



Quality Through Experience

AIRFIELD LIGHTING CABLES



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Airfield Lighting Cables

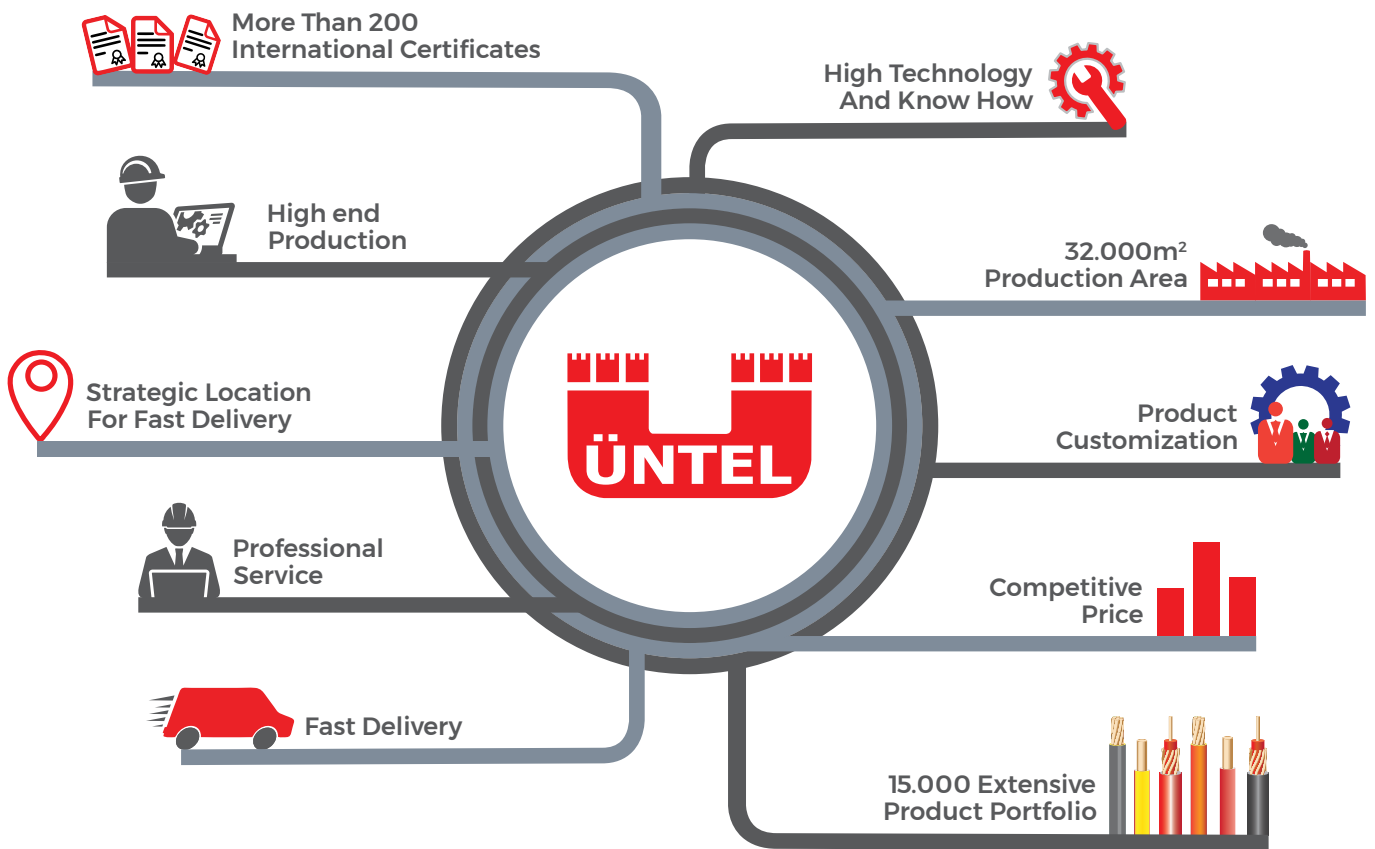


Quality Through Experience

ALMOST 50 YEARS IN PRODUCTION

ALMOST 50 YEARS IN PRODUCTION

Exporting Over 70 Countries on 6 Continents



Industrial Cables



Marine Cables



Mining Cables



Offshore Cables



Railway Cables



Airport Runway Cables



Defense Cables



Crane Cables



ABOUT US

ABOUT US

ÜNTEL KABLO, one of leading cable manufacturers in the world was established in 1972, Turkey. With almost 50 years of experience, continuously develops and optimize her product range with the help of advanced technology and well trained staff.

Product range consists over 15.000 different types of cables, covers both rubber and thermoplastic cables up to Medium Voltage (MV) range. ÜNTEL's power and instrumentation cables supplies energy for industries which requires experience like marine, offshore, mines and tunnels, airports, railways and have been used in industrial ways such as heavy-duty rubber drum reeling cables, welding cables, control cables and fire resistant cables. ÜNTEL is also able to produce tailor made products for special purposes. Today these products are exported over 70 countries on six continents.

By the end of 2009, ÜNTEL finalized the investment of a new high-tech plant near Istanbul. Now continues her operations on 43.000 m2 land space with 32.000 m2 closed area. By having 3.000 tons copper drawing and 4.000 tons different type of

compound processing capacity, ÜNTEL produces 30.000 tones of cable per year. By means of new factory building, state of the art machines and unique ERP system investments ÜNTEL aimed absolute customer satisfaction.

Üntel's laboratories which are approved by organisations that specify the standards are equipped with advanced technology test and measurement devices. Within the scope of Quality System Certificates there is a quality management system presents in Üntel according to ISO, IQnet and TSE quality standards.. Around 200 different types of cables are certified by global organisations like VDE, KEMA, ABS, UL, BV, DNV-GL, RINA and TSE.

Üntel Kablo evaluate customer needs and expectations in a sectoral view and provide effective solutions with hundred percent customer satisfaction and qualified production philosophy. Üntel's biggest value is well trained and experienced staff and believe that exceptional quality comes through this experience.

Üntel Kablo offers also variety of 400 Hz Ground Power Cables



400 Hz power supply systems provide the external power supply for aircraft on the ground.

AIRPORT CABLES

Airfield Lighting Cables

Üntel Kablo is one of the leading manufacturer of air ground lighting cables in Europe with decades of approved production quality.

In this catalogue Üntel Kablo presents its series of airport lighting primary and secondary cables for fixed installations.

Üntel has supplied Airport Ground Lighting cables to some of the most prestigious airport projects globally, via very well known companies such as ADB Safegate, Honeywell and Airsafe.

One of our most memorable project to supply Primary and Secondary cables for İstanbul New Airport, which on completion, will be the largest in the world.

We manufacture Rubber, LSZH and PVC cables as certified by MAK Aerodrome, FAA, LR-UNE and manufacture also according to DHMI (Turkey General Directorate Of State Airports Authority) and all military specifications. Üntel air ground lighting cables are manufactured to withstand exposure to water, UV radiation, oils and grease, to ensure the continuous operation of lighting systems of runways, taxiways, apron areas and passenger boarding bridges.

Mostly Primary and Secondary cables have been requested according to FAA specification of AC 150/5345-7 Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits. Copies of the current edition of the AC may be obtained at the FAA Website: www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars/ CPR compliant both primary and secondary cable alternatives are also available.

We supply both primary and secondary power cables, which are available screened or unscreened, with either copper braiding, or with copper or brass tape. All sizes are available as AWG and metric versions.

400Hz Aircraft Power Cables for use with mobile and stationary equipment are also available upon request. For detailed info about 400Hz cables you can go to our web page.

While continuously investing on Research & Development and being in the market with more than 45 years of experience, producing wide variety of cables with high-tech production machines and with well trained staff enables Üntel to satisfy customers special requests and needs by supplying the best quality products.

Please go through our product pages for further technical information, if your requirement is for more specialised or for technical support or assistance, our technical team is at your disposal.



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CABLE STRUCTURE

Conductor	Stranded annealed tinned or bare copper wires According to IEC 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation	XLPE - Cross linked polyethylene material
Semiconductive Layer	Semiconductive tape helically applied
Screen	Minimum 20% overlap and 100% coverage helically applied Brass Tape
Outer Jacket	PVC or PE or HF (halogen free) or other suitable jacketing material according to NEMA WC74 / ICEA S-93-639.



