



# PRODUCT CATALOG

**Joy Sense Cable**



## **THE LEADER IN WIRE AND CABLE**

"Linking the World, & Transmitting Brightness"  
is always our noble pursuit.

Let's construct ourselves first and then  
reconstruct our country and even the world.

Joy Sense will keep going forward and  
integrate into this great era with our  
aspiration, wisdom, technology & culture.

May Joy Sense's products and people satisfy  
you for ever!

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## ABOUT US

The Hebei Joy Sense Cable Co., Ltd, located in Shijiazhuang High-Tech Development Zone, is the largest industrial base invested by the Anhui Joy Sense Cable Co., Ltd. It's also an emphasis attracting investment project to the Shijiazhuang Municipal Government in 2012. The Hebei Joy Sense Co., Ltd was established in March of 2012, with a registered fund of 100 million Chinese Yuan. The entire factory covers an area of 2000mu (329 acres), is designed to be constructed into three phases. An amount of 2.5 billion Yuan was invested into the first phase, with an area of 700mu (115 acres), including 600mu (99 acres) for factory buildings and 100mu (16 acres) for office buildings, workstations for academicians and experts and ancillary facilities.

The first phase of the project has been put into operation in October of 2012, and the designed annual output value could reach 3 billion Yuan. The construction of the Medium Voltage Cable Workshop building has been accomplished, and it has entered the stage of machine orders and setups. It is expected that the capacity of 1 billion Yuan would be increased in the first half of the 2014. The second and third phase projects on aluminum base occupy a land of over 1,300mu (214 acres) with an investment of 10 billion Yuan in total, is anticipated to start the construction in 2015.



When the entire project is completed, the Hebei Joy Sense will set research and development, design, manufacture, sales and marketing in one, to form Joy Sense Headquarter Economy, and become the largest aluminum alloy electric cables manufacture base in the world. Therefore, the High-end industrial clusters of "replace copper by aluminum" will be formed in Shijiazhuang. By then, the entire annual revenue will exceed 50 billion Yuan. As it is growing, the Joy Sense Group is also working on extending revenues by setting up new plants, merging other cable enterprises and manufacturing consignment and other ways, to make Joy Sense Group become a real giant aluminum alloy cable enterprise in the global industry with a production capacity of 100 billion Yuan.

The major products of Joy Sense are the Rare Earth High Iron Aluminum Alloy Power Cable with independent intellectual property rights. The product was invented in 2005 by the President of Joy Sense, Mr. Lin Zemin. The innovation of Joy Sense Rare Earth High Iron Aluminum Alloy Cable has broken the monopoly of the American and European enterprises in the aluminum alloy cable market and production technology for over 40 years, and stopped the gaps domestically. Therefore, it's called the material revolution of the non-ferrous metal. The various properties of Joy Sense cable are more advantageous over those present available in China and overseas, and are better than copper cables as well. The Joy Sense Rare Earth High Iron Aluminum Alloy Cable could completely replace the costly copper core cable, which indicates a large and bright future in the market. The Joy Sense is the founder of the national standards of aluminum alloy cable in China. As the unique Chinese enterprise, Joy Sense is ranked one of the top four largest aluminum alloy cable manufactures among the world.

The Hebei Joy Sense Co., Ltd concentrates on producing low and medium voltage aluminum alloy cable currently. A series of product of ultra-high voltage cable, mining cable, nuclear cable, jacketed automotive cable and enameled wire will be coming into the market in the near future.



## Company Qualification



### CERTIFICATE

IQNet and  
CQC  
hereby certify that the organization  
Anhui Joy Sense Cable Co., Ltd.

No.98 Zhangwa Road Hefei City Anhui Province P.R.China

For the following field of activities  
Designing and Producing of Power Cables (Including Aluminum Alloy Power Cables) With  
Extruded Insulation and Rated Voltage From 1KV to 35KV, 450/750V PVC Insulated and  
Unsheathed Wire and Cable, 300/500V PVC Insulated and PVC Sheathed Cable

Has implemented and maintains a  
**Management System**  
Which fulfils the requirements of the following standard  
**ISO9001:2008**

Issued on: Oct. 11, 2010  
Validity date: Oct. 10, 2013  
Registration Number: 00110Q29313R0M/3400



*René Wasmer*  
René Wasmer  
President of IQNet

*Wang Kejiao*  
Wang Kejiao  
President of CQC



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# THE TOTAL SOLUTION

# FOR YOUR WIRE AND CABLE

**UL the standard in safety** Underwriters Laboratories

File: E33104 Vol: 1 Issued: 2009-10-22 Revised: 2010-08-24

**FOLLOW-UP SERVICE PROCEDURE (TYPE 1)**

**SERVICE RETARDANT CABLE (TYPE 1)**

Manufacturer: ANHUI JOY SENSE CABLE CO LTD  
38 ZHONGYUAN RD  
WUHEI  
ANHUI 231001 CHINA

Applicant: ANHUI JOY SENSE CABLE CO LTD  
(101223-896)

Listed: ANHUI JOY SENSE CABLE CO LTD  
(101223-896)

This Procedure authorizes the above manufacturer to use the marking specified by Underwriters Laboratories Inc. (UL), or any authorized licensee of UL, only on products covered by this Procedure, in accordance with the applicable UL Service Agreement.

The prescribed Mark or Marking shall be used only at the above manufacturing location on such products which comply with this Procedure and any other applicable requirements.

The Procedure contains information for the use of the above named Manufacturer and representative of Underwriters Laboratories Inc. and is not to be used for any other purpose. It is lent to the Manufacturer with the understanding that it is not to be copied, either wholly or in part, and that it will be returned to Underwriters Laboratories Inc. (UL) or any authorized licensee of UL, upon request.

This PROCEDURE, and any subsequent revision, is the property of Underwriters Laboratories Inc. (UL) and the authorized licensee of UL and is not transferable.

Underwriters Laboratories Inc.

*Stephen Rowson*      *William R. Carney*  
Senior Vice President      Director  
Global Follow-Up Service Operations      North American Certification Program

**UL the standard in safety** Underwriters Laboratories

File: E33203 Vol: 1 Issued: 2009-10-22 Revised: 2010-08-24

**FOLLOW-UP SERVICE PROCEDURE (TYPE 1)**

**THERMOSET INSULATED WIRE (TYPE 1)**

Manufacturer: ANHUI JOY SENSE CABLE CO LTD  
38 ZHONGYUAN RD  
WUHEI  
ANHUI 231001 CHINA

Applicant: ANHUI JOY SENSE CABLE CO LTD  
(101223-896)

Listed: ANHUI JOY SENSE CABLE CO LTD  
(101223-896)

This Procedure authorizes the above manufacturer to use the marking specified by Underwriters Laboratories Inc. (UL), or any authorized licensee of UL, only on products covered by this Procedure, in accordance with the applicable UL Service Agreement.

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Underwriters Laboratories Inc.

*Stephen Rowson*      *William R. Carney*  
Senior Vice President      Director  
Global Follow-Up Service Operations      North American Certification Program

**UL the standard in safety** Underwriters Laboratories

File: E33301 Vol: 1 Issued: 2009-10-22 Revised: 2010-08-24

**FOLLOW-UP SERVICE PROCEDURE (TYPE 1)**

**METAL CLAD CABLE (TYPE 1)**

Manufacturer: ANHUI JOY SENSE CABLE CO LTD  
38 ZHONGYUAN RD  
WUHEI  
ANHUI 231001 CHINA

Applicant: ANHUI JOY SENSE CABLE CO LTD  
(101223-896)

Listed: ANHUI JOY SENSE CABLE CO LTD  
(101223-896)

This Procedure authorizes the above manufacturer to use the marking specified by Underwriters Laboratories Inc. (UL), or any authorized licensee of UL, only on products covered by this Procedure, in accordance with the applicable UL Service Agreement.

The prescribed Mark or Marking shall be used only at the above manufacturing location on such products which comply with this Procedure and any other applicable requirements.

The Procedure contains information for the use of the above named Manufacturer and representative of Underwriters Laboratories Inc. and is not to be used for any other purpose. It is lent to the Manufacturer with the understanding that it is not to be copied, either wholly or in part, and that it will be returned to Underwriters Laboratories Inc. (UL) or any authorized licensee of UL, upon request.

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Underwriters Laboratories Inc.

*Stephen Rowson*      *William R. Carney*  
Senior Vice President      Director  
Global Follow-Up Service Operations      North American Certification Program

**STANDARDSMARK LICENCE**

SAI Global hereby grants:

**Anhui Joy Sense Cable Co., Ltd.**  
1658 Zhongyuan Road, WUHEI, Anhui, China

And

**Australia Joy Sense Pty Ltd**  
1/14 77017 Riverside, SOUTHBANK, VIC 3006, Australia

"Jointly the Licensee"

**StandardsMark Licence**

Manufactured by:  
IEC 60062-1 ED. 2.1 - Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 38 kV (Um = 38 kV) - Part 1: Cable for rated voltages of 1 kV (Um = 1.2 kV) and 3 kV (Um = 3.6 kV)

"The StandardsMark Licence" is the right to use the STANDARDSMARK as shown below only in respect of the goods described and detailed in the Schedule which are produced by the Licensee or on behalf of the Licensee and in conformity with the applicable Standards referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the STANDARDSMARK and the Terms and Conditions for Certification and Licence. The Licensee covenants to comply with all the Rules and Terms and Conditions.

