

## Factory Automation Cable

# CE-KIV

CE H05V2-K(0.5~1.0mm<sup>2</sup>) H07V2-K(1.5~35mm<sup>2</sup>)  
 A07V2-K(50~150mm<sup>2</sup>)  
 UL AWM 1007(0.5~1mm<sup>2</sup>) 1015(1.5~6mm<sup>2</sup>)  
 CCC 227 IEC 06(RV)(0.5~1mm<sup>2</sup>)  
 227 IEC 02(RV)(1.5~150mm<sup>2</sup>)

### Features

- Global-standard cables designed to CE&CCC&UL · cUL (equal to or less than 6mm<sup>2</sup>) &GOST-R
- Heat resistance (105°C)

### Application

- Internal cable connection to equipment

### Certification/Marking



※The cable is subject to limitation of applicable sizes for each relevant standard. For details, refer to “Applicable Range” for each standard in [Technical Data] given below.

### Technical Data

#### 0.5(20)~1mm<sup>2</sup>(18AWG)

	CE	UL · cUL	CCC
Cable Type	H05V2-K	AWM style 1007	227 IEC 06(RV)
Voltage Rating	300/500V	300V	300/500V
Temperature Rating	90°C	80°C	70°C
Test Voltage	AC2000V · 15min	AC3000V · 1min	AC2000V · 5min
Flame Resistance	IEC 60332-1	VW-1, FT1	IEC 60332-1
Applicable Standard	CENELEC HD 21.7 IEC 60227-3	UL 758 CAN/CSA-C22.2 No210.2	GB5023.3 IEC 60227-3
Applicable Range	0.5~1mm <sup>2</sup>	0.5~1mm <sup>2</sup> (20~18AWG)	0.5~1mm <sup>2</sup>

#### 1.5(16AWG)~150mm<sup>2</sup>

	CE	UL · cUL	CCC
Cable Type	1.5~35mm <sup>2</sup> : H07V2-K 50~150mm <sup>2</sup> : A07V2-K	AWM style 1015	227 IEC 02(RV)
Voltage Rating	450/750V	600V	450/750V
Temperature Rating	90°C	105°C	70°C
Test Voltage	AC2500V · 15min	AC3000V · 1min	AC2500V · 5min
Flame Resistance	IEC 60332-1	VW-1, FT1	IEC 60332-1
Applicable Standard	CENELEC HD 21.7 IEC 60227-3	UL 758 CAN/CSA-C22.2 No210.2	GB5023.3 IEC 60227-3
Applicable Range	1.5~150mm <sup>2</sup>	1.5~6mm <sup>2</sup> (16~10AWG)	1.5~150mm <sup>2</sup>

### Electrical Characteristics

Nominal Cross-Sectional Area (mm <sup>2</sup> ) (AWG)	Conductor Resistance (20°C)		Allowable Current (A)
	Ω/km or below	MΩ/km or above	
0.5 (20)	39.0	50	11
0.75 (19)	26.0	50	14
1 (18)	19.5	50	17
1.5 (16)	13.3	50	24
2.5 (14)	7.98	40	34
4 (12)	4.95	40	46
6 (10)	3.30	30	60
10	1.91	30	87
16	1.21	20	119
25	0.780	20	164
35	0.554	20	205
50	0.386	20	261
70	0.272	20	331
95	0.206	20	398
120	0.161	20	473
150	0.129	20	546

