



# MVJ 350UD & 350T UDJ series

**35 kV MEDIUM VOLTAGE URD JOINT**  
For single-core 35 kV, extruded dielectric bare  
and jacketed concentric neutral power cables

## Description

The Innovative Power Products, Inc. MVJ 350UD and MVJ 350T UDJ series joints are heatshrinkable systems for splicing bare or jacketed concentric neutral 35 kV extruded dielectric, power cable. It uses special materials to control electrical stress at the connector and shield cutbacks and provides internal moisture seals. A heatshrinkable field control tubing controls stress over the connector and shield cutbacks. Insulating tubings reinstate the cable insulation across the joint and shielding tubing reshields the joint and forms a moisture seal to the cable semiconductive layer. A stainless steel constant force spring clamps the neutral wires to the joint. For jacketed concentric neutral cable, a tough abrasion resistant black jacketing tube or wraparound sleeve provides the joint with external moisture seals and mechanical protection.

MVJ 350UD and 350T UDJ kits provide a lightweight, compact and environmentally sealed system for splicing bare or jacketed concentric neutral cable. These features allow the installation of this jointing system in duct systems, vaults, submersible or direct-buried applications. This joint is ideal for almost any non-tension application. The system is totally sealed. Joint failures in flooded vaults are eliminated.

## Versatility

MVJ 350UD and 350T UDJ kits cover a wide range of conductor sizes. They accommodate out-of-round or off-tolerance cables. The MVJ 350UD and 350T UDJ kits can be used for size transitions within the actual kit's cable use range. Three (3) kit sizes cover all cable sizes from 1/0 AWG through 1000 kcmil. When preparing the cable ends, pencilling is not required.

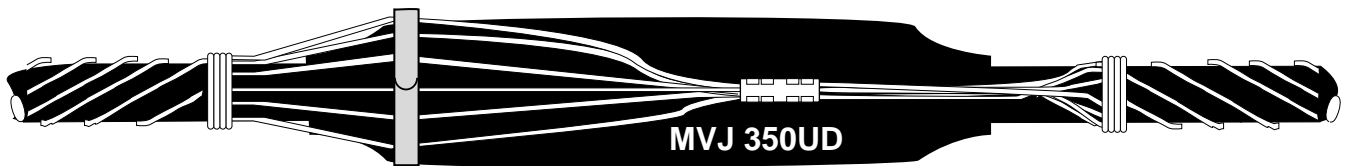
## Performance

MVJ kits are factory engineered to provide fast and easy installation with reliable lifetime performance. MVJ 350UD and 350T UDJ joints' performance is based on the design and testing of the MVJ 350 series joint for metallic tape and wire shielded power cables.

MVJ kits are designed to meet or exceed the requirements of the applicable sections of the following cable/cable accessory standard IEEE-404.

## Related Product Information

MVJ 350UD & MVJ 350T UDJ series: • Price List PL-657



## Convenient Packaging

MVJ 350UD and MVJ 350UDJ factory engineered kits are individually packaged single-core cable joints. Everything is included to splice one single-core cable *less* the butt-splice connector. Connectors can be supplied in the kits; subject to factory quote. See section 5 for connector information.

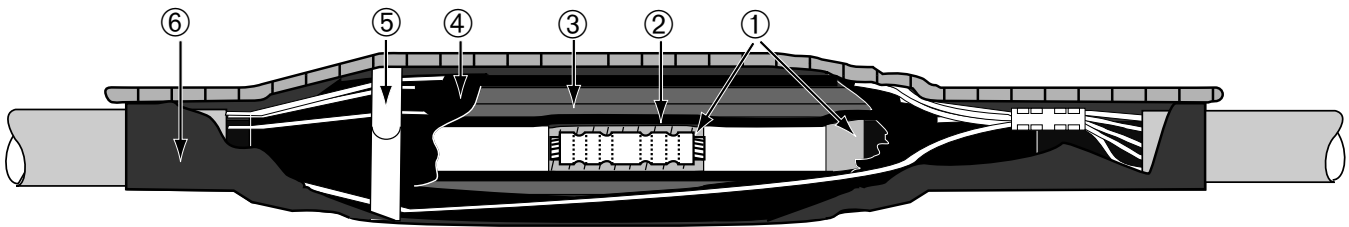
9 M.V. Cable Acc. 35 kV

## ELECTRICAL SPECIFICATIONS: 35 kV Rated Accessories

Test Requirement	Value	MVJ 350UD(J)
AC withstand, 1 minute (60 hz)	69 kV	PASS
DC withstand, 15 minutes	125 kV	PASS
Partial Discharge (Corona) Voltage <3pC	30.3 kV	> 30.3 kV
Impulse withstand 1.2 x 50 μs (crest kV)	200 kV	> 200 kV
AC withstand, 1 hour (60 hz)	103.5 kV	PASS
AC withstand, 5 hours (60 hz)	69 kV	PASS
Continuous current rating	= cable	= cable
Cyclical submersion test (ANSI C119.2)	Pass 52 cycles	Passed 52 cycles

## BILL OF MATERIALS (Std. Pkg: 1 kit = 1 each, 1/C joint)

Key	Item Description	Quantity	Supplied	Key	Item Description	Quantity	Supplied
①	Field Control Material	as required	in all kits	⑤	Spring Clamp, S.S.	1 per kit	in all kits
②	Field Control Tube	1 per kit	in all kits	⑥	Black jacketing tube	1 per kit	in all UDJ kits
③	Insulating Tubes	as required	in all kits	•	Cable cleaning kit	1 per kit	Pmod (if spec'd)
④	Shielding Tube	1 per kit	in all kits	•	Installation Guide	1 per kit	in all kits
Wraparound sleeve - Contact IPP							



## 35 kV SELECTION GUIDE

Conductor Range <i>All dimensions in inches</i>	Kit Catalog Number	Insulation Dia. min. max.	Jacket Dia. max.	Connector Dimensions Length / O.D. max.	Joint installed Length max.
<b>Bare Concentric Neutral Cable Joint</b>					
1-3/0 AWG	MVJ 351UD	0.98 1.35	NA	3.75 1.00	22.0
4/0-500 kcmil	MVJ 352UD	1.25 1.65	NA	5.50 1.50	25.0
600-1000 kcmil	MVJ 353UD	1.60 2.25	NA	8.00 1.88	27.0
<b>Jacketed Concentric Neutral Cable Joint</b>					
1-3/0 AWG	MVJ 351T UDJ	0.98 1.35	1.55	3.75 1.00	36.0
4/0-500 kcmil	MVJ 352T UDJ	1.25 1.65	1.69	5.50 1.50	40.0
600-1000 kcmil	MVJ 353T UDJ	1.60 2.25	2.18	8.00 1.88	45.0

## ORDERING INFORMATION

- Find your cable size in the selection guide above and identify the kit catalog number. This kit will be all that is needed to splice one single-core cable, *less* the butt-splice connector and shield grounding hardware  
**Confirm dimensions at extremes of the size range.**

- Add the *mod kit* letter designation as needed to change the base kit :

**P**- cable cleaning kit including; solvent saturated towels and non-conductive abrasive cloth (Pmod2).

### EXAMPLES:

1/C, 2/0 AWG, 35 kV bare concentric neutral cable spliced to the same cable with a cable cleaning kit: **MVJ 351UDP**

1/C, 750 kcmil, 35 kV jacketed concentric neutral (JCN) cable spliced to the same cable: **MVJ 353T UDJ**

*When detailed information is supplied, connectors can be supplied. Refer to Section 5. for connector selection. They are ordered separately, but can be packaged in the kits.*