



Single or three phase outputs  
 Output voltage up to 480V AC 3Ø  
 Almost any combination of input to output possible.  
 -20° C - 75° C operating temperature (standard)  
 Wide range of optional alarms, meters, and controls.  
 Protection features: overheat, overload, continuous short circuit, desaturation of semiconductors.  
 High isolation properties.  
 Safety to EN60950, class 1  
 EMI to EN55022, class A, optional class B

Manufactured to the highest possible standards using proven reliable components and design management systems.

Schaefer power inverters are employed for critical applications such as: Railroad, automotive, telecommunications, power generation plants, chemical plants, oil refineries, factory automation and military purposes which require high reliability under severe environmental conditions.

◆ 36 Month Warranty



## SPECIFICATIONS

### ELECTRICAL - INPUT

<b>Voltage Range</b>	See table of models	
<b>No Load, Input Power</b>	20W typical	
<b>Hold-up Time</b>	IT Series:	10ms typical
	CI Series:	20ms typical
<b>Inrush Current</b>	See list of options	
<b>Bursts</b>	Acc. To EN61000-4-4 (level 3)	
<b>High Energy Pulses (surge)</b>	Acc. To EN61000-4-5 (level 3)	

### ELECTRICAL - OUTPUT

<b>Waveform</b>	Sinewave or any wave shape, programmable by external signal	
<b>Voltage Rating</b>	See table of models (other values by request)	
<b>Output Power</b>	See table of models (other values by request)	
<b>Line Regulation ±10%</b>	IT Series:	2%
	CI Series:	0.1%
<b>Load Regulation (10-90%)</b>	1% typical, 3% max (400Hz: 3% typ. 5% max)	
<b>Frequency</b>	50 / 60 / 400Hz crystal stabilized (adjustable 40 - 400Hz)	
<b>Efficiency</b>	Model dependant (75 - 90%)	
<b>Distortion</b>	3% typical (5% @ 400Hz)	
<b>Overload Protection (steady state)</b>	Current limited to approx. 1.05 I <sub>nom</sub>	
<b>Surge Power</b>	2 x P <sub>nom</sub> for 1 sec.	
<b>Short Circuit Current</b>	Electronically limited to 3 x I <sub>nom</sub>	
<b>Crest Factor</b>	Approx. 3	
<b>Turn-on Rise Time</b>	Softstart, 100ms typical	
<b>Power Factor</b>	cosΦ > 0.7 inductive / capacitive	

### PHYSICAL

<b>Connections</b>	IT Series:	H15 / F24+H7 DIN 41612 or terminals
	CI Series:	H15 DIN 41612 or terminals
<b>Fabrication</b>	Zinc plated steel / aluminium	

### ENVIRONMENTAL

<b>Operating Temp</b>	-20 - 75° C (optional -40 - 75° C)
<b>Load Derating</b>	2.5% per °C from 55° C
<b>Storage temperature</b>	-40 - 85° C
<b>Cooling</b>	Natural convection, (models 5kW and higher: forced cooling)
<b>Temperature Coefficient</b>	0.05 % per °C typical

### STANDARDS

<b>EMC</b>	Acc. to EN55022, class A, optionally class B
<b>Construction (Safety)</b>	Acc. to EN60950, class 1
<b>Isolation Voltage</b>	Acc. to EN60950, class 1 (SELV ask us)
<b>Creepage Distance</b>	Acc. to VDE 0110, > 4mm
<b>Air Distance</b>	Acc. to VDE 0110, 3mm

### GENERAL

<b>Switching Frequency</b>	Approx. 33kHz (converter) / 20 kHz (inverter)
<b>MTBF @ 40° C</b>	Acc. to MIL-HDBK-217E (notice 1)
	IT Series: approx. 120,000hr
	CI Series: approx. 70,000hr
<b>Isolation Resistance</b>	> 10MΩ @ 500V DC
<b>Earth Leakage</b>	< 3.5mA @ 230V AC, acc. to EN60950

# High Power 200VA - 10kVA DC/AC Schaefer Full Industrial Grade Inverters



## STANDARD PREFERRED MODEL TABLE

OUTPUT V AC	DC INPUT					
	24V (20 - 32)	48V (40 - 64)	60V (50 - 80)	110V (80 - 160)	220V (160 - 320)	400 - 500V (320 - 640)
<b>NOMINAL</b>						
115V AC	200VA - 3kVA	400VA - 3.5kVA	400VA - 3.5kVA	500VA - 5kVA	500VA - 10kVA	500VA - 10kVA
230V AC	200VA - 3kVA	400VA - 3.5kVA	400VA - 3.5kVA	500VA - 5kVA	500VA - 10kVA	500VA - 10kVA
3 X 200V AC 3Ø	600VA - 1.2kVA	1.2 - 3.6kVA	1.2 - 3.6kVA	1.5 - 6kVA	1.8 - 10kVA	1.8 - 10kVA
3 X 400V AC 3Ø	600VA - 1.2kVA	1.2 - 3.6kVA	1.2 - 3.6kVA	1.5 - 6kVA	1.8 - 10kVA	1.8 - 10kVA
3 X 480V AC 3Ø	600VA - 1.2kVA	1.2 - 3.6kVA	1.2 - 3.6kVA	1.5 - 6kVA	1.8 - 10kVA	1.8 - 10kVA

Ratings shown are from individual modules. Specialising also in critical load applications, redundant and / or higher power configurations can easily be achieved.

## FREQUENCY DESIGNATION TABLE (example)

I 1520 or any other model	.0	Any external signal (control, ramp)
	.1	40 - 400Hz adjustable
	.2	45 - 65Hz adjustable
	.3	-
	.4	400Hz
	.5	50Hz
	.51	Synchronized with mains 50Hz
	.6	60Hz
	.61	Synchronized with mains 60Hz
	.7	50 / 60Hz switchable

.1 and .2 frequency internally or externally adjustable / programmable  
.4 to .7 frequency fixed, crystal stabilised

## MOUNTING DETAILS / DIMENSIONS

Depending on power output, module sizes are from 6U x 42HP to 9U x 19".

Contact our office for more information on the IT & CI Series Schaefer Industrial Inverters.

## ADDITIONAL OPTIONS

**Inrush current limiting**

**Input polarity protection for DC input**

**Remote on / off (inhibit)**

**Monitoring of input and output voltages**

**Output programmable via analogue signal**

**RS232 or IEEE488 interface**

**Wall Mounting**

**Increased mechanical strength**

**Tropical protection**

**Static switch for uninterruptible power supply  
from 800VA - 10kVA**

