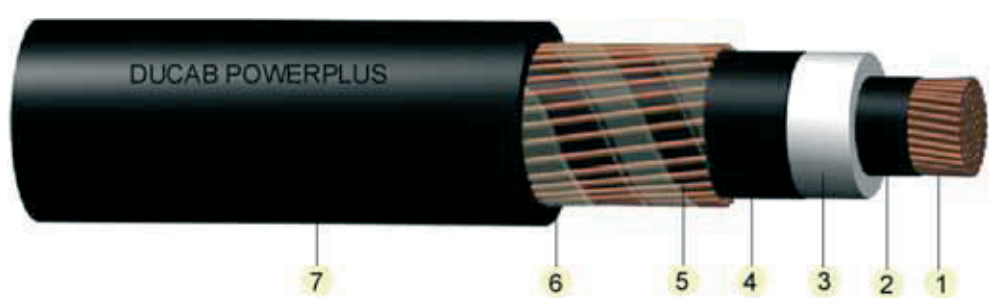
Table 11

Nominal Area of Conductor	mm²	50	70	95	120	150	185	240	300	400	500	630	800	1000
Conductor Diameter (Max)	mm	8.4	9.9	11.6	13	14.5	16.1	18.4	20.6	23.7	26.6	29.8	33.6	37.6
Weight of Conductor (Approx)	Kg/Km	420	605	839	1056	1297	1629	2141	2686	3421	4335	5585	7346	9160
Insulation Thickness (Nominal)	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Outersheath Thickness (Nominal)	mm	1.8	1.8	1.8	1.9	1.9	2	2	2.1	2.2	2.3	2.4	2.5	2.7
Approximate Overall Diameter	mm	24.5	26.0	27.5	29.0	31.0	32.5	35.0	37.5	40.5	43.5	47.0	51.0	55.5
Approximate Cable Weight	Kg/Km	990	1270	1580	1850	2210	2620	3210	3870	4790	5880	7350	8830	10760
Standard Drum Length	m	500	500	500	500	500	500	500	500	500	500	500	400	300
Minimum Bending Radius of Cable (during installation)	mm	482	514	550	580	612	645	696	742	808	870	938	1020	1106
Maximum DC resistance of Conductor at 20˚C	ohm/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047	0.0366	0.0283	0.0221	0.0176
Approximate AC resistance of Conductor at 90˚C	ohm/Km	0.494	0.342	0.247	0.196	0.159	0.128	0.098	0.079	0.063	0.051	0.041	0.040	0.030
Approximate Reactance at 50 Hertz	ohm/Km	0.13	0.13	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09	0.08
Approximate Impedance at 50 Hertz	ohm/Km	0.51	0.36	0.27	0.23	0.19	0.17	0.14	0.13	0.12	0.11	0.099	0.096	0.091
Approximate Capacitance of Cable	µf/Km	0.22	0.25	0.28	0.31	0.33	0.36	0.41	0.44	0.49	0.54	0.59	0.68	0.72
Approx. Charging Current per phase at Uo = 8.7kV and f = 50Hz	mA/m	0.60	0.68	0.77	0.85	0.90	1.0	1.1	1.2	1.3	1.5	1.6	1.9	2.0
Sustained Current Ratings														
1. Laid Direct, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid in trefoil touching	A	196	240	285	320	365	409	472	534	605	668	739	819	890
2. Drawn into Ducts, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	200	240	285	320	356	392	449	498	543	605	668	739	810
3. Laid in Air in trefoil touching, Ambient Temp. 35˚ C	A	217	262	331	382	432	497	589	681	773	865	1021	1168	1288
One Second Short Circuit Current Rating of Conductor	kA	7.15	10.01	13.60	17.20	21.50	26.50	34.30	42.90	57.20	71.50	90.10	115	143

FOR ALL CABLES THE MAXIMUM CONDUCTOR OPERATING TEMPERATURE IS 90˚C AND LIMITING CONDUCTOR TEMPERATURE AFTER SHORT CIRCUIT IS 250˚C.
LONGER DRUM LENGTHS ARE AVAILABLE TO SPECIFIC CUSTOMER REQUIREMENTS.

