SKNH 56



SEMIPACK[®] 1

Modules with Thyristor and Free-Wheeling Diode

SKNH 56

Features

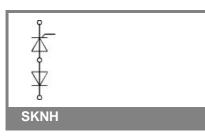
- Heat transfer through ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532
- Electrical data see also data sheet SKKH 57

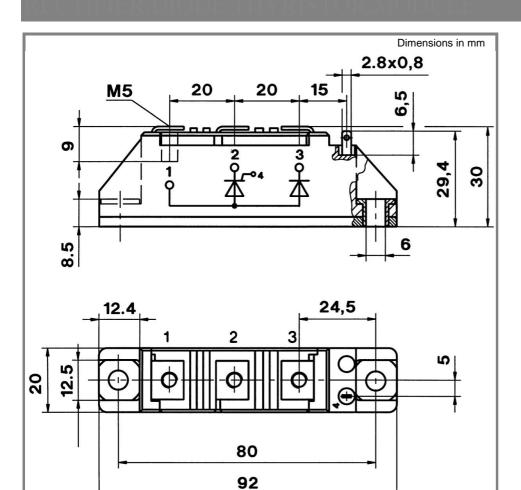
Typical Applications

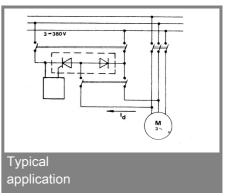
• Special modules for DC braking of AC induction motors

V _{RSM}	V _{RRM} , V _{DRM}	I _{TRMS} = 95 A (maximum value for continuous operation)		
V	V	I _{TAV} = 50 A (sin. 180; T _c = 85 °C)		
1300	1200	SKNH 56/12E		
1500	1400	SKNH 56/14E		
1700	1600	SKNH 56/16E		
1900	1800	SKNH 56/18E		

	Symbol	Conditions	Values	Units
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		sin. 180; T _c = 85 (100) °C;	50 (35)	А
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		P3/120; T _a = 45 °C;	70	А
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	I _{TSM}	T _{vi} = 25 °C; 10 ms	1500	Α
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1011		1250	А
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	i²t	T _{vj} = 25 °C; 8,3 10 ms	11000	A²s
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		T _{vj} = 125 °C; 8,3 10 ms	8000	A²s
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V _T		max. 1,65	V
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V _{T(TO)}		max. 0,9	V
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		T _{vj} = 125 °C	max. 3,5	mΩ
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	I _{DD} ; I _{RD}	$T_{vj} = 25 \text{ °C}; V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 15	mA
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	t _{gd}	$T_{vj} = 25 \text{ °C}; I_G = 1 \text{ A}; di_G/dt = 1 \text{ A}/\mu \text{s}$	1	μs
$ \begin{array}{lllllllllllllllllllllllll$	t _{gr}	V _D = 0,67 * V _{DRM}	2	μs
	(di/dt) _{cr}	T _{vi} = 125 °C	max. 100	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 $	ta	T _{vi} = 125 °C	50 150	μs
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		T _{vj} = 25 °C; typ. / max.	/ 250	mA
$ \begin{array}{lllllllllllllllllllllllll$	I _L	T _{vj} = 25 °C; R _G = 33 Ω; typ. / max.	/ 600	mA
$ \begin{array}{lllllllllllllllllllllllll$	V _{GT}		min. 3	V
	I _{GT}	T _{vj} = 25 °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
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	I _{GD}	T _{vj} = 125 °C; d.c.	max. 6	mA
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	R _{th(i-c)}	cont.; per thyristor / per diode	0,57	K/W
R _{th(j-c)} R _{th(c-s)} sin. 180; per module 0,3 K/W R _{th(j-c)} r _{yj} per thyristor / per module 0,2 / 0,1 K/W T _{vj} -40 + 125 °C T _{stg} -40 + 125 °C V _{isol} a. c. 50 Hz; r.m.s.; 1 s / 1 min. 3600 / 3000 V~ M _s to heatsink 5 ± 15 % Nm M _t to terminals 5 * 9,81 m/s² m approx. 120 g	R _{th(i-c)}	sin. 180; per thyristor / per diode	0,6	K/W
$\begin{array}{c} R_{th(c-s)} \\ T_{vj} \\ T_{sig} \\ \hline \\ V_{isol} \\ M_s \\ a \\ a \\ m \\ \end{array} \begin{array}{c} \text{per thyristor / per module} \\ \text{per module} \\ \text{per module} \\ 0,2/0,1 \\ \text{K/W} \\ -40 \\ + 125 \\ ^{\circ}\text{C} \\ -40 \\ + 125 \\ ^{\circ}\text{C} \\ \text{C} \\ \text{C} \\ \text{C} \\ -40 \\ + 125 \\ ^{\circ}\text{C} \\ \text{C} \\ \text{NM} \\ 5 \\ \text{to heatsink} \\ \text{to terminals} \\ \text{to terminals} \\ \text{s} \\ \text{m} \\ \text{approx.} \\ \hline \\ 120 \\ g \\ \end{array}$	R _{th(i-c)}	sin. 180; per module	0,3	K/W
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	R _{th(c-s)}	per thyristor / per module	0,2 / 0,1	K/W
Ng a. c. 50 Hz; r.m.s.; 1 s / 1 min. 3600 / 3000 V~ Ms to heatsink 5 ± 15 % Nm Mt to terminals 5 ± 15 % Nm a 5 * 9,81 m/s² m approx. 120 g	T _{vi}		- 40 + 125	°C
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	T _{stg}		- 40 + 125	°C
M _t to terminals 5±15% Nm a 5*9,81 m/s² m approx. 120 g	V _{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
a a 5 * 9,81 m/s² m approx. 120 g		to heatsink	5 ± 15 %	Nm
m approx. 120 g	M _t	to terminals	5 ± 15 %	Nm
	а		5 * 9,81	m/s²
Case A 7	m	approx.	120	g
	Case		A 7	







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

Case A 7