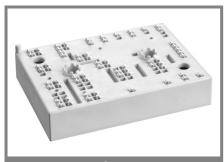
SKiiP 39AC066V2



MiniSKiiP[®] 3

3-phase bridge inverter

SKiiP 39AC066V2

Target Data

Features

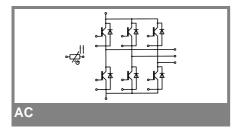
- Trench IGBTs
- Robust and soft freewheeling diodes in CAL technology
- Highly reliable spring contacts for electrical connections
- UL recognised file no. E63532

Typical Applications

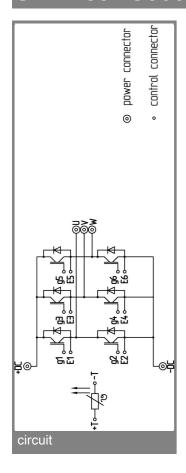
- Inverter up to 30 kVA
- Typical motor power 15 kW

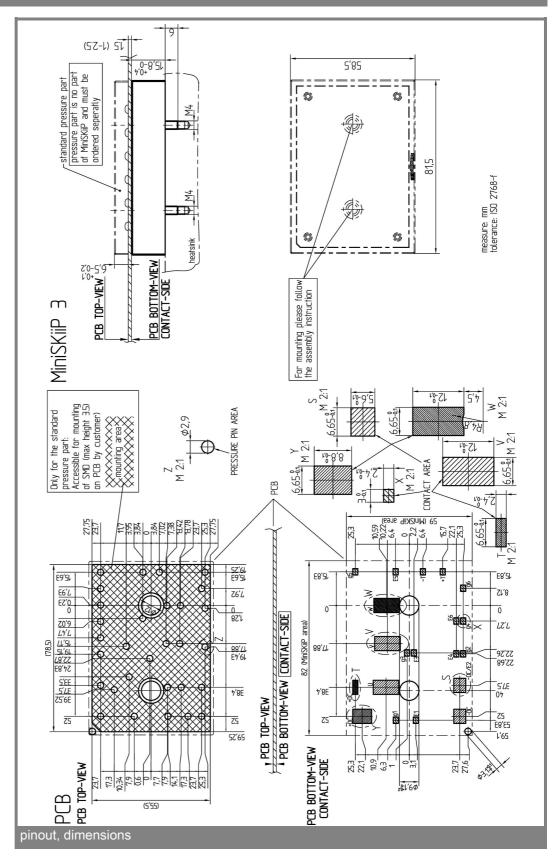
Absolute	Maximum Ratings	T_s = 25 °C, unless otherwise	T _s = 25 °C, unless otherwise specified				
Symbol	Conditions	Values	Units				
IGBT - Inverter							
V_{CES}		600	V				
I _C	T _s = 25 (70) °C		Α				
I _{CRM}	$T_s = 25 (70) ^{\circ}C, t_p \le 1 \text{ms}$		Α				
V_{GES}	r	± 15	V				
T _j		- 40 + 150	°C				
Diode - Inverter							
I _F	$T_s = 25 (70) ^{\circ}C$		Α				
I _{FRM}	$T_s = 25 (70) ^{\circ}C, t_p \le 1 \text{ms}$		Α				
T _j	·	- 40 + 150	°C				
I _{tRMS}	per power terminal (20 A / spring)	160	Α				
T _{stg}	$T_{op} \le T_{stg}$	- 40 + 125	°C				
V _{isol}	AC, 1 min.	2500	٧				

Characteristics		T _s = 25 °C, unless otherwise specified						
Symbol	Conditions	min.	typ.	max.	Units			
IGBT - Inverter								
V_{CEsat}	I _C = 150 A, T _i = 25 (125) °C		2 (2,2)	2,5 (2,7)	V			
$V_{GE(th)}$	$V_{GE} = V_{CE}$, $I_C = 3 \text{ mA}$	3	4	5	V			
V _{CE(TO)}	T _j = 25 (125) °C		1,2 (1,1)	1,3 (1,2)	V			
r _T	$T_{j} = 25 (125) ^{\circ}C$		5,3 (7,3)	8 (10)	mΩ			
C _{ies}	$V_{CE} = 25 \text{ V}, V_{GE} = 0 \text{ V}, f = 1 \text{ MHz}$		9		nF			
C _{oes}	$V_{CE} = 25 \text{ V}, V_{GE} = 0 \text{ V}, f = 1 \text{ MHz}$		1,7		nF			
C _{res}	$V_{CE} = 25 \text{ V}, V_{GE} = 0 \text{ V}, f = 1 \text{ MHz}$		2,1		nF			
$R_{th(j-s)}$	per IGBT		0,4		K/W			
t _{d(on)}	under following conditions		20		ns			
t _r `´	$V_{CC} = 300 \text{ V}, V_{GE} = \pm 15 \text{ V}$		25		ns			
t _{d(off)}	I _C = 150 A, T _i = 125 °C		185		ns			
t _f	$R_{Gon} = R_{Goff} = 4 \Omega$		15		ns			
E _{on}	inductive load		5,7		mJ			
E _{off}			3,7		mJ			
Diode - Inverter								
$V_F = V_{EC}$	I _F = 150 A, T _i = 25 (125) °C		1,7 (1,7)	2,1 (2,1)	V			
V _(TO)	T _i = 25 (125) °C		1 (0,9)	1,1 (1)	V			
r _T	T _i = 25 (125) °C		4,7 (5,3)	6,7 (7,3)	mΩ			
$R_{th(j-s)}$	per diode		0,55		K/W			
I _{RRM}	under following conditions		270		Α			
Q_{rr}	I _F = 150 A, V _R = 300 V		18		μC			
E _{rr}	V _{GE} = 0 V, T _i = 125 °C		3,5		mJ			
	di _F /dt = 13700 A/μs							
Temperature Sensor								
R _{ts}	3 %, T _r = 25 (100) °C		1000(1670)		Ω			
Mechanical Data								
m			95		g			
M_s	Mounting torque	2		2,5	Nm			



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This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX.

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