

Pirelli Ampacity and Metric Conversion Table

When the R.M.S. value has been calculated, the conversion table ampacity table can be used to select the correct conductor size at a conductor temperature of 90C. However, it should be noted that 90C PROTOLON-EP insulated cables may be operated at an emergency overload temperature of 130C for a maximum of 100 hours per year and a total maximum of 500 hours in the life of the cable. (ICEA S-68-516, NEMA WC8, Appendix D)

The Ampacities presented in the following tables are extracted from West German VDE Standards. Ampacities in the tables are based on an ambient temperature of 30C and multi-conductor cables with three loaded conductors in free air. These ampacities allow for a final conductor temperature of 90C for PROTOLON EP insulated cables and 70C for PROTODUR PVC insulated cables.

These ampacity and rating tables are not intended to supersede other ampacity tables such as NEC or ICEA. However, they are intended to provide a comprehensive means of conductor size selection and verification of metric cross-reference.

Ampacity for PROTOLON EP insulated cables (up to 5kV)	Ampacity for PROTOLON EP insulated cables (over to 5kV)	Ampacity for PROTODUR PVC insulated cables Including SPREADERFLEX	AWG Or MCM	Circular Mills	Cross Sectional area mm ²	Metric Conductor Size	Ampacity for PROTOLON EP insulated cables (up to 5kV)	Ampacity for PROTOLON EP insulated cables (over to 5kV)	Ampacity for PROTODUR PVC insulated cables Including SPREADERFLEX
11A		10A	20 AWG	987	0.50	0.5	10A		8A
				1,020	0.52				
17A		13A	18	1,480	0.75	0.75	15A		12A
				1,620	0.82				
22A		17A	16	1,970	1.00	1.0	19A		15A
				2,580	1.31				
29A		22A	14	2,960	1.50	1.5	24A		18A
				4,110	2.08				
39A		30A	12	4,930	2.50	2.5	32A		26A
				6,530	3.31				
51A		41A	10	7,890	4.00	4.0	43A		34A
				10,380	5.26				
70A		56A	8	11,800	6.00	6.0	56A		44A
				16,510	8.37				
92A	97A	74A	6	19,700	10.00	10	78A		61A
				26,240	13.30				
123A	130A	97A	4	31,600	16.00	16	104A	110A	82A
				41,740	21.15				
165A	174A	132A	2	49,300	25.00	25	138A	146A	108A
				66,360	33.63				
188A	199A	150A	1	69,100	35.00	35	171A	181A	135A
				83,690	42.41				
221A	234A	176A	1/0	98,700	50.00	50	213A	226A	168A
256A	271A	202A	2/0	105,600	53.48				
				133,100	67.43				
296A	314A	234A	3/0	138,000	70.00	70	263A	279A	207A
				167,800	85.03				
342A	362A	266A	4/0	187,000	95.00	95	317A	336A	250A
				211,600	107.20				
372A	393A	301A	250 MCM	237,000	120.00	120	370A	391A	292A
				250,000	126.64				
428A	453A	338A	300	296,000	150.00	150	425A	450A	335A
471A	499A	370A	350	300,000	152.00				
				350,000	177.35				
514A	544A	404A	400	365,000	185.00	185	485A	514A	382A
				400,000	202.71				
595A	630A	475A	500	474,000	240.00	240	576A	610A	453A
				500,000	253.35				
672A	711A	510A	600	592,000	300.00	300	666A	705A	504A
765A	810A	---	750	600,000	303.96				
				750,000	379.95				
				789,000	400.00	400	795A	830A	
				987,000	500.00	500	910A	950A	
920A	970A	---	1000	1,000,000	506.60				