

Heat Resistant Wires and Cables



DIFORMI + MONOR SYSTEM

A Trusted Brand

The heat resistant wires and cables of Furukawa Electric Industrial Cable, including the lead wires for the equipment, has a proven track record as a heat resistant product. They are applied to the high temperature environment near the equipment to melt the steel or the glass.

This is embodied by the material development capability which has been cultivated in the Furukawa Electric Group business of more than a century, the structural design according to the customer needs and orders. In the future, we develop the product that the properties required in a variety of environments are enhanced and contribute to the advancement of the electrical machinery and equipment.

Lineup of Heat Resistant Wires and Cables

Product name	Code	Heat resistant temperature	Applied voltage	Major Applications	Page
Halogen free, flame retardant, flexible, cross-linked polyethylene insulated wire	EM-LMFC	110°C	600V 6600V	<ul style="list-style-type: none"> Wiring in the panel Equipment lead wire Power supply 	P.3 ~ 4
Silicon rubber insulated lead wire	LK	180°C	600V 3300V 6600V	<ul style="list-style-type: none"> Equipment lead wire Power supply 	P.5 ~ 6
Silicon rubber insulated, glass braided wire	LKGB	180°C	600V 3300V 6600V		P.7 ~ 8
Silicon rubber insulated, reinforced silicon rubber sheathed cab tire cable	KKCT	180°C	600V	<ul style="list-style-type: none"> Power supply Control 	P.8
Fluorine rubber insulated lead wire	LF	200°C	600V	<ul style="list-style-type: none"> Equipment lead wire Power supply 	P.9
Fluorine rubber insulated, fluorine rubber sheathed cable	LF-R	200°C	600V		P.9
Fluorine rubber insulated, fluorine rubber sheathed, stainless wire armored cable	LF-R-B	200°C	600V		P.10
Fluorine resin insulated wire	FUSSO-15	150°C	600V	<ul style="list-style-type: none"> Power supply Control 	P.11
	FUSSO-20	200°C			P.12
	FUSSO-26	260°C			P.13
	FUSSO-40	260°C (400°C)			P.14
VIBRAFLAME	—	260°C (1565°C)	600V	<ul style="list-style-type: none"> Power supply Control 	P.15 ~ 19

Note) The number in parentheses indicates the short time heat resistant temperature.

Halogen free, Flame Retardant, Flexible, Cross-linked Polyethylene Insulated Wires (EM-LMFC)

Despite being eco-material wires that take the environment into account, the product has an excellent flexibility in consideration of the workability during wiring.

Also, since EM-LMFC insulation has a heat resistance of 110°C, the permissible current is higher in comparison to IV which is the representative wire for the panel wiring.

By reducing the size of conductor, it contributes to the reduction of equipment size and cost.



[Features]

- Halogen gas is not generated during combustion and also it is the environment friendly product which does not contain RoHS restricted substance.
- Since it has an excellent varnish resistance, it can apply to the varnish insulation such as a motor and also can withstand the varnish drying treatment that is high temperature and short time.
- It has a heat resistance of 110°C.
- The flame retardant property meets the requirement of JIS C 3005 4.26.2 b) (Inclined test).

600V EM-LMFC

Conductor			Halogen free, flame retardant, flexible, cross-linked insulation thickness	Overall diameter	Approx.net weight	Electric properties			
Nominal cross-sectional area	Construction	Diameter				Max. conductor resistance	Min. insulation resistance	Surface leakage resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	M Ω	A
0.75	30/0.18	1.1	0.8	2.8	13	25.8	80	300	22
1.25	50/0.18	1.5	0.8	3.2	19	15.5	70	300	29
2	37/0.26	1.8	0.8	3.5	27	9.91	60	300	41
3.5	45/0.32	2.5	0.8	4.2	44	5.38	50	300	56
5.5	35/0.45	2.9	1.0	5.0	63	3.46	50	300	75
8	50/0.45	3.5	1.0	5.6	86	2.45	50	200	93
14	88/0.45	4.7	1.0	6.8	140	1.39	40	200	134
22	7/20/0.45	6.4	1.2	8.9	234	0.892	40	100	175
30	7/27/0.45	7.4	1.2	9.9	306	0.661	40	100	212
38	7/34/0.45	8.4	1.2	10.9	378	0.525	40	100	247
50	19/16/0.45	9.6	1.5	12.7	488	0.411	30	100	290
60	19/20/0.45	10.7	1.5	13.8	600	0.329	30	100	331
80	19/27/0.45	12.4	1.5	15.5	790	0.243	30	90	392
100	19/34/0.45	13.9	2.0	18.0	1020	0.193	30	80	455
125	19/42/0.45	15.5	2.0	19.6	1241	0.156	20	70	525
150	27/34/0.45	17.1	2.0	21.2	1430	0.136	20	60	604
200	37/34/0.45	19.5	2.5	24.6	1965	0.0993	20	60	717
250	37/42/0.45	21.6	2.5	26.7	2395	0.0803	20	50	850
325	37/55/0.45	24.7	2.5	29.8	3087	0.0614	20	50	994

* Calculation conditions) Single cable installed in the air, ambient temperature 40°C, Max. allowable conductor temperature 110°C.

6600V EM-LMFC

Conductor			Halogen free, flame retardant, flexible, cross-linked insulation thickness**	Overall diameter	Approx.net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter				Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
3.5	45/0.32	2.5	4.0	10.5	140	5.38	110	56
5.5	35/0.45	3.1	4.0	11.1	170	3.50	100	74
8	50/0.45	3.7	4.0	11.7	200	2.45	90	93
14	88/0.45	4.9	4.0	12.9	275	1.39	75	134
22	7/20/0.45	6.7	4.0	14.7	385	0.892	60	175
30	7/27/0.45	7.8	4.0	15.8	480	0.661	55	212
38	7/34/0.45	8.7	4.0	16.7	565	0.525	50	247
50	19/16/0.45	10.0	4.0	18.0	685	0.411	45	290
60	19/20/0.45	11.2	4.0	19.2	815	0.329	40	331
80	19/27/0.45	13.0	4.0	21.0	1050	0.243	35	392
100	19/34/0.45	14.6	4.0	22.6	1270	0.193	35	455
125	19/42/0.45	16.3	4.0	24.3	1520	0.156	30	525
150	27/34/0.45	18.0	4.0	26.0	1740	0.136	30	604
200	37/34/0.45	20.4	4.5	29.4	2370	0.0993	30	717
250	37/42/0.45	22.7	4.5	31.7	2850	0.0803	30	850
325	37/55/0.45	26.0	4.5	34.9	3640	0.0614	30	994

* Calculation conditions) Single cable installed in the air, ambient temperature 40°C, Max. allowable conductor temperature 110°C.

** Including inner semi-conductive layer thickness.

Silicon Rubber Insulated Wires and Cables

Because silicon rubber has not only heat resistant property, but also superior brittleness property, it can be used at wide range of from low temperature to high temperature.

Also we have the product of crack resistance (LKGB), flexible cable applicable to curtain method (KKCT) and etc.



[Features]

- Silicon rubber has an excellent environmental property because it does not generate a halogen gas during combustion.
- It has the heat resistance of 180°C.
- It can be used under low temperature because the brittleness temperature is -60°C.
- The flame retardant property meets the requirement of JIS C 3005 4.26.2 b) (Inclined test).
- It has the excellent properties of flexibility.

Please, do not use in a steam atmosphere because silicon rubber causes hydrolysis reaction.