8.7/15 (17.5)kV

Single Core Copper Conductors XLPE Insulated to IEC 60502-2 Unarmoured



1.HCC+ ™ Copper Conductor
2.Semiconductive conductor screen
3.DFI™ XLPE Insulation
4.Semiconductive insulation screen
5.Copper wire screen
6. Tape binder
7. Outer sheath

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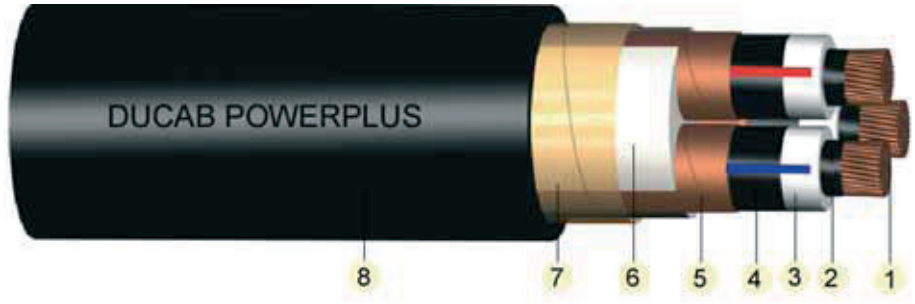
Table 12

Nominal Area of Conductor	mm²	50	70	95	120	150	185	240	300	400
Conductor Diameter (Max)	mm	8.4	9.9	11.6	13	14.5	16.1	18.4	20.6	23.7
Weight of Conductor (Approx)	Kg/Km	1281	1845	2558	3219	3954	4966	6526	8187	10428
Insulation Thickness (Nominal)	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Outersheath Thickness (Nominal)	mm	2.5	2.6	2.8	2.9	3	3.1	3.2	3.4	3.6
Approximate Overall Diameter	mm	50.0	53.5	57.5	60.5	64.0	68.0	73.0	78.0	85.5
Approximate Cable Weight	Kg/Km	2400	3130	4050	4910	5830	7090	9050	11030	14980
Standard Drum Length	m	500	500	500	500	500	400	300	300	250
Minimum Bending Radius of Cable (during installation)	mm	749	800	858	908	959	1014	1094	1170	1277
Maximum DC resistance of Conductor at 20˚C	ohm/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047
Approximate AC resistance of Conductor at 90˚C	ohm/Km	0.493	0.342	0.247	0.196	0.159	0.128	0.098	0.079	0.064
Approximate Reactance at 50 Hertz	ohm/Km	0.12	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09
Approximate Impedance at 50 Hertz	ohm/Km	0.51	0.36	0.27	0.22	0.19	0.16	0.14	0.12	0.11
Approximate Capacitance of Cable	µf/Km	0.22	0.25	0.28	0.31	0.33	0.36	0.41	0.44	0.49
Approx. Charging Current per phase at Uo = 8.7kV and f = 50Hz	mA/m	0.60	0.68	0.77	0.85	0.90	1.0	1.1	1.2	1.3
Sustained Current Ratings										
1. Laid Direct, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	198	241	283	321	358	406	462	510	566
2. Drawn into Ducts, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	170	202	241	273	312	349	401	443	500
3. Laid singly in Air, Ambient Temp. 35˚ C	A	210	258	316	359	412	469	545	622	708
One Second Short Circuit Current Rating of Conductor	kA	7.15	10.01	13.60	17.20	21.50	26.50	34.30	42.90	57.20

FOR ALL CABLES THE MAXIMUM CONDUCTOR OPERATING TEMPERATURE IS 90˚C AND LIMITING CONDUCTOR TEMPERATURE AFTER SHORT CIRCUIT IS 250˚C.
LONGER DRUM LENGTHS ARE AVAILABLE TO SPECIFIC CUSTOMER REQUIREMENTS.

