1/7,41	25
10x1,5/2,5	19	520	12,1/7,41	25
12x1,5/2,5	19	565	12,1/7,41	25
14x1,5/2,5	21	620	12,1/7,41	25
19x1,5/4	23	810	12,1/4,61	25
24x1,5/6	25	970	12,1/3,08	25
30x1,5/6	26	1105	12,1/3,08	25
40x1,5/10	30	1410	12,1/1,83	25
7x2,5/2,5	17	480	7,41/7,41	15
10x2,5/4	21	670	7,41/4,61	15
12x2,5/4	22	730	7,41/4,61	15
14x2,5/6	23	825	7,41/3,08	15
19x2,5/6	24	1065	7,41/3,08	15
24x2,5/10	28	1305	7,41/1,83	15
30x2,5/10	30	1500	7,41/1,83	15
40x2,5/10	33	1875	7,41/1,83	15

CURRENT RATINGS

The permitted rating depends on number of loaded cores

Number of loaded cores	5	7	10	12	14	16	19	21	24
Rating factor	0,7	0,63	0,57	0,54	0,5	0,49	0,45	0,43	0,4

Initial rating for ground and free air.

	GROUND	AIR
1,5 mm ²	27A	18A
2,5 mm ²	36A	25A

Note: The control cables are only specified as NYCY.

Note: The above ratings are given for 30°C ambient temperature, temperature of ground 20°C and thermal resistivity of soil 1 Km/W. For other conditions, the correction factors are:

Air Temperature °C	15	20	25	35	40	45	50
Correction factor	1,17	1,12	1,06	0,94	0,87	0,79	0,71
Ground Temperature °C	15	20	25	30	35	40	
Correction factor	1,08	1,0	0,95	0,89	0,84	0,77	
Ground Thermal resistivity Km/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,07	1,0	0,93	0,87	0,79	0,71	0,65

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

PVC INSULATED AND SHEATHED ARMOURED* POWER AND CONTROL CABLES



1. Solid or stranded conductor
2. PVC insulation
3. Inner covering
4. Galvanized SWA or AWA*
5. PVC outersheath

TYPE OF CABLE:

PVC/PVC/SWA/PVC

VOLTAGE:

600/1000 V

STANDARD SPECIFICATION:

BS 6346

Applications

Suitable for use in fixed installations, indoor and outdoor and for direct burial.

Colours

NUMBER OF CORES	CORE COLOURS
1	BLUE OR BROWN
2	BLUE, BROWN
3	BROWN, BLACK, GREY
4	BLUE, BROWN, BLACK, GREY
5	GREEN/YELLOW, BLUE, BROWN, BLACK, GREY
>5	BLACK CORES WITH WHITE OR YELLOW NUMBERS



XLPE INSULATED ARMoured CABLES TO BS 5467



1. Solid or stranded conductor
2. XLPE insulation
3. Inner covering
4. Galvanized SWA or AWA*
5. PVC outersheath

TYPE OF CABLE:

XLPE/PVC/SWA/PVC

VOLTAGE:

600/1000V

SPECIFICATION:

BS 5467

Applications

Suitable for use in fixed installations, indoor and outdoor and for direct burial.

Colours

NUMBER OF CORES	CORE COLOURS
1	BLUE OR BROWN
2	BLUE, BROWN
3	BROWN, BLACK, GREY
4	BLUE, BROWN, BLACK, GREY
5	GREEN/YELLOW, BLUE, BROWN, BLACK, GREY
> 5	WHITE CORES WITH BLACK NUMBERS

HELLENIC CABLES S.A.

can also produce the following cables

- **XLPE** insulated lead sheathed armoured cables suitable for direct burial where cables may be subject to solvent penetration or attack by corrosive agents.

NOMINAL AREA OF CONDUCTOR	UNDER ARMOUR	DIAMETER (APPROX.)		NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP
		OVER ARMOUR	OVERALL			IN AIR	IN GROUND	
mm ²	mm	mm	mm	kg/km	Ω/km	A		mV/ A/m
1x50	12,2	14,7	17,7	800	0,387	231	231	0,87
1x70	14,1	16,6	19,6	940	0,268	295	284	0,62
1x95	15,8	18,3	21,5	1220	0,193	362	340	0,47
1x120	17,5	20,0	23,2	1490	0,153	420	386	0,39
1x150	19,7	22,9	26,3	1870	0,124	483	431	0,33
1x185	21,9	25,1	28,7	2290	0,0991	555	485	0,28
1x240	24,6	27,8	31,4	2880	0,0754	654	558	0,24
1x300	27,1	30,3	34,1	3520	0,0601	745	623	0,21
1x400	30,9	34,9	38,9	4520	0,0470	851	691	0,195
1x500	34,6	38,6	42,8	5680	0,0366	963	765	0,18
1x630	38,9	42,9	47,3	7120	0,0283	1084	841	0,17
1x800	44,1	49,1	53,9	9220	0,0221	1178	888	0,165
1x1000	48,8	53,8	58,8	11270	0,0176	1278	942	0,155
2x1,5	7,6	9,4	12,0	290	12,1	31	38	31
2x2,5	8,6	10,4	13,6	340	7,41	41	49	19
2x4	9,7	11,5	14,7	410	4,61	55	65	12
2x6	10,8	12,6	15,9	470	3,08	70	81	7,9
2x10	12,4	14,2	18,0	760	1,83	95	109	4,7
2x16	14,8	17,3	20,0	900	1,15	126	141	2,9
2x25	14,7	17,2	20,4	1000	0,727	164	183	1,9
2x35	16,8	20,0	23,4	1400	0,524	202	219	1,35
2x50	18,5	21,7	25,3	1800	0,387	244	259	1,0
2x70	21,1	24,3	28,1	2320	0,268	306	317	0,69
2x95	23,9	27,9	31,9	3160	0,193	378	381	0,52
2x120	26,9	30,9	35,1	3790	0,153	437	433	0,42
2x150	29,8	33,8	38,2	4500	0,124	499	485	0,35
2x185	33,5	38,5	43,3	5820	0,0991	576	547	0,29
2x240	38,3	43,3	48,3	7220	0,0754	680	632	0,24
3x1,5	8,3	10,1	13,0	310	12,1	26	32	27
3x2,5	9,2	11,0	14,1	380	7,41	35	42	17
3x4	10,3	12,1	15,3	450	4,61	47	55	10
3x6	11,6	13,4	16,6	700	3,08	59	69	6,8
3x10	13,2	15,7	19,5	820	1,83	82	92	4,1
3x16	16,1	18,6	21,8	1070	1,15	107	119	2,5
3x25	17,0	20,2	23,6	1550	0,727	140	152	1,65
3x35	19,1	22,3	25,9	1900	0,524	172	182	1,15
3x50	21,6	24,8	28,4	2360	0,387	209	217	0,87
3x70	25,0	28,2	32,0	3120	0,268	263	266	0,60
3x95	28,5	32,5	36,7	4310	0,193	324	319	0,45
3x120	31,6	35,6	40,0	5160	0,153	376	363	0,37
3x150	35,5	40,5	45,1	6610	0,124	430	406	0,30
3x185	39,5	44,5	49,3	7920	0,0991	495	458	0,26
3x240	44,3	49,3	54,5	9930	0,0754	584	529	0,21
3x300	49,1	54,1	59,5	11970	0,0601	666	592	0,185
3x400	55,0	60,0	65,8	14770	0,0470	766	667	0,17
4x1,5	9,1	10,9	14,0	360	12,1	26	32	27
4x2,5	10,1	11,9	15,0	430	7,41	35	42	17
4x4	11,4	13,2	16,4	540	4,61	47	55	10

NOMINAL AREA OF CONDUCTOR	UNDER ARMOUR	DIAMETER (APPROX.) OVER ARMOUR		APPROX. NET WEIGHT	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP
		OVERALL				IN AIR	IN GROUND	
mm ²	mm	mm	mm	kg/km	Ω/km	A		mV/ A/m
4x6	12,8	15,3	18,7	750	3,08	59	69	6,8
4x10	14,6	17,1	21,1	980	1,83	82	92	4,1
4x16	17,9	20,4	23,6	1300	1,15	107	119	2,5
4x25	19,5	22,7	26,1	1900	0,727	140	152	1,65
4x35	22,0	25,2	28,8	2300	0,524	172	182	1,15
4x50	24,3	27,5	31,3	2950	0,387	209	217	0,87
4x70	28,6	32,6	36,8	4230	0,268	263	266	0,60
4x95	32,2	36,2	40,6	5390	0,193	324	319	0,45
4x120	36,2	41,2	45,8	6980	0,153	376	363	0,37
4x150	40,1	45,1	49,9	8300	0,124	430	406	0,30
4x185	44,7	49,7	54,9	10070	0,0991	495	458	0,26
4x240	50,6	55,6	61,0	12680	0,0754	584	529	0,21
4x300	55,7	60,7	66,5	15380	0,0604	666	592	0,185
4x400	62,7	69,0	75,4	19950	0,0470	766	667	0,17
5x1,5	9,7	11,5	14,3	380	12,1	26	32	27
5x2,5	11,5	13,3	16,1	480	7,41	35	42	17
5x4	13,0	14,8	17,8	600	4,61	47	55	10
5x6	14,5	17,0	20,0	840	3,08	59	69	6,8
5x10	17,2	19,7	22,9	1130	1,83	82	92	4,1
5x16	20,0	23,2	26,6	1700	1,15	107	119	2,5
5x25	24,7	27,9	31,5	2320	0,727	140	152	1,65
7x1,5	10,9	12,7	15,9	440	12,1	16	20	27
7x2,5	12,1	13,9	17,1	560	7,41	21	26	17
7x4	14,2	16,7	19,7	700	4,61	29	34	10
12x1,5	14,4	16,9	20,2	730	12,1	12	15	27
12x2,5	16,2	18,7	22,4	950	7,41	17	20	17
19x1,5	17,0	19,5	23,2	940	12,1	11	13	27
19x2,5	19,5	22,7	26,6	1420	7,41	15	18	17
27x1,5	20,9	24,1	27,9	1320	12,1	9	11	27
27x2,5	23,5	26,7	30,7	1830	7,41	12	15	17
37x1,5	23,5	26,7	30,6	1650	12,1	8	10	27
37x2,5	26,4	29,6	33,8	2200	7,41	11	13	17
48x1,5	25,9	29,1	32,7	2000	12,1	7	9	27
48x2,5	31,3	35,3	39,3	3010	7,41	10	12	17

* Conductors up to 16 mm² are round solid or stranded and compacted.

Conductors with cross section 25mm² or greater are round stranded and compacted with the exception of 2,3 and 4 core cables which have stranded sector shaped conductors.

Note: The above ratings are given for 25°C ambient temperature, depth of laying 0,5m, ground temperature 15°C, thermal resistivity of soil 1.2 Km/W and maximum conductor temperature 90°C. Single core cables are laid in trefoil formation touching. For other conditions the correction factors are:

Air Temperature °C	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73
Ground Temperature °C	10	15	20	25	30	35	40
Correction factor	1,03	1,0	0,97	0,93	0,89	0,89	0,82
Ground thermal resistivity	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68
Depth of laying m	0,50	0,60	0,80	1,0	1,25	1,50	1,75
Correction factor	1,0	0,98	0,96	0,94	0,92	0,91	0,89

MIN. bending radius during installation 8D D: overall diameter of cable

POWER CABLES LSF INSULATED



- 1. Solid or stranded conductor
- 2. XLPE insulation
- 3. LSF inner covering
- 4. Galvanized SWA or AWA*
- 5. LSF outersheath

TYPE OF CABLE: XLPE/LSF/SWA/LSF
VOLTAGE: 600/1000V
STANDARD SPECIFICATION: BS 6724

Applications

Suitable for use in fixed installation indoor and outdoor but not in waterlogged conditions.

Colours

NUMBER OF CORES	CORE COLOURS
1	BLUE OR BROWN
2	BLUE, BROWN
3	BROWN, BLACK, GREY
4	BLUE, BROWN, BLACK, GREY
5	GREEN/YELLOW, BLUE, BROWN, BLACK, GREY
> 5	WHITE CORES WITH BLACK NUMBERS



NOMINAL AREA OF CONDUCTOR	UNDER ARMOUR	DIAMETER (APPROX.) OVER		NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP
		ARMOUR	OVERALL			IN AIR	IN GROUND	
mm ²	mm	mm	mm	kg/km	Ω/km	A		mV/ A/m
1X50	12,2	14,7	17,7	800	0,387	231	231	0,87
1X70	14,1	16,6	19,6	940	0,268	295	284	0,62
1X95	15,8	18,3	21,5	1220	0,193	362	340	0,47
1X120	17,5	20,0	23,2	1490	0,153	420	386	0,39
1X150	19,7	22,9	26,3	1870	0,124	483	431	0,33
1X185	21,9	25,1	28,7	2290	0,0991	555	485	0,28
1X240	24,6	27,8	31,4	2880	0,0754	654	558	0,24
1X300	27,1	30,3	34,1	3520	0,0601	745	623	0,21
1X400	30,9	34,9	38,9	4520	0,0470	851	691	0,195
1X500	34,6	38,6	42,8	5680	0,0366	963	765	0,18
1X630	38,9	42,9	47,3	7120	0,0283	1,084	841	0,17
1X800	44,1	49,1	53,9	9220	0,0221	1,178	888	0,165
1X1000	48,8	53,8	58,8	11270	0,0176	1,278	942	0,155
2X1,5	7,6	9,4	12,0	290	12,1	31	38	31
2X2,5	8,6	10,4	13,6	340	7,41	41	49	19
2X4	9,7	11,5	14,7	410	4,61	55	65	12
2X6	10,8	12,6	15,9	470	3,08	70	81	7,9
2X10	12,4	14,2	18,0	760	1,83	95	109	4,7
2X16	14,8	17,3	20,0	900	1,15	126	141	2,9
2X25	14,7	17,2	20,4	1000	0,727	164	183	1,9
2X35	16,8	20,0	23,4	1400	0,524	202	219	1,35
2X50	18,5	21,7	25,3	1800	0,387	244	259	1,0
2X70	21,1	24,3	28,1	2320	0,268	306	317	0,69
2X95	23,9	27,9	31,9	3160	0,193	378	381	0,52
2X120	26,9	30,9	35,1	3790	0,153	437	433	0,42
2X150	29,8	33,8	38,2	4500	0,124	499	485	0,35
2X185	33,5	38,5	43,3	5820	0,0991	576	547	0,29
2X240	38,3	43,3	48,3	7220	0,0754	680	632	0,24
3X1,5	8,3	10,1	13,0	310	12,1	26	32	27
3X2,5	9,2	11,0	14,1	380	7,41	35	42	17
3X4	10,3	12,1	15,3	450	4,61	47	55	10
3X6	11,6	13,4	16,6	700	3,08	59	69	6,8
3X10	13,2	15,7	19,5	820	1,83	82	92	4,1
3X16	16,1	18,6	21,8	1070	1,15	107	119	2,5
3X25	17,0	20,2	23,6	1550	0,727	140	152	1,65
3X35	19,1	22,3	25,9	1900	0,524	172	182	1,15
3X50	21,6	24,8	28,4	2360	0,387	209	217	0,87
3X70	25,0	28,2	32,0	3120	0,268	263	266	0,60
3X95	28,5	32,5	36,7	4310	0,193	324	319	0,45
3X120	31,6	35,6	40,0	5160	0,153	376	363	0,37
3X150	35,5	40,5	45,1	6610	0,124	430	406	0,30
3X185	39,5	44,5	49,3	7920	0,0991	495	458	0,26
3X240	44,3	49,3	54,5	9930	0,0754	584	529	0,21
3X300	49,1	54,1	59,5	11970	0,0601	666	592	0,185
3X400	55,0	60,0	65,8	14770	0,0470	766	667	0,17
4X1,5	9,1	10,9	14,0	360	12,1	26	32	27
4X2,5	10,1	11,9	15,0	430	7,41	35	42	17
4X4	11,4	13,2	16,4	540	4,61	47	55	10