600V LK

Conductor			Silicon rubber insulation thickness	Overall diameter	Max. overall diameter	Approx.net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter					Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
0.75	30/0.18	1.1	1.1	3.4	3.9	20	25.8	100	19
1.25	50/0.18	1.5	1.1	3.8	4.3	25	15.5	100	26
2	37/0.26	1.8	1.1	4.1	4.6	30	9.91	100	33
3.5	45/0.32	2.5	1.1	4.8	5.3	50	5.38	100	49
5.5	35/0.45	3.1	1.1	5.4	5.9	70	3.46	90	65
8	50/0.45	3.7	1.1	6.0	6.5	95	2.45	80	81
14	88/0.45	4.9	1.1	7.2	7.7	160	1.39	60	115
22	7/20/0.45	7.0	1.4	9.8	10.4	260	0.892	70	165
30	7/27/0.45	8.1	1.4	10.9	11.6	340	0.661	60	200
38	7/34/0.45	9.1	1.4	11.9	12.6	420	0.525	50	235
50	19/16/0.45	10.0	1.8	13.7	14.8	540	0.411	60	275
60	19/20/0.45	11.2	1.8	14.9	16.0	665	0.329	50	320
80	19/27/0.45	13.0	1.8	16.7	17.9	875	0.243	50	390
100	19/34/0.45	14.7	2.3	19.4	20.7	1130	0.193	50	455
125	19/42/0.45	16.3	2.3	21.0	22.3	1370	0.156	50	520
150	27/34/0.45	17.7	2.3	22.4	24.3	1560	0.136	40	575
200	37/34/0.45	20.0	2.9	25.9	28.1	2150	0.0993	40	690
250	37/42/0.45	22.0	2.9	27.9	30.5	2610	0.0803	40	785

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 180°C.

3300V LK

Conductor			Silicon rubber insulation thickness	Overall diameter	Max. overall diameter	Approx.net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter					Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
8	50/0.45	3.7	3.0	9.7	10.3	155	2.45	100	90
14	88/0.45	4.9	3.0	10.9	11.6	225	1.39	100	125
22	7/20/0.45	7.0	3.0	13.0	13.7	330	0.892	100	170
30	7/27/0.45	8.1	3.0	14.1	14.9	420	0.661	90	210
38	7/34/0.45	9.1	3.0	15.1	15.9	505	0.525	90	240
50	19/16/0.45	10.0	3.5	17.0	18.2	645	0.411	90	280
60	19/20/0.45	11.2	3.5	18.2	19.5	775	0.329	80	325
80	19/27/0.45	13.0	3.5	20.0	21.4	1000	0.243	70	390
100	19/34/0.45	14.7	3.5	21.7	23.2	1230	0.193	70	455
125	19/42/0.45	16.3	3.5	23.3	24.8	1480	0.156	60	520
150	27/34/0.45	17.7	3.5	24.7	26.7	1680	0.136	60	570
200	37/34/0.45	20.0	4.0	28.0	30.3	2270	0.0993	60	685
250	37/42/0.45	22.0	4.0	30.0	32.8	2750	0.0803	50	780

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 180°C.

6600V LK

Conductor			Silicon rubber insulation thickness	Overall diameter	Max. overall diameter	Approx.net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter					Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
8	50/0.45	3.7	5.0	13.7	14.4	235	2.45	100	94
14	88/0.45	4.9	5.0	15.0	15.7	315	1.39	100	130
22	7/20/0.45	7.0	5.0	17.1	17.8	435	0.892	100	175
30	7/27/0.45	8.1	5.0	18.2	19.0	530	0.661	100	210
38	7/34/0.45	9.1	5.0	19.2	20.0	620	0.525	100	245
50	19/16/0.45	10.0	5.0	20.1	21.3	735	0.411	100	280
60	19/20/0.45	11.2	5.0	21.3	22.5	870	0.329	100	325
80	19/27/0.45	13.0	5.0	23.1	24.5	1110	0.243	90	390
100	19/34/0.45	14.7	5.0	24.8	26.2	1340	0.193	90	455
125	19/42/0.45	16.3	5.0	26.4	27.9	1600	0.156	80	515
150	27/34/0.45	17.7	5.0	27.8	29.8	1810	0.136	70	565
200	37/34/0.45	20.0	5.5	31.1	33.1	2410	0.0993	70	680
250	37/42/0.45	22.0	5.5	33.1	35.1	2900	0.0803	70	770

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 180°C.

600V LKGB

Conductor			Silicon rubber insulation thickness	Glass braid thickness	Overall diameter	Max. overall diameter	Approx. net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter						Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	approx. mm	mm	kg/km	(20°C) Ω /km	(20°C) MΩ •km	A
0.75	30/0.18	1.1	1.1	0.5	4.3	4.8	30	25.8	100	22
1.25	50/0.18	1.5	1.1	0.5	4.7	5.2	40	15.5	100	30
2	37/0.26	1.8	1.1	0.5	5.0	5.5	50	9.91	100	38
3.5	45/0.32	2.5	1.1	0.5	5.7	6.2	70	5.38	100	56
5.5	35/0.45	3.1	1.1	0.5	6.3	6.8	90	3.46	90	74
8	50/0.45	3.7	1.1	0.5	6.9	7.4	120	2.45	80	92
14	88/0.45	4.9	1.1	0.6	8.3	8.9	200	1.39	60	130
22	7/20/0.45	7.0	1.4	0.6	11.0	11.7	310	0.892	70	180
30	7/27/0.45	8.1	1.4	0.6	12.1	12.8	430	0.661	60	220
38	7/34/0.45	9.1	1.4	0.6	13.1	13.8	520	0.525	50	255
50	19/16/0.45	10.0	1.8	0.6	14.8	16.0	630	0.411	60	300
60	19/20/0.45	11.2	1.8	0.6	16.0	17.4	750	0.329	50	345
80	19/27/0.45	13.0	1.8	0.7	18.0	19.4	1040	0.243	50	420
100	19/34/0.45	14.7	2.3	0.7	20.7	22.1	1270	0.193	50	485
125	19/42/0.45	16.3	2.3	0.7	22.3	23.8	1520	0.156	50	555
150	27/34/0.45	17.7	2.3	0.7	23.7	25.7	1810	0.136	40	605
200	37/34/0.45	20.0	2.9	0.7	27.2	28.5	2370	0.0993	40	725
250	37/42/0.45	22.0	2.9	0.7	29.2	32.0	2860	0.0803	40	825

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 180°C.

3300V LKGB

Conductor			Silicon rubber insulation thickness	Glass braid thickness	Overall diameter	Max. overall diameter	Approx. net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter						Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	approx. mm	mm	kg/km	(20°C) Ω /km	(20°C) MΩ •km	A
8	50/0.45	3.7	3.0	0.6	10.9	11.6	200	2.45	150	98
14	88/0.45	4.9	3.0	0.6	12.1	12.8	280	1.39	150	135
22	7/20/0.45	7.0	3.0	0.6	14.2	15.0	400	0.892	100	185
30	7/27/0.45	8.1	3.0	0.6	15.3	16.1	500	0.661	90	220
38	7/34/0.45	9.1	3.0	0.6	16.3	17.1	590	0.525	80	255
50	19/16/0.45	10.0	3.5	0.7	18.4	19.1	750	0.411	80	295
60	19/20/0.45	11.2	3.5	0.7	19.6	21.1	890	0.329	70	340
80	19/27/0.45	13.0	3.5	0.7	21.4	22.9	1130	0.243	70	415
100	19/34/0.45	14.7	3.5	0.7	23.1	24.7	1370	0.193	60	480
125	19/42/0.45	16.3	3.5	0.7	24.7	26.2	1640	0.156	50	545
150	27/34/0.45	17.7	3.5	0.7	26.1	28.2	1860	0.136	50	600
200	37/34/0.45	20.0	4.0	0.7	29.4	31.8	2480	0.0993	50	715
250	37/42/0.45	22.0	4.0	0.7	31.4	34.3	2980	0.0803	50	815

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 180°C.

