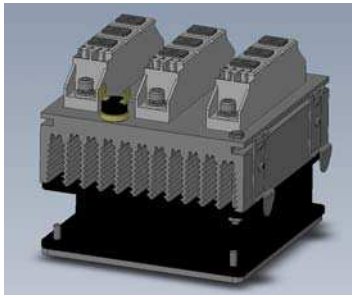


SKS 120F W3C 80 V16



SEMISTACK Thyristor

Three-phase controlled bridge rectifier

SKS 120F W3C 80 V16
Preliminary Data

Features

- Px120/120F heatsink
- Isolated base modules
- Forced air cooled

Typical Applications

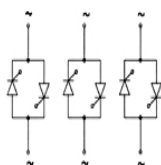
- Industrial rectifiers
- AC controller

Options

- RC board

No. 08755360

Characteristics						
Symbol	Conditions	min.	typ.	max.	Unit	
Electrical Data						
I_d		no overload		123	A	
	$T_{amb} = 35^\circ\text{C}$	150 % overload, 60s every 10 min.		92	139	A
		200 % overload, 60s every 10 min.		84	169	A
V_{CES}				1600	V	
V_{DC}	-			-	V	
V_{AC}	network voltage (line side), -20% / +15%			400	V	
V_{isol}	50 Hz / 1 min.		2500		V	
i^2t	$T_{vj} = 25^\circ\text{C}$			20	kA ² s	
	$T_{vj} = 125^\circ\text{C}$			15	kA ² s	
$(di/dt)_{cr}$	$T_{vj} = 125^\circ\text{C}$			125	A/ μs	
$(dv/dt)_{cr}$				1000	V/ μs	
V_{GT}		3			V	
I_{GT}		150			mA	
P_{tot}	$T_{amb} = 35^\circ\text{C}$		394		W	
R_{thja}	per component		1.37		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		85		$^\circ\text{C}$	
Mechanical Data						
dv/dt_{AIR}			159		m ³ /h	
w	approx. total weight		2.1		kg	
Size	Width x Depth x Height (with fan)	120	120	120	mm	
T_{stg}		-40		100	$^\circ\text{C}$	
T_{amb}		-20		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 3-230-01					
V_{Fan}	Fan voltage		230		V	
f_{FAN}	Fan frequency		50		Hz	
I_{FAN}	Fan current		0.12		A	
P_{FAN}	Fan power		15		W	



w3c

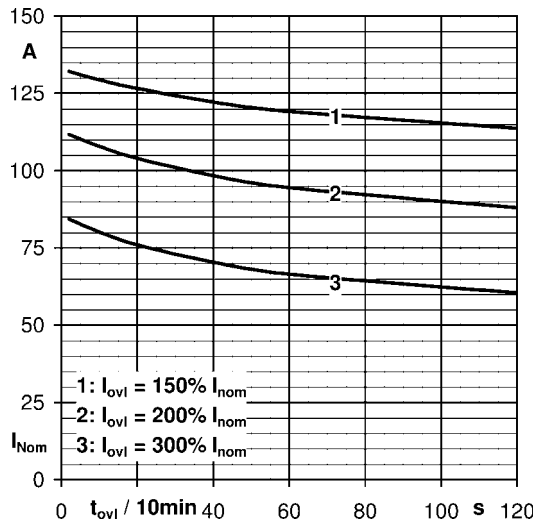


Fig. 1 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 35^{\circ}\text{C}$

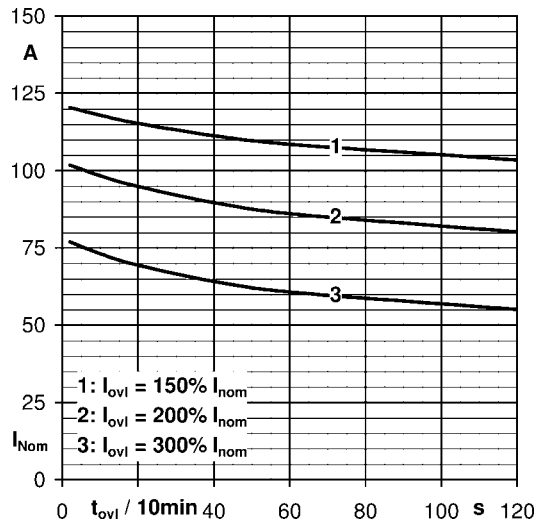


Fig. 2 Maximal overload factor vs nom current and ovl duration, $T_{amb} = 45^{\circ}\text{C}$

