

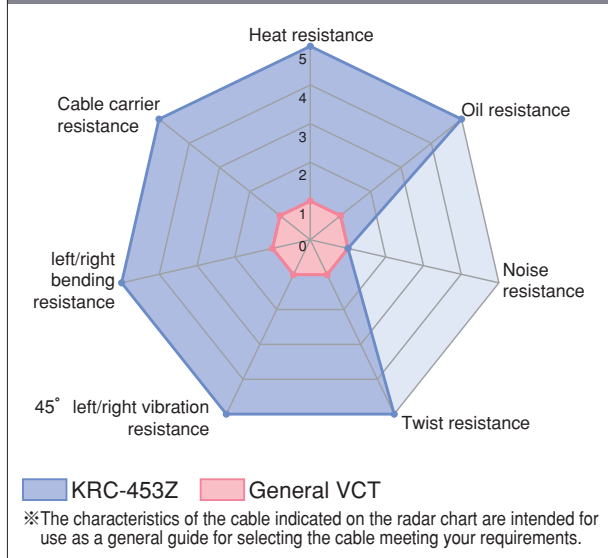
KRC-453Z

Oil and heat resistant PVC multi-conductor movable cables

UL AWM 2501



Characteristics Radar Chart



Features

- Cables designed to UL, cUL standards and GOST-R
- Oil resistance/Heat resistance/Flexibility/Bending resistance, allowing use for mobile cable connection
- Conductor diameter 0.08mm/Flexible stranded conductor (containing reinforcement cord at its center)

Application

- Cable carrier/robot wiring
- Cable connection under oil environment

Certification/Marking



Technical Data

	UL • cUL
Cable Type	AWM Style 2501
Voltage Rating	600V
Temperature Rating	105°C
Test Voltage	AC3000V • 1min
Flame Resistance	VW-1, FT1
Applicable Standard	UL 758, CAN/CSA-C22.2 No210.2

Electrical Characteristics

Item	Conductor Size (AWG)	Number of Cores	Allowable Current (A)			
			2~8	2	3	4
Conductor Resistance (20°C) Ω/km or below	18	23.7	20	17	16	—
	16	14.7	26	22	20	17
	14	9.28	34	29	27	22
	12	5.82	45	39	35	29
	10	3.67	60	52	47	38
Insulation Resistance (20°C) MΩ/km or above	18~10	50				

Item	Conductor Size (AWG)	Number of Cores	Allowable Current (A)		
			8~38	8	20
Conductor Resistance (20°C) Ω/km or below	18	23.7	13	10	8
Insulation Resistance (20°C) MΩ/km or above	18~14	50			

●The conductor resistance of 14AWG (grounding conductor) is 9.28 Ω/km or below at 20°C.

●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.

JCS197... Japanese Electric Wire and Cable Makers' Association's Standard "Allowable Current for Cable" (Cable)

Current Reduction Factor Table

Ambient Temperature (°C)	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Current Reduction Factor	1.00	0.97	0.93	0.89	0.86	0.82	0.77	0.73	0.68	0.63	0.58	0.52	0.45	0.36	0.26

Core Identification

Core identification system	
Identification by Color	2cores — Identified by black and white 3cores — Identified by black, white and red 4cores — Identified by black, red, blue and green/yellow
(for Custom Order)	

● Cable code: KRC-453Z

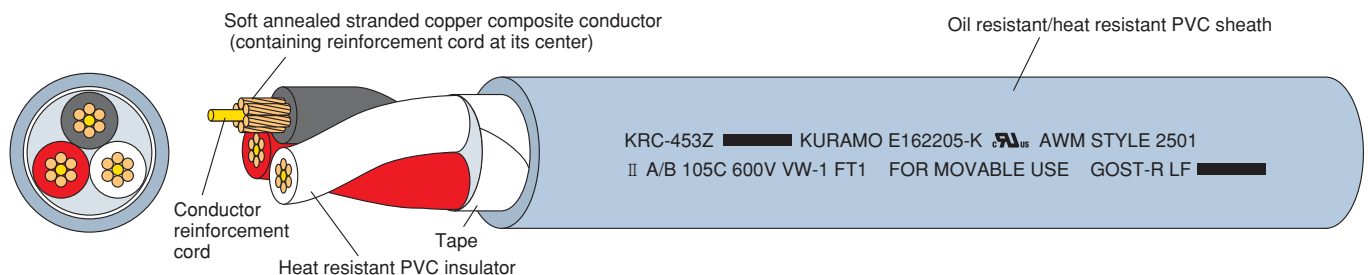
Number of Codes	Code Identification
8 or more	Identification by number (marked on insulator surface in the order of 1, 2, 3, 4 and so on)

- 18AWG ... Identified by numbering on insulator surface + green/yellow (14AWG)
- 16AWG or more ... Identified by numbering on insulator surface + green/yellow
- The cable code is identified by the cable insulator color:
 - Blue for KRC-453Z(BE)
 - Red for KRC-453Z(R)
 - Black for KRC-453Z(BK)
- Green/yellow: Yellow straight lines on green (in green/yellow color ratio of 60/40)

Cable Construction

Item	Configuration
Conductor	Soft annealed stranded copper composite (containing reinforcement cord at its center)
Insulator	Heat resistant vinyl PVC
Conductor stranding	Circular
Core wrapping tape	Tape wrap around cores
Sheath	Oil resistant/heat resistant PVC (light gray)

Example: 3 core (18AWG) cable



Cable Outside Diameter/Weight

Conductor Size AWG Conductor count/wire diameter	Number of Cores			
	2	3	4	8
18 (6/28/0.08)	10.0 110	10.5 130	11.5 160	— —
16 (6/47/0.08)	11.0 135	11.5 165	12.5 200	17.0 ※ 345
14 (6/71/0.08)	※ 12.0 160	※ 12.5 200	13.5 245	18.5 440
12 (6/116/0.08)	※ 13.0 200	※ 14.0 265	15.5 330	21.0 610
10 (6/85/0.12)	※ 15.0 270	※ 16.0 370	17.5 460	25.5 940

● The cable designed with its number of cores of 4 or more as indicated in the above table contains one core of green/yellow grounding conductor.

Conductor Size AWG Conductor count/wire diameter	Number of Cores			
	8	20	25	38
18 (6/28/0.08)	16.5 305	23.5 650	25.5 750	30.0 1050

● The cable designed with its number of cores as indicated in the above table contains one core of 14AWG (6/71/0.08) green/yellow grounding conductor.

Upper: Standard cable outside diameter (Approx.mm)

Lower: Approximate weight (kg/km)

※ KRC-453Z(R) is available for customer order.

※ indicates specifications for custom order production.