

# SIL05E Series

3 Vin to 5.5 Vin single output

DC-DC CONVERTERS | E Class Non-isolated

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NEW Product



2 YEAR WARRANTY

The SIL05E series are non-isolated dc-dc converters packaged in a single-in-line footprint giving designers a cost effective solution for conversion from a 3.3 Vin to 5 Vin source. The SIL05E has a wide input range (3.0 Vdc to 5.5 Vdc) and offers a wide 0.75 Vdc to 3.63 Vdc output voltage range with a 5 A load, which allows for maximum design flexibility and a pathway for future upgrades. The SIL05E is designed for applications that include distributed power, workstations, optical network and wireless applications. Implemented using state of the art surface-mount technology and automated manufacturing techniques, the SIL05E offers compact size and efficiencies of up to 94%.

All specifications are typical at nominal input, full load at 25 °C unless otherwise stated

## SPECIFICATIONS

OUTPUT SPECIFICATIONS		EMC CHARACTERISTICS	
Voltage adjustability	0.75-3.63 Vdc	Electrostatic discharge	EN61000-4-2, IEC801-2
Setpoint accuracy	±0.4%	Conducted immunity	EN61000-4-6
Line regulation	±1.0%	Radiated immunity	EN61000-4-3
Load regulation	±1.0%		
Minimum load	0 A		
Overshoot/undershoot	None		
Ripple and noise 5 Hz to 20 MHz	75 mV pk-pk 25 mV rms		
Temperature co-efficient	±0.01% /°C		
Transient response	60 mV max. deviation 50 µs recovery to within 1%		
INPUT SPECIFICATIONS		GENERAL SPECIFICATIONS	
Input voltage range	3.0-5.5 Vdc	Efficiency	94% typ.
Input current	No load (max.)	Insulation voltage	Non-isolated
Input current (max.)	3.9 A max. @ Io max. and Vout = 3.3 V	Switching frequency	Fixed 300 kHz typ.
Input reflected ripple	40 mA rms	Approvals and standards	EN60950 UL/cUL60950
Remote ON/OFF	(See Note 1)	Material flammability	UL94V-0
Start-up time	20 ms	Dimensions	(LxWxH) 0.902 x 0.279 x 0.402 inches 22.90 x 7.09 x 10.21 mm
		Weight	2.5 g (0.09 oz)
		MTBF	Telcordia SR-332 9,009,000 hours
ENVIRONMENTAL SPECIFICATIONS			
Thermal performance (See Note 2)	Operating ambient, temperature Non-operating	-40 °C to +85 °C -40 °C to +125 °C	
PROTECTION		PROTECTION	
Short-circuit		Continuous	
Thermal		Automatic recovery	

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## 3.0-5.5Vin single output



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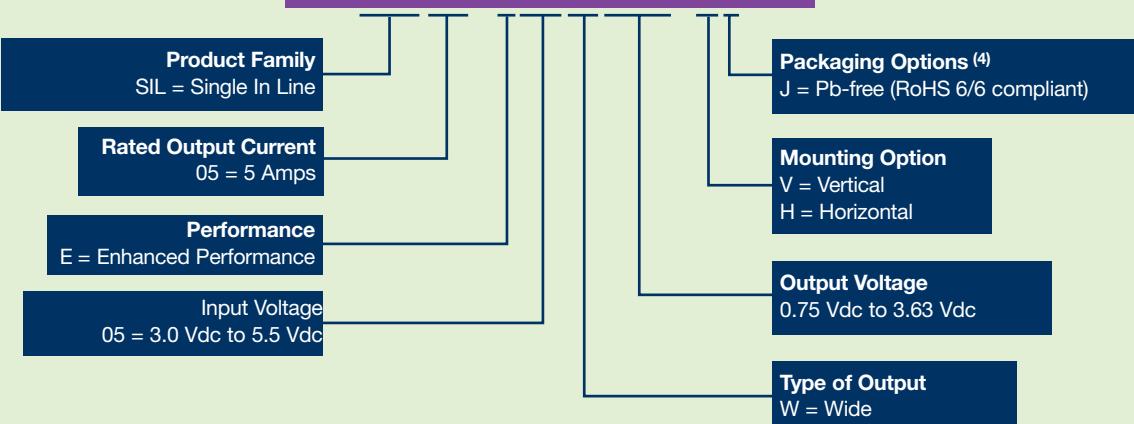
For the most current data and application support visit [www.artesyn.com/powergroup/products.htm](http://www.artesyn.com/powergroup/products.htm)