Certificate No: S00221056

Issued: 3 August 2010      Originally Certified: 3 August 2010  
Expires: 2 August 2015      Current Certification: 3 August 2010

*W. Hiley*      *A. Smith*  
Director - Assurance Services      General Manager - Certification Services

**SAI GLOBAL**

No. Lesen / Licence No: PJ02601

**SIRIM QAS**

**LESEN PENSIJILAN BARANGAN**  
Product Certification Licence

SIRIM QAS International Bhd. Bhd. dengan ini mengawaklahkan kepada ANHUI JOY SENSE CABLE CO LTD (ANHUI JOY SENSE CABLE CO LTD) lesen untuk menggunakan Tanda Penilaian di atas barangan di bawah ini sebagai syarat untuk menggunakan Tanda Penilaian di atas barangan tersebut.

**JOY SENSE CABLE CO LTD**  
CENTRUM SETIAWANGSA  
TINGKAT 2, LOT 16361  
JALAN SETIAWANGSA 8 & 13, TAMAN SETIAWANGSA  
54300 KUALA LUMPUR  
WILAYAH PERSEKUTUAN

Lesen untuk menggunakan Tanda Penilaian di atas barangan di bawah ini sebagai syarat untuk menggunakan Tanda Penilaian di atas barangan tersebut.

**POWER CABLE WITH EXTRUDED SOLID INSULATION**

Please refer to detail in the SCHEDULE

sebagai mematuhi keperluan sebagai mematuhi keperluan as complying with

IEC 60062-1 : 2004

*Khalidah Mulla*  
Managing Director  
SIRIM QAS International Bhd.

Tarikh Mula Pengelesen / 14 October 2011      Tarikh Dibatalkan / 03 November 2011

Kah Bahagian / 14 October 2012      No. Bilik / F - E 1835

No. Lesen / Licence No: PJ02602

**SIRIM QAS**

**LESEN PENSIJILAN BARANGAN**  
Product Certification Licence

SIRIM QAS International Bhd. Bhd. dengan ini mengawaklahkan kepada ANHUI JOY SENSE CABLE CO LTD (ANHUI JOY SENSE CABLE CO LTD) lesen untuk menggunakan Tanda Penilaian di atas barangan di bawah ini sebagai syarat untuk menggunakan Tanda Penilaian di atas barangan tersebut.

**JOY SENSE CABLE CO LTD**  
CENTRUM SETIAWANGSA  
TINGKAT 2, LOT 16361  
JALAN SETIAWANGSA 8 & 13, TAMAN SETIAWANGSA  
54300 KUALA LUMPUR  
WILAYAH PERSEKUTUAN

Lesen untuk menggunakan Tanda Penilaian di atas barangan di bawah ini sebagai syarat untuk menggunakan Tanda Penilaian di atas barangan tersebut.

**FLAME RETARDANT CABLE-CATEGORY A**

Please refer to detail in the SCHEDULE

sebagai mematuhi keperluan sebagai mematuhi keperluan as complying with

IEC 60332-3-22: 2000

*Khalidah Mulla*  
Managing Director  
SIRIM QAS International Bhd.

Tarikh Mula Pengelesen / 14 October 2011      Tarikh Dibatalkan / 03 November 2011

Kah Bahagian / 14 October 2012      No. Bilik / F - E 1841

AUSTRALIAN SAI GLOBAL

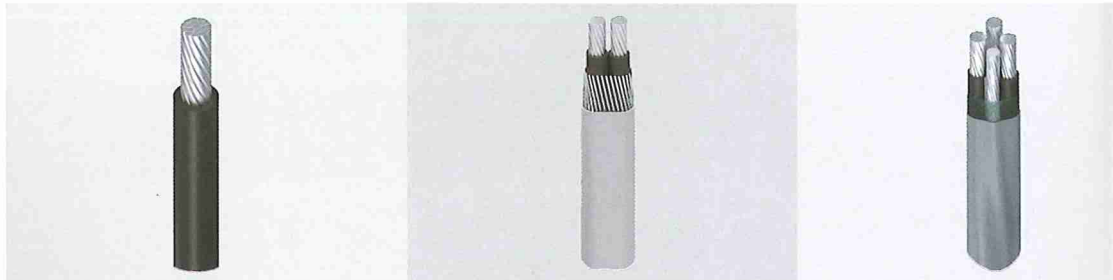
SIRIM QAS

SIRIM QAS

# Joysense Cable

## Aluminum Alloy Cable

For more than 100 years, Aluminum and Aluminum alloy conductor materials have been used by electrical utilities for the transmission and distribution of electrical power. Aluminum has displaced copper conductors for these applications, and is the standard material for electrical conductors. These conductor designs have consistently provided a superior combination of strength and conductivity for distribution and transmission applications.









Aluminum and aluminum alloy conductor materials are superior choices for wire and cable products in various electrical applications because of aluminum's excellent physical and electrical properties. Aluminum is light weight-about a third as heavy as copper; it is an excellent conductor of heat and electricity, an excellent reflector of heat and light, it is highly resistant to corrosion. Strong and flexible, and can be made stronger or more flexible by alloying and/or heat treatments. Aluminum is also non-magnetic, which is a valuable property for a raceway or an armor, and is easily recyclable.

Combine these superior product qualities with a company that is recognized as the industry leader in customer service in China. Joy Sense cable has earned the confidence of innovative designers and progressive contractors by consistently exceeding their expectations. Joy Sense's aluminum and aluminum alloy cables are increasingly becoming the preferred choice for building wire applications.

# XHHW-2

<b>type</b>	XHHW-2
<b>voltage</b>	600 Volt
<b>standards</b>	UL 44 ICEA S-95-658
<b>structure chart</b>	 AA-8000 Aluminum Alloy Conductor Insulation XLPE
<b>cutline</b>	
<b>product feature</b>	Conductors are AA-8000 series Aluminum Alloy compact stranded. Insulation is an abrasion, moisture and heat resistant black cross-linked polyethylene.
<b>specifications</b>	Single Conductor 8; 6; 4; 2; 1; 1/0; 2/0; 3/0; 4/0; 250; 300; 350; 400; 500; 600; 700; 750; 1000

## Applications

### SUITABLE FOR USE

May be used in wet or dry environment at temperatures not to exceed 90 C, Voltage rating for 600 V. Conductors are primarily used in conduit or railways, feeders, and branch circuit wiring as specified in the National Electric Code(NEC).





CONDUCTOR SIZE (AWG or kcmil)	INSULATION THICKNESS (mils)	NOMINAL O.D. (mils)	ALLOWABLE AMPACITIES*			APPROXIMATE NET WEIGHT PER 1000ft(lbs)	STANDARD PACKAGE
			60 C	75 C	90 C		
8	45	227	30	40	45	30	B
6	45	262	40	50	60	45	B
4	45	306	55	65	75	58	B
2	45	361	75	90	100	86	B
1	55	412	85	100	115	108	B
1/0	55	449	100	120	135	132	B
2/0	55	489	115	135	150	161	B
3/0	55	536	130	155	175	200	B
4/0	55	588	150	180	205	247	B
250	65	653	170	205	230	296	B
300	65	703	190	230	255	349	B
350	65	749	210	250	280	401	B
400	65	792	225	270	305	452	B
500	65	869	260	310	350	556	B
600	80	976	285	340	385	679	C
700	80	1040	310	375	420	782	C
750	80	1071	320	385	435	833	C
1000	80	1223	375	445	500	1090	C

**\*Allowable Ampacities:**

Allowable ampacities shown are general use as specified by the NEC.2008 Edition section 310.15.

60 C-When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1AWG conductors.

75 C-When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1AWG.

90 C-THWN-2 wet or dry locations. For ampacity derating purposes.

Ampacities are based on conductor operating temperatures only and do not take voltage drop into consideration. When the number of current carrying conductors in a raceway or cable exceeds three, the allowable ampacity of each conductor shall be reduced to the following percentages of tabular values:

4 to 6	80%	7 to 9	70%	10 to 20	50%	21 to 30	45%	31 to 40	40%
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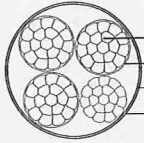


In dwelling units conductors shall be permitted to be utilized as 120/240 volt, 3-wire service entrance conductors and feeder conductors in raceways or cable with or without an equipment grounding conductor.

