

# STO-SB(A)/TC LF

For tray cable, race way and electronic equipment power supply code

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

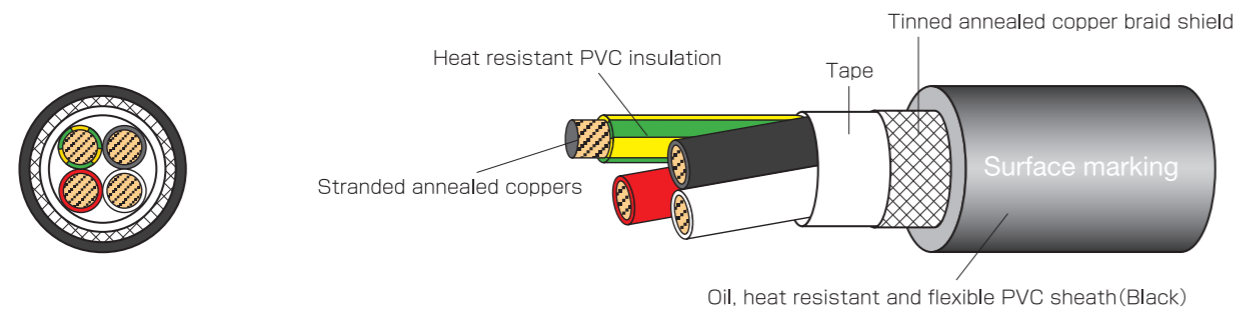
## Application

- Multi cable for North America.
- Electric equipment cable with UL and cUL at 600V, 105°C. (Category QPOR, ZJCZ, ZKHZ, ZJCZ7)
- Obtaining UL Listed STO, TC and MTW, this cable compliants to NFPA 70 and 79.

## Feature

- Heat resistant PVC material is used to insulation.
- Oil, heat resistant and Flexible PVC sheath material is used.
- It passes Vertical-Tray Flame Test of UL.

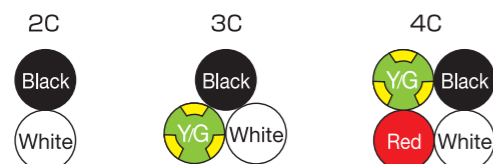
## Construction figure



## Surface marking

E209288(UL) TC 90°C DRY 75°C WET or MTW FLEXING VW-1 or STO SHIELDED 105°C 600V VW-1 Line number×□□AWG  
c(UL) STO SHIELDED 105°C 600V Line number×□□AWG(○○mm²) FT1 TAIYO <PS>E \*\* LF R15

## Identification



※Y/G indicates green core with yellow stripe(30~50%).

Certification	UL STO	cUL STO	UL TC	UL MTW	Electrical Appliance and Material Safety Law
Applicable standard	UL 62	CSA C22.2 No.49	UL 1277	UL 1063	Departmental order to determine a technical standard of the electrical equipment
Official symbol	STO	STO	TC	MTW	Vinyl cab tire cord
Voltage rating	600V	600V	600V	600V	300V
Temperature rating	105°C	105°C	DRY90°C WET75°C	DRY90°C WET60°C	60°C
Conductor	UL 62	CSA C22.2 No.49	UL 1277	UL 1063	JIS C 3102
Flame rating	VW-1	FT1	Vertical-Tray Flame Test	VW-1	JIS C 3005 4.26.2 b)



## Construction table

No. of cores	Conductor			Heat resistant PVC insulation		Oil, heat - resistant flexible - PVC sheath		Approx. weight (lbs/1000ft) (kg/km)
	Size (AWG)	Construction (Line/mm)	Outside diameter (mm)	Outside diameter (inch)	Outside diameter (mm)	Overall diameter approx. (inch)	Overall diameter approx. (mm)	
2C	18 (0.824mm)	33/0.18 (33/7.1mil)	1.2 (47mil)	0.114	2.9	0.394	10.0	87(130)
3C						0.409	10.4	97(145)
4C						0.441	11.2	114(170)
2C	16 (1.31mm)	53/0.18 (53/7.1mil)	1.5 (59mil)	0.126	3.2	0.417	10.6	97(145)
3C						0.441	11.2	118(175)
4C						0.472	12.0	138(205)
2C	14 (2.08mm)	84/0.18 (84/7.1mil)	1.9 (75mil)	0.173	4.4	0.559	14.2	168(250)
3C						0.587	14.9	195(290)
4C						0.634	16.1	239(355)
2C	12 (3.31mm)	65/0.254 (65/10mil)	2.4 (94mil)	0.193	4.9	0.634	16.1	225(335)
3C						0.665	16.9	265(395)
4C						0.713	18.1	316(470)
2C	10 (5.26mm)	104/0.254 (104/10mil)	3.1 (122mil)	0.220	5.6	0.689	17.5	276(410)
3C						0.724	18.4	333(495)
4C						0.780	19.8	403(600)

※3, 4 core has the [Y/G] earth cable of an equal size.

## Allowable ampacity

- Allowable current of this catalog NFPA70 Table 400.5(A)(1) STO ambient temperature 30°C.
- For the current correction factor, please refer to the P274.
- For please confirm the NFPA70 (National Electrical code) and NFPA79(Electrical Standard for Industrial Machinery) more use.

## Electrical property

Size (AWG)	Conductor resistance (Ω/km20°C)	Insulation resistance (MΩkm20°C)	Electrical strength (V/1min.)	Allowable ampacity (A)	
				a	b
18	less than 22.1	more than 60	2000	7	10
16	less than 13.7	more than 60	2000	10	13
14	less than 8.64	more than 60	3000	15	18
12	less than 5.42	more than 50	3000	20	25
10	less than 3.42	more than 50	3000	25	30

※Allowable ampacity By National Electrical Code(NEC)  
a: Apply to 3-conductor cords and other multiconductor cords connected to utilization equipment so that only 3 conductors are current-carrying.  
b: Apply to 2-conductor cords and other multiconductor cords connected to utilization equipment so that only 2 conductors are current-carrying.

## Standard sales length

100m