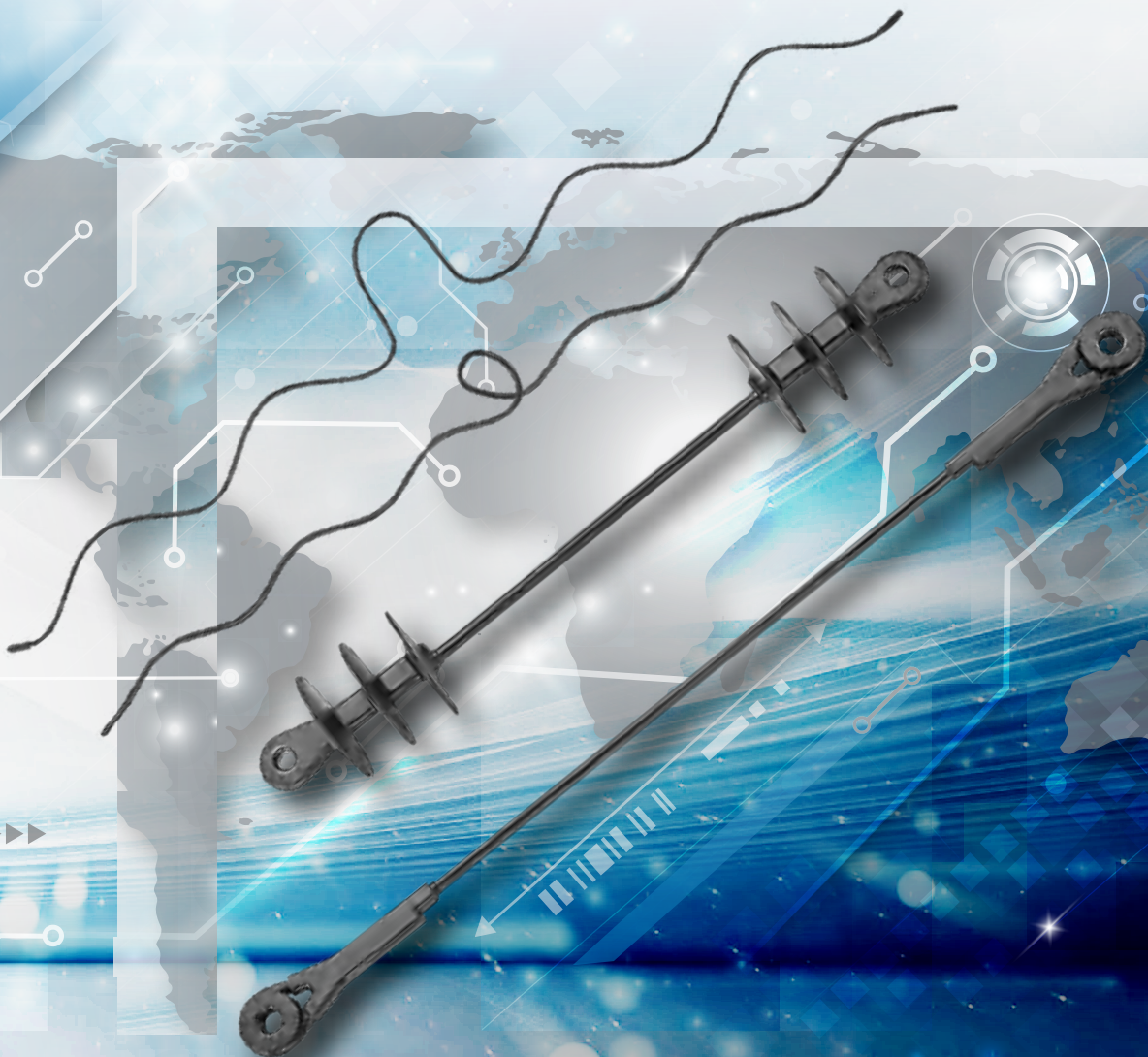


# Overhead Cable Support Safety Device



## APPLICATION

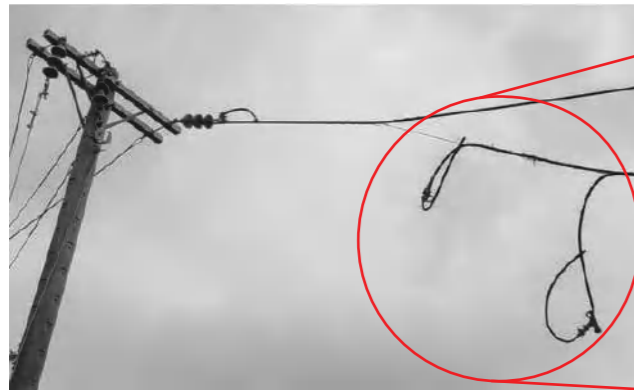
Downed power lines are one of the leading causes of electrical related accidents. Downed lines are common after storms and high winds, which can carry enough force to snap cables out of power poles, leading to power outages and potentially endangering people nearby the downed wires. The Chardon Cable Support Rope is designed to hold overhead power distribution lines from hanging low in the event of line breakage. Chardon also offers the UCSR, an alternative design carrying better technical properties.



