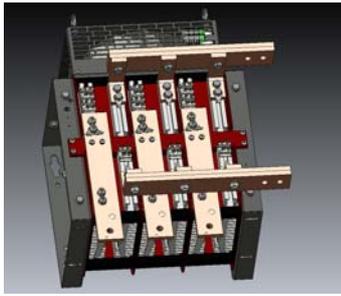


SKS 1080F B6C 730 V16



SEMISTACK Thyristor

Three-phase controlled bridge rectifier

SKS 1080F B6C 730 V16

Preliminary Data

Features

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

Typical Applications

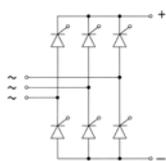
- Industrial rectifiers
- Softstarters
- DC motor control
- AC controller

Options

- Fuse
- RC

No. 08754502

Characteristics						
Symbol	Conditions	min.	typ.	max.	Unit	
Electrical Data						
I_d		no overload		1080	A	
	$T_{amb} = 35^\circ\text{C}$	150 % overload, 60s every 10 min.		831	1247	A
		200 % overload, 60s every 10 min.		736	1468	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	$T_{vj} = 25^\circ\text{C}$			660	kA^2s	
	$T_{vj} = 125^\circ\text{C}$			500	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	No fuse		-		A	
RC	No RC		-		Ω	
RC	No RC		-		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)	420	348	556	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

