

# SUNLIGHT 6DX LF

## PVC insulated oil flexible cable for electrical power supply

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

>>> Meeting standard



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)

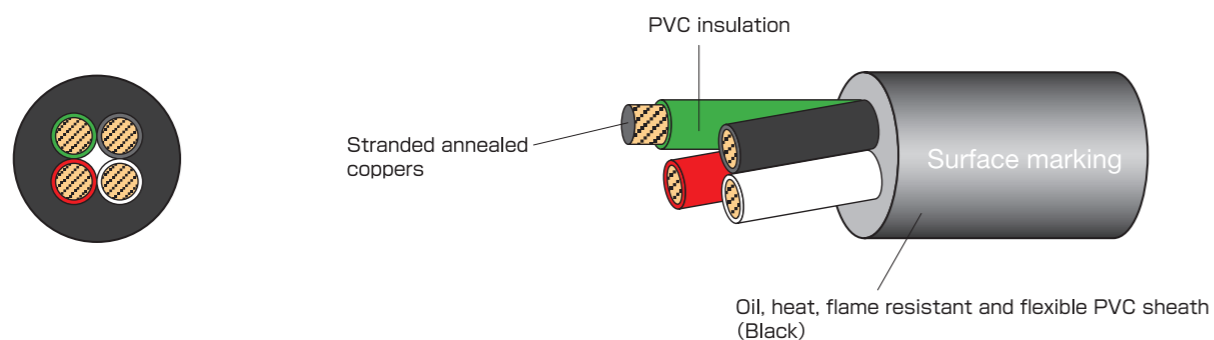
### > Application

- Environmental type cable as machine tools, construction machinery, applications under harsh conditions, such as a robot power circuit not higher than 600V .
- Oil, flexibility of use.  
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.

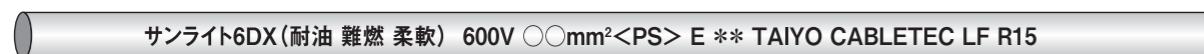
### > Construction figure



※Cables with more than 8 cores : binder tape on cores.

### > Surface marking

(1) 7 cores or less

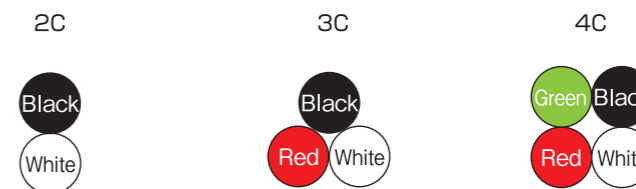


(2) 8 cores or more

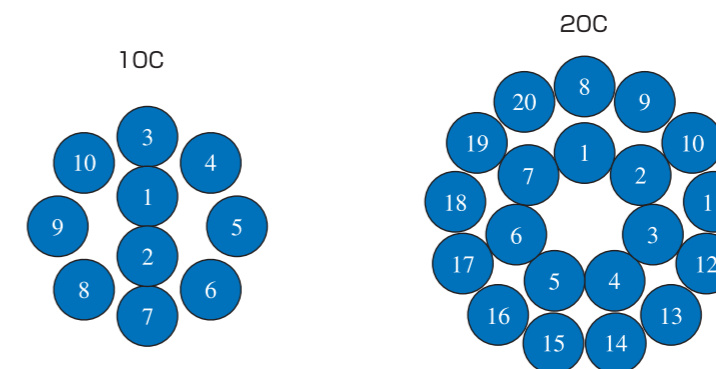


### > Identification

・2C~4C



・5 cores or more is identified by numbering



Figures in ○ indicate white numbering on blue insulator.



