FRCABLE
China Kinwa Group

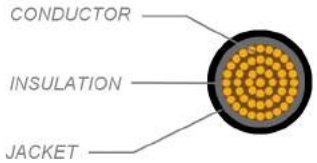
DATASHEET

UL 4703

Item No. FRS201B

UL 4703 (FR-10AWG-B)

Rating:	
Voltage:	600/1000V
Temperature:	-40℃--90℃



Descrlption:	
Conductor:Tinned annealed copper	
Insulation:	120℃XLPE
Jacket:	120℃XLPE,Black

Marking: E332231 (UL) Type PV Wire 10AWG 90℃ Dry and Wet 600V Sun Res -40℃ VW-1 FRCABLE

Application:

Specifically designed for connecting photovoltaic system components inside ang outside of building and equipment with high mechanical requirements and extreme weather conditions.For permanent installations.

General characteristics:

Construction	
Conductor	
AWG	10
Construction(N/mm)	65/0.32±0.006
Conductor(Dia.)	2.97
Insulation	
Standard thickness	1.23
Standard diameter	5.43±0.1
Jacket	
Standard thickness(mm)	0.8
Outer diameter	7.03±0.2
Conductor resistance(20℃)	3.55
Weight rated(kg/km)	93.77

Electrical properties	
Insulation resistance(90℃)(Ω/cm)	≧10^{11}
Withstand voltage(V/5min)	AC6500
Spaek Voltage(V/5min)	AC6500
Min bending radius(mm)	5*D

Packaging	
BOX(art.code FR-100-10AWG / FR-500-10AWG)	
Size:	310x310x100mm
Weight:	±9.5Kg
Cable length box:	100m
PALLET (art.code FR-100-10AWG-100pcs-10000m)	
Size:	1100x1100mm
Amount of boxes on one pallet:	100pcs
Weight of total pallet:	±950Kg
Cable length pallet:	10000m

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UL 4700

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Main performance parameter of finished cable	
Voltage test of finished cable	
Min.time of dipping in water	≥1(h)
Testing voltage (AC)	6500(V)
Min.voltage applying time at one time	5(min)
Test result	no breakdown
Sheated surface resistance	
Length of specimen:	250mm
Test result	$\geq 10^{9}\Omega$
Penetrate the insulation resistance	
Temperature	20℃
Test result	$\geq 10^{14}\Omega$
High temperature stress	
Temperature	140℃
Test result	
A: with 1.2 Voltage test	A: No breakdown
B: deep pressure	B: Wall thickness 50%
Damp-heat test	
Temperature	90℃
Humidity	85%
Test result	
Aging before and after the tenslle strength of Change	≤30%
Aging before and after the elongation at break of Change	≤-30%
Acid-alkali Resistance	
Min.time of dipping in	168h
Test result	
Aging before and after the tensile strength of Change	≤-30%
Elongation	≥100
Low-temperature bending	
Temperature	-40℃
Time	16h
Test result	No crack
Ozone resistance	
Ozeone concentration	200x106%
Time	72h
Test result	No crack
Heat schrinkable jacket test	
Test result	≤2%
Flame retardant	
Vertical burn	
Test result	
Flxture on the lower edge from the starting point and carbonization	≥50mm
Burning fuel downward from the lower edge of bottom fixture	≤540mm

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Halogen content of non-metallic materials	
Test result	
Chlorine and bromine content	HCL≤0.5HBr≤0.5%
Fluoride content	F≤0.1%
The inner layer of insulation and sheath of the mechanical properties	
Test result	
Aging before tensile strength	8.0N/mm2
Aging before elongation	125%
Aging before and after the tensile strength of change	-30%
Aging before and after the elongation at break of change	-30%
Hot extension	
Temperature	200℃
Test result	
The inner layer of insulation and sheath	
Elongation under load	≤100%
Elongation after unloading	≤25%
Life expectancy hot	
Tese result	≥25 years