

BREAK DOWN VOLTAGE FOR ENAMELLED ROUND ALUMINIUM WINDING WIRES (BASIS :IS 13730-0-3 and IS 13778 – 5)

Nominal Conductor Diameter		Test Specimen Configuration	Test specimen Preparation		Break down voltage		
					Volts (min.)		
(mm)	SWG		Force (N)	Twists per 125 mm	Grade 1 Grade 1B	Grade 2 Grade 2B	Grade 3
0,250		Twisted pair	0.85	33	2100	3900	5500
0,280			1.7	23	2200	4000	5800
0,315			1.7	23	2200	4100	6100
0,355			1.7	23	2300	4300	6400
0,400			3.4	16	2300	4400	6600
0,450			3.4	16	2300	4400	6800
0,500			3.4	16	2400	4600	7000
0,560			7	12	2500	4600	7100
0,630			7	12	2600	4800	7100
0,710			7	12	2600	4800	7200
0,800			13.5	8	2600	4900	7400
0,900			13.5	8	2700	5000	7600
1			13.5	8	2700	5000	7600
1.06			13.5	8	2700	5000	7600
1.4			27	6	2700	5000	7600
2			54	4	2700	5000	7600
2,500		108	3	2700	5000	7600	
Over 2,500		Shot ball			1300	2500	3800

Notes :

1) For intermediate nominal conductor diameter, break down voltage value for next largest nominal conductor diameter shall be taken.

2) 1N = 0.102 kg