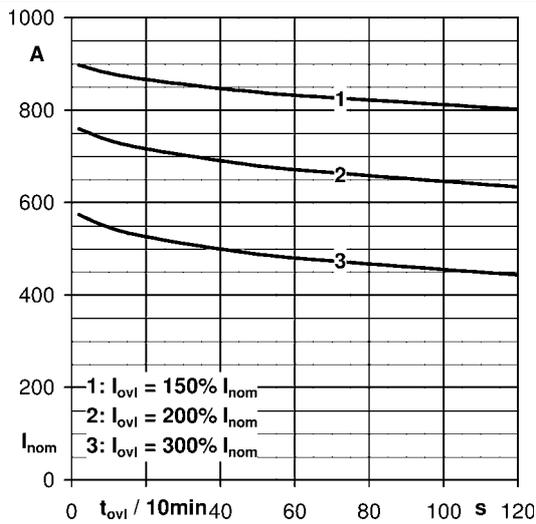


Fig. 1 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 35^{\circ}\text{C}$

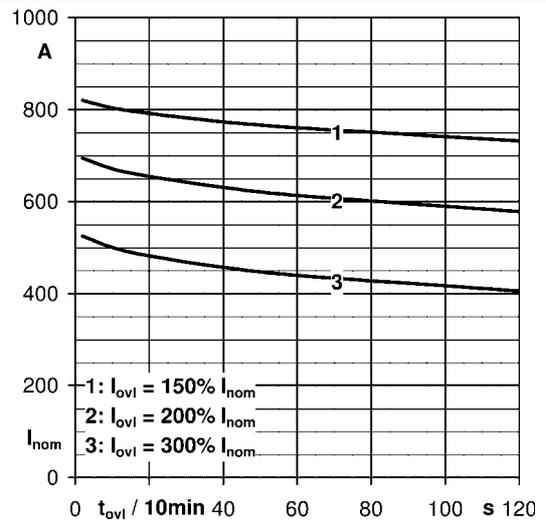


Fig. 2 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 45^{\circ}\text{C}$

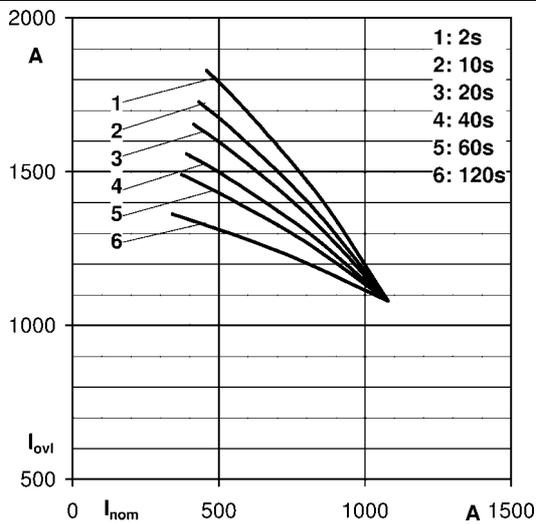


Fig. 3 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 35^{\circ}\text{C}$

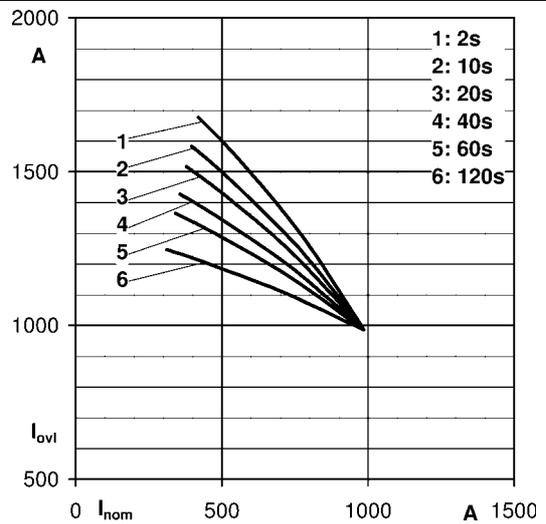


Fig. 4 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 45^{\circ}\text{C}$

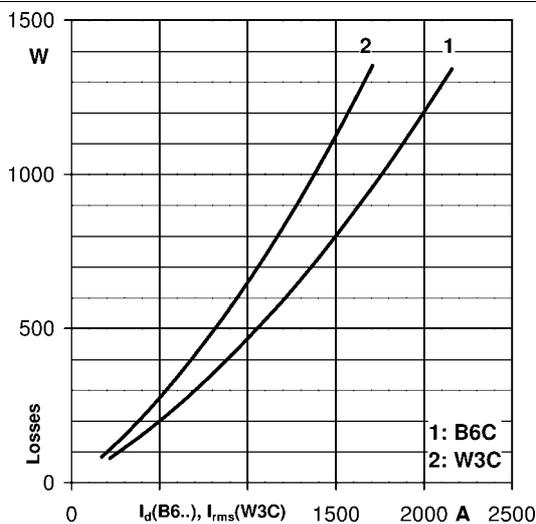


Fig. 5 Power losses

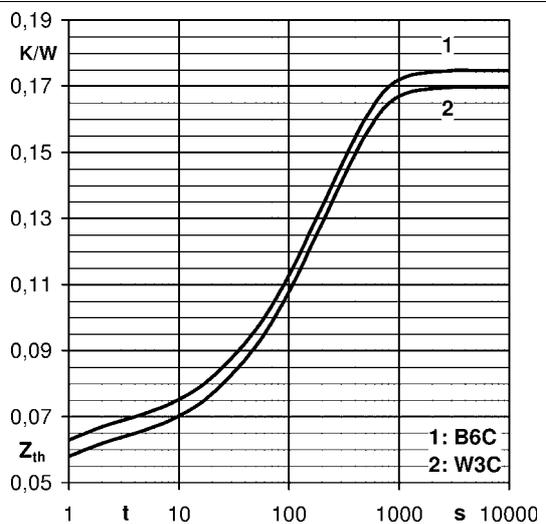
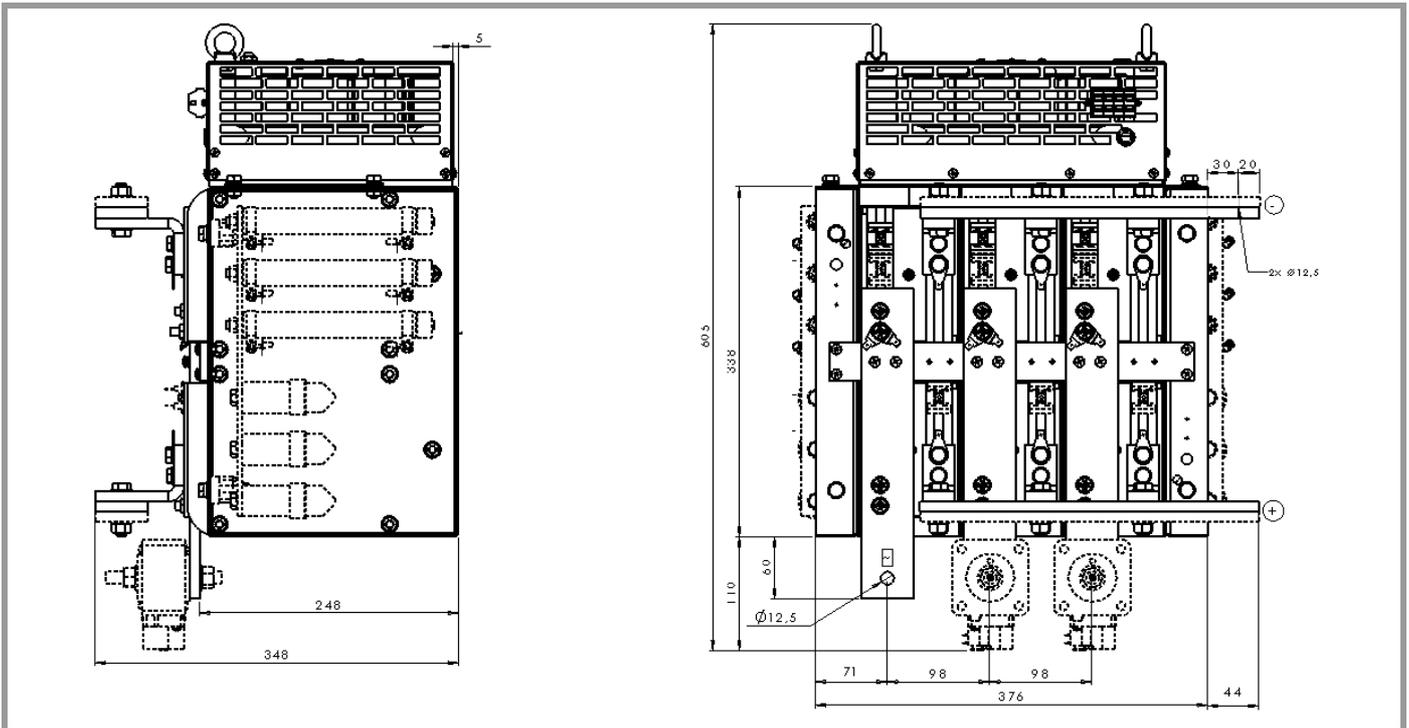


Fig. 6 Thermal impedance $Z_{th}(j-a)$

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

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