

SKKT 430, SKKH 430

V_{RS}	V_{RRM}	(dv/dt) _{cr}	I_{TRMS} (maximum values for continuous operation)	
	V_{DRM}		700 A	
V	V	V/ μ s	I_{TAV} (sin. 180; $T_{case} = 85\text{ }^{\circ}\text{C}$) 440 A	
1700	1600	1000	SKKT 430/16 E	SKKH 430/16 E
2000	2000	1000	SKKT 430/20 E H 4³⁾	SKKH 430/20 E H 4³⁾
2200	2200	1000	SKKT 430/22 E H 4³⁾	SKKH 430/22 E H 4³⁾

SEMIPACK® 5 Thyristor Modules

SKKT 430 SKKH 430

Preliminary Data



SKKT

SKKH

Symbol	Conditions	SKKT 430 SKKH 430	Units
I_{TAV}	sin. 180; $T_{case} = 86\text{ }^{\circ}\text{C}$	430	A
I_{TSM}	$T_{vj} = 25\text{ }^{\circ}\text{C}$; 10 ms	15 000	A
i^2t	$T_{vj} = 125\text{ }^{\circ}\text{C}$; 10 ms	13 000	A
	$T_{vj} = 25\text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	1 125 000	A ² s
	$T_{vj} = 125\text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	845 000	A ² s
t_{gd}	$T_{vj} = 25\text{ }^{\circ}\text{C}$ $I_G = 1\text{ A}$ $di_G/dt = 1\text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_D = 0,67 \cdot V_{DRM}$	2	μs
(di/dt) _{cr}	$T_{vj} = 125\text{ }^{\circ}\text{C}$	200	A/ μs
t_q	$T_{vj} = 125\text{ }^{\circ}\text{C}$	typ. 100 ... 200	μs
I_H	$T_{vj} = 25\text{ }^{\circ}\text{C}$; typ./max.	150 / 500	mA
I_L	$T_{vj} = 25\text{ }^{\circ}\text{C}$; $R_G = 33\ \Omega$; typ./max.	0,3 / 2	A
V_T	$T_{vj} = 25\text{ }^{\circ}\text{C}$; $I_T = 1700\text{ A}$	1,65	V
$V_{T(TO)}$	$T_{vj} = 125\text{ }^{\circ}\text{C}$	0,95	V
r_T	$T_{vj} = 125\text{ }^{\circ}\text{C}$	0,35	m Ω
I_{DD} ; I_{RD}	$T_{vj} = 125\text{ }^{\circ}\text{C}$; $V_{RD} = V_{RRM}$ $V_{DD} = V_{DRM}$	100	mA
V_{GT}	$T_{vj} = 25\text{ }^{\circ}\text{C}$; d.c.	3	V
I_{GT}	$T_{vj} = 25\text{ }^{\circ}\text{C}$; d.c.	200	mA
V_{GD}	$T_{vj} = 130\text{ }^{\circ}\text{C}$; d.c.	0,25	V
I_{GD}	$T_{vj} = 130\text{ }^{\circ}\text{C}$; d.c.	10	mA
R_{thjc}	cont. per thyristor / per module sin. 180 per thyristor / per module rec. 120 per thyristor / per module	0,065 / 0,0325 0,068 / 0,034 0,073 / 0,0365	$^{\circ}\text{C}/\text{W}$ $^{\circ}\text{C}/\text{W}$ $^{\circ}\text{C}/\text{W}$
R_{thch}	per thyristor / per module	0,02 / 0,01	$^{\circ}\text{C}/\text{W}$
T_{vj}		- 40 ... + 125	$^{\circ}\text{C}$
T_{stg}		- 40 ... + 125	$^{\circ}\text{C}$
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min to heatsink(M6)	3600/3000	V~
M_1	SI units	$5 \pm 15\%$ ¹⁾	Nm
	US units	$44 \pm 15\%$ ¹⁾	lb.in.
M_2	SI units	$12 \pm 15\%$ ²⁾	Nm
	US units	$106 \pm 15\%$ ²⁾	lb.in.
a		$5 \cdot 9,81$	m/s ²
w	approx.	1420	g
Case	SKKT 430 SKKH 430	A 60 a A 66 a	

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precise metal pressure contacts for high reliability

Typical Applications

- AC motor softstarters
- Input converters for AC inverter drives
- DC motor control (e.g. for machine tools)
- Temperature control (e.g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)

