

# SPECIFICATION FOR APPROVAL

<b>1.Construction 構造</b>		TUV H1Z2Z2-K 4mm <sup>2</sup>	Revision:	A/0	Form No.	B274			
Rated Voltage 電圧		DC1500V	CONSTRUCTION D.W.G 構造図面						
Conductor 導体	Cross-sectional Area 公称断面積	4mm <sup>2</sup>	<p style="text-align: center;">シース 絶縁体 導体</p>						
	Material材質	Stranded Tinned Copper 軟銅線							
	Cond.Size 导体サイズ	56/0.285							
	Stranged OD.(mm)燃り外径	2.46							
Inner Layer 絶縁体	Material材質	XLPE 架橋ホ <sup>リ</sup> エチレン							
	AVG Thickness(mm)標準厚	/							
	Min Thicknes(mm)最小厚	0.7							
	OD.(mm)外径	3.9±0.15							
	Color色	Black(黒)							
Outer Layer シース	Material材質	XLPE 架橋ホ <sup>リ</sup> エチレン							
	AVG Thickness(mm)標準厚	/							
	Min Thicknes(mm)最小厚	0.8							
	OD.(mm)外径	5.5±0.15							
	Color色	Black(黒)							
		Inner and outer layer is inseparable.		<b>5.Marking マーキング</b>					
<b>2.Mechanical Characteristics</b>		Specification 詳細		DMM.com SUNKEAN PHOTOVOTAIC CABLE H1Z2Z2-K 1X4.0mm <sup>2</sup> DC1500V -40°C R50429501(EN50618) WUXI SUN KING ENERGY TECHNOLOGY CO., LTD.					
Item 項目		Inner Laye r絶縁体	Outer Layer シース						
Elongation 弾性	Un-aged 未老化	≥125%	≥125%						
Strength 強度		≥6.5Mpa	≥8Mpa						
Cold bend test 冷延テスト	(-40±2.0° C×16h)	No cracking 輝なし							
Flame test 難燃性評価	IEC60332-1	PASS							
Rated temperature 温度	-40° C up to +90° C		<b>6.Packing 梱包</b>				(a) 250m、500m、1000m (b) Consulting if delivering in other ways		
Thermal endurance properties耐熱性	>25years								
<b>3.Electrical Characteristics</b>		SPECIFICATION 詳細					DMM.com LLC ADD: Sumitomo Fudosan Roppongi Grand Tower 24F3-2-1, Roppongi, Minato-ku, Tokyo 106-6224 JAPAN TEL:03-5797-8918 FAX:03-5797-8927		
Item 項目									
Conductor Resistance AT 20° C		≤3.39 Ω /km							
Dielectric-withstand test		6.5KV/5min							
Spark test 放電テスト		10000VAC							
Insulation resistance at 20°C		≥500M Ω ·cm		Part No.材料コード					
Max. current AT60° C		55A		Serial No.					
<b>4.Standard 基準</b>				Approved承認	<b>APPROVED</b> 顧客承認				
				Checked検査					
Product Standard Certification:		EN50618		Drawing新規					
Reference Standard:		R50429501		Date日付					

# SPECIFICATION FOR APPROVAL

<b>1.Construction 構造</b>		TUV H1Z2Z2-K 6mm <sup>2</sup>	Revision:	A/0	Form No.	B274			
Rated Voltage 電圧		DC1500V	CONSTRUCTION D.W.G 構造図面						
Conductor 導体	Cross-sectional Area 公称断面積	6mm <sup>2</sup>							
	Material材質	Stranded Tinned Copper 軟銅線							
	Cond.Size 导体サイズ	84/0.285							
	Stranded OD.(mm)撚り外径	3.01							
Inner Layer 絶縁体	Material材質	XLPE 架橋ポリエチレン							
	AVG Thickness(mm)標準厚	/							
	Min Thicknes(mm)最小厚	0.7							
	OD.(mm)外径	4.5±0.15							
	Color色	Black(黒)							
Outer Layer シース	Material材質	XLPE 架橋ポリエチレン							
	AVG Thickness(mm)標準厚	/							
	Min Thicknes(mm)最小厚	0.8							
	OD.(mm)外径	6.1±0.15							
			Inner and outer layer is inseparable.						
			<b>5.Marking マーキング</b>						
<b>2.Mechanical Characteristics</b>		Specification 詳細		DMM.com SUNKEAN PHOTOVOLTIC CABLE H1Z2Z2-K 1X6.0mm <sup>2</sup> DC1500V -40°C R50429501(EN50618) WUXI SUN KING ENERGY TECHNOLOGY CO., LTD.					
Item 項目		Inner Layer 絶縁体	Outer Layer シース						
Elongation 弾性	Un-aged 未老化	≥125%	≥125%						
Strength 強度		≥6.5Mpa	≥8Mpa						
Cold bend test 冷延テスト	(-40±2.0° C×16h)	No cracking 輝なし							
Flame test 難燃性評価	IEC60332-1	PASS							
Rated temperature 温度		-40° C up to +90° C							
Thermal endurance properties耐熱性		>25years							
							<b>6.Packing 梱包</b>		
							(a) 250m、500m、1000m (b) Consulting if delivering in other ways		
<b>3.Electrical Characteristics</b>		SPECIFICATION 詳細		DMM.com LLC ADD: Sumitomo Fudosan Roppongi Grand Tower 24F3-2-1, Roppongi, Minato-ku, Tokyo 106-6224 JAPAN TEL:03-5797-8918 FAX:03-5797-8927					
Item 項目				Part No.材料コード		<b>APPROVED</b> 顧客承認			
Conductor Resistance AT 20° C		≤3.39 Ω /km		Serial No.					
Dielectric-withstand test		6.5KV/5min		Approved承認					
Spark test 放電テスト		10000VAC		Checked検査					
Insulation resistance at 20°C		≥500M Ω ·cm		Drawing新規					
Max. current AT60° C		70A		Date日付					
<b>4.Standard 基準</b>									
Product Standard Certification:		EN50618							
Reference Standard:		R50429501							

