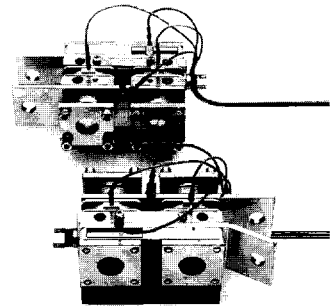


Antiparallel Thyristors with Non-Isolated Water Flow

SKW 1450
SKW 1700



V_{DRM} V_{RSM} V_{RRM} V	$I_{RMS}^{1)}$ ($V_{olw} = 4\text{l/min}$, $T_w = 40^\circ\text{C}$, $ED = 50\%$, $n = 10$) 2150 A	2400 A
1200	SKW 1450/12	SKW 1700/12
1400	SKW 1450/14	SKW 1700/14
1600	SKW 1450/16	SKW 1700/16

Symbol	Conditions	SKW 1450	SKW 1700
$I_{RMS}^{1)}$	$V_{olw} = 4\text{l/min}$, $T_w = 40^\circ\text{C}$, $ED = 100\%$	1450 A	1700 A
I_{TSM}	$T_{vj} = 40^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$	11000 A 10000 A	15000 A 13000 A
i^2t	$T_{vj} = 40^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$	660000 A^2s 500000 A^2s	1125000 A^2s 845000 A^2s
$(di/dt)_{cr}$ $(dv/dt)_{cr}$	$f = 50 \dots 60\text{ Hz}$ $T_{vj} = 125^\circ\text{C}$	100 A/ μs 500 V/ μs	
t_q	$T_{vj} = 125^\circ\text{C}$; typ.	200 μs	
I_H	$T_{vj} = 25^\circ\text{C}$	300 mA	
I_L	$T_{vj} = 25^\circ\text{C}$; $R_G = 33\Omega$	1500 mA	
V_T	$T_{vj} = 25^\circ\text{C}$; ($I_T = \dots$); max.	1,75 V (2400 A)	1,75 V (2400 A)
$V_{T(TO)}$	$T_{vj} = 125^\circ\text{C}$	0,9 V	0,92 V
r_T	$T_{vj} = 125^\circ\text{C}$	0,3 m Ω	0,3 m Ω
V_{GT}	$T_{vj} = 25^\circ\text{C}$	3,5 V	
I_{GT}	$T_{vj} = 25^\circ\text{C}$	200 mA	
V_{GD}	$T_{vj} = 125^\circ\text{C}$	0,25 V	
I_{GD}	$T_{vj} = 125^\circ\text{C}$	10 mA	
R_{thjw}	$V_{olw} = 4\text{l/min}$	0,10 $^\circ\text{C/W}$	0,074 $^\circ\text{C/W}$
T_{vj}	max.	125 $^\circ\text{C}$	125 $^\circ\text{C}$
T_{stg}	min. ... max.	5 ... 85 $^\circ\text{C}$	5 ... 85 $^\circ\text{C}$
p_w	max.	10 bar	10 bar
w		2,25 kg	2,8 kg
Case	→ page B 5 – 15	C 5	C 6

¹⁾ For $V_{olw} = 2\text{l/min}$ and $T_w = 30^\circ\text{C}$ the same I_{RMS} values apply

Features

- Compact units containing two high current thyristors with their cooling capsules

