

# DYDEN CORPORATION

ELECTRIC WIRES  
& CABLES PRODUCTS

DATE Sep, 12, 2013

SPEC. No.STD-062I

## SPECIFICATION

FOR

CC-Link cable  
(CS-110)

RoHS correspondence

signed by *K. Nishimura*  
K. NISHIMURA



Manager  
Engineering section  
Engineering dept  
Factory Automation & Robot Cable Division

1. SCOPE

This specification covers the cable corresponding to CC-Link Ver.1.10 (110Ω type for fixation).

2. SYMBOL, SIZE

The symbol and size of the cable shall be " CS-110 AWG20/3C "

3. UL STANDARD

RECONGNIZED by UNDERWRITERS LABORATORIES Inc.

STYLE No.	2464 (UL 758 : AWM)
Rating TEMP.	80°C
VOLT.	300V
USE	Internal wiring or external interconnection of electronic equipment (such as desk-type calculators, dictating machines, or x-ray equipment).

4. FLAME TESTING

The cable shall pass the vertical wire flame test (VW-1) described in UL1581, Paragraph 1080.

5. CONSTRUCTION


The construction of the cable shall conform to Table 1.

6. CHARACTERISTICS

The characteristics of the cable shall be shown in Table 2.

7. MARKING

The following information shall be indicated with a suitable method to the cable.

" CC-Link Ver.1.10 DYDEN E91337  AWM 2464 80C 300V VW-1 "

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Table 1 Construction

I T E M		V A L U E
Symbol		CS-110
Size	AWG/Cores	20/3C
Conductor	Material	Annealed Copper
	Construction (No./mm)	7/0.32
	Dia. (approx. mm)	0.96
Insulation	Material	Foamed polyethylene
	Thickness (approx. mm)	0.80
	Dia. (approx. mm)	2.56
Stranding	Center layer	3 C
	Filler	Polyethylene string
Shield tape	Material	Aluminum polyester tape
Drainwire	Material	Tinned Annealed Copper (20/0.18mm)
Shield (Braid)	Material	Tinned Annealed Copper
	Thickness (approx. mm)	0.3
Jacket	Material (color)	Heat resistant PVC (Brown , Gray or Yellow)
	Thickness (approx. mm)	0.85
Overall diameter (approx. mm)		7.9 (max 8.0)
Approx. mass (kg/km)		80

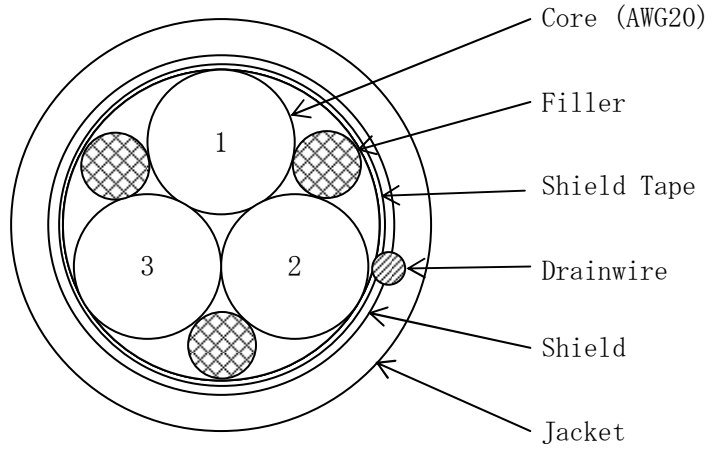
Table 2 Characteristics (at 20°C)

I T E M		S T A N D A R D V A L U E
Max. DC resistance of conductor ( $\Omega$ /km)		37.8
Min. insulation resistance ( $M\Omega$ -km)		1000
Dielectric strength (V/min)		AC 2000, AC 500
Capacitance (nF/km)	* at 1kHz	60
Impedance ( $\Omega$ )	* at 1MHz	$110 \pm 15$
	* at 5MHz	$110 \pm 6$
Max. Attenuation (dB/100m)	* at 1MHz	1.6
	* at 5MHz	3.5

# F i g 1

## C r o s s - S e c t i o n o f C a b l e

[ Symbol : CS-110 ]  
[ Size : AWG20/3C ]



CoreNo.	Colors
1	Blue
2	White
3	Yellow

NOT TO SCALE

## Revision process

Revised Date	Rivised Items
1999, 11, 5	The first edition
2000, 5, 23 Edition A	Addition of Drain wire. Change of Cable Marking : CC-Link DAIDEN K.K. E91337 <b>AWM</b> 2464 80C 300V VW-1 → CC-Link 110Ω DAIDEN K.K. E91337 <b>AWM</b> 2464 80C 300V VW-1
2000, 7, 8 Edition B	Change of jacket thickness (approx. 1.0mm → approx. 0.85mm) Change of overall diameter : approx. 8.2(±0.5)mm → 7.9(max 8.0)mm
2000, 7, 27 Edition C	Change of approx. mass (75kg/km → 80 kg/km) Change of Cable Marking : CC-Link 110Ω DAIDEN K.K. E91337 <b>AWM</b> 2464 80C 300V VW-1 → CC-Link Ver.1.10 DAIDEN K.K. E91337 <b>AWM</b> 2464 80C 300V VW-1 Addition of filler
2000, 8, 17 Edition D	Change of Symbol : CSFV110-SLAB → CS-110
2000, 9, 5 Edition E	Addition the material of filler
2004, 3, 31 Edition F	Addition of choice the jacket color at the time of the order : Gray
2007, 10, 12 Edition G	Change of Dielectric strength : AC 1500/min → AC 2000/min
2008, 3, 31 Edition H	Change of Cable Marking : CC-Link Ver.1.10 DAIDEN K.K. E91337 <b>AWM</b> 2464 80C 300V VW-1 → CC-Link Ver.1.10 DYDEN E91337 <b>AWM</b> 2464 80C 300V VW-1
2010, 5, 17 Edition I	Addition of choice the jacket color at the time of the order : Yellow