SHORT CICRCUIT CURRENT FOR XLPE AND PVC INSULATED CABLES

VOLTAGE 450/750V AND 600/1000V

COPPER CONDUCTOR	MAX.CONDUCTOR RESISTANCE AT 20°C	SHORT CIRCUIT CURRENT RATING AT 1 SECOND	
SIZE		XLPE CABLE	PVC CABLE
(mm²)	ohm/km	KA	KA
1.5	12.1	0.215	0.173
2.5	7.41	0.358	0.288
4	4.61	0.572	0.46
6	3.08	0.858	0.69
10	1.83	1.43	1.15
16	1.15	2.288	1.84
25	0.727	3.575	2.875
35	0.524	5.005	4.025
50	0.387	7.15	5.75
70	0.268	10.01	8.05
95	0.193	13.585	10.925
120	0.153	17.16	13.8
150	0.124	21.45	17.25
185	0.0991	26.455	21.275
240	0.0754	34.32	27.6
300	0.0601	42.9	34.5
400	0.047	57.2	41.2
500	0.0366	71.5	51.5
630	0.0283	90.09	64.89
800	0.0221	114.4	82.4
1000	0.0176	143	103

NOTE :

XLPE Cable $I = \frac{0.143\ A}{\sqrt{t}}$

PVC Cable $I = \frac{0.115\ A}{\sqrt{t}}$ For A equal and less than 300 mm²

$I = \frac{0.103\ A}{\sqrt{t}}$ For A greater than 400 mm²

I : SHORT CICUIT CURRENT in KA

A : CONDUCTOR CROSS-SECTION AREA in mm²

t : TIME OF SHORT CIRCUIT in second