OPERATING CHARACTERISTICS

Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	12 x Outer Diameter
Standards	ICEA S-93-639 / NEMA WC74 FAA Specification for L 824 - AC No. 150 / 5345-7F

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / XLPE / SCT / BRT / PE	1x6 mm ²	11,9	180	3,08	52
BCL2 / EXSC / XLPE / SCT / BRT / PVC	1x6 mm ²	11,9	208	3,08	52
TCL2 / EXSC / XLPE / SCT / BRT / PE	1x6 mm ²	11,9	180	3,11	52
TCL2 / EXSC / XLPE / SCT / BRT / PVC	1x6 mm ²	11,9	208	3,11	52
BAWGB / EXSC / XLPE / SCT / BRT / PE	1x8 AWG	12,8	208	2,14	64
BAWGB / EXSC / XLPE / SCT / BRT / PVC	1x8 AWG	12,8	240	2,14	64
TAWGB / EXSC / XLPE / SCT / BRT / PE	1x8 AWG	12,8	208	2,22	64
TAWGB / EXSC / XLPE / SCT / BRT / PVC	1x8 AWG	12,8	240	2,22	64
BAWGB / EXSC / XLPE / SCT / BRT / PE	1x6 AWG	13,6	275	1,35	85
BAWGB / EXSC / XLPE / SCT / BRT / PVC	1x6 AWG	13,6	302	1,35	85
TAWGB / EXSC / XLPE / SCT / BRT / PE	1x6 AWG	13,6	275	1,40	85
TAWGB / EXSC / XLPE / SCT / BRT / PVC	1x6 AWG	13,6	302	1,40	85

(*) For explanation of coding refer to Technical Data Section

FAA L 824 – TYPE C



CABLE STRUCTURE

Conductor	Stranded annealed tinned or bare copper wires According to IEC 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation	XLPE - Cross linked polyethylene material
Semiconductive Layer	Semiconductive tape helically applied
Screen	Minimum 20% overlap and 100% coverage helically applied Copper Tape
Outer Jacket	PVC or PE or HF (halogen free) or other suitable jacketing material according to NEMA WC74 / ICEA S-93-639.

OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	12 x Outer Diameter
Standard Of Test	ICEA S-93-639 / NEMA WC74 FAA Specification for L 824 - AC No. 150 / 5345-7F



Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / XLPE / SCT / CUT / PE	1x6 mm ²	11,9	182	3,08	52
BCL2 / EXSC / XLPE / SCT / CUT / PVC	1x6 mm ²	11,9	211	3,08	52
TCL2 / EXSC / XLPE / SCT / CUT / PE	1x6 mm ²	11,9	182	3,11	52
TCL2 / EXSC / XLPE / SCT / CUT / PVC	1x6 mm ²	11,9	211	3,11	52
BAWGB / EXSC / XLPE / SCT / CUT / PE	1x8 AWG	12,8	210	2,14	64
BAWGB / EXSC / XLPE / SCT / CUT / PVC	1x8 AWG	12,8	242	2,14	64
TAWGB / EXSC / XLPE / SCT / CUT / PE	1x8 AWG	12,8	210	2,22	64
TAWGB / EXSC / XLPE / SCT / CUT / PVC	1x8 AWG	12,8	242	2,22	64
BAWGB / EXSC / XLPE / SCT / CUT / PE	1x6 AWG	13,6	277	1,35	85
BAWGB / EXSC / XLPE / SCT / CUT / PVC	1x6 AWG	13,6	305	1,35	85
TAWGB / EXSC / XLPE / SCT / CUT / PE	1x6 AWG	13,6	277	1,40	85
TAWGB / EXSC / XLPE / SCT / CUT / PVC	1x6 AWG	13,6	305	1,40	85

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE B



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation Semiconductive Layer	EPR - Etylene propylene rubber material
Screen	Minimum 20% overlap and 100% coverage helically applied Brass Tape
Outer Jacket	CPE-XL-HD or CR-HD or Neoprene or other suitable jacketing material according to NEMA WC74 / ICEA S-93-639



OPERATING CHARACTERISTICS

Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	12 x Outer Diameter
Standard	ICEA S-93-639 / NEMA WC74, FAA Specification for L 824 - AC No. 150 / 5345-7F

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / EPR / SCT / BRT / CPE-X	1x6 mm ²	12,0	214	3,08	52
TCL2 / EXSC / EPR / SCT / BRT / CPE-X	1x6 mm ²	12,0	214	3,11	52
BAWGB / EXSC / EPR / SCT / BRT / CPE-X	1x8 AWG	12,6	250	2,14	64
TAWGB / EXSC / EPR / SCT / BRT / CPE-X	1x8 AWG	12,6	250	2,22	64
BAWGB / EXSC / EPR / SCT / BRT / CPE-X	1x6 AWG	13,6	315	1,35	85
TAWGB / EXSC / EPR / SCT / BRT / CPE-X	1x6 AWG	13,6	315	1,40	85

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE B



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation	EPR- Ethylene propylene rubber material
Semiconductive Layer	Semiconductive tape helically applied
Screen	Minimum 20% overlap and 100% coverage helically applied Copper Tape
Outer Jacket	CPE-XL-HD or CR - HD or Neoprene or other suitable jacketing material according to NEMA WC74 / ICEA S-93-639



OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	12 x Outer Diameter
Standard Of Test	ICEA S-93-639 / NEMA WC74 FAA Specification for L824-AC No. 150/5345-7F

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x6 mm ²	12,0	216	3,08	52
TCL2 / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x6 mm ²	12,0	216	3,11	52
BAWGB / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x8 AWG	12,6	251	2,14	64
TAWGB / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x8 AWG	12,6	251	2,22	64
BAWGB / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x6 AWG	13,6	317	1,35	85
TAWGB / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x6 AWG	13,6	317	1,40	85

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE C



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation	XLPE - Cross linked polyethylene material
Semiconductive Layer	Semiconductive tape hellically applied
Screen	Tinned Copper wire braiding with minimum 80% coverage
Outer Jacket	PVC or PE or HF (alogen free) or other suitable jacketing material according to NEMA WC74 / IECA S-93-639



OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	12 x Outer Diameter
Standard Of Test	IECA S-93-639 / NEMA WC74 FAA Specification for L 824 - AC No. 150 / 5345-7F

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / XLPE / SCT / BCUB / PE	1x6 mm ²	12,4	203	3,08	52
BCL2 / EXSC / XLPE / SCT / BCUB / PVC	1x6 mm ²	12,4	228	3,08	52
TCL2 / EXSC / XLPE / SCT / TCUB / PVC	1x6 mm ²	12,4	203	3,11	52
TCL2 / EXSC / XLPE / SCT / TCUB / PVC	1x6 mm ²	12,4	228	3,11	52
BAWGB / EXSC / XLPE / SCT / BCUB / PE	1x8 AWG	13,0	238	2,14	64
BAWGB / EXSC / XLPE / SCT / BCUB / PVC	1x8 AWG	13,0	263	2,14	64
TAWGB / EXSC / XLPE / SCT / TCUB / PE	1x8 AWG	13,0	238	2,22	64
TAWGB / EXSC / XLPE / SCT / TCUB / PVC	1x8 AWG	13,0	263	2,22	64
BAWGB / EXSC / XLPE / SCT / BCUB / PE	1x6 AWG	14,0	302	1,35	85
BAWGB / EXSC / XLPE / SCT / BCUB / PVC	1x6 AWG	14,0	329	1,35	85
TAWGB / EXSC / XLPE / SCT / TCUB / PE	1x6 AWG	14,0	302	1,40	85
TAWGB / EXSC / XLPE / SCT / TCUB / PVC	1x6 AWG	14,0	329	1,40	85

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE B



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation	EPR- Ethylene propylene rubber material
Semiconductive Layer	Semiconductive tape hellically applied
Screen	Tinned Copper wire braiding with minimum 80% coverage
Outer Jacket	CPE-XL-HD or CR - HD or Neoprene or other suitable jacketing material according to NEMA WC74 / IECA S-93-639

OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	12 x Outer Diameter
Standard Of Test	IECA S-93-639 / NEMA WC74 FAA Specification for L824-AC No. 150/5345-7F

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / EPR / SCT / BCUB / CPE-X	1x6 mm ²	12,4	240	3,08	52
TCL2 / EXSC / EPR / SCT / TCUB / CPE-X	1x6 mm ²	12,4	240	3,11	52
BAWGB / EXSC / EPR / SCT / BCUB / CPE-X	1x8 AWG	13,0	278	2,14	64
TAWGB / EXSC / EPR / SCT / TCUB / CPE-X	1x8 AWG	13,0	278	2,22	64
BAWGB / EXSC / EPR / SCT / BCUB / CPE-X	1x6 AWG	14,0	346	1,35	85
TAWGB / EXSC / EPR / SCT / TCUB / CPE-X	1x6 AWG	14,0	346	1,40	85

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE B



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Insulation	EPR - Ethylene propylene rubber material
Screen	Minimum 20% overlap and 100% coverage helically applied Copper Tape
Outer Jacket	CPE-XL-HD or CR - HD or Neoprene or other suitable jacketing material according to NEMA WC74 / ICEA S-93-639

OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	12 x Outer Diameter
Standard Of Test	ICEA S-93-639 / NEMA WC74 FAA Specification for L824-AC No. 150/5345-7F



Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BAWGB / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x8 AWG	15,0	345	2,14	64
TAWGB / EXSC / EPR / SCT / CUT / CPE-XL-HD	1x8 AWG	15,0	345	2,22	64
BAWGB / EXSC / EPR / SCT / BRT / CPE-XL-HD	1x8 AWG	15,0	346	2,14	64
TAWGB / EXSC / EPR / SCT / BRT / CPE-XL-HD	1x8 AWG	15,0	346	2,22	64

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE C



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation	XLPE - Cross linked polyethylene material
Outer Jacket	PVC or PE or HF (halogen free) or other suitable jacketing material according to NEMA WC71 / IECA S-96-659.

OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	5 x Outer Diameter
Standard Of Test	IECA S-96-659 / NEMA WC71 FAA Specification for L 824 - AC No.150 / 5345-7F



Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / XLPE / PE	1x6 mm ²	11,0	162	3,08	52
BCL2 / EXSC / XLPE / PVC	1x6 mm ²	11,0	192	3,08	52
TCL2 / EXSC / XLPE / PE	1x6 mm ²	11,0	162	3,11	52
TCL2 / EXSC / XLPE / PVC	1x6 mm ²	11,0	192	3,11	52
BAWGB / EXSC / XLPE / PE	1x8 AWG	11,9	183	2,14	64
BAWGB / EXSC / XLPE / PVC	1x8 AWG	11,9	207	2,14	64
TAWGB / EXSC / XLPE / PE	1x8 AWG	11,9	183	2,22	64
TAWGB / EXSC / XLPE / PVC	1x8 AWG	11,9	207	2,22	64
BAWGB / EXSC / XLPE / PE	1x6 AWG	13,0	249	1,35	85
BAWGB / EXSC / XLPE / PVC	1x6 AWG	13,0	263	1,35	85
TAWGB / EXSC / XLPE / PE	1x6 AWG	13,0	249	1,40	85
TAWGB / EXSC / XLPE / PVC	1x6 AWG	13,0	263	1,40	85

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE B



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 AWG types to ASTM B8 - Class B or Class C
Semiconductive Layer	Extruded Semiconductive material
Insulation	EPR- Ethylene propylene rubber material
Outer Jacket	CPE-XL-HD or CR - HD or NEoprene or other suitable jacketing material according to NEMA WC71 / IECA S-96-659.

OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	18 kV
Bending Radius	5 x Outer Diameter
Standard Of Test	IECA S-96-659 / NEMA WC71 FAA Specification for L824-AC No. 150/5345-7F



Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EXSC / EPR / CPE-XL-HD	1x6 mm ²	11,0	180	3,08	52
TCL2 / EXSC / EPR / CPE-XL-HD	1x6 mm ²	11,0	180	3,11	52
BAWGB / EXSC / EPR / CPE-XL-HD	1x8 AWG	11,9	214	2,14	64
TAWGB / EXSC / EPR / CPE-XL-HD	1x8 AWG	11,9	214	2,22	64
BAWGB / EXSC / EPR / CPE-XL-HD	1x6 AWG	13,0	275	1,35	85
TAWGB / EXSC / EPR / CPE-XL-HD	1x6 AWG	13,0	275	1,40	85

(*) For explanation of coding refer to Technical Data Section



FAA L 824 - TYPE C



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 or Class 5 AWG types to ASTM B8 - Class B or Class C If requested ASTM B172 or B173 flexible versions also available
Insulation	XLPE - Cross linked polyethylene material
Outer Jacket	PVC or PE or HF(halogen free) or other suitable jacketing material according to NEMA WC70 / IECA S-96-658.

OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	600 V
Test Voltage	2 kV
Bending Radius	5 x Outer Diameter
Standard Of Test	IECA S-96-658 / NEMA WC70 FAA Specification for L824-AC No. 150/5345-7F

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / XLPE / PE	1x2,5 mm ²	5,3	38	7,41	30
BCL2 / XLPE / PE	1x4 mm ²	5,9	56	4,61	40
BCL2 / XLPE / PE	1x6 mm ²	6,4	76	3,08	52
BCL2 / XLPE / PE	1x10 mm ²	8,4	125	1,83	72
BCL2 / XLPE / PE	2x2,5 mm ²	9,7	107	7,41	26
BCL2 / XLPE / PE	2x4 mm ²	10,2	140	4,61	34
BCL2 / XLPE / PE	2x6 mm ²	11,6	192	3,08	44
BCL2 / XLPE / PE	2x10 mm ²	15,8	334	1,83	61
BCL5 / XLPE / PE	1x2,5 mm ²	5,3	36	7,98	30
BCL5 / XLPE / PE	1x4 mm ²	5,9	52	4,95	40
BCL5 / XLPE / PE	1x6 mm ²	6,4	70	3,30	52
BCL5 / XLPE / PE	1x10 mm ²	8,4	119	1,91	72
BCL5 / XLPE / PE	2x2,5 mm ²	9,5	102	7,98	26

(*) For explanation of coding refer to Technical Data Section

Construction (*)	Cross Section	Approx Weight kg/km	Overall Diameter mm	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL5 /XLPE/ PE	2x4 mm ²	135	10,0	4,95	34
BCL5 /XLPE/ PE	2x6 mm ²	179	9,8	3,30	44
BCL5 /XLPE/ PE	2x10 mm ²	321	15,6	1,91	61
BCL2 /XLPE/ PVC	1x2,5 mm ²	43	5,1	7,41	30
BCL2 /XLPE/ PVC	1x4 mm ²	62	5,7	4,61	40
BCL2 /XLPE/ PVC	1x6 mm ²	82	6,3	3,08	52
BCL2 /XLPE/ PVC	1x10 mm ²	141	8,2	1,83	72
BCL2 /XLPE/ PVC	2x2,5 mm ²	130	9,5	7,41	26
BCL2 /XLPE/ PVC	2x4 mm ²	174	10,2	4,61	34
BCL2 /XLPE/ PVC	2x6 mm ²	230	12,5	3,08	44
BCL2 /XLPE/ PVC	2x10 mm ²	403	15,8	1,83	61
BCL5 /XLPE/ PVC	1x2,5 mm ²	41	5,0	7,98	30
BCL5 /XLPE/ PVC	1x4 mm ²	58	5,7	4,95	40
BCL5 /XLPE/ PVC	1x6 mm ²	76	6,1	3,30	52
BCL5 /XLPE/ PVC	1x10 mm ²	125	7,8	1,91	72
BCL5 /XLPE/ PVC	2x2,5 mm ²	124	9,3	7,98	26
BCL5 /XLPE/ PVC	2x4 mm ²	164	10,3	4,95	34
BCL5 /XLPE/ PVC	2x6 mm ²	215	11,4	3,30	44
BCL5 /XLPE/ PVC	2x10 mm ²	392	15,8	1,91	61
BAWGB /XLPE/ PE	1x12 AWG	49	5,7	5,44	36
BAWGB /XLPE/ PE	1x10 AWG	70	6,3	3,41	48
BAWGB /XLPE/ PE	1x8 AWG	111	7,8	2,14	64
BAWGB /XLPE/ PE	1x6 AWG	159	8,7	1,35	86
BAWGB /XLPE/ PE	2x12 AWG	131	10,2	5,44	30
BAWGB /XLPE/ PE	2x10 AWG	180	11,4	3,41	40
BAWGB /XLPE/ PE	2x8 AWG	369	15,4	2,14	54
BAWGB /XLPE/ PE	2x6 AWG	425	17,3	1,35	72
BAWGB /XLPE/ PE	1x12 AWG	48	5,4	5,44	36
BAWGB /XLPE/ PE	1x10 AWG	70	6,2	3,41	48
BAWGB /XLPE/ PE	1x8 AWG	110	7,7	2,14	64
BAWGB /XLPE/ PE	1x6 AWG	160	8,5	1,35	86
BAWGB /XLPE/ PE	2x12 AWG	130	10,3	5,44	30
BAWGB /XLPE/ PE	2x10 AWG	180	11,5	3,41	40
BAWGB /XLPE/ PE	2x8 AWG	305	15,3	2,14	54
BAWGB /XLPE/ PE	2x6 AWG	424	17,0	1,35	72
BAWGB /XLPE/ PVC	1x12 AWG	56	5,6	5,44	36
BAWGB /XLPE/ PVC	1x10 AWG	78	6,4	3,41	48
BAWGB /XLPE/ PVC	1x8 AWG	118	7,6	2,14	64
BAWGB /XLPE/ PVC	1x6 AWG	170	8,8	1,35	86
BAWGB /XLPE/ PVC	2x12 AWG	159	10,2	5,44	30

