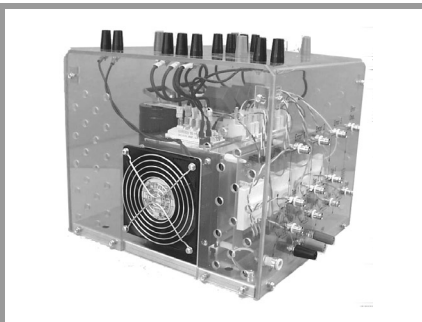


# SEMISTACK - IGBT



**SEMITRANS Stack<sup>1)</sup>**

**Three-phase rectifier + inverter with brake chopper**

**SEMITEACH - IGBT  
SKM 50 GB 123D  
SKD 51  
P3/250F**

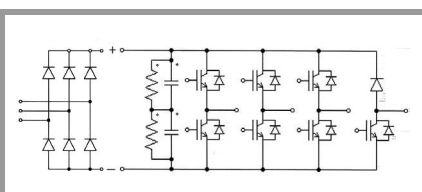
## Features

- Multi-function IGBT converter
- Transparent enclosure to allow visualization of every part
- IP2x protection to minimize safety hazards
- External banana/BNC type connectors for all devices
- Integrated drive unit offering short-circuit detection/cut-off, power supply failure detection, interlock of IGBTs + galvanic isolation of the user
- Forced-air cooled heatsink

## Typical Applications

- Education: One stack can simulate almost all existing industrial applications:
  - 3-phase inverter+brake chopper
  - Buck or boost converter
  - Single phase inverter
  - Single or 3-phase rectifier

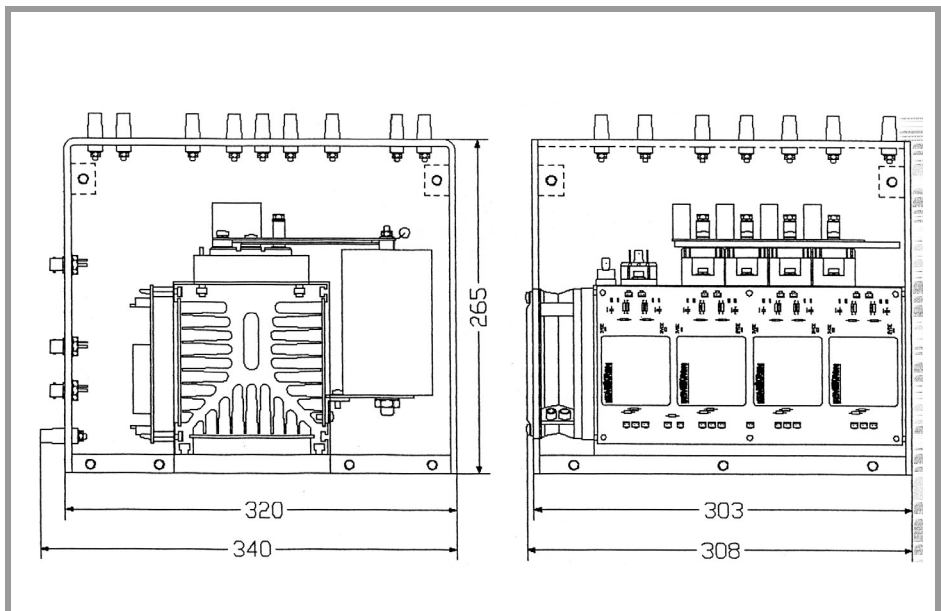
<sup>1)</sup> Photo non-contractual



**B6U + B6CI + E1CIKF**

Circuit	$I_{rms}$ (A)	$V_{ac} / V_{dcmax}$	Types
B6CI	30	440 / 750	SEMITEACH - IGBT

Symbol	Conditions	Values	Units
$I_{rms}$	no overload	30	A
$V_{CES}$	IGBT - 4x SKM 50 GB 123D	1200	V
$V_{CE(SAT)}$	$I_c = 50A, V_{GE} = 15V, \text{chip level}; T_j = 25(125)^\circ C$	2,7 (3,5)	V
$V_{GES}$		$\pm 20$	V
$I_c$	$T_{case} = 25 (80)^\circ C$	50 (40)	A
$I_{CM}$	$T_{case} = 25 (80)^\circ C; t_p = 1ms$	100 (80)	A
$V_{in(max)}$	Rectifier - 1x SKD 51/14	3 x 480 3 x 380	V V
	without filter with filter		
$C_{eqvl}$ $V_{DCmax}$	DC Capacitor bank - Electrolytic 2x 2200 $\mu F$ /400V	1100 / 800 750	$\mu F / V$ V
	total equivalent capacitance max. DC voltage applied to the capacitor bank		
Power supply Current consumption	Driver - 4x SKHI 22	0 / 15	V mA
Thermal trip	max; per driver	16	
	Normally Open type (NO)	71	$^\circ C$



**General dimensions**

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