SEMIKRON

V_{RSM} V	V_{RRM} V_{DRM} V	I_{RMS} (maximum values for continuous operation) (T_h = 80 °C) 140 A
1300	1200	**SKDH 145/12**
1700	1600	**SKDH 145/16**

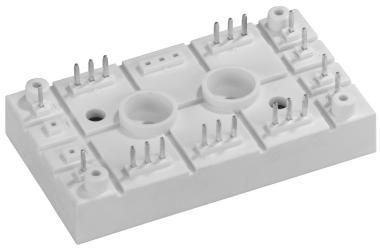
Symbol	Conditions	SKDH 145	Units
I_D	T_h = 80 °C	140	A
I_{TSM}	T_{vj} = 25 °C; 10 ms	–	A
	T_{vj} = 125 °C; 10 ms	1250	A
i^2t	T_{vj} = 25 °C; 8,3...10 ms	–	A^2s
	T_{vj} = 125 °C; 8,3...10 ms	7800	A^2s
Thyristor - Rectifier			
V_T	T_{vj} = 25 °C; I_T = 150 A; max.	1,6	V
$V_{T(TO)}$	T_{vj} = 125 °C	0,9	V
r_T	T_{vj} = 125 °C	5	mΩ
I_{DD}; I_{RD}	T_{vj} = 125 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	20	mA
V_{GT}	T_{vj} = 25 °C; dc	3	V
I_{GT}	T_{vj} = 25 °C; dc	150	mA
V_{GD}	T_{vj} = 125 °C; dc	0,25	V
I_{GD}	T_{vj} = 125 °C; dc	6	mA
$(dv/dt)_{cr}$	T_{vj} = 125 °C	500	V/µs
$(di/dt)_{cr}$	T_{vj} = 125 °C; f = 50...60 Hz	50	A/µs
t_q	T_{vj} = 125 °C; typ.	150	µs
I_H	T_{vj} = 25 °C; typ. / max	250	A
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ. / max.	600	A
Diode - Rectifier			
V_F	T_{vj} = 125 °C; I_F = 150 A; max.	1,3	V
$V_{(TO)}$	T_{vj} = 125 °C	0,8	V
r_T	T_{vj} = 125 °C	4	mΩ
R_{thjh}	per chip	0,6	K/W
T_{vjmax}		– 40 ... + 125	°C
T_{stg}		– 40 ... + 125	°C
T_{solder}	terminals	260	°C
V_{isol}	a.c. 50 Hz; r.m.s. 1 s/1 min	3000 / 2500	V~
$M_{1, 2}$	mounting torque, SI Units	2,5	Nm
w		75	g
Case		G 61	

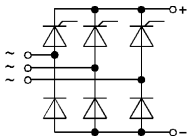
SEMIPONT™ 5

half controlled 3-phase bridge recitifier

SKDH 145

Preliminary Data





Features

- Compact design
- Two screws mounting
- Heat transfer and isolation through direct copper board (low R_{th})
- Low resistance in steady- state and high reliability
- High surge currents
- UL recognized, file no. E 63 532

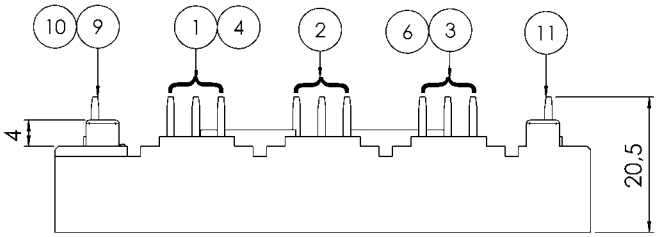
Typical Applications

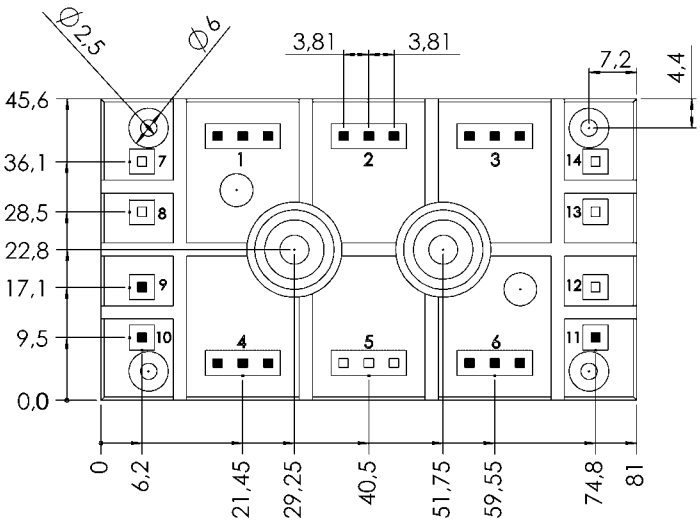
- For DC drives with a fixed direction of rotation
- Controlled field rectifier for DC motors
- Controlled battery charger

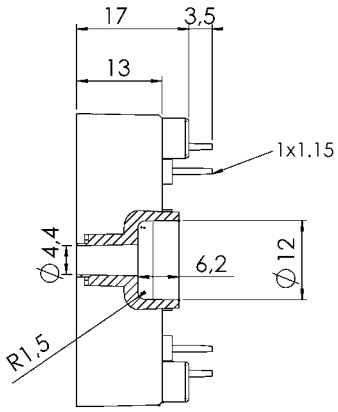
SKDH 145

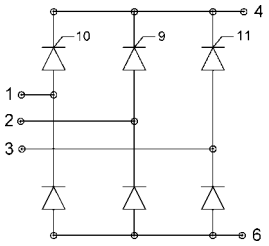
Case G 61

SEMIPONT™ 5









Dimensions in mm