

# MEDIUM-VOLTAGE POWER CABLES

**UL1072 ICEA S-94-649**  
MV-90 MV-105



Water-tree  
Retardant XLPE



Environment  
protection



UV resistance



Longitudinal  
water blocked

# SPECIFICATION

## REFERENCE

- UL1072 –STANDARD FOR MEDIUM-VOLTAGE POWER CABLES
- ICEA S-94-649–STANDARD FOR CONCENTRIC NEUTRAL CABLES RATED 5 THROUGH 46 KV

## TYPE OF CABLE

- MV-90、 MV-05

## VOLTAGE

- 5KV、 8KV、 15KV、 25KV、 28KV、 35KV

## CONDUCTOR MATERIAL

- COPPER、 ALUMINUM

## INSULATION MATERIAL

- XLPE、 TR-XLPE

## INSULATION LEVEL

- 100%、 133%

## CONCENTRIC NEUTRAL CONDUCTOR

- 1、 1/3、 1/6、 1/9、 1/12、 etc

## SHEATH MATERIAL

- LLDPE FOR MV-90、 XLPE FOR MV-105

## NORMAL MAXIMUM OPERATING TEMPERATURE

- 90°C FOR MV-90、 105°C FOR MV-105

## OPTIONAL

### LONGITUDINAL WATER PENETRATION RESISTANCE

#### CENTRAL CONDUCTOR

The interstices between the strands shall be filled with a conductive material to prevent the longitudinal migration of moisture. The material shall be compatible with the central conductor and conductor shield materials.it shall be according to ICEA T-31-610 –test method for conducting longitudinal water penetration resistance tests on blocked conductors.

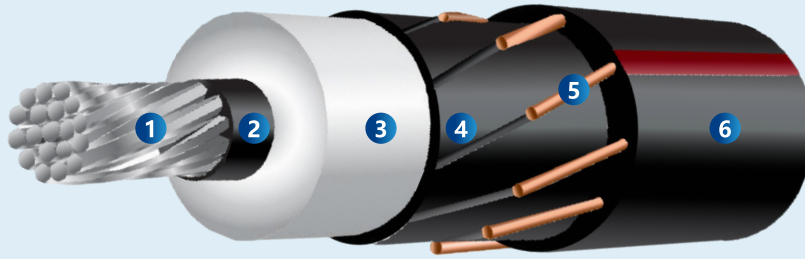
#### CONCENTRIC NEUTRAL CONDUCTOR

The cable shall contain water-blocking components for concentric neutral,and the completed cable longitudinal water penetration resistance shall comply with The requirements (5psig) of ICEA S-94-649 .it shall be according to ICEA T-34-664 –test method for conducting longitudinal water penetration resistance tests on longitudinal water blocked cable.

## FACTORIES IN THREE LOCATIONS



## CABLE CONSTRUCTION :



### 1 CENTRAL CONDUCTOR

Concentric-lay copper or aluminum 1350, strand class b compressed or compact concentric stranded.

### 2 CONDUCTOR SHIELD

Extruded semiconducting thermo-setting material extruded over the stranded conductor, in accordance with ICEA S-94-649.

### 3 INSULATION

A layer of tree-retardant cross-linked polyethylene (TR-XLPE) is extruded over the conductor shield, nominal insulation thickness in accordance with ICEA S 94-649.

### 4 INSULATION SHIELD

Extruded semiconducting thermo-setting material in accordance with ICEA S-94-649. the insulation shield contact surface protrusions and removability shall be in accordance with ICEA S-94-649. The minimum and maximum diameters over the insulation shield shall be in accordance with ICEA S-94-649.

### 5 CONCENTRIC NEUTRAL CONDUCTOR

The concentric neutral conductor shall consist of bare annealed copper wire per ICEA S-94-649, applied helically over the outer semi-conducting shield with a lay of not less than 6, nor more than 10 times the diameter over the concentric neutral conductor, The neutral indents in the insulation shield shall be within the requirements of ICEA S-94-649.

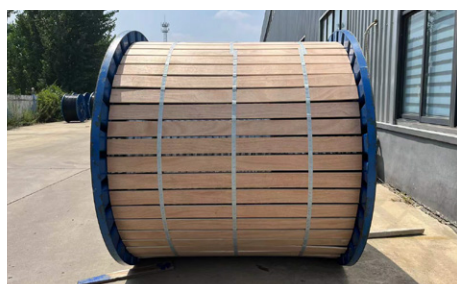
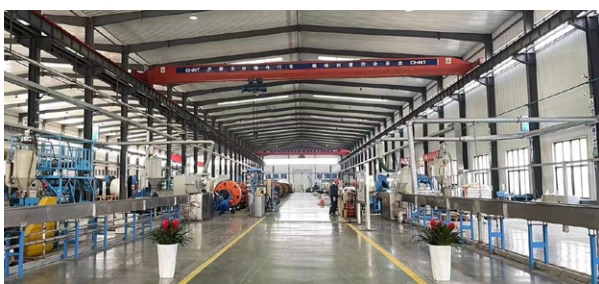
### 6 JACKET

Black with three red strips spaced 120° apart around the cable center, shall be extruded longitudinally on the jacket surface, the jacket shall cover the concentric neutral wires and fill the spaces between the wires. The jacket shall be in contact with the insulation shield, but shall strip freely from the shield and from the wires. non-conducting, sunlight-resistant, jacket thickness shall be in accordance with ICEA S-94-649.

## TESTS

Production tests shall be performed in accordance with UL1072 and ICEA S-94-649.

## WORKSHOP & PACKAGE



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