

Abstract 11  $\mathbf{i} \mathbf{t} \cdot \mathbf{T} = I^2 t$ , **√\_у**\_ 1 1\_1**\_t**. Lt 1 t. ŧ t 👎 ( it t. न निन . . 1 , 1 t (\*), (\* t . 1 1 1 1.1 tr t ŧ -y i 11 1 T. 1 ₹ţŤ t .Т. ٩t t t. , t t ţĨ tyT V  $I^2 t$  $k^2$ , T \_yt 1 i Ŷt 1 11 t t 11 t Т 3003.2 tt I t. r t L L II \_ t 11. . . . . 4 t. Ltr t triti



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3 B . B @ 3	•प्प <sup>7</sup> ∎	ΓV	10 Ar	●⋧⋒₽●∜	Г	, *⊪ *7 <sub>∎</sub> ⊪
Υ 🔒	••		• • • • • • • • • • • • • • • • • • •		•	• <b>€</b> ₽ <sup>7</sup>

$I_G(\Lambda)$	$t_f(s)$	$I_G^{-2}t(\Lambda^2 s)$	S <sub>30</sub> →S <sub>30 trade size</sub> (mm <sup>2</sup> )	S90→S90 trade size (nm <sup>2</sup> )
T	2	3	4	s
20	991	3.96.105	3.59→4	4.43→6
30	193	1.74105	2.37→2.5	2.94→4
40	53	8.48·10 <sup>4</sup>	1.66→2.5	2.05→2.5
50	21.6	5.40·10 <sup>4</sup>	1.32→1.5	1.64→2.5
60	20.8	7.49·10 <sup>4</sup>	1.56→2.5	1.93→2.5
100	5.4	5.40·10 <sup>4</sup>	1.32→1.5	1.64→2.5
200	1.73	6.92.104	1.50→1.5	1.85→2.5
<b>400</b> 00	0 37	9 25 10	$1 \cap 1 \rightarrow 1.5$ $1 7 \rightarrow 2.5$	1 90 <u>2 5</u> 2 14→2 5
600	0.2	8 2 <b>8</b> 10 <sup>4</sup>	1 64→ 5	2 03→2 5
700	0.18	8 82 10 <sup>4</sup>	$1.6^{c} \rightarrow 2.5$	2 09→2 5
00	(-13	8.3 10	1.64 →2.5	03 →2 5
1000	0.014	$1.40 \ 10^4$	0.67→1.5	$0  3 \rightarrow 1  5$





Cable insulation	$- \theta_{\theta}(^{\circ}\mathbb{C})$	$\theta_M(^{\circ}C)$
70°C Polyvinyl chloride (PVC)	60	200
90°C Polyvinyl chloride (PVC)	80	200
Cross-linked polyethylene (XLPE)	80	200
60 °C Ethylene propylene rubber (EPR)	55	200
85 °C Ethylene propylene rubber (EPR)	75	220
Mineral PVC covered	70	200
Mineral bare sheath	105	250





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 $\label{eq:product} \Gamma_{ff} \bullet \bullet^{1}_{h} {}^{h} {}^{p} {}^{\mu} {}^{\nu} , \quad h^{h} {}^{\mu} {}^{\nu} {}^{\nu} , \quad | \ 1 \bullet h \cdot {}^{\mu} {}^{\mu} {}^{\mu} {}^{\mu} {}^{\mu} {}^{\mu} , \quad | \ h^{h} {}^{\mu} {}^{\mu} {}^{\mu} {}^{\mu} {}^{\mu} , \quad | \ h^{h} {}^{\mu} {}^{\mu} {}^{\mu} {}^{\mu} {}^{\mu} , \quad | \ h^{h} {}^{\mu} {}^{\mu$ 

•	¶″ <mark>`</mark> . ≜	e D <sup>9</sup> F	₩ ¥ B ● 4 K	
$I_G(\Delta)$	$t_f(s)$	$I_G^2 t(\Lambda^2 s)$	$\begin{array}{c} S_{30} \rightarrow S_{30 \text{ trade size}} \\ (\text{num}^2) \end{array}$	S90→S90 trade size (mm <sup>2</sup> )
1	2	3	4	5
20	991	3.96-10 <sup>5</sup>	3.59→4	4.43→6
30	193	1.74105	2.37→2.5	2.94→4
40	53	8.48·10 <sup>4</sup>	1.66→2.5	2.05→2.5
50	21.6	$-5.40 \cdot 10^4$	1.32→1.5	1.64→2.5
60	20.8	7.49·10 <sup>4</sup>	1.56→2.5	1.93→2.5
100	5.4	5.40·10 <sup>4</sup>	1.32→1.5	1.64→2.5
200	1.73	$-6.92 \cdot 10^4$	1.50→1.5	1.85→2.5
400	0.5	8.00.104	1.61→2.5	1.99→2.5
500	0.37	9.25·10 <sup>4</sup>	1.73→2.5	2.14→2.5
600	0.23	8.28·10 <sup>4</sup>	1.64 →2.5	2.03 →2.5
700	0.18	8.82·10 <sup>4</sup>	1.69→2.5	2.09→2.5
800	0.13	8.32-104	1.64→2.5	2.03→2.5
1000	0.014	$1.40 \cdot 10^4$	0.67→1.5	0.83→1.5

<sup>χ</sup>ο μ<sup>2</sup> ο <sup>2</sup> ο



- Short-Circuit Temperature Limits of Electric Cables With Rated Voltages of 1 kV (Um = 1.2 kV) and 3 kV (Um = 3.6 kV)  $\mu$  s. 12
- Short-Circuit Temperature Limits of Electric Cables With Rated Voltages From 6 kV (Um = 7.2 kV) up to 30 kV (Um = 36