NOMINAL AREA OF CONDUCTOR	UNDER ARMOUR	DIAMETER (APPROX.)		NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP
		OVER ARMOUR	OVERALL			IN AIR	IN GROUND	
mm ²	mm	mm	mm	kg/km	Ω/km	A		mV/ A/m
4X6	12,8	15,3	18,7	750	3,08	59	69	6,8
4X10	14,6	17,1	21,1	980	1,83	82	92	4,1
4X16	17,9	20,4	23,6	1300	1,15	107	119	2,5
4X25	19,5	22,7	26,1	1900	0,727	140	152	1,65
4X35	22,0	25,2	28,8	2300	0,524	172	182	1,15
4X50	24,3	27,5	31,3	2950	0,387	209	217	0,87
4X70	28,6	32,6	36,8	4230	0,268	263	266	0,60
4X95	32,2	36,2	40,6	5390	0,193	324	319	0,45
4X120	36,2	41,2	45,8	6980	0,153	376	363	0,37
4X150	40,1	45,1	49,9	8300	0,124	430	406	0,30
4X185	44,7	49,7	54,9	10070	0,0991	495	458	0,26
4X240	50,6	55,6	61,0	12680	0,0754	584	529	0,21
4X300	55,7	60,7	66,5	15380	0,0601	666	592	0,185
4X400	62,7	69,0	75,4	19950	0,0470	766	667	0,17
5X1,5	9,7	11,5	14,3	380	12,1	26	32	27
5X2,5	11,5	13,3	16,1	480	7,41	35	42	17
5X4	13,0	14,8	17,8	600	4,61	47	55	10
5X6	14,5	17,0	20,0	840	3,08	59	69	6,8
5X10	17,2	19,7	22,9	1130	1,83	82	92	4,1
5X16	20,0	23,2	26,6	1700	1,15	107	119	2,5
5X25	24,7	27,9	31,5	2320	0,727	140	152	1,65
7X1,5	10,9	12,7	15,9	440	12,1	16	20	27
7X2,5	12,1	13,9	17,1	560	7,41	21	26	17
7X4	14,2	16,7	19,7	700	4,61	29	34	10
12X1,5	14,4	16,9	20,2	730	12,1	12	15	27
12X2,5	16,2	18,7	22,4	950	7,41	17	20	17
19X1,5	17,0	19,5	23,2	940	12,1	11	13	27
19X2,5	19,5	22,7	26,6	1420	7,41	15	18	17
27X1,5	20,9	24,1	27,9	1320	12,1	9	11	27
27X2,5	23,5	26,7	30,7	1830	7,41	12	15	17
37X1,5	23,5	26,7	30,6	1650	12,1	8	10	27
37X2,5	26,4	29,6	33,8	2200	7,41	11	13	17
48X1,5	25,9	29,1	32,7	2000	12,1	7	9	27
48X2,5	31,3	35,3	39,3	3010	7,41	10	12	17

* Conductors up to 16 mm² are round solid or stranded and compacted.
 Conductors with cross section 25mm² or greater are round stranded and compacted with the exception of 2,3 and 4 core cables which have stranded sector shaped conductors.

Note: The above ratings are given for 25°C ambient temperature, depth of laying 0,5m, ground temperature 15°C, thermal resistivity of soil 1,2 Km/W and maximum conductor temperature 90°C. Single core cables are laid in trefoil formation touching. For other conditions the correction factors are:

Air Temperature °C	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73
Ground Temperature °C	10	15	20	25	30	35	40
Correction factor	1,03	1,0	0,97	0,93	0,89	0,86	0,82
Ground thermal resistivity	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68
Depth of laying m	0,50	0,60	0,80	1,0	1,25	1,50	1,75
Correction factor	1,0	0,98	0,96	0,94	0,92	0,91	0,89

MIN. bending radius during installation 8D D: overall diameter of cable

POWER CABLES XLPE INSULATED PVC SHEATHED



1. Solid or stranded conductor
2. XLPE insulation
3. Extruded filling compound
4. PVC outersheath

TYPE OF CABLE:
VOLTAGE:
SPECIFICATION:

U-1000 R2V
600/1000V
NF C 32-321

Applications

Power cable for fixed installations in dry or wet places in the air or in the ground.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW	WITHOUT GREEN/YELLOW
1	GREEN/YELLOW	BLACK
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY - BLACK
above 5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAYER OF THE LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	CABLE WEIGHT (APPROX.)	MAXIMUM DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP
				IN GROUND	IN AIR	
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m
1X1,5	6,6	45	12,1	48*	33*	31
1X2,5	7,0	60	7,41	63*	43*	19
1X4	7,6	75	4,61	82*	57*	12
1X6	8,2	100	3,08	102*	72*	7,8
1X10	9,2	145	1,83	89	77	4
1X16	10,5	205	1,15	115	102	2,5
1X25	12,5	310	0,727	148	138	1,55
1X35	13,5	405	0,524	177	170	1,15
1X50	15,0	530	0,387	209	207	0,84
1X70	17,0	735	0,268	256	263	0,58
1X95	19,0	995	0,193	307	325	0,44
1X120	21,0	1235	0,153	349	380	0,36
1X150	23,0	1515	0,124	393	437	0,30
1X185	25,5	1885	0,0991	445	507	0,26
1X240	28,5	2440	0,0754	516	604	0,21

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	CABLE WEIGHT (APPROX.)	MAXIMUM DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP
				IN GROUND	IN AIR	
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m
1X300	31,0	3030	0,0601	581	692	0,19
1X400	34,5	3845	0,0470	662	812	0,15
1X500	38,5	4890	0,0366	794	940	0,12
2X1,5	10,5	125	12,1	34*	27*	31
2X2,5	11,5	160	7,41	45*	36*	19
2X4	13,0	205	4,61	59*	46*	12
2X6	14,0	270	3,08	74*	57*	7,8
2X10	16,0	385	1,83	97*	79*	4,6
2X16	18,5	545	1,15	26*	107*	2,9
2X25	22,0	825	0,727	165*	147*	1,85
2X35	24,5	1070	0,524	204*	182*	1,15
3X1,5	11,0	145	12,1	34*	27*	31
3X2,5	12,5	185	7,41	45*	36*	19
3X4	13,5	245	4,61	59*	46*	12
3X6	15,0	330	3,08	74*	57*	7,8
3X10	17,0	495	1,83	97*	79*	4,6
3X16	19,5	685	1,15	126*	107*	2,9
3X25	23,5	1045	0,727	165*	147*	1,85
3X35	26,0	1375	0,524	174	162	1,15
3X50	29,0	1825	0,387	206	197	0,84
3X70	34,0	2555	0,268	254	250	0,58
3X95	38,5	3440	0,193	305	308	0,44
3X120	42,5	4150	0,153	348	359	0,36
3X150	47,5	5090	0,124	392	412	0,30
3X185	53,0	6320	0,0991	444	475	0,26
3X240	59,5	8465	0,0754	517	564	0,21
3X300	66,0	10150	0,0601	585	649	0,19
4X1,5	12,0	165	12,1	31	24	27
4X2,5	13,0	220	7,41	40	32	17
4X4	14,5	300	4,61	52	42	10
4X6	16,0	405	3,08	64	53	6,7
4X10	18,5	595	1,83	86	73	4
4X16	21,0	870	1,15	111	97	2,5
4X25	25,5	1330	0,727	145	132	1,55
4X35	28,5	1755	0,524	174	162	1,15
4X50	32,5	2340	0,387	206	197	0,84
4X70	37,5	3285	0,268	254	250	0,58
4X95	42,5	4430	0,193	305	308	0,44
4X120	47,5	5545	0,153	348	359	0,36

CONDUCTOR NOMINAL CROSS-SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	CABLE WEIGHT (APPROX.)	MAXIMUM DC RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP
				IN GROUND	IN AIR	
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m
4X150	52,5	6810	0,124	392	412	0,30
4X185	59,0	8450	0,0991	444	475	0,26
4X240	66,5	10800	0,0754	517	564	0,21
3X50+35	31,1	2175	0,387/0,524	206	197	0,84
3X70+50	36,2	3040	0,268/0,387	254	250	0,58
3X95+50	40,6	3915	0,193/0,387	305	308	0,44
3X120+70	45,4	4955	0,153/0,268	348	359	0,36
3X150+70	49,5	5955	0,124/0,268	392	412	0,30
3X185+70	54,4	7450	0,0991/0,268	444	475	0,26
3X240+95	61,5	9650	0,0754/0,193	517	564	0,21
5X1,5	13,0	200	12,1	31	24	27
5X2,5	14,5	270	7,41	40	32	17
5X4	16,0	360	4,61	52	42	10
5X6	17,5	495	3,08	64	53	6,7
5X10	20,0	725	1,83	86	73	4
5X16	23,0	1065	1,15	111	97	2,5
5X25	28,0	1640	0,727	145	132	1,55
7X1,5	13,5	250	12,1	19	17	27
7X2,5	15,0	325	7,41	25	23	17
7X4	16,5	470	4,61	33	30	10
12X1,5	17,0	345	12,1	15	13	27
12X2,5	19,5	475	7,41	21	19	17
12X4	21,5	700	4,61	27	23	10
19X1,5	19,5	495	12,1	13	11	27
19X2,5	22,5	695	7,41	19	17	17
19X4	25,0	1059	4,61	24	20	10
27X1,5	23,0	685	12,1	11	9	27
27X2,5	26,5	1000	7,41	17	15	17
37X1,5	25,5	875	12,1	10	8	27
37X2,5	29,5	1300	7,41	15	13	17

* cables in single phase

Note:

The above ratings are given for 30°C ambient temperature, 20°C ground temperature, thermal resistivity of soil 1Km/W. For other conditions the correction factors are given below:

Ambient Temperature °C:	12	20	25	35	40	45	50
Correction factor	1,22	1,15	1,08	0,91	0,82	0,71	0,58

Ground Temperature °C:	15	20	25	30	35	40
Correction factor	1,03	1,0	0,97	0,93	0,89	0,85

Ground thermal resistivity:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,08	1,00	0,94	0,86	0,77	0,70	0,64

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

POWER CABLES XLPE INSULATED PVC SHEATHED



1. Solid or stranded conductor
2. XLPE insulation
3. Fillers
4. Plastic tapes
5. PVC outersheath

TYPE OF CABLE:
VOLTAGE:
SPECIFICATION:

XLPE/PVC
600/1000 V
IEC 60502-1

Applications

Power cable for fixed installations in dry or wet places in the air or in the ground.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW	WITHOUT GREEN/YELLOW
2	-	BLUE, BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN, BLACK, GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE, BROWN, BLACK, GREY
5	GREEN/YELLOW, BLUE, BROWN, BLACK, GREY	BLUE, BROWN, BLACK, GREY, BLACK
>5	WHITE CORES WITH BLACK OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAYER OF THE LAID UP CORES	WHITE CORES WITH BLACK NUMBERS

Notes:

Conductors up to 16 mm² are round solid or stranded and compacted.

Conductors with cross section 25mm² or greater are round stranded and compacted with the exception of 2,3 and 4 core cables which have stranded sector shaped conductors.

HELLENIC CABLES S.A.

can also produce the following cables

- **XLPE** insulated lead sheathed armoured cables suitable for direct burial where cables may be subject to solvent penetration or attack by corrosive agents.