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## > 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						0.346	8.8	64(95)				12
3C						0.362	9.2	74(110)				10
4C						0.390	9.9	87(130)				9.0
5C						0.429	10.9	104(155)				9.0
6C						0.461	11.7	118(175)				8.7
7C						0.461	11.7	124(185)				8.2
8C	0.75mm <sup>2</sup>	30/0.18 (30/7.1mil)	1.1 (43mil)	0.106	2.7	0.508	12.9	138(205)	less than 25.1	more than 50	3000	7.6
10C						0.591	15.0	175(260)				7.2
12C						0.606	15.4	195(290)				6.7
16C						0.673	17.1	245(365)				6.1
20C						0.752	19.1	306(455)				5.7
24C						0.835	21.2	366(545)				5.4
30C						0.886	22.5	433(645)				4.9
2C						0.378	9.6	77(115)				16
3C						0.398	10.1	94(140)				14
4C						0.437	11.1	114(170)				13
5C						0.480	12.2	138(205)				13
6C						0.516	13.1	158(235)				11
7C						0.516	13.1	168(250)				11
8C	1.25mm <sup>2</sup>	50/0.18 (50/7.1mil)	1.5 (59mil)	0.122	3.1	0.559	14.2	181(270)	less than 15.1	more than 50	3000	10
10C						0.661	16.8	232(345)				9.8
12C						0.689	17.5	265(395)				9.1
16C						0.764	19.4	333(495)				8.2
20C						0.843	21.4	410(610)				7.6
24C						0.937	23.8	497(740)				7.2
30C						0.996	25.3	588(875)				6.6
2C						0.409	10.4	97(145)				22
3C						0.429	10.9	114(170)				19
4C						0.465	11.8	138(205)				17
5C						0.512	13.0	168(250)				17
6C						0.559	14.2	202(300)				15
7C						0.559	14.2	215(320)				14
8C	2.0mm <sup>2</sup>	37/0.26 (37/10.2mil)	1.8 (71mil)	0.134	3.4	0.614	15.6	242(360)	less than 9.79	more than 50	3000	12
10C						0.717	18.2	302(450)				12
12C						0.736	18.7	336(500)				11
16C						0.827	21.0	433(645)				10
20C						0.913	23.2	534(795)				9.7
24C						1.024	26.0	648(965)				9.2
30C						1.087	27.6	773(1150)				8.5
2C						0.465	11.8	134(200)				32
3C						0.496	12.6	168(250)				28
4C						0.547	13.9	212(315)				25
5C	3.5mm <sup>2</sup>	45/0.32 (45/12.6mil)	2.5 (98mil)	0.161	4.1	0.594	15.1	249(370)	less than 5.24	more than 40	3000	25
6C						0.650	16.5	296(440)				21
8C						0.717	18.2	356(530)				19
10C						0.843	21.4	457(680)				18
12C						0.866	22.0	521(775)				16
2C						0.559	14.2	202(300)				41
3C						0.591	15.0	245(365)				36
4C	5.5mm <sup>2</sup>	70/0.32 (70/12.6mil)	3.1 (122mil)	0.201	5.1	0.650	16.5	309(460)	less than 3.37	more than 40	3000	32
5C						0.717	18.2	373(555)				32
6C						0.783	19.9	444(660)				28
2C						0.646	16.4	272(405)				51
3C	8.0mm <sup>2</sup>	50/0.45 (50/17.7mil)	3.7 (146mil)	0.240	6.1	0.689	17.5	339(505)	less than 2.39	more than 40	3000	44
4C						0.760	19.3	427(635)				39
3C						0.843	21.4	541(805)				62
4C	14mm <sup>2</sup>	88/0.45 (88/17.7mil)	4.9 (193mil)	0.303	7.7	0.929	23.6	679(1010)	less than 1.36	more than 40	3000	55
3C						1.063	27.0	867(1290)				83
4C	22mm <sup>2</sup>	7/20/0.45 (7/20/17.7mil)	6.8 (268mil)	0.394	10.0	1.177	29.9	1095(1630)	less than 0.869	more than 30	3000	74
3C						1.295	32.9	1364(2030)				110
4C	38mm <sup>2</sup>	7/34/0.45 (7/34/17.7mil)	8.8 (346mil)	0.488	12.4	1.437	36.5	1727(2570)	less than 0.511	more than 30	3000	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	40	50	60	70	80	90	100
Adjustment factors	1.00	0.82	0.58	—	—	—	—	—

## > 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 for 0.75-2.0mm<sup>2</sup> Min.5 cores and Min.3.5mm<sup>2</sup>.)