(*) For explanation of coding refer to Technical Data Section

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BAWGB / XLPE / PVC	2x10 AWG	11,5	215	3,41	40
BAWGB / XLPE / PVC	2x8 AWG	15,1	367	2,14	54
BAWGB / XLPE / PVC	2x6 AWG	17,4	508	1,35	72
BAWGB / XLPE / PVC	1x12 AWG	5,5	54	5,44	36
BAWGB / XLPE / PVC	1x10 AWG	6,2	77	3,41	48
BAWGB / XLPE / PVC	1x8 AWG	7,6	120	2,14	64
BAWGB / XLPE / PVC	1x6 AWG	8,7	172	1,35	86
BAWGB / XLPE / PVC	2x12 AWG	10,2	158	5,44	30
BAWGB / XLPE / PVC	2x10 AWG	11,3	215	3,41	40
BAWGC / XLPE / PVC	2x8 AWG	15,1	365	2,14	54
BAWGC / XLPE / PVC	2x6 AWG	17,2	508	1,35	72
TCL2 / XLPE / PE	1x2,5 mm ²	5,2	40	7,56	30
TCL2 / XLPE / PE	1x4 mm ²	5,7	56	4,70	40
TCL2 / XLPE / PE	1x6 mm ²	6,4	77	3,11	52
TCL2 / XLPE / PE	1x10 mm ²	8,1	125	1,84	72
TCL2 / XLPE / PE	2x2,5 mm ²	9,6	106	7,56	26
TCL2 / XLPE / PE	2x4 mm ²	10,7	145	4,70	34
TCL2 / XLPE / PE	2x6 mm ²	11,6	192	3,11	44
TCL2 / XLPE / PE	2x10 mm ²	16,0	340	1,84	61
TCL5 / XLPE / PE	1x2,5 mm ²	5,2	38	8,21	30
TCL5 / XLPE / PE	1x6 mm ²	5,7	52	5,09	40
TCL5 / XLPE / PE	1x10 mm ²	6,3	72	3,39	52
TCL5 / XLPE / PE	2x2,5 mm ²	8,0	120	1,95	72
TCL5 / XLPE / PE	2x4 mm ²	9,4	102	8,21	26
TCL5 / XLPE / PE	2x6 mm ²	10,2	132	5,09	34
TCL5 / XLPE / PE	2x10 mm ²	11,6	181	3,39	44
TCL5 / XLPE / PE	1x2,5 mm ²	15,9	328	1,95	61
TCL2 / XLPE / PVC	1x4 mm ²	5,3	45	7,56	30
TCL2 / XLPE / PVC	1x6 mm ²	5,8	62	4,70	40
TCL2 / XLPE / PVC	1x10 mm ²	6,4	85	3,11	52
TCL2 / XLPE / PVC	2x2,5 mm ²	8,1	135	1,84	72
TCL2 / XLPE / PVC	2x4 mm ²	9,8	135	7,56	26
TCL2 / XLPE / PVC	1x2,5 mm ²	10,8	180	4,70	34
TCL2 / XLPE / PVC	2x6 mm ²	11,7	230	3,11	44
TCL2 / XLPE / PVC	2x10 mm ²	16,1	410	1,84	61
TCL2 / XLPE / PVC	1x2,5 mm ²	5,1	43	8,21	30
TCL2 / XLPE / PVC	1x4 mm ²	5,7	60	5,09	40
TCL2 / XLPE / PVC	1x6 mm ²	6,3	78	3,39	52
TCL2 / XLPE / PVC	1x10 mm ²	7,7	123	1,95	72
TCL2 / XLPE / PVC	2x2,5 mm ²	9,6	128	8,21	26

(*) For explanation of coding refer to Technical Data Section

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
TCL2 /XLPE / PVC	2x4 mm ²	10,4	167	5,09	34
TCL2 /XLPE / PVC	2x6 mm ²	11,3	215	3,39	44
TCL2 /XLPE / PVC	2x10 mm ²	15,6	390	1,95	61
TAWGB /XLPE / PE	1x12 AWG	15,6	50	5,64	36
TAWGB /XLPE / PE	1x10 AWG	6,0	67	3,54	48
TAWGB /XLPE / PE	1x8 AWG	7,7	110	2,22	64
TAWGB /XLPE / PE	1x6 AWG	8,8	163	1,40	86
TAWGB /XLPE / PE	2x12 AWG	10,3	130	5,64	30
TAWGB /XLPE / PE	2x10 AWG	11,5	178	3,54	40
TAWGB /XLPE / PE	2x8 AWG	15,3	370	2,22	54
TAWGB /XLPE / PE	2x6 AWG	17,1	423	1,40	72
TAWGC /XLPE / PE	1x12 AWG	5,5	49	5,73	72
TAWGC /XLPE / PE	1x10 AWG	6,1	70	3,54	36
TAWGC /XLPE / PE	1x8 AWG	7,6	108	2,22	64
TAWGC /XLPE / PE	1x6 AWG	8,3	156	1,40	86
TAWGC /XLPE / PE	2x12 AWG	10,2	130	5,73	30
TAWGC /XLPE / PE	2x10 AWG	11,4	1480	3,54	40
TAWGC /XLPE / PE	2x8 AWG	15,0	300	2,22	54
TAWGC /XLPE / PE	2x6 AWG	16,8	423	1,40	72
TAWGB /XLPE / PVC	1x12 AWG	5,6	55	5,64	36
TAWGB /XLPE / PVC	1x10 AWG	6,4	79	3,54	48
TAWGB /XLPE / PVC	1x8 AWG	7,7	120	2,22	64
TAWGB /XLPE / PVC	1x6 AWG	8,8	170	1,40	86
TAWGB /XLPE / PVC	2x12 AWG	10,2	160	5,64	30
TAWGB /XLPE / PVC	2x10 AWG	11,3	212	3,54	40
TAWGB /XLPE / PVC	2x8 AWG	15,4	372	2,22	54
TAWGB /XLPE / PVC	2x6 AWG	17,1	505	1,40	72
TAWGC /XLPE / PVC	1x12 AWG	5,4	54	5,73	36
TAWGC /XLPE / PVC	1x10 AWG	6,1	78	3,54	48
TAWGC /XLPE / PVC	1x8 AWG	7,7	120	2,22	64
TAWGC /XLPE / PVC	1x6 AWG	8,5	170	1,40	86
TAWGC /XLPE / PVC	2x12 AWG	10,4	160	5,73	30
TAWGC /XLPE / PVC	2x10 AWG	11,5	215	3,54	40
TAWGC /XLPE / PVC	2x8 AWG	14,4	370	2,22	54
TAWGC /XLPE / PVC	2x6 AWG	17,0	505	1,40	72

(*) For explanation of coding refer to Technical Data Section

FAA L 824 - TYPE B



CABLE STRUCTURE

Conductor	Strand of annealed tinned or bare copper wires According to IEC C 60228 - Class 2 or Class 5 AWG types to ASTM B8 - Class B or Class C If requested ASTM B172 or B173 flexible versions also available
Insulation	EPR - Ethylene propylene rubber material
Outer Jacket	CPE-XL-HD or Cr - HD or NEoprene or other suitable jacketing material according to NEMA WC70 / IECA S-96-658.

OPERATING CHARACTERISTICS

Conductor Operating Temperature	-25°C / +90°C
Rated Voltage	600 V
Test Voltage	2 kV
Bending Radius	5 x Outer Diameter
Standard Of Test	IECA S - 96 - 658 / NEMA WC 70

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL2 / EPR / CPE-XL-HD	1x2,5 mm ²	5,2	50	7,41	30
BCL2 / EPR / CPE-XL-HD	1x4 mm ²	5,9	70	4,61	40
BCL2 / EPR / CPE-XL-HD	1x6 mm ²	6,4	92	3,08	52
BCL2 / EPR / CPE-XL-HD	1x10 mm ²	8,2	150	1,83	72
BCL2 / EPR / CPE-XL-HD	2x2,5 mm ²	8,8	150	7,41	26
BCL2 / EPR / CPE-XL-HD	2x4 mm ²	10,8	198	4,61	34
BCL2 / EPR / CPE-XL-HD	2x6 mm ²	12,0	265	3,08	44
BCL2 / EPR / CPE-XL-HD	2x10 mm ²	16,2	452	1,83	61
BCL5 / EPR / CPE-XL-HD	1x2,5 mm ²	5,2	49	7,98	30
BCL5 / EPR / CPE-XL-HD	1x4 mm ²	5,7	68	4,95	40
BCL5 / EPR / CPE-XL-HD	1x6 mm ²	6,2	85	3,30	52
BCL5 / EPR / CPE-XL-HD	1x10 mm ²	7,7	135	1,91	72
BCL5 / EPR / CPE-XL-HD	2x2,5 mm ²	8,7	135	7,98	26
BCL5 / EPR / CPE-XL-HD	2x4 mm ²	10,2	192	4,95	34