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	EXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				IN GROUND	IN AIR	1 PHASE AC or DC	3 PHASES AC
				A		mV/A/m	
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
1x1,5	6	50	12,1	44	31	31	27
1x2,5	6	60	7,41	58	40	19	17
1x4	6,5	80	4,61	75	53	12	10
1x6	7	100	3,08	94	66	7,9	6,8
1x10	8	145	1,83	125	91	4,7	4,1
1x16	9	205	1,15	162	120	2,9	2,6
1x25	10,5	300	0,727	210	162	1,9	1,65
1x35	11,5	400	0,524	253	199	1,35	1,15
1x50	13	525	0,387	300	242	1,00	0,87
1x70	15	730	0,268	368	310	0,69	0,60
1x95	17	990	0,193	441	383	0,52	0,45
1x120	18,5	1225	0,153	503	447	0,42	0,37
1x150	20,5	1505	0,124	567	513	0,35	0,30
1x185	22,5	1875	0,0991	643	595	0,29	0,25
1x240	25	2430	0,0754	750	713	0,24	0,21
1x300	29	3030	0,0601	850	822	0,22	0,19
1x400	32	3840	0,0470	980	976	0,20	0,18
1x500	35	4890	0,0366	1130	1153	0,19	0,17
1x630	39	6280	0,0283	1307	1367	0,18	0,16
2x1,5	9,5	130	12,1	34	27	31	-
2x2,5	10	160	7,41	45	36	19	-
2x4	11	205	4,61	59	46	12	-
2x6	12	260	3,08	74	57	7,9	-
2x10	14	370	1,83	97	79	4,7	-
2x16	17	590	1,15	126	107	2,9	-
2x25	17	625	0,727	165	147	1,9	-
2x35	18	810	0,524	204	182	1,35	-
2x50	20	1075	0,387	231	217	1,00	-
2x70	23	1500	0,268	284	280	0,69	-
2x95	26	2020	0,193	340	343	0,52	-
2x120	29	2515	0,153	383	394	0,42	-
2x150	31	3060	0,124	427	447	0,35	-
2x185	35	3840	0,0991	479	510	0,29	-
2x240	41	5010	0,0754	552	599	0,24	-
2x300	43	6170	0,0601	620	684	0,22	-
3x1,5	10	145	12,1	31	24	31	27
3x2,5	11	190	7,41	40	32	19	17
3x4	12	245	4,61	52	42	12	10
3x6	13	320	3,08	64	53	7,9	6,8
3x10	15	465	1,83	86	73	4,7	4,1
3x16	18	730	1,15	111	97	2,9	2,6
3x25	19	900	0,727	145	132	1,9	1,65
3x35	20	1175	0,524	174	162	1,35	1,15
3x50	24	1560	0,387	206	197	1,00	0,87
3x70	28	2205	0,268	254	250	0,69	0,60

CONDUCTOR NOMINAL CROSS- SECTIONAL AREA	ERXTERNAL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR DC RESISTANCE 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				IN GROUND	IN AIR	1 PHASE AC or DC	3 PHASES AC
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
3x95	31	2960	0,193	305	308	0,52	0,45
3x120	35	3690	0,153	348	359	0,42	0,37
3x150	37	4515	0,124	392	412	0,35	0,30
3x185	42	5670	0,0991	444	475	0,29	0,25
3x240	49	7400	0,0754	517	564	0,24	0,21
3x300	52	9125	0,0601	585	649	0,22	0,19
4x1,5	11	170	12,1	31	24	-	27
4x2,5	12	225	7,41	40	32	-	17
4x4	13	300	4,61	52	42	-	10
4x6	15	390	3,08	64	53	-	6,8
4x10	17	575	1,83	86	73	-	4,1
4x16	20	900	1,15	111	97	-	2,6
4x25	21	1160	0,727	145	132	-	1,65
4x35	23	1530	0,524	174	162	-	1,15
4x50	27	2060	0,387	206	197	-	0,87
4x70	31	2905	0,268	254	250	-	0,60
4x95	35	3905	0,193	305	308	-	0,45
4x120	39	4890	0,153	348	359	-	0,37
4x150	42	5960	0,124	392	412	-	0,30
4x185	48	7510	0,0991	444	475	-	0,25
4x240	55	9800	0,0754	517	564	-	0,21
3x25+16	21	1075	0,727/1,15	145	132	-	1,65
3x35+16	23	1350	0,524/1,15	174	162	-	1,15
3x50+25	27	1840	0,387/0,727	206	197	-	0,87
3x70+35	31	2570	0,268/0,524	254	250	-	0,60
3x95+50	35	3475	0,193/0,387	305	308	-	0,45
3x120+70	40	4415	0,153/0,268	348	359	-	0,37
3x150+70	42	5220	0,124/0,268	392	412	-	0,30
3x185+95	48	6650	0,0991/0,193	444	475	-	0,25
3x240+120	55	8620	0,0754/0,153	517	564	-	0,21
5x1,5	12	195	12,1	31	24	-	27
5x2,5	13	255	7,41	40	32	-	17
5x4	14	345	4,61	52	42	-	10
5x6	16	455	3,08	64	53	-	6,8
5x10	18	660	1,83	86	73	-	4,1
5x16	21	960	1,15	111	97	-	2,6
5x25	25	1460	0,727	145	132	-	1,65

Note: The above ratings are given for 30°C ambient temperature, temperature of ground 20°C and thermal resistivity of soil 1 Km/W. For other conditions, the correction factors are:

Air Temperature °C	15	20	25	35	40	45	50
Correction factor	1,17	1,12	1,06	0,94	0,87	0,79	0,71
Ground Temperature °C	15	20	25	30	35	40	
Correction factor	1,08	1,0	0,95	0,89	0,84	0,77	
Ground Thermal resistivity Km/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,07	1,0	0,93	0,87	0,79	0,71	0,65

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

PVC INSULATED AND SHEATHED FLEXIBLE CABLES FIRE RETARDANT



- 1. Flexible copper conductor
- 2. PVC insulation
- 3. PVC outersheath

TYPE OF CABLE: FROR
RATED VOLTAGE: 300/500V
STANDARD SPECIFICATION: IMQ CPT-007

Applications

Cables suited for controls and signalling insulated with polyvinylchloride. Flexible cables protected by a polyvinylchloride sheath which do not spread fire and emit a reduced quantity of corrosive gas.

Colours

Cores black with white or yellow numbers. The green/yellow is located in the outer layer of the laid up cores
 Outersheath: grey

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC 20° C	CURRENT CARRYING CAPACITY 30°C in air pipe	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	A	Ω/Km	mV/A/m	mV/A/m
7X1	10	173	19,5	9,5		41
10X1	12,9	258	19,5	8,5		41
12X1	13,3	286	19,5	7,5		41
14X1	14,2	327	19,5	7,0		41
16X1	14,9	361	19,5	7,0		41
19X1	15,8	419	19,5	6,5		41
24X1	18,6	533	19,5	6,0		41
27X1	29,2	586	19,5	5,5		41
7X1,5	11,8	245	13,3	12,0	-	25
10X1,5	15	354	13,3	11,0	-	25
12X1,5	15,7	402	13,3	10,5	-	25
14X1,5	16,5	449	13,3	9,0	-	25
16X1,5	17,5	507	13,3	8,5	-	25
19X1,5	18,4	577	13,3	8,0	-	25
24X1,5	21,8	746	13,3	7,0	-	25
27X1,5	22,5	820	13,3	7,0	-	25

PVC INSULATED AND SHEATHED FLEXIBLE CABLES FIRE RETARDANT



1. Flexible copper conductor
2. PVC insulation
3. PVC outersheath

TYPE OF CABLE: FROR
RATED VOLTAGE: 450/750V
STANDARD SPECIFICATION: IMQ CPT-007

Applications

Fire retardant cables suited for energy transmission and with PVC emit a low quantity of corrosive gas.

Colours

NUMBER OF CORES	CORE IDENTIFICATION
2	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN
4	GREEN/YELLOW - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE, BROWN, BLACK, GREY
Outersheath: GREY	

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC 20° C	CURRENT CARRYING CAPACITY 30°C in air	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m	
2X1	7,8	97	19,5	14	47	-
2X1,5	8,4	115	13,3	18	29	-
2X2,5	10,2	171	7,98	24	18	-
3X1	8,3	111	19,5	14	47	41
3X1,5	8,9	134	13,3	18	29	25
3X2,5	10,7	200	7,98	24	18	15
4X1	9,2	132	19,5	13	-	41
4X1,5	10,1	165	13,3	16	-	25
4X2,5	11,9	240	7,98	22	-	15
5X1	10	157	19,5	13	-	41
5X1,5	10,9	197	13,3	16	-	25
2X4	11,2	221	4,95	32	11	-
2X6	13,4	311	3,3	41	7,3	-
3X4	12,1	269	4,95	32	11	9,5
3X6	14,5	377	3,3	41	7,3	6,4
4X4	13,4	325	4,95	30	-	9,5
4X6	16,1	457	3,3	39	-	6,4
5X2,5	3	286	7,98	22	-	15
5X4	14,8	376	4,95	30	-	9,5
5X6	17,5	544	3,3	39	-	6,4

PVC INSULATED AND SHEATHED FLEXIBLE CABLES



- 1. Flexible copper conductor
- 2. PVC insulation
- 3. Inner covering
- 4. PVC outersheath

TYPE OF CABLE: N1VV-K
RATED VOLTAGE: 600/1000V
STANDARD SPECIFICATION: CEI-UNEL 35756

Applications

Cables suitable for energy transmission and signalling which do not spread fire and emit a reduced quantity of corrosive gas. Suitable for installation with flexible conductors.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW CORE	WITHOUT GREEN/YELLOW CORE
1	GREEN/YELLOW	BLACK
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY - BLACK
above 5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS
Outersheath : BLUE		

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				30°C in air pipe	20°C in ground	1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
2X1,5	10,4	163	13,3	16,5	22	29	-
2X2,5	11,4	202	7,98	23	29	18	-
2X4	13,2	282	4,95	30	38	11	-
2X6	15,2	375	3,3	38	47	7,3	-
2X10	16,6	495	1,91	54	63	4,4	-
2X16	20	717	1,21	65	81	2,8	-
3X1,5	11	184	13,3	15	18	29	25
3X2,5	12	232	7,98	20	24	18	15
3X4	14	328	4,95	27	31	11	9,5
3X6	17	438	3,3	34	39	7,3	6,4
3X10	18	594	1,91	46	52	4,4	3,8
3X16	22	864	1,21	62	67	2,8	2,4
4X1,5	12	218,5	13,3	15	18	-	25
4X2,5	13,5	278,5	7,98	20	24	-	15
4X4	16	198	4,95	27	31	-	9,5
4X6	18	535	3,3	34	39	-	6,4
4X10	20	734	1,91	46	52	-	3,8
4X16	24	1074	1,21	62	67	-	2,4
5X1,5	13	253	13,3	15	18	-	25
5X2,5	14	325	7,98	20	24	-	15
5X4	17	469	4,95	27	31	-	9,5
5X6	20	635	3,3	34	39	-	6,4
5X10	22	880	1,91	46	52	-	3,8
5X16	26	1295	1,21	62	67	-	2,4
2X25	24	1040	0,78	90	104	1,75	-
2X35	27	1321	0,554	111	125	1,25	-
2X50	31	1826	0,386	135	148	0,94	-
2X70	35	2400	0,272	160	171	0,65	-
3X25	26	1264	0,78	80	86	1,75	1,5
3X35	28	1628	0,554	89	103	1,25	1,1
3X35+1X25	31	1922	0,554/0,78	111	109	-	1,1
3X50	33	2259	0,386	118	122	0,94	0,81
3X50 +1X25	35	2518	0,386/0,78	135	127	-	0,81
3X70	38	3038	0,272	149	151	0,65	0,57
3X70+1X35	40	3361	0,272/0,554	172	157	-	0,57
3X95	42	3936	0,206	179	179	0,49	0,42
3X95+1X50	46	4444	0,206/0,386	207	190	-	0,42
4X25	29	1574	0,78	80	86	-	1,5
5X25	31	1906	0,78	80	86	-	1,5

RUBBER INSULATED AND PVC SHEATHED FLEXIBLE CABLES FIRE RETARDANT WITH REDUCED EMISSION OF CORROSIVE GAS



1. Flexible copper conductor
2. EPR insulation
3. PVC outersheath

TYPE OF CABLE: FG70R
RATED VOLTAGE: 600/1000V
STANDARD SPECIFICATION: CEI-UNEL 35375

Application

Cables suited for energy transmission, signalling and control insulated with high quality ethylene propylene rubber, do not spread fire and emit a reduced quantity of corrosive gas. Cables with flexible or rigid conductors for fixed installation.

Colours

NUMBER OF CORES	
1	BLACK
2	BLUE - BROWN
3	BLUE - BROWN - BLACK OR BLUE - BLACK - GREEN/YELLOW
4	BLUE - BROWN - BLACK OR BLUE - BROWN - BLACK - GREEN/YELLOW
5	BLUE - BROWN - BLACK - BLACK - GREEN/YELLOW
>5	BLACK CORES WITH WHITE OR YELLOW NUMBERS
	Outersheath : GREY

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	APPROX. NET WEIGHT	MAXIMUM CONDUCTOR RESISTANCE DC AT 20° C	CONTINUOUS CURRENT CARRYING CAPACITY		VOLTAGE DROP	
				30°C in air pipe	20°C in ground	1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
1X1,5	5,8	52	13,3	20	26	7,9	27
1X2,5	6,3	65	7,98	28	34	4,7	16
1X4	6,8	83	4,95	37	44	2,9	10
2X1,5	9,6	139	13,3	22	24	31	-
2X2,5	10,6	176	7,98	30	31	19	-
2X4	11,6	224	4,95	40	41	12	
3X1,5	10,1	156	13,3	19,5	22	31	27
3X2,5	11,1	201	7,98	26	29	19	16
3X4	12,3	262	4,95	35	37	12	9.5
4X1,5	11,1	183	13,3	19,5	22	31	27
4X2,5	12,2	238	7,98	26	29	19	16
5X1,5	11,7	207	13,3	19,5	22	11	27
1X6	7,8	109	3,3	48	56	-	6.8
1X10	8,5	153	1,91	66	73	-	4
1X16	10,2	220	1,21	88	95	-	2.5

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC AT 20° C	CONTINUOUS CURRENT RATING		VOLTAGE DROP	
				30°C in air pipe	20°C in ground	1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A		mV/A/m	
1X25	12,1	318	0,78	117	121	1,9	1,65
1X35	13,3	416	0,554	144	146	1,35	1,15
1X50	15,3	569	0,386	175	173	1	0,87
1X70	17,4	773	0,272	222	213	0,69	0,6
1X95	19,3	995	0,206	269	252	0,52	0,45
1X120	22,2	1265	0,161	312	287	0,42	0,37
1X150	24,3	1568	0,129	355	324	0,35	0,3
1X185	27,4	1915	0,106	417	363	0,29	0,26
1X240	30,5	2487	0,0801	490	419	0,24	0,21
2X6	13,6	307	3,3	51	52	7,9	-
2X10	15,4	438	1,91	69	71	4,7	-
2X16	18,8	648	1,21	91	92	2,9	-
2X25	22,6	949	0,78	119	124	1,9	-
2X35	25,0	1222	0,554	146	150	1,35	-
2X50	29,0	1674	0,386	175	180	1	-
3X6	14,4	360	3,3	44	46	7,9	6,8
3X10	16,3	527	1,91	60	61	4,7	4
3X16	20,0	781	1,21	80	75	2,9	2,5
3X25	24,1	1151	0,78	105	101	1,9	1,65
3X35	26,7	1501	0,554	128	122	1,35	1,15
3X50	31,0	2068	0,386	154	144	1	0,87
3X70	35,8	2832	0,272	194	178	0,69	0,6
3X95	39,6	3613	0,206	233	211	0,52	0,45
3X120	46,1	4693	0,161	268	240	0,42	0,37
3X150	50,6	5801	0,129	300	271	0,35	0,3
4X4	13,5	314	4,95	35	37	-	10
4X6	16,0	433	3,3	44	46	-	6,8
4X10	18,2	642	1,91	60	61	-	4
4X16	22,4	955	1,21	80	75	-	2,5
4X25	27,1	1413	0,78	105	101	-	1,65
5X2,5	13,0	272	7,98	26	29	-	16
5X4	14,4	363	4,95	35	37	-	10
5X6	17,1	503	3,3	44	46	-	6,8
5X10	19,4	754	1,91	60	61	-	4
5X16	24,0	1126	1,21	80	75	-	2,5
5X25	29,1	1673	0,78	105	101	-	1,65
5X35	32,4	2207	0,554	130	120	-	1,15
5X50	38,2	3104	0,386	158	140	-	0,87
3X35+1X25	29,3	1744	0,554/0,78	130	126	-	1,15
3X50+1X25	33,0	2273	0,386/0,78	155	150	-	0,87
3X70+1X35	37,9	3102	0,272/0,554	194	190	-	0,6
3X95+1X50	42,7	4050	0,206/0,386	235	232	-	0,45
3X120+1X70	49,3	5250	0,161/0,272	267	265	-	0,37
3X150+1X95	54,4	6562	0,129/0,206	295	300	-	0,3