The allowable ampacity for types THWN-2, SE, USE-2, XHHW-2, RHW-2 and RHH aluminum conductors shall be:



Size	2	1	1/0	2/0	3/0	4/0	250	300	350	500	600
Amps	100	110	125	150	175	200	225	250	300	350	400

All aluminum conductors are compact stranded construction complying with UL standard 44.

# SERVICE ENTRANCE CABLE

<b>type</b>	SEU	SER						
<b>voltage</b>	600 Volt							
<b>standards</b>	UL 44; UL854; Federal Specification A-A59544							
<b>structure chart</b>	 <p>AA-8000 Aluminum Alloy Conductor Insulation XLPE Binding Tape Outer Sheath</p>	 <p>AA-8000 Aluminum Alloy Conductor Insulation XLPE Binding Tape Outer Sheath</p>						
<b>cutline</b>								
<b>product feature</b>	<p>Conductors are AA-8000 series Aluminum Alloy, Compact stranded.</p> <p>SEU cable assembly plus an overall concentrically applied neutral and reinforcement tape are jacketed with gray sunlight resistant polyvinyl chloride (PVC).</p>	<p>Conductors are AA-8000 series Aluminum Alloy, Compact stranded.</p> <p>SER cable assembly plus reinforcement tape are jacketed with gray sunlight resistant polyvinyl chloride (PVC). Available as: 2 conductors (2 insulated phase conductors, bare ground); 3 conductors (2 insulated phase conductors, insulated neutral, bare equipment ground); 4 conductors (3 insulated phase conductors, insulated neutral, bare equipment ground).</p>						
<b>specifications</b>	<p>Two Conductor With A Bare Concentric Ground</p> <p>6-6-6; 4-4-4; 4-4-6; 2-2-2; 2-2-4; 2/0-2/0-2/0; 2/0-2/0-1; 4/0-4/0-4/0; 4/0-4/0-2/0</p>	<table border="1"> <tr> <td>Two Conductor with Bare Ground</td> <td>6-6-6; 4-4-4; 4-4-6; 2-2-2; 2-2-4; 2/0-2/0-1; 2/0-2/0-2/0; 4/0-4/0-2/0; 4/0-4/0-4/0</td> </tr> <tr> <td>Three Conductor with Bare Ground</td> <td>8-8-8-8; 6-6-6-6; 4-4-4-6; 2-2-2-4; 1-1-1-3; 1/0-1/0-1/0-2; 2/0-2/0-2/0-1; 3/0-3/0-3/0-1/0;</td> </tr> <tr> <td>Four Conductor with Bare Ground</td> <td>2-2-2-2-4; 2/0-2/0-2/0-2/0-1; 4/0-4/0-4/0-4/0-2/0; 250-250-250-250-3/0</td> </tr> </table>	Two Conductor with Bare Ground	6-6-6; 4-4-4; 4-4-6; 2-2-2; 2-2-4; 2/0-2/0-1; 2/0-2/0-2/0; 4/0-4/0-2/0; 4/0-4/0-4/0	Three Conductor with Bare Ground	8-8-8-8; 6-6-6-6; 4-4-4-6; 2-2-2-4; 1-1-1-3; 1/0-1/0-1/0-2; 2/0-2/0-2/0-1; 3/0-3/0-3/0-1/0;	Four Conductor with Bare Ground	2-2-2-2-4; 2/0-2/0-2/0-2/0-1; 4/0-4/0-4/0-4/0-2/0; 250-250-250-250-3/0
Two Conductor with Bare Ground	6-6-6; 4-4-4; 4-4-6; 2-2-2; 2-2-4; 2/0-2/0-1; 2/0-2/0-2/0; 4/0-4/0-2/0; 4/0-4/0-4/0							
Three Conductor with Bare Ground	8-8-8-8; 6-6-6-6; 4-4-4-6; 2-2-2-4; 1-1-1-3; 1/0-1/0-1/0-2; 2/0-2/0-2/0-1; 3/0-3/0-3/0-1/0;							
Four Conductor with Bare Ground	2-2-2-2-4; 2/0-2/0-2/0-2/0-1; 4/0-4/0-4/0-4/0-2/0; 250-250-250-250-3/0							
<b>Applications</b>	<p><b>SUITABLE FOR USE</b></p> <p>SEU is used to convey power from service drop to the meter base and from the meter base to the distribution panelboard; however, it may be used in all applications where type SEU cable is permitted. SER cable may be used in wet or dry locations at temperatures not to exceed 90 C, suitable for operation at 600 V or less as specified in the NEC.</p> <p>■ ■ ■</p>							
	<p><b>SUITABLE FOR USE</b></p> <p>SER is used to convey power from service drop to the meter base and from the meter base to the distribution panelboard; however, it may be used in all applications where type SER cable is permitted. SER cable may be used in wet or dry locations at temperatures not to exceed 90 C, suitable for operation at 600 V or less as specified in the NEC.</p> <p>■ ■ ■</p>							



CONDUCTOR SIZE (AWG or kcmil)	NOMINAL O.D. (mils)	ALLOWABLE AMPACITIES*				APPROXIMATE NET WEIGHT PER 1000ft(lbs)
		60 C	75 C	90 C	DWELLING	
 <b>SEU TWO CONDUCTOR WITH BARE CONCENTRIC GROUND</b>						
6-6-6	430×687	40	50	60	—	145
4-4-4	499×800	55	65	75	—	198
4-4-6	474×775	55	65	75	—	181
2-2-2	569×925	75	90	100	100	283
2-2-4	554×910	75	90	100	100	259
2/0-2/0-2/0	736×1221	115	135	150	150	514
2/0-2/0-1	720×1205	115	135	150	150	468
4/0-4/0-4/0	878×1462	150	180	205	200	765
4/0-4/0-2/0	835×1419	150	180	205	200	691
<b>SER TWO CONDUCTOR WITH BARE GROUND</b>						
6-6-6	650	40	50	60	—	150
4-4-4	745	55	65	75	—	203
4-4-6	745	55	65	75	—	203
2-2-2	864	75	90	100	100	290
2-2-4	864	75	90	100	100	290
2/0-2/0-1	1140	115	135	150	150	527
2/0-2/0-2/0	1140	115	135	150	150	527
4/0-4/0-2/0	1354	150	180	205	200	784
4/0-4/0-4/0	1354	150	180	205	200	784
 <b>SER THREE CONDUCTOR WITE BARE GROUND</b>						
8-8-8-8	612	30	40	45	—	136
6-6-6-6	717	40	50	60	—	196
4-4-4-6	823	55	65	75	—	252
2-2-2-4	956	75	90	100	100	359
1-1-1-3	1079	85	100	115	110	449
1/0-1/0-1/0-2	1168	100	120	135	125	540
2/0-2/0-2/0-1	1264	115	135	150	150	653
3/0-3/0-3/0-1/0	1378	130	155	175	175	793
4/0-4/0-4/0-2/0	1503	150	180	205	200	968
250-250-250-3/0	1576	170	205	230	225	—
<b>SER FOUR CONDUCTOR WITE BARE GROUND</b>						
2-2-2-2-4	1059	75	90	100	100	452
2/0-2/0-2/0-2/0-1	1404	115	135	150	150	827
4/0-4/0-4/0-4/0-2/0	1672	150	180	205	200	1228
250-250-250-250-3/0	1847	170	205	230	225	—
<p>*Allowable Ampacities:            Allowable ampacities shown are for general use specified by the NEC ,2008 Edition, section 310.15.            60 C-When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1AWG conductors.            75 C-When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1AWG .</p> <p>Dwelling-For units. Conductors shall be permitted at listed ampacities as 120/240 volt,3-wire,single-phase services and feeders.            All conductors are compact stranded construction complying with UL standard 44.</p>						

