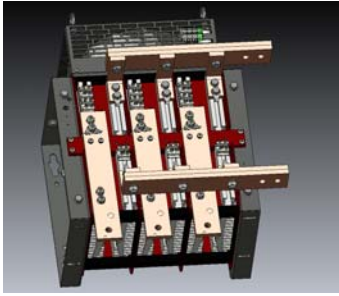


SKS 1200F B6C 820 V16



SEMISTACK Thyristor

Three-phase controlled bridge rectifier

SKS 1200F B6C 820 V16

Preliminary Data

Features

- P17/130 heatsink
- Presspack stack with double side cooling
- Forced air cooled

Typical Applications

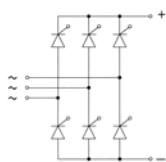
- Industrial rectifiers
- Softstarters
- DC motor control
- AC controller

Options

- Trigger unit
- Current transformer
- Functional test
- Dielectric / isolation test

No. 08766627

Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
Electrical Data					
I_d	$T_{amb} = 35^\circ\text{C}$	no overload		1200	A
		150 % overload, 60s every 10 min.	929	1394	A
		200 % overload, 60s every 10 min.	821	1643	A
V_{CES}				1600	V
V_{DC}	DC voltage applied to the capacitor bank			670	V
V_{AC}	network voltage (line side), -20% / +15%			500	V
V_{isol}	50 Hz / 1 min.		2500		V
i^2t	$T_{vj} = 25^\circ\text{C}$			1125	kA^2s
	$T_{vj} = 125^\circ\text{C}$			845	kA^2s
$(di/dt)_{cr}$	$T_{vj} = 125^\circ\text{C}$			125	$\text{A}/\mu\text{s}$
$(dv/dt)_{cr}$				1000	$\text{V}/\mu\text{s}$
V_{GT}		3			V
I_{GT}		200			mA
P_{tot}	$T_{amb} = 35^\circ\text{C}$		3091		W
R_{thja}	per component		0.18		K/W
T_{vj}		-40		125	$^\circ\text{C}$
Fuse	Type ZU (690V) Size 32		800		A
RC	Resistance (80W)		33		Ω
RC	Capacitance (900V _{dc} / 630V _{ac})		0.47		μF
Thermal trip	normally closed		95		$^\circ\text{C}$
Mechanical Data					
dv/dt_{AIR}					m^3/h
w	approx. total weight		38		kg
Size	Width x Depth x Height (with fan)	427	393	558	mm
T_{stg}		5		60	$^\circ\text{C}$
T_{amb}		5		60	$^\circ\text{C}$
Altitude	Installation height w/o derating			1000	m
Protection			IP00		
Pollution	EN 50178		2		
Fan Data					
Fan	included in the stack (YES)				
Type	SKF 17A-230-01				
V_{Fan}	Fan voltage		230		V
f_{FAN}	Fan frequency		50		Hz
I_{FAN}	Fan current		0.36		A
P_{FAN}	Fan power		83		W