6600V LKGB

Conductor			Silicon rubber insulation thickness	Glass braid thickness	Overall diameter	Max. overall diameter	Approx. net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter						Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	approx. mm	mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
8	50/0.45	3.7	5.0	0.6	14.9	15.7	310	2.45	200	99
14	88/0.45	4.9	5.0	0.6	16.1	16.9	400	1.39	200	135
22	7/20/0.45	7.0	5.0	0.7	18.4	19.3	550	0.892	150	185
30	7/27/0.45	8.1	5.0	0.7	19.5	20.5	660	0.661	150	220
38	7/34/0.45	9.1	5.0	0.7	20.5	21.5	760	0.525	100	255
50	19/16/0.45	10.0	5.0	0.7	21.4	22.8	880	0.411	100	295
60	19/20/0.45	11.2	5.0	0.7	22.6	24.2	1030	0.329	100	340
80	19/27/0.45	13.0	5.0	0.7	24.4	26.0	1280	0.243	90	410
100	19/34/0.45	14.7	5.0	0.7	26.1	27.7	1530	0.193	80	475
125	19/42/0.45	16.3	5.0	0.7	27.7	29.3	1810	0.156	70	540
150	27/34/0.45	17.7	5.0	0.7	29.1	31.3	2040	0.136	70	590
200	37/34/0.45	20.0	5.5	0.7	32.4	34.8	2680	0.0993	70	705

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 180°C.

600V KKCT

Conductor				Silicon rubber insulation thickness	Silicon rubber sheath thickness	Overall diameter	Approx. net weight	Electric properties		
Number of cores	Nominal cross-sectional area	Construction	Diameter					Max. conductor resistance	Min. insulation resistance	Permissible current*
	mm ²	strands/mm	approx. mm	mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
2	0.75	30/0.18	1.1	1.1	1.8	10.5	125	27.1	100	18
	1.25	50/0.18	1.5	1.1	1.8	11.5	155	16.3	100	25
	2	37/0.26	1.8	1.1	1.9	12.5	185	10.4	100	32
	3.5	45/0.32	2.5	1.1	1.9	13.5	250	5.65	100	46
	5.5	70/0.32	3.1	1.1	2.0	15.0	325	3.63	90	60
	8	7/14/0.32	4.2	1.1	2.2	17.5	450	2.61	70	75
	14	7/26/0.32	5.6	1.4	2.4	22.0	750	1.38	70	110
	22	7/40/0.32	6.8	1.4	2.6	25.0	1020	0.922	60	140
38	19/25/0.32	9.2	1.8	3.0	32.0	1700	0.525	60	200	
3	0.75	30/0.18	1.1	1.1	1.8	11.5	145	27.1	100	16
	1.25	50/0.18	1.5	1.1	1.9	12.5	180	16.3	100	21
	2	37/0.26	1.8	1.1	1.9	13.0	215	10.4	100	27
	3.5	45/0.32	2.5	1.1	2.0	14.5	305	5.65	100	39
	5.5	70/0.32	3.1	1.1	2.1	16.0	400	3.63	90	51
	8	7/14/0.32	4.2	1.1	2.2	18.5	545	2.61	70	64
	14	7/26/0.32	5.6	1.4	2.5	24.0	930	1.38	70	95
	22	7/40/0.32	6.8	1.4	2.7	27.0	1290	0.922	60	120
38	19/25/0.32	9.2	1.8	3.2	35.0	2150	0.525	60	170	
4	0.75	30/0.18	1.1	1.1	1.9	12.5	175	27.1	100	14
	1.25	50/0.18	1.5	1.1	1.9	13.5	220	16.3	100	19
	2	37/0.26	1.8	1.1	2.0	14.0	265	10.4	100	25
	3.5	45/0.32	2.5	1.1	2.1	16.0	375	5.65	100	35
	5.5	70/0.32	3.1	1.1	2.2	17.5	500	3.63	90	46
	8	7/14/0.32	4.2	1.1	2.4	21.0	695	2.61	70	58
	14	7/26/0.32	5.6	1.4	2.7	26.0	1180	1.38	70	86
	22	7/40/0.32	6.8	1.4	2.9	30.0	1640	0.922	60	105
38	19/25/0.32	9.2	1.8	3.4	38.0	2720	0.525	60	155	

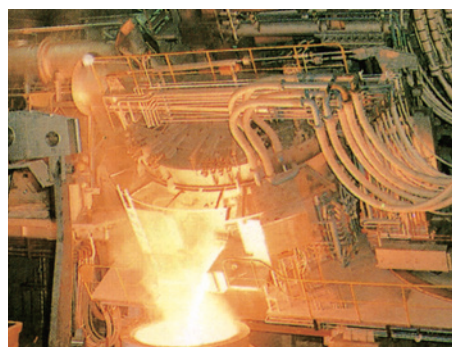
*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 180°C.

Fluorine rubber insulated wires and Cables

Because fluorine rubber has the excellent properties of chemical resistance, solvent resistance and steam resistance, it can be used in a variety of environmental conditions.

In addition to above performances, because our fluorine rubber material has an excellent flexibility, it has also an excellent workability during wiring.

Also, we have the product which the crack resistance is considered (LF-R-B).



[Features]

- It has the heat resistance of 200°C.
- It has the excellent properties of oil resistance, solvent resistance and steam resistance.
- The flame retardant property meets the requirement of IEC 60332-1 and JIS C 3665-1 (Test for vertical flame propagation for a single insulated cable).

LF

Conductor			Fluorine rubber insulation thickness	Overall diameter	Approx.net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter				Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
14	88/0.45	4.9	0.7	7.5	170	1.39	1500	125
22	7/20/0.45	7.0	0.8	9.5	270	0.892	1000	180
30	7/27/0.45	8.1	0.8	11.0	350	0.661	900	220
38	7/34/0.45	9.1	0.9	12.5	445	0.525	900	255
50	19/16/0.45	10.0	0.9	13.0	550	0.411	800	300
60	19/20/0.45	11.2	0.9	14.5	675	0.329	700	345
80	19/27/0.45	13.5	1.0	17.0	900	0.243	700	430

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 200°C.

LF-R

Conductor			Fluorine rubber insulation thickness	Overall diameter	Approx.net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter				Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω •km	A
100	19/34/0.45	14.7	2.5	20.0	1210	0.193	600	495
125	19/42/0.45	16.3	2.6	22.0	1470	0.156	500	570
150	27/34/0.45	17.7	2.7	24.0	1680	0.136	500	625
200	37/34/0.45	20.0	2.9	26.0	2250	0.0993	500	755
250	37/42/0.45	22.0	3.0	29.0	2750	0.0803	500	855
325	37/55/0.45	25.4	3.2	32.0	3580	0.0614	400	1010
400	61/42/0.45	28.8	3.4	36.0	4480	0.0492	400	1150
500	61/52/0.45	32.0	3.6	40.0	5510	0.0398	400	1290

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 200°C.

LF-R-B

Conductor			Fluorine rubber insulation thickness	Soft stainless wire braid thickness	Overall diameter	Approx.net weight	Electric properties		
Nominal cross-sectional area	Construction	Diameter					Max. conductor resistance	Min. insulation resistance	Permissible current*
mm ²	strands/mm	approx. mm	mm	approx. mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω • km	A
100	19/34/0.45	14.7	2.5	0.8	23.0	1500	0.193	600	445
125	19/42/0.45	16.3	2.6	0.8	25.0	1780	0.156	500	510
150	27/34/0.45	17.7	2.7	0.8	26.0	2010	0.136	500	555
200	37/34/0.45	20.0	2.9	0.8	29.0	2620	0.0993	500	665
250	37/42/0.45	22.0	3.0	0.8	31.0	3140	0.0803	500	755
325	37/55/0.45	25.4	3.2	0.8	35.0	4000	0.0614	400	885
400	61/42/0.45	28.8	3.4	0.8	39.0	4980	0.0492	400	1010
500	61/52/0.45	32.0	3.6	0.8	42.0	6050	0.0398	400	1160

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 200°C.

Fluorine Resin Insulated Wires

Because in addition to heat resistance, the fluorine resin has excellent performances such as oil resistance, chemical resistance, solvent resistance, steam resistance and etc., it can be used in a variety of environmental conditions.

Also, because the insulation thickness is thinner in comparison to the general rubber or plastic wires, it can contribute to the reduction of equipment size and weight.



[Features]

- It has the excellent properties of oil resistance, chemical resistance, solvent resistance and steam resistance.
- Because it has an excellent low temperature property, it can be used up to -100°C.
- The flame retardant property meets the requirement of UL 1581 1080, VW-1 Flame retardant test.
- Below table shows the heat resistant property and etc.