RUBBER INSULATED AND SHEATHED FLEXIBLE CABLES



- 1. Flexible conductor
- 2. EPR insulation
- 3. PCP oversheath

TYPE OF CABLE: H07RN-F
RATED VOLTAGE: 450/750 V
STANDARD SPECIFICATION: HD 22.4 - BS 6007 - BS 6500

Applications

In dry, humid or moist rooms; in open air; in workshops having an explosive atmosphere for medium mechanical stresses. In industrial and agricultural workshop appliances, heating installations, inspection lamps, electric tools such as drills, circular saws, domestic electric tools and also for transportable motors or machines on building sites and in agricultural workings. For fixed installations, for the wiring of constructional components in lifting appliances and machinery.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW	WITHOUT GREEN/YELLOW
1	G/Y	BLACK
2	-	BLUE, BROWN
3	G/Y, BLUE, BROWN	BROWN, BLACK, GREY
4	G/Y, BROWN, BLACK, GREY	BLUE, BROWN, BLACK, GREY
5	G/Y, BLUE, BROWN, BLACK, GREY	BLUE, BROWN, BLACK, GREY, BLACK
above 5	G/Y, BLACK WITH NUMBERS	BLACK WITH NUMBERS



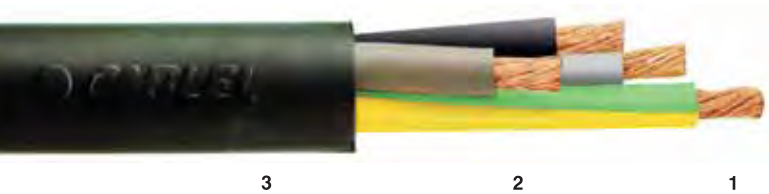
NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m	
1x1,5	7,2	55	13,7	22	31	27
1x2,5	8,0	75	8,21	31	19	17
1x4	9,0	100	5,09	41	12	10
1x6	11,0	135	3,39	53	7,8	6,7
1x10	12,5	200	1,95	73	4,6	4
1x16	14,5	275	1,24	98	2,9	2,5
1x25	16,5	390	0,795	129	1,85	1,55
1x35	18,5	515	0,565	158	1,37	1,15
1x50	21,0	720	0,393	198	1,02	0,84
1x70	23,5	950	0,277	245	0,71	0,58
1x95	26,0	1220	0,210	292	0,53	0,44
1x120	28,5	1550	0,164	344	0,44	0,36
1x150	31,5	1900	0,132	391	0,37	0,30
1x185	34,5	2430	0,108	448	0,33	0,26
1x240	38,0	2960	0,0817	528	0,26	0,21
1x300	41,5	3715	0,0654	608	0,24	0,19
1x400	46,5	4630	0,0495	715	0,19	0,15
1x500	51,5	5700	0,0391	820	0,15	0,12
2x1	10,5	120	20,0	15	48	-
2x1,5	11,5	130	13,7	18	31	-
2x2,5	13,5	185	8,21	26	19	-
2x4	15,0	255	5,09	34	12	-
2x6	18,5	355	3,39	44	7,8	-
2x10	24,0	665	1,95	61	4,6	-
2x16	27,5	855	1,24	82	2,9	-
2x25	31,5	1230	0,795	108	1,85	-
3x1	11,5	140	20,0	15	48	42
3x1,5	12,5	155	13,7	18	31	27
3x2,5	14,5	225	8,21	26	19	17
3x4	16,0	310	5,09	34	12	10
3x6	20,0	430	3,39	44	7,8	6,7
3x10	25,5	800	1,95	61	4,6	4
3x16	29,5	1050	1,24	82	2,9	2,5
3x25	34,0	1510	0,795	108	1,85	1,55
3x35	38,0	1940	0,565	135	1,37	1,15
3x50	44,0	2700	0,393	168	1,02	0,84
3x70	49,5	3535	0,277	207	0,71	0,58
3x95	54,0	4575	0,210	250	0,53	0,44
3x120	59,0	6120	0,164	292	0,44	0,36
3x150	66,5	6970	0,132	335	0,37	0,30
3x185	71,5	9130	0,108	382	0,33	0,26
3x240	81,0	11370	0,0817	453	0,26	0,21
3x300	89,5	14205	0,0654	523	0,24	0,19

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m	
4x1	12,5	170	20,0	15	-	42
4x1,5	13,5	190	13,7	18	-	27
4x2,5	15,5	270	8,21	26	-	17
4x4	18,0	380	5,09	34	-	10
4x6	22,0	535	3,39	44	-	6,7
4x10	28,0	965	1,95	61	-	4
4x16	32,0	1275	1,24	82	-	2,5
4x25	37,5	1875	0,795	108	-	1,55
4x35	42,0	2415	0,565	135	-	1,15
4x50	48,0	3580	0,393	168	-	0,84
4x70	54,5	4435	0,277	207	-	0,58
4x95	60,5	5720	0,210	250	-	0,44
4x120	65,5	7600	0,164	292	-	0,36
4x150	74,0	8960	0,132	335	-	0,30
4x185	79,5	11480	0,108	382	-	0,26
4x240	90,0	14260	0,0817	453	-	0,21
4x300	99,5	17845	0,0654	523	-	0,19
5x1	13,5	190	20,0	15	-	42
5x1,5	15,0	215	13,7	18	-	27
5x2,5	17,5	315	8,21	26	-	17
5x4	19,5	445	5,09	34	-	10
5x6	24,5	630	3,39	44	-	6,7
5x10	30,5	1115	1,95	61	-	4
5x16	35,5	1520	1,24	82	-	2,5
5x25	41,5	2235	0,795	108	-	1,55
7x1,5	17,5	330	13,7	-	-	27
7x2,5	20,0	475	8,21	-	-	17
12x1,5	23,0	535	13,7	-	-	27
12x2,5	26,5	770	8,21	-	-	17
18x1,5	26,5	900	13,7	-	-	27
18x2,5	31,5	1180	8,21	-	-	17
27x1,5	31,5	1110	13,7	-	-	27
27x2,5	37,0	1590	8,21	-	-	17
36x1,5	36,0	1320	13,7	-	-	27
36x2,5	41,5	2000	8,21	-	-	17

Note: The above ratings are given for 30°C ambient temperature. For other ambient temperatures the correction factor is:

Temperature °C	15	20	25	35	40	45	50
Correction factor	1,22	1,15	1,08	0,91	0,82	0,71	0,58

WATER RESISTANT RUBBER INSULATED AND SHEATHED FLEXIBLE CABLES



- 1. Flexible conductor
- 2. EPR insulation
- 3. PCP oversheath

TYPE OF CABLE: H07RN8-F
RATED VOLTAGE: 450/750V
STANDARD SPECIFICATION: HD 22.16

Applications

In dry, humid or moist rooms; in open air; in workshops having an explosive atmosphere for medium mechanical stresses. In industrial and agricultural workshop appliances, heating installations, inspection lamps, electric tools such as drills, circular saws, domestic electric tools and also for transportable motors or machines on building sites and in agricultural workings. For fixed installations, for the wiring of constructional components in lifting appliances and machinery. Particularly for use in fresh water up to 10m depth and a maximum water temperature up to 40°C such as the connection of submersible pumps or similar applications.

Colours

NUMBER OF CORES	WITH GREEN/YELLOW	WITHOUT GREEN/YELLOW
1	G/Y	BLACK
2	-	BLUE, BROWN
3	G/Y, BLUE, BROWN	BROWN, BLACK, GREY
4	G/Y, BROWN, BLACK, GREY	BLUE, BROWN, BLACK, GREY
5	G/Y, BLUE, BROWN, BLACK, GREY	BLUE, BROWN, BLACK, GREY, BLACK
above 5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	mV	mV
1X1,5	7,1	55	13,7	24	31	27
1X2,5	7,9	75	8,21	33	19	17
1X4	9,0	100	5,09	45	12	10
1X6	9,8	135	3,39	58	7,8	6,7
1X10	11,9	200	1,95	80	4,6	4
1X16	13,4	275	1,24	107	2,9	2,5
1X25	15,8	390	0,795	142	1,85	1,55
1X35	17,9	515	0,565	175	1,37	1,15
1X50	20,6	720	0,393	212	1,02	0,84
1X70	23,3	950	0,277	270	0,71	0,58
1X95	26,0	1220	0,210	327	0,53	0,44
1X120	28,6	1550	0,164	379	0,44	0,36
1X150	31,4	1900	0,132	435	0,37	0,30
1X185	34,4	2430	0,108	496	0,33	0,26
1X240	38,3	2960	0,0187	584	0,26	0,21
1X300	41,9	3715	0,0654	665	0,24	0,19
1X400	46,8	4630	0,0495	785	0,19	0,15
1X500	52,0	5700	0,0391	900	0,15	0,12
2X1	10,0	120	20,0	19	48	-
2X1,5	11,0	130	13,7	24	31	-
2X2,5	13,1	185	8,21	33	19	-
2X4	15,1	255	5,09	45	12	-
2X6	16,8	355	3,39	58	7,8	-
2X10	22,6	665	1,95	80	4,6	-
2X16	25,7	855	1,24	107	2,9	-
2X25	30,7	230	0,795	142	1,85	-
3X1	10,7	140	20,0	19	48	42
3X1,5	11,9	155	13,7	24	31	27
3X2,5	14,0	225	8,21	33	19	17
3X4	16,2	310	5,09	45	12	10
3X6	18,0	430	3,39	58	7,8	6,7
3X10	24,2	800	1,95	80	4,6	4
3X16	27,6	1050	1,24	107	2,9	2,5
3X25	33,0	1510	0,79	142	1,85	1,55
3X35	37,1	1940	0,565	175	1,37	1,15
3X50	42,9	2700	0,393	212	1,02	0,84
3X70	48,3	3535	0,277	271	0,71	0,58
3X95	54,0	4575	0,210	328	0,53	0,44
3X120	60,0	6120	0,164	382	0,44	0,36
3X150	66,0	6970	0,132	441	0,37	0,30
3X185	72,0	9130	0,108	506	0,33	0,26
3X240	82,0	11370	0,0187	599	0,26	0,21
3X300	90,0	14205	0,0654	693	0,24	0,19
4X1	11,9	170	20,0	17	-	42
4X1,5	13,1	190	13,7	22	-	27

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER MAX	NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP	
					1 PHASE	3 PHASES
mm ²	mm	Kg/Km	Ω/Km	A	mV	mV
4X2,5	15,5	270	8,21	30	-	17
4X4	17,9	380	5,09	40	-	10
4X6	20,0	535	3,39	52	-	6,7
4X10	26,5	965	1,95	71	-	4
4X16	30,1	1275	1,24	96	-	2,5
4X25	36,6	1875	0,795	127	-	1,55
4X35	41,1	2415	0,565	157	-	1,15
4X50	47,5	3589	0,393	190	-	0,84
4X70	54,0	4435	0,277	242	-	0,58
4X95	61,0	5720	0,210	293	-	0,44
4X120	66,0	7600	0,164	341	-	0,36
4X150	73,0	8960	0,132	394	-	0,30
4X185	80,0	11480	0,108	427	-	0,26
4X240	91,0	14260	0,0187	534	-	0,21
4X300	101,0	17845	0,0654	618	-	0,19
5X1	13,1	190	20,0	15	-	42
5X1,5	14,4	215	13,7	20	-	27
5X2,5	17,0	315	8,21	28	-	17
5X4	19,9	445	5,09	37	-	10
5X6	22,2	630	3,39	46	-	6,7
5X10	29,1	1115	1,95	65	-	4
5X16	33,3	1520	1,24	88	-	2,5
5X25	40,4	2235	0,795	117	-	1,55
7X1,5	17,5	330	13,7	16	-	27
7X2,5	20,0	475	8,21	22	-	17
12X1,5	22,4	535	13,7	13	-	27
12X2,5	26,2	770	8,21	18	-	17
18X1,5	26,3	900	13,7	12	-	27
18X2,5	30,9	1180	8,21	16	-	17
27X1,5	31,5	1110	13,7	10	-	27
27X2,5	37,0	1590	8,21	14	-	17
36X1,5	35,2	1320	13,7	9	-	27
36X2,5	41,8	2000	8,21	13	-	17

Note: The above ratings are given for 30°C ambient temperature. For other ambient temperature the correction factor is:

Temperature °C	15	20	25	30	35	40	45	50
Correction factor	1,22	1,15	1,08	1,0	0,91	0,82	0,71	0,58

ARC WELDING CABLES



- 1. Extra flexible conductor class 5
- 2. Separator tape (optional)
- 3. Elastomer insulation

TYPE OF CABLE: H01N2-D
VOLTAGE: 100 V
SPECIFICATIONS: HD 22.6

Applications

Suitable for connections between the industrial welding power source and the electrode holder and the work piece.

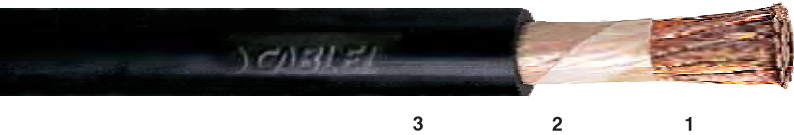
NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER		NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP
	MIN	MAX				
mm ²	mm	mm	Kg/Km	Ω/Km	A	mV/A/m
1x10	7,7	9,7	155	1,91	96	2,45
1x16	8,8	11,0	225	1,21	130	1,56
1x25	10,1	12,7	320	0,780	173	0,998
1x35	11,4	14,2	420	0,554	216	0,709
1x50	13,2	16,5	575	0,386	274	0,493
1x70	15,3	19,2	795	0,272	341	0,348
1x95	17,1	21,4	1045	0,206	413	0,264
1x120	19,2	24,0	1305	0,161	480	0,206
1x150	23,1	28,9	1605	0,129	557	0,166

Note: The current rating is given for a duty cycle of 100% and ambient temperature 25° C. For different cycle the current rating is calculated with the formula: $I_F = I_C \cdot F$. For other ambient temperatures the correction factor is:

Temperature °C	15	20	30	35	40	45
Correction factor	1,09	1,04	0,96	0,91	0,87	0,82



ARC WELDING CABLES



- 1. Extra flexible conductor class 6
- 2. Separator tape (optional)
- 3. Elastomer insulation

TYPE OF CABLE: H01N2-E
VOLTAGE: 100 V
SPECIFICATIONS: HD 22.6

Applications

Suitable for connections between the industrial welding power source and the electrode holder and the work piece. Extra flexible conductor.

