SKNH 91



SEMIPACK[®] 1

Modules with Thyristor and Free-Wheeling Diode

SKNH 91

Features

- Heat transfer through ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532
- Electrical data see also data

sheet SKKH 92

Typical Applications*

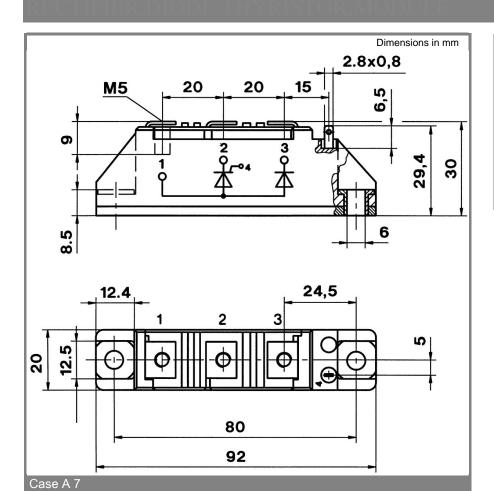
 Special modules for DC braking of AC induction motor

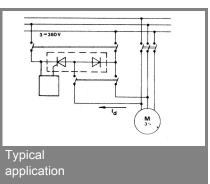
1) available on request

V _{RSM}	V _{RRM} , V _{DRM}	I _{TRMS} = 150 A (maximum value for continuous operation)		
V	V	I _{TAV} = 95 A (sin. 180; T _c = 85 °C)		
1300	1200	SKNH 91/12E		
1500	1400	SKNH 91/14E		
1700	1600	SKNH 91/16E		
1900	1800	SKNH 91/18E ¹⁾		

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Symbol	Conditions	Values	Units
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	I _{TAV}	sin. 180; T _c = 85 (100) °C;	95 (68)	А
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	I _{TSM}		2000	Α
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		T _{vi} = 125 °C; 10 ms	1750	Α
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	i²t	T _{vj} = 25 °C; 8,3 10 ms	20000	A²s
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		T _{vj} = 125 °C; 8,3 10 ms	15000	A²s
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V _T		max. 1,65	V
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V _{T(TO)}	T _{vi} = 125 °C	max. 0,9	V
$\begin{array}{c c c c c c c c c c c c c c c c c c c $. ,	$T_{vi}^{,j} = 125 \ ^{\circ}C$	max. 2	mΩ
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	I _{DD} ; I _{RD}	$T_{vi} = 125 \text{ °C}; V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 20	mA
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	t _{ad}	T _{vi} = 25 °C; I _G = 1 A; di _G /dt = 1 A/μs	1	μs
	-		2	μs
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(di/dt) _{cr}		max. 150	A/µs
	(dv/dt) _{cr}	T _{vi} = 125 °C	max. 1000	V/µs
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			100	μs
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	I _H	$T_{vi}^{,j} = 25 \text{ °C}; \text{ typ. / max.}$	/ 250	mA
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		T _{vi} = 25 °C; R _G = 33 Ω; typ. / max.	/ 600	mA
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	V _{GT}	T _{vi} = 25 °C; d.c.	min. 3	V
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	I _{GT}	$T_{vi}^{3} = 25 \text{ °C; d.c.}$	min. 150	mA
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	V _{GD}	T _{vj} = 125 °C; d.c.	max. 0,25	V
	I _{GD}	T _{vj} = 125 °C; d.c.	max. 6	mA
R _{th(j-c)} sin. 180; per thyristor / per module 0,3 / 0,15 H R _{th(j-c)} rec. 120; per thyristor / per module 0,32 / 0,16 H R _{th(c-s)} per thyristor / per module 0,2 / 0,1 H T _{vj} -40 + 125 -40 + 125 T _{stg} -40 + 125 -40 + 125 V _{isol} a. c. 50 Hz; r.m.s.; 1 s / 1 min. 3600 / 3000 1 M _s to heatsink 5 ± 15 % H M _t to terminals 5 * 9,81 r m approx. 120 120	R _{th(i-c)}	cont.; per thyristor / per module	0,28 / 0,14	K/W
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	R _{th(i-c)}	sin. 180; per thyristor / per module	0,3 / 0,15	K/W
$ \begin{array}{c} {\sf R}_{th(c-s)} \\ {\sf T}_{vj} \\ {\sf T}_{stg} \\ {\sf V}_{isol} \\ {\sf M}_s \\ {\sf to \ heatsink} \\ {\sf to \ terminals} \\ {\sf a} \\ {\sf m} \\ {\sf approx}. \end{array} \begin{array}{c} {\sf per \ thyristor / \ per \ module} \\ {\sf 0,2 / 0,1 \\ -40 \dots + 125 \\ -40 \dots + 125 \\ -40 \dots + 125 \\ {\sf -40 \dots + 125 \\ -40 \dots + 125 \\ {\sf 0} \\ {\sf 1} \\ {\sf 5\pm 15 \ \% } \\ {\sf I} \\ {\sf 5\pm 15 \ \% } \\ {\sf I} \\ {\sf 5\pm 9,81 } \\ {\sf n} \end{array} \right) $	R _{th(i-c)}	rec. 120; per thyristor / per module	0,32 / 0,16	K/W
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		per thyristor / per module	0,2 / 0,1	K/W
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			- 40 + 125	°C
V _{isol} a. c. 50 Hz; r.m.s.; 1 s / 1 min. 3600 / 3000 M _s to heatsink 5 ± 15 % I M _t to terminals 5 ± 15 % I a 5 * 9,81 r m approx. 120			- 40 + 125	°C
Ms to heatsink 5 ± 15 % I Mt to terminals 5 ± 15 % I a 5 ± 9,81 r m approx. 120		a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
a 5*9,81 r m approx. 120		to heatsink	5 ± 15 %	Nm
m approx. 120	Mt	to terminals	5 ± 15 %	Nm
			5 * 9,81	m/s²
Case A 7	m	approx.	120	g
	Case		A 7	







* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

© by SEMIKRON