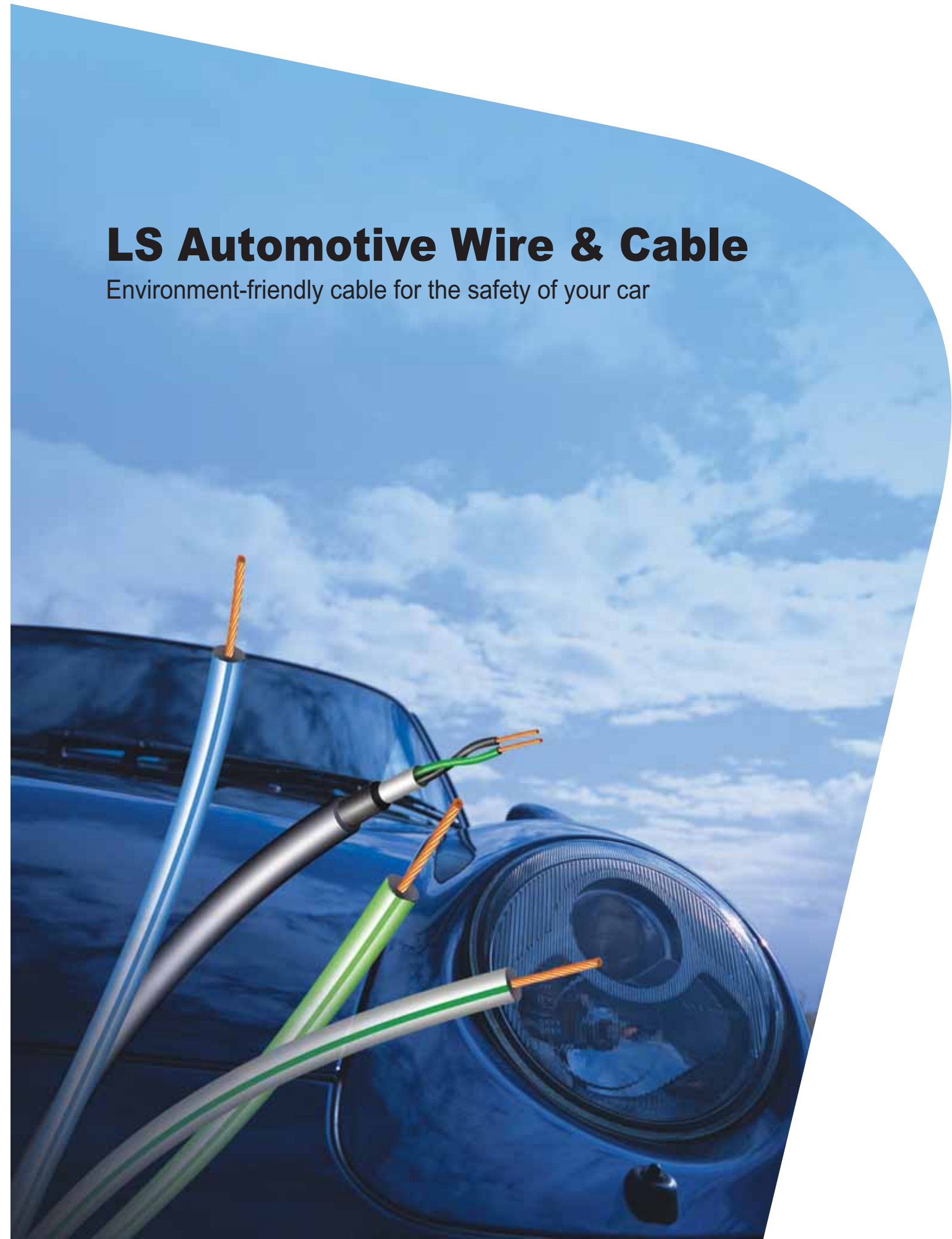




LS Automotive Wire & Cable

Environment-friendly cable for the safety of your car





Leading Solution

LG Cable, LG Industrial Systems and LG-Nikko Copper, Gaon Cable, E1 and Kukdong City Gas are starting with a new name, Leading Solution, LS.

New Dream, New Start

To become a leader in the competitive global market, LG has been divided into three groups, electronics and chemicals for LG, energy and distribution for GS, Industrial electric · electronics and material for LS based on their business specialties.

LS' main companies, such as LS cable, LS industrial systems, LS-Nikko copper, Gaon cable, E1 and Kukdong City gas, are ranked as No.1 in their respective industry. However, LS won't just sit back, satisfied with being the best in Korea. We will pave the way for becoming the world's best in Industrial electric · electronics and material industry with the new CI, LS.

Your good partner LG Cable is making a fresh start as LS Cable

LS Cable is No. 1 cable maker in Korea and its business fields are telecommunication, electric power, components & materials and machinery. Also, LS Cable is creating new businesses particularly in component and materials industry. LS Cable makes its best to accomplish the vision, 'Your No.1 Creative Partner' and be one of the world leaders with high technology and best level of service.



LS Automotive Wire & Cable



LS Automotive Wire and Cable, a division of LS Cable is one of the recognized market leaders in design, test, and manufacture of harsh environment interconnection system including electric wires and connectors for wire harness.

We provide ISO 9001, ISO/TS 16949 and ISO 14001 certified wires and cables such as, PVC insulated low-tension wires, thin wall-type low voltage and light-weight wires (suitable for compact wiring), low-tension wire cross-linked by irradiation.

The shielded wires for engine harness and highly flexible battery wiring show great durability and are specially designed to resist extremely high temperature as inside automotive engines. Particularly the irradiated wires are highly rated in terms of quality and price in the global market.

Our environment-friendly products, such as halogen-free wires and lead-free PVC wires address the elevated concerns on the environment among the global society.

Major auto-makers around the world recognize and use our products, which meet the standards of DIN in Europe, SAE in the U.S.A, and JASO in Japan.

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Safety-warning Instruction

The following safety-related instructions are to help you use the products safely and precisely, and to prevent property damage, personal injury or loss of life.



Warning

If you do not follow these instructions exactly, a FIRE or ELECTRIC SHOCK may result causing severe injury or even loss of life. Untrained person should NOT install, maintain or service the products.

To minimize the possibility of FIRE, ELECTRIC SHOCK, and OTHER HAZARDS:



It may be the cause of a fire or damage by a fire.
Do NOT exceed the rated voltage and the maximum allowable current.



It may be the cause of an electric shock.
Do NOT operate connection when the power is on.



It may be the cause of a fire or an electric shock.
Do NOT disassemble or convert the products.



It may be the cause of a fire or damage by a fire.
Keep heat-resisting temperature of cable, considering the environment of using.



Be sure to earth any screened products.
Earth any screened products.



Caution

If you do not follow these instructions exactly, a FIRE or ELECTRIC SHOCK may result causing property damage and personal injury. Untrained person should NOT install, maintain or service the products.

To minimize the possibility of damage to the products or personal injury:



Cable is not untied.
Pile up drums after placing them upright.



It may be the cause of damage to a cable.
When you hang a drum on the crane, keep sufficient length to the extent that an angle of the wire can be less than 60 degrees.



It may be the cause of disconnection or breakdown of a cable.
Keep a cable within the permissible pulling tension and radius of bend to prevent disconnection or breakdown of the cable.



It may be the cause of damage to a cable.
Use an A-frame carrier or a crane. Do NOT drop the drum.



It may be the cause of damage to a cable.
Keep cables out of water while processing the terminal of cables.

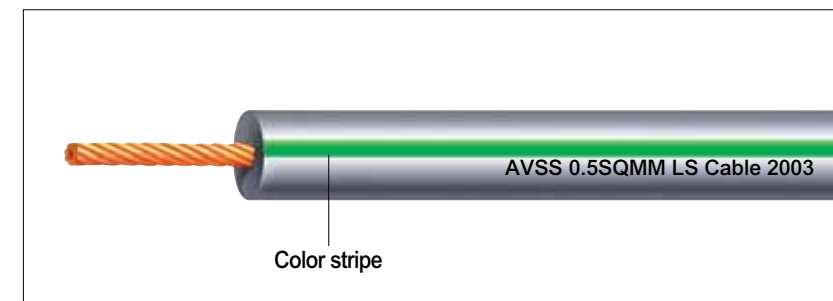


It may be the cause of damage to a cable.
Do NOT use cables for other purposes than noted.

- Before using products, read these instructions.
- Use products after verifying indefinite details besides the above descriptions from our company.
- Keep this safety-related instructions in place it can always be seen by users after reading it.