(*) For explanation of coding refer to Technical Data Section

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
BCL5 / EPR / CPE-XL-HD	2X6 mm ²	11,7	252	3,30	44
BCL5 / EPR / CPE-XL-HD	2X10 mm ²	15,5	435	1,91	61
BAWGB / EPR / CPE-XL-HD	1x12 AWG	5,5	60	5,44	36
BAWGB / EPR / CPE-XL-HD	1x10 AWG	6,4	85	3,41	48
BAWGB / EPR / CPE-XL-HD	1x8 AWG	7,9	138	2,14	64
BAWGB / EPR / CPE-XL-HD	1x6 AWG	8,7	185	1,35	86
BAWGB / EPR / CPE-XL-HD	2x12 AWG	10,4	179	5,44	30
BAWGB / EPR / CPE-XL-HD	2x10 AWG	11,7	342	3,41	40
BAWGB / EPR / CPE-XL-HD	2x8 AWG	15,5	410	2,14	54
BAWGB / EPR / CPE-XL-HD	2x6 AWG	17,5	547	1,35	72
BAWGC / EPR / CPE-XL-HD	1x12 AWG	5,5	60	5,44	36
BAWGC / EPR / CPE-XL-HD	1x10 AWG	6,2	83	3,41	48
BAWGC / EPR / CPE-XL-HD	1x8 AWG	8,1	142	2,14	64
BAWGC / EPR / CPE-XL-HD	1x6 AWG	8,7	186	1,35	86
BAWGC / EPR / CPE-XL-HD	2x12 AWG	10,2	177	5,44	30
BAWGC / EPR / CPE-XL-HD	2x10 AWG	11,8	345	3,41	40
BAWGC / EPR / CPE-XL-HD	2x8 AWG	15,5	411	2,14	54
BAWGC / EPR / CPE-X	2x6 AWG	17,6	550	1,35	72
TCL2 / EPR / CPE-XL-HD	1x2,5 mm ²	5,3	52	7,56	30
TCL2 / EPR / CPE-XL-HD	1x4 mm ²	5,8	75	4,70	40
TCL2 / EPR / CPE-XL-HD	1x6 mm ²	6,3	90	3,11	52
TCL2 / EPR / CPE-XL-HD	1x10 mm ²	8,2	154	1,84	72
TCL2 / EPR / CPE-XL-HD	2x2,5 mm ²	9,6	158	7,56	26
TCL2 / EPR / CPE-XL-HD	2x4 mm ²	10,9	208	4,70	34
TCL2 / EPR / CPE-XL-HD	2x6 mm ²	11,9	263	3,11	44
TCL2 / EPR / CPE-XL-HD	2x10 mm ²	16,1	453	1,84	61
TCL5 / EPR / CPE-XL-HD	1x2,5 mm ²	5,1	52	8,21	30
TCL5 / EPR / CPE-XL-HD	1x4 mm ²	5,7	70	5,09	40
TCL5 / EPR / CPE-XL-HD	1x6 mm ²	6,3	94	3,39	52
TCL5 / EPR / CPE-XL-HD	1x10 mm ²	8,1	147	1,95	72
TCL5 / EPR / CPE-XL-HD	2x2,5 mm ²	9,4	145	8,21	26
TCL5 / EPR / CPE-XL-HD	2x4 mm ²	10,5	190	5,09	34
TCL5 / EPR / CPE-XL-HD	2x6 mm ²	11,5	243	3,39	44
TCL5 / EPR / CPE-XL-HD	2x10 mm ²	15,7	432	1,95	61
TAWGB / EPR / CPE-XL-HD	1x12 AWG	5,6	65	5,64	36
TAWGB / EPR / CPE-XL-HD	1x10 AWG	6,2	91	3,54	48
TAWGB / EPR / CPE-XL-HD	1x8 AWG	7,8	142	2,22	64
TAWGB / EPR / CPE-XL-HD	1x6 AWG	8,8	196	1,40	86
TAWGB / EPR / CPE-XL-HD	2x12 AWG	10,5	186	5,64	30
TAWGB / EPR / CPE-XL-HD	2x10 AWG	11,6	243	3,54	40

(*) For explanation of coding refer to Technical Data Section

Construction (*)	Cross Section	Overall Diameter mm	Approx Weight kg/km	Max. Resistance of Conductors at 20 °C (ohm/km)	Current Carrying Capacity at 45 °C (A)
TAWGB / EPR / CPE-XL-HD	2x8 AWG	15,6	420	2,22	54
TAWGB / EPR / CPE-XL-HD	2x6 AWG	17,5	548	1,40	72
TAWGC / EPR / CPE-XL-HD	1x12 AWG	5,5	68	5,73	36
TAWGC / EPR / CPE-XL-HD	1x10 AWG	6,2	96	3,54	48
TAWGC / EPR / CPE-XL-HD	1x8 AWG	7,8	142	2,22	64
TAWGC / EPR / CPE-XL-HD	1x6 AWG	8,8	196	1,40	86
TAWGC / EPR / CPE-XL-HD	2x12 AWG	10,4	187	5,73	30
TAWGC / EPR / CPE-XL-HD	2x10 AWG	11,6	248	3,54	40
TAWGC / EPR / CPE-XL-HD	2x8 AWG	15,3	395	2,22	64
TAWGC / EPR / CPE-XL-HD	2x6 AWG	17,3	555	1,40	72

(*) For explanation of coding refer to Technical Data Section



Similar design to
FAA L824 - TYPE B (600v)



CABLE STRUCTURE

Conductor	Electrolytic annealed, class 5 stranded plain copper wires (tinned conductor on request)
Separator	A suitable tape may be applied over the conductor
Insulation	EI4 type rubber (EPR) compound
Core Identification	Acc. to HD 308
Inner Sheath	EM2 or EM3 type elastomeric rubber compound (if outer sheath thickness is greater than 2.4 mm)
Outer Sheath	EM2 type elastomeric rubber compound
Color	Black (other colors on request)

STANDARDS & MAIN CHARACTERISTICS

Construction	EN 50525-2-21, DIN VDE 0282-4, BS 6500 BS 7919, IEC 60245-4
General Requirements	EN 50525-1, HD 22.1, DN VDE 0282-1, IEC 60245-1
Guide to Use	HD 516, DIN VDE 0298-300
Electrical Tests	EN 50395, IEC 60245-2
Non - Electrical Tests	EN 50396, IEC 60245-2
Conductor Resistance	EN / IEC 60228, HD 383, DIN VDE 0295, BS 6360
Working Temperature	
In Mobile Use	-25°C / +60°C
in Fixed Use	-35°C / +90°C
Conductor Short - Circuit Temp.	Max. 200°C
Temp. on Cable Surface	Max. +50°C
Min. Installation Temp.	-25°C
Min. Bending Radius	EN 50565-1 Table.3
Max. Tensile Load	15 N / mm ²
Current Carrying Capacities	IEC 60 364-5-52, VDE 0298-4, EN 50565-1
Flame Retardant	IEC 60332-1-2, DIN VDE 0482-332-1-2
Oil Resistant	EN 50363-2-1, IEC 60811-404

It's allowed up to 1.000 V AC or DC using for fixed and protected installations.

Construction	Cross Section	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity for fixed usage (A)
BCL5 / EI4 / EM2	1x2,5 mm ²	6,4	65	7,98	33
BCL5 / EI4 / EM2	1x4 mm ²	7,3	90	4,95	45
BCL5 / EI4 / EM2	1x6 mm ²	8,1	115	3,30	58
BCL5 / EI4 / EM2	2x2,5 mm ²	10,6	165	7,98	36
BCL5 / EI4 / EM2	2x4 mm ²	12,2	230	4,95	49
BCL5 / EI4 / EM2	2x6 mm ²	13,6	300	3,30	63

Notes for current carrying capacities:

Current carrying capacities are according to in open air, with adequate ventilation and ambient temperature of 30 °C

For fixed installation :

Based on IEC 60364-5-52 : 2009 Table B.52.1 and Table B.52.12

- Referred to
- Reference installation method F for Single cores and three loaded cores in trefoil installation.
 - Reference installation method E for Multi cores for 2 core cables; two cores loaded and for 3-4-5 core cables; three cores loaded
 - Reference installation method E for Multi cores for 6 cores and above; All cores loaded except green / yellow (earth) core
 - Correction factors for ambient temperature according to Table B.52.14
 - The current ratings are based on conductor operating temperature of 90 °C

Temperature correction factors

Ambient air temperature °C	30	35	40	45	50	55
Correction factor	1,00	0,96	0,91	0,87	0,82	0,76



CABLE STRUCTURE

Conductor	Stranded annealed tinned or bare copper wires According to IEC 60228 - Class 2
Insulation	PVC insulation (85 °C) Colourless
Outer Jacket	Polyamide (Nylon) Compound
Color	Black

STANDARDS & MAIN CHARACTERISTICS

Operating Temperature	-40°C / +85°C
Rated Voltage	600 V
Test Voltage	2 kV
Bending Radius	5 x Outer Diameter
Standards	According to manufacturer's standard FAA Specification for L 824 - AC No. 150 / 5345-7F UL 1581 or ISO 4892-2
UV Resistance	
Oil Resistant	
Abrasion Resistant	

Minimum laying temperature : -5 °C

Used as airport pavement cable for secondary electrical circuits.

