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

Voltage accuracy:	±3%
Line regulation:	per 1%Vin Change: ±1.2%
LOAD REGULATION:	from 20% to 100% load: ±10%
	Output 3.3V Model: ±20%
Ripple noise (20Mhz bandwidth):	75mV pk-pk
Temperature coefficient:	±0.02% °C
Capacitor load:	See table

INPUT SPECIFICATIONS

Voltage Range:	±10%
Max. Input Current:	See table
No-Load/Full-Load Input Current:	See table
Input Filter:	Capacitors
Input Reflected Ripple Current :	20mA pk-pk

GENERAL SPECIFICATIONS

Efficiency:	See table
I/O Isolation Voltage (3sec):	1000 ~ 3000VDC
I/O Isolation Capacitance:	60pF typ.
I/O Isolation Resistance:	1000M Ohm
Switching Frequency:	Variable 80kHz
Humidity:	95% rel H
Reliability Calculated MTBF : (MIL-HDBK-217 f)	>1.121MHrs
Safety Standard: (designed to meet):	IEC 60950-1

ENVIRONMENTAL SPECIFICATION

Operating Temperature range:	-40°C ~+85°C (see Derating Curve)
Maximum Case Temperature:	100°C
Storage Temperature :	-40°C ~+125°C
Cooling :	Nature Convection

PHYSICAL SPECIFICATIONS:

Case Material:	Non-conductive Black Plastic (UL94V-0 rated)
PIN Material:	Ø 0.5mm Alloy42 Solder-coated
Potting Material:	Epoxy (UL94V-0 rated)
Weight Case- Sip:	2.7g
Weight Case-DIP:	2.7g
Dimmension SIP:	0.76 x 0.28 x 0.39“
Dimmension DIP:	0.80 x 0.40 x 0.27“

ABSOLUTE MAXIMUM RATINGS (1)

Input Surge Voltage (100ms)/	
5 V Models:	7VDC max
12V Models:	15VDC max
24V Models:	28VDC max
Soldering Temperature (2):	260°C max.

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.

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NUMBER STRUCTURE

RS3 - XX XX X XX A X

Name/Package
RS3=SIL7
RD3=DIL14

Input
05=5.0V
12=12V
24=24V

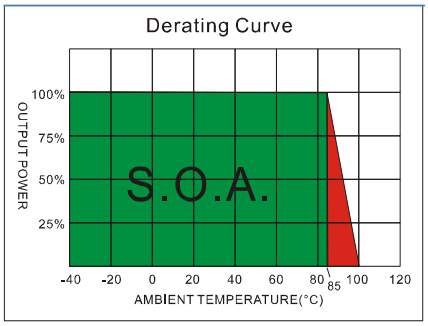
Output
03=3.3V
05=5.0V
07=7.2V
09=9.0V
12=12V
15=15V
18=18V
24=24V

Type
E=Dual separ.
T=Dual Split

Power (W)
20=2.00

Code
internal

Isolation (kVDC)
1= 1.0
3= 3.0



MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current No-Load (mA)	INPUT Current Full Load (mA)	OUTPUT Voltage(Vdc) Output1 Output2	OUTPUT Current Full load(mA) Output1 Output2	EFFICIENCY @FL(%)	Capacitor Load(uF)
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

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RS3/RD3-E20/T20

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current No-Load (mA)	INPUT Current Full Load (mA)	OUTPUT Voltage(Vdc) Output1 Output2	OUTPUT Current Full load(mA) Output1 Output2	EFFICIENCY @FL(%)	Capacitor Load(uF)
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.

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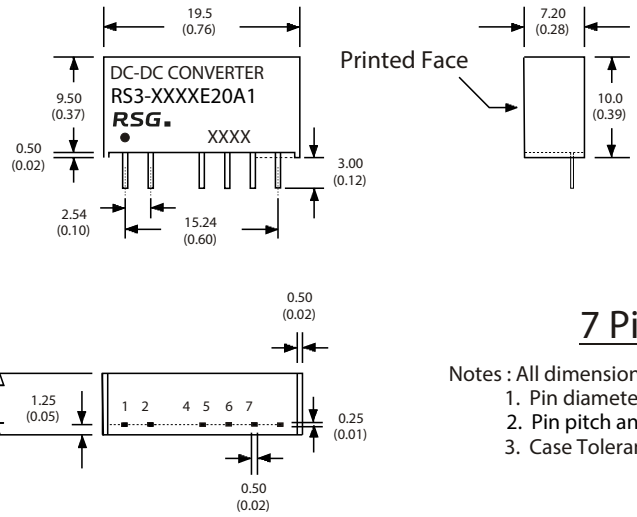
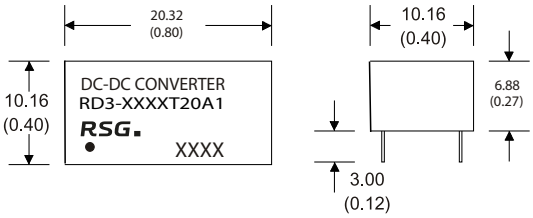
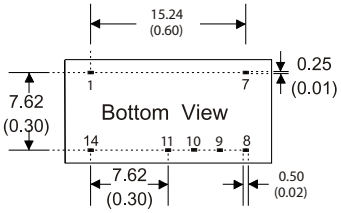


7 Pin SIL Package

Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5 ± 0.05 (0.02 ± 0.002)
2. Pin pitch and length tolerance: ± 0.35 (± 0.014)
3. Case Tolerance: ±0.5 (± 0.02)





14 Pin DIL Package

Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5 ± 0.05 (0.02 ± 0.002)
2. Pin pitch and length tolerance: ± 0.35 (± 0.014)
3. Case Tolerance: ± 0.5 (± 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 or +49 69-984047-41/-28

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