AVSS

Very Thin-wall Low-tension Cables For Automobiles



A : Low-tension cables for automobiles

V : Vinyl insulated

SS : Very thin-wall type

Use

Wire harness of low-tension electric circuits for automobiles

Material

- Conductor : Annealed or tinned stranded copper
- Insulation : Lead-free polyvinyl chloride(80°C)

Standard

- JASO D 611

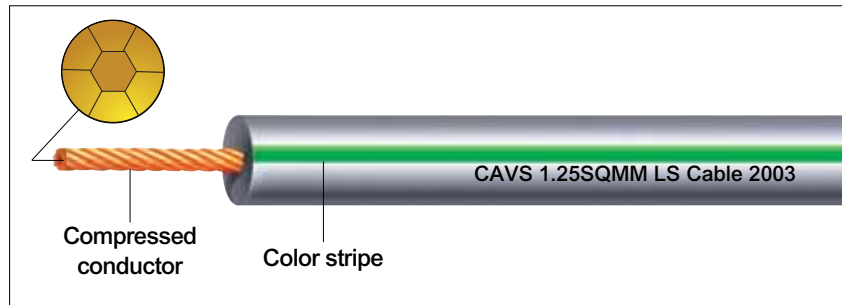
Conductor				Insulation			Conductor Resistance (Ω/km)	Current Limit ** (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Nominal Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.3	7/0.26	0.3717	0.8	0.3	1.4	1.5	50.2	8	2,000
0.3f*	19/0.16	0.3821	0.8	0.3	1.4	1.5	48.8	8	2,000
0.5	7/0.32	0.5630	1.0	0.3	1.6	1.7	32.7	11	1,500
0.5f	19/0.19	0.5387	1.0	0.3	1.6	1.7	34.6	10	1,500
0.75f	19/0.23	0.7894	1.2	0.3	1.8	1.9	24.4	13	1,000
0.85	19/0.24	0.8595	1.2	0.3	1.8	1.9	21.7	14	1,000
0.85f	37/0.172	0.9597	1.2	0.3	1.8	1.9	21.7	14	1,000
1.25	19/0.29	1.2550	1.5	0.3	2.1	2.2	14.9	19	800
1.25f	37/0.21	1.2815	1.5	0.3	2.1	2.2	14.6	19	800
2f	37/0.26	1.9644	1.8	0.4	2.6	2.7	9.5	26	500

Note * f : more flexible stranding

** Current limit : maximum allowable current at ambient temperature 40°C

CAVS

Very Thin-wall Low-tension Cables



- C** : Compressed conductor
- A** : Low-voltage cables for automobiles
- V** : Vinyl insulated
- S** : Very thin-wall type

Use

Wire harness of low-tension electric circuits for automobiles

Material

- Conductor : Compressed Annealed copper
- Insulation : Lead-free polyvinyl chloride(80°C)

Standard

- JASO D 611

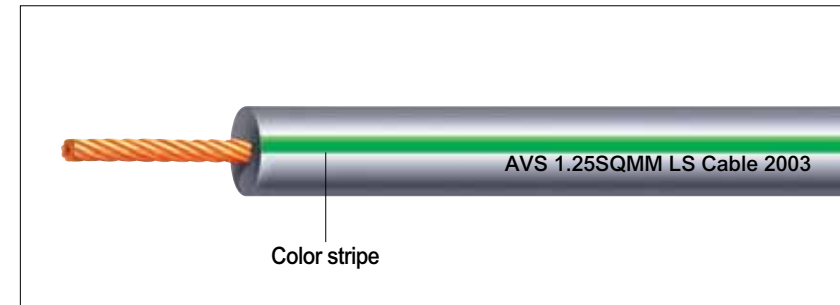
Conductor				Insulation			Conductor Resistance (Ω /km)	Current Limit ** (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Nominal Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.3	7/SB*	0.3716	0.7	0.35	1.4	1.5	50.2	8	2,000
0.5	7/SB	0.5629	0.9	0.35	1.6	1.7	32.7	10	1,500
0.85	11/SB	0.8846	1.1	0.35	1.8	1.9	20.8	14	1,000
1.25	16/SB	1.287	1.4	0.35	2.1	2.2	14.3	18	800

Note * SB : smooth body compressed conductor strands

** Current limit : maximum allowable current at conductor temperature and ambient temperature 40°C

AVS

Very Thin-wall Low-tension Cables for Automobiles



- A** : Low-tension cables for automobiles
- V** : Vinyl insulated
- S** : Thin-wall type

Use

Wire harness of low voltage electric circuits for automobiles

Material

- Conductor : Annealed or tinned stranded copper
- Insulation : Lead-free polyvinyl chloride (80°C)

Standard

- JASO D 611

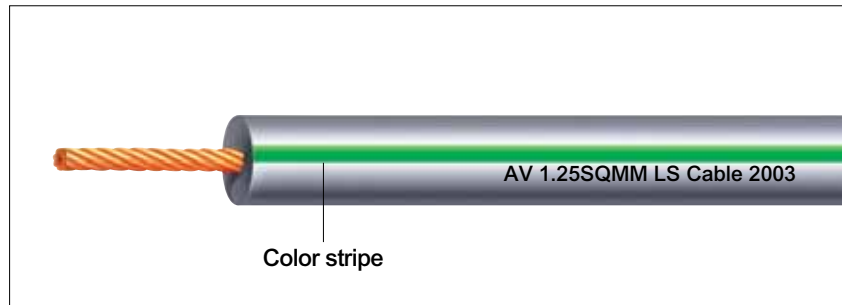
Conductor				Insulation			Conductor Resistance (Ω /km)	Current Limit ** (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.3	7/0.26	0.3717	0.8	0.5	1.8	1.9	50.2	9	1,000
0.3f*	12/0.18	0.3054	0.72	0.5	1.8	1.9	61.1	8	1,000
0.5	7/0.32	0.5630	1.0	0.5	2.0	2.1	32.7	11	1,000
0.5f	20/0.18	0.5087	1.0	0.5	2.0	2.1	36.7	10	1,000
0.75f	30/0.18	0.7630	1.1	0.5	2.1	2.2	24.4	14	800
0.85	11/0.32	0.8846	1.2	0.5	2.2	2.3	20.8	15	800
0.85f	34/0.18	0.8652	1.2	0.5	2.2	2.3	21.6	15	800
1.25	16/0.32	1.287	1.5	0.5	2.5	2.6	14.3	20	500
1.25f	50/0.18	1.273	1.5	0.5	2.5	2.6	14.7	20	500
2	26/0.32	2.091	1.9	0.5	2.9	3.1	8.81	26	500
2f	79/0.18	2.01	1.9	0.5	2.9	3.1	9.28	27	500
3	41/0.32	3.297	2.4	0.6	3.6	3.8	5.59	37	300
5	65/0.32	5.228	3.0	0.7	4.4	4.6	3.52	50	200
8	50/0.45	7.952	3.7	0.9	5.5	5.5	2.32	66	200

Note * f : more flexible stranding

** Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C



Low-tension Cables for Automobiles



A : Low-voltage cables for automobiles
V : Vinyl insulated

Use

Wire harness of low-tension electric circuits for automobiles

Material

- Conductor : Annealed or tinned stranded copper
- Insulation : Lead-free polyvinyl chloride(80°C)

Standard

- KS C 3311 (JIS C 3406)

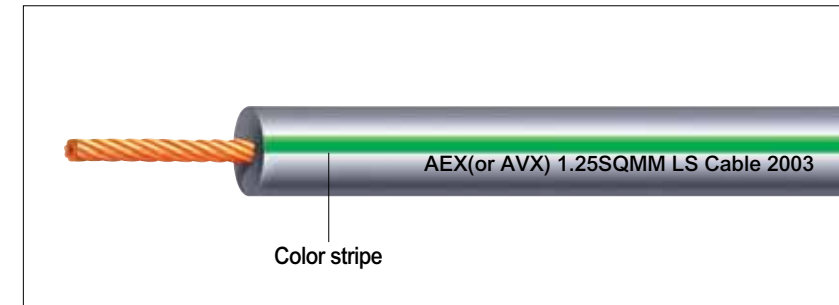
Nominal Size (mm ²)	Conductor			Insulation			Conductor Resistance (Ω/km)	Current Limit ** (A)	Standard Length (m)
	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.5	7/0.32	0.5630	1.0	0.6	2.2	2.4	32.7	12	1,000
0.5f *	20/0.18	0.5087	1.0	0.6	2.2	2.4	36.7	12	1,000
0.75f	30/0.18	0.7630	1.1	0.6	2.4	2.6	24.4	15	800
0.85	11/0.32	0.8846	1.2	0.6	2.4	2.6	20.8	16	800
0.85f	34/0.18	0.8652	1.2	0.6	2.4	2.6	21.6	16	800
1.25	16/0.32	1.287	1.5	0.6	2.7	2.9	14.3	21	600
1.25f	50/0.18	1.273	1.5	0.6	2.7	2.9	14.7	20	600
2	26/0.32	2.091	1.9	0.7	3.3	3.6	8.81	28	500
2f	79/0.18	2.01	1.9	0.7	3.3	3.6	9.28	27	400
3	41/0.32	3.297	2.4	0.8	4.0	4.3	5.59	38	300
5	65/0.32	5.228	3.0	0.9	4.8	5.2	3.52	51	200
8	50/0.45	7.952	3.7	1.1	5.9	6.3	2.32	73	150

Note * f : more flexible stranding

** Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C



Heat-resistant Low-tension Cables for Automobiles



A : Low-tension cables for automobiles
V : Vinyl insulated
E : Polyethylene insulated
X : Cross-linked

Use

Wire harness of low-tension electric circuits for automobiles; especially used for circuits requiring heat resistance and cold resistance

Material

- Conductor : Annealed or tinned stranded copper
- Insulation

AVX : Cross-linked lead free polyvinyl chloride(100°C)

AEX : Low halogen or halogen free cross-linked polyethylene(120°C)/Environment-friendly cable