# MC4コネクター規格書

品名：ソーラーケーブル用  
MC4コネクター

品番：HTC-16



## 1、パラメータ

項目名	規格
外形寸法	プラス(+): L69.63*φ18.8 マイナス(-): L72mm*φ18.8
許容電圧	1500V DC
許容電流	30A
接触抵抗	<5mΩ
安全性	Class II
使用環境	温度: -40°C~+85°C 湿度(humidity): ≤95%
防水性	IP68
難燃性	UL94-V0
環境負荷性	Class I
過電圧保護性能	Class III

## 2、部材リスト

No. (ref D.W.G)	品名	材質	QTY	色	備考
1	コネクタ	EXL9330	1	黒	HTC-16
2	シール	シリコン	1	赤	
3	インナープラグ	シリコン	2	-	
4	キャップ	FR370	2	-	
5	コンタクトピン	C1100	1		Nickel plated tin
6	プラグ	C1100	1		Nickel plated tin
7	Retreat ring	301 stainless steel	2		

### 3、適用ケーブル品紹介

認証	導体構造	導体直径	導体数	許容電圧	抵抗	許容温度
EN50618:	4.0	0.285mm	56	1000V AC	≤5.09Ω/KM	-40℃
2014	6.0		84	1500V DC		~+90℃

備考:

- 1.導体構成：スズメッキ銅撚線
- 2.絶縁及びシース材質: ノンハロゲン架橋ポリエチレン
- 3.使用寿命≥25 年(許容環境温度に置いた場合)
- 4.構造図



### 4、XLPE材質スペック

#### a) FR370

Component - Plastics

E48285

**ASAHI KASEI CHEMICALS CORP**

KANDA-MITSUI BLDG, 1-105 KANDA JINBOCHO, CHIYODA-KU TOKYO 101-8101 JP

**FR370(j)**

Polyamide 66 (PA66), "Leona", furnished as granular material

Color	Min Thk (mm)	Flame Class	HWI		RTI		RTI Str
			HWI	HAI	Elec	Imp	
ALL	0.38	V-0	5	1	95	-	95
	0.75	V-0	4	1	130	90	105
	1.5	V-0	3	0	130	105	105
	3.0	V-0	2	0	130	105	105

Comparative Tracking Index (CTI): 0

Dimensional Stability (%): 0

High-Voltage Arc Tracking Rate  
(HVTR): 0

High Volt, Low Current Arc Resis (D495): 5

Dielectric Strength (kV/mm): 31

Volume Resistivity (10<sup>x</sup> ohm-cm) : 15

**(j) - Virgin and regrind up to 50% by weight inclusive, have the same basic characteristics.**

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 1983-01-27

Last Revised: 2009-01-23

Underwriters Laboratories Inc®



#### IEC and ISO Test Methods

Test Name	Test Method	Units	Thickness	
			Tested (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.38	V-0 (ALL)
			0.75	V-0 (ALL)
			1.5	V-0 (ALL)
			3.0	V-0 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m <sup>2</sup>	-	-
ISO Izod Impact	ISO 180	kJ/m <sup>2</sup>	-	-
ISO Charpy Impact	ISO 179-2	kJ/m <sup>2</sup>	-	-

Component - Plastics

E207780

**SABIC INNOVATIVE PLASTICS JAPAN L L C**

PACIFIC GRADES - RESIN, 2-2 KINUGAOKA, MOKA-SHI TOCHIGI-KEN 321-4392 JP

**EXL9330(X)(f1)(GG)(B1)**

**PC/Siloxane, "Lexan", furnished as pellets**

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI		RTI Str
					Elec	Imp	
ALL	0.8	HB	3	1	125	105	115
B1	0.8	V-1	3	1	125	105	115
BK	1.0	-	3	1	125	105	115
BK, GY	2.5	V-0, 5VB	2	0	125	110	120
(X)	1.5	V-0	2	1	125	110	120
	2.0	V-0	2	1	125	110	120
	2.3	V-0	2	0	125	110	120
	3.0	V-0, 5VA	1	0	125	115	125