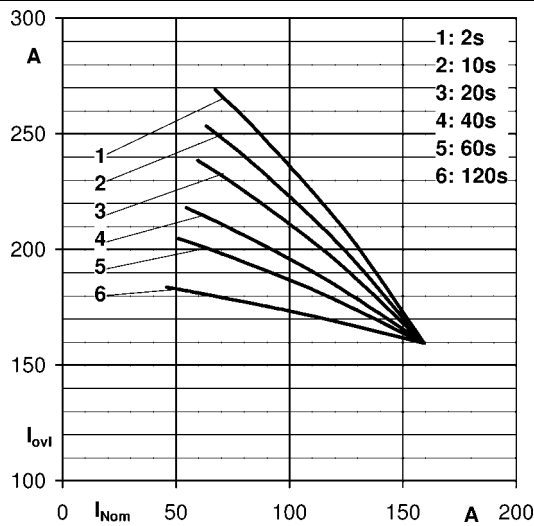


Fig. 3 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 35^{\circ}\text{C}$

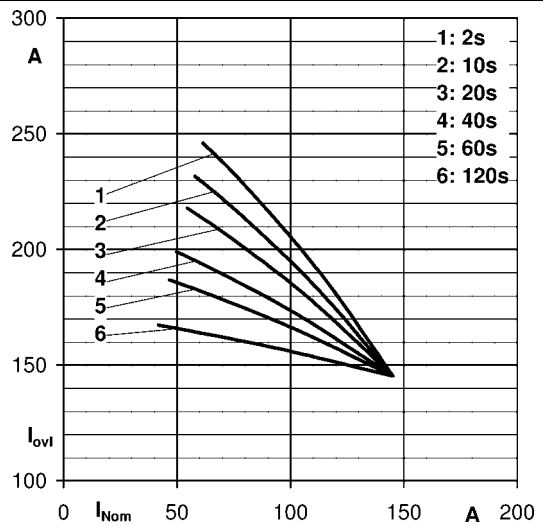


Fig. 4 Maximal overload duration vs nom current and ovl factor, $T_{amb} = 45^{\circ}\text{C}$

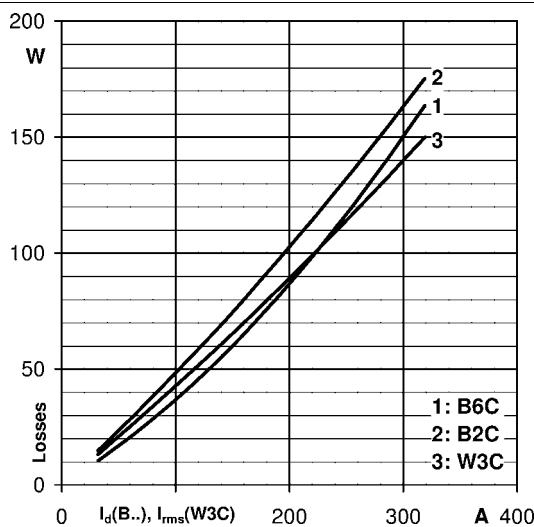


Fig. 5 Power losses

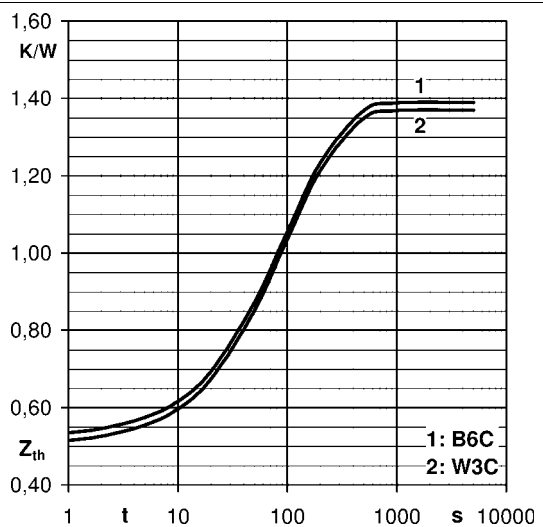
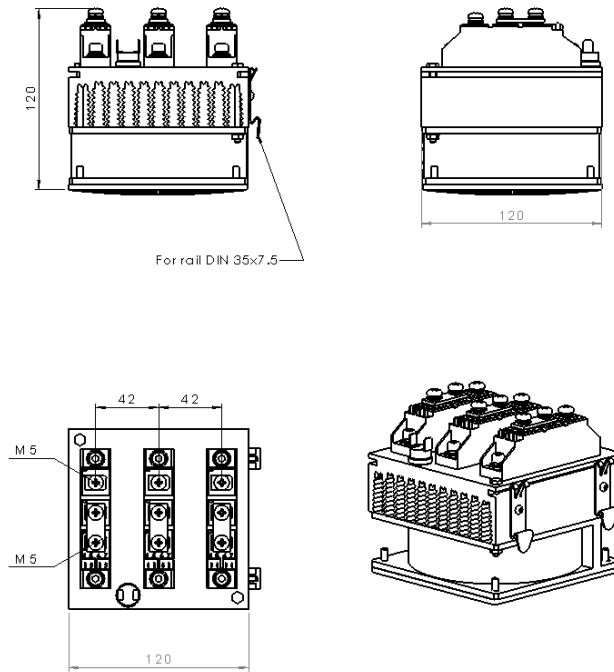


Fig. 6 Thermal impedance $Z_{th}(j-a)$

SKS 120F W3C 80 V16



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

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.