**NEW Product**

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION	MODEL NUMBER (3,4,5)
						LINE	LOAD
18.15 W	3.0-5.5 Vin	0.75-3.63 Vdc	0 A	5 A	94%	±1.0%	±1.0% SIL05E-05W3V3-VJ

### Part Number System with Options

#### SIL05E-05W3V3-VJ



#### Output Voltage Adjustment of the SIL05E-05W3V3 Series

The ultra-wide output voltage trim range offers major advantages to users who select the SIL05E-05W3V3. It is no longer necessary to purchase a variety of modules in order to cover different output voltages. The output voltage can be trimmed in a range of 0.75 Vdc to 3.63 Vdc. When the SIL05E-05W3V3 converter leaves the factory the output has been adjusted to the default voltage of 0.75 V

- When Vin  $\geq$  4.5 V, then Vout can be adjusted from 0.75 Vdc to 3.63 Vdc
- When Vin < 4.5V, then Vout can be adjusted from 0.75 Vdc to 2.75 Vdc

### Notes

1 The SIL05E features a 'Negative Logic' Remote ON/OFF operation. If not using the Remote ON/OFF pin, leave the pin open (the converter will be on). The Remote ON/OFF pin is referenced to ground

The following conditions apply for the SIL05E:

Configuration	Converter Operation
Remote pin open circuit	Unit is ON
Remote pin pulled low	Unit is ON
Remote pin pulled high [Von/off >2.5 V]	Unit is OFF

An 'Positive Logic' Remote ON/OFF version is also possible with this converter. To order please place the suffix 'R' towards the end of the model number e.g. SIL05E-05W3V3-VRJ.

2 Full derating curves available in both the Longform Datasheet and Application Note.

3 For horizontal mounting option please consult factory for details.

4 TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.

5 NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.

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**ARTESYN**<sup>®</sup>  
TECHNOLOGIES

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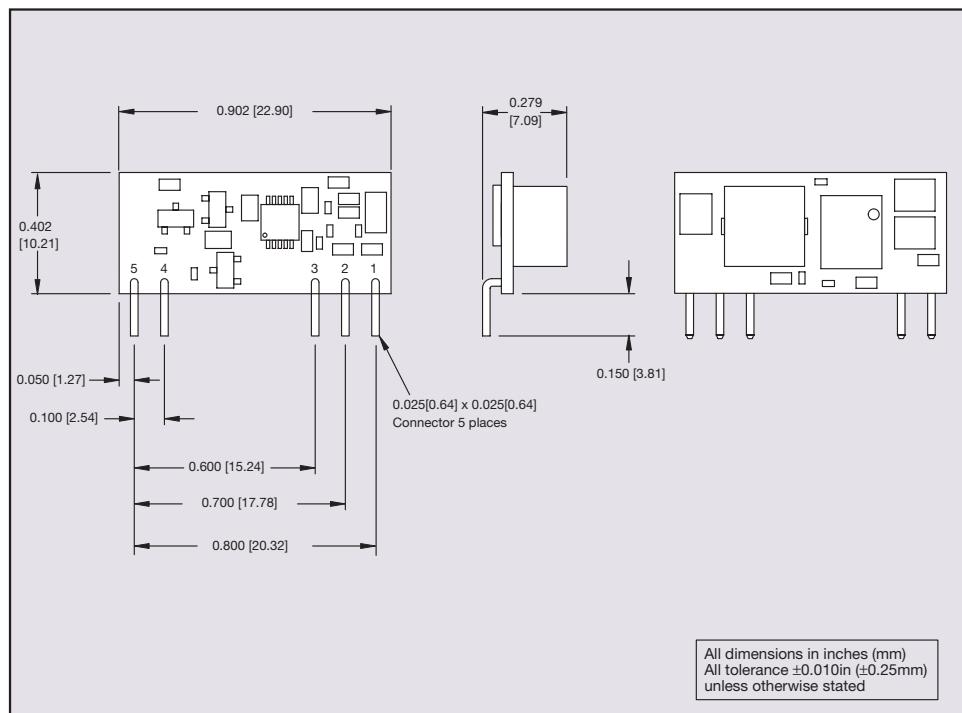
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PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	Vout
2	Trim
3	GND
4	Vin
5	Remote ON/OFF