¹⁾ See the assembly instructions

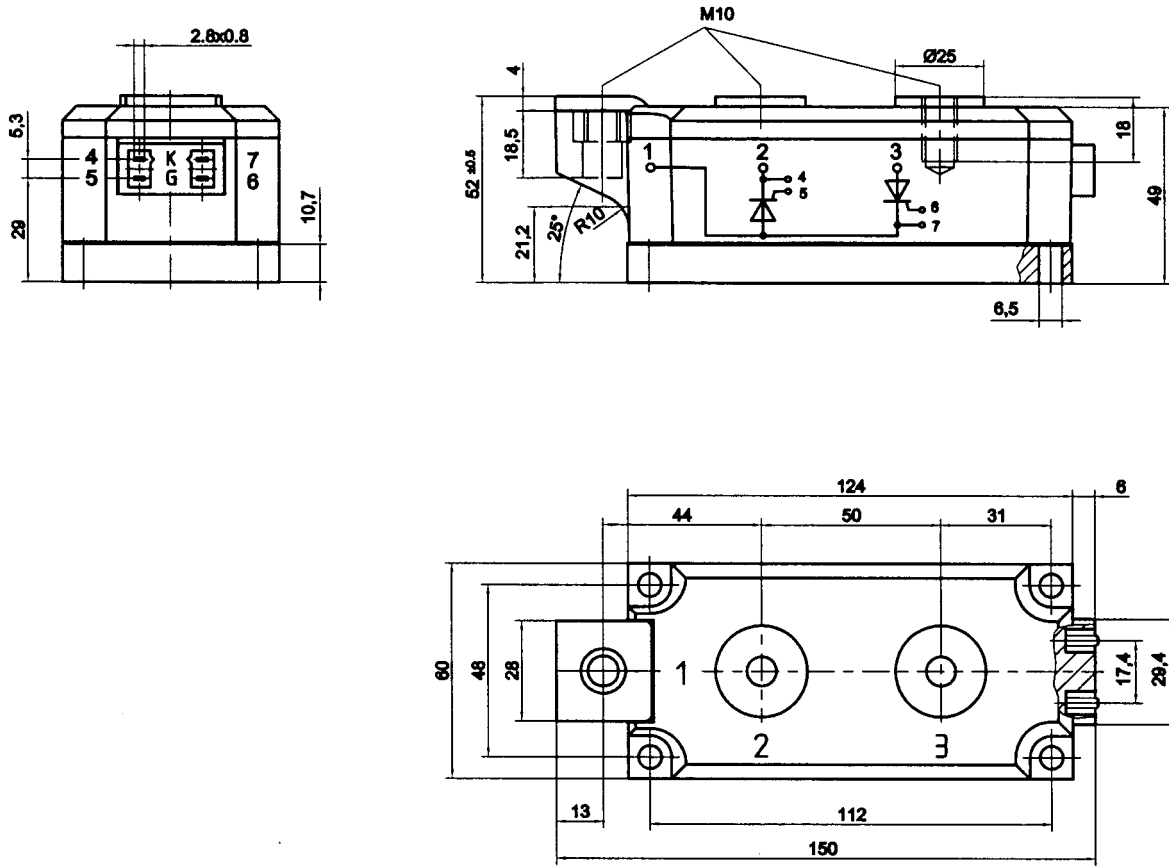
²⁾ The screws must be lubricated

³⁾ V_{isol} 1 s/1 min = 4800/4000 V~

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SKKT 430

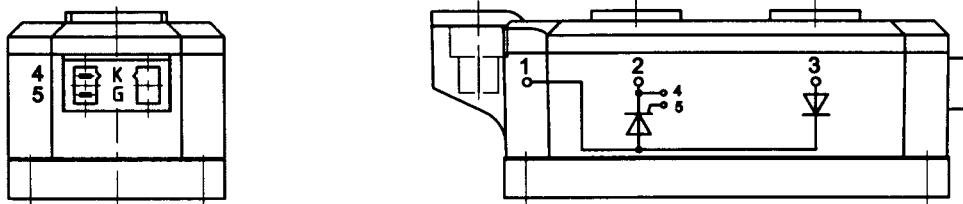
Case A 60 a
SEMIPACK® 5



Dimensions in mm

SKKH 430

Case A 66 a



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