

# RS3/RD3-E20/T20

- 7 Pin SIL/ 14Pin DIL Package
- 1000VDC Isolation
- Up to 3000VDC Isolation
- Low Ripple and Noise
- Efficiency up to 80%
- Operating Temperature Range:  
-40° ~ +85°C
- Non Conductive Black Plastic Case

RoHS



OUTPUT SPECIFICATION	ENVIRONMENTAL SPECIFICATION
Voltage accuracy: ±3%	Operating Temperature range: -40°C ~+85°C (see Derating Curve)
Line regulation: per 1%Vin Change: ±1.2%	Maximum Case Temperature: 100°C
LOAD REGULATION: from 20% to 100% load: ±10%	Storage Temperature : -40°C ~+125°C
Output 3.3V Model: ±20%	Cooling : Nature Convection
Ripple noise (20Mhz bandwidth): 75mV pk-pk	PHYSICAL SPECIFICATIONS:
Temperature coefficient: ±0.02% °C	Case Material: Non-conductive Black Plastic (UL94V-0 rated)
Capacitor load: See table	PIN Material: Ø 0.5mm Alloy42 Solder-coated
INPUT SPECIFICATIONS	Potting Material: Epoxy (UL94V-0 rated)
Voltage Range: ±10%	Weight Case- Sip: 2.7g
Max. Input Current: See table	Weight Case-DIP: 2.7g
No-Load/Full-Load Input Current: See table	Dimmension SIP: 0.76 x 0.28 x 0.39"
Input Filter: Capacitors	Dimmension DIP: 0.80 x 0.40 x 0.27"
Input Reflected Ripple Current : 20mA pk-pk	ABSOLUTE MAXIMUM RATINGS (1)
GENERAL SPECIFICATIONS	Input Surge Voltage (100ms)/
Efficiency: See table	5 V Models: 7VDC max
I/O Isolation Voltage (3sec): 1000 ~ 3000VDC	12V Models: 15VDC max
I/O Isolation Capacitance: 60pF typ.	24V Models: 28VDC max
I/O Isolation Resistance: 1000M Ohm	Soldering Temperature (2): 260°C max.
Switching Frequency: Variable 80kHz	
Humidity: 95% rel H	
Reliability Calculated MTBF : >1.121Mhrs (MIL-HDBK-217 f)	
Safety Standard: (designed to meet): IEC 60950-1	

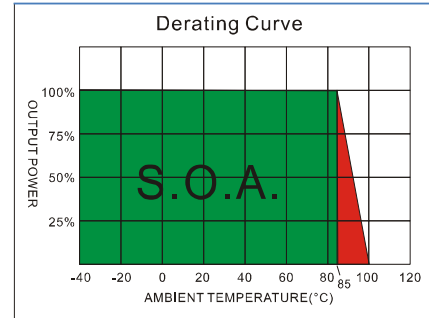
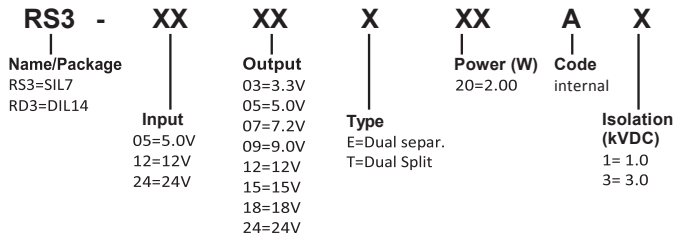
1) These are stress ratings. Exposure of devices to any of these conditions may adversely affect long-term reliability.

2) (1.5mm from case 10sec Max.)

3) All specifications typical at TA= 25°C, nominal input voltage and full load unless otherwise specified.

4) The information and specification contained in this data sheet are believed to be correct at time of publication. However RSG accepts no responsibility for consequences arising from printing errors or inaccuracies. Specifications are subject to change without notice.