Construction (*)	Cross Section	Nominal Overall Diameter (mm)	Approximate Weight (kg / km)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity at 30°C (A)
BCL2 / PVC / PA	1x4 mm ²	4,2	49	4,61	38

(*) For explanation of coding refer to Technical Data Section



CABLE STRUCTURE

Conductor	Stranded annealed tinned or bare copper wires According to IEC 60228 - Class 2
Semiconductive Layer	Extruded semiconductor layer mixture firmly adhered to insulation.
Insulation	XLPE - Cross linked polyethylene material
Semiconductive Layer	Extruded Semiconductive peelable material
Screen	Copper tape of nominal thickness 0.1 mm helically applied on the semiconductive layer over the insulation with a minimum overlap of %15
Outer Jacket	PVC flame retardant material (ST ₂)
Outer Jacket	Red or other colors on request

STANDARDS & MAIN CHARACTERISTICS

Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	17,5 kV (5 min.)
Bending Radius	15 x Outer Diameter
Standards	AENOR - UNE 21161:2017 IEC 60502-2
Flame Retardant	IEC 60332-1, IEC 60332/3 Cat A
CPR Class - EN 50575:2014+A12016	Cca - s3, d2, a3

Marking Example:

UNTEL CIRCUIT SERIES RHV 5 kV Cca-s3, d2, a3 17 UNE 21161

Construction (*)	Cross Section	Max. Overall Diameter (mm)	Approximate Weight (kg / km)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity at 30°C (A)
BCL2 / EXSC / XLPE / EXSC / CUT / PVC	1x6 mm ²	18,5	49	3,08	52

(*) For explanation of coding refer to Technical Data Section



CABLE STRUCTURE

Conductor	Stranded annealed tinned or bare copper wires According to IEC 60228 - Class 2
Semiconductive Layer	Extruded semiconductor layer mixture firmly adhered to insulation.
Insulation	XLPE - Cross linked polyethylene material.
Semiconductive Layer	Extruded semiconductive peelable material.
Screen	Copper tape of nominal thickness 0.1 mm helically applied on the semiconductive layer over the insulation, with a minimum overlap of 15%.
Outer Jacket	LSZH material - Halogen-free Flame Retardant polyolefin (Z1)
Color	Red or other colors on request

STANDARDS & MAIN CHARACTERISTICS

Operating Temperature	-25°C / +90°C
Rated Voltage	5 kV
Test Voltage	17,5 kV (5 min.)
Bending Radius	15 x Outer Diameter
Standards	UNE 21161:2017 IEC 60502-2
Flame Retardant	IEC 60332-1, IEC 60332/3 Cat A
CPR Class - EN 50575:2014+A12016	Cca - s1b, d2, a1

Marking Example:

UNTEL CIRCUIT SERIES RHZ1 (AS) 5 kV Cca-s1b, d2, a1 17 UNE 21161

Construction (*)	Cross Section	Max. Overall Diameter (mm)	Approximate Weight (kg / km)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity at 30°C (A)
BCL2 / EXSC / XLPE / EXSC / CUT / LSZH	1x6 mm ²	18,5	370	3,08	52

(*) For explanation of coding refer to Technical Data Section



CABLE STRUCTURE

Conductor	Stranded annealed tinned or bare copper wires According to IEC 60228 - Class 5
Insulation	XLPE - Cross linked polyethylene material
Outer Jacket	PVC - flame retardant material
Color	Black or other colors on request

STANDARDS & MAIN CHARACTERISTICS

Operating Temperature	-25°C / +90°C
Rated Voltage	600 V
Test Voltage	2 kV (5 min.)
Bending Radius	5 x Outer Diameter
Standards	AENOR - UNE 21123-2 IEC 60502-1
Flame Retardant	IEC 60332-1
CPR Class - EN 50575:2014+A12016	Eca

Marking Example:

UNTEL RV-K SECONDARY CABLE - 1X 4 mm² - 600V

Construction (*)	Cross Section	Approximate Weight (kg / km)	Nominal Overall Diameter (mm)	Max Resistance of Conductors at 20°C (ohm / km)	Current Carrying Capacity at 30°C (A)
BCL2 / XLPE/ PVC	1x2,5 mm ²	57	6,0	7,98	29
BCL2 / XLPE/ PVC	1x4 mm ²	72	6,5	4,95	39

(*) For explanation of coding refer to Technical Data Section





TECHNICAL DATA

TECHNICAL DATA

DEFINITIONS AND APPLICABLE STANDARDS

ANSI - American National Standards Institute

ISO - International Organization for Standardization

NEMA - National Electrical Manufacturers Association

ICEA - Insulated Cable Engineers Association, Inc.

IEC - International Electrotechnical Commission

FAA - Federal Aviation Administration

ANSI/ICEA S-95-658 / NEMA WC70 – 2009: Power Cables Rated 2000 V or Less for Use in the Distribution of Electrical Energy

ANSI/ICEA S-96-659 / NEMA WC71 – 1999: Standard for Non-Shielded Cables Rated 2001-5000 V for Use in the Distribution of Electrical Energy

ICEA S-93-639 / NEMA WC74 – 2000: 5-46 kV Shielded Power Cable for Use in the Transmission and Distribution of Electrical Energy

ANSI/ICEA T-26-465 / NEMA WC54 – 2008: Guide for Frequency of Sampling Extruded Dielectric Power, Control, Instrumentation and Portable Cables for Test

TS EN 50575:2014+A1:2016: Power, control and communication cables. Cables for general applications in construction works subject to reaction to fire requirements

IEC 60502-1:2004: Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV). Part 1: Cables for rated voltages of 1kV (Um = 1,2 kV) and 3 kV (Um = 3,6 kV)

IEC 60502-2:2014: Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV). Part 2: Cables for rated voltages from 6 kV (Um = 7,2 kV) up to 30 kV (Um = 36 kV)

IEC 60364: Low-voltage electrical installations.

IEC 61000: Electromagnetic compatibility (EMC).

IEC 61200-52: Electrical installation guide - Part 52: Selection and erection of electrical equipment - Wiring systems

IEC 61820: Electrical installations for lighting and beaconing of aerodromes - Constant current series circuits for aeronautical ground lighting: System design and installation requirements

IEC 61821: Electrical installations for lighting and beaconing of aerodromes - Maintenance of aeronautical ground lighting constant current series circuits

IEC 60364-4-44: Low-voltage electrical installations Part 4-44: Protection for safety.

IEC 60228: Conductors of insulated cables

IEC 60331-1-2: Test for vertical flame propagation for single insulated wire or cable.

IEC 60331-3-22: Test for vertical flame spread of vertically - mouted bunched wires or cables - Category A

IEC 60332-3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C

IEC 60754-1: Test on gases evolved during combustion of materials from cables. Part 1: Determination of the halogen acid gas content.

IEC 60754-2: Test on gases evolved during combustion of materials from cables. Part 2: Determination of acidity (by pH measurement) and conductivity.

IEC 60811: Common test methods for insulating and sheathing materials of electric cables.

IEC 61034-1: Measurement of smoke density of cables burning under defined conditions - Part 1: Test apparatus.

AC 150/5345-7: FAA Specification for L-824 Underground Electrical Cable for Airport Lighting Circuits

AC 150/5345-3: FAA Specification for L-821 Panels for Control of Airport Lighting.

AC 150/5345-26: FAA Specification for L-823 Plug and Receptacle,

AC 150/5345-46: FAA Specification for Runway and Taxiway Light Fixtures.

AC 150/5345-47: FAA Specification for Series to Series Isolation Transformers for Airport Lighting Systems.

AC 150/5345-50: FAA Specification for Portable Runway Lights.

AC 150/5345-53: FAA Airport Lighting Equipment Certification Program.

AC 150/5345-54: FAA Specification for L-884 Power and Control Unit for Land and Hold Short Lighting Systems

NOTES:

- FAA ACs are available for download on the FAA Airports Web site: http://www.faa.gov/airports/resources/advisory_Copies_of_ICEA/
- NEMA publications may be purchased from the International Cable Engineer's Association, Inc. (ICEA) website: www.icea.net/Public_Pages/Documents/NewPowerDocumentsPage.html.

TECHNICAL DATA

DEFINITIONS AND APPLICABLE STANDARDS

AFL - AGL

AFL: Air Field Lighting **AGL:** Aerodrome Ground Lighting

Aerodrome lighting provides visual guidance to pilots for aircraft approaching departing and moving around airfield at aerodromes.

Primary cable - Primary Circuit

The airfield lighting primary cable is the cable that connects the current power source - constant current or mains isolating transformer to the isolating transformers for the lights in the runways, airfield lighting. This cable is available in voltage ratings of 3 kV and 5 kV. The 5 kV cable was introduced to allow circuit loads above 10 kW with the resultant increased system voltage. Where primary cables with metallic screens are used, the metallic screen must be earthed.

Secondary cable - Secondary Circuit

The Secondary cables are used for providing the connection between the runway transformers and the lamps. Secondary cable which runs from isolating transformer to the light fitting is mainly a multiple two cores rubber cables. This cable is available in two voltage ratings of 600 V. The standard wire size used to be 1.5 mm², 2.5 and 4 mm²

Type B Cables

Single and multiple conductor cables rated 600 volts and 5,000 volts having EPR - ethylene propylene insulation.

Type C Cables

Single and multiple conductor cables rated 600 volts and 5,000 volts having XLPE - cross-linked polyethylene insulation.

Series Circuits

The circuit elements of series circuits are connected in a string with the same current flowing in each element. The circuit is one continuous loop starting and ending at the output terminals of the constant current regulator. The alternative to a parallel system is to connect the lights in series.

Parallel Circuits

Parallel circuit system uses a 'constant' voltage with two wires; one wire running to all the lights in the circuit and the other wire returning from the lights to source of power. This system of cabling is the most simple and convenient, as it requires only a constant voltage which is available from the AC mains or a DC battery supply.

Megger test

Method of testing making use of an insulation resistance meter that will help to verify the condition of electrical insulation. Method of testing making use of an insulation resistance meter that will help to verify the condition of electrical insulation.

