

# SUNLIGHT 6SX LF

## PVC insulated oil flexible cable for electrical power supply(with shield)

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

Meeting standard



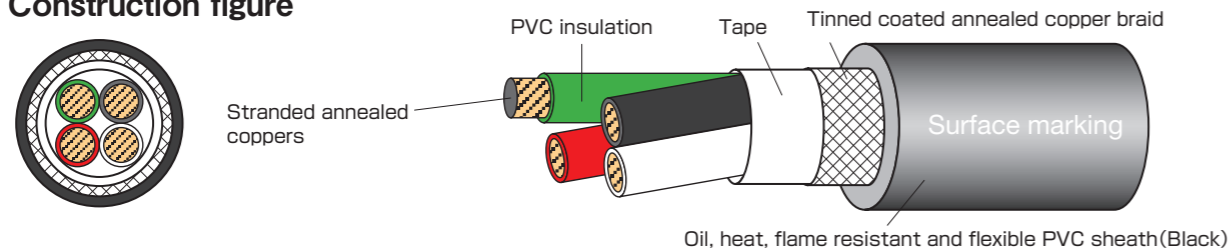
### > Application

- Environmental type cable as machine tools, construction machinery, applications under harsh conditions, such as a robot power circuit not higher than 600V.
- Oil, flexibility, use of shielded.  
Rated voltage:600V. 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, weather, light, cold resistance PVC for sheath.
- Flame resisting : UL VW-1.
- Conform to Electrical Appliance and Material Safety Law.

### > Construction figure



### > Surface marking

(1) 7 cores or less



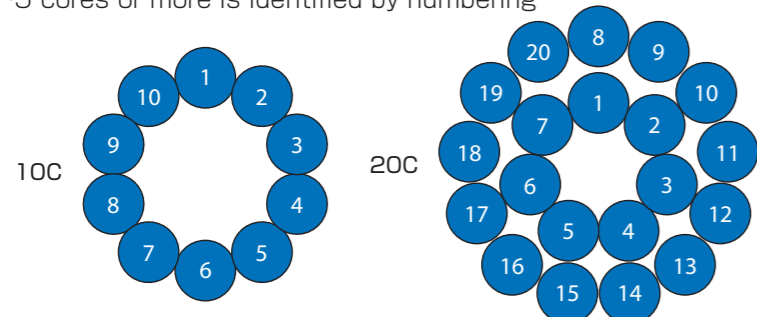
(2) 8 cores or more



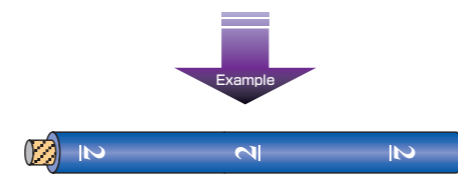
### > Identification



·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	VCT
Voltage rating	600V
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 (MΩkm20°C)	Electrical strength (V/1min.)	
2C	0.75mmφ	30/0.18 (30/7.1mil)	1.1 (43mil)	0.106	2.7	0.378	9.6	74(110)	less than 25.1	more than 50	2000	12
3C						0.394	10.0	87(130)				10
4C						0.429	10.9	104(155)				9.7
6C						0.504	12.8	141(210)				8.5
8C						0.579	14.7	181(270)				7.9
10C						0.654	16.6	228(340)				7.4
12C						0.646	16.4	239(355)				6.8
20C	0.783	19.9	356(530)	5.7								
2C	1.25mmφ	50/0.18 (50/7.1mil)	1.5 (59mil)	0.122	3.1	0.417	10.6	94(140)	less than 15.1	more than 50	2000	16
3C						0.437	11.1	111(165)				14
4C						0.480	12.2	134(200)				13
5C						0.516	13.1	158(235)				12
6C						0.559	14.2	185(275)				11
7C						0.598	15.2	212(315)				11
8C						0.646	16.4	239(355)				10
10C	0.728	18.5	296(440)	9.9								
12C	0.720	18.3	312(465)	9.1								
16C	0.795	20.2	386(575)	8.2								
20C	0.882	22.4	474(705)	7.7								
30C	1.035	26.3	669(995)	6.7								
2C	2.0mmφ	37/0.26 (37/10.2mil)	1.8 (71mil)	0.134	3.4	0.441	11.2	108(160)	less than 9.79	more than 50	2000	21
3C						0.465	11.8	134(200)				18
4C						0.508	12.9	165(245)				16
6C						0.598	15.2	228(340)				14
8C						0.697	17.7	299(445)				13
10C						0.787	20.0	373(555)				12
12C						0.776	19.7	390(580)				11
20C	0.953	24.2	608(905)	9.8								
30C	1.118	28.4	853(1270)	8.5								
2C	3.5mmφ	45/0.32 (45/12.6mil)	2.5 (98mil)	0.161	4.1	0.508	12.9	155(230)	less than 5.24	more than 40	2000	31
3C						0.531	13.5	188(280)				26
4C						0.587	14.9	239(355)				24
6C						0.598	15.2	218(325)				41
8C						0.638	16.2	276(410)				35
10C						0.697	17.7	346(515)				31
12C						0.693	17.6	289(430)				51
2C	5.5mmφ	70/0.32 (70/12.6mil)	3.1 (122mil)	0.201	5.1	0.728	18.5	362(540)	less than 3.37	more than 40	2000	43
3C						0.799	20.3	457(680)				39
4C						0.890	22.6	571(850)				61
6C						0.976	24.8	706(1050)				55
8C						1.110	27.9	887(1320)				83
10C						1.224	30.9	1122(1670)				74
12C						1.350	34.3	1391(2070)				110
20C	1.504	38.2	1801(2680)	100								

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  
(The cut cable is available.)