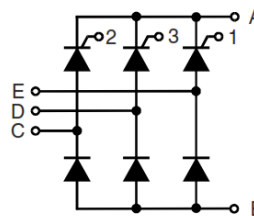


Three Phase Half Controlled Bridge Rectifier, 100 Amps

Features

- Easy connections, screw type terminals
- Good surge current capability
- Low forward voltage drop
- Improved temperature & power dissipation
- Easy mounting



Voltage Ratings ($T_J = 25^\circ\text{C}$ unless otherwise noted)				
Type number	Voltage code	V_{RRM} , Max. repetitive peak reverse voltage (V)	V_{RSM} , Max. non-repetitive peak reverse voltage (V)	I_{RRM} max @ T_J max (mA)
NHS100	80	800	900	10
	100	1000	1100	
	120	1200	1300	
	140	1400	1500	
	160	1600	1700	

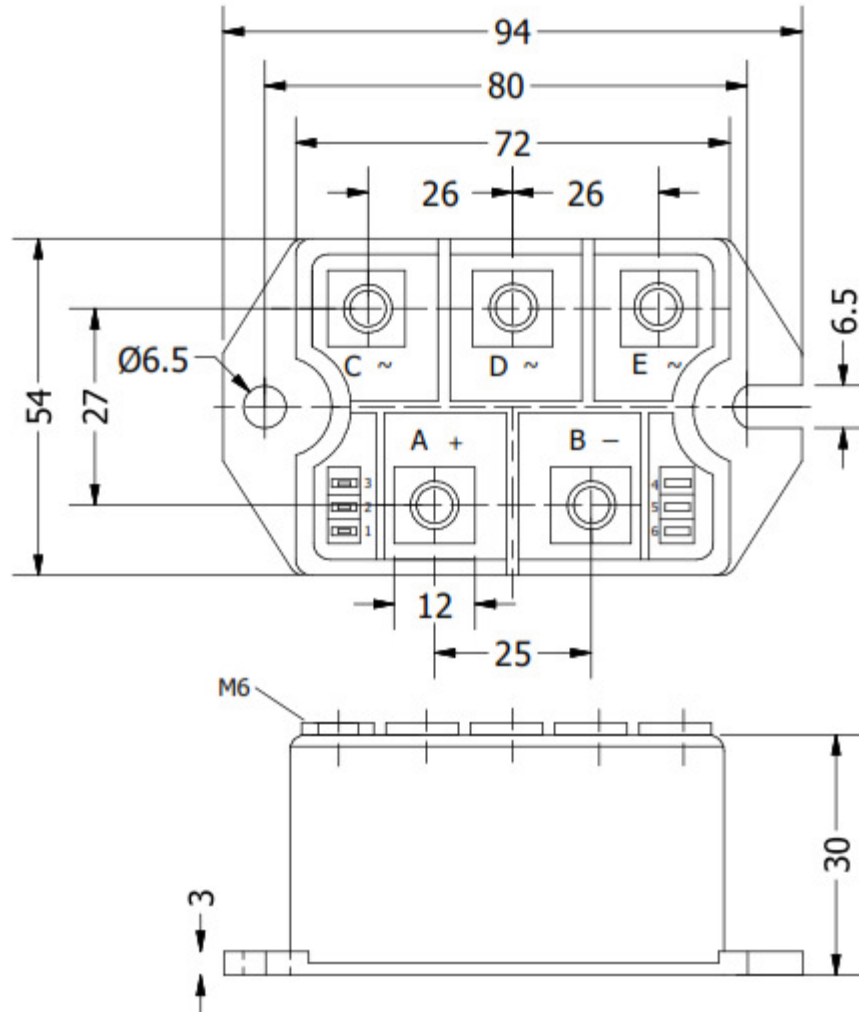


Electrical Specifications ($T_J = 25^\circ\text{C}$ unless otherwise noted)				
Parameters	Conditions	Symbol	Values	Units
Maximum on-state average current	$T_C = 85^\circ\text{C}$	I_D	100	A
Forward surge current (non-repetitive), one cycle	$f = 50\text{Hz}$, $T_{VJ} = 25^\circ\text{C}$	I_{FSM} , I_{TSM}	1000	A
Maximum forward voltage drop	$I_T = 200\text{A}$, $T_{VJ} = 25^\circ\text{C}$	V_T	max. 1.75	V
Current required for fusing	$f = 50\text{Hz}$, $T_{VJ} = 25^\circ\text{C}$	I^2t	5000	A^2s
Maximum rate of rise of on-state current	$T_{VJ} = T_{VJM}$, $f = 50\text{Hz}$	di/dt	max. 50	$\text{A}/\mu\text{s}$
Critical rate of rise of off-state voltage	$T_{VJ} = T_{VJM}$	dv/dt	max. 500	$\text{V}/\mu\text{s}$
Gate voltage to trigger	$T_{VJ} = 25^\circ\text{C}$	V_{GT}	min. 3	V
Gate current to trigger	$T_{VJ} = 25^\circ\text{C}$	I_{GT}	min. 150	mA
Holding current	$T_{VJ} = 25^\circ\text{C}$	I_H	100	mA
Latching current	$T_{VJ} = 25^\circ\text{C}$	I_L	250	mA
RMS isolation voltage	$f = 50\text{Hz}$, $t = 1 \text{ min}$	V_{ISO}	3000	V

Thermal and Mechanical Specifications ($T_J = 25^\circ\text{C}$ unless otherwise noted)			
Parameters	Symbol	Values	Units
Operating junction temperature range	T_{VJ}	- 40 to + 125	$^\circ\text{C}$
Maximum storage temperature range	T_{STG}	- 40 to + 125	$^\circ\text{C}$
Maximum thermal resistance, junction to case	$R_{th(J-C)}$	0.84	$^\circ\text{C}/\text{W}$
Mounting torque $\pm 10\%$	to heatsink	5	Nm
	to terminal	4	
Approximate weight	W	320	g

Package Outline

(All dimensions in mm)



Ordering Table

NHS	100	/	160
1	2		3

- 1 – Three-phase half-controlled bridge
- 2 – Current rating = I_D
- 3 – Voltage Code x 10 = V_{RRM} (See Voltage Ratings Table)