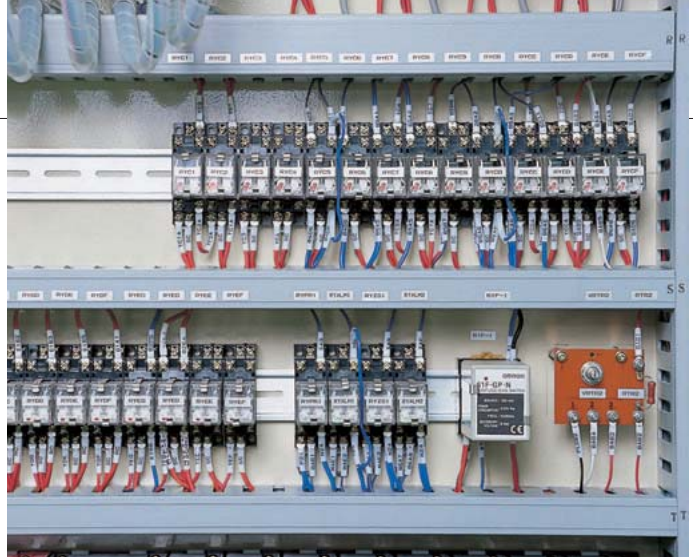
- Allowable Current (A) for the cable is based on calculation under aerial one-cable installation at ambient temperature of 30°C, not representing a guaranteed value.

Allowable current for the cable at ambient temperature above 30°C is to be determined by multiplying the current value by the appropriate current reduction factor specified in the following table for the ambient temperature.

- The Allowable current values are those calculated by JCS197, but not guaranteed.  
 (For details on Allowable current of the cable when used in Europe, refer to the applicable standard — IEC60364-5 (Electrical installation of building — Part 5: Selection and erection of electrical equipment — Section 523: Current-carrying capacities in wiring system).  
 JCS197... Japanese Electric Wire and Cable Makers' Association's Standard “Allowable Current for Cable Cable”

#### Current Reduction Factor Table

Nominal Cross-Sectional Area (mm <sup>2</sup> ) (AWG)	Ambient Temperature (°C)											
	30	35	40	45	50	55	60	65	70	75	80	85
0.5 (20) ~ 1.0 (18)	1.00	0.95	0.89	0.84	0.78	0.71	0.63	0.55	0.45	0.32	Not permitted to be used at these temperatures, which are above those to which the cable is resistant	
1.5 (16) ~ 150	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.50	0.41	0.29



## Core Identification

### Core identification system

Black, white, red, brown, blue, gray, orange, light blue and green/yellow

- Green/yellow: Yellow straight lines on green (in green/yellow color ratio of 60/40)

## Construction

Item	Configuration
Conductor	Soft annealed stranded copper
Insulator	Heat resistant PVC

### Example: 0.5mm<sup>2</sup> (20AWG) wire



## Outside Diameter/Weight

Nominal cross-sectional area (mm <sup>2</sup> ) <AWG> Conductor count/wire diameter	Outside diameter Approx. weight	Insulator color								
		Black	White	Red	Brown	Blue	Gray	Orange	Light blue	Green/yellow
0.5 (22/0.18) <20>	2.2 10									
0.75 (30/0.18) <19>	2.4 13									
1 (40/0.18) <18>	2.6 15									
1.5 (60/0.18) <16>	3.3 25									
2.5 (50/0.25) <14>	3.8 35						*			
4 (75/0.26) <12>	4.3 50		*				*	*		
6 (112/0.26) <10>	4.9 75		*					*		
10 (7/28/0.26)	6.4 125		*	*		*	*	*		
16 (7/28/0.32)	7.6 185		*	*		*	*	*		
25 (7/44/0.32)	9.8 300		*	*		*	*	*		
35 (19/23/0.32)	11.1 390		*	*		*	*	*		
50 (19/33/0.32)	13.1 560		*	*	*	*	*	*	*	
70 (19/23/0.45)	15.2 900		*	*	*	*	*	*	*	
95 (19/31/0.45)	17.4 1000		*	*	*	*	*	*	*	
120 (19/40/0.45)	19.8 1300		*	*	*	*	*	*	*	
150 (27/34/0.45)	22.0 1550		*	*	*	*	*	*	*	

Upper: Standard outside diameter (Approx.mm)

Lower: Approximate weight (kg/km)

\* indicates specifications for custom order production.