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

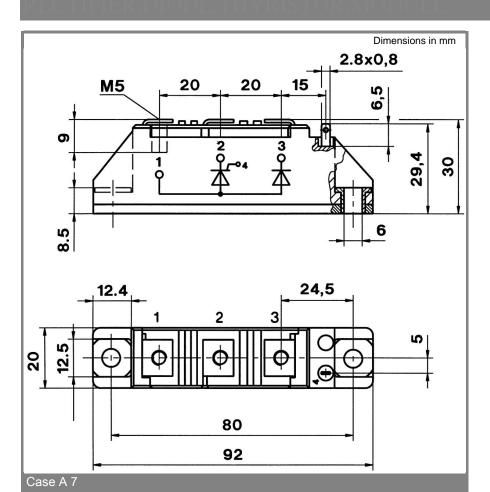
 Special modules for DC braking of AC induction motor

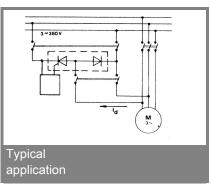
1) available on request

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	







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