**NUMBER STRUCTURE**



**MODEL SELECTION GUIDE**

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage(Vdc) Output1 Output2	OUTPUT Current Full load(mA)		EFFICIENCY @FL(%)	Capacitor Load(µF)
		No-Load (mA)	Full Load (mA)		Output1	Output2		
RS3/RD3-0503T20AX	5	35	519	5, 3,3	200	303	77	220
RS3/RD3-0507T20AX	5	35	519	5, 7,2	200	139	77	220
RS3/RD3-0509T20AX	5	35	519	5, 9	200	111	77	220
RS3/RD3-0512T20AX	5	35	500	5, 12	200	83	80	220
RS3/RD3-0515T20AX	5	35	500	5, 15	200	67	80	220
RS3/RD3-0518T20AX	5	35	519	5, 18	200	55	77	220
RS3/RD3-0524T20AX	5	35	519	5, 24	200	41	77	220
RS3/RD3-1203T20AX	12	25	216	5, 3,3	200	303	77	220
RS3/RD3-1207T20AX	12	25	216	5, 7,2	200	139	77	220
RS3/RD3-1209T20AX	12	25	216	5, 9	200	111	77	220
RS3/RD3-1212T20AX	12	25	208	5, 12	200	83	80	220
RS3/RD3-1215T20AX	12	25	208	5, 15	200	67	80	220
RS3/RD3-1218T20AX	12	25	216	5, 18	200	55	77	220
RS3/RD3-1224T20AX	12	25	216	5, 24	200	41	77	220
RS3/RD3-2403T20AX	24	12	108	5, 3,3	200	303	77	220
RS3/RD3-2407T20AX	24	12	108	5, 7,2	200	139	77	220
RS3/RD3-2409T20AX	24	12	108	5, 9	200	111	77	220
RS3/RD3-2412SD/01	24	12	104	5, 12	200	83	80	220
RS3/RD3-2415T20AX	24	12	104	5, 15	200	67	80	220
RS3/RD3-2418T20AX	24	12	106	5, 18	200	55	78	220
RS3/RD3-2424T20AX	24	12	108	5, 24	200	41	77	220

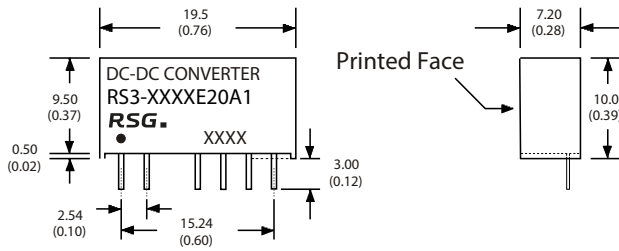
Suffix "3" means 3 KVdc isolation

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage(Vdc) Output1 Output2	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(uF)
		No-Load (mA)	Full Load (mA)		Full load(mA) Output1 Output2			
RS3/RD3-0503E20AX	5	35	519	3.3, 3.3	303, 303	77	220	
RS3/RD3-0505E20AX	5	35	512	5, 5	200, 200	78	220	
RS3/RD3-0507E20AX	5	35	512	7.2, 7.2	139, 139	78	220	
RS3/RD3-0509E20AX	5	35	512	9, 9	111, 111	78	220	
RS3/RD3-0512E20AX	5	35	512	12, 12	83, 83	78	220	
RS3/RD3-0515E20AX	5	35	506	15, 15	67, 67	79	220	
RS3/RD3-0518E20AX	5	35	500	18, 18	55, 55	80	220	
RS3/RD3-0524E20AX	5	35	500	24, 24	41, 41	80	220	
RS3/RD3-1203E20AX	12	25	216	3.3, 3.3	303, 303	77	220	
RS3/RD3-1205E20AX	12	25	216	5, 5	200, 200	77	220	
RS3/RD3-1207E20AX	12	25	216	7.2, 7.2	139, 139	77	220	
RS3/RD3-1209E20AX	12	25	216	9, 9	111, 111	77	220	
RS3/RD3-1212E20AX	12	25	213	12, 12	83, 83	78	220	
RS3/RD3-1215E20AX	12	25	213	15, 15	67, 67	78	220	
RS3/RD3-1218E20AX	12	25	208	18, 18	55, 55	80	220	
RS3/RD3-1224E20AX	12	25	208	24, 24	41, 41	80	220	
RS3/RD3-2403E20AX	24	12	106	3.3, 3.3	303, 303	78	220	
RS3/RD3-2405E20AX	24	12	106	5, 5	200, 200	78	220	
RS3/RD3-2407E20AX	24	12	106	7.2, 7.2	139, 139	78	220	
RS3/RD3-2409E20AX	24	12	106	9, 9	111, 111	78	220	
RS3/RD3-2412SD/02	24	12	104	12, 12	83, 83	80	220	
RS3/RD3-2415E20AX	24	12	104	15, 15	67, 67	80	220	
RS3/RD3-2418E20AX	24	12	104	18, 18	55, 55	80	220	
RS3/RD3-2424E20AX	24	12	104	24, 24	41, 41	80	220	

