

# SUNLIGHT 3SX LF

## PVC insulated oil flexible cord for electronics wiring (with shield)

- Heat resistance ★
  - Oil resistance ★★★★★
  - Noise resistance ★★★★★
  - Flame resistance ★★★★★
  - Flexibility ★★★★★
  - non-migratory ★★★★★
  - Transport property ★★
- ※The characteristic is an aim.

Meeting standard



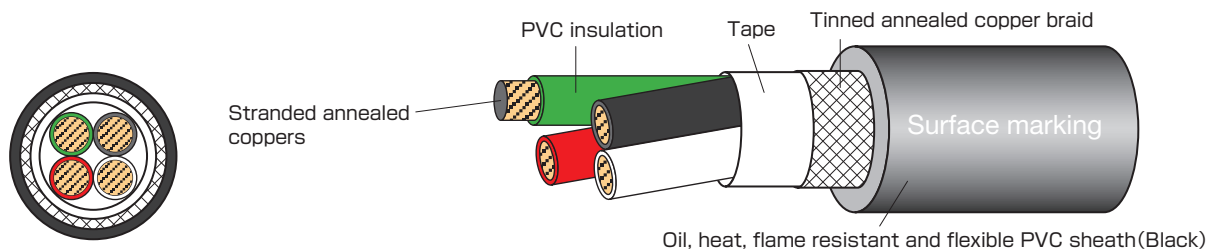
### Application

- AC 300V or less of the environmental type cable as machine tools, construction machinery, applications under harsh conditions, such as a robot power circuit.
- Oil, flexibility, use of shielded.  
Rated voltage: 300V. Temp: 60°C.

### Feature

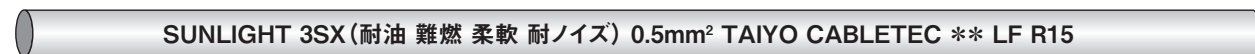
- Oil, heat, flame retardant and soft PVC for sheath.
- Sheath material is non-migratory against ABS and PS resin.
- Chemical, water, abrasion, cold resistance PVC for sheath.
- Flame resisting : UL VW-1.
- 0.75mm<sup>2</sup>~5.5mm<sup>2</sup> cables conform to Electrical Appliance and Material Safety Law.  
(0.3, 0.5mm<sup>2</sup> cables used in less than 100V out of Electrical Appliance and Material Safety Law)

### Construction figure



### Surface marking

(1) 0.3, 0.5mm<sup>2</sup> cables

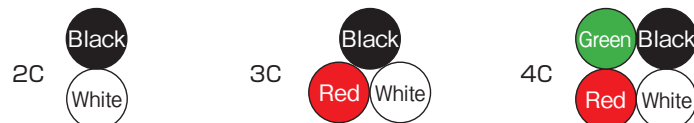


(2) 0.75mm<sup>2</sup> or larger

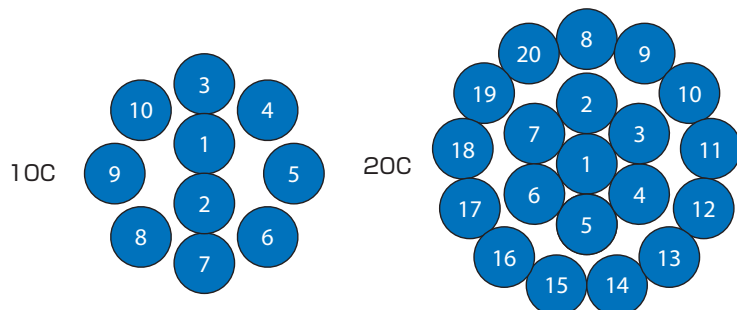


### Identification

·2C~4C



·5 cores or more is identified by numbering



Figures in ○ indicate white numbering on blue insulator.



