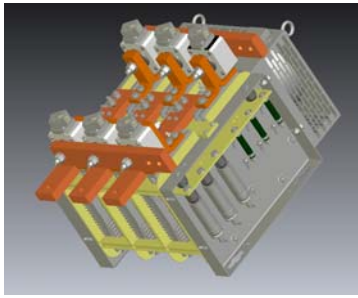


# SKS 1940F B6U 1300 V16



**SEMISTACK Diode**

## Three-phase uncontrolled rectifier

SKS 1940F B6U 1300 V16  
Preliminary Data

### Features

P17/130F heatsink

### Typical Applications

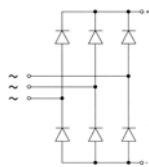
- Industrial rectifiers

### Options

- Fuse
- RC

No. 08758691

Characteristics						
Symbol	Conditions	min.	typ.	max.	Unit	
<b>Electrical Data</b>						
$I_d$	$T_{amb} = 35^\circ\text{C}$	no overload		1940	A	
		150 % overload, 60s every 10 min.		1507	2261	A
		200 % overload, 60s every 10 min.		1350	2700	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	
$i^2t$	$T_{vj} = 25^\circ\text{C}$			1800	$\text{kA}^2\text{s}$	
	$T_{vj} = 130^\circ\text{C}$			1280	$\text{kA}^2\text{s}$	
$(di/dt)_{cr}$					A/ $\mu\text{s}$	
$(dv/dt)_{cr}$					V/ $\mu\text{s}$	
$V_{GT}$					V	
$I_{GT}$					mA	
$P_{tot}$	$T_{amb} = 35^\circ\text{C}$		5163		W	
$R_{thja}$	per component		0.163		K/W	
$T_{vj}$		-40		+175	$^\circ\text{C}$	
Fuse	No fuse				A	
RC	No RC				$\Omega$	
RC	No RC				$\mu\text{F}$	
Thermal trip	normally closed		145		$^\circ\text{C}$	
<b>Mechanical Data</b>						
$dv/dt_{AIR}$					$\text{m}^3/\text{h}$	
w	approx. total weight		45		kg	
Size	Width x Depth x Height (with fan)	376	498	259	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			
<b>Fan Data</b>						
Fan	included in the stack ( <b>YES</b> )					
Type	SKF 17A-230-01					
$V_{Fan}$	Fan voltage		230		V	
$f_{FAN}$	Fan frequency		50		Hz	
$I_{FAN}$	Fan current		0.48		A	
$P_{FAN}$	Fan power		110		W	



**B6U**

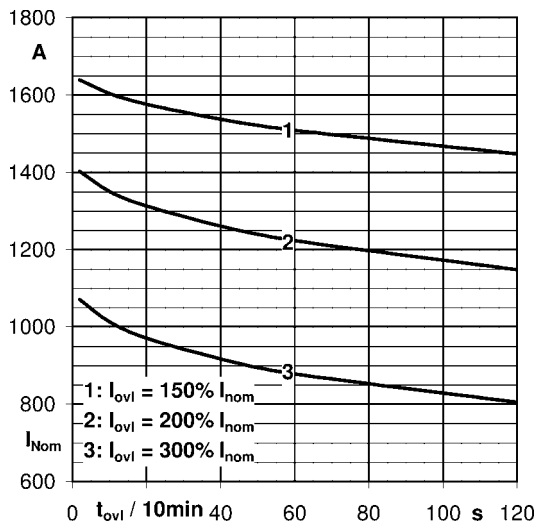


Fig. 1 Maximal overload factor vs nom current and ovl duration,  $T_{amb} = 35^{\circ}\text{C}$

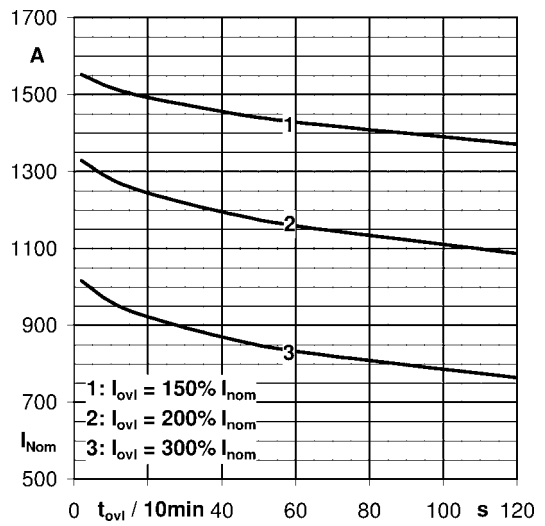


Fig. 2 Maximal overload factor vs nom current and ovl duration,  $T_{amb} = 45^{\circ}\text{C}$