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER		NET WEIGHT (APPROX.)	MAXIMUM CONDUCTOR RESISTANCE DC 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP
	MIN	MAX				
mm ²	mm	mm	Kg/Km	Ω/Km	A	mV/A/m
1x10	6,2	7,8	125	1,91	96	2,45
1x16	7,3	9,1	190	1,21	130	1,56
1x25	8,6	10,8	275	0,780	173	0,998
1x35	9,8	12,3	370	0,554	216	0,709
1x50	11,9	14,8	530	0,386	274	0,493
1x70	13,6	17,8	730	0,272	341	0,348
1x95	15,6	19,5	980	0,206	413	0,264
1x120	17,2	21,6	1230	0,161	480	0,206
1x150	18,8	23,5	1510	0,129	557	0,166

Note: The current rating is given for a duty cycle of 100% and ambient temperature 25° C. For different cycle the current rating is calculated with the formula: $I_f = I_c \cdot F$. For other ambient temperatures the correction factor is:

Temperature °C	15	20	30	35	40	45
Correction factor	1,09	1,04	0,96	0,91	0,87	0,82

RUBBER INSULATED AND SHEATHED FLEXIBLE CABLES



1. Fine stranded, tinned copper conductor
2. EPDM Rubber Insulation
3. Chloroprene Rubber Inner Sheath
4. Textile or Polyester Tape
5. Special Chloroprene Rubber oversheath

TYPE OF CABLE:

VOLTAGE:

STANDARD SPECIFICATION:

NSSHou

600/1000V

VDE: 0250 Part 812

Applications

Suitable for heavy electrical appliances under considerable mechanical stress, in outdoor mining, construction or industrial applications and for indoor or outdoor use in dry or wet conditions

Colours

NUMBER OF CORES	WITH GREEN/YELLOW CORE	WITHOUT GREEN/YELLOW CORE
1	GREEN/YELLOW	BLACK
2	-	BLUE, BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN, BLACK, GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE, BROWN, BLACK, GREY
5	GREEN/YELLOW, BLUE, BROWN, BLACK, GREY	BLUE, BROWN, BLACK, GREY, BLACK
>5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS



NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER APPR.	NET WEIGHT (APPROX.)	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING	VOLTAGE DROP SINGLE PHASE AC	VOLTAGE DROP THREE PHASE AC
mm ²	mm	Kg/Km	Ω/Km	A	mV/A/m	mV/A/m
1X16	11,7	255	1,24	99	3,1	2,7
1X25	14,2	285	0,795	131	2	1,7
1X35	15,6	500	0,565	162	1,42	1,2
1X50	17,8	675	0,393	202	0,99	0,91
1X70	20,1	905	0,277	250	0,7	0,63
1X95	22,2	1150	0,21	301	0,53	0,48
1X120	25,5	1470	0,164	352	0,41	0,39
3X1,5	12,2	205	13,7	23	-	29,4
3X2,5	13,6	270	8,21	30	-	17,4
3X4	16,4	395	5,09	41	-	11
3X70+1X35	47,3	4040	0,277/0,565	250	-	0,63/1,2
3X95+1X50	54,4	5370	0,21/0,393	301	-	0,48/0,91
4X1,5	13,2	240	13,7	23	-	29,4
4X2,5	16,1	360	8,21	30	-	17,4
4X4	17,9	470	5,09	41	-	11
4X6	20,3	610	3,39	53	-	7,3
4X10	23,9	910	1,95	74	-	4,3
4X16	29,1	1345	1,24	99	-	2,7
4X25	35,2	2030	0,95	131	-	1,7
4X35	38,3	2540	0,565	162	-	1,2
4X50	45,1	3510	0,393	202	-	0,91
5X1,5	13,9	270	13,7	17	-	29,4
5X2,5	16,9	410	8,21	23	-	17,4
5X4	18,9	535	5,09	31	-	11
5X6	22,4	745	3,39	40	-	7,3
5X10	25,3	1055	1,95	56	-	4,3
5X16	30,9	1560	1,24	74	-	2,7
7X1,5	16,1	370	13,7	15	-	29,4
7X2,5	18,1	495	8,21	20	-	17,4
10X1,5	19,3	500	13,7	13	-	29,4
12X2,5	23,4	790	8,21	15	-	17,4
18X2,5	27,6	1125	8,21	14	-	17,4

Note: The above ratings are given for up to 4 loaded cores and for 30°C ambient temperature. For other ambient temperatures the correction factor is:

Temperature °C	20	25	30	35	40	45	50
Correction factor	1,15	1,08	1,0	0,91	0,82	0,71	0,58

The above data refers to cables with tinned copper conductors

RUBBER INSULATED AND SHEATHED* FLEXIBLE CABLES



1. Fine stranded, tinned copper conductor
2. EPDM Rubber Insulation
3. Protective conductor
4. Chloroprene Rubber Inner Sheath
5. Special Chloroprene Rubber oversheath

TYPE OF CABLE:

NTSWou

VOLTAGE:

600/1000V

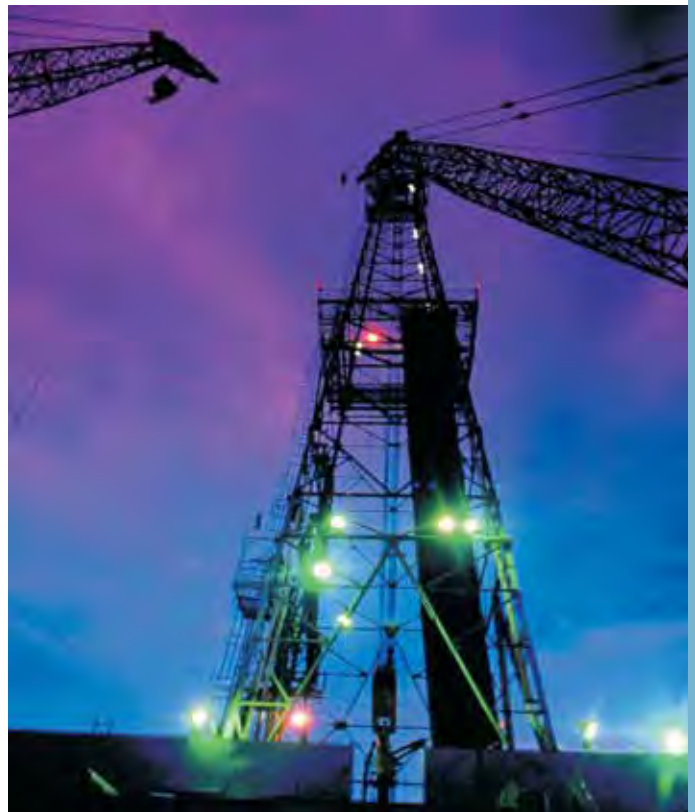
STANDARD SPECIFICATION: VDE: 0250 Part 813

Applications

Suitable for heavy electrical appliances under mechanical stress, in construction or industrial applications and for indoor or outdoor use in dry or wet conditions .

Colours

NUMBER OF CORES	WITH GREEN/YELLOW	WITHOUT GREEN/YELLOW
1	GREEN/YELLOW	BLACK
2	-	BLUE - BROWN
3	GREEN/YELLOW - BLUE - BROWN	BROWN - BLACK - GREY
4	GREEN/YELLOW - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY
5	GREEN/YELLOW - BLUE - BROWN - BLACK - GREY	BLUE - BROWN - BLACK - GREY - BLACK
above 5	BLACK CORES WITH WHITE OR YELLOW NUMBERS, THE GREEN/YELLOW CORE IS LOCATED IN THE OUTER LAID UP CORES	BLACK CORES WITH WHITE OR YELLOW NUMBERS



RUBBER INSULATED AND SHEATHED FLEXIBLE CABLES



1. Fine stranded, tinned copper conductor
2. EPDM Rubber Insulation
3. Textile Tape
4. Chloroprene Rubber oversheath

TYPE OF CABLE:

NSGAFOU

VOLTAGE:

1,8/3,3 KV

STANDARD SPECIFICATION:

VDE 0250 Part 602

Applications

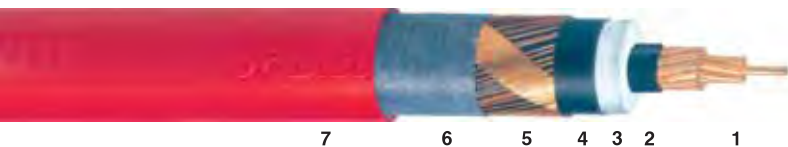
In dry rooms, in conduits and closed installations ducts as well as for connecting moving parts. In switching systems and distribution for low voltage networks up to 1000 V as short circuit and inherently earth-fault-proof.

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT	MAX. CONDUCTOR RESISTANCE AT 20° C	CONTINUOUS CURRENT RATING IN AIR
mm ²	mm	Kg/Km	Ω/Km	A
1X1,5	5,9	51	13,7	30
1X2,5	6,3	64	8,21	41
1X4	6,9	81	5,09	55
1X6	7,9	108	3,39	70
1X10	9,0	160	1,95	98
1X16	10,7	230	1,24	132
1X25	13,2	352	0,795	178
1X35	14,4	456	0,565	218
1X50	16,2	610	0,393	276
1X70	18,1	813	0,277	347
1X95	20,6	1068	0,21	416
1X120	23,3	1342	0,164	488
1X150	25,2	1648	0,132	566
1X185	28,3	2012	0,108	644
1X240	31,4	2600	0,0817	775
1X300	35,1	3266	0,0654	898

Note: The above ratings are given for 30°C ambient temperature. For other ambient temperatures, the correction factor is:

Temperature °C	10	15	20	25	30	35	40	45	50	55	60
Correction factor	1,15	1,12	1,08	1,04	1	0,96	0,82	0,71	0,58	0,58	0,58

XLPE INSULATED PVC SHEATHED CABLES



1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive conductor screen
5. Copper wires wrapped with a copper tape
6. Plastic tape
7. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CWS/PVC
6/10 kV
IEC 60502-2

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20°C	CURRENT CARRYING CAPACITY (EARTH)	CONTINUOUS CURRENT CARRYING CAPACITY (IN AIR)
mm ²	mm	kg/km	Ω/km	A	A
1X25/16	21	750	0,727	163	171
1X35/16	22	850	0,524	187	197
1X50/16	24	1000	0,387	220	236
1X70/16	25	1250	0,268	268	294
1X95/16	27	1500	0,193	320	358
1X120/16	29	1750	0,153	363	413
1X150/25	30	2150	0,124	405	468
1X185/25	32	2500	0,0991	456	535
1X240/25	35	3100	0,0754	526	631
1X300/25	38	3750	0,0601	591	722
1X400/35	40	4650	0,047	662	827
3X25/16	43	2000	0,727	157	147
3X35/16	45	2400	0,524	181	178
3X50/16	48	2950	0,387	213	213
3X70/16	52	3900	0,268	261	265
3X95/16	55	4800	0,193	312	322
3X120/16	59	5750	0,153	355	370
3X150/25	62	6600	0,124	399	420
3X185/25	66	7850	0,0991	451	481
3X240/25	72	9750	0,0754	523	566

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7.
For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

Note:

- 1) The cables above can be manufactured with different screen cross sections, aluminium conductors, PE oversheaths, longitudinally waterblocked conductors and - for single core cables-longitudinally and radially waterblocked screens.
- 2) CU/XLPE/CWS/PVC cables can be manufactured fire retardant, meeting IEC 60332-3 Cat "C" fire test requirements.
- 3) The above ratings are given cables with copper conductors and for 30°C ambient temperature, 20°C ground temperature 0,8m depth and $\rho=1,0K m/W$ and in trefoil formation of the cables (single core). For other ambient or ground temperatures the correction factor is:

Ambient Temperature °C:	15	20	25	30	35	40	45	50
Correction factor	1,14	1,09	1,04	1,0	0,96	0,91	0,87	0,82

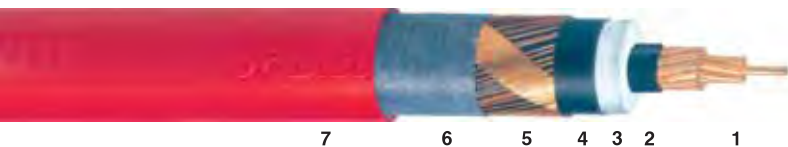
Ground Temperature °C:	15	20	25	30	35	40
Correction factor	1,09	1,0	0,97	0,93	0,89	0,85

Soil thermal resistivity Km/W	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,05	1,04	0,93	0,84	0,75	0,67	0,62

Depth of burial m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,92	0,9	0,89



XLPE INSULATED PVC SHEATHED CABLES



1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive conductor screen
5. Copper wires wrapped with a copper tape
laid with an open helix over core
6. Plastic tape
7. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CWS/PVC
12/20 kV
IEC 60502-2

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20°C	CURRENT CARRYING CAPACITY (EARTH)	CONTINUOUS CURRENT CARRYING CAPACITY (IN AIR)
mm ²	mm	kg/km	Ω/km	A	A
1X35/16	26	960	0,524	189	200
1X50/16	28	1120	0,387	222	239
1X70/16	29	1380	0,268	271	297
1X95/16	31	1845	0,193	323	361
1X120/16	33	1900	0,153	367	416
1X150/25	34	2275	0,124	409	470
1X185/25	35	2510	0,0991	461	538
1X240/25	36	3190	0,0754	532	634
1X300/25	41	3900	0,0601	599	724
1X400/35	44	4850	0,047	671	829
3X35/16	54	3020	0,524	191	198
3X50/16	57	3600	0,387	224	237
3X70/16	60	4400	0,268	273	292
3X95/16	65	5300	0,193	328	352
3X120/16	68	6250	0,153	371	407
3X150/25	72	7330	0,124	415	462
3X185/25	77	9200	0,0991	470	534
3X240/25	81	10450	0,0754	546	627

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7.
For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

Note:

1) The cables above can be manufactured with different screen cross sections, aluminium conductors, PE oversheaths, longitudinally waterblocked conductors and - for single core cables-longitudinally and radially waterblocked screens.

2) CU/XLPE/CWS/PVC cables can be manufactured fire retardant, meeting IEC 60332-3 Cat "C" fire test requirements.

