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

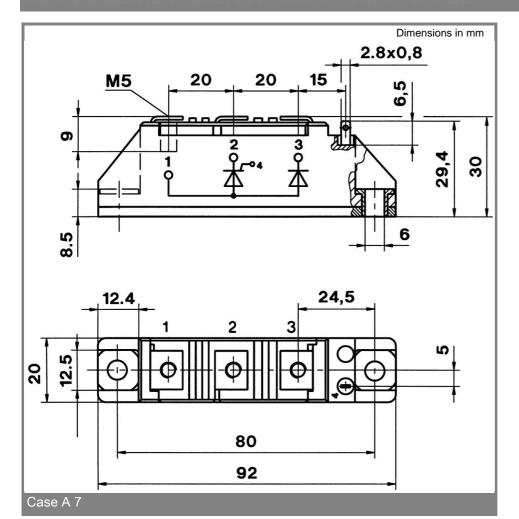
Typical Applications*

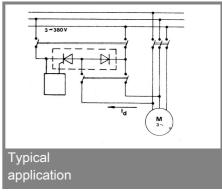
- Special modules for DC braking of AC induction motor
- 1) available on request

| 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⁾ | | |

| Symbol | Conditions | Values | Units |
|-----------------------|--|-------------------|-------|
| I_{TAV} | sin. 180; T _c = 85 (100) °C; | 95 (68) | Α |
| I _{TSM} | T _{vi} = 25 °C; 10 ms | 2000 | Α |
| | T _{vi} = 125 °C; 10 ms | 1750 | Α |
| i²t | T _{vj} = 25 °C; 8,3 10 ms | 20000 | A²s |
| | $T_{vj} = 125 ^{\circ}\text{C}; 8,3 \dots 10 \text{ms}$ | 15000 | A²s |
| V_{T} | T _{vi} = 25 °C; I _T = 300 A | max. 1,65 | V |
| $V_{T(TO)}$ | T _{vi} = 125 °C | max. 0,9 | V |
| r _T | T _{vj} = 125 °C | max. 2 | mΩ |
| I_{DD} ; I_{RD} | $T_{vj} = 125 ^{\circ}\text{C}; V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$ | max. 20 | mA |
| t _{gd} | T_{vj} = 25 °C; I_G = 1 A; di_G/dt = 1 A/ μ s | 1 | μs |
| t _{gr} | $V_{\rm D} = 0.67 * V_{\rm DRM}$ | 2 | μs |
| (di/dt) _{cr} | T _{vi} = 125 °C | max. 150 | A/µs |
| (dv/dt) _{cr} | T _{vi} = 125 °C | max. 1000 | V/µs |
| t _q | $T_{vi} = 125 ^{\circ}\text{C}$, | 100 | μs |
| I _H | T _{vj} = 25 °C; typ. / max. | / 250 | mA |
| I_{L} | $T_{vj} = 25 ^{\circ}\text{C}; R_{G} = 33 \Omega; \text{typ.} / \text{max.}$ | / 600 | mA |
| V _{GT} | T _{vj} = 25 °C; d.c. | min. 3 | V |
| I _{GT} | $T_{vj} = 25 ^{\circ}\text{C}; \text{d.c.}$ | min. 150 | mA |
| V_{GD} | $T_{vj} = 125 ^{\circ}\text{C}; \text{d.c.}$ | max. 0,25 | V |
| I_{GD} | T_{vj} = 125 °C; d.c. | max. 6 | mA |
| R _{th(j-c)} | cont.; per thyristor / per module | 0,28 / 0,14 | K/W |
| R _{th(j-c)} | sin. 180; per thyristor / per module | 0,3 / 0,15 | K/W |
| R _{th(j-c)} | rec. 120; per thyristor / per module | 0,32 / 0,16 | K/W |
| R _{th(c-s)} | 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 ± 15 % | Nm |
| a | | 5 * 9,81 | m/s² |
| m | арргох. | 120 | g |
| Case | | A 7 | |
| | | | |
| | | | |







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^{*} 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.