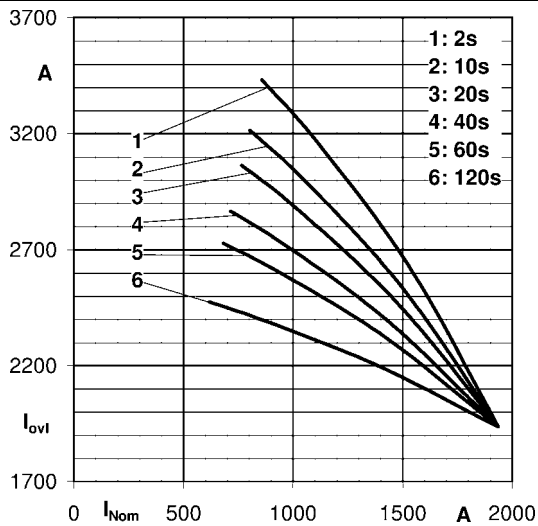


Fig. 3 Maximal overload duration vs nom current and ovl factor,  $T_{amb} = 35^{\circ}\text{C}$

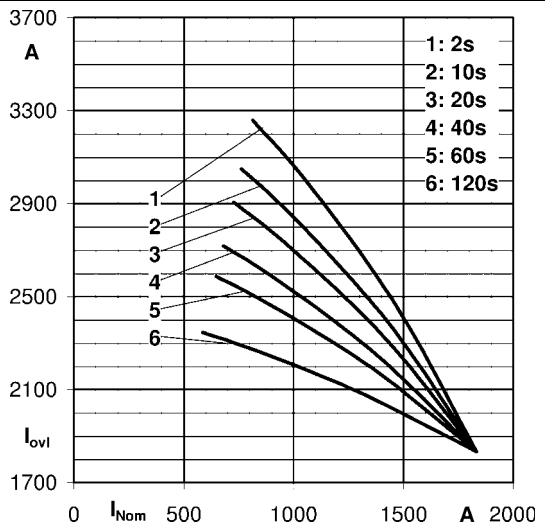


Fig. 4 Maximal overload duration vs nom current and ovl factor,  $T_{amb} = 45^{\circ}\text{C}$

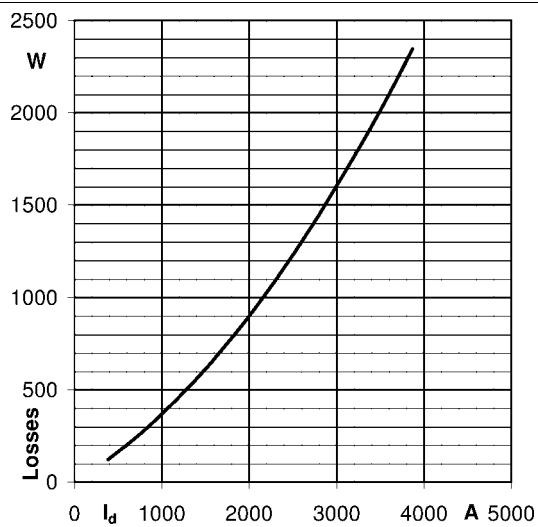


Fig. 5 Power losses

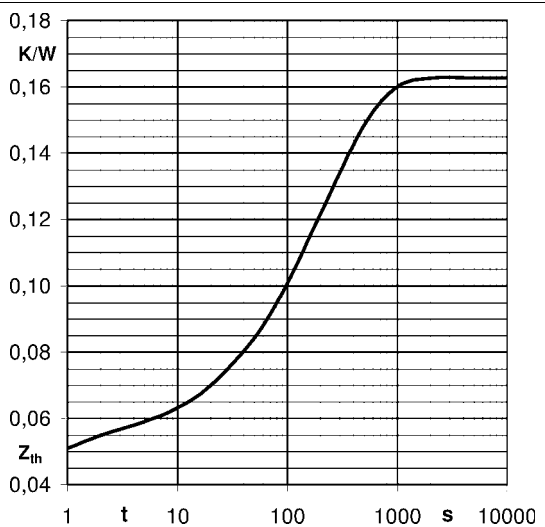


Fig. 6 Thermal impedance  $Z_{th}(j-a)$

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