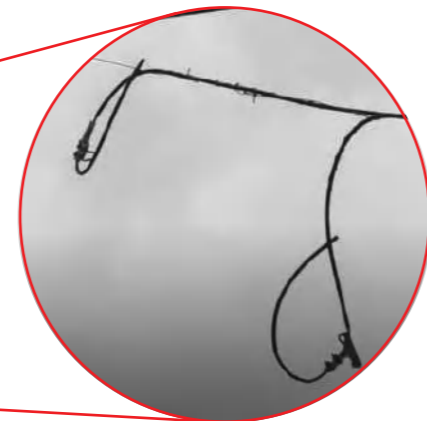
I. Three-phase overhead lines with cable support installed.



II. Chardon Cable Support Rope mounted onto a downed cable.



III. In the rare event that more than one line snaps, the wire grip supports both wires in place.



IV. Wires remain in place and do not slide off toward the floor.

## PRODUCTION TESTS

Tests conducted in accordance with Standards JIS C 3005, JIS K 6911, JEC 0102.

- Voltage Withstand - 65 kV (Wet, 1 min); 75 kV (Dry, 1 min)
- Lightning Impulse Withstand (BIL) - 174 kV
- Failure Load - 3.6 kN
- Size/Distance Between Rope Eyes - 700&1000