Standard

- JASO D 608

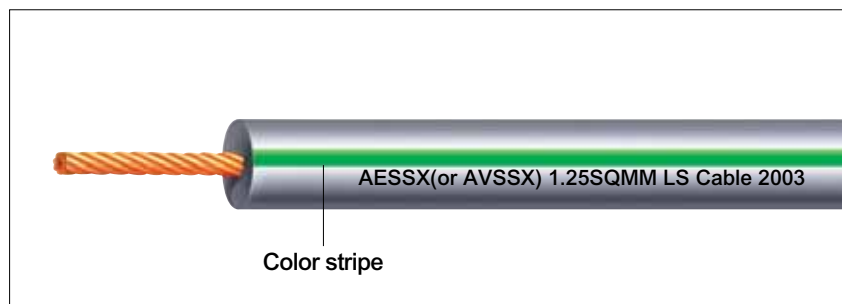
Nominal Size (mm ²)	Conductor			Insulation			Maximum Conductor Resistance (Ω/km)	Current Limit ** AVX/AEX(A)	Standard Length (m)
	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.3	7/0.26	0.3717	0.8	0.5	1.8	1.9	50.2	12/11	1,000
0.3f*	12/0.18	0.3054	0.7	0.5	1.7	1.9	61.1	11/10	1,000
0	7/0.352	0.5630	1.0	0.5	2.0	2.2	32.7	16/14	1,000
0.5f	20/0.18	0.5087	1.0	0.5	2.0	2.2	36.7	16/14	1,000
0.75f	30/0.18	0.7630	1.1	0.5	2.1	2.4	24.4	19/17	800
0.85	11/0.32	0.8846	1.2	0.5	2.2	2.4	20.8	20/18	800
0.85f	34/0.18	0.8652	1.2	0.5	2.2	2.4	21.6	20/18	800
1.25	16/0.32	1.287	1.5	0.6	2.7	2.9	14.3	28/24	500
1.25f	50/0.18	1.273	1.5	0.6	2.7	2.9	14.7	28/24	500
2	26/0.32	2.091	1.9	0.6	3.1	3.4	8.81	37/33	500
2f	79/0.18	2.01	1.9	0.6	3.1	3.4	9.28	37/33	500
3	41/0.32	3.297	2.4	0.7	3.8	4.1	5.59	51/44	300
3f	7/17/0.18	3.028	2.5	0.7	3.9	4.2	5.59	50/43	200
5	65/0.32	5.228	3.0	0.8	4.6	4.9	3.52	68/60	200
5f	7/30/0.18	5.343	3.1	0.8	4.7	5.0	3.52	68/60	200
8	50/0.45	7.952	3.7	0.8	5.3	5.6	2.32	88/78	200
8f	7/45/0.18	8.016	3.7	0.8	5.3	5.6	2.32	88/78	200

Note * f : more flexible stranding

** Current limit : maximum allowable current at conductor temperature 120°C or 100°C and ambient temperature 40°C

AVSSX/AESSX

Very Thin-wall, Heat-resistant, Low-tension Cables for Automobiles



- A** : Low-tension cables for automobiles
- V** : Vinyl insulated
- E** : Polyethylene insulated
- SS** : Very thin-wall type
- X** : Cross-linked

Use

Wire harness of low-tension electric circuits for automobiles; especially used for circuits requiring heat resistance and cold resistance

Material

- Conductor : Annealed or tinned stranded copper
- Insulation :
 - AVSSX : Cross-linked lead free polyvinyl chloride(100°C)
 - AESSX : Low halogen or halogen free cross-linked polyethylene(120°C)/Environment-friendly cable

Standard

- JASO D 608(Reference)

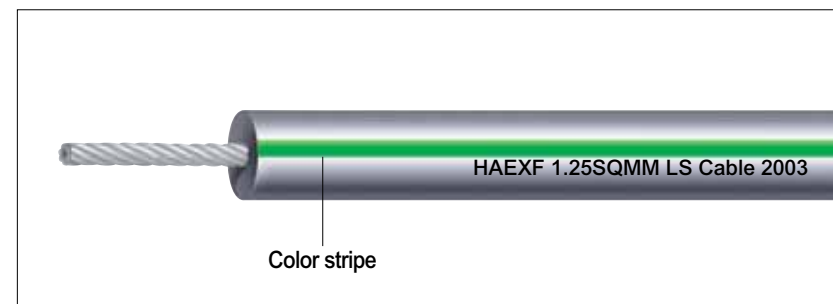
Conductor				Insulation			Conductor Resistance (Ω /km)	Current Limit ** (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.3	7/0.26	0.3717	0.8	0.3	1.4	1.5	50.2	11/10	2,000
0.3f *	19/0.16	0.3821	0.8	0.3	1.4	1.5	48.8	12/11	2,000
0.5	7/0.32	0.5630	1.0	0.3	1.6	1.7	32.7	15/13	1,500
0.5f	19/0.19	0.5387	1.0	0.3	1.6	1.7	34.6	15/13	1,500
0.75f	19/0.23	0.7894	1.2	0.3	1.8	1.9	23.6	18/16	1,000
0.85	19/0.24	0.8596	1.2	0.3	1.8	1.9	21.7	19/17	1,000
0.85f	37/0.172	0.8597	1.2	0.3	1.8	1.9	21.7	19/17	1,000
1.25	19/0.29	1.255	1.5	0.3	2.1	2.2	14.9	27/23	800
1.25f	37/0.21	1.2815	1.5	0.3	2.1	2.2	14.6	28/24	800
2f	37/0.26	1.9644	1.8	0.4	2.6	2.7	9.5	36/32	500
2.5f	50/0.26	2.6546	2.1	0.4	2.9	3.1	7.6	44/40	300

Note * f : more flexible stranding

** Current limit : maximum allowable current at conductor temperature 120°C or 100°C and ambient temperature 40°C(AESSX/AVSSX)

HAEXF

Heat-resistant Low-tension Cables for Automobiles



- H** : Heat-resistance
- A** : Low-tension cables for automobiles
- E** : Polyethylene insulated
- X** : Cross-linked

Use

Wire harness of low-tension electric circuits for automobiles; especially used for circuits requiring heat resistance and cold resistance

Material

- Conductor : Tinned stranded copper
- Insulation : Cross-linked polyethylene(150°C)

Standard

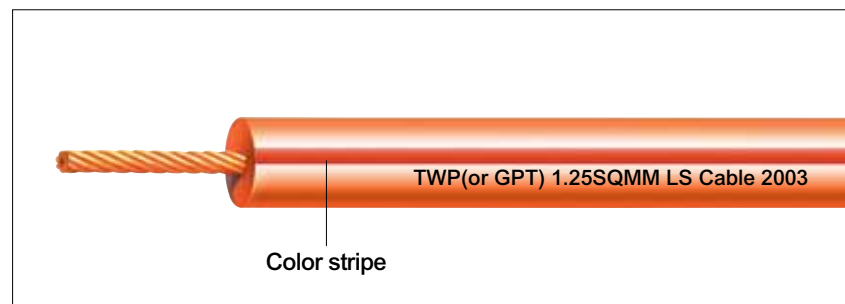
- JASO D 608(Reference)

Conductor				Insulation			Conductor Resistance (Ω /km)	Current Limit * (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.3	12/0.18	0.3054	0.8	0.5	1.8	1.9	61.1	12	1,000
0.5	20/0.18	0.5087	1.0	0.5	2.0	2.2	36.7	16	1,000
0.75	30/0.18	0.7630	1.2	0.5	2.2	2.4	24.4	21	1,000
0.85	34/0.18	0.8652	1.2	0.5	2.2	2.4	21.6	23	800
1.25	50/0.18	1.273	1.5	0.6	2.7	2.9	14.7	30	500
2	79/0.18	2.010	1.9	0.6	3.1	3.4	10.1	39	500
2.5	50/0.25	2.454	2.1	0.65	3.4	3.7	7.9	44	500

Note * Current limit : maximum allowable current at conductor temperature 150°C and ambient temperature 40°C

TWP/GPT

For Automobiles



TWP : Thin-wall, Thermoplastic Insulated
GPT : General purpose, Thermoplastic Insulated

Use

Wire harness of low-tension electric circuits for automobiles

Material

- Conductor : Annealed or tinned stranded copper
- Insulation : Lead-free polyvinyl chloride (80°C)

Standard

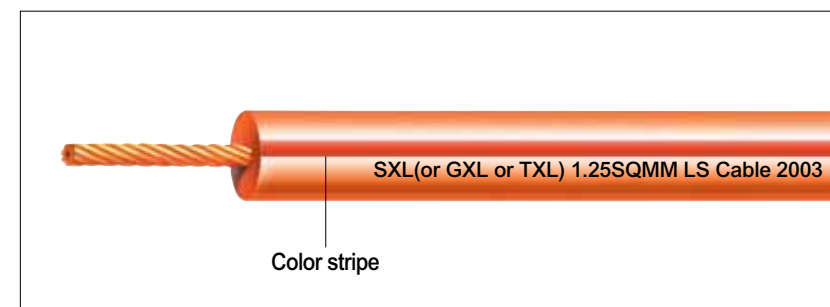
- SAE J 1128

Conductor				Insulation			Maximum Conductor Resistance (Ω/km)	Current Limit* (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Minimum Cross-sectional Area (mm ²)	Outer Diameter (mm)	Nominal Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
GPT : General purpose, Thermoplastic-Insulated									
20	7/0.32	0.508	1.0	0.58	2.2	2.4	34.6	11	1,000
18	19/0.234	0.76	1.2	0.58	2.4	2.5	21.8	14	1,000
16	19/0.287	1.13	1.4	0.58	2.6	3.4	13.7	18	800
14	19/0.361	1.85	1.8	0.58	3.0	3.2	8.62	24	500
12	19/0.455	2.91	2.3	0.66	3.6	3.8	5.43	34	300
10	19/0.574	4.65	2.9	0.79	4.5	4.7	3.52	47	200
8	19/0.724	7.23	3.6	0.94	5.6	6.0	2.32	66	200
TWP : Thin-wall, Thermoplastic-Insulated									
24	7/0.203	0.205	0.6	0.4	1.4	1.5	93.25	6	2,000
22	7/0.254	0.324	0.76	0.4	1.56	1.7	55.0	8	2,000
20	7/0.32	0.508	1.0	0.4	1.8	1.9	34.6	10	1,500
18	19/0.234	0.76	1.2	0.4	2.0	2.2	21.8	13	1,000
18	16/0.254	0.76	1.2	0.4	2.0	2.2	21.8	13	1,000
16	19/0.287	1.13	1.4	0.4	2.2	2.4	13.7	17	800
14	19/0.361	1.85	1.8	0.4	2.5	2.7	8.62	23	500
12	19/0.455	2.91	2.3	0.46	3.1	3.3	5.43	32	300
10	19/0.574	4.65	2.9	0.50	3.8	4.0	3.52	44	200
8	19/0.724	7.23	3.6	0.55	4.7	4.9	2.32	61	200