8.7/15 (17.5)kV

Three Core
Copper Conductors
XLPE Insulated to IEC 60502-2
Unarmoured



1.HCC+ ™ Copper Conductor
2.Semiconductive conductor screen
3.DFI™ XLPE Insulation
4.Semiconductive insulation screen
5.Copper tape screen
6. Fillers
7. Tape binder
8. Outer sheath

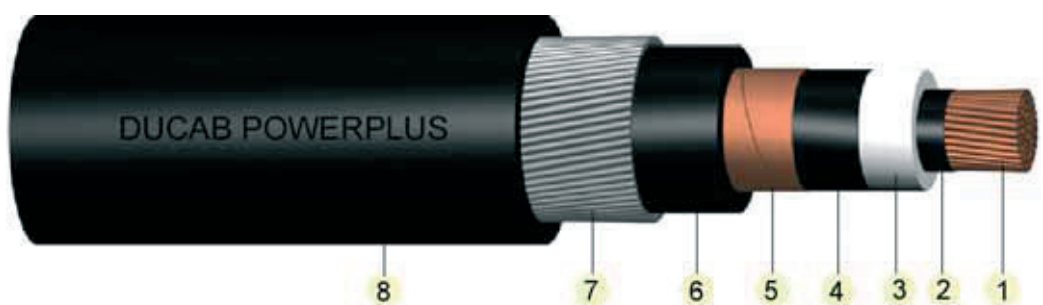
Table 13

Nominal Area of Conductor	mm²	50	70	95	120	150	185	240	300	400	500	630	800	1000
Conductor Diameter (Max)	mm	8.4	9.9	11.6	13	14.5	16.1	18.4	20.6	23.7	26.6	29.8	33.6	37.6
Weight of Conductor (Approx)	Kg/Km	420	605	839	1056	1297	1629	2141	2686	3421	4335	5585	7346	9160
Insulation Thickness (Nominal)	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Separation Sheath Thickness	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.5	1.6
Armour Wire Diameter (Nominal)	mm	1.6	1.6	2	2	2	2	2	2	2.5	2.5	2.5	2.5	2.5
Outersheath Thickness (Nominal)	mm	1.9	2	2	2.1	2.1	2.2	2.3	2.3	2.5	2.6	2.7	2.8	3
Approximate Overall Diameter	mm	30.5	32.0	34.5	36.0	37.5	39.5	42.0	44.0	48.5	52.0	55.5	59.5	64.0
Approximate Cable Weight	Kg/Km	1400	1650	2050	2400	2750	3300	3850	4450	5500	6750	8250	10350	12450
Standard Drum Length	m	500	500	500	500	500	500	500	500	500	500	400	300	300
Minimum Bending Radius of Cable (during installation)	mm	452	476	515	537	561	587	624	660	728	776	828	893	959
Maximum DC resistance of Conductor at 20˚C	ohm/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047	0.0366	0.0283	0.0221	0.0176
Approximate AC resistance of Conductor at 90˚C	ohm/Km	0.494	0.342	0.247	0.196	0.159	0.127	0.098	0.078	0.063	0.050	0.041	0.039	0.029
Approximate Reactance at 50 Hertz	ohm/Km	0.14	0.14	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.09	0.09
Approximate Impedance at 50 Hertz	ohm/Km	0.51	0.36	0.27	0.20	0.19	0.16	0.14	0.13	0.11	0.11	0.11	0.09	0.09
Approximate Capacitance of Cable	µf/Km	0.22	0.25	0.28	0.31	0.33	0.36	0.41	0.44	0.49	0.54	0.59	0.68	0.72
Approx. Charging Current per phase at Uo = 8.7kV and f = 50Hz	mA/m	0.60	0.68	0.77	0.85	0.90	1.0	1.1	1.2	1.3	1.5	1.6	1.9	2.0
Sustained Current Ratings														
1. Laid Direct, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid in trefoil touching	A	196	240	285	320	365	405	463	516	579	632	676	721	765
2. Drawn into Ducts, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	196	231	271	303	334	365	418	445	472	507	552	587	614
3. Laid in Air in trefoil touching, Ambient Temp. 35˚ C	A	230	285	345	396	451	506	598	681	773	856	957	1049	1132
One Second Short Circuit Current Rating of Conductor	kA	7.15	10.01	13.60	17.20	21.50	26.50	34.30	42.90	57.20	71.50	90.10	115	143

For all cables the maximum conductor operating temperature is 90˚C and limiting conductor temperature after short circuit is 250˚C.
Longer drum lengths are available to specific customer requirements.