## DETAILED COMPOSITION OF THE CHARDON CABLE SUPPORTING ROPE

### Pre-formed Wire Grip

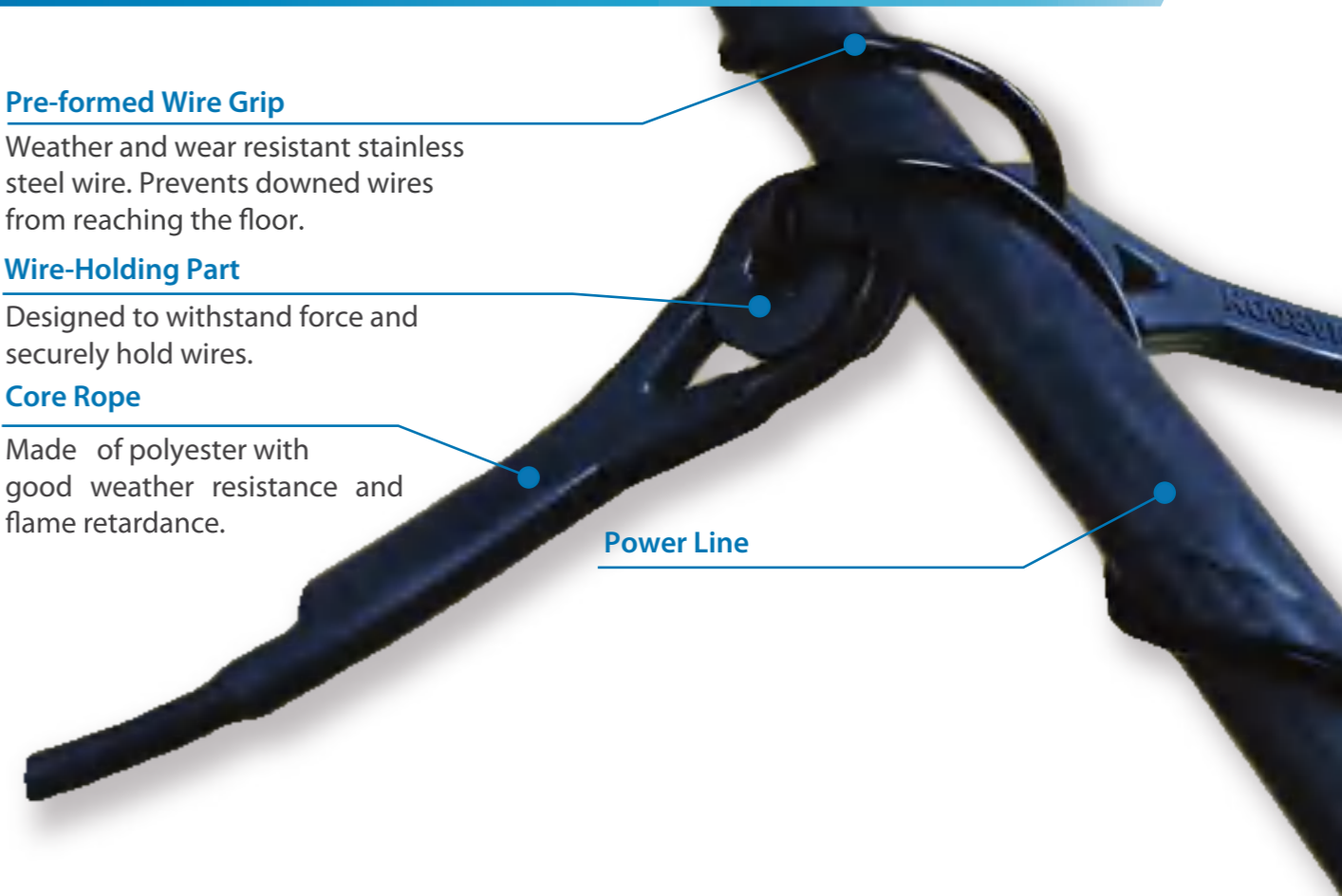
Weather and wear resistant stainless steel wire. Prevents downed wires from reaching the floor.

### Wire-Holding Part

Designed to withstand force and securely hold wires.

### Core Rope

Made of polyester with good weather resistance and flame retardance.



