

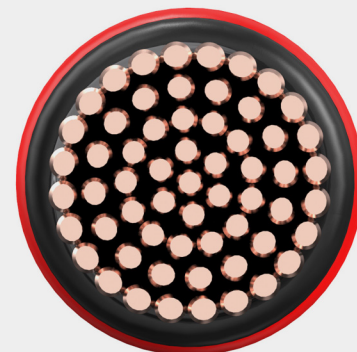
# SPECIFICATION FOR APPROVAL

## Applications

Double insulated, electron-beam cross-linked cables for photovoltaic power applications.

1.Construction		solar cable 4mm <sup>2</sup>
Rated Voltage		1000VDC
Conductor	Cross-sectional Area(mm <sup>2</sup> )	4
	Material	Tinned Copper acc. to VDE 0295 I IEC 60228, Class 5
	Stranded OD.(mm)	2.46
Insulation	Material	XLPO, flame retardant, halogen free,electron-beam cross-linked
	Color	Black
Jacket	Material	XLPO, flame retardant, halogen free,electron-beam cross-linked
	OD.(mm)	4.60±0.15x9.40±0.30
	Color	Tinned Copper acc. to VDE 0295 I IEC 60228, Class 5

## CABLE CONSTRUCTION



## 2. Physical Properties

Item		Specification	
		Inner Layer	Outer Layer
Elongation	Un-aged	≥125%	≥125%
Strength		≥6.5Mpa	≥8Mpa
Cold bend test	(-40±2.0°C×16h)	No cracking	
Sunlight resistance	720h	Elongation and strength retention rate ≥80%	
Bending radius	≥4×Cable OD	PASS	
Ambient temperature		-40°C up to +90°C	
Content of halogen acid gas		IEC670754-1, EN50267-2-1	
Thermal endurance properties		> 25years	
Insulation resistance AT20°C		≥10 <sup>14</sup> Ω·cm	
Max. current AT60°C		55A	
Max.conductor temperature		120°C	
Flame test	IEC60332-1	PASS	

Inner and outer layer is inseparable.

## 4.Marking

TÜV PV1-F 1×6.0mm<sup>2</sup> Shanghai  
Kuka Intelligent Technology Co., Ltd

## 6.Packing

- (a) 200m./300m/commission
- (b) Consulting if delivering in other ways

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## 3.Electrical Properties

Item	SPECIFICATION
Conductor Resistance AT 20°C	≤5.09Ω/km
Dielectric-withstand test	6500VAC/5min
Spark test	10000VAC

Cross section	Conductor	Outer	Current-carrying capacity [A] at 60°C	Conductor resistance	Weight	Cable code
nxmm2	mm2			kQ/ km at 20°C	app. kg/ km	
1*1.5	1.5	4.3	30	13.7	30	PV302515
1*2.5	2	5.2	45	8.21	42	PV502525
1*4.0	2.5	5.5	55	5.09	55	PV562940
1*6	3.3	6.3	70	3.39	68	PV842960
1*10.0	4.3	7.8	98	1.95	98	PV142301
1*16.0	5.3	9.2	132	1.24	132	PV228301
1*25.0	6.6	11.3	176	0.795	176	PV361302
1*35.0	7.8	13.3	218	0.565	218	PV525303
1*50.0	9.3	14.8	280	0.393	280	PV720305
1*70.0	11.4	16.9	350	0.277	350	PV988307
1*95.0	12.8	18.7	410	0.21	410	PV134930
1*120.0	14.6	20.7	480	0.164	480	PV169130