8.7/15 (17.5)kV

Single Core Copper Conductors XLPE Insulated to IEC 60502-2 Aluminium Wire Armoured



1.HCC+ ™ Copper Conductor
2.Semiconductive conductor screen
3.DFI™ XLPE Insulation
4.Semiconductive insulation screen
5.Copper tape screen
6. Bedding
7. Aluminium Armour
8. Outer sheath

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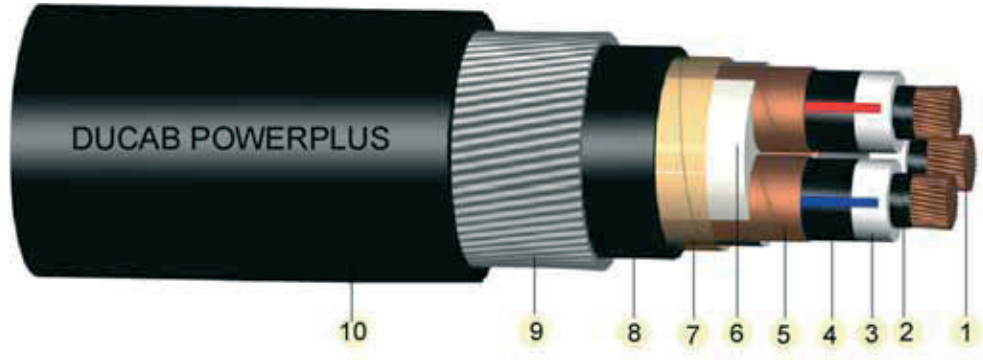
Table 14

Nominal Area of Conductor	mm²	50	70	95	120	150	185	240	300	400
Conductor Diameter (Max)	mm	8.4	9.9	11.6	13	14.5	16.1	18.4	20.6	23.7
Weight of Conductor (Approx)	Kg/Km	1281	1845	2558	3219	3954	4966	6526	8187	10428
Insulation Thickness (Nominal)	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Separation Sheath Thickness	mm	1.5	1.5	1.6	1.7	1.7	1.8	1.9	2	2.1
Armour Wire Diameter (Nominal)	mm	2.5	2.5	2.5	2.5	2.5	3.15	3.15	3.15	3.15
Outersheath Thickness (Nominal)	mm	2.8	2.9	3	3.2	3.3	3.4	3.6	3.8	4
Approximate Overall Diameter	mm	58.5	62.0	66.0	69.5	73.0	78.0	84.0	89.0	97.0
Approximate Cable Weight	Kg/Km	5950	6950	8150	9150	11190	12750	15000	17450	20800
Standard Drum Length	m	500	500	400	400	300	250	250	200	200
Minimum Bending Radius of Cable (during installation)	mm	698	742	791	832	874	936	1003	1066	1154
Maximum DC resistance of Conductor at 20˚C	ohm/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047
Approximate AC resistance of Conductor at 90˚C	ohm/Km	0.493	0.342	0.247	0.196	0.159	0.128	0.098	0.079	0.064
Approximate Reactance at 50 Hertz	ohm/Km	0.12	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09
Approximate Impedance at 50 Hertz	ohm/Km	0.51	0.36	0.27	0.22	0.19	0.16	0.14	0.12	0.11
Approximate Capacitance of Cable	µf/Km	0.22	0.25	0.28	0.31	0.33	0.36	0.41	0.44	0.49
Approx. Charging Current per phase at Uo = 8.7kV and f = 50Hz	mA/m	0.60	0.68	0.77	0.85	0.90	1.0	1.1	1.2	1.3
Sustained Current Ratings										
1. Laid Direct, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	187	227	267	303	338	383	436	481	534
2. Drawn into ducts, Ground Temp. = 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	161	191	227	258	294	329	378	418	472
3. Laid singly in Air, Ambient Temp. 35˚ C	A	203	248	304	345	396	451	524	598	681
One Second Short Circuit Current Rating of Conductor	kA	7.15	10.01	13.60	17.20	21.50	26.50	34.30	42.90	57.20

For all cables the maximum conductor operating temperature is 90˚C and limiting conductor temperature after short circuit is 250˚C
Longer drum lengths are available to specific customer requirements.