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

TXL/GXL/SXL

Environment-friendly Cables for Automobiles



S : Special purpose
G : General purpose
T : Thin-wall
XL : Cross-linked polyolefin insulated

Use

Wire harness of low-tension electric circuits for automobiles; especially used for circuits requiring heat resistance and cold resistance

Material

- Conductor : Annealed or tinned stranded copper
- Insulation : Low halogen or halogen-free cross-linked polyolefin

Standard

- SAE J 1128

Conductor				Insulation			Maximum Conductor Resistance (Ω/km)	Current Limit* (A)	Standard Length (m)
Nominal Size (AWG)	Construction (No./mm)	Minimum Cross-sectional Area (mm ²)	Outer Diameter (mm)	Nominal Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
TXL : Thin-wall, Cross-linked Polyolefin Insulated									
24	7/0.203	0.205	0.6	0.4	1.4	1.5	93.25	7	2,000
22	7/0.254	0.324	0.76	0.4	1.56	1.7	55.0	10	2,000
20	7/0.32	0.508	1.0	0.4	1.8	1.9	34.6	15	1,500
18	19/0.234	0.76	1.2	0.4	2.0	2.2	21.8	18	1,000
18	16/0.254	0.76	1.2	0.4	2.0	2.2	21.8	18	1,000
16	19/0.287	1.13	1.4	0.4	2.2	2.4	13.7	23	800
14	19/0.361	1.85	1.8	0.4	2.5	2.7	8.62	32	500
12	19/0.455	2.91	2.3	0.46	3.1	3.3	5.43	42	300
10	19/0.574	4.65	2.9	0.50	3.8	4.0	3.52	56	200
8	19/0.724	7.23	3.6	0.55	4.7	4.9	2.32	78	200

GXL : General Purpose, Cross-linked Polyolefin Insulated

20	7/0.32	0.508	1.0	0.58	2.16	2.4	34.6	16	1,000
18	19/0.234	0.76	1.2	0.58	2.36	2.5	21.8	19	1,000
16	19/0.287	1.13	1.4	0.58	2.56	2.9	13.7	24	800
14	19/0.361	1.85	1.8	0.58	2.96	3.2	8.62	33	500
12	19/0.455	2.91	2.3	0.66	3.62	3.8	5.43	44	300

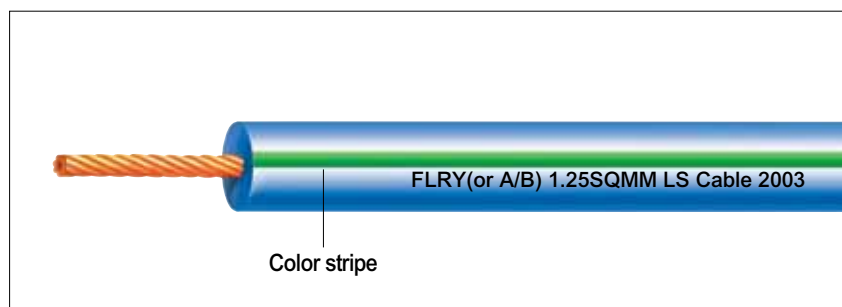
SXL : Special Purpose, Cross-linked Polyolefin Insulated

20	7/0.32	0.508	1.0	0.74	2.5	2.8	34.6	16	1,000
18	19/0.234	0.76	1.2	0.76	2.72	3.0	21.8	19	1,000
16	19/0.287	1.13	1.4	0.81	3.02	3.4	13.7	24	800
14	19/0.361	1.85	1.8	0.89	3.58	3.9	8.62	33	500
12	19/0.455	2.91	2.3	0.94	4.18	4.5	5.43	45	300

Note * Current limit : maximum allowable current at conductor temperature 150°C and ambient temperature 40°C

FLRY-A/B

PVC Insulation Low-tension Cables for Automobiles



- FL : Low-tension cables
- R : Reduced thickness of insulation
- Y : Polyvinyl chloride insulated
- A : Concentric stranded conductor
- B : Bunched stranding

Use

Wire harness of low-tension electric circuits for automobiles

Material

- Conductor : Annealed copper
- Insulation : Lead-free polyvinyl chloride(100°C)

Standard

- DIN 72551, ISO 6722

Conductor				Insulation			Conductor Resistance (Ω /km)	Current Limit * (A)	Standard Length (m)
Nominal Size (mm ²)	No. of Wire	Maximum Individual Wire Diameter (mm ²)	Maximum Outer Diameter (mm)	Minimum Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
FLRY-A : Very thin-wall type, PVC insulated low-tension cable(Conductor type A)									
0.35	7	0.26	0.8	0.2	1.2	1.3	52	9	2,000
0.5	19	0.19	1.0	0.22	1.4	1.6	37.1	13	1,500
0.75	19	0.23	1.2	0.24	1.7	1.9	24.7	16	1,000
1.0	19	0.26	1.35	0.24	1.9	2.1	18.5	19	1,000
1.5	19	0.32	1.7	0.24	2.2	2.4	12.7	26	800
2.0	19	0.37	2.0	0.24	2.4	2.6	9.42	30	800
2.5	19	0.41	2.2	0.28	2.7	3.0	7.6	36	500

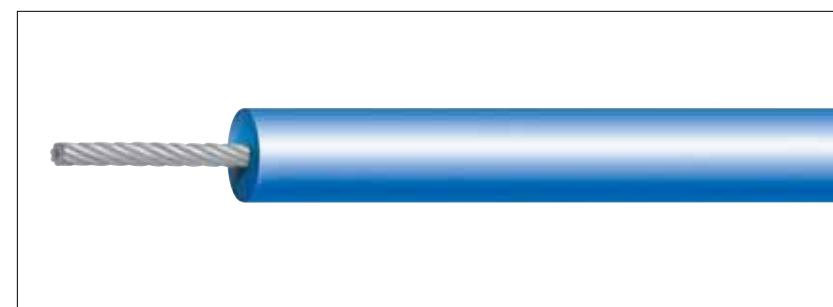
FLRY-B : Very thin-wall type, PVC insulated low-tension cable(Conductor type B)

0.35	12	0.21	0.9	0.2	1.2	1.4	52	9	2,000
0.5	16	0.21	1.0	0.22	1.4	1.6	37.1	12	1,500
0.75	24	0.21	1.2	0.24	1.7	1.9	24.7	16	1,000
1.0	32	0.21	1.35	0.24	1.9	2.1	18.5	19	1,000
1.5	30	0.26	1.7	0.24	2.2	2.4	12.7	26	800
2.5	50	0.26	2.2	0.28	2.7	3.0	7.6	36	500
4.0	56	0.31	2.75	0.32	3.4	3.7	4.7	51	300
6.0	84	0.31	3.3	0.32	4.0	4.3	3.1	68	300
10.0	80	0.41	4.5	0.48	5.5	6.0	1.82	100	200
16	126	0.41	6.3	0.48	7.5	8.0	1.16	135	100

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

FLR7Y

ETFE Insulated Low-tension Cables for Automobiles



- FL : Low-tension cables
- R : Reduced thickness of insulation
- 7Y : Ethylene tetrafluoroethylene insulated

Use

Wire harness of low-tension engine compartment circuits for automobiles

Material

- Conductor : Tinned annealed copper
- Insulation : Ethylene tetrafluoroethylene(150°C)

Standard

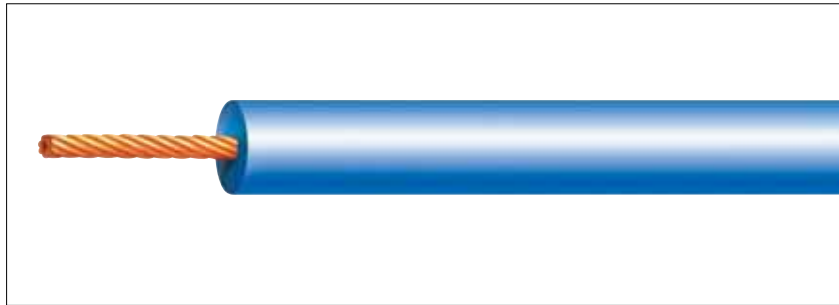
- DIN 72551, ISO 6722 Class D

Conductor				Insulation			Maximum Conductor Resistance (Ω /km)	Current Limit * (A)	Standard Length (m)
Nominal Size (mm ²)	No. of Wire	Maximum Individual Wire Diameter (mm ²)	Maximum Outer Diameter (mm)	Nominal Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
0.35	12	0.21	0.9	0.3	1.2	1.4	52	14	1,000
0.5	16	0.21	1.0	0.3	1.4	1.6	37.1	17	1,000
0.75	24	0.21	1.2	0.25	1.7	1.9	24.7	21	1,000
1.0	32	0.21	1.35	0.3	1.9	2.1	18.5	26	800
1.5	30	0.26	1.7	0.3	2.2	2.4	12.7	34	800
2.5	50	0.26	2.2	0.35	2.7	3.0	7.6	50	500
4.0	56	0.31	2.75	0.4	3.4	3.7	4.7	70	300

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

FLR9Y

PP Insulated Low-tension, Environment-friendly Cables for Automobiles



FL : Low-tension cables
R : Reduced thickness of insulation
9Y : Polypropylene insulated

Use

Wire harness of low-tension circuits for automobiles

Material

- Conductor : Annealed copper
- Insulation : Polypropylene(100°C, 125°C)