Product name	Heat resistant temperature	Type of Conductor	Type of insulator
FUSSO-15	150	Tin-coated annealed copper wire	ETFE
FUSSO-20	200	Tin-coated annealed copper wire	FEP
FUSSO-26	260	Nickel-coated annealed copper wire	PFA
FUSSO-40 ¹⁾	260°C 400°C ²⁾	Nickel-coated annealed copper wire	PTFE

Note) 1) Please, do not use in the high humidity atmosphere because the insulation resistance will be reduced.

2) It has the performance which withstands in the condition of 400°C x 30 minutes.

3) Multi-core cable will be the outside of the product in the category of Electrical Appliance and Material Safety Law and electrical equipment technical standard.

FUSSO-15 (1/2)

Number of cores	Conductor			ETFE insulation thickness mm	Overall diameter approx. mm	Approx.net weight kg/km	Electric properties		
	Nominal cross-sectional area mm ²	Construction strands/mm	Diameter approx. mm				Max. conductor resistance (20°C) Ω /km	Min. insulation resistance (20°C) M Ω • km	Permissible current* A
1	1.25	50/0.18	1.5	0.4	2.3	20	15.5	2000	18
	2	37/0.26	1.8	0.4	2.6	25	9.91	1500	24
	3.5	45/0.32	2.5	0.4	3.3	40	5.38	1500	37
	5.5	35/0.45	3.1	0.5	4.1	65	3.50	1500	50
	8	50/0.45	3.7	0.6	4.9	100	2.45	1500	65
2	1.25	50/0.18	1.5	0.4	5.6	70	15.8	2000	18
	2	37/0.26	1.8	0.4	6.2	85	10.1	1500	24
	3.5	45/0.32	2.5	0.4	7.8	150	5.49	1500	36
	5.5	35/0.45	3.1	0.5	9.6	230	3.57	1500	48
	8	50/0.45	3.7	0.6	11.4	340	2.50	1500	61
3	1.25	50/0.18	1.5	0.4	6.0	80	15.8	2000	15
	2	37/0.26	1.8	0.4	6.6	120	10.1	1500	20
	3.5	45/0.32	2.5	0.4	8.4	190	5.49	1500	30
	5.5	35/0.45	3.1	0.5	10.3	290	3.57	1500	40
	8	50/0.45	3.7	0.6	12.2	440	2.50	1500	52
4	1.25	50/0.18	1.5	0.4	6.6	110	15.8	2000	14
	2	37/0.26	1.8	0.4	7.3	140	10.1	1500	18
	3.5	45/0.32	2.5	0.4	9.2	240	5.49	1500	27
	5.5	35/0.45	3.1	0.5	11.5	380	3.57	1500	37
	8	50/0.45	3.7	0.6	13.7	560	2.50	1500	47

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 150°C.

FUSSO-15 (2/2)

Conductor				ETFE insulation thickness	Overall diameter	Approx.net weight	Electric properties		
Number of cores	Nominal cross-sectional area	Construction	Diameter				Max. conductor resistance	Min. insulation resistance	Permissible current*
	mm ²	strands/mm	approx. mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω • km	A
5	1.25	50/0.18	1.5	0.4	7.3	120	15.8	2000	13
	2	37/0.26	1.8	0.4	8.3	190	10.1	1500	17
	3.5	45/0.32	2.5	0.4	10.4	310	5.49	1500	26
	5.5	35/0.45	3.1	0.5	12.9	470	3.57	1500	34
	8	50/0.45	3.7	0.6	15.3	700	2.50	1500	44
6	1.25	50/0.18	1.5	0.4	8.1	160	15.8	2000	12
	2	37/0.26	1.8	0.4	9.0	240	10.1	1500	16
	3.5	45/0.32	2.5	0.4	11.5	380	5.49	1500	24
	5.5	35/0.45	3.1	0.5	14.1	570	3.57	1500	32
	8	50/0.45	3.7	0.6	16.9	870	2.50	1500	41

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 150°C.

FUSSO-20

Conductor				FEP insulation thickness	Overall diameter	Approx.net weight	Electric properties		
Number of cores	Nominal cross-sectional area	Construction	Diameter				Max. conductor resistance	Min. insulation resistance	Permissible current*
	mm ²	strands/mm	approx. mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω • km	A
1	1.25	50/0.18	1.5	0.4	2.3	20	15.5	2000	23
	2	37/0.26	1.8	0.4	2.6	25	9.91	1500	31
	3.5	45/0.32	2.5	0.4	3.3	40	5.38	1500	47
	5.5	35/0.45	3.1	0.5	4.1	65	3.50	1500	64
	8	50/0.45	3.7	0.6	4.9	100	2.45	1500	83
2	1.25	50/0.18	1.5	0.4	5.6	70	15.8	2000	23
	2	37/0.26	1.8	0.4	6.2	85	10.1	1500	30
	3.5	45/0.32	2.5	0.4	7.8	150	5.49	1500	46
	5.5	35/0.45	3.1	0.5	9.6	230	3.57	1500	61
	8	50/0.45	3.7	0.6	11.4	340	2.50	1500	78
3	1.25	50/0.18	1.5	0.4	6.0	80	15.8	2000	20
	2	37/0.26	1.8	0.4	6.6	120	10.1	1500	26
	3.5	45/0.32	2.5	0.4	8.4	190	5.49	1500	39
	5.5	35/0.45	3.1	0.5	10.3	290	3.57	1500	52
	8	50/0.45	3.7	0.6	12.2	440	2.50	1500	67
4	1.25	50/0.18	1.5	0.4	6.6	110	15.8	2000	18
	2	37/0.26	1.8	0.4	7.3	140	10.1	1500	23
	3.5	45/0.32	2.5	0.4	9.2	240	5.49	1500	35
	5.5	35/0.45	3.1	0.5	11.5	380	3.57	1500	47
	8	50/0.45	3.7	0.6	13.7	560	2.50	1500	60
5	1.25	50/0.18	1.5	0.4	7.3	120	15.8	2000	16
	2	37/0.26	1.8	0.4	8.3	190	10.1	1500	22
	3.5	45/0.32	2.5	0.4	10.4	310	5.49	1500	33
	5.5	35/0.45	3.1	0.5	12.9	470	3.57	1500	44
	8	50/0.45	3.7	0.6	15.3	700	2.50	1500	56
6	1.25	50/0.18	1.5	0.4	8.1	160	15.8	2000	16
	2	37/0.26	1.8	0.4	9.0	240	10.1	1500	21
	3.5	45/0.32	2.5	0.4	11.5	380	5.49	1500	31
	5.5	35/0.45	3.1	0.5	14.1	570	3.57	1500	42
	8	50/0.45	3.7	0.6	16.9	870	2.50	1500	53

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 200°C.