# MC CABLE

<b>type</b>	MC				
<b>voltage</b>	600 Volt				
<b>standards</b>	UL 44; UL 1569; ICEA S-95-658; IEEE 1202; Federal Specification A-A59544;				
<b>structure chart</b>	 <ul style="list-style-type: none"> <li>— AA-8000 Aluminum Alloy Conductor</li> <li>— Insulation XLPE</li> <li>— Binding Tape</li> <li>— Metallic Screen-Aluminum Alloy Armour</li> </ul>				
<b>cutline</b>					
<b>product feature</b>	<p>Conductors are AA-8000 series Aluminum Alloy compact stranded, with type XHHW-2 conductors rated 90 °C wet or dry, and a bare equipment grounding conductor.</p> <p>A binder tape is wrapped over the conductors with interlocked aluminum tape applied over the assembly. Aluminum interlocking armor is applied over the assembly.</p>				
<b>specifications</b>	<table border="1"> <tr> <td>Three Conductor With Ground</td> <td>                     6-6-6-6;4-4-4-4;2-2-2-4;1-1-1-4;1/0-1/0-1/0-4;2/0-2/0-2/0-4;                      3/0-3/0-3/0-4;4/0-4/0-4/0-2;250-250-250-2;250-250-250-3/0;                      350-350-350-1;400-400-400-1;500-500-500-3/0;                      500-500-500-2/0;500-500-500-1;600-600-600-1/0;                      750-750-750-3/0;750-750-750-1/0                 </td> </tr> <tr> <td>Four Conductor With Ground</td> <td>                     2-2-2-2-4;1-1-1-1-4;1/0-1/0-1/0-1/0-4;2/0-2/0-2/0-2/0-4                      3/0-3/0-3/0-3/0-4;4/0-4/0-4/0-4/0-2;250-250-250-250-3/0                      250-250-250-250-1;350-350-350-350-1/0;500-500-500-500-3/0                      600-600-600-600-3/0;750-750-750-750-900                      750-750-750-750-750;750-750-750-750-3/0                 </td> </tr> </table>	Three Conductor With Ground	6-6-6-6;4-4-4-4;2-2-2-4;1-1-1-4;1/0-1/0-1/0-4;2/0-2/0-2/0-4; 3/0-3/0-3/0-4;4/0-4/0-4/0-2;250-250-250-2;250-250-250-3/0; 350-350-350-1;400-400-400-1;500-500-500-3/0; 500-500-500-2/0;500-500-500-1;600-600-600-1/0; 750-750-750-3/0;750-750-750-1/0	Four Conductor With Ground	2-2-2-2-4;1-1-1-1-4;1/0-1/0-1/0-1/0-4;2/0-2/0-2/0-2/0-4 3/0-3/0-3/0-3/0-4;4/0-4/0-4/0-4/0-2;250-250-250-250-3/0 250-250-250-250-1;350-350-350-350-1/0;500-500-500-500-3/0 600-600-600-600-3/0;750-750-750-750-900 750-750-750-750-750;750-750-750-750-3/0
Three Conductor With Ground	6-6-6-6;4-4-4-4;2-2-2-4;1-1-1-4;1/0-1/0-1/0-4;2/0-2/0-2/0-4; 3/0-3/0-3/0-4;4/0-4/0-4/0-2;250-250-250-2;250-250-250-3/0; 350-350-350-1;400-400-400-1;500-500-500-3/0; 500-500-500-2/0;500-500-500-1;600-600-600-1/0; 750-750-750-3/0;750-750-750-1/0				
Four Conductor With Ground	2-2-2-2-4;1-1-1-1-4;1/0-1/0-1/0-1/0-4;2/0-2/0-2/0-2/0-4 3/0-3/0-3/0-3/0-4;4/0-4/0-4/0-4/0-2;250-250-250-250-3/0 250-250-250-250-1;350-350-350-350-1/0;500-500-500-500-3/0 600-600-600-600-3/0;750-750-750-750-900 750-750-750-750-750;750-750-750-750-3/0				


## Applications

### SUITABLE FOR USE



Branch, feeder and service power distribution under high ambient temperatures in commercial, industrial, institutional and multi-residential buildings.  
 Power, lighting, control, and signal circuits; Concealed or exposed installations;  
 As aerial cable on a messenger; Installation in cable tray and approved raceways;  
 Under raised floors for information technology equipment conductors and cables.





CONDUCTOR SIZE (AWG or kcmil)	Sub Assembly (inches)	Overall Nominal Diameter	APPROXIMATE NET WEIGHT PER 1000ft(lbs)	ALLOWABLE AMPACITIES*	
				75 C	90 C
<b>THREE CONDUCTOR With GROUND</b>					
6-6-6-6	57	78	237	50	60
4-4-4-6	66	88	298	65	75
2-2-2-4	78	1	411	90	100
1-1-1-4	89	1.11	496	100	115
1/0-1/0-1/0-4	97	1.19	578	120	135
2/0-2/0-2/0-4	1.06	1.27	678	135	150
3/0-3/0-3/0-4	1.16	1.38	833	155	175
4/0-4/0-4/0-2	1.27	1.59	1089	180	205
250-250-250-2	1.42	1.73	1275	205	230
250-250-250-3/0	1.58	1.9	1400	205	230
350-350-350-1	1.62	1.94	1653	250	290
400-400-400-1	1.72	2.04	1830	270	305
500-500-500-3/0	1.88	2.2	2257	310	350
500-500-500-2/0	1.88	2.2	2224	310	350
500-500-500-1	1.88	2.2	2177	310	350
600-600-600-1/0	2.1	2.42	2608	340	385
750-750-750-3/0	2.3	2.62	3177	385	435
750-750-750-1/0	2.3	2.62	3118	385	435
 <b>FOUR CONDUCTOR With Ground</b>					
2-2-2-2-4	87	1.09	508	72	80
1-1-1-1-4	99	1.21	619	80	92
1/0-1/0-1/0-1/0-4	1.08	1.3	727	96	108
2/0-2/0-2/0-2/0-4	1.18	1.4	858	108	120
3/0-3/0-3/0-3/0-4	1.3	1.61	1138	124	140
4/0-4/0-4/0-4/0-2	1.42	1.74	1374	144	164
250-250-250-250-3/0	1.77	2.09	1746	164	184
250-250-250-250-1	1.58	1.9	1634	164	184
350-350-350-350-1/0	1.82	2.13	2129	200	224
500-500-500-500-3/0	2.11	2.42	2877	248	280
500-500-500-500-3/0	2.11	2.42	2877	248	280
600-600-600-600-3/0	2.34	2.66	3415	272	308
750-750-750-750-900	2.88	3.2	4837	308	348
750-750-750-750-750	2.89	3.21	4596	308	348
750-750-750-750-3/0	2.57	2.89	4089	308	348

# RHH OR RHW(-2) OR USE(-2)

<b>type</b>	RHH or RHW(-2) or USE(-2)
<b>voltage</b>	600 Volt
<b>standards</b>	UL 44; UL 854; Federal Specification A-A59544
<b>structure chart</b>	 <p>AA-8000 Aluminum Alloy Conductor Insulation XLPE</p>
<b>cutline</b>	
<b>product feature</b>	<p>Conductors are AA-8000 series Aluminum Alloy compact stranded. Insulation is an abrasion, high-heat, moisture, and sunlight resistant black cross-linked polyethylene (XLP).</p>
<b>specifications</b>	<p>Single Conductor</p> <p>8; 6; 4; 2; 1; 1/0; 2/0; 3/0; 4/0; 250; 300; 350; 400; 500; 700; 750; 1000</p>

## Applications

### SUITABLE FOR USE

Conductors are used with conduit as specified in the NEC. May also be used as underground service entrance cable, for direct burial, at conductor temperatures not to exceed 90 °C. When used as RHH, conductor temperatures shall not exceed 90 °C in dry locations. When used as RHW-2 or USE-2, conductor temperatures shall not exceed 90 °C in wet or dry locations.







CONDUCTOR SIZE (AWG or kcmil)	INSULATION THICKNESS (mils)	NOMINAL O.D. (mils)	ALLOWABLE AMPACITIES*			APPROXIMATE NET WEIGHT PER 1000ft(lbs)	STANDARD PACKAGE
			60 C	75 C	90 C		
8	60	257	30	40	45	36	B
6	60	292	40	50	60	49	B
4	60	336	55	65	75	65	B
2	60	391	75	90	100	94	B
1	80	462	85	100	115	126	B
1/0	80	499	100	120	135	151	B
2/0	80	539	115	135	150	182	B
3/0	80	586	130	155	175	221	B
4/0	80	638	150	180	205	269	B
250	95	713	170	205	230	326	B
300	95	763	190	230	255	381	B
350	95	809	210	250	280	435	B
400	95	852	225	270	305	488	B
500	95	929	260	310	350	595	B
700	110	1100	310	375	420	829	C
750	110	1131	320	385	435	881	C
1000	110	1283	375	445	500	1145	C

**\*Allowable Ampacities:**

Allowable ampacities shown are for general use as specified by the NEC, 2008 Edition, section 310.15.

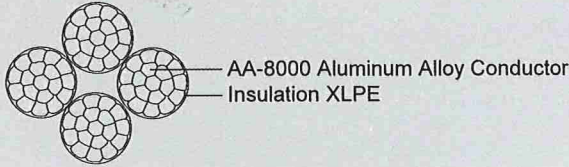

60 C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1 AWG conductors.

75 C - When terminated to equipment for circuits rated over 100 amperes or less or marked conductors larger than 1 AWG.

90 C - RHH dry locations. RHW-2 and USE-2 wet or dry locations. For ampacity derating purposes.

All conductors are compact stranded construction complying with UL Standard 44.