Standard

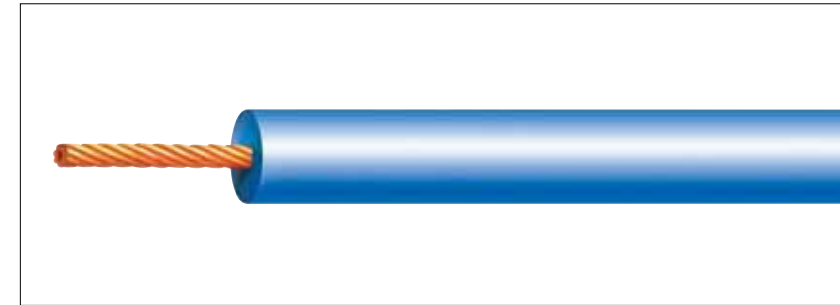
- ISO 6722 Class C(Reference)

Conductor				Insulation			Maximum Conductor Resistance (Ω/km)	Current Limit * (A)	Standard Length (m)
Nominal Size (mm ²)	No. of Wire	Maximum Individual Wire Diameter (mm ²)	Maximum Outer Diameter (mm)	Nominal Thickness (mm)	Minimum Diameter (mm)	Maximum Diameter (mm)			
0.35	7	0.26	0.8	0.18	1.25	1.4	55.9	11	2,000
0.6	12	0.26	1.15	0.22	1.65	1.9	33.0	19	1,500
1.0	19	0.26	1.4	0.24	1.9	2.1	19.5	22	1,000
1.4	27	0.26	1.6	0.24	2.1	2.3	13.9	28	800
2.0	37	0.26	1.9	0.28	2.45	2.7	10.0	35	800
3.0	45	0.31	2.4	0.32	3.05	3.3	6.06	52	500
4.0	56	0.31	2.8	0.32	3.4	3.7	4.95	60	300
5.0	70	0.31	3.0	0.32	3.7	4.0	3.94	70	200
7.0	105	0.31	3.7	0.4	4.7	5.0	2.72	93	200
10.0	147	0.31	4.3	0.4	5.7	6.0	1.91	119	200

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

FLR33X/FL33X

XL-TPE Insulated Low-tension Cables for Automobiles



FL : Low-tension cables
R : Reduced thickness of insulation
33X : Cross-linked Polyester insulated

Use

Wire harness of low-tension battery circuits for automobiles

Material

- Conductor : Annealed copper
- Insulation : Cross-linked polyester(150°C)

Standard

- ISO 6722 Class D(Reference)

Conductor				Insulation			Conductor Resistance (Ω/km)	Current Limit * (A)	Standard Length (m)
Nominal Size (mm ²)	No. of Wire	Maximum Individual Wire Diameter (mm ²)	Outer Diameter (mm)	Nominal Thickness (mm)	Minimum Diameter (mm)	Maximum Diameter (mm)			
FLR33X-B : Reduced wall XL-TPE low-tension cable(Conductor type B)									
0.5	16	0.21	1.0	0.3	1.4	1.6	37.1	17	1,500
0.75	24	0.21	1.2	0.3	1.7	1.9	24.7	22	1,000
1.0	32	0.21	1.35	0.3	1.9	2.1	18.5	27	500
1.5	30	0.26	1.7	0.3	2.2	2.4	12.7	35	500
2.5	50	0.26	2.2	0.35	2.7	3.0	7.6	50	500
4.0	56	0.31	2.75	0.4	3.4	3.7	4.7	70	300

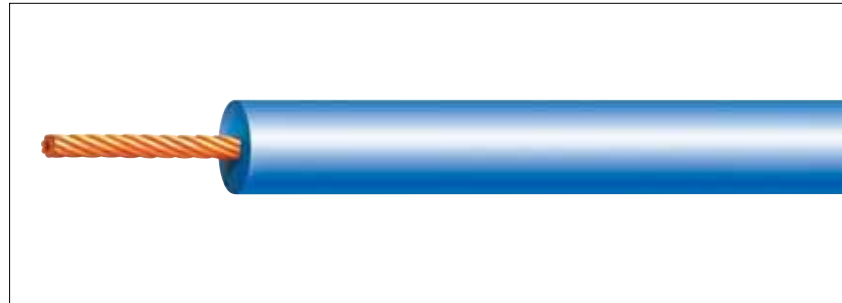
FL33X : XL-TPE low-tension battery cable

4	56	0.31	2.75	0.8	4.0	4.4	4.7	76	300
6	84	0.31	3.3	0.8	4.6	5.0	3.1	99	200
10	80	0.41	4.5	1.0	5.8	6.4	1.8	143	2,000
16	126	0.41	6.3	1.0	7.3	8.0	1.16	193	1,500
25	196	0.41	7.8	1.2	9.0	9.7	0.743	261	1,000
35	276	0.41	9.0	1.2	10.2	11.2	0.527	328	500

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

FLR91X

XL-TPE Insulated Low-tension Cables for Automobiles



FL : Low-tension cables

R : Reduced thickness of insulation

91X : Cross-linked thermoplastic polyolefin elastomer insulated

Use

Wire harness of low-tension engine compartment circuits for automobiles

Material

- Conductor : Annealed copper
- Insulation : Cross-linked thermoplastic polyolefin elastomer(150°C)

Standard

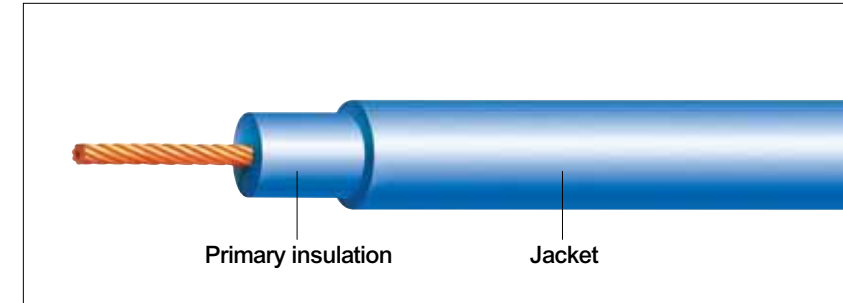
- DIN 72551, ISO 6722 Class D

Nominal Size (mm ²)	No. of Wire	Maximum Individual Wire Diameter (mm ²)	Maximum Outer Diameter (mm)	Insulation			Conductor Resistance (Ω/km)	Current Limit * (A)	Standard Length (m)
				Minimum Thickness (mm)	Minimum Diameter (mm)	Maximum Diameter (mm)			
0.35	12	0.21	0.9	0.2	1.2	1.4	52	13	2,000
0.5	16	0.21	1.0	0.22	1.4	1.6	37.1	16	1,500
0.75	24	0.21	1.2	0.24	1.7	1.9	24.7	22	1,000
1.0	32	0.21	1.35	0.24	1.9	2.1	18.5	27	800
1.5	30	0.26	1.7	0.24	2.2	2.4	12.7	35	800
2.5	50	0.26	2.2	0.28	2.7	3.0	7.6	49	500
4.0	56	0.31	2.75	0.32	3.4	3.7	4.7	70	300
6.0	84	0.31	3.3	0.32	4.0	4.3	3.1	92	200

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

ACW

Power Train Cables for Automobiles



Use

Wire harness of low-tension engine compartment circuits for automobiles

Material

- Conductor : Bare or tinned annealed copper
- Insulation : Cross-linked polyalkene(150°C)
- Jacket : Cross-linked PVDF(150°C)

Standard

- MIL 81044/12, Engineering Specification No. S97GG14401AA

Nominal Size (mm ²)	Conductor			Insulation			Conductor Resistance (Ω/km)	Current Limit * (A)	Standard Length (m)
	No. of Wire	Maximum Individual Wire Diameter (mm ²)	Maximum Outer Diameter (mm)	Nominal Thickness (mm)	Minimum Diameter (mm)	Maximum Diameter (mm)			
0.35	7	0.26	0.9	0.25	1.2	1.4	52	13	2,000
0.5	19	0.201	1.0	0.3	1.4	1.6	37.1	19	1,500
0.75	19	0.24	1.2	0.35	1.7	1.9	24.7	24	1,000
1.0	19	0.26	1.35	0.38	1.9	2.1	18.5	27	800
1.5	30	0.26	1.7	0.35	2.2	2.4	12.7	35	800
2.5	50	0.26	2.2	0.4	2.7	3.0	7.6	50	500
4.0	56	0.31	2.75	0.45	3.4	3.7	4.7	70	300
6.0	84	0.31	3.3	0.5	4.0	4.3	3.1	93	200

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

SHIELD CABLE

For Automobiles

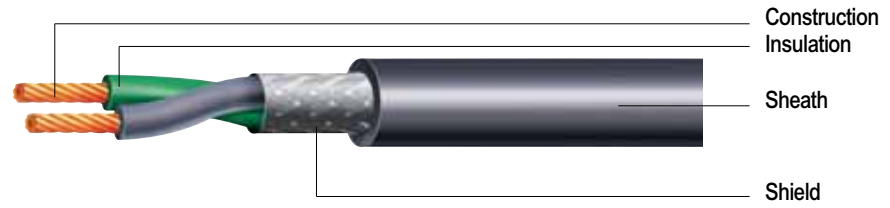

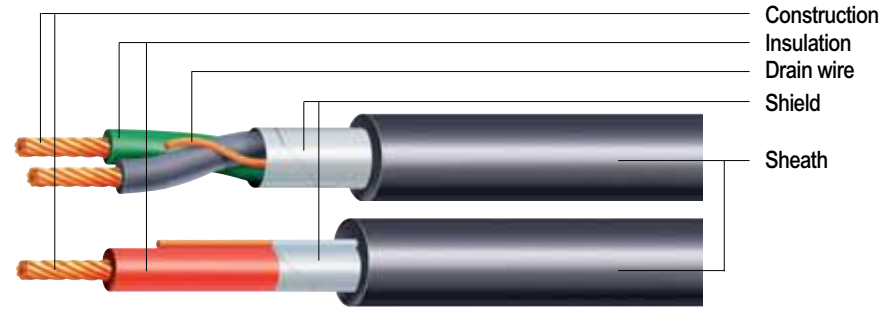
Use

Wire harness of low voltage electric circuits for automobiles; especially required for shielding of cable such as sensor leads and electronic circuits