Comparative Tracking Index (CTI): **3**

Dimensional Stability (%): **0**

High-Voltage Arc Tracking Rate (HVTR): -

High Volt, Low Current Arc Resis (D495): -

Dielectric Strength (kV/mm): **25**

Volume Resistivity (10<sup>x</sup> ohm-cm) : **17**

**(GG) - Denotes a global grade formulation previously in File E161759.**

**(X) - All colors except natural.**

**(f1) - Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.**

**B1 - Represents colour code BK1E526 and BK1E649**

**NOTE - Material designation may be followed by a color nomenclature consisting of either an alpha/numeric or numeric/alpha combination.**

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GZN12

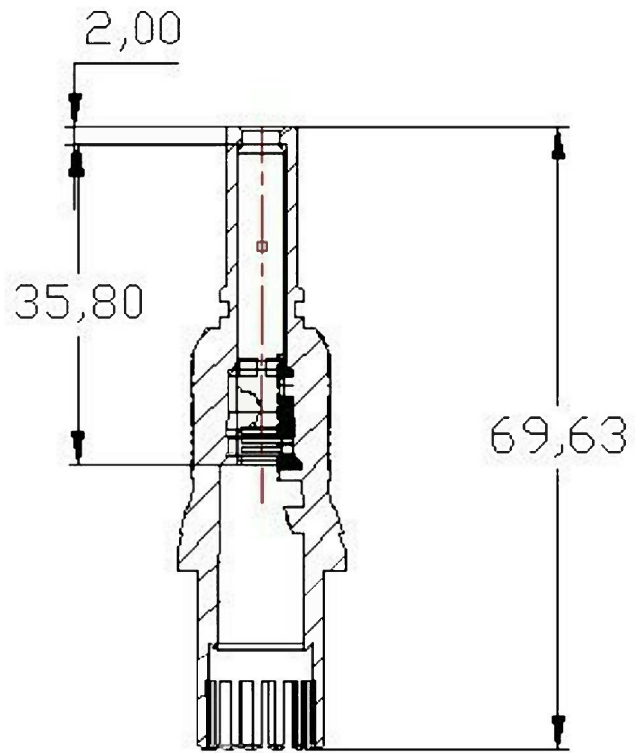
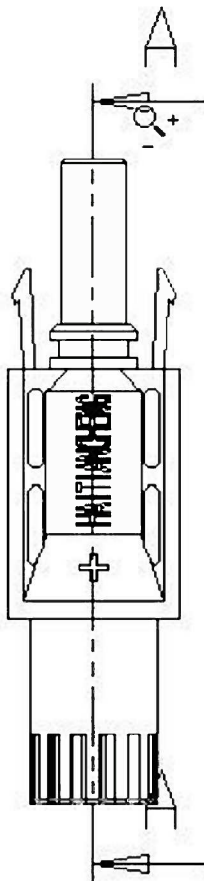
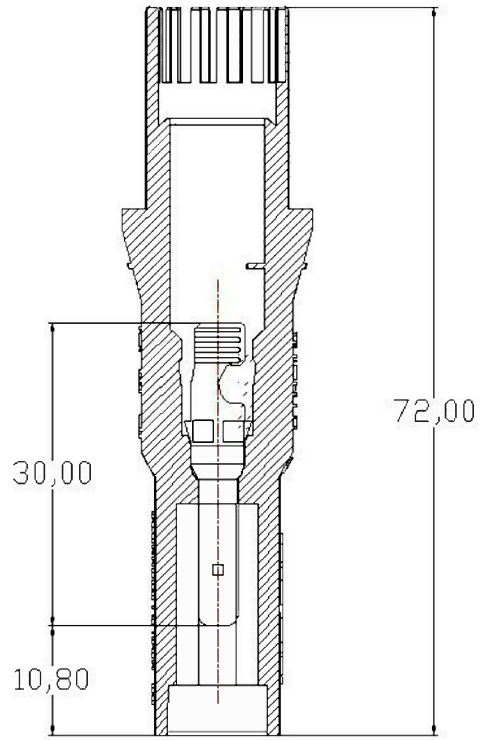
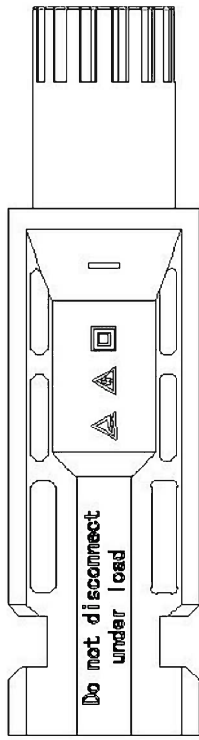
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# 5、HTC-16



剖面 A-A