# MOBILE HOME FEEDER

<b>type</b>	MOBILE HOME FEEDER
<b>voltage</b>	600 Volt
<b>standards</b>	UL 44; UL 854; Federal Specification A-A59544
<b>structure chart</b>	 <p>AA-8000 Aluminum Alloy Conductor Insulation XLPE</p>
<b>cutline</b>	
<b>product feature</b>	<p>Mobile Home Feeder consists of four quadruplexed type RHH, RHW or RHW-2, USE or USE-2 with AA-8000 series Aluminum Alloy, compacted conductors.</p> <p>The cable contains a triple extruded white striped neutral conductor and a solid green grounding conductor to eliminate the need for field marking per the NEC.</p> <p>Insulation is sunlight resistant.</p>
<b>specifications</b>	<p>Single Conductor</p> <p>8; 6; 4; 2; 1; 1/0; 2/0; 3/0; 4/0; 250; 300; 350; 400; 500; 600; 700; 750; 1000</p>

## Applications

### SUITABLE FOR USE

Mobile Home Feeder is intended for the connection of mobile homes to a supply of electricity where permanent wiring is required as specified in the NEC. Suitable for direct burial in earth at conductor temperatures not to exceed 90°C. Three sizes available (with and without reduced neutral): 100, 150, and 200 ampere ratings.





CONDUCTOR SIZE (AWG or kcmil)	PHASE CONDUCTOR			NEUTRAL CONDUCTOR			GROUNDING CONDUCTOR			COMPLETE CABLE O.D	WEIGHT PER 1000 ft (mils)	ALLOWABLE AMPACITY	STO. PKG (ft)
	SIZE & CONST.	INS THICK (mils)	DIA. (mils)	SIZE & CONST.	INS THICK (mils)	DIA. (mils)	SIZE & CONST.	INS THICK (mils)	DIA. (mils)				
2-2-4-6	2-7	60	391	4-7	60	336	6-7	60	292	944	305	100	500
2-2-2-4	2-7	60	391	2-7	60	391	4-7	60	336	944	351	100	500
2/0-2/0-1-4	2/0-18	60	539	1-18	60	462	4-7	60	336	1301	561	150	500
2/0-2/0-2/0-1	2/0-18	80	539	2/0-18	80	539	1-18	80	462	1301	679	150	500
4/0-4/0-2/0-4	4/0-18	60	638	2/0-18	60	539	4-7	60	336	1540	793	200	500
4/0-4/0-4/0-2/0	4/0-18	80	638	4/0-18	80	638	2/0-18	80	539	1540	999	200	500

**\*Allowable Ampacities:**

Allowable ampacities shown are for general use as specified by the NEC, 2008 Edition, section 310.15.



60 C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1 AWG conductors.

75 C - When terminated to equipment for circuits rated over 100 amperes or less or marked conductors larger than 1 AWG.

90 C - RHH dry locations. RHW-2 and USE-2 wet or dry locations. For ampacity derating purposes.

All conductors are compact stranded construction complying with UL Standard 44.

# PV CABLE

<b>type</b>	PV	
<b>voltage</b>	2000 Volt	
<b>standards</b>	NEC 690	
<b>structure chart</b>	 <p>AA-8000 Aluminum Alloy Conductor Insulation XLPE</p>	
<b>cutline</b>		
<b>product feature</b>	Aluminum conductors are AA-8000 series aluminum alloy, compact stranded XLPE insulation (-40 C) to (105 C), Sunlight resistant.	
<b>specifications</b>	Single Conductor	6; 4; 2; 1/0; 2/0; 3/0; 4/0; 250; 350; 500; 750; 1000

## Applications

### SUITABLE FOR USE

For use in solar power applications per NEC Article 690.  
 Rated 105 C for exposed or concealed wiring in wet or dry locations.  
 Rated for direct burial conduit.





CONDUCTOR SIZE (AWG or kcmil)	NUMBER OF STRANDS	INSULATION THICKNESS (mils)	NOMINAL O.D. (mils)	ALLOWABLE AMPACITIES*			APPROXIMATE NET WEIGHT PER 1000ft(lbs)
				60 C	75 C	90 C	
6	7	0.085	0.339	40	50	60	55
4	7	0.085	0.383	55	65	75	75
2	6	0.085	0.438	75	90	100	104
1/0	10	0.105	0.546	100	120	135	164
2/0	12	0.105	0.586	115	135	150	196
3/0	16	0.105	0.633	130	155	175	235
4/0	19	0.105	0.685	150	180	205	284
250	22	0.12	0.76	170	205	230	342
350	35	0.12	0.856	210	250	280	452
500	35	0.12	0.976	260	310	350	614
750	58	0.135	1.178	320	385	435	902
1000	58	0.135	1.33	375	445	500	1166

\*Allowable Ampacities:



Allowable ampacities shown are for general use as specified by the NEC, 2008 Edition, section 310.15.

60 C-When terminated to equipment for circuits rated 100 amperes or less or marked for 14 AWG through 1 AWG conductors.

75 C-When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1AWG.

105 C-Wet or dry locations. For ampacity derating purposes.

# UD CABLE

<b>type</b>	Single conductor UD
<b>voltage</b>	600 Volt
<b>standards</b>	UL854; ASTM Specification B-230, B-231
<b>structure chart</b>	 <ul style="list-style-type: none"> <li>— Aluminum 1350 Conductor</li> <li>— Cross-Linked Polyethylene</li> </ul>
<b>cutline</b>	
<b>product feature</b>	Conductor Compressed stranded aluminum conductor 1359 H – 19 Insulation UL 854 recognized cross-linked polyethylene

## Applications

### SUITABLE FOR USE

The product can be installed as general purpose building wire, used in service entrance, feeders and branch circuits applications for residential, commercial, industrial and transportation environments for permanent installations utilizing 600 volts or less. Suitable for directly buried installations or ducts and can be used in environments where superior insulation toughness and chemical resistance is required.

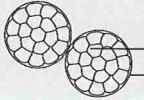
The product high resistance to humidity makes this cable suitable for wet location, for outdoors and for weather resistant use.



Conductor			Conductor Diameter mils	Insulation Thickness mils	Nominal O.D mils	Allowable Ampacities*			Approx. Net Weight per 1000 feet lbs	Standard Package feet/reel
Code Word	Size AWG or Kcmil	Number of Wires				60 C	75 C	90 C		
Princeton	6	7	169	60	289	40	50	70	45	1000
Mercer	4	7	213	60	333	55	65	85	64	1000
Clemson	2	7	268	60	388	75	90	110	93	1000
Kenyon	1	19	299	80	459	85	100	120	122	1000
Harvard	1/0	19	337	80	497	100	120	150	147	1000
Yale	2/0	19	377	80	537	115	135	165	179	1000
Tufts	3/0	19	425	80	585	130	155	190	218	1000
Beloit	4/0	19	476	80	636	150	180	225	266	1000
Hofstra	250	37	520	95	710	170	205	250	318	1000
Gonzaga	300	37	571	95	761	190	230	275	373	1000
Ruters	350	37	618	95	808	210	250	305	428	1000
Dartmouth	400	37	657	95	847	225	270	330	481	1000
Emory	500	37	736	95	926	260	310	380	587	1000
Furman	700	61	878	110	1098	310	375	460	815	1000
Sewanee	750	61	906	110	1126	320	385	470	867	1000
Fordham	1000	61	1059	110	1279	375	445	540	1130	1000

\*Allowable Ampacities:  
 90 C conductor temperature, 20 C ambient, RHO 90, 100% load factor for three conductor  
 Triplex with neutral only unbalanced load Also available in paralleled construction.  
 The above data is approximate and subject to normal manufacturing tolerances.



<b>type</b>	Secondary UD Duplex
<b>voltage</b>	600 Volt
<b>standards</b>	UL854; ASTM Specification B-230, B-231; ICEA S-105-692
<b>structure chart</b>	 <p>Aluminum 1350 Conductor Cross-Linked Polyethylene</p>
<b>cutline</b>	
<b>product feature</b>	Stranded, compressed 1350-H19 aluminum insulated with Cross-linked Polyethylene (XLPE). Neutrals are identified with tripe solid yellow stripes. One phase conductor and one neutral conductor cabled together.

## Applications

SUITABLE FOR USE


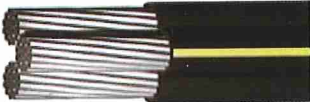
The 600V Secondary UD Duplex Cable is mainly used for secondary distribution and underground service either direct burial or in ducts.

♦ ♦ ♦

Code Word	Phase Conductor			Neutral			Diameter		Approx. Net Weight per 1000 feet lbs	Allowable Ampacities* (Raceway, Cable, Ducts)
	Size	Number or Wires	Insulation Thickness	Size	Number or Wires	Insulation Thickness	Single Phase Conductor	Complete Cable		
	AWG or Kcmil		In	AWG or Kcmil		In	In	In		
Clafin	6	7	0.060	6	7	0.060	0.298	0.596	91	70
Delgado	4	7	0.060	4	7	0.060	0.344	0.688	129	110

\*Allowable Ampacities:  
90 C conductor temperature, 20 C ambient, RHU90, 100% load factor.  
The above data are approximate and subject to normal manufacturing tolerances.