Material

- Conductor : Annealed or tinned stranded copper
- Insulation : Polyvinyl chloride or cross-linked polyethylene
- Shield : Tinned copper or metal tape(Al/Mylar tape)
- Sheath : Polyvinyl chloride

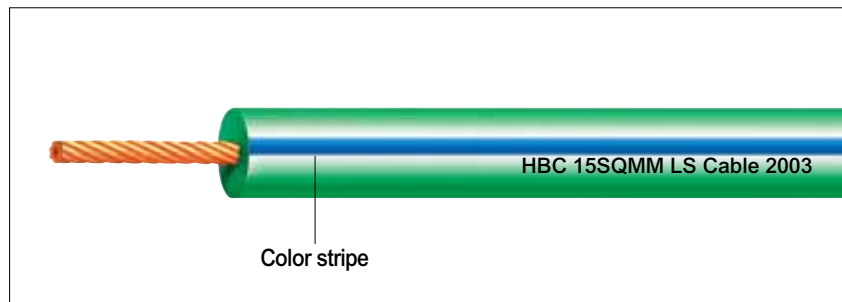
Construction

Shield Type		Description					
Metal Braid	Construction						
	Core Type	AVS	AVSS	AVX	AEX	AVSSX	AESSX
	Type Designation	AVV-SB	AVSSV-SB	AVX-SB	AEX-SB	AVSSX-SB	AESSX-SB
Spiral Wrap	Construction						
	Core Type	AVS	AVSS	AVX	AEX	AVSSX	AESSX
	Type Designation	AVV-SW	AVSSV-SW	AVX-SW	AEX-SW	AVSSX-SW	AESSX-SW
Metal Tape (Al / PS)	Construction						
	Core Type	CAVS		AVSSX		AESSX	
	Type Designation	CAVS - AMS		AVSSX-AMS		AESSX-AMS	

Shield Type	Core Type	Nominal Size (No. × mm ²)	Core Outer Diameter (mm)	Shield		Sheath		Standard Length (m)
				Wire Diameter (mm)	Outer Diameter (mm)	Thickness (mm)	Outer Diameter (mm)	
Metal Braid	AVS	1×0.5	2.0	0.12	2.6	0.6	3.8	300
		2×0.5	2.0	0.12	4.6	0.6	5.8	300
		4×0.5	2.0	0.12	5.4	0.6	6.6	200
	AVSS	1×0.5	1.6	0.12	2.2	0.6	3.4	500
		2×0.5	1.6	0.12	3.8	0.6	5.0	300
		4×0.5	1.6	0.12	4.5	0.6	5.7	300
	AVX	1×0.5	1.0	0.12	2.6	0.6	3.8	300
		2×0.5	1.0	0.12	4.6	0.7	5.9	300
		3×0.5	1.0	0.12	4.9	0.7	6.1	300
	AEX	4×0.5	1.0	0.12	5.4	0.7	6.8	200
		1×0.5	2.0	0.12	2.6	0.6	3.8	300
		2×0.5	2.0	0.12	4.6	0.6	5.8	300
AVSSX	4×0.5	2.0	0.12	5.4	0.6	6.6	200	
	1×0.5	1.6	0.12	2.2	0.6	3.4	500	
	2×0.5	1.6	0.12	3.8	0.6	5.0	300	
AESSX	4×0.5	1.6	0.12	4.5	0.6	5.7	300	
	1×0.5	1.6	0.12	2.2	0.6	3.4	500	
	2×0.5	1.6	0.12	3.8	0.6	5.0	300	
Spiral Wrap	AVS	1×0.5	2.0	0.12	2.24	0.6	3.44	300
		2×0.5	2.0	0.12	4.24	0.6	5.44	300
		4×0.5	2.0	0.12	5.06	0.6	6.26	200
	AVSS	1×0.5	1.6	0.12	1.84	0.6	3.04	500
		2×0.5	1.6	0.12	3.44	0.6	4.64	300
		4×0.5	1.6	0.12	4.1	0.6	5.3	300
	AVX	1×0.5	2.0	0.12	2.24	0.6	3.04	300
		2×0.5	2.0	0.12	4.24	0.6	4.64	300
		4×0.5	2.0	0.12	5.06	0.6	5.3	200
	AEX	1×0.5	2.0	0.12	2.24	0.6	3.04	300
		2×0.5	2.0	0.12	4.24	0.6	4.64	300
		4×0.5	2.0	0.12	5.06	0.6	5.3	200
AVSSX	1×0.5	1.6	0.12	1.84	0.6	3.04	500	
	2×0.5	1.6	0.12	3.44	0.6	4.64	300	
	4×0.5	1.6	0.12	4.1	0.6	5.3	300	
AESSX	1×0.5	1.6	0.12	1.84	0.6	3.04	500	
	2×0.5	1.6	0.12	3.44	0.6	4.64	300	
	4×0.5	1.6	0.12	4.1	0.6	5.3	300	
Metal Tape	CAVS (AVSS)	1×0.3	1.4	-	2.4	0.5	3.19	500
		2×0.3	1.4	-	2.9	0.5	3.97	300
		4×0.3	1.4	-	3.5	0.5	4.5	300
	AVSSX	1×0.5	1.6	-	2.6	0.5	3.7	500
		2×0.5	1.6	-	3.3	0.6	4.5	300
		4×0.5	1.6	-	4.0	0.6	5.6	300
	AESSX	1×0.5	1.6	-	2.6	0.6	3.8	500
		2×0.5	1.6	-	3.3	0.6	4.4	300
		4×0.5	1.6	-	4.0	0.6	5.2	300
	AESSX	1×0.5	1.6	-	2.6	0.6	3.8	500
		2×0.5	1.6	-	3.3	0.6	4.5	300
		4×0.5	1.6	-	4.0	0.6	5.2	300

BATTERY CABLE

For Automobiles



Use

Low-tension electric circuits of battery for automobiles

Material

- Conductor : Annealed or tinned stranded copper
- Insulation : Lead-free polyvinyl chloride HBC(100°C), AV(80°C), EB(80°C)

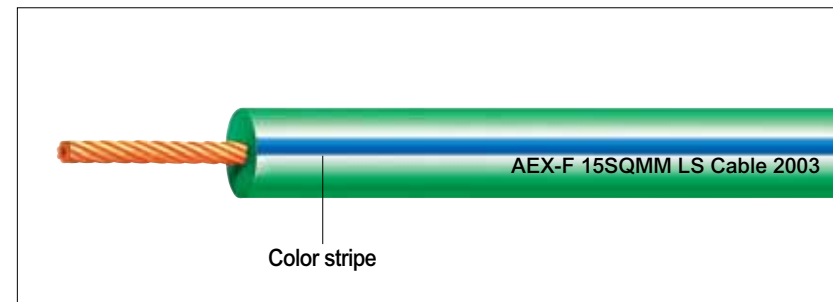
Conductor				Insulation			Conductor Resistance (Ω /km)	Current Limit * (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
AV : General type battery cable									
15f	19/9/0.32	13.75	5.3	1.1	7.5	8.0	1.37	105	1,500 **
20f	19/13/0.32	19.86	6.5	1.1	8.7	9.3	0.946	134	1,000 **
30f	19/19/0.32	29.03	7.8	1.4	10.6	11.3	0.647	174	500 **
40f	19/26/0.32	39.73	9.1	1.4	11.9	12.6	0.473	224	500
50f	19/32/0.32	48.9	10.1	1.6	13.3	14.1	0.384	257	300
60f	19/39/0.32	59.59	11.1	1.6	14.3	15.1	0.315	294	200
HBC : Heat-resistant and flexible type battery cable									
15	171/0.32	13.75	5.3	1.1	7.7	8.2	1.33	116	1,500
20	247/0.32	19.86	6.3	1.1	8.8	9.2	0.916	149	1,000
30	7 /52/0.32	29.03	7.8	1.4	10.8	11.3	0.625	196	500
40	19/26/0.32	39.73	9.1	1.4	11.9	12.6	0.473	224	500
EB : Thin-wall type battery cable									
15	19/9/0.32	13.75	5.3	0.6	6.5	6.9	1.32	101	2,000
20	19/13/0.32	19.86	6.5	0.6	7.7	8.1	0.915	130	1,500
30	19/19/0.32	29.02	7.8	0.6	9.0	9.4	0.625	169	1,000
40	19/26/0.32	39.72	9.1	0.6	10.3	10.8	0.457	209	500
50	19/32/0.32	48.88	10.1	0.6	11.3	11.9	0.371	241	500
HEB : Heavy-duty battery cable									
15	19/9/0.32	13.75	5.3	1.1	7.5	8.0	1.32	101	1,500
20	19/13/0.32	19.86	6.5	1.1	8.7	9.3	0.915	130	1,000
30	19/19/0.32	29.02	7.8	1.4	10.6	11.3	0.625	169	500
40	19/26/0.32	39.73	9.1	1.4	11.9	12.6	0.473	224	500
50	19/32/0.32	48.9	10.1	1.6	13.3	14.1	0.384	257	300

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

** Wooden drum packing

BATTERY CABLE

For Automobiles(Heat-resistant)