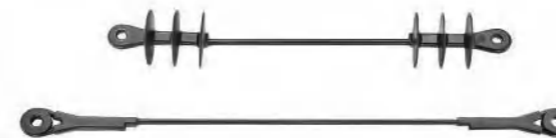
Power Line

### Components of cable support rope

#### Wire Grip



#### Core Rope



# CABLE SUPPORT ROPE TYPES & PERFORMANCE PARAMETERES

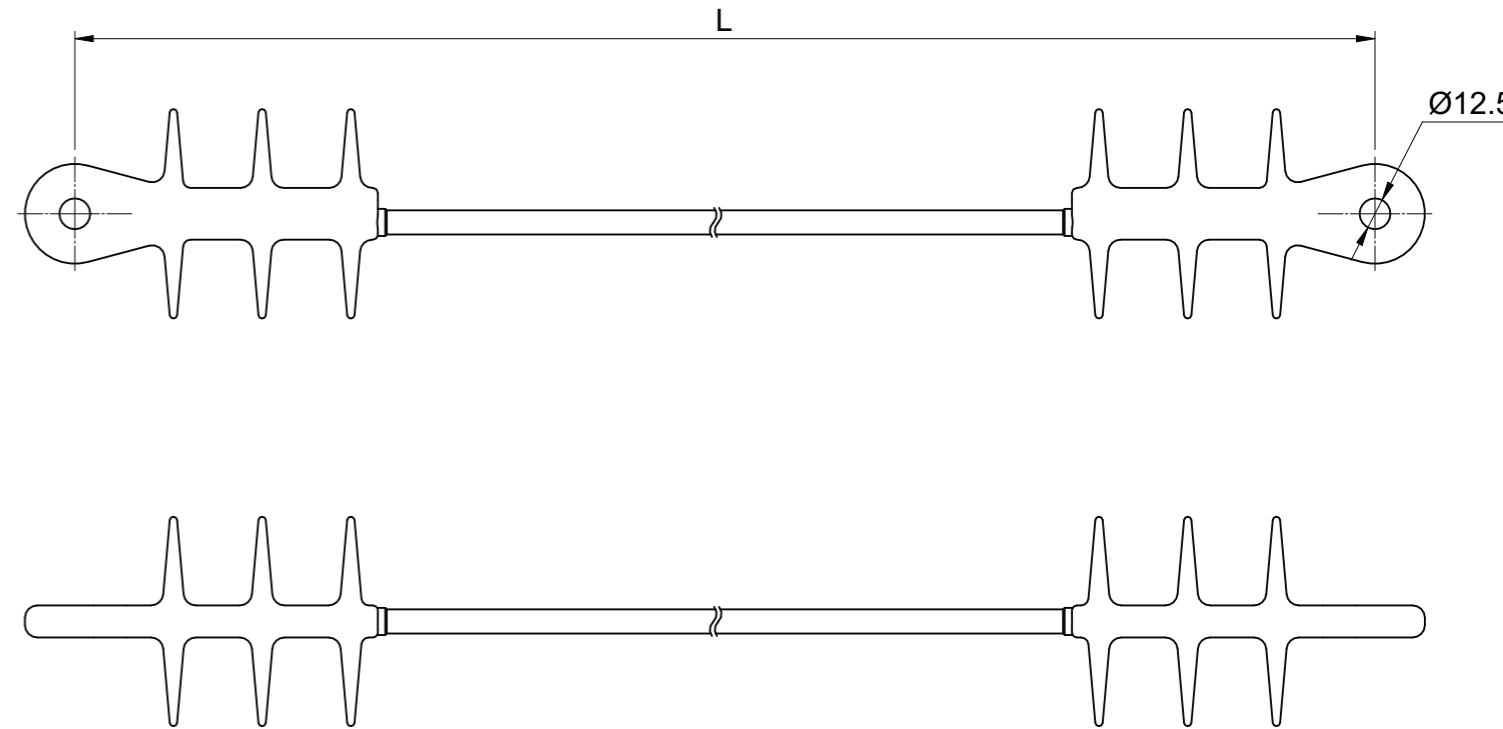
Performance Parameters	UCSR Series	CSR Series
Low Frequency Dry Flashover Voltage	130kV	75kV
Low Frequency Wet Flashover Voltage	100kV	65kV
Front-of-wave Impulse Sparover Voltage	190kV	174kV
Radio Interference Voltage	20kV Max.RIV@1000kHz: 10uV	N/A
Salt Spray Accelerated Aging Test	Compliant with IEEE Std C62.11 salt spray accelerated aging test, MCOV 15.3kV	N/A
Light Exposure and Electrical Stress Accelerated Aging Test	Compliant with IEEE Std C62.11 light exposure and electrical stress accelerated aging test, MCOV 15.3 kV	After 2000 hours of UV light exposure, the product still retains mechanical and electrical integrity
Insulation Test	After the salt water is boiled for 8H, the resistance at both ends reach 2000MΩ under 1000V	
Cable Tensile Strength	600kgf	367 kgf