FUSSO-26

Conductor				PFA insulation thickness	Overall diameter	Approx.net weight	Electric properties		
Number of cores	Nominal cross-sectional area	Construction	Diameter				Max. conductor resistance	Min. insulation resistance	Permissible current*
	mm ²	strands/mm	approx. mm	mm	approx. mm	kg/km	(20°C) Ω /km	(20°C) M Ω • km	A
1	1.25	50/0.18	1.5	0.4	2.3	20	15.0	2000	27
	2	37/0.26	1.8	0.4	2.6	25	9.70	1500	36
	3.5	45/0.32	2.5	0.4	3.3	40	5.27	1500	55
	5.5	35/0.45	3.1	0.5	4.1	65	3.42	1500	76
	8	50/0.45	3.7	0.6	4.9	100	2.40	1500	98
2	1.25	50/0.18	1.5	0.4	5.6	70	15.3	2000	27
	2	37/0.26	1.8	0.4	6.2	85	9.89	1500	36
	3.5	45/0.32	2.5	0.4	7.8	150	5.38	1500	54
	5.5	35/0.45	3.1	0.5	9.6	230	3.49	1500	72
	8	50/0.45	3.7	0.6	11.4	340	2.45	1500	92
3	1.25	50/0.18	1.5	0.4	6.0	80	15.3	2000	23
	2	37/0.26	1.8	0.4	6.6	120	9.89	1500	31
	3.5	45/0.32	2.5	0.4	8.4	190	5.38	1500	46
	5.5	35/0.45	3.1	0.5	10.3	290	3.49	1500	62
	8	50/0.45	3.7	0.6	12.2	440	2.45	1500	78
4	1.25	50/0.18	1.5	0.4	6.6	110	15.3	2000	21
	2	37/0.26	1.8	0.4	7.3	140	9.89	1500	27
	3.5	45/0.32	2.5	0.4	9.2	240	5.38	1500	41
	5.5	35/0.45	3.1	0.5	11.5	380	3.49	1500	56
	8	50/0.45	3.7	0.6	13.7	560	2.45	1500	71
5	1.25	50/0.18	1.5	0.4	7.3	120	15.3	2000	20
	2	37/0.26	1.8	0.4	8.3	190	9.89	1500	26
	3.5	45/0.32	2.5	0.4	10.4	310	5.38	1500	39
	5.5	35/0.45	3.1	0.5	12.9	470	3.49	1500	52
	8	50/0.45	3.7	0.6	15.3	700	2.45	1500	66
6	1.25	50/0.18	1.5	0.4	8.1	160	15.3	2000	19
	2	37/0.26	1.8	0.4	9.0	240	9.89	1500	24
	3.5	45/0.32	2.5	0.4	11.5	380	5.38	1500	37
	5.5	35/0.45	3.1	0.5	14.1	570	3.49	1500	49
	8	50/0.45	3.7	0.6	16.9	870	2.45	1500	62

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 260°C.

FUSSO-40

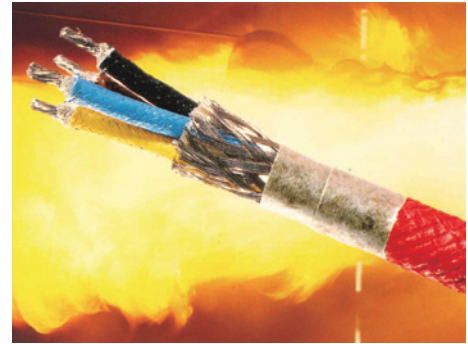
Conductor				Heat resistant tape thickness	PTFE insulation thickness	Glass braid thickness	Glass tape thickness	Soft stainless wire braid thickness	Overall diameter	Approx. net weight	Electric properties		
Number of cores	Nominal cross-sectional area	Construction	Diameter								Max. conductor resistance	Min. insulation resistance	Permissible current*
	mm ²	strands/mm	approx. mm	approx. mm	approx. mm	approx. mm	approx. mm	approx. mm	approx. mm	kg/km	(20°C) Ω/km	(20°C) M Ω •km	A
1	1.25	50/0.18	1.5	0.5	0.4	0.2	1.0	0.3	6.4	65	15.0	2000	37
	2	37/0.26	1.8	0.5	0.4	0.2	1.0	0.45	7.0	85	9.70	1500	48
	3.5	45/0.32	2.5	0.5	0.4	0.2	1.0	0.45	7.7	110	5.27	1500	68
	5.5	35/0.45	3.1	0.5	0.5	0.2	1.0	0.45	8.3	150	3.42	1500	88
	8	50/0.45	3.7	0.5	0.6	0.2	1.0	0.45	8.9	190	2.40	1500	110
2	1.25	50/0.18	1.5	0.5	0.4	0.2	1.0	0.45	10.5	180	15.3	2000	31
	2	37/0.26	1.8	0.5	0.4	0.2	1.0	0.45	11.1	210	9.89	1500	39
	3.5	45/0.32	2.5	0.5	0.4	0.2	1.0	0.45	12.5	300	5.38	1500	56
	5.5	35/0.45	3.1	0.5	0.5	0.2	1.0	0.45	14.1	370	3.49	1500	72
	8	50/0.45	3.7	0.5	0.6	0.2	1.0	0.45	15.8	480	2.45	1500	89
3	1.25	50/0.18	1.5	0.5	0.4	0.2	1.0	0.45	11.1	200	15.3	2000	26
	2	37/0.26	1.8	0.5	0.4	0.2	1.0	0.45	11.7	260	9.89	1500	33
	3.5	45/0.32	2.5	0.5	0.4	0.2	1.0	0.45	13.2	360	5.38	1500	47
	5.5	35/0.45	3.1	0.5	0.5	0.2	1.0	0.45	15.0	450	3.49	1500	61
	8	50/0.45	3.7	0.5	0.6	0.2	1.0	0.45	16.8	580	2.45	1500	75
4	1.25	50/0.18	1.5	0.5	0.4	0.2	1.0	0.45	12.1	230	15.3	2000	23
	2	37/0.26	1.8	0.5	0.4	0.2	1.0	0.45	12.8	280	9.89	1500	30
	3.5	45/0.32	2.5	0.5	0.4	0.2	1.0	0.45	14.5	390	5.38	1500	42
	5.5	35/0.45	3.1	0.5	0.5	0.2	1.0	0.45	16.4	530	3.49	1500	55
	8	50/0.45	3.7	0.5	0.6	0.2	1.0	0.45	18.4	700	2.45	1500	68
5	1.25	50/0.18	1.5	0.5	0.4	0.2	1.0	0.45	13.1	270	15.3	2000	21
	2	37/0.26	1.8	0.5	0.4	0.2	1.0	0.45	13.9	340	9.89	1500	27
	3.5	45/0.32	2.5	0.5	0.4	0.2	1.0	0.45	15.8	480	5.38	1500	39
	5.5	35/0.45	3.1	0.5	0.5	0.2	1.0	0.45	18.0	650	3.49	1500	51
	8	50/0.45	3.7	0.5	0.6	0.2	1.0	0.45	20.3	870	2.45	1500	63
6	1.25	50/0.18	1.5	0.5	0.4	0.2	1.0	0.45	14.3	340	15.3	2000	20
	2	37/0.26	1.8	0.5	0.4	0.2	1.0	0.45	15.2	440	9.89	1500	26
	3.5	45/0.32	2.5	0.5	0.4	0.2	1.0	0.45	17.3	630	5.38	1500	37
	5.5	35/0.45	3.1	0.5	0.5	0.2	1.0	0.45	19.7	810	3.49	1500	48
	8	50/0.45	3.7	0.5	0.6	0.2	1.0	0.45	22.2	1070	2.45	1500	59

*(Calculation conditions) Single cable installed in the air, ambient temperature 90°C, Max. allowable conductor temperature 260°C.

VIBRAFLAME

This product is constructed by combining mica, organic polymer and etc. and it realizes an ultra-heat resistance that withstand the peak temperature of from -196°C to 1565°C (short time).

Even when the scatter of high temperature molten metal or glass happens, the equipment maintains the functions for short time. Therefore when accident occurs, the time to stop the machine is secured.

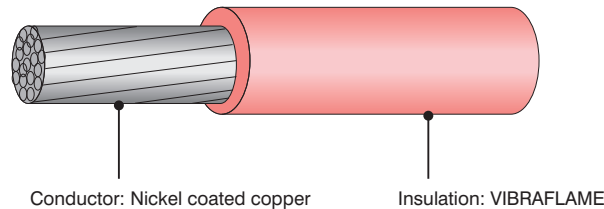


[Features]

- Secondary disaster due to the flame propagation can be avoided because of the flame retardant property and non-flame spread.
- It has an excellent workability on wiring because of the flexibility.
- It has the excellent properties of chemical resistance and solvent resistance.
- It has an excellent heat resistance and the long life time so that the frequency of cable replacement and the maintenance cost can be reduced.
- Continuous permissible temperature is from -90°C to 260°C and it can be used in a wide range of temperature.
- Flame retardant property meets not only the requirement of JIS C 3521 (Vertical tray combustion test), but also Belgium standard NBNC30-004 which is very severe testing condition.
 - NBNC30-004 testing conditions (Excerpt)
 - Gas burner temperature: 900+/- 50°C
 - Testing time: 3 hours
 - Mechanical shock interval: each 30 seconds

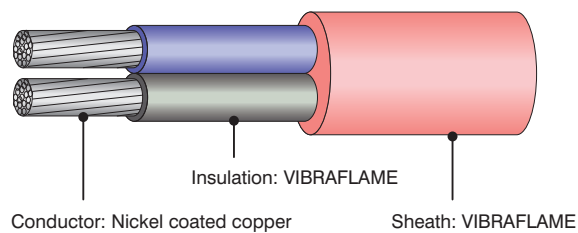
Note: 1) Please, do not use in a condition of high humidity atmosphere because the insulation resistance will be reduced.
 2) This product will be the outside of the product in the category of Electrical Appliance and Material Safety Law and electrical equipment technical standard.