B6C

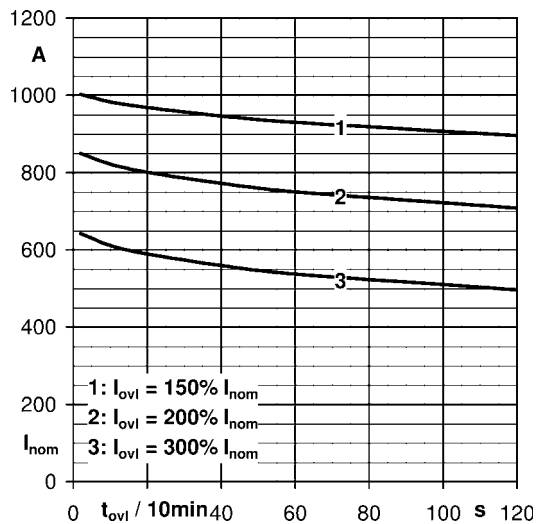


Fig. 1 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 35^\circ\text{C}$

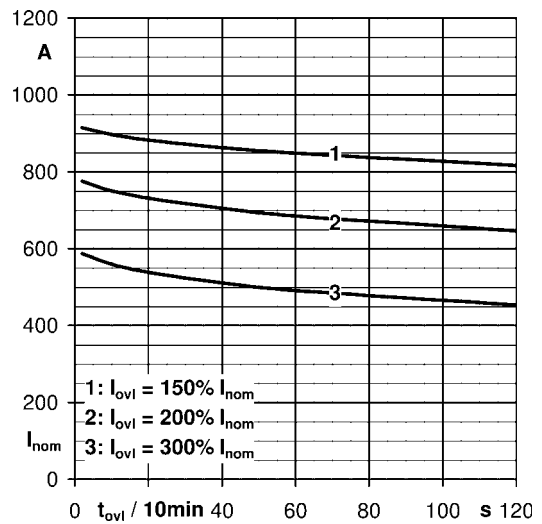


Fig. 2 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 45^\circ\text{C}$

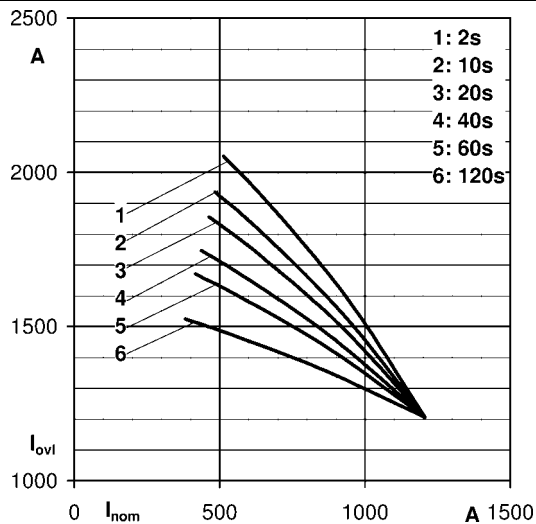


Fig. 3 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 35^\circ\text{C}$

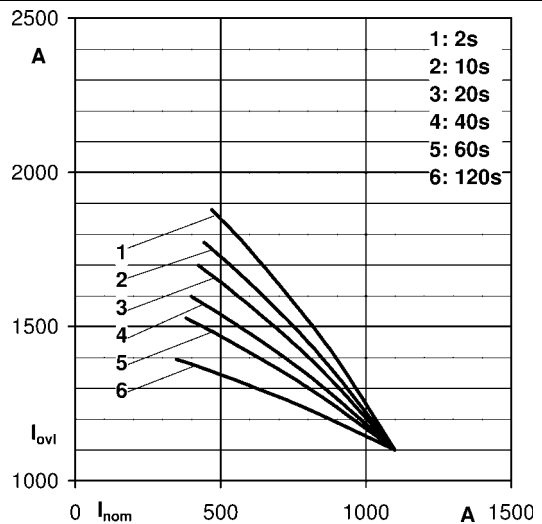


Fig. 4 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 45^\circ\text{C}$

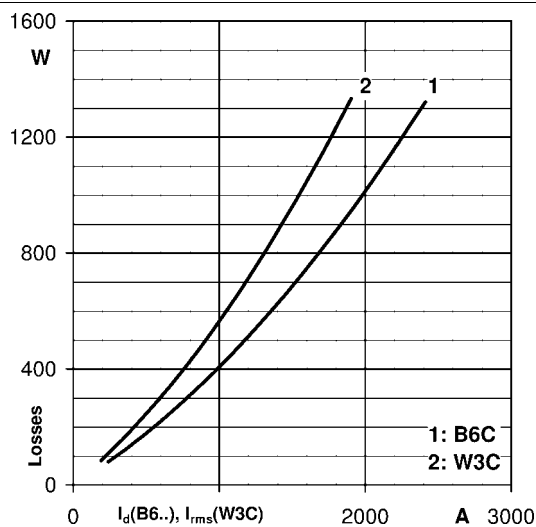


Fig. 5 Power losses

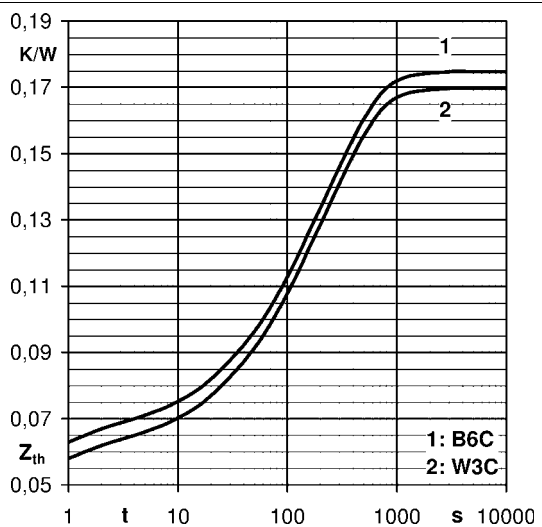
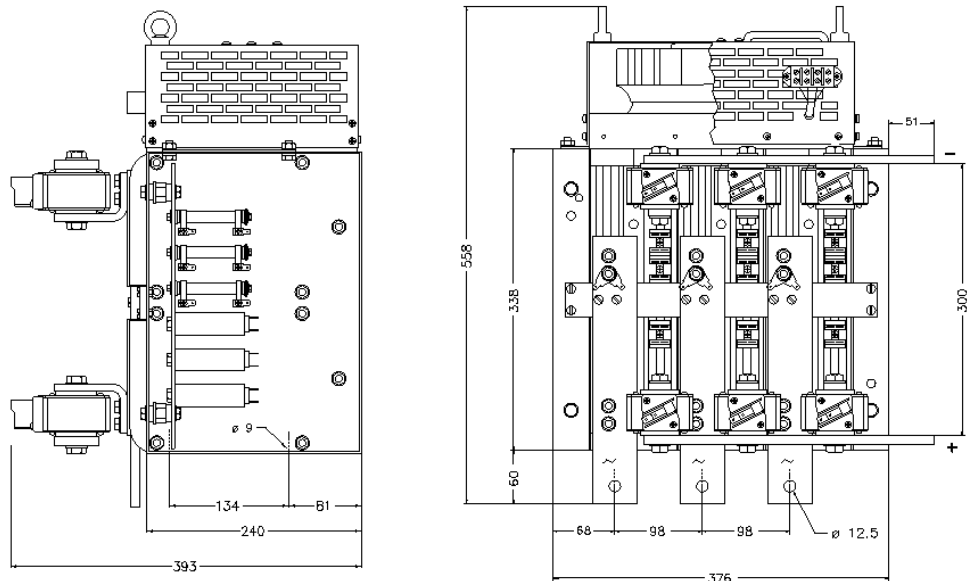


Fig. 6 Thermal impedance $Z_{th}(j-a)$

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Note: Stack design may vary depending upon the version. Please contact SEMIKRON for further details.

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