

# 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)



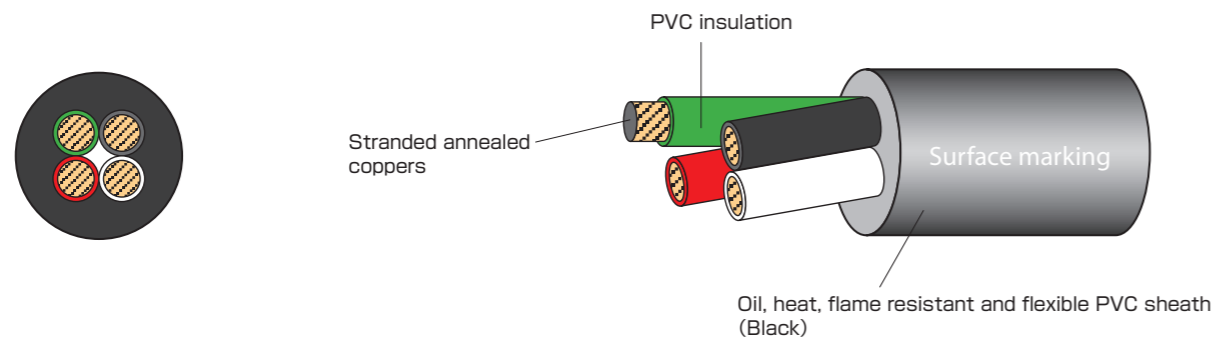
## > Application

- 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.  
※Do not guarantee outdoor use.
- Flame resisting : UL VW-1.
- Conform to Electrical Appliance and Material Safety Law.

## > Construction figure



※0.75SQ~3.5SQ Cables with more than 5 cores : binder tape on cores.  
5.5SQ~38SQ Cables : binder tape on cores.

## > Surface marking

(1) 7 cores or less



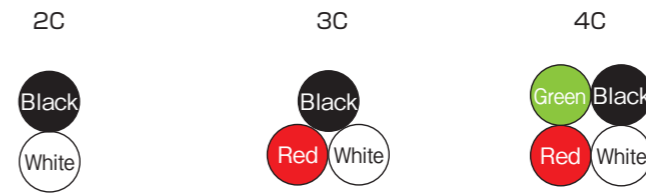
(2) 8 cores or more



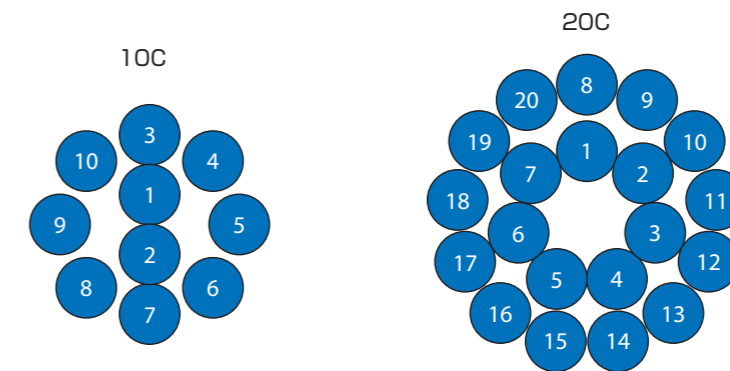
※R15 indicates "Compliant with RoHS Directive 2011/65/EU and Directive (EU) 2015/863 (10 substances)".

## > Identification

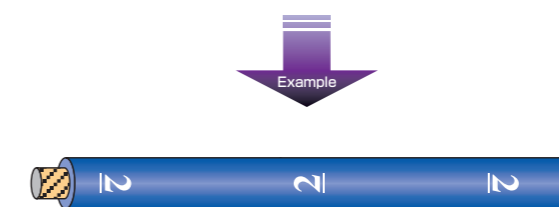
·2C~4C



·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)			11	
4C							0.390	9.9	87(130)			10	
5C							0.437	11.1	101(150)			8.9	
6C							0.476	12.1	118(175)			8.5	
7C							0.476	12.1	124(185)			7.9	
8C	0.75mm <sup>φ</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	15.6	195(290)				6.7
16C							0.673	17.3	248(370)				6.1
20C							0.752	19.1	306(455)				5.7
24C							0.835	21.2	362(540)				5.4
30C							0.886	22.5	433(645)				4.9
2C							0.378	9.6	77(115)				17
3C							0.398	10.1	94(140)				15
4C							0.437	11.1	114(170)				13
5C							0.488	12.4	131(195)				12
6C							0.524	13.3	155(230)				11
7C							0.524	13.3	165(245)				10
8C	1.25mm <sup>φ</sup>	50/0.18 (50/7.1mil)	1.5 (59mil)	0.122	3.1		0.559	14.4	188(280)	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	493(735)				7.2
30C							0.996	25.3	583(870)				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							0.520	13.2	161(240)				15
6C							0.567	14.4	192(285)				14
7C							0.567	14.4	208(310)				13
8C	2.0mm <sup>φ</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	13
10C							0.717	18.2	302(450)				12
12C							0.736	18.7	332(495)				11
16C							0.827	21.0	433(645)				10
20C							0.913	23.2	534(795)				9.7
24C							1.024	26.0	644(960)				9.2
30C							1.087	27.6	768(1145)				8.5
2C							0.465	11.8	134(200)				32
3C							0.496	12.6	168(250)				27
4C							0.547	13.9	212(315)				25
5C	3.5mm <sup>φ</sup>	45/0.32 (45/12.6mil)	2.5 (98mil)	0.161	4.1		0.610	15.5	245(365)	less than 5.24	more than 40	3000	22
6C							0.657	16.7	286(425)				21
8C							0.717	18.2	356(530)				19
10C							0.843	21.4	453(675)				18
12C							0.866	22.0	521(775)				16
2C							0.567	14.4	181(270)				41
3C							0.598	15.2	232(345)				35
4C	5.5mm <sup>φ</sup>	70/0.32 (70/12.6mil)	3.1 (122mil)	0.201	5.1		0.657	16.7	292(435)	less than 3.37	more than 40	3000	32
5C							0.724	18.4	360(535)				39
6C							0.791	20.1	427(635)				28
2C							0.654	16.6	242(360)				51
3C	8.0mm <sup>φ</sup>	98/0.32 (98/12.6mil)	3.7 (146mil)	0.240	6.1		0.697	17.7	315(470)	less than 2.39	more than 40	3000	43
4C							0.768	19.5	403(600)				39
3C							0.850	21.6	496(740)				62
4C	14mm <sup>φ</sup>	172/0.32 (172/12.6mil)	4.9 (193mil)	0.303	7.7		0.945	24.0	640(955)	1.36	40	3000	56
3C							1.079	26.9	786(1170)	less than 1.36	more than 40	3000	83
4C	22mm <sup>φ</sup>	7/39/0.32 (7/39/12.6mil)	6.7 (264mil)	0.391	9.9		1.185	29.9	1015(1510)	0.869	30	3000	75
3C							1.383	33.1	1253(1870)	less than 0.511	more than 30	3000	110
4C	38mm <sup>φ</sup>	7/67/0.32 (7/67/12.6mil)	8.8 (346mil)	0.488	12.4		1.445	36.7	1615(2410)	0.511	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 0.75-2.0mmφ Min.5 cores and Min.3.5mmφ.)

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