Suffix "3" means 3 KVdc isolation

1. Ripple/Noise measured with 20MHz bandwidth.
2. Tested by minimal Vin and constant resistive load.
3. Measured Input reflected ripple current with a simulated source inductance of 12uH.
4. Exceeding the absolute ratings of the unit could cause damage. It is not allowed for continuous operating.
5. Operation under no-load conditions will not damage these devices, however they may not meet all listed specifications.

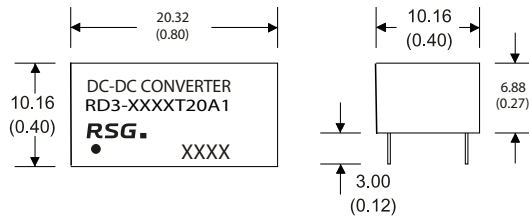
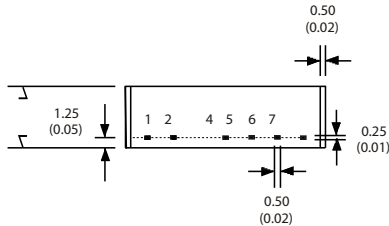
RS3/RD3-E20/T20



7 Pin SIL Package

Notes : All dimensions are typical in millimeters ( inches ).

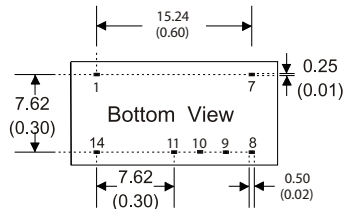
1. Pin diameter:  $0.5 \pm 0.05$  ( $0.02 \pm 0.002$ )
2. Pin pitch and length tolerance:  $\pm 0.35$  ( $\pm 0.014$ )
3. Case Tolerance:  $\pm 0.5$  ( $\pm 0.02$ )



14 Pin DIL Package

Notes : All dimensions are typical in millimeters ( inches ).

1. Pin diameter:  $0.5 \pm 0.05$  ( $0.02 \pm 0.002$ )
2. Pin pitch and length tolerance:  $\pm 0.35$  ( $\pm 0.014$ )
3. Case Tolerance:  $\pm 0.5$  ( $\pm 0.02$ )



**DIL 14**

PIN CONNECTIONS	
PIN NUMBER	Dual Separate
1	-V Input
7	N.C
8	-V2 Output
9	+V2 Output
10	-V1 Output
11	+V1 Output
14	+V Input

(The Pin Connection of high isolation one is the same with normal one. )

**SIL 7**

PIN CONNECTIONS	
PIN NUMBER	Dual Separate
1	+V Input
2	-V Input
4	+V1 Output
5	-V1 Output
6	+V2 Output
7	-V2 Output

(The Pin Connection of high isolation one is the same with normal one. )

The models listed here are just standard type. If you need a product with special specification or you have questions regarding packing standards (Tube oder Tape/Reel) as well as application support, please contact our specialists: [sales@rsg-electronic.de](mailto:sales@rsg-electronic.de) or +49 69-984047-41/-28