TECHNICAL DATA

CODING OF ÜNTEL AIRPORT CABLES

BCL2: Bare Class 2 Copper wire

BCL5: Bare Class 5 Copper Wire

TCL2: Tinned Class 2 Copper Wire

BAWGB: Bare Class B Copper Wire

TAWGB: Tinned Class B Copper Wire

BAWGC: Bare Class C Copper Wire

TAWGC: Tinned Class C Copper Wire

CUT: Copper Tape

BRT: Brass Tape

BCUB: Braided Screen with
Bare Copper Wires

EXSC: Extruded Semi Conductive Compound

SCT: Semi Conductive Tape

XLPE: Cross-linked Polyethylen

EPR: Ethylene Propylene Rubber

PE: Polyethylene

PVC: Polyvinyl Chloride

CPE-XL-HD: Chlorinated Polyethylene, Cross-Linked, Heavy Duty

PCP - E: Heavy-Duty Neoprene, Polychloroprene or Equivalent

LSZH: Low Smoke Zero Halogen Compound

TCUB: Braided Screen with Tinned Copper Wires

TOLERANCE FOR OUTER DIAMETER OF AGL CABLES

Nominal Outer Diameter (mm)	Tolerance (+/-mm)
1,0 - 10,0	0,5
10,1 - 20,0	1,0
20,1 - 30,0	1,5
30,1 - 40,0	2,0
40,1 - 50,0	2,6
50,1 - 60,0	3,0
60,1 - 70,0	3,5
70,1 - 80,0	4,0

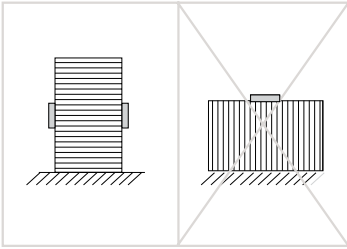
TECHNICAL DATA

US WIRE GAUGE				METRIC SYSTEM
AWG	OR MCM	mm ²	mm	mm ²
	1300 MCM	659,00	28,97	625
	1000 MCM	506,71	25,40	500
	800 MCM	405,35	22,72	
	700 MCM	354,71	21,25	
	600 MCM	304,00	19,67	300
	500 MCM	253,35	17,96	240
	400 MCM	202,71	16,06	
	350 MCM	177,00	15,01	185
	300 MCM	154,00	14,00	150
	250 MCM	126,64	12,70	120
	4/0	107,20	11,68	95
	3/0	85,03	10,04	
	2/0	67,43	9,26	70
	1/0	53,48	8,25	50
	1	42,41	7,34	
	2	33,63	6,55	35
	3	26,67	5,83	
	4	21,15	5,19	25
	5	16,77	4,60	
	6	13,30	4,11	16
	7	10,55	3,67	
	8	8,37	3,26	10
	9	6,63	2,91	
	10	5,26	2,59	6
	11	4,17	2,31	
	12	3,31	2,05	4
	13	2,62	1,83	2,5
	14	2,08	1,63	2,5
	15	1,65	1,45	
	16	1,31	1,29	1,3 or 1,5
	17	1,03	1,15	1
	18	0,823	1,00	0,75
	19	0,653	0,91	
	20	0,51	0,81	0,50

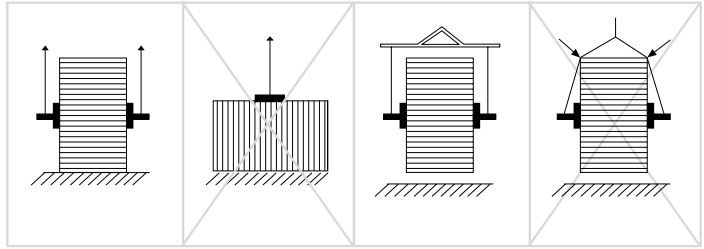
TECHNICAL DATA

Cables and Drums User Guide Drums Handling

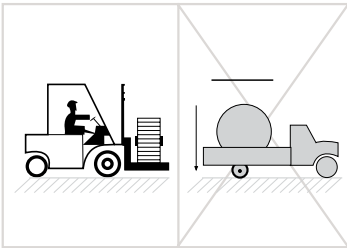
1.1. Position of Drums



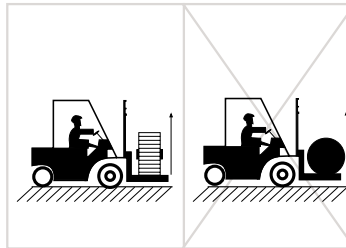
1.2. Loading



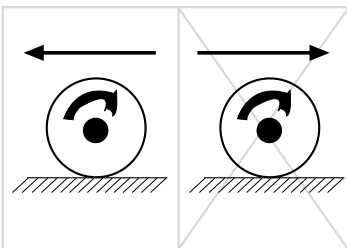
1.3. Unloading



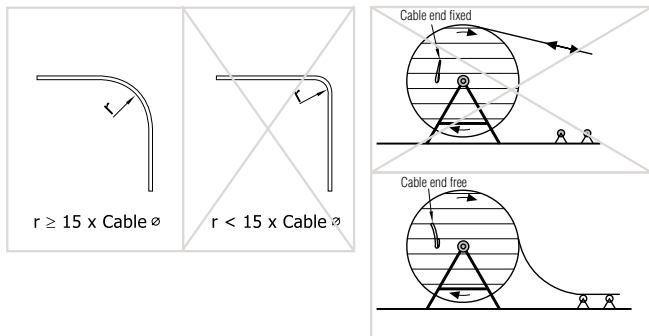
1.4. Handling by forklift



1.5. Rolling

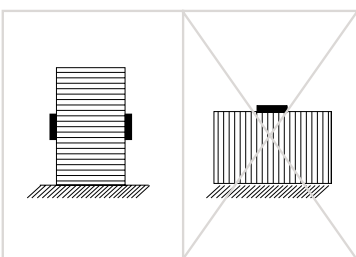


1.6. Paying-off the Cable

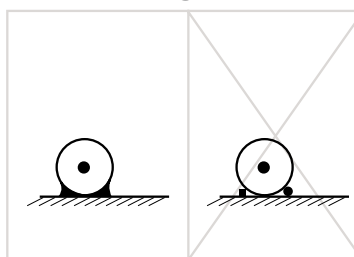


Transport Requirements

2.1. Position of the Drums

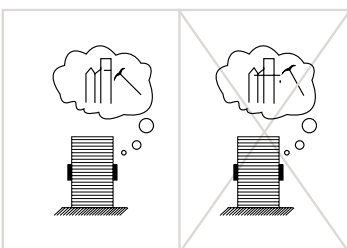


2.2. Fastening Drums

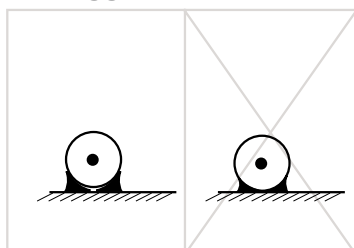


Cables and Drums User Guide

2.3. Use of nails

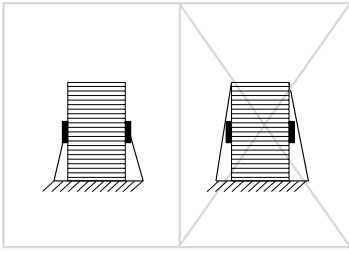


2.4. Bigger Drums

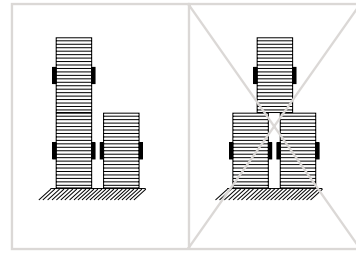


TECHNICAL DATA

2.5. Binding of the Drums

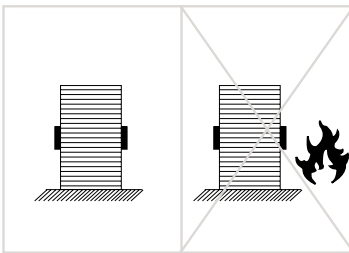


2.6. Multiple Drum Storage

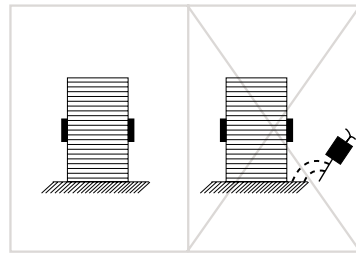


Storage Requirements

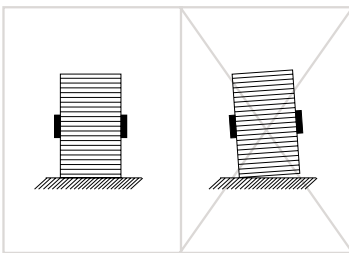
3.1. Do not store near heat sources



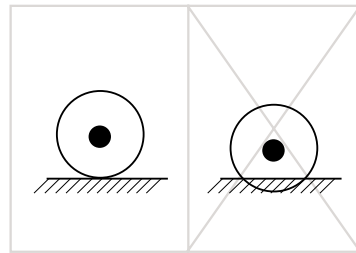
3.2. Do not store on vibrating surfaces. (Ship engine room etc.)