Typical Applications

- Large resistance welding equipment
- Large electroplating equipment

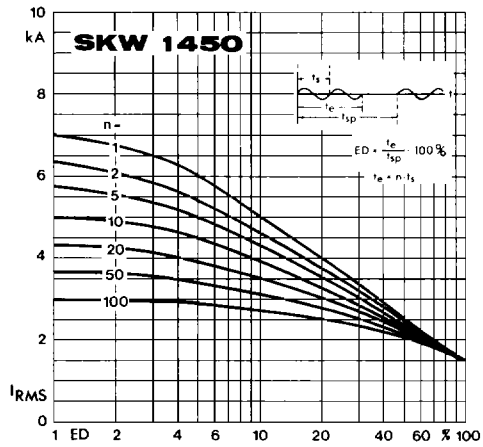


Fig. 1 a Rated rms current vs. duty cycle

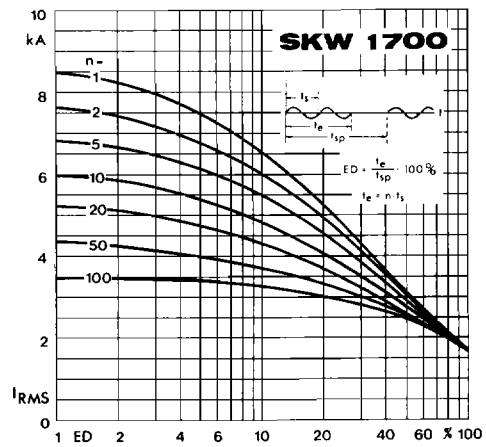


Fig. 1 b Rated rms current vs. duty cycle

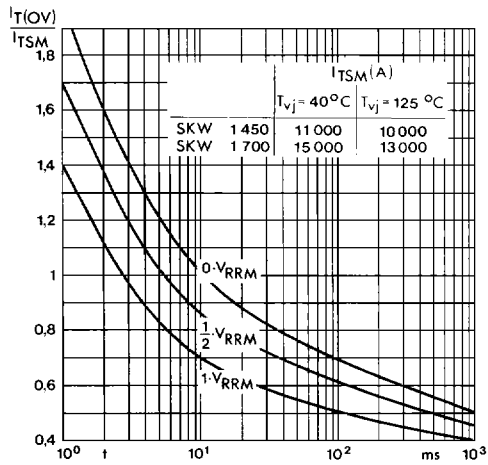


Fig. 2 Surge overload current vs. time

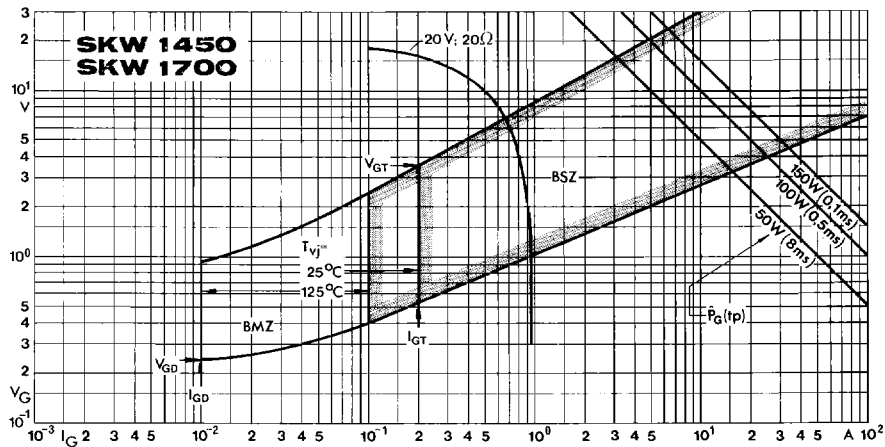
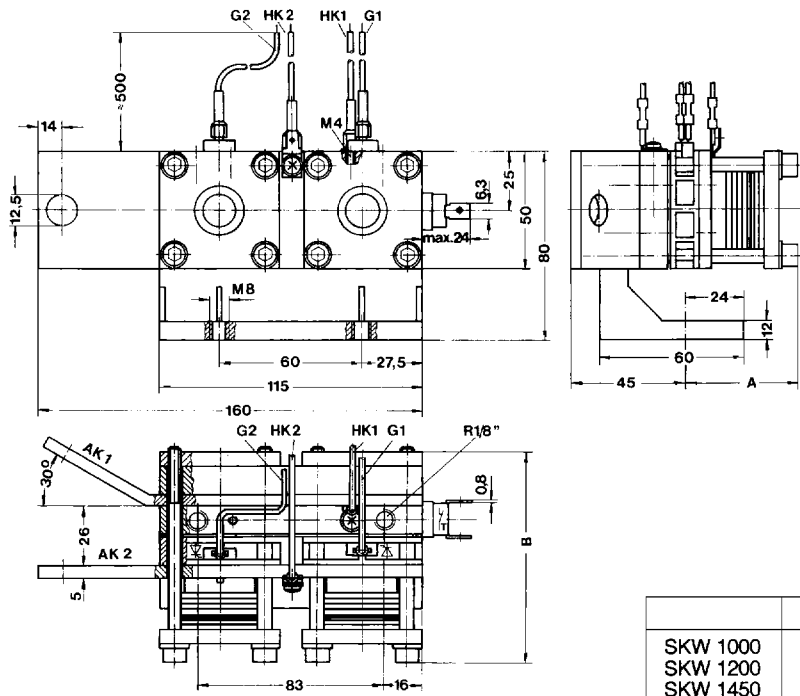