Use

Low-tension electric circuits of battery for automobiles

Material

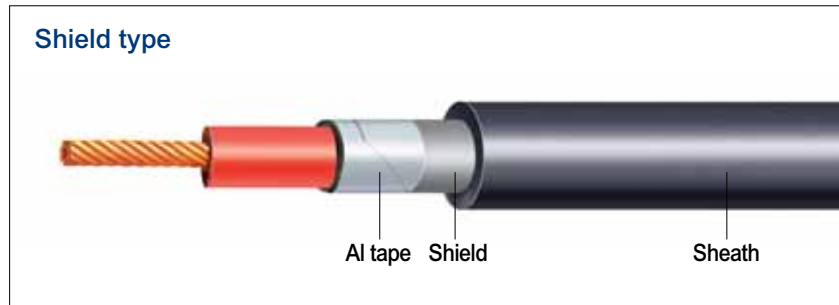
- Conductor : Annealed or tinned stranded copper
- Insulation
 AEX/EEEX : Low halogen or halogen free cross-linked polyethylene(125°C)
 AVX/HEBX : Cross-linked lead-free polyvinyl chloride(100°C)

Conductor				Insulation			Conductor Resistance (Ω /km)	Current Limit * (A)	Standard Length (m)
Nominal Size (mm ²)	Construction (No./mm)	Calculated Cross-sectional Area (mm ²)	Outer Diameter (mm)	Thickness (mm)	Nominal Diameter (mm)	Maximum Diameter (mm)			
AEX/AVX : XLPE/XLPC insulated and flexible type battery cable									
10f	7/27/0.26	10.03	4.5	1.0	6.5	6.9	1.90	110	1,500
12f	7/22/0.32	12.39	5.0	1.0	7.0	7.4	1.52	140	1,500
15f	19/9/0.32	13.75	5.3	1.1	7.5	8.0	1.37	151	1,500
20f	19/13/0.32	19.86	6.5	1.1	8.7	9.3	0.946	192	1,000
30f	19/19/0.32	29.03	7.8	1.4	10.6	11.3	0.647	251	500
40f	19/26/0.32	39.72	9.1	1.4	11.9	12.6	0.473	308	300
50f	19/32/0.32	48.9	10.1	1.6	13.3	14.1	0.384	356	200
HEBX : XLPC insulated battery cable									
15	19/9/0.32	13.75	5.3	1.1	7.5	8.0	1.32	151	1,500
20	19/13/0.32	19.86	6.5	1.1	8.7	9.3	0.915	192	1,000
30	19/19/0.32	29.02	7.8	1.4	10.6	11.3	0.625	251	500
40	19/26/0.32	39.72	9.1	1.4	11.9	12.6	0.457	308	300
50	19/32/0.32	48.9	10.1	1.6	13.3	14.1	0.371	356	200
EEX : XLPE insulated battery cable for electrical automobiles									
10f	7/27/0.26	10.03	4.5	1.0	6.5	6.7	1.9	121	2,000
12f	7/22/0.32	12.39	5.0	1.0	7.0	7.3	1.52	140	1,500
15f	19/9/0.32	13.75	5.3	1.1	7.5	7.7	1.37	151	1,500
20f	19/13/0.32	19.86	6.5	1.1	8.7	8.9	0.946	192	1,000
30f	19/19/0.32	29.03	7.8	1.4	10.6	10.9	0.647	251	500
60f	19/39/0.32	59.59	11.1	1.6	14.3	14.9	0.315	356	200

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

BATTERY CABLE

For High Voltage Electric Vehicles



Use

High voltage battery cable harness for electric vehicles

Material

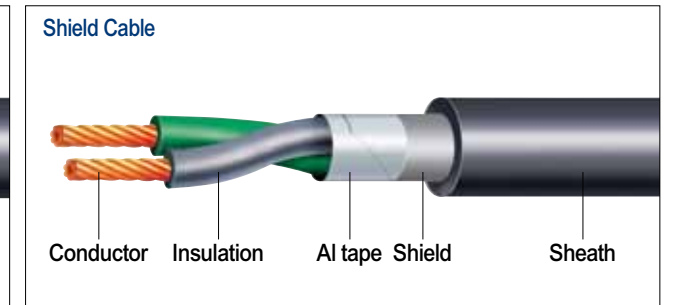
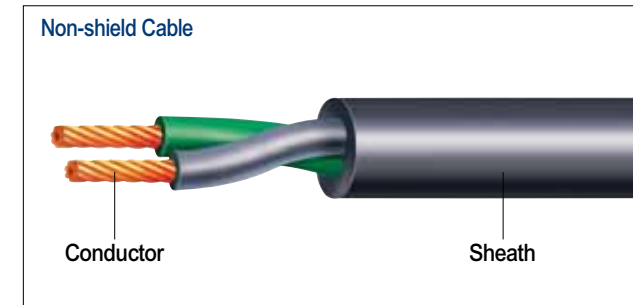
- Conductor : Tinned stranded copper or annealed copper
- Insulation : Halogen-free cross-linked polyethylene(125°C)
- Shield : Metal braid or metal leaf and metal braid
- Sheath : Heat-resistant polyvinyl chloride

Conductor				Insulation			Shield Structure	Sheath Thick	Finished Diameter
Nominal Size	Construction	Calculated Cross-sectional Area	Outer Diameter	Thickness	Nominal Diameter	Maximum Diameter			
(mm ²)	(No./mm)	(mm ²)	(mm)	(mm)	(mm)	(mm)	(No./mm)	(mm)	(mm)
EEX-BS : Shielded type high voltage battery cable for electrical vehicles									
3	65/0.26	3.45	2.4	0.7	3.8	4.0	6/0.12×24	0.5	5.3
5	65/0.32	5.23	3.0	0.8	4.6	4.8	7/0.14×24	0.8	6.9
8f	7/22/0.26	8.18	4.2	0.8	5.8	6.0	7/0.14×24	0.8	8.1
15f	19/9/0.32	13.75	5.3	1.1	7.5	7.7	7/0.18×24	1.0	10.3
20f	19/13/0.32	19.86	6.5	1.1	8.7	9.0	8/0.18×24	1.0	11.5
30f	19/19/0.32	29.03	7.8	1.4	10.6	11.0	9/0.18×24	1.0	13.4
40f	19/26/0.32	39.72	9.1	1.4	11.9	12.3	10/0.18×24	1.5	15.7
50f	19/32/0.32	48.88	10.1	1.6	13.3	13.7	10/0.18×24	1.5	17.1

Note * Current limit : maximum allowable current at conductor temperature 80°C and ambient temperature 40°C

SENSOR LEAD CABLE

For Automobiles



A : Low-tension cables for automobiles

V : Vinyl insulated

SS : Very thin-wall type

E : Polyethylene Insulated

X : Cross-linked

U : Polyurethane sheathed

SW : Spiral wrap shield

Use

Sensor lead cable for anti-lock brake system for automobiles

Material & Type Designation

Use	Type Designation	Material			
		Conductor	Insulation	Shield	Sheath
ABS	AVSSV	Annealed copper	Polyvinyl chloride	-	Polyvinyl chloride
ABS	AXEU	Tinned annealed copper	Cross-linked polyolefin	-	Polyurethane
ABS	AEXEU	High strength copper alloy	Cross-linked polyolefin	-	Polyurethane
CPS	ACPS	Tinned annealed copper	Modified ETFE	-	Viton
CPS	AXEU-SW	Tinned annealed copper	Cross-linked polyolefin	Tinned copper	Polyurethane

Type Designation	Conductor					Shield Wire Diameter	Sheath		Standard Length
	Nominal Size	Construction	Outer Diameter	Thickness	Outer Diameter		Thickness	Nominal Diameter	
	(No.x mm ²)	(No./mm)	(mm)	(mm)	(mm)		(mm)	(mm)	
AVSSV	2 × 0.5	7/0.32 *	0.93	0.38	1.7	-	0.67	4.5	300
AXEU	2 × 0.75	41/0.16 **	1.2	0.35	1.9	-	1.2	6.2	200
AXEU	2 × 0.75	42/0.15 **	1.2	0.5	2.2	-	0.9	6.2	200
AEXEU	2 × 0.5	7/15/0.08 ***	1.1	0.4	1.9	-	1.2	6.2	200
ACPS	3 × 0.5	19/0.19 **	0.95	0.17	1.3	-	1.0	4.7	300
AXEU-SW	2 × 0.5	16/0.20 **	0.93	0.56	2.4	0.12	0.82	6.2	200

Note * Annealed stranded copper wire ** Tinned annealed copper wire *** High-strength copper alloy conductor





SENSOR LEAD ASSEMBLY

For Automobiles

Use

Interconnection for anti-lock brake system and crank position sensor for automobiles

Type Designation & Construction

Use	Type Designation	Conduction		Cable Length (mm)
		Cable type	Conduction	
ABS	ABS-V-D	AVSSV 2×0.5 mm ²		300~5,110 (Optional)
ABS	ABS-U-S	AXEU 2×0.75 mm ² AXEU 2×0.5 mm ² (Male)		300~5,110 (Optional)
		AXEU 2×0.75 mm ² AXEU 2×0.5 mm ² (Female)		250~5,110 (Optional)
CPS	AKS	AXEU-SW 2×0.5 mm ²		200~1,000 (Optional)

TECHNICAL DATA

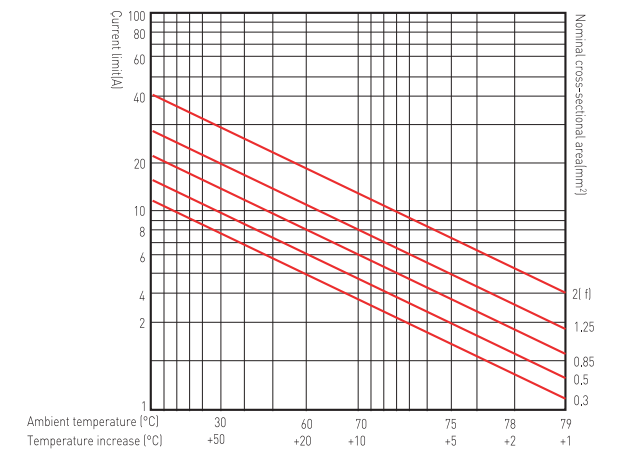
The current limit values are to be used as a reference when designing and selecting low-tension electric circuit wires for automobiles. In case of multi-wiring circuit, the current limit values are decreased as shown in the factor table 1. The below values are also referred to JASO D 609