Standard type (single core)



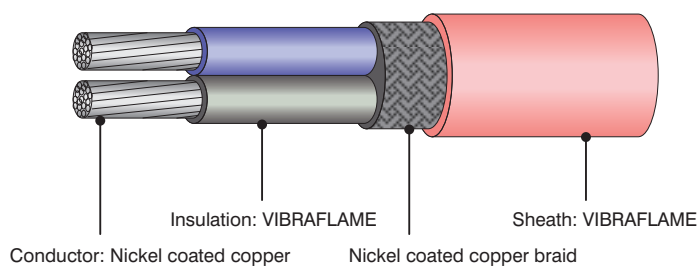
Number of cores	Product code	Conductor			Overall diameter approx. mm	Approx.net weight kg/km	Max. conductor resistance (20°C) Ω/km
		Nominal cross-sectional area mm ²	Construction strands/mm	Diameter approx. mm			
1	RV0.5	0.5	16/0.20	0.9	2.6	13	38.0
	RV0.75	0.75	24/0.20	1.1	2.8	16	25.0
	RV1.0	1.0	32/0.20	1.25	3.0	19	19.0
	RV1.5	1.5	30/0.25	1.5	3.2	25	13.0
	RV2.5	2.5	50/0.25	2.0	3.7	35	7.8
	RV4.0	4	133/0.20	3.0	4.7	60	4.5
	RV6.0	6	133/0.25	3.8	5.5	86	2.8
2	RV0.5V02	0.5	16/0.20	0.9	6.9	62	39.2
	RV0.75V02	0.75	24/0.20	1.1	7.3	70	25.8
	RV1.0V02	1.0	32/0.20	1.25	7.6	77	19.6
	RV1.5V02	1.5	30/0.25	1.5	8.1	98	13.4
	RV2.5V02	2.5	50/0.25	2.0	9.1	125	8.04
	RV4.0V02	4	133/0.20	3.0	11.1	185	4.64
	RV6.0V02	6	133/0.25	3.8	12.7	250	2.89

Standard type (multiple cores)



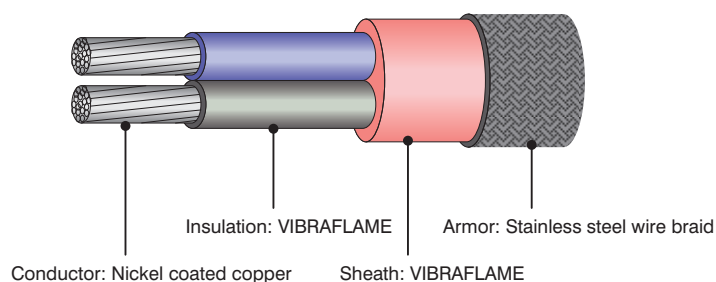
Number of cores	Product code	Conductor			Overall diameter approx. mm	Approx.net weight kg/km	Max. conductor resistance (20°C) Ω /km
		Nominal cross-sectional area mm ²	Construction strands/mm	Diameter approx. mm			
3	RV0.5V03	0.5	16/0.20	0.9	7.3	77	39.2
	RV0.75V03	0.75	24/0.20	1.1	7.7	88	25.8
	RV1.0V03	1.0	32/0.20	1.25	8.0	100	19.6
	RV1.5V03	1.5	30/0.25	1.5	8.5	125	13.4
	RV2.5V03	2.5	50/0.25	2.0	9.6	170	8.04
	RV4.0V03	4	133/0.20	3.0	11.8	250	4.64
	RV6.0V03	6	133/0.25	3.8	13.5	350	2.89
4	RV0.5V04	0.5	16/0.20	0.9	7.9	96	39.2
	RV0.75V04	0.75	24/0.20	1.1	8.4	110	25.8
	RV1.0V04	1.0	32/0.20	1.25	8.8	125	19.6
	RV1.5V04	1.5	30/0.25	1.5	9.4	155	13.4
	RV2.5V04	2.5	50/0.25	2.0	10.6	210	8.04
	RV4.0V04	4	133/0.20	3.0	13.0	325	4.64
	RV6.0V04	6	133/0.25	3.8	14.9	450	2.89
5	RV0.5V05	0.5	16/0.20	0.9	8.7	110	39.2
	RV0.75V05	0.75	24/0.20	1.1	9.2	130	25.8
	RV1.0V05	1.0	32/0.20	1.25	9.6	150	19.6
	RV1.5V05	1.5	30/0.25	1.5	10.3	185	13.4
	RV2.5V05	2.5	50/0.25	2.0	11.7	245	8.04
	RV4.0V05	4	133/0.20	3.0	14.4	400	4.64
6	RV0.5V06	0.5	16/0.20	0.9	9.5	130	39.2
	RV0.75V06	0.75	24/0.20	1.1	10.1	155	25.8
	RV1.0V06	1.0	32/0.20	1.25	10.5	175	19.6
	RV1.5V06	1.5	30/0.25	1.5	11.3	215	13.4
	RV2.5V06	2.5	50/0.25	2.0	12.8	290	8.04
	RV4.0V06	4	133/0.20	3.0	15.8	480	4.64
7	RV0.5V07	0.5	16/0.20	0.9	9.5	140	39.2
	RV0.75V07	0.75	24/0.20	1.1	10.1	165	25.8
	RV1.0V07	1.0	32/0.20	1.25	10.5	190	19.6
	RV1.5V07	1.5	30/0.25	1.5	11.3	235	13.4
	RV2.5V07	2.5	50/0.25	2.0	12.8	325	8.04
12	RV0.5V12	0.5	16/0.20	0.9	12.5	225	39.2
	RV0.75V12	0.75	24/0.20	1.1	13.4	270	25.8
	RV1.0V12	1.0	32/0.20	1.25	14.0	310	19.6
	RV1.5V12	1.5	30/0.25	1.5	15.0	385	13.4