Fig. 8 Gate trigger characteristics

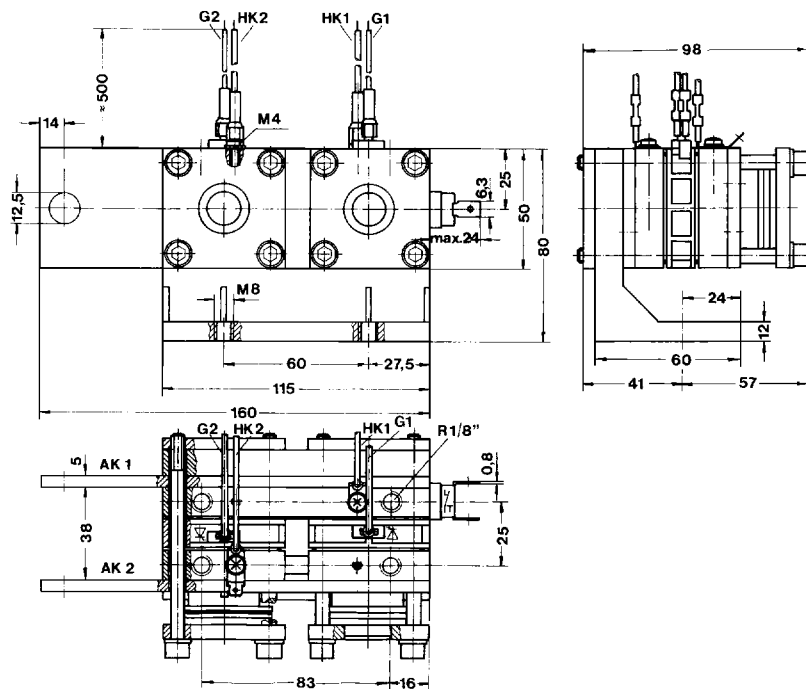
SKW 1000
SKW 1200
SKW 1450

Case C 5



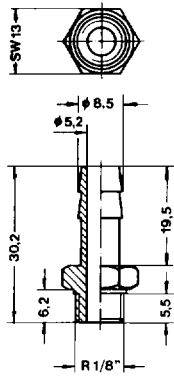
SKW 1700

Case C 6

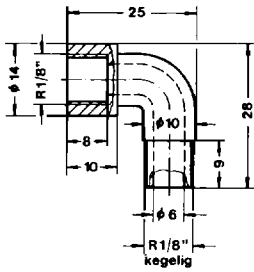


Dimensions in mm

Water connections

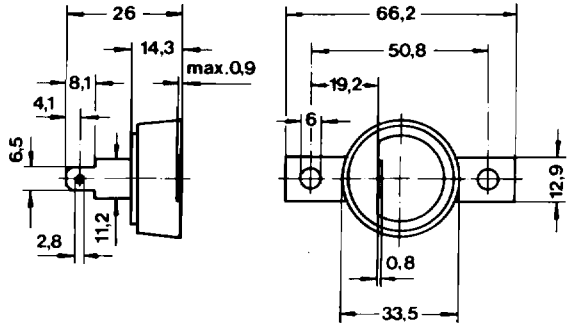


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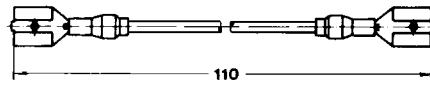


No. 32375200

ZnO varistors for the SKW elements



SKW	ZnO Varistor	Order No.
.../12	V 420 PA 40 C	32355800
.../14	V 480 PA 80 C	32355700
.../16	V 575 PA 80 C	32343300



No. 32342800



M 4 x 8 Z 4-1 DIN 7985

Mounting and connection of the ZnO varistor