### Applicable Environment Conditions:

- Temperature: 20-40 °C
- Altitude: no higher than 1000 meters

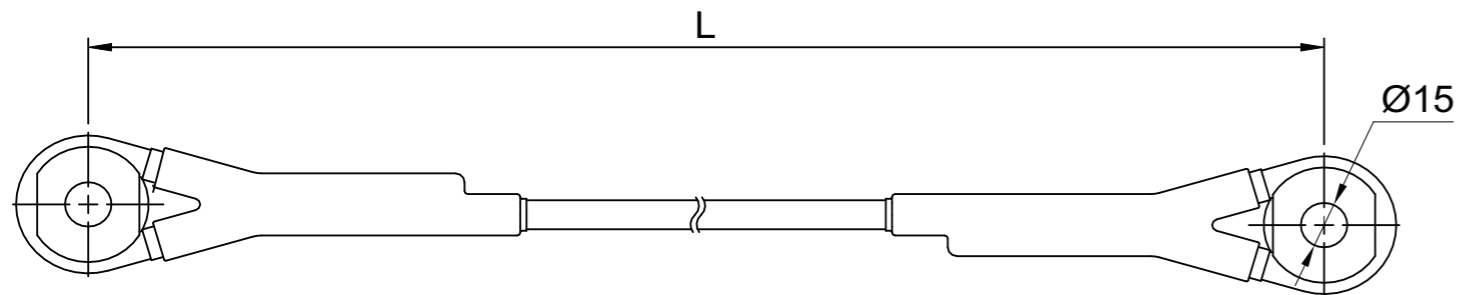
# ORDERING AND DIMENSIONAL INFORMATION

## U-CSR Series



# ORDERING AND DIMENSIONAL INFORMATION

## CSR Series



Chardon Part Number	"L" (mm)
U-CSR-500	520
U-CSR-1100	1120

Chardon Part Number	"L" (mm)
CSR-700	715
CSR-1000	1015

## WIRE GRIP APPLICATION

To prevent downed power lines from touching the ground and endangering nearby structures and pedestrians, the grip component of the supporting rope must have sufficient strength to support the weight of the power lines when it breaks off. With its durable coating, Chardon's Wire Grip is resistant to adverse weather and has been tested to withstand up to 2000 hours of sunshine without negative effects to its pull-off strength.

## PERFORMANCE PARAMETERS

Performance Parameters	CSG-B	CSG-C	U-CSG B	U-CSG C
L(mm)	850	850	820	1200
P(mm)	109	173	132	132
Material	GS	GS	SUS	SUS
Coating	Nylon	Nylon	Nylon	Nylon
Core diameter (mm)	4.2	4.2	5	5
Cable Range (mm)	23.30-25.70	36.65-38.15	14.50-16.50	25.50-27.50
Vertical Load Test(N)	1735	1950	1305	1800
Horizontal Load Test(N)-10mm slide	785	785	985	2942

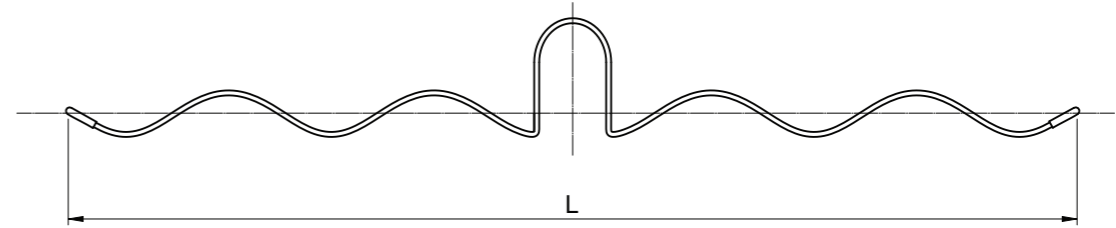
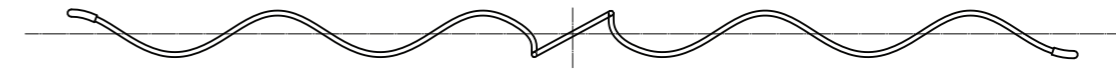
## PRODUCTION TESTS

Tests conducted in accordance with Standards JIS C 3005, JIS K 6911, JEC 0102.

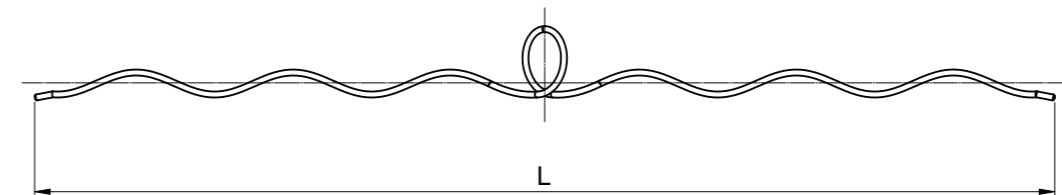
- / Vertical Load Tests
- / Horizontal Load Tests
- / Size Measurement Inspection

## ORDERING AND DIMENSIONAL INFORMATION OF WIRE GRIP

### Wire Grip Series



Chardon Part Number	"L" (mm)	Cable Range (mm)
CSG-B	850	23.30-25.70
CSG-C	850	36.65-38.15



Chardon Part Number	"L" (mm)	Cable Range (mm)
U-CSG B	820	14.5-16.5
U-CSG C	1200	25.5-27.5



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