

Minimum performance for Raychem terminations for 3-core plastic and rubber insulated cables up to 36 kV

Test Sequence		Test Voltage					Result
		Highest Voltage for Cable U_m [kV]					
		7.2	12	17.5	24	36	
A.C. Voltage Withstand	1 min	27	35	45	55	75	no breakdown and no flashover
Partial Discharge		4.5 7.2	7.5 12	10.9 17.5	15 24	22.5 36	$\leq 3pC$ $\leq 20pC$
Impulse Voltage Withstand	10 positive and 10 negative, 1.2/50 μ S, between each conductor and the grounded screen	indoor: 60 outdoor: 70	75 95	95 110	125 150	170 200	no breakdown and no flashover
Load Cycling	63 cycles 5h heating, 3h cooling Conductor temperature: PE, PVC cables: 75°C XPE cables: 95°C	9	15	22	30	45	no breakdown and no flashover
Partial Discharge		4.5 7.2	7.5 12	10.9 17.5	15 24	22.5 36	$\leq 3pC$ $\leq 20pC$
Thermal Short Circuit	1s symmetrical fault with conductor temperature as for cable specification 1s earth fault with screen or armour temperature as for cable specification						no visible signs of damage
Load Cycling	repeat	9	15	22	30	45	no breakdown and no flashover
Partial Discharge		4.5 7.2	7.5 12	10.9 17.5	15 24	22.5 36	$\leq 3pC$ $\leq 20pC$
A.C. Voltage Withstand	4h	14	24	36	48	72	no breakdown and no flashover
Impulse Voltage Withstand	repeat	indoor: 60 outdoor: 70	75 95	95 110	125 150	170 200	no breakdown and no flashover
D.C. Voltage Withstand	30 min	28	48	72	96	144	no breakdown and no flashover
Humidity indoor terminations	conductivity 800 μ S/cm, 100h spray rate: 0.4 /m ³ /hr	4.5	7.5	10.9	15	22.5	no breakdown, no flashover no visible tracking and no erosion
Dynamic Short Circuit	63 kA						No visible signs of damage
Salt-fog outdoor terminations	224 kg/m ³	4.5	7.5	10.9	15	22.5	no flashover

Notes:

1. U_m is the highest phase to phase voltage
All other voltages are stated as phase to ground values.

2. Further details are given in Raychem specification PPS 3013.

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