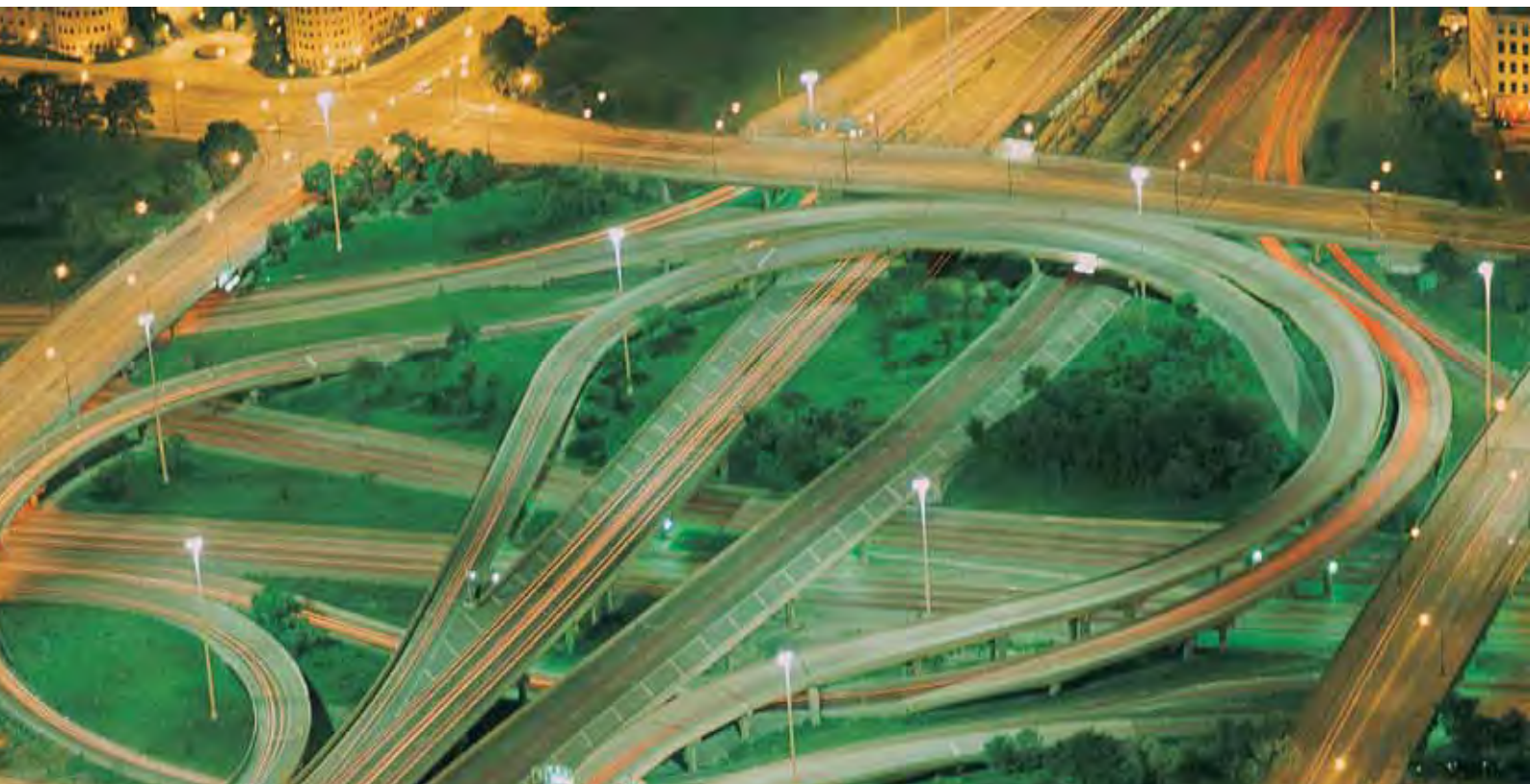
3) The above ratings are given cables with copper conductors and for 30°C ambient temperature, 20°C ground temperature 0,8m depth and $\rho=1,0K m/W$ and in trefoil formation of the cables (single core). For other ambient or ground temperatures the correction factor is:

Ambient Temperature °C:	15	20	25	30	35	40	45	50
Correction factor	1,14	1,09	1,04	1,0	0,96	0,91	0,87	0,82

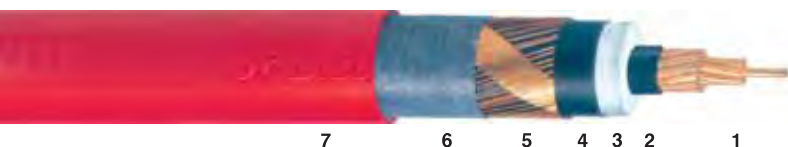
Ground Temperature °C:	15	20	25	30	35	40
Correction factor	1,09	1,0	0,97	0,93	0,89	0,85

Soil thermal resistivity Km/W	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,05	1,0	0,93	0,84	0,75	0,67	0,62

Depth of burial m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,92	0,9	0,89



XLPE INSULATED PVC SHEATHED CABLES



1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive conductor screen
5. Copper wires wrapped with a copper tape
laid with an open helix over core
6. Plastic tape
7. PVC outersheath

CABLE TYPE: XLPE/CWS/PVC
NOMINAL VOLTAGE: 18/30 kV
SPECIFICATION: IEC 60502-2

NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20 °C	CURRENT CARRYING CAPACITY (EARTH)	CONTINUOUS CURRENT CARRYING CAPACITY (AIR)
		kg/km	Ω/km	A	A
1X50/16	33	1350	0,3870	225	241
1X70/16	35	1700	0,2680	274	299
1X95/16	37	2050	0,1930	327	363
1X120/16	39	2300	0,1530	371	418
1X150/25	40	2700	0,1240	414	472
1X185/25	42	3100	0,0991	466	539
1X240/25	45	3750	0,0754	539	635
1X300/25	48	4450	0,0601	606	725
1X400/35	51	5400	0,0470	680	831
3X50/16	70	4600	0,3870	224	237
3X70/16	74	5700	0,2680	273	297
3X95/16	77	6700	0,1930	328	358
3X120/16	81	7650	0,1530	371	413
3X150/25	85	8700	0,1240	415	468
3X185/25	89	1050	0,0991	470	539
3X240/25	94	1250	0,0754	546	633

Note:

- 1) The cables above can be manufactured with different screen cross sections, aluminium conductors, PE oversheaths , longitudinally waterblocked conductors and - for single core cables-longitudinally and radially waterblocked screens.
- 2) CU/XLPE/CWS/PVC cables can be manufactured fire retardant, meeting IEC 60332-3 Cat "C" fire test requirements.
- 3) The above ratings are given cables with copper conductors and for 30°C ambient temperature, 20°C ground temperature 0,8m depth and $\rho=1,0K m/W$ and in trefoil formation of the cables (single core). For other ambient or ground temperatures the correction factor is:

Ambient temperature °C:	15	20	25	30	35	40	45	50
Correction factor	1,14	1,09	1,04	1,0	0,96	0,91	0,87	0,82

Ground temperature °C:	15	20	25	30	35	40
Correction factor	1,09	1	0,97	0,93	0,89	0,85

Soil thermal resistivity KM/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,05	1,0	0,93	0,84	0,75	0,67	0,62

Depth of burial m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,92	0,9	0,89

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

INSULATED ARMoured CABLES TO BS 6622 STRANDED COPPER OR ALUMINIUM CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. PVC inner sheath
9. Galvanised steel wires
10. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/PVC/SWA/PVC
6,35/11 kV
BS 6622

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
mm ²	mm	mm	mm	kg/km	A	A	A	A	A	A
1X50	21,7	24,9	28,5	1200	220	230	220	220	250	300
1X70	23,0	26,2	30,0	1500	270	280	260	270	310	370
1X95	24,7	27,9	31,7	1600	320	335	305	325	375	460
1X120	26,7	29,9	33,9	2100	360	380	340	370	430	530
1X150	27,5	31,5	35,7	2500	410	430	375	410	490	600
1X185	29,3	33,3	37,5	2900	455	485	410	460	550	690
1X240	31,6	35,6	40,0	3600	520	560	470	540	650	820
1X300	34,6	38,6	43,0	4300	580	640	500	610	740	940
1X400	37,0	41,0	45,8	5200	650	730	530	690	840	1100
1X500	40,5	45,5	50,5	6500	710	830	570	780	930	1280
1X630	44,6	49,6	54,8	8000	760	940	620	890	1040	1480
1X800	48,8	53,8	59,2	9850	810	1060	660	990	1140	1690
1X1000	53,5	58,5	64,3	12100	860	1170	690	1090	1230	1900
3X25	39,0	44,0	48,8	4300	140		125		145	
3X35	41,6	46,6	51,6	4700	170		150		175	
3X50	44,4	49,4	54,6	5300	210		180		220	
3X70	48,1	53,1	58,5	6300	250		215		270	
3X95	52,0	57,0	62,6	7300	300		255		330	
3X120	55,6	60,6	66,6	8400	340		290		380	
3X150	58,6	63,6	69,8	9600	380		330		430	
3X185	62,7	67,7	74,1	11000	430		370		490	
3X240	68,1	74,4	81,2	14000	500		430		570	
3X300	73,5	79,8	87,0	16600	540		470		650	
3X400	81,1	87,4	95,0	19500	600		530		740	

Single core cables are aluminium wire armoured

CABLES WITH ALUMINIUM CONDUCTOR

NOMINAL AREA OF CONDUCTOR	APPROX. DIAMETER			APPROX. NET WEIGHT	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR	OVERALL		TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm	mm		mm	kg/km	A	A	A	A
1X50	30,9	34,9	39,3	1740	170	175	170	170	195	230
1X70	32,6	36,6	41,0	1850	210	215	210	210	240	290
1X95	34,3	38,3	42,9	2100	250	260	245	250	295	355
1X120	35,9	39,9	44,5	2250	280	295	275	285	355	410
1X150	37,5	42,5	47,3	2600	320	330	300	320	380	465
1X185	39,3	44,3	49,3	2850	360	375	335	360	435	530
1X240	41,7	46,7	51,7	3150	415	440	380	420	510	630
1X300	44,2	49,2	54,4	3600	475	495	420	470	580	730
1X400	47,3	52,3	57,7	4000	540	570	455	540	670	860
1X500	50,5	55,5	61,1	4500	610	650	500	620	770	1010
1X630	54,2	59,2	65,0	5250	680	750	550	700	880	1180
1X800	60,5	65,5	71,6	6150	770	860	590	800	980	1370
1X1,000	65,0	70,0	76,5	7200	859	960	640	890	1080	1560
3X50	65,1	71,4	78,2	8300	160		135		170	
3X70	68,8	75,1	82,1	9050	195		165		210	
3X95	72,6	78,9	86,1	9800	230		200		250	
3X120	76,3	82,6	90,0	10600	265		225		295	
3X150	79,3	85,6	93,2	11350	300		255		330	
3X185	83,4	89,7	97,5	12250	335		290		385	
3X240	88,8	95,1	103,3	13700	380		335		450	
3X300	93,9	100,2	108,8	15500	435		375		510	
3X400	100,8	107,1	116,1	16750	490		430		590	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0,8 m, ground temperature 15°C, thermal resistivity of soil 1,2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	10	15	20	25	30	35	40
Correction factor	1,03	1,0	0,97	0,93	0,89	0,86	0,82

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.

INSULATED ARMoured CABLES TO BS 6622 STRANDED COPPER OR ALUMINIUM CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. PVC inner sheath
9. Galvanised steel wires
10. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/PVC/SWA/PVC
8,7/15 kV
BS 6622

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.) kg/km	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
1X50	23,9	27,1	30,9	1400	220	230	220	220	250	300
1X70	25,6	28,8	32,6	1600	270	280	260	270	310	370
1X95	27,0	31,0	35,0	2000	320	335	305	325	375	460
1X120	28,3	32,3	36,5	2400	360	380	340	370	430	530
1X150	29,8	33,8	38,0	2700	410	430	375	410	490	600
1X185	31,6	35,6	40,0	3100	455	485	410	460	550	690
1X240	33,9	37,9	42,5	3800	520	560	470	540	650	820
1X300	36,2	40,2	44,8	4400	580	640	500	610	740	940
1X400	39,4	44,4	49,4	5600	650	730	530	690	840	1100
1X500	42,8	47,8	53,0	6700	710	830	570	780	930	1280
1X630	46,7	51,7	57,1	8300	760	940	620	890	1040	1480
1X800	51,2	56,2	61,8	10200	810	1060	660	990	1140	1690
1X1,000	55,8	60,8	66,8	12400	860	1170	690	1090	1230	1900
3X25	44,3	49,3	54,5	4500	140		125		145	
3X35	46,3	51,3	56,7	5000	170		150		175	
3X50	48,6	53,6	59,2	5700	210		180		220	
3X70	52,2	57,2	63,0	6600	250		215		270	
3X95	56,2	61,2	67,2	7800	300		255		330	
3X120	59,6	64,6	70,8	8900	340		290		380	
3X150	62,6	67,6	74,0	10000	380		330		430	
3X185	66,9	73,2	80,0	12300	430		370		490	
3X240	72,3	78,6	85,8	13800	500		430		570	
3X300	77,3	83,6	91,0	17100	540		470		650	
3X400	84,7	91,0	99,0	20400	600		530		740	

Single core cables are aluminium wire armoured

CABLES WITH ALUMINIUM CONDUCTOR

NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm			mm	mm	kg/km	A	A	A
1X50	23,9	27,1	30,9	1100	170	175	170	170	195	230
1X70	25,6	28,8	32,6	1200	210	215	210	210	240	290
1X95	27,0	31,0	35,0	1400	250	260	245	250	295	355
1X120	28,3	32,3	36,5	1700	280	295	275	285	355	410
1X150	29,8	33,8	38,0	1800	320	330	300	320	380	465
1X185	31,6	35,6	40,0	2000	360	375	335	360	435	530
1X240	33,9	37,9	42,5	2300	415	440	380	420	510	630
1X300	36,2	40,2	44,8	2500	475	495	420	470	580	730
1X400	39,4	44,4	49,4	3200	540	570	455	540	670	860
1X500	42,8	47,8	53,0	3600	610	650	500	620	770	1010
1X630	46,7	51,7	57,1	4300	680	750	550	700	880	1180
1X800	51,2	56,2	61,8	5040	770	860	590	800	980	1370
1X1000	55,8	60,8	66,8	5950	859	960	640	890	1080	1560
3X25	44,3	49,3	54,5	4050	115		95		115	
3X35	46,3	51,3	56,7	4350	135		115		140	
3X50	48,6	53,6	59,2	4800	160		135		170	
3X70	52,2	57,2	63,0	5300	195		165		210	
3X95	56,2	61,2	67,2	6050	230		200		250	
3X120	59,6	64,6	70,8	6700	265		225		295	
3X150	62,6	67,6	74,0	7200	300		255		330	
3X185	66,9	73,2	80,0	8900	335		290		385	
3X240	72,3	78,6	85,8	9350	380		335		450	
3X300	77,3	83,6	91,0	11500	435		375		510	
3X400	84,7	91,0	99,0	13000	490		430		590	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0,8 m, ground temperature 15°C, thermal resistivity of soil 1,2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.