Shielded type



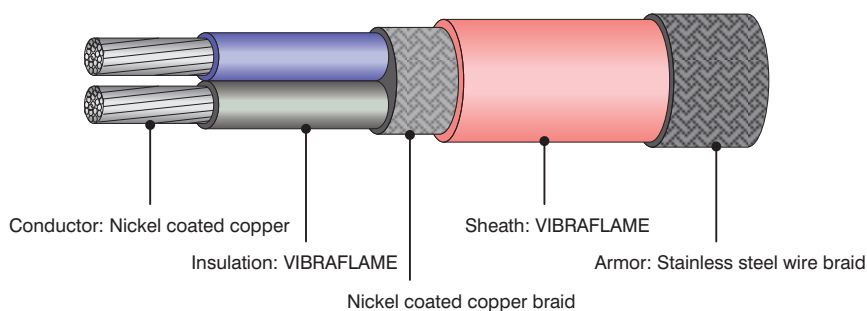
Number of cores	Product code	Conductor			Overall diameter approx. mm	Approx.net weight kg/km	Max. conductor resistance (20°C) Ω /km
		Nominal cross-sectional area mm ²	Construction strands/mm	Diameter approx. mm			
2	RV0.5STV02	0.5	16/0.20	0.9	7.4	77	39.2
	RV0.75STV02	0.75	24/0.20	1.1	7.8	88	25.8
	RV1.0STV02	1.0	32/0.20	1.25	8.1	94	19.6
	RV1.5STV02	1.5	30/0.25	1.5	8.6	115	13.4
	RV2.5STV02	2.5	50/0.25	2.0	9.8	155	8.04
	RV4.0STV02	4	133/0.20	3.0	11.9	240	4.64
	RV6.0STV02	6	133/0.25	3.8	13.5	310	2.89
3	RV0.5STV03	0.5	16/0.20	0.9	7.8	94	39.2
	RV0.75STV03	0.75	24/0.20	1.1	8.2	105	25.8
	RV1.0STV03	1.0	32/0.20	1.25	8.6	115	19.6
	RV1.5STV03	1.5	30/0.25	1.5	9.2	150	13.4
	RV2.5STV03	2.5	50/0.25	2.0	10.3	195	8.04
	RV4.0STV03	4	133/0.20	3.0	12.7	305	4.64
	RV6.0STV03	6	133/0.25	3.8	14.4	415	2.89
4	RV0.5STV04	0.5	16/0.20	0.9	8.5	115	39.2
	RV0.75STV04	0.75	24/0.20	1.1	9.1	135	25.8
	RV1.0STV04	1.0	32/0.20	1.25	9.5	150	19.6
	RV1.5STV04	1.5	30/0.25	1.5	10.1	185	13.4
	RV2.5STV04	2.5	50/0.25	2.0	11.5	255	8.04
	RV4.0STV04	4	133/0.20	3.0	13.9	395	4.64
5	RV0.5STV05	0.5	16/0.20	0.9	9.4	135	39.2
	RV0.75STV05	0.75	24/0.20	1.1	9.9	160	25.8
	RV1.0STV05	1.0	32/0.20	1.25	10.3	180	19.6
	RV1.5STV05	1.5	30/0.25	1.5	11.2	230	13.4
	RV2.5STV05	2.5	50/0.25	2.0	12.6	300	8.04
6	RV0.5STV06	0.5	16/0.20	0.9	10.2	160	39.2
	RV0.75STV06	0.75	24/0.20	1.1	11.0	200	25.8
	RV1.0STV06	1.0	32/0.20	1.25	11.4	220	19.6
	RV1.5STV06	1.5	30/0.25	1.5	12.2	265	13.4
	RV2.5STV06	2.5	50/0.25	2.0	13.7	360	8.04
7	RV0.5STV07	0.5	16/0.20	0.9	10.2	170	39.2
	RV0.75STV07	0.75	24/0.20	1.1	11.0	215	25.8
	RV1.0STV07	1.0	32/0.20	1.25	11.4	235	19.6
	RV1.5STV07	1.5	30/0.25	1.5	12.2	290	13.4
	RV2.5STV07	2.5	50/0.25	2.0	13.7	395	8.04
12	RV0.5STV12	0.5	16/0.20	0.9	13.4	280	39.2
	RV0.75STV12	0.75	24/0.20	1.1	14.3	335	25.8
	RV1.0STV12	1.0	32/0.20	1.25	14.9	375	19.6
	RV1.5STV12	1.5	30/0.25	1.5	15.9	465	13.4

Stainless wire armored type



Number of cores	Product code	Conductor			Overall diameter approx. mm	Approx.net weight kg/km	Max. conductor resistance (20°C) Ω /km
		Nominal cross-sectional area mm ²	Construction strands/mm	Diameter approx. mm			
2	RV0.5VS02	0.5	16/0.20	0.9	7.6	91	39.2
	RV0.75VS02	0.75	24/0.20	1.1	8.0	110	25.8
	RV1.0VS02	1.0	32/0.20	1.25	8.3	115	19.6
	RV1.5VS02	1.5	30/0.25	1.5	8.8	135	13.4
	RV2.5VS02	2.5	50/0.25	2.0	9.9	170	8.04
	RV4.0VS02	4	133/0.20	3.0	11.9	245	4.64
	RV6.0VS02	6	133/0.25	3.8	13.5	320	2.89
3	RV0.5VS03	0.5	16/0.20	0.9	8.0	105	39.2
	RV0.75VS03	0.75	24/0.20	1.1	8.4	125	25.8
	RV1.0VS03	1.0	32/0.20	1.25	8.7	135	19.6
	RV1.5VS03	1.5	30/0.25	1.5	9.4	170	13.4
	RV2.5VS03	2.5	50/0.25	2.0	10.5	230	8.04
	RV4.0VS03	4	133/0.20	3.0	12.6	320	4.64
	RV6.0VS03	6	133/0.25	3.8	14.4	430	2.89
4	RV0.5VS04	0.5	16/0.20	0.9	8.8	135	39.2
	RV0.75VS04	0.75	24/0.20	1.1	9.3	160	25.8
	RV1.0VS04	1.0	32/0.20	1.25	9.7	170	19.6
	RV1.5VS04	1.5	30/0.25	1.5	10.3	215	13.4
	RV2.5VS04	2.5	50/0.25	2.0	11.5	265	8.04
	RV4.0VS04	4	133/0.20	3.0	13.9	395	4.64
	RV6.0VS04	6	133/0.25	3.8	15.8	535	2.89
5	RV0.5VS05	0.5	16/0.20	0.9	9.6	155	39.2
	RV0.75VS05	0.75	24/0.20	1.1	10.1	175	25.8
	RV1.0VS05	1.0	32/0.20	1.25	10.5	205	19.6
	RV1.5VS05	1.5	30/0.25	1.5	11.2	240	13.4
	RV2.5VS05	2.5	50/0.25	2.0	12.6	315	8.04
	RV4.0VS05	4	133/0.20	3.0	15.3	475	4.64
6	RV0.5VS06	0.5	16/0.20	0.9	10.4	190	39.2
	RV0.75VS06	0.75	24/0.20	1.1	11.0	210	25.8
	RV1.0VS06	1.0	32/0.20	1.25	11.4	230	19.6
	RV1.5VS06	1.5	30/0.25	1.5	12.2	285	13.4
	RV2.5VS06	2.5	50/0.25	2.0	13.7	360	8.04
7	RV0.5VS07	0.5	16/0.20	0.9	10.4	200	39.2
	RV0.75VS07	0.75	24/0.20	1.1	11.0	225	25.8
	RV1.0VS07	1.0	32/0.20	1.25	11.4	245	19.6
	RV1.5VS07	1.5	30/0.25	1.5	12.2	305	13.4
	RV2.5VS07	2.5	50/0.25	2.0	13.7	395	8.04
12	RV0.5VS12	0.5	16/0.20	0.9	13.4	295	39.2
	RV0.75VS12	0.75	24/0.20	1.1	14.2	350	25.8
	RV1.0VS12	1.0	32/0.20	1.25	14.9	390	19.6
	RV1.5VS12	1.5	30/0.25	1.5	15.9	465	13.4