Certification	Electrical Appliance and Material Safety
Applicable standard	Law/Departmental order to determine a technical standard of the electrical equipment
Official symbol	VCTF
Voltage rating	300V
Temperature rating	60°C
Conductor	JIS C 3102
Flame rating	JIS C 3005-4.26.2-b)

### Construction table

No. of cores	Conductor			PVC insulation		Oil heat flame-resistant flexible PVC sheath		Approx. weight (lbs/1000ft) (kg/km)	Electrical Characteristics			Allowable ampacity (A)
	Size (AWG)	Construction (Line/mm)	Outside diameter (mm)	Outside diameter (inch)	Outside diameter (mm)	Overall diameter approx. (inch)	Overall diameter approx. (mm)		Conductor resistance (Ω/km20°C)	Insulation resistance (MΩ·km20°C)	Electrical strength (V/1min.)	
○ 2C						0.224	5.7	32(47)				3.0
○ 3C						0.232	5.9	37(55)				3.0
○ 4C						0.248	6.3	44(65)				3.0
○ 5C						0.268	6.8	50(75)				3.0
○ 6C						0.283	7.2	57(85)				3.0
○ 7C						0.283	7.2	60(90)				3.0
○ 8C	0.3mm <sup>2</sup>	12/0.18 (12/7.1mil)	0.7 (27mil)	0.059		0.307	7.8	71(105)	less than 62.9	more than 5	1500	3.0
○ 10C						0.346	8.8	87(130)				3.0
○ 12C						0.354	9.0	97(145)				3.0
○ 16C						0.394	10.0	121(180)				3.0
○ 20C						0.421	10.7	141(210)				3.0
○ 30C						0.5	12.7	205(305)				2.6
2C						0.256	6.5	37(55)				5.0
3C						0.268	6.8	44(65)				5.0
4C						0.287	7.3	54(80)				5.0
6C						0.331	8.4	67(100)				5.0
8C	0.5mm <sup>2</sup>	20/0.18 (20/7.1mil)	0.9 (35mil)	0.075	1.9	0.358	9.1	84(125)	less than 37.8	more than 5	1500	5.0
10C						0.413	10.5	104(155)				5.0
12C						0.425	10.8	114(170)				5.0
16C						0.465	11.8	141(210)				4.5
20C						0.500	12.7	168(250)				4.2
30C						0.606	15.4	249(370)				3.7
2C						0.287	7.3	47(70)				7.0
3C						0.303	7.7	57(85)				7.0
4C						0.327	8.3	67(100)				7.0
6C						0.386	9.8	94(140)				7.0
8C	0.75mm <sup>2</sup>	30/0.18 (30/7.1mil)	1.1 (43mil)	0.091	2.3	0.413	10.5	114(170)	less than 25.1	more than 5	1500	7.0
10C						0.476	12.1	141(210)				7.0
12C						0.492	12.5	158(235)				6.5
16C						0.543	13.8	198(295)				5.9
20C						0.594	15.1	242(360)				5.5
30C						0.717	18.2	346(515)				4.8
2C						0.319	8.1	60(90)				12
3C	1.25mm <sup>2</sup>	50/0.18 (50/7.1mil)	1.5 (59mil)	0.106	2.7	0.335	8.5	74(110)	less than 15.1	more than 5	1500	12
4C						0.366	9.3	91(135)				12

Note: Six times of outer diameter is needed when you bend cables, and more diameter is needed when you bend cables repeatedly by cable reel, curtain, etc.

### Allowable Ampacity

- The allowable ampacity of this catalog is a value at one in the air construction and the ambient temperature 30°C.
- Allowable ampacity is calculated based on JCS0168.
- Please multiply the following correction coefficient by the ambient temperature.

● Adjustment factors (at ambient temperature)

Ambient temperature (°C)	30	35	40	45	50	55	60	70	80	90	100
Adjustment factors	1.00	0.91	0.82	0.71	0.58	0.41	—	—	—	—	—

### Oil resistance

Insulating oil	Lubricating oil	Cutting oil I	Cutting oil II	Hydraulic oil	Grease
A	A	B	B	B	B

※A~C in the table indicate the characteristics below.

- A: There is no problem on practical use at all.
- B: Deterioration slightly no problem almost on practical use.
- C: It is sometimes deteriorated to some degree, and not possible to use it.

### Standard sales length

100m  
(Sale by cutting short length is available Min.6 cores.)