INSULATED ARMoured CABLES TO BS 6622 STRANDED COPPER OR ALUMINIUM CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. PVC inner sheath
9. Galvanised steel wires
10. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/PVC/SWA/PVC
12,7/22 kV
BS 6622

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
mm ²	mm	mm	mm	kg/km	A	A	A	A	A	A
1X50	25,5	28,7	32,7	1500	220	230	220	220	250	300
1X70	27,0	31,0	35,0	1900	270	280	260	270	310	370
1X95	28,8	32,8	37,0	2200	320	335	305	325	375	460
1X120	30,3	34,3	38,5	2500	360	380	340	370	430	530
1X150	31,6	35,6	40,0	2900	410	430	375	410	490	600
1X185	33,6	37,6	42,0	3300	455	485	410	460	550	690
1X240	35,9	39,9	44,5	4000	520	560	470	540	650	820
1X300	38,4	43,4	48,2	4800	580	640	500	610	740	940
1X400	41,4	46,4	51,4	5800	650	730	530	690	840	1100
1X500	45,1	50,1	55,3	7000	710	830	570	780	930	1280
1X630	48,7	53,7	59,3	8500	760	940	620	890	1040	1480
1X800	53,2	58,2	64,0	10400	810	1060	660	990	1140	1690
1X1000	58,0	63,0	69,0	12600	860	1170	690	1090	1230	1900
3X35	50,9	55,9	61,5	5600	170		150		175	
3X50	53,2	58,2	64,0	6300	210		180		220	
3X70	57,0	62,0	68,0	7200	250		215		270	
3X95	61,1	66,1	72,5	8600	300		255		330	
3X120	63,9	70,2	76,8	10400	340		290		380	
3X150	67,4	73,7	80,5	11600	380		330		430	
3X185	71,1	77,4	84,6	13200	430		370		490	
3X240	76,8	83,1	90,5	15600	500		430		570	
3X300	81,9	88,2	96,0	18000	540		470		650	
3X400	89,0	95,3	103,5	21300	600		530		740	

Single core cables are aluminium wire armoured

CABLES WITH ALUMINIUM CONDUCTOR

NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm			mm	mm	kg/km	A	A	A
1X50	21,7	24,9	28,5	1200	170	175	170	170	195	230
1X70	23,0	26,2	30,0	1500	210	215	210	210	240	290
1X95	24,7	27,9	31,7	1600	250	260	245	250	295	355
1X120	26,7	29,9	33,9	1800	280	295	275	285	355	410
1X150	27,5	31,5	35,7	2000	320	330	300	320	380	465
1X185	29,3	33,3	37,5	2200	360	375	335	360	435	530
1X240	31,6	35,6	40,0	2500	415	440	380	420	510	630
1X300	34,6	38,6	43,0	2900	475	495	420	470	580	730
1X400	37,0	41,0	45,8	3400	540	570	455	540	670	860
1X500	40,5	45,5	50,5	3900	610	650	500	620	770	1010
1X630	44,6	49,6	54,8	4600	680	750	550	700	880	1180
1X800	48,8	53,8	59,2	5400	770	860	590	800	980	1370
1X1000	53,5	58,5	64,3	6400	859	960	640	890	1080	1560
3X35	41,6	46,6	51,6	5000	135		115		140	
3X50	44,4	49,4	54,6	5400	160		135		170	
3X70	48,1	53,1	58,5	5900	195		165		210	
3X95	52,0	57,0	62,6	6800	230		200		250	
3X120	55,6	60,6	66,6	8200	265		225		295	
3X150	58,6	63,6	69,8	8800	300		255		330	
3X185	62,7	67,7	74,1	9800	335		290		385	
3X240	68,1	74,4	81,2	11100	380		335		450	
3X300	73,5	79,8	87,0	12400	435		375		510	
3X400	81,1	87,4	95,0	13900	490		430		590	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0,8 m, ground temperature 15°C, thermal resistivity of soil 1,2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	10	15	20	25	30	35	40
Correction factor	1,03	1,0	0,97	0,93	0,89	0,86	0,82

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.

INSULATED ARMoured CABLES TO BS 6622 STRANDED COPPER OR ALUMINIUM CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. PVC inner sheath
9. Galvanised steel wires
10. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/PVC/SWA/PVC
19/33 kV
BS 6622

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
mm ²	mm	mm	mm	kg/km	A	A	A	A	A	A
1X50	30,9	34,9	39,3	2030	220	230	220	220	250	300
1X70	32,6	36,6	41,0	2300	270	280	260	270	310	370
1X95	34,3	38,3	42,9	2650	320	335	305	325	375	460
1X120	35,9	39,9	44,5	3000	360	380	340	370	430	530
1X150	37,5	42,5	47,3	3500	410	430	375	410	490	600
1X185	39,3	44,3	49,3	4000	455	485	410	460	550	690
1X240	41,7	46,7	51,7	4650	520	560	470	540	650	820
1X300	44,2	49,2	54,4	5450	580	640	500	610	740	940
1X400	47,3	52,3	57,7	6350	650	730	530	690	840	1100
1X500	50,5	55,5	61,1	7600	710	830	570	780	930	1280
1X630	54,2	59,2	65,0	9150	760	940	620	890	1040	1480
1X800	60,5	65,5	71,6	11100	810	1060	660	990	1140	1690
1X1000	65,0	70,0	76,5	13400	860	1170	690	1090	1230	1900
3X50	65,1	71,4	78,2	9150	210		180		220	
3X70	68,8	75,1	82,1	10300	250		215		270	
3X95	72,6	78,9	86,1	11600	300		255		330	
3X120	76,3	82,6	90,0	12800	340		290		380	
3X150	79,3	85,6	93,2	14050	380		330		430	
3X185	83,4	89,7	97,5	15650	430		370		490	
3X240	88,8	95,1	103,3	18200	500		430		570	
3X300	93,9	100,2	108,8	21100	540		470		650	
3X400	100,8	107,1	116,1	24200	600		530		740	

Single core cables are aluminium wire armoured

CABLES WITH ALUMINIUM CONDUCTOR

NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm			mm	mm	kg/km	A	A	A
1X50	30,9	34,9	39,3	1740	170	175	170	170	195	230
1X70	32,6	36,6	41,0	1850	210	215	210	210	240	290
1X95	34,3	38,3	42,9	2100	250	260	245	250	295	355
1X120	35,9	39,9	44,5	2250	280	295	275	285	355	410
1X150	37,5	42,5	47,3	2600	320	330	300	320	380	465
1X185	39,3	44,3	49,3	2850	360	375	335	360	435	530
1X240	41,7	46,7	51,7	3150	415	440	380	420	510	630
1X300	44,2	49,2	54,4	3600	475	495	420	470	580	730
1X400	47,3	52,3	57,7	4000	540	570	455	540	670	860
1X500	50,5	55,5	61,1	4500	610	650	500	620	770	1010
1X630	54,2	59,2	65,0	5250	680	750	550	700	880	1180
1X800	60,5	65,5	71,6	6150	770	860	590	800	980	1370
1X1,000	65,0	70,0	76,5	7200	859	960	640	890	1080	1560
3X50	65,1	71,4	78,2	8300	160		135		170	
3X70	68,8	75,1	82,1	9050	195		165		210	
3X95	72,6	78,9	86,1	9800	230		200		250	
3X120	76,3	82,6	90,0	10600	265		225		295	
3X150	79,3	85,6	93,2	11350	300		255		330	
3X185	83,4	89,7	97,5	12250	335		290		385	
3X240	88,8	95,1	103,3	13700	380		335		450	
3X300	93,9	100,2	108,8	15500	435		375		510	
3X400	100,8	107,1	116,1	16750	490		430		590	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0,8 m, ground temperature 15°C, thermal resistivity of soil 1,2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	10	15	20	25	30	35	40
Correction factor	1,03	1,0	0,97	0,93	0,89	0,86	0,82

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.

HALOGEN FREE INSULATED ARMOURED CABLES TO BS 7835 STRANDED COPPER CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. LSF inner sheath
9. Galvanised steel wires
10. LSF outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/LSF/SWA/LSF
6,35/11 kV
BS 7835

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)		OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR			TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm			mm	mm	kg/km	A	A	A
1X50	23,9	27,1	30,9	1400	220	230	220	220	250	300
1X70	25,6	28,8	32,6	1600	270	280	260	270	310	370
1X95	27,0	31,0	35,0	2000	320	335	305	325	375	460
1X120	28,3	32,3	36,5	2400	360	380	340	370	430	530
1X150	29,8	33,8	38,0	2700	410	430	375	410	490	600
1X185	31,6	35,6	40,0	3100	455	485	410	460	550	690
1X240	33,9	37,9	42,5	3800	520	560	470	540	650	820
1X300	36,2	40,2	44,8	4400	580	640	500	610	740	940
1X400	39,4	44,4	49,4	5600	650	730	530	690	840	1100
1X500	42,8	47,8	53,0	6700	710	830	570	780	930	1280
1X630	46,7	51,7	57,1	8300	760	940	620	890	1040	1480
1X800	51,2	56,2	61,8	10200	810	1060	660	990	1140	1690
1X1000	55,8	60,8	66,8	12400	860	1170	690	1090	1230	1900
3X25	44,3	49,3	54,5	4810	140		125		145	
3X35	46,3	51,3	56,7	5280	170		150		175	
3X50	48,6	53,6	59,2	5960	210		180		220	
3X70	52,2	57,2	63,0	7090	250		215		270	
3X95	56,2	61,2	67,2	8210	300		255		330	
3X120	59,6	64,6	70,8	9440	340		290		380	
3X150	62,6	67,6	74,0	10770	380		330		430	
3X185	66,9	73,2	80,0	12320	430		370		490	
3X240	72,3	78,6	85,8	15570	500		430		570	
3X300	77,3	83,6	91,0	18510	540		470		650	
3X400	84,7	91,0	99,0	21650	600		530		740	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0,8 m, ground temperature 15°C, thermal resistivity of soil 1,2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.



HALOGEN FREE INSULATED ARMOURED CABLES TO BS 7835 STRANDED COPPER CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. LSF inner sheath
9. Galvanised steel wires
10. LSF outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/LSF/SWA/LSF
8,7/15 kV
BS 7835

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)			NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR	OVERALL		TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm	mm		kg/km	A	A	A	A	A
1X50	23,9	27,1	30,9	1400	220	230	220	220	250	300
1X70	25,6	28,8	32,6	1600	270	280	260	270	310	370
1X95	27,0	31,0	35,0	2000	320	335	305	325	375	460
1X120	28,3	32,3	36,5	2400	360	380	340	370	430	530
1X150	29,8	33,8	38,0	2700	410	430	375	410	490	600
1X185	31,6	35,6	40,0	3100	455	485	410	460	550	690
1X240	33,9	37,9	42,5	3800	520	560	470	540	650	820
1X300	36,2	40,2	44,8	4400	580	640	500	610	740	940
1X400	39,4	44,4	49,4	5600	650	730	530	690	840	1100
1X500	42,8	47,8	53,0	6700	710	830	570	780	930	1280
1X630	46,7	51,7	57,1	8300	760	940	620	890	1040	1480
1X800	51,2	56,2	61,8	10200	810	1060	660	990	1140	1690
1X1000	55,8	60,8	66,8	12400	860	1170	690	1090	1230	1900
3X25	44,3	49,3	54,5	5090	140		125		145	
3X35	46,3	51,3	56,7	5730	170		150		175	
3X50	48,6	53,6	59,2	6520	210		180		220	
3X70	52,2	57,2	63,0	7560	250		215		270	
3X95	56,2	61,2	67,2	8900	300		255		330	
3X120	59,6	64,6	70,8	10130	340		290		380	
3X150	62,6	67,6	74,0	11380	380		330		430	
3X185	66,9	73,2	80,0	13840	430		370		490	
3X240	72,3	78,6	85,8	15620	500		430		570	
3X300	77,3	83,6	91,0	19270	540		470		650	
3X400	84,7	91,0	99,0	22830	600		530		740	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0.8 m, ground temperature 15°C, thermal resistivity of soil 1.2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.

HALOGEN FREE INSULATED ARMOURED CABLES TO BS 7835 STRANDED COPPER CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. LSF inner sheath
9. Galvanised steel wires
10. LSF outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/LSF/SWA/LSF
12.7/22 kV
BS 7835

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)			NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR	OVERALL		TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm	mm		mm	kg/km	A	A	A	A
1X50	23,9	27,1	30,9	1400	220	230	220	220	250	300
1X70	25,6	28,8	32,6	1600	270	280	260	270	310	370
1X95	27,0	31,0	35,0	2000	320	335	305	325	375	460
1X120	28,3	32,3	36,5	2400	360	380	340	370	430	530
1X150	29,8	33,8	38,0	2700	410	430	375	410	490	600
1X185	31,6	35,6	40,0	3100	455	485	410	460	550	690
1X240	33,9	37,9	42,5	3800	520	560	470	540	650	820
1X300	36,2	40,2	44,8	4400	580	640	500	610	740	940
1X400	39,4	44,4	49,4	5600	650	730	530	690	840	1100
1X500	42,8	47,8	53,0	6700	710	830	570	780	930	1280
1X630	46,7	51,7	57,1	8300	760	940	620	890	1040	1480
1X800	51,2	56,2	61,8	10200	810	1060	660	990	1140	1690
1X1000	55,8	60,8	66,8	12400	860	1170	690	1090	1230	1900
3X25	44,3	49,3	54,5	4500	140		125		145	
3X35	46,3	51,3	56,7	6490	170		150		175	
3X50	48,6	53,6	59,2	7280	210		180		220	
3X70	52,2	57,2	63,0	8330	250		215		270	
3X95	56,2	61,2	67,2	9880	300		255		330	
3X120	59,6	64,6	70,8	11830	340		290		380	
3X150	62,6	67,6	74,0	13180	380		330		430	
3X185	66,9	73,2	80,0	14960	430		370		490	
3X240	72,3	78,6	85,8	17650	500		430		570	
3X300	77,3	83,6	91,0	20430	540		470		650	
3X400	84,7	91,0	99,0	24000	600		530		740	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0.8 m, ground temperature 15°C, thermal resistivity of soil 1.2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.