3.3. Do not store on irregular surfaces.



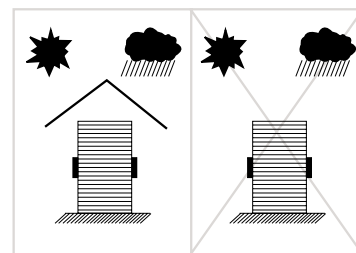
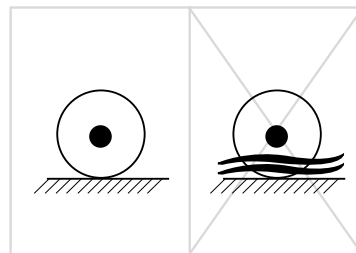
3.4. Do not store on soft surfaces



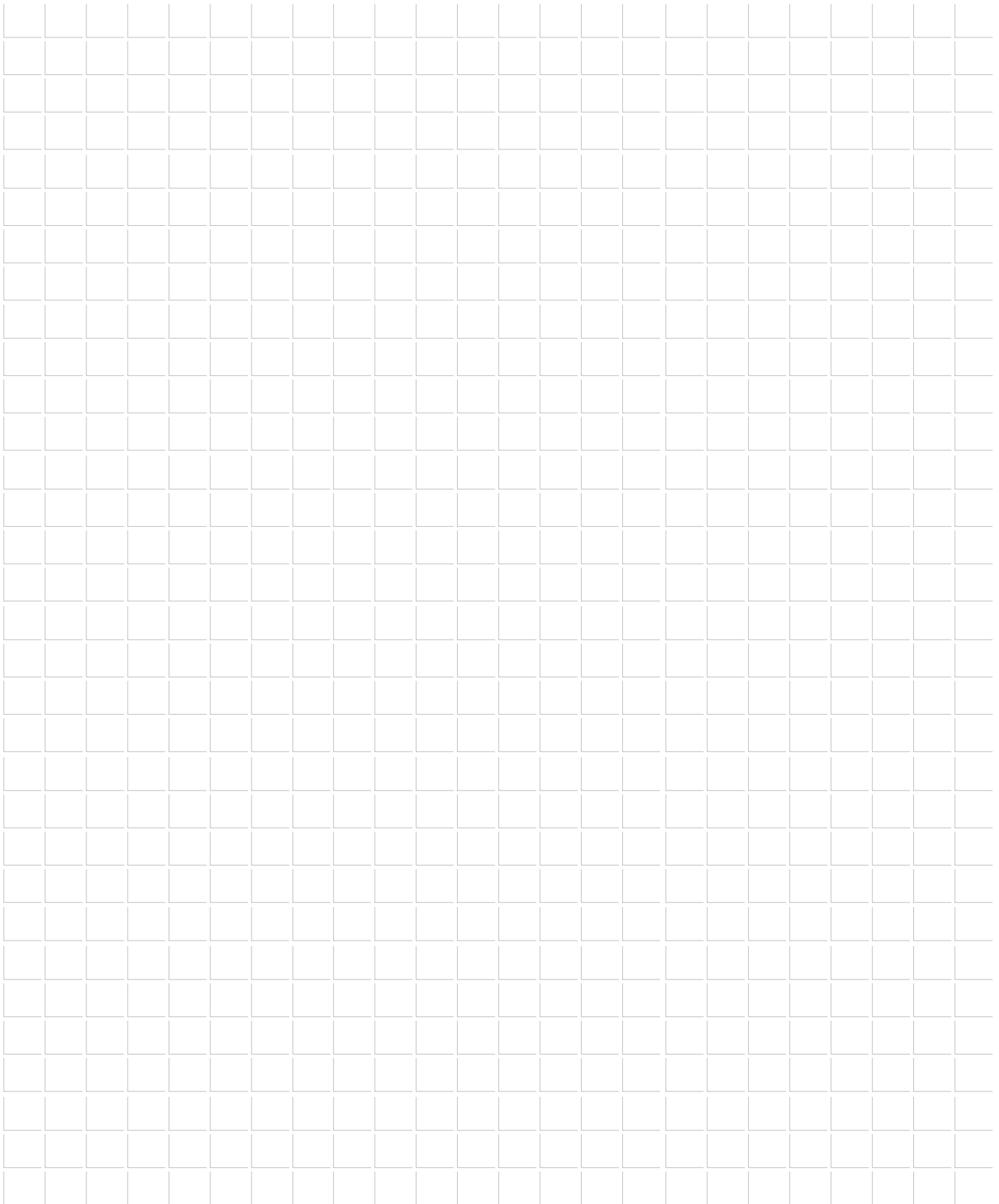
Cables and Drums User Guide

3.5. Do not store on areas liable of flooding. All cable ends must be fully sealed at all times to prevent the ingress of water. It is preferable to store reels off the ground on timbers or other supports. In damp locations, it is advisable to allow at least 3 inches between reels to permit circulation of air.

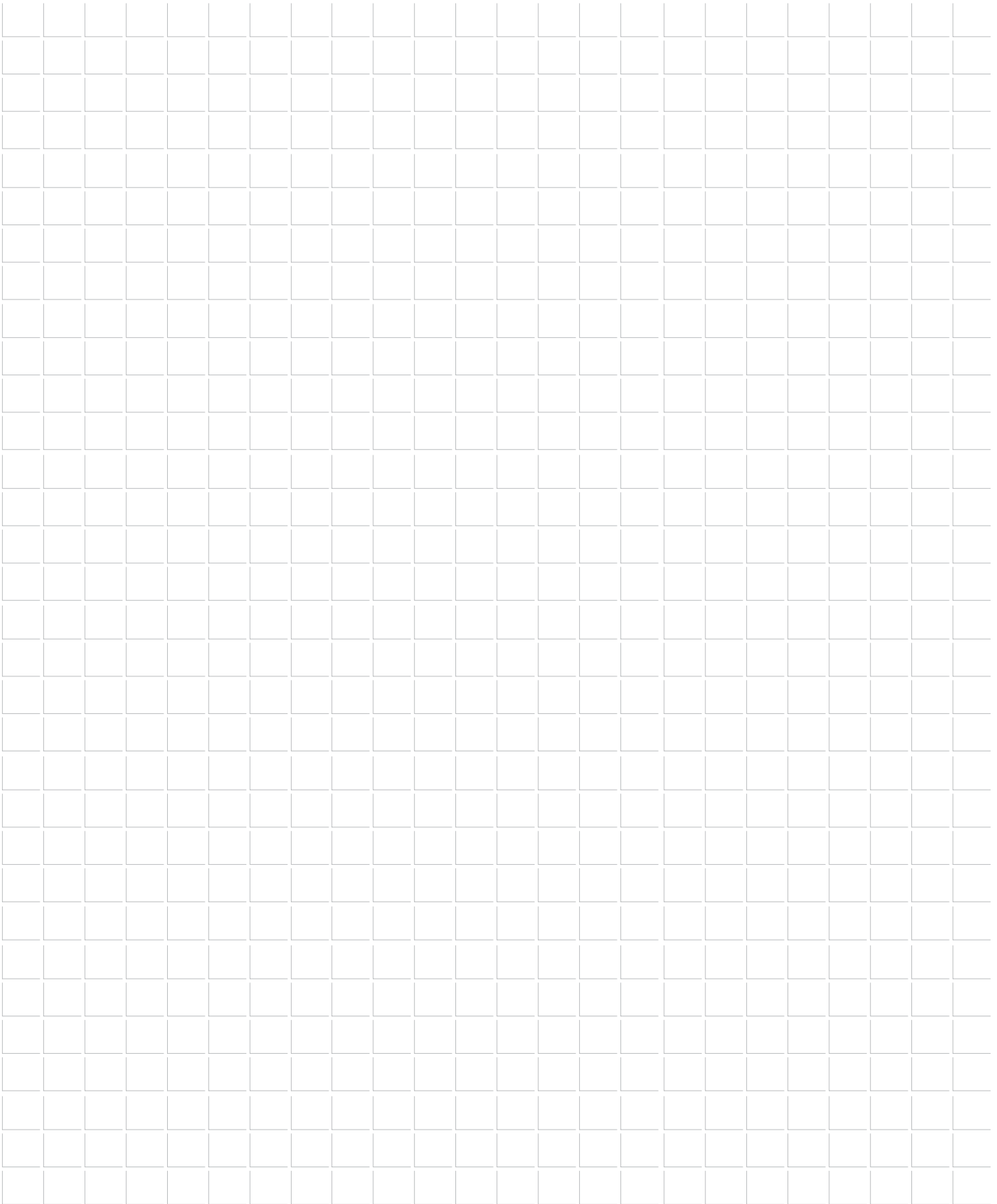
3.6. If storage is likely to last more than 6 months, drums should be stored in order to be protected from effects like rain, sunlight etc.



NOTES



NOTES



**OFFSHORE
CABLES**



**AIRPORT
CABLES**



**CRANE
CABLES**



**MINING
CABLES**



**DEFENSE
INDUSTRY
CABLES**



**MARINE
CABLES**

**RAILWAY
CABLES**

**INDUSTRIAL
CABLES**

**TUNNELLING
CABLES**

**INSTRUMENTATION
CABLES**

Üntel Kabloları San. ve Tic. A.Ş.

Makine O.S.B. 6. Cadde No:4/41455 Dilovası, Kocaeli - TÜRKİYE

Tel: +90 262 722 93 30 Fax: +90 262 722 94 43

info@untel.com.tr | www.untel.com.tr