# UD CABLE

<b>type</b>	Secondary UD Triplex
<b>voltage</b>	600 Volt
<b>standards</b>	UL854; ASTM Specification B-230, B-231; ICEA S-105-692
<b>structure chart</b>	
<b>cutline</b>	
<b>product feature</b>	Stranded, compressed 1350-H19 aluminum insulated with Cross-linked Polyethylene (XLPE). Neutrals are identified with tripe Solid yellow stripes. Two phase conductor and neutral conductor cabled together.

## SUITABLE FOR USE

### Applications

The 600V Secondary UD Triplex Cable is mainly used for secondary distribution and underground service either direct burial or in ducts.

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Code Word	Phase Conductor			Neutral			Diameter		Approx. Net Weight per 1000 feet lbs	Allowable Ampacities* (Raceway, Cable, Ducts)
	Size	Number of Wires	Insulation Thickness In	Size	Number of Wires	Insulation Thickness In	Single Phase Conductor	Complete Cable		
	AWG or Kcmil			AWG or Kcmil			In	In		
Erskine	6	7	0.060	6	7	0.060	0.298	0.642	135	60
Vassar	4	7	0.060	4	7	0.060	0.344	0.742	193	75
Stephene	2	7	0.060	4	7	0.060	0.344	0.869	252	110
Ramapo	2	7	0.060	2	7	0.060	0.403	0.869	282	110
Bregen	1/0	19	0.080	2	7	0.060	0.403	1.123	392	150
Bergen	1/0	19	0.080	1/0	19	0.080	0.521	1.123	447	150
Converse	2/0	19	0.080	1	19	0.080	0.482	1.217	486	165
Hunter	2/0	19	0.080	2/0	19	0.080	0.565	1.217	543	165
Hollins	3/0	19	0.080	1/0	19	0.080	0.521	1.324	589	190
Rockland	3/0	19	0.080	3/0	19	0.080	0.614	1.324	660	190
Sweetbriar	4/0	19	0.080	2/0	19	0.080	0.565	1.447	719	225
Monmouth	4/0	19	0.080	4/0	19	0.080	0.672	1.447	807	225
Pratt	250	37	0.095	3/0	19	0.080	0.614	1.610	864	250
Wesleyan	350	37	0.095	4/0	19	0.080	0.672	1.833	1.133	305
Newark	350	37	0.095	350	37	0.095	0.896	1.931	1.459	305
Holyoke	500	37	0.095	300	37	0.095	0.801	2.112	1.562	380
Rider	500	37	0.095	350	37	0.095	0.850	2.112	1.617	380
Seton Hall	750	61	0.110	750	61	0.110	1.190	2.564	2.626	470

\*Allowable Ampacities:  
90°C conductor temperature, 20°C ambient, RHO 90, 100% load factor for three  
Conductor triplex with neutral only unbalanced load. Also available in paralleled construction.  
The above data is approximate and subject to normal manufacturing tolerances.





<b>type</b>	Secondary UD Quadruplex
<b>voltage</b>	600 Volt
<b>standards</b>	UL854; ASTM Specification B-230, B-231; ICEA S-105-692
<b>structure chart</b>	
<b>cutline</b>	
<b>product feature</b>	Stranded, compressed 1350-H19 aluminum, insulated with Cross-linked Polyethylene (XLPE). Neutrals are identified with triple solid yellow stripes. Three phase conductors and one neutral conductor cabled together.

## Applications

### SUITABLE FOR USE

The quadruplex 600V Secondary UD Cable is mainly used for secondary distribution and underground service either direct burial or inducts.



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Code Word	Phase Conductor			Neutral			Diameter		Approx. Net Weight per 1000 feet lbs	Allowable Ampacities* (Raceway, Cable, Ducts)
	Size	Number of Wires	Insulation Thickness	Size	Number of Wires	Insulation Thickness	Single Phase Conductor	Complete Cable		
	AWG or Kcmil		In	AWG or Kcmil		In	In	In		
Tulsa	4	7	0.060	4	7	0.060	0.344	0.831	259	85
Dyke	2	7	0.060	4	7	0.060	0.403	0.973	348	110
Wittenberg	2	7	0.060	2	7	0.060	0.403	0.973	378	110
Notre Dame	1/0	19	0.080	2	7	0.060	0.521	1.258	544	150
Purdue	1/0	19	0.080	1/0	19	0.080	0.521	1.258	600	150
Syracuse	2/0	19	0.080	1	19	0.080	0.565	1.363	671	165
Lafayette	2/0	19	0.080	2/0	19	0.080	0.565	1.363	728	165
Swarthmore	3/0	19	0.080	1/0	19	0.080	0.614	1.483	813	190
Davidson	3/0	19	0.080	3/0	19	0.080	0.614	1.483	885	190
Mcperson	4/0	19	0.080	2	7	0.060	0.672	1.621	899	190
Wake Forest	4/0	19	0.080	2/0	19	0.080	0.672	1.621	993	225
Eartham	4/0	19	0.080	4/0	19	0.080	0.672	1.621	1081	225
Rust	250	37	0.095	3/0	19	0.080	0.747	1.804	1216	250
Slippery Rock	350	37	0.095	4/0	19	0.080	0.850	2.053	1563	305
Wofford	500	37	0.095	350	37	0.095	0.980	2.366	2218	380
Westminster	750	61	0.110	350	37	0.095	1.190	2.873	3069	470

\*Allowable Ampacities:

90 C conductor temperature 20 C ambient. RHO 90, 100% load factor for three conductor triplex with neutral carrying only unbalanced load. Also available in paralleled construction. The above data is approximate and subject to normal manufacturing tolerances.

# COVERED LINE WIRE

<b>type</b>	Covered Line Wire
<b>voltage</b>	600 Volt
<b>standards</b>	ASTM Specification B-230, B-231, 232, B399, B498; ICEA S-70-547
<b>structure chart</b>	 <p>Conductor AAC/AAAC/ACSR Insulation LDPE/HDPE/XLPE</p>
<b>cutline</b>	
<b>product feature</b>	<p>Conductor: Aluminum alloy 1350-H19, 6201-T81, or ACSR conductors Insulation: Covered for weather proofing with Low-Density (LD) Polyethylene, High-Density Polyethylene (HD) or Cross-Linked Polyethylene (XLPE)</p>

## Applications

### SUITABLE FOR USE

Used primarily for overhead and distribution lines.  
Installed on insulators, otherwise treated as bare conductor in overhead lines.

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Code Word	Size AWG or Kcmil	Number or Wires	Insulation Thickness mils	Nominal O.D		Rated Strength lbs	Nominal Weight(lbs/1000')				Ampacity* A	Standard Package	
				Bare	OD		Aluminum	Total				Coils ft	Reels ft
				In	In			LDPE	HDPE	XLPE			
A A C													
Plum	6	7	30	0.184	0.244	563	24.6	34.04	34.45	34.45	100	4000	10100
Apricot	4	7	30	0.225	0.285	881	39.1	50.78	51.28	51.28	135	2500	7000
Peach	2	7	45	0.292	0.382	1350	62.2	84.73	85.71	85.71	180	1500	7500
Nectanne	1	7	45	0.332	0.452	1740	78.4	112.43	113.91	113.91	210	1200	6000
Quince	1/0	7	60	0.368	0.488	1990	99.1	136.88	138.52	138.52	240	1000	4700
Haw	1/0	19	60	0.373	0.493	2160	99.1	137.41	139.07	139.07	240	1000	4700
Orange	2/0	7	60	0.464	0.584	2510	125	173.3	175.4	175.4	280	--	3800
Ironwood	2/0	19	60	0.419	0.539	2670	125	168.27	170.15	170.15	280	--	3800
Fig	3/0	7	60	0.522	0.642	3035	157	212.03	214.41	214.41	320	--	4400
Lemon	3/0	19	60	0.47	0.59	3310	157	205.98	208.11	208.11	320	--	4400
Olive	4/0	7	60	0.522	0.642	3810	199	254.03	256.41	256.41	370	--	3500
Pomegranate	4/0	19	60	0.528	0.648	4020	199	254.74	257.16	257.16	370	--	3800
Sassafras	250	19	60	0.574	0.694	4505	234.3	295.59	298.25	298.25	420	--	3000
Mulberry	266.8	19	60	0.575	0.695	4810	250.1	311.52	314.18	314.18	430	--	3000
Basswood	300	19	60	0.628	0.748	5300	282	350.04	352.99	352.99	478	--	2500
Anona	336.4	19	60	0.666	0.786	5945	315.5	388.43	391.59	391.59	495	--	2500
Chinquapin	350	19	60	0.678	0.798	6150	328	402.5	405.73	405.73	525	--	2000
Molles	397.5	19	80	0.724	0.884	6885	373	475.28	479.71	479.71	550	--	2000
Sumac	450	37	80	0.772	0.932	8200	422	532.06	536.83	536.83	600	--	3300
Huckleberry	477	37	80	0.795	0.955	8400	447	560.85	565.79	565.79	810	--	3300