HALOGEN FREE INSULATED ARMOURED CABLES TO BS 7835 STRANDED COPPER CONDUCTORS



10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. LSF inner sheath
9. Galvanised steel wires
10. LSF outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

XLPE/CTS/LSF/SWA/LSF
19/33 kV
BS 7835

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR										
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.)			NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
	UNDER ARMOUR	OVER ARMOUR	OVERALL		TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
	mm ²	mm	mm		mm	kg/km	A	A	A	A
1X50	23,9	27,1	30,9	1400	220	230	220	220	250	300
1X70	25,6	28,8	32,6	1600	270	280	260	270	310	370
1X95	27,0	31,0	35,0	2000	320	335	305	325	375	460
1X120	28,3	32,3	36,5	2400	360	380	340	370	430	530
1X150	29,8	33,8	38,0	2700	410	430	375	410	490	600
1X185	31,6	35,6	40,0	3100	455	485	410	460	550	690
1X240	33,9	37,9	42,5	3800	520	560	470	540	650	820
1X300	36,2	40,2	44,8	4400	580	640	500	610	740	940
1X400	39,4	44,4	49,4	5600	650	730	530	690	840	1100
1X500	42,8	47,8	53,0	6700	710	830	570	780	930	1280
1X630	46,7	51,7	57,1	8300	760	940	620	890	1040	1480
1X800	51,2	56,2	61,8	10200	810	1060	660	990	1140	1690
1X1000	55,8	60,8	66,8	12400	860	1170	690	1090	1230	1900
3X25	44,3	49,3	54,5	4500	140		125		145	
3X35	46,3	51,3	56,7	5000	170		150		175	
3X50	48,6	53,6	59,2	10600	210		180		220	
3X70	52,2	57,2	63,0	11930	250		215		270	
3X95	56,2	61,2	67,2	13400	300		255		330	
3X120	59,6	64,6	70,8	14780	340		290		380	
3X150	62,6	67,6	74,0	16210	380		330		430	
3X185	66,9	73,2	80,0	18010	430		370		490	
3X240	72,3	78,6	85,8	20900	500		430		570	
3X300	77,3	83,6	91,0	24230	540		470		650	
3X400	84,7	91,0	99,0	27640	600		530		740	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0.8 m, ground temperature 15°C, thermal resistivity of soil 1.2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

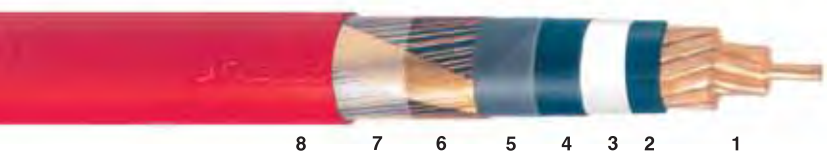
MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D
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D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.

XLPE INSULATED PVC SHEATHED CABLES



1. Round stranded compacted conductor
2. Extruded semiconductive conductor screen
3. XLPE insulation
4. Extruded semiconductive insulation screen
5. Semi conductive tape
6. Copper wires wrapped with a Copper tape laid in an open helix
7. Inner covering or tape lapping
8. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

N2XSY -NA2XSY
6/10 kV
HD 620 S1 -VDE: 0276 PART 620

N2XSY-NA2XSY	NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20°C	CURRENT CARRYING CAPACITY (EARTH)	CONTINUOUS CURRENT CARRYING CAPACITY AIR (TREFOIL)
	mm ²	mm	kg/km	Ω/km	A	A
N2XSY	1X25/16	23	820	0,727	157	163
N2XSY	1X35/16	24	935	0,524	187	197
N2XSY	1X50/16	26	1080	0,387	220	236
N2XSY	1X70/16	27	1320	0,268	268	294
N2XSY	1X95/16	29	1600	0,193	320	358
N2XSY	1X120/16	30	1850	0,153	363	413
N2XSY	1X150/16	32	2220	0,124	405	468
N2XSY	1X185/16	34	2600	0,0991	456	535
N2XSY	1X240/16	36	3200	0,0754	526	631
N2XSY	1X300/16	40	3800	0,0601	591	722
N2XSY	1X400/16	42	4700	0,047	662	827
N2XSY	1X500/16	44	5750	0,0366	744	949
NA2XSY	1X35/16	24	720	0,868	145	153
NA2XSY	1X50/16	26	790	0,641	171	183
NA2XSY	1X70/16	27	900	0,443	208	228
NA2XSY	1X95/16	29	1010	0,32	248	278
NA2XSY	1X120/16	30	1120	0,253	283	321
NA2XSY	1X150/16	32	1320	0,206	315	364
NA2XSY	1X185/16	34	1470	0,164	357	418
NA2XSY	1X240/16	36	1700	0,125	413	494
NA2XSY	1X300/16	40	1940	0,1	466	568
NA2XSY	1X400/16	42	2330	0,0778	529	660
NA2XSY	1X500/16	44	2700	0,0605	602	767

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7. For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

Notes:

1) The cables above can be manufactured with different screen cross sections, PE oversheaths (N2XS2Y-NA2XS2Y), longitudinally waterblocked conductors and -for single core cables- longitudinally and radially waterblocked screens.

2) N2XS2Y-NA2XS2Y cables can be manufactured fire retardant, meeting IEC: 60332-3 Cat C fire test requirements.

3) The above ratings are given for 30°C ambient temperature, 20°C ground temperature, 0,7m depth and $\rho = 1,0$ K m/W (moist soil) - $\rho = 2,5$ K m/W (dried out soil) and in trefoil formation of the cables.

For other ambient or ground temperatures the correction factor is:

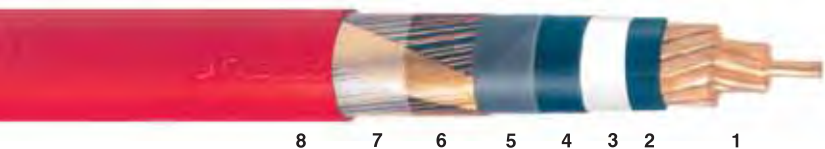
Ambient Temperature °C:	15	20	25	30	35	40	45	55
Correction factor	1,14	1,09	1,04	1	0,96	0,91	0,87	0,82

Ground Temperature °C:	15	20	25	30	35	40
Correction factor	1,09	1,0	0,97	0,93	0,89	0,85

Soil thermal resistivity K m/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,05	1,04	0,93	0,84	0,75	0,67	0,62

Depth of burial m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,92	0,9	0,89

XLPE INSULATED PVC SHEATHED CABLES



1. Round stranded compacted conductor
2. Extruded semiconductive conductor screen
3. XLPE insulation
4. Extruded semiconductive insulation screen
5. Semi conductive tape
6. Copper wires wrapped with a Copper tape laid in an open helix
7. Inner covering or tape lapping
8. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

N2XSY-NA2XSY
12/20 kV
HD 620 S1 -VDE: 0276 PART 620

N2XSY-NA2XSY	NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20°C	CURRENT CARRYING CAPACITY (EARTH)	CONTINUOUS CURRENT CARRYING CAPACITY AIR (TREFOIL)
	mm ²	mm	kg/km	Ω/km	A	A
N2XSY	1X35/16	29	1115	0,524	189	200
N2XSY	1X50/16	30	1270	0,387	222	239
N2XSY	1X70/16	32	1515	0,268	271	297
N2XSY	1X95/16	33	1800	0,193	323	361
N2XSY	1X120/16	35	2070	0,153	367	416
N2XSY	1X150/16	36	2450	0,124	409	470
N2XSY	1X185/16	38	2850	0,0991	461	538
N2XSY	1X240/16	40	3450	0,0754	532	634
N2XSY	1X300/16	43	4070	0,0601	599	724
N2XSY	1X400/16	46	5000	0,047	671	829
N2XSY	1X500/16	48	6020	0,0366	754	953
NA2XSY	1X50/16	30	1000	0,641	172	185
NA2XSY	1X70/16	32	1100	0,443	210	231
NA2XSY	1X95/16	33	1220	0,32	251	280
NA2XSY	1X120/16	35	1350	0,253	285	323
NA2XSY	1X150/16	36	1550	0,206	319	366
NA2XSY	1X185/16	38	1700	0,164	361	420
NA2XSY	1X240/16	40	1950	0,125	417	496
NA2XSY	1X300/16	43	2210	0,1	471	569
NA2XSY	1X400/16	46	2620	0,0778	535	660
NA2XSY	1X500/16	48	3000	0,0605	609	766

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7.
 For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

Notes:

- 1) The cables above can be manufactured with different screen cross sections, PE oversheaths (N2XS2Y-NA2XS2Y), longitudinally waterblocked conductors and -for single core cables- longitudinally and radially waterblocked screens.
- 2) N2XS2Y-NA2XS2Y cables can be manufactured fire retardant, meeting IEC:60332-3 Cat C fire test requirements
- 3) The above ratings are given for 30°C ambient temperature, 20°C ground temperature, 0,7 m depth and $\rho = 1,0 \text{ Km/W}$ (moist soil) - $\rho = 2,5 \text{ Km/W}$ (dried out soil) and in trefoil formation of the cables.
For other ambient or ground temperatures the correction factor is:

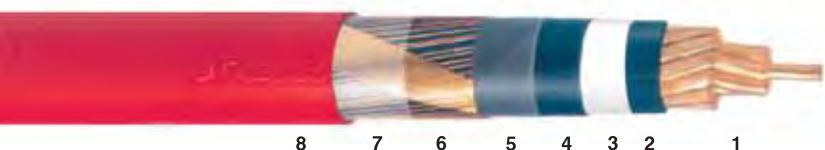
Ambient Temperature °C:	15	20	25	30	35	40	45	55
Correction factor	1,14	1,09	1,04	1	0,96	0,91	0,87	0,82

Ground Temperature °C:	15	20	25	30	35	40
Correction factor	1,09	1,0	0,97	0,93	0,89	0,85

Soil thermal resistivity K m/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,05	1,04	0,93	0,84	0,75	0,67	0,62

Depth of burial m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,92	0,9	0,89

XLPE INSULATED PVC SHEATHED CABLES



1. Round stranded compacted conductor
2. Extruded semiconductive conductor screen
3. XLPE insulation
4. Extruded semiconductive insulation screen
5. Semi conductive tape
6. Copper wires wrapped with a Copper tape laid in an open helix
7. Inner covering or tape lapping
8. PVC outersheath

CABLE TYPE:
NOMINAL VOLTAGE:
SPECIFICATION:

N2XSY-NA2XSY
18/30 kV
HD 620 S1 -VDE: 0276 PART 620

N2XSY-NA2XSY	NOMINAL AREA OF CONDUCTOR	MEAN OVERALL DIAMETER (APPROX.)	NET WEIGHT (APPROX.)	MAX CONDUCTOR RESISTANCE AT 20°C	CURRENT CARRYING CAPACITY (EARTH)	CONTINUOUS CURRENT CARRYING CAPACITY AIR (TREFOIL)
	mm ²	mm	kg/km	Ω/km	A	A
N2XSY	1X50/16	35	1530	0,387	225	241
N2XSY	1X70/16	37	1780	0,268	274	299
N2XSY	1X95/16	38	2100	0,193	327	363
N2XSY	1X120/16	40	2360	0,153	371	418
N2XSY	1X150/16	41	2750	0,124	414	472
N2XSY	1X185/16	43	3160	0,0991	466	539
N2XSY	1X240/16	45	3780	0,0754	539	635
N2XSY	1X300/16	48	4450	0,0601	606	725
N2XSY	1X400/16	51	5360	0,047	680	831
N2XSY	1X500/16	24	6460	0,0366	765	953
NA2XSY	1X50/16	35	1240	0,641	174	187
NA2XSY	1X70/16	37	1370	0,443	213	232
NA2XSY	1X95/16	38	1500	0,32	254	282
NA2XSY	1X120/16	40	1630	0,253	289	325
NA2XSY	1X150/16	41	1850	0,206	322	367
NA2XSY	1X185/16	43	2020	0,164	364	421
NA2XSY	1X240/16	45	2290	0,125	422	496
NA2XSY	1X300/16	48	2580	0,1	476	568
NA2XSY	1X400/16	51	3000	0,0778	541	650
NA2XSY	1X500/16	24	3450	0,0605	616	764

The above ratings for cables installed in ground are for cyclic load with a load factor 0.7.
 For continuous operation (load factor 1.0) the values must be multiplied with a coefficient equal to 0.93.

Notes:

- 1) The cables above can be manufactured with different screen cross sections, PE oversheaths (N2XS2Y-NA2XS2Y), longitudinally waterblocked conductors and -for single core cables- longitudinally and radially waterblocked screens.
- 2) N2XS2Y-NA2XS2Y cables can be manufactured fire retardant, meeting IEC:60332-3 Cat C fire test requirements
- 3) The above ratings are given for 30°C ambient temperature, 20°C ground temperature, 0,7 m depth and $\rho = 1,0 \text{ Km/W}$ (moist soil) - $\rho = 2,5 \text{ K m/W}$ (dried out soil) and in trefoil formation of the cables.
For other ambient or ground temperatures the correction factor is:

Ambient Temperature °C:	15	20	25	30	35	40	45	55
Correction factor	1,14	1,09	1,04	1	0,96	0,91	0,87	0,82

Ground Temperature °C:	15	20	25	30	35	40
Correction factor	1,09	1,0	0,97	0,93	0,89	0,85

Soil thermal resistivity K m/W:	0,8	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,05	1,04	0,93	0,84	0,75	0,67	0,62

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Correction factor	1,0	0,97	0,95	0,94	0,92	0,9	0,89

HELLENIC CABLES S.A.
can also produce the following cables

- **XLPE/PVC/PB/SWA*/PVC 0,6/1 kV** power and control cables in accordance with BS 5467 and EEMUA 133 (*AWA for single core cables).
- **XLPE** insulated lead sheathed armoured cables suitable for direct burial where cables may be subject to solvent penetration or attack by corrosive agents.

BARE OVERHEAD CONDUCTORS:

- **All Aluminium Conductors (AAC):** Concentrically stranded conductors composed of hard drawn aluminium wires, in accordance with IEC 1089, ASTM B 231, DIN 48201 and BS 215.
- **All Aluminium Alloy Conductors (AAAC):** Concentrically stranded conductors composed of aluminium alloy wires, in accordance with IEC 1089, DIN 48201, ASTM B 399 and BS EN 50183.
- **Aluminium Conductor Steel Reinforced (ACSR):** Concentrically stranded conductors composed of hard drawn aluminium wires with a core composed of high strength coated steel wires, in accordance with IEC 1089, ASTM B 232, DIN 48204.
- **Hard Drawn Copper Conductors:** Concentrically stranded conductors composed of hard drawn copper wires, in accordance with BS 7884 and DIN 48201.
- **PVC covered Hard Drawn Copper Conductors:** Concentrically stranded conductors composed of hard drawn copper wires with PVC covering in accordance with BS 7884 and BS 6485.

Note: If required neutral grease of suitable drop point can be applied to one or more layers.



HELLENIC CABLES S.A.

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