8.7/15 (17.5)kV

Three Core
Copper Conductors
XLPE Insulated to
IEC 60502-2
Steel Wire Armoured



1.HCC+ ™ Copper Conductor
2.Semiconductive conductor screen
3.DFI™ XLPE Insulation
4.Semiconductive insulation screen
5.Copper tape screen
6. Fillers
7. Tape binder
8. Bedding
9. Galvanised steel wire armour
10. Outer sheath

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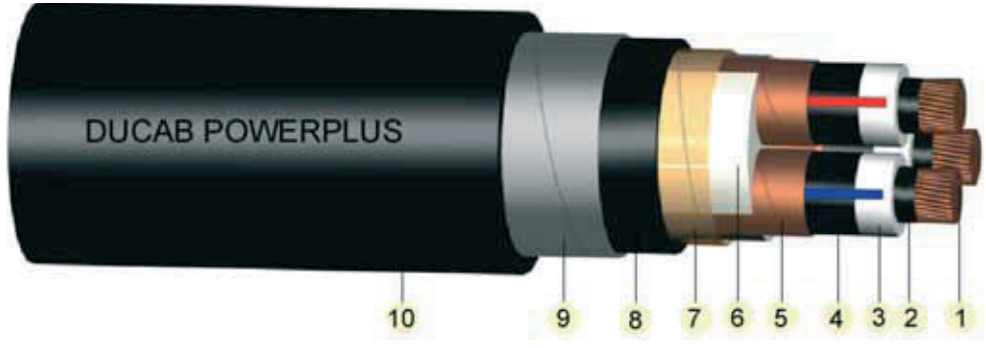
Table 15

Nominal Area of Conductor	mm²	50	70	95	120	150	185	240	300	400
Conductor Diameter (Max)	mm	8.4	9.9	11.6	13	14.5	16.1	18.4	20.6	23.7
Weight of Conductor (Approx)	Kg/Km	1281	1845	2558	3219	3954	4966	6526	8187	10428
Insulation Thickness (Nominal)	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Separation Sheath Thickness	mm	1.5	1.05	1.6	1.7	1.7	1.8	1.9	2	2.1
Steel Tape Thickness (Nominal)	mm	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8
Outersheath Thickness (Nominal)	mm	2.7	2.9	3	3.1	3.2	3.3	3.5	3.6	3.9
Approximate Overall Diameter	mm	56.5	60.0	64.0	67.5	71.0	75.0	80.5	85.5	93.0
Approximate Cable Weight	Kg/Km	4650	5510	6620	7660	8780	10320	12580	16010	19720
Standard Drum Length	m	500	500	500	500	400	300	300	250	200
Minimum Bending Radius of Cable (during installation)	mm	676	719	768	808	851	896	962	1026	1115
Maximum DC resistance of Conductor at 20˚C	ohm/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047
Approximate AC resistance of Conductor at 90˚C	ohm/Km	0.493	0.342	0.247	0.196	0.159	0.128	0.098	0.079	0.064
Approximate Reactance at 50 Hertz	ohm/Km	0.12	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09
Approximate Impedance at 50 Hertz	ohm/Km	0.51	0.36	0.27	0.22	0.19	0.16	0.14	0.12	0.11
Approximate Capacitance of Cable	µf/Km	0.22	0.25	0.28	0.31	0.33	0.36	0.41	0.44	0.49
Approx. Charging Current per phase at Uo = 8.7kV and f = 50Hz	mA/m	0.60	0.68	0.77	0.85	0.90	1.0	1.1	1.2	1.3
Sustained Current Ratings										
1. Laid Direct, Ground Temp. 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	187	227	267	303	338	383	436	481	534
2. Drawn into Ducts, Ground Temp. = 30˚C & g =1.2˚C m/W, depth of laying = 0.8m, laid singly	A	161	191	227	258	294	329	378	418	472
3. Laid singly in Air, Ambient Temp. 35˚ C	A	203	248	304	345	396	451	524	598	681
One Second Short Circuit Current Rating of Conductor	kA	7.15	10.01	13.60	17.20	21.50	26.50	34.30	42.90	57.20

For all cables the maximum conductor operating temperature is 90˚C and limiting conductor temperature after short circuit is 250˚C.
Longer drum lengths are available to specific customer requirements.

8.7/15 (17.5)kV

Three Core
Copper Conductors
XLPE Insulated
to IEC 60502-2
Steel Tape Armoured



1.HCC+ ™ Copper Conductor
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4.Semiconductive insulation screen
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9. Galvanised steel tape armour
10. Outer sheath