Code Word	Size AWG or Kcmil	Number or Wires	Insulation Thickness mils	Nominal O.D		Rated Strength lbs	Nominal Weight(lbs/1000')			Ampacity*	Standard Package		
				Bare	OD		Aluminum	Total			A	Coils	Reels
				In	In			LDPE	HDPE			XLPE	ft
A A A C													
Plum	6	7	30	0.198	0.258	1110	28.5	40	41	41	78	2700	8800
Apricot	4	7	30	0.25	0.31	1760	45.4	60	61	61.9	145	2000	6200
Peach	2	7	45	0.316	0.406	2800	72.2	99	99	100	190	1000	6700
Nectanne	1/0	7	60	0.348	0.468	4460	114.9	160	166	166	250	1000	4000
Quince	2/0	7	60	0.447	0.567	5390	144.9	196	203	203	290	--	3400
Haw	3/0	7	60	0.502	0.622	6790	182.5	241	249	249	335	--	3400
Orange	4/0	7	60	0.563	0.683	8560	230.2	298	307	307	385	--	3000
A C S R													
Walnut	6	6/1	30	0.198	0.258	1190	24.5	47	48	48	105	2700	8800
Butternut	4	6/1	30	0.25	0.31	1860	39	72	72	73	135	2200	6200
Hickory	4	7/1	30	0.257	0.317	2360	39	81	82	83	135	2000	6000
Pignut	2	6/1	45	0.316	0.406	2850	62	118	119	120	180	1200	6700
Beech	2	7/1	45	0.329	0.419	3640	62	134	134	136	180	1100	6700
Chestnut	1	6/1	45	0.525	0.445	3550	78.2	146	147	148	210	1000	5300
Almond	1/0	6/1	60	0.398	0.518	4380	98.6	190	191	193	235	1000	4000
Pecan	2/0	6/1	60	0.447	0.567	5300	124.3	234	235	235	290	--	3400
Filbert	3/0	6/1	60	0.502	0.622	6620	156.8	289	291	294	305	--	3900
Buckeye	4/0	8/1	60	0.563	0.683	8350	197.7	357	360	363	345	--	3000
Hackberry	266.8	18/1	60	0.609	0.729	6880	250.4	353	355	359	356	--	2600

The above data are approximate and subject to normal manufacturing tolerances;  
Ampacity ratings based on 75 C conductor temperature 25 C ambient temperature elevation-sea level, Emissivity 0.91 coefficient of absorption 0.95. Termal resistivity of cov. The code words as given apply to conventional polyethylene cables.  
For cross-linked, the suffix XLPE should be added, such as " Walnut XLPE" .

# AAC

<b>type</b>	AAC
<b>voltage</b>	600 Volt
<b>standards</b>	ASTM Specification B-230, B-231; TIS 85-2522
<b>structure chart</b>	 Hard Drawn Aluminum
<b>cutline</b>	
<b>product feature</b>	Hard Drawn Aluminum This bare concentric-lay stranded conductor is constructed with a straight round central Wire surrounded with one or more layers Of helically layed wires.

## Applications

### SUITABLE FOR USE

Class AA

For bare conductors usually used in Overhead lines.

Class A

For conductors to be covered with weather-Resistant materials and for bare conductors

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Code Word	Size AWG or MCM	Section	Number of Strands	Diameter Strands	Total Diameter	Nominal Weight	Rated Strength	Maximum Resistance at 20 C
		in <sup>2</sup>		in	in	lbs/1000ft	lbs	Ω/1000ft
Peachbell	6	0.0206	7	0.0614	0.183	24.6	560	0.661
Rose	4	0.0328	7	0.0772	0.231	39.1	880	0.416
Iris	2	0.0521	7	0.0972	0.292	62.2	1,347	0.261
Pansy	1	0.0657	7	0.109	0.328	78.4	1,631	0.208
Poppy	1/0	0.0829	7	0.123	0.369	98.9	1,978	0.164
Aster	2/0	0.105	7	0.138	0.414	124.8	2,504	0.130
Phiox	3/0	0.132	7	0.155	0.465	157.2	3,031	0.103
Oxlip	4/0	0.166	7	0.174	0.522	198.4	3,832	0.0820
Daisy	266.8	0.210	7	0.195	0.586	250.2	4,830	0.0650
Laurel	266.8	0.210	19	0.119	0.593	250.1	4,969	0.0650
Tulip	366.4	0.264	19	0.133	0.665	315.5	6,144	0.0515
Canna	397.5	0.312	19	0.145	0.724	372.9	7,097	0.0436
Cosmos	477	0.375	19	0.158	0.792	446.8	8,384	0.0363
Syringa	477	0.375	37	0.113	0.794	447.6	8,668	0.0363
Dahlia	556.5	0.437	19	0.171	0.856	521.4	9,769	0.0312
Mistietoe	556.5	0.437	37	0.123	0.858	522.2	9,910	0.0312
Orchid	636	0.500	37	0.131	0.918	596.0	11,362	0.0272

Data shown is subject to normal manufacturing tolerances. D.C. Resistance is based on 16.946Ω Kcmil/ft(61.2% IACS)@20oC (68oF) for aluminum nominal area of conductor with standing increments ASTM B-231.



Bold face code words indicates sizes most often used \*Not specified by ASTM standards.



Code Word	Size AWG or MCM	Section	Number of Strands	Diameter Strands	Total Diameter	Nominal Weight	Rated Strength	Maximum Resistance at 20 C
		in <sup>2</sup>		in	in	lbs/1000ft	lbs	$\Omega/1000ft$
Violet	715.5	0.562	37	0.139	0.974	671.0	12,767	0.0242
Nasturtium	715.5	0.562	61	0.108	0.975	671.0	13,139	0.0242
Arbutus	795	0.624	37	0.146	10.264	745.3	13,896	0.0218
Lilac	795	0.624	61	0.114	10.280	746.0	14,332	0.0218
*Anemone	874.5	0.687	37	0.154	10.776	821.2	15,037	0.0198
*Crocus	874.5	0.687	61	0.120	10.772	821.2	15,750	0.0198
Magnolia	954	0.749	37	0.161	1.124	894.5	16,376	0.0182
Goldenrod	954	0.749	61	0.125	1.126	894.5	16,894	0.0182
Bluebell	1033.5	0.812	37	0.167	1.170	968.4	17,767	0.0168
Larkspur	1033.5	0.874	61	0.130	1.172	969.1	18,305	0.0168
Marigold	1113	0.937	61	0.135	1.216	1043.7	19,656	0.0156
Hawthorn	1192.5	0.937	61	0.140	1.258	1116.9	21,054	0.0145
Narcissus	1272	0.999	61	0.144	1.297	1192.2	22,050	0.0136
Columbine	1351.5	1.062	61	0.149	1.339	1266.1	23,393	0.0128
Carnation	1431	1.124	61	0.153	1.379	1342.1	24,522	0.0121
Gladiolus	1501.5	1.186	61	0.157	1.417	1416.7	25,664	0.0115
Coreopsis	1590	1.249	61	0.161	1.421	1489.2	26,962	0.0109
Violet	715.5	0.562	37	0.139	0.974	671.0	12,767	0.0242
Nasturtium	715.5	0.562	61	0.108	0.975	671.0	13,139	0.0242
Arbutus	795	0.624	37	0.146	10.264	745.3	13,896	0.0218
Lilac	795	0.624	61	0.114	10.280	746.0	14,332	0.0218
*Anemone	874.5	0.687	37	0.154	10.776	821.2	15,037	0.0198
*Crocus	874.5	0.687	61	0.120	10.772	821.2	15,750	0.0198
Magnolia	954	0.749	37	0.161	1.124	894.5	16,376	0.0182
Goldenrod	954	0.749	61	0.125	1.126	894.5	16,894	0.0182
Bluebell	1033.5	0.812	37	0.167	1.170	968.4	17,767	0.0168
Larkspur	1033.5	0.874	61	0.130	1.172	969.1	18,305	0.0168
Marigold	1113	0.937	61	0.135	1.216	1043.7	19,656	0.0156
Hawthorn	1192.5	0.937	61	0.140	1.258	1116.9	21,054	0.0145
Narcissus	1272	0.999	61	0.144	1.297	1192.2	22,050	0.0136
Columbine	1351.5	1.062	61	0.149	1.339	1266.1	23,393	0.0128
Carnation	1431	1.124	61	0.153	1.379	1342.1	24,522	0.0121
Gladiolus	1501.5	1.186	61	0.157	1.417	1416.7	25,664	0.0115
Coreopsis	1590	1.249	61	0.161	1.421	1489.2	26,962	0.0109

Data shown is subject to normal manufacturing tolerances. D.C. Resistance is based on 16.946 $\Omega$  Kcmil/ft(61.2% IACS)@20oC (68oF) for aluminum nominal area of conductor with standing increments ASTM B-231.  
**Bold face code words indicates sizes most often used \*Not specified by ASTM standards.**

# ACSR

<b>type</b>	ACSR
<b>voltage</b>	600 Volt
<b>standards</b>	ASTM Specification B-230, B-232, B-500; TIS 85-2522
<b>structure chart</b>	 <p>Galvanized Steel Wires 1350 H-19 Aluminum Wires</p>
<b>cutline</b>	
<b>product feature</b>	Conductor Concentric stranded hard drawn aluminum wire. Steel Core Galvanized steel (Zinc coated) wire, solid or concentric stranded.