Shield stainless wire armored type



Number of cores	Product code	Conductor			Overall diameter approx. mm	Approx.net weight kg/km	Max. conductor resistance (20°C) Ω /km
		Nominal cross-sectional area mm ²	Construction strands/mm	Diameter approx. mm			
2	RV0.5STVS02	0.5	16/0.20	0.9	8.1	115	39.2
	RV0.75STVS02	0.75	24/0.20	1.1	8.5	125	25.8
	RV1.0STVS02	1.0	32/0.20	1.25	8.8	135	19.6
	RV1.5STVS02	1.5	30/0.25	1.5	9.3	160	13.4
	RV2.5STVS02	2.5	50/0.25	2.0	10.6	215	8.04
	RV4.0STVS02	4	133/0.20	3.0	12.7	310	4.64
	RV6.0STVS02	6	133/0.25	3.8	14.3	390	2.89
3	RV0.5STVS03	0.5	16/0.20	0.9	8.5	130	39.2
	RV0.75STVS03	0.75	24/0.20	1.1	8.9	145	25.8
	RV1.0STVS03	1.0	32/0.20	1.25	9.3	165	19.6
	RV1.5STVS03	1.5	30/0.25	1.5	10.1	195	13.4
	RV2.5STVS03	2.5	50/0.25	2.0	11.2	250	8.04
	RV4.0STVS03	4	133/0.20	3.0	13.5	375	4.64
	RV6.0STVS03	6	133/0.25	3.8	15.3	495	2.89
4	RV0.5STVS04	0.5	16/0.20	0.9	9.4	160	39.2
	RV0.75STVS04	0.75	24/0.20	1.1	10.0	185	25.8
	RV1.0STVS04	1.0	32/0.20	1.25	10.4	210	19.6
	RV1.5STVS04	1.5	30/0.25	1.5	11.0	245	13.4
	RV2.5STVS04	2.5	50/0.25	2.0	12.4	325	8.04
	RV4.0STVS04	4	133/0.20	3.0	14.8	475	4.64
5	RV0.5STVS05	0.5	16/0.20	0.9	10.3	195	39.2
	RV0.75STVS05	0.75	24/0.20	1.1	10.8	215	25.8
	RV1.0STVS05	1.0	32/0.20	1.25	11.2	235	19.6
	RV1.5STVS05	1.5	30/0.25	1.5	12.1	300	13.4
	RV2.5STVS05	2.5	50/0.25	2.0	13.5	370	8.04
6	RV0.5STVS06	0.5	16/0.20	0.9	11.1	215	39.2
	RV0.75STVS06	0.75	24/0.20	1.1	11.9	260	25.8
	RV1.0STVS06	1.0	32/0.20	1.25	12.3	290	19.6
	RV1.5STVS06	1.5	30/0.25	1.5	13.1	335	13.4
	RV2.5STVS06	2.5	50/0.25	2.0	14.6	440	8.04
7	RV0.5STVS07	0.5	16/0.20	0.9	11.1	225	39.2
	RV0.75STVS07	0.75	24/0.20	1.1	11.9	270	25.8
	RV1.0STVS07	1.0	32/0.20	1.25	12.3	305	19.6
	RV1.5STVS07	1.5	30/0.25	1.5	13.1	360	13.4
	RV2.5STVS07	2.5	50/0.25	2.0	14.6	475	8.04
12	RV0.5STVS12	0.5	16/0.20	0.9	14.3	350	39.2
	RV0.75STVS12	0.75	24/0.20	1.1	15.1	415	25.8
	RV1.0STVS12	1.0	32/0.20	1.25	15.8	455	19.6
	RV1.5STVS12	1.5	30/0.25	1.5	16.8	545	13.4

Appendix

1. Current correction coefficient due to the ambient temperature

(1) EM-LMFC

If the ambient temperature is different from 40°C, please, multiply the current correction coefficient written in the below table to the current rating of EM-LMFC described in this catalog.

Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient
10	1.20	35	1.04	60	0.85	85	0.60
15	1.16	40	1.00	65	0.80	90	0.53
20	1.13	45	0.96	70	0.76	95	0.46
25	1.10	50	0.93	75	0.71	100	0.38
30	1.07	55	0.89	80	0.65	105	0.27

(2) Silicon rubber insulated wire

If the ambient temperature is different from 90°C, please, multiply the current correction coefficient written in the below table to the current rating of Silicon rubber insulated wire described in this catalog.

Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient
10	1.37	60	1.15	100	0.94	140	0.67
20	1.33	70	1.11	110	0.88	150	0.58
30	1.29	80	1.05	120	0.82	160	0.47
40	1.25	90	1.00	130	0.75	170	0.33
50	1.20						

(3) Fluorine rubber insulated wire

If the ambient temperature is different from 90°C, please, multiply the current correction coefficient written in the below table to the current rating of Fluorine rubber insulated wire described in this catalog.

Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient
10	1.31	60	1.13	110	0.90	160	0.60
20	1.28	70	1.09	120	0.85	170	0.52
30	1.24	80	1.04	130	0.80	180	0.43
40	1.21	90	1.00	140	0.74	190	0.30
50	1.17	100	0.95	150	0.67		

(4) Fluorine resin insulated wires

① FUSO-15

If the ambient temperature is different from 90°C, please, multiply the current correction coefficient written in the below table to the current rating of Fluorine resin insulated wire described in this catalog.

Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient
10	1.53	50	1.29	90	1.00	120	0.71
20	1.47	60	1.22	100	0.91	130	0.58
30	1.41	70	1.15	110	0.82	140	0.41
40	1.35	80	1.08				

② FUSO-20

If the ambient temperature is different from 90°C, please, multiply the current correction coefficient written in the below table to the current rating of Fluorine resin insulated wire described in this catalog.

Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient
10	1.31	60	1.13	110	0.90	160	0.60
20	1.28	70	1.09	120	0.85	170	0.52
30	1.24	80	1.04	130	0.80	180	0.43
40	1.21	90	1.00	140	0.74	190	0.30
50	1.17	100	0.95	150	0.67		

③ FUSO-26, FUSO-40

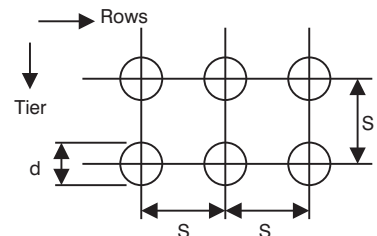
If the ambient temperature is different from 90°C, please, multiply the current correction coefficient written in the below table to the current rating of Fluorine resin insulated wire described in this catalog.

Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient	Ambient temperature (°C)	Current correction coefficient
10	1.21	80	1.03	140	0.84	200	0.59
20	1.19	90	1.00	150	0.80	210	0.54
30	1.16	100	0.97	160	0.77	220	0.49
40	1.14	110	0.94	170	0.73	230	0.42
50	1.11	120	0.91	180	0.69	240	0.34
60	1.08	130	0.87	190	0.64	250	0.24
70	1.06						

2. The reduction rate of permissible current in case of multiple wire installation

If multiple cables are installed in the air or the culvert, please, multiple the reduction rate shown in the table below to the current rating for single cable installation.

(wire) center distance	Tier	1					2						
	Rows	1	2	3	6	7-20	2	3	4	5	6	7	8-20
S=d		1.00	0.85	0.80	0.70	0.70	0.70	0.60	0.60	0.56	0.53	0.51	0.50
S=2d		1.00	0.95	0.95	0.90	0.80	0.90	0.90	0.85	0.73	0.72	0.71	0.70
S=3d		1.00	1.00	1.00	0.95	—	0.95	0.95	0.90	—	—	—	—



3. The properties of rubber and plastic materials

Item	Material	Cross-linked polyethylene	ETFE	PFA	EP rubber	Chloroprene rubber	Silicon rubber
Specific gravity		0.92-0.93	1.7	2.1-2.2	1.3-1.4	1.4-1.6	1.2-1.7
Electric properties	Breakdown voltage (kV/mm)	30-50	20-30	15-30	30-45	15-25	20-30
	Volume resistivity ($\Omega \cdot \text{cm}$)	10^{17}	10^{16}	10^{18}	10^{15}	10^{7-12}	10^{14-15}
	Permittivity	2.3	2.6	2.1	4-5	7-10	3-4
	Dielectric tangent (%)	0.03	0.02	0.02	1-2	less than 15	2-4
Flame resistance		×	◎	◎	×	○	△
Heat resistance		×	◎	◎	×	○	△
Heat deformation resistance		○	◎	◎	○	△	◎
Ozone resistance		◎	◎	◎	◎	△	◎
Weather resistance		△	◎	◎	○	○	○
Oil resistance		◎	◎	◎	△	△	△

◎ : Excellent ○ : Good △ : Acceptable × : Unacceptable

4. Minimum ordering lot

Type of cable	Minimum ordering lot (m)	
Silicon rubber insulated wire and cable	100	
Fluorine rubber wire	100	
Fluorine resin wire	Single core	200
	Multiple cores	100
VIBRAFLAME	50	

Please, contact us for EM-LMFC. It is in stock.

 **FURUKAWA ELECTRIC INDUSTRIAL CABLE CO., LTD.**

Furukawa Electric Industrial Cable Co., Ltd.

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