Current limit value

AVSS/CAVS(Conductor temperature at 80°C)

Ambient temperature	30°C	40°C	50°C	60°C	70°C
Nominal Cross-sectional Area(mm ²)					
0.3f	9	8	7	6	4
0.3	9	8	7	6	4
0.5f	12	10	9	7	5
0.5	12	11	10	8	5
0.75f	15	14	12	9	7
0.85	16	14	12	10	7
1.25f	21	19	16	13	9
1.25	21	19	16	13	9
2f	29	26	22	18	13

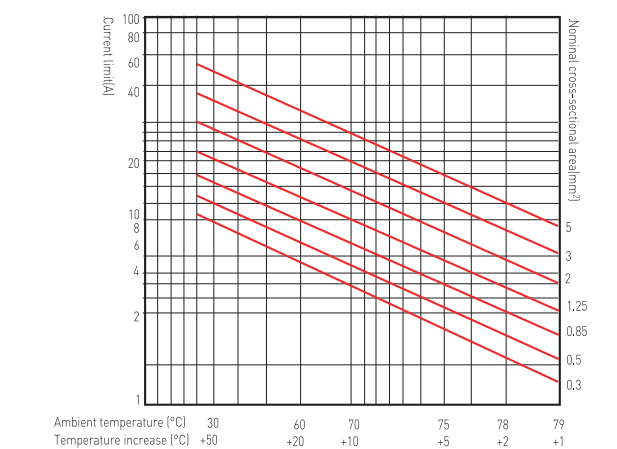
Ambient temperature and current limit



AVS(Conductor temperature at 80°C)

Ambient temperature	30°C	40°C	50°C	60°C	70°C
Nominal Cross-sectional Area(mm ²)					
0.3	9	8	7	6	4
0.5	9	8	7	6	4
0.85	12	10	9	7	5
1.25	12	11	10	8	5
2	15	14	12	9	7
3	16	14	12	10	7
5	21	19	16	13	9

Ambient temperature and current limit

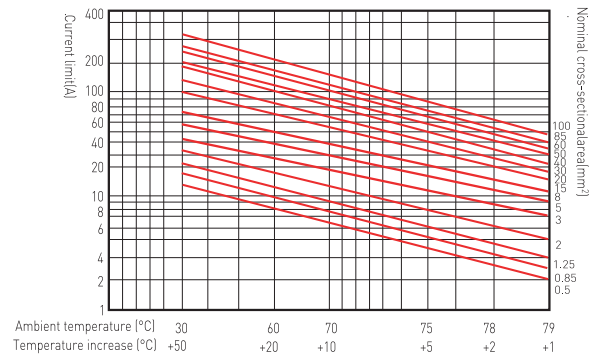


TECHNICAL DATA

AV(Conductor temperature at 80°C)

Ambient temperature and current limit

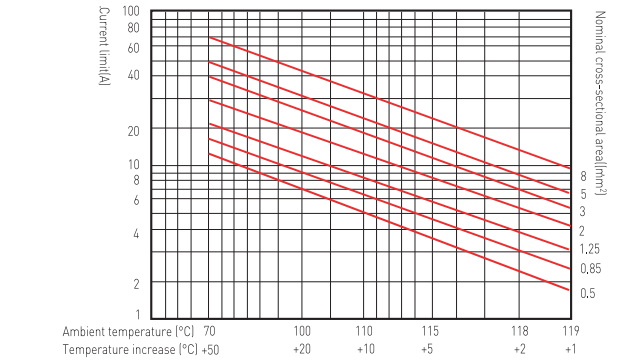
Ambient Temperature Nominal Cross-sectional Area(mm²)	30°C	40°C	50°C	60°C	70°C
0.5	14	12	11	9	6
0.85	18	16	14	11	8
1.25	23	21	18	14	10
2	31	28	24	20	14
3	42	38	33	27	19
5	57	51	44	36	25
8	75	67	58	47	33
15	102	91	79	64	45
20	136	132	106	86	61
30	197	170	147	120	85
40	213	190	165	134	95
50	244	219	198	154	109
60	268	240	208	170	120
85	318	284	246	201	142
100	368	329	285	232	164



AEX(Conductor temperature at 120°C)

Ambient temperature and current limit

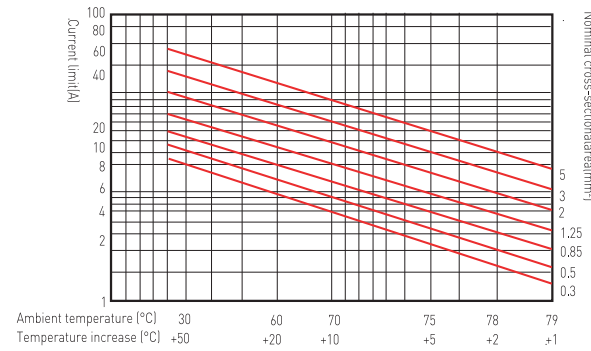
Ambient Temperature Nominal Cross-sectional Area(mm²)	70°C	80°C	90°C	100°C	110°C
0.5f	12	10	9	7	5
0.5	12	11	9	8	5
0.75f	16	13	12	10	7
0.85	16	15	12	10	7
1.25f	21	19	16	13	9
1.25	21	19	16	13	9
2	29	26	22	18	13
3	39	35	30	25	17
5	53	47	41	33	23
8	68	61	53	43	30



AVX(Conductor temperature at 100°C)

Ambient temperature and current limit

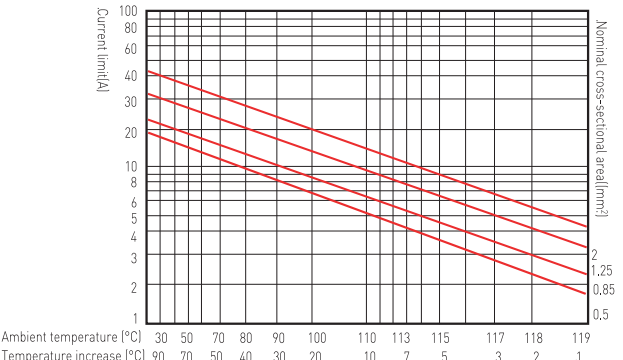
Ambient Temperature Nominal Cross-sectional Area(mm²)	50°C	60°C	70°C	80°C	90°C
0.5f	12	11	9	7	5
0.5	13	11	10	8	5
0.75f	15	14	12	9	7
0.85	17	15	13	10	7
1.25f	21	19	16	13	9
1.25	22	19	17	14	7
2	29	26	23	18	13
3	40	36	31	25	18
5	54	48	41	34	24
8	70	62	54	44	31



AESSX(Conductor temperature at 80°C)

Ambient temperature and current limit

Ambient Temperature Nominal Cross-sectional Area(mm²)	70°C	80°C	90°C	100°C	110°C
0.5f	12	10	9	7	5
0.75f	16	13	12	9	6
1.25f	21	19	16	13	9
2f	29	26	22	18	13



AVSSX(Conductor temperature at 100°C)

Ambient temperature and current limit

Ambient Temperature Nominal Cross-sectional Area(mm²)	50°C	60°C	70°C	80°C	90°C
0.5f	11	10	9	7	5
0.75f	15	13	11	9	6
1.25f	21	18	16	13	9
2f	28	25	21	17	12

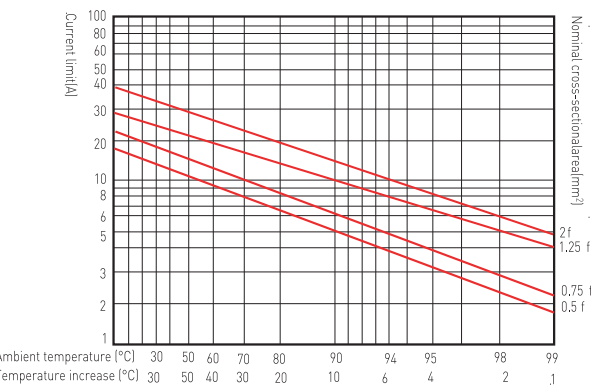


Table 1 : Current limit decreasing factor of multi-wiring circuit

No. of Core	1	2	3	6	4	6	8	12
Arrangement		S	S	S	S	S	S	S
Distance (core-coe)	○	○ d	○ ○	○ ○	○ ○ ○ ○	○ ○	○ ○	○ ○ ○ ○
S=d	1.0	0.85	0.8	0.7	0.7	0.6	-	-
S=2xd	-	0.95	0.95	0.9	0.9	0.9	0.85	0.8
S=2xd	-	1	1	0.95	0.95	0.95	0.85	0.85

Quality Certificates



We do what it takes to earn quality certifications like ISO 9001, ISO/TS 16949 and ISO 14001, which sets standards for process control and manufacturing flow.

Products & Systems

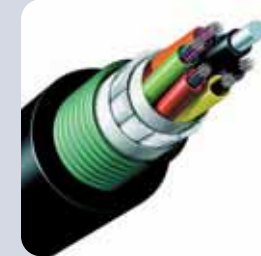
Electric Power

Extra High Voltage Power Cable |
Overhead Transmission Line
OPGW | Halogen Free Cable |
Busduct system | Shipboard Cable |
Automotive Wire



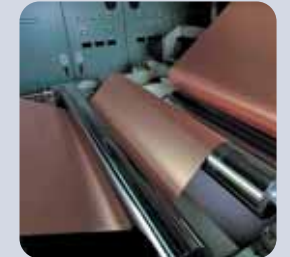
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