

# Medium & High Voltage (12 - 36kV) XLPE to PILC Transition Joints

**JOINTMASTER** - Melcon heat shrink transition joint kits are designed for use on 3 core and single core PILC [belted or screened] to XLPE medium voltage cables up to 36kV

These transition joints utilise unique dual wall insulating / semiconductive and stress control thick wall heat shrink tubing to eliminate the craft sensitive taping procedures.

## *Test requirements for PILC and XLPE cable joints - In accordance with CENELEC HD629.1 S1*

TEST no	REQUIREMENT	12kV	24kV	36kV
1	(a) Rated withstand voltage AC - Dry (b) Rated withstand voltage AC - Dry (c) Rated withstand voltage AC - Wet	28,5kV - 5 min 16kV - 15 min 25,5kV - 1 min	57kV - 5 min 32kV - 15 min 51kV - 1 min	85,5kV - 5 min 47,5kV - 15 min 76kV - 1 min
2	D.C. Voltage withstand - Dry	38kV - 15 min	76kV - 15min	114kV - 15 min
3	Rated impulse Voltage 10 pos & 10 neg	95kV	125kV	195kV
4	Partial discharge (N/A to PILC)	<5pC @ 12kV	<5pC @ 12kV	<5pC @ 12kV
5	Load cycling @ max cable temp (a) In air 3 cycles (b) In air 123 cycles (c) In air 113 cycles (d) In air 60 cycles (e) In 1 mtr Water 63 cycles (f) Immersion in water 10 cycles	16kV	32kV	47,5kV
6	Humidity test (a) 300hr @spray rate 0.3dm <sup>3</sup> /m <sup>3</sup> Salt Fog test (b) 1000hr @spray rate 0.3dm <sup>3</sup> /m <sup>3</sup>	8kV	16kV	24kV
7	Impact test @ ambient temp	> 1000 M ohm	> 1000 M ohm	> 1000 M ohm
8	Impact test @ low temp -20°C for 2hr	> 1000 M ohm	> 1000 M ohm	> 1000 M ohm

Test Sequence:	Test Number
Indoor Terminations	2, 1(a), 4, 3, 5(a), 4, 5(b), 4, 3, 1(b), 6(a)
Outdoor Terminations	2, 1(a), 1(c), 4, 3, 5(a), 4, 5(c), 5(f), 4, 3, 1(b), 6(b)
Joints	2, 1(a), 4, 7, 3, 5(a), 4, 5(d), 5(e), 4, 3, 1(b), 8

*Setting the Standards in Cable Joining*