



**SCHAFFLER**  
www.railwayinverter.com

**600**  
PLATFORM

## SAVERTER

**Sub-micro AC Inverter**

**Input: 580V DC**

**Output: 415V AC 3-phase (variable frequency up to 1kHz)**



### Key features:

- 370W to 22kW. 45kW available 2nd quarter 2007.
- Small, light-weight
- Reliable
- Shock & Vibration tested
- Cold Plate Style
- Programmable EPROM

The SCHAFFLER SAverters are compact, flexible inverters which allow direct mounting onto an externally provided heatsink. The inverters can be supplied from either 580V DC or 415V AC 3-phase.

The SAverters are designed to drive polyphase induction motors - typically for air-conditioner compressors, fans or radiator blowers. Models are currently available from 370W to 22kW. Models capable of 30kW, 37kW and 45kW will soon be available.

The reliability of these units is due to their solid state design. SCHAFFLER products are designed to accommodate the shock and vibration experienced on railways. The SCHAFFLER SAverters are designed with no wires so there is nothing to come loose and are constructed in the characteristic SCHAFFLER Cold Plate style.

The SAverters are programmable for specific applications via the built in keypad or from a PC using software. An innovative EPM programmer allows for cloning to ensure identical setup of multiple inverters.

SCHAFFLER SAverters are best located close to the motor being driven to reduce EMI effects. Where EMI is an issue, additional filters may be required.

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### General Specifications

Input voltage	580V DC or 415V AC 3-phase
Output voltage	415V AC 3-phase up to 1kHz
Output power	370W to 22kW 45kW units available 2nd quarter 2007
Motors	Designed to operate standard polyphase induction motors rated at 415V AC. The inverter can operate at frequencies up to 1kHz.
Enclosure	IP20 with finger safe terminals. Cold plate style - unit typically mounted within enclosure with higher protection rating and fitting to external heatsink
Thermal Overload	The SAverter is an approved motor protection device for single motor application by UL and cUL.
Control I/O	18 isolated terminals provide 5 logic inputs, 2 logic outputs, 2 analog inputs and 2 analog outputs plus RS485 Modbus serial communication.

### Ratings

kW	Output Current (A)	Model No	Size	Weight (kg)
0.37	1.3	SA405	A1	0.9
0.75	2.4	SA410	A2	1.1
1.1	3.4	SA415	A3	1.3
1.5	3.9	SA420	A3	1.4
2.2	5.5	SA430	A3	1.5
3.7	8.7	SA450	B2	2.1
5.5	12.6	SA475	C1	3.3
7.5	16.1	SA4100	C1	3.4
11	24	SA4150	D1	6.0
15	31	SA4200	D1	6.1
18.5	39	SA4250	D1	6.3
22	46	SA4300	D1	6.6

### Dimensions

Size	Height	Width	Depth
A1	146	92	100
A2	146	92	120
A3	146	92	146
B2	146	114	171
C1	197	148	182
D1	248	200	203

### Standards

EN 50155	Electronic equipment used on rolling stock
IEC 1287-1	Power converters installed on board rolling stock
EN 50121-3-2	Electromagnetic Compatibility
IEC 61000-4-3	EMC standard
IEC 61373	Railway application rolling stock equipment: Shock and vibration testing
BRB/RIA-12	British Rail Standard for transients and surges
AS 3000	Wiring regulations