## Applications

### SUITABLE FOR USE

Used as bare overhead transmission and as primary and secondary distribution cable. ACSR offers optimal strength for line design. Variable steel core stranding enables desired strength to be achieved without sacrificing ampacity.

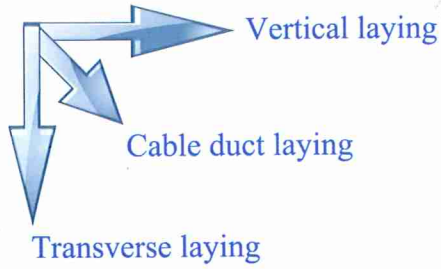
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Code Word	Size AWG or MCM	Section		Stranding		Stranding		Diameter		Total Weight lbs/1000ft	Rated Strength lbs	Maximum Resistance at 20 C Ω/1000ft
		Al	Steel	Design		Al	Steel	Cable	Steel			
		in <sup>2</sup>	in <sup>2</sup>	Al	Steel	in	in	in	in			
Turkey	6	0.0206	0.0240	6	1	0.0661	0.0661	0.198	0.0661	36.2	1,190	0.414
Swan	4	0.0328	0.0383	6	1	0.0835	0.0835	0.250	0.0835	57.8	1,865	0.414
Swanate	4	0.0328	0.0411	7	1	0.0772	0.1028	0.283	0.103	67.3	2,352	0.414
Sparrow	2	0.0521	0.0608	6	1	0.1051	0.1051	0.315	0.105	91.8	2,842	0.261
Sparate	2	0.0521	0.0653	7	1	0.0972	0.1299	0.325	0.130	106.9	3,640	0.251
Robin	1	0.0657	0.0767	6	1	0.118	0.118	0.355	0.118	115.8	3,554	0.204
Raven	1/0	0.0829	0.0967	6	1	0.133	0.133	0.398	0.133	146.2	4,381	0.161
Quail	2/0	0.105	0.122	6	1	0.149	0.149	0.446	0.149	184.1	5,293	0.130
Pigeon	3/0	0.132	0.154	6	1	0.167	0.167	0.502	0.167	232.3	6,627	0.103
Penguin	4/0	0.166	0.194	6	1	0.188	0.188	0.563	0.188	292.8	8,349	0.0817
*Owl	266.8	0.209	0.237	6	1	0.211	0.071	0.633	0.211	340.7	9,550	0.0643
Waxwing	266.8	0.209	0.222	18	1	0.122	0.122	0.609	0.122	289.7	6,872	0.0646
Partridge	266.8	0.210	0.243	26	7	0.101	0.079	0.641	0.235	368.1	11,272	0.0648
Merlin	336.4	0.265	0.279	18	1	0.137	0.137	0.684	0.137	365.6	8,666	0.0512
Linnet	336.4	0.265	0.307	26	7	0.114	0.0886	0.721	0.265	463.0	14,840	0.0507
Ibis	397.5	0.312	0.363	26	7	0.124	0.0961	0.783	0.288	547.0	16,508	0.0430
Lark	397.5	0.312	0.384	30	7	0.115	0.115	0.806	0.345	623.0	20,287	0.0427
Pelican	477	0.375	0.395	18	1	0.163	0.163	0.814	0.163	518.1	11,788	0.0361
Flicker	477	0.375	0.423	24	7	0.141	0.0941	0.846	0.282	616.3	17,170	0.0362
Hawk	477	0.375	0.436	26	7	0.135	0.105	0.857	0.316	657.4	19,580	0.0357
Hen	477	0.375	0.462	30	7	0.126	0.126	0.883	0.378	747.3	23,772	0.0355
*Heron	500	0.392	0.484	30	7	0.129	0.129	0.904	0.387	780.9	24,450	0.0348
Osprey	556.5	0.437	0.462	18	1	0.176	0.176	0.879	0.176	604.2	13,741	0.0309
Parakeet	556.5	0.437	0.494	24	7	0.152	0.102	0.914	0.304	717.1	19,839	0.0308
Kingbird	636	0.499	0.527	18	1	0.188	0.188	0.94	0.188	690.9	15,714	0.0273
Grosberk	636	0.499	0.581	26	7	0.156	0.122	0.99	0.365	875	25,192	0.0268
Flamingo	666.6	0.524	0.592	24	7	0.167	0.111	0.606	0.333	858.9	23,701	0.0257
Starling	715.5	0.563	0.654	26	7	0.166	0.129	1.051	0.387	984.5	28,362	0.0238
Cuckoo	795	0.625	0.705	24	7	0.182	0.121	1.092	0.364	1026.2	27,886	0.0218
Drake	795	0.625	0.725	26	7	0.175	0.136	1.108	0.408	1094.1	31,656	0.0215
Mallard	795	0.625	0.767	30	19	0.163	0.0976	1.14	0.489	1235.2	40,540	0.0213
Condor	795	0.625	0.705	54	7	0.121	0.121	1.093	0.364	1026.2	28,150	0.0218
Rail	954	0.749	0.801	45	7	0.146	0.0972	1.165	0.291	1075.3	25,950	0.0181
Cardinal	954	0.749	0.846	54	7	0.133	0.133	1.196	0.399	1229.2	35,985	0.018
Ortolan	1033.5	0.812	0.868	45	7	0.152	0.101	1.213	0.303	1165.3	27,727	0.0167
Curiew	1033.5	0.812	0.918	54	7	0.138	0.138	1.246	0.415	1331.3	36,770	0.0166
Bluejay	1113	0.874	0.935	45	7	0.157	0.157	1.258	0.315	1254.7	29,850	0.0155
Finch	1113	0.874	0.984	54	19	0.144	0.0862	1.293	0.431	1430.8	39,123	0.0155
Bittern	1272	0.9998	1.068	45	7	0.138	0.112	1.345	0.336	1434.1	34,100	0.0136
Bobolink	1431	1.124	1.201	45	7	0.178	0.119	1.427	0.357	1612.9	38,351	0.0121
Lapwing	1590	1.249	1.335	45	7	0.188	0.125	1.502	0.376	1792.3	42,110	0.0109
Falcon	1590	1.249	1.407	54	19	0.172	0.103	1.545	0.515	2043.7	54,605	0.0108
*Bluebird	2156	1.693	1.831	84	19	0.16	0.0961	1.762	0.481	2510.8	60,683	0.00799

Data shown is subject to normal manufacturing tolerances. D.C. Resistance is based on 16.946Ω Kcmil/ft(61.2% IACS)@20°C (68°F) for aluminum nominal area of conductor with standing increments ASTM B-231.  
 Bold face code words indicates sizes most often used \*Not specified by ASTM standards.

# Cable Installation

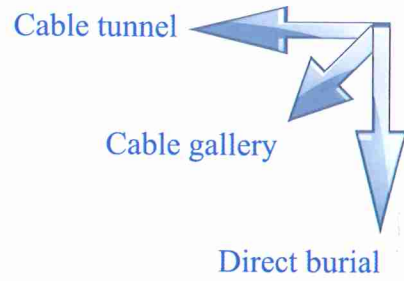


▲ Cable tray laying



▲ Cable pit





▲ Tunnel laying



▲ Cable tube laying

# Cable Fittings

## DTL A1/Cu Cable Lug

**Application:** connect the cable and the copper terminal of electrical equipment.

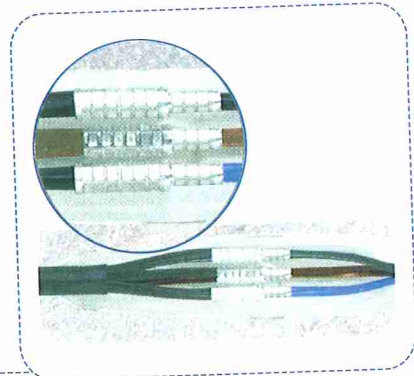
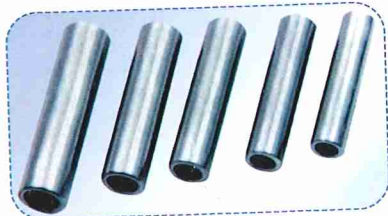
**Feature:** made by friction welding, good conductivity, electro-chemical corrosion resistant, long use-life.



## Joint Tube

**Application:** to connect two aluminum alloy conductors.

**Feature:** tension-free connection between two conductors.



## Puncture Clamp

**Application:** branch single insulated cable.

**Feature:** connect different conductors of different materials.

