



# RL-1324

## MIL SPEC INDUCTORS

### DESCRIPTION

- MIL Spec Inductor

### ENVIRONMENTAL DATA

- Storage temperature range: -55°C to +130°C
- Operating temperature range: -40°C to +130°C

### PACKAGING INFORMATION

- Packaging information: pg. 493

### FEATURES & APPLICATIONS

- Designed to meet MIL-PRF-27, Class S specifications
- Over 200 standard values covering an inductance range from 1  $\mu$ H to 15,000  $\mu$ H with rated saturation current ranges from 1.5 A to 155 A are available
- Typical applications include: switching regulators, power amplifiers, SCR and TRIAC Controls, RFI suppression, filters, reactors, power inductors, audio inductors and saturable inductors

Verify operation with sample in actual circuit. Order samples at [www.rencousa.com](http://www.rencousa.com).

### MECHANICAL DIMENSIONS

U.S. Standard (mm)

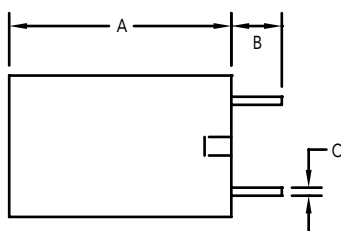
PART NUMBER	A (MAX.)	B (MIN.)	C (TYP.)	D	E $\pm$ 0.010 (0.254)
RL-1324-1	1.100 (27.94)	0.250 (6.35)	0.040 (1.02)	4-40	0.096 (2.438)
RL-1324-2	1.100 (27.94)	0.250 (6.35)	0.040 (1.02)	4-40	0.156 (3.962)
RL-1324-3	1.100 (27.94)	0.250 (6.35)	0.040 (1.02)	4-40	0.269 (6.832)
RL-1324-4	1.380 (35.05)	0.250 (6.35)	0.080 (2.03)	6-32	0.375 (9.524)
RL-1324-5	1.850 (46.99)	0.250 (6.35)	0.080 (2.03)	6-32	0.375 (9.524)

PART NUMBER	PART WEIGHT
RL-1324-1	25.0g (0.88oz)
RL-1324-2	38.0g (1.34oz)
RL-1324-3	55.0g (1.94oz)
RL-1324-4	150.0g (5.29oz)
RL-1324-5	200.0g (7.05oz)

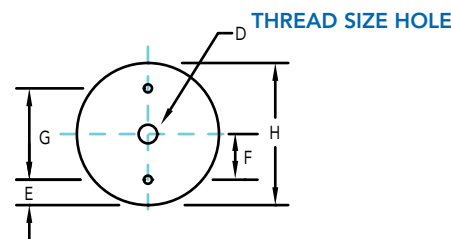
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F	G $\pm$ 0.010 (0.254)	H
0.225 (5.715)	0.450 (11.430)	0.700 (17.78)
0.250 (6.350)	0.500 (12.700)	0.830 (21.08)
0.268 (6.807)	0.537 (13.639)	1.100 (27.94)
0.375 (9.524)	0.750 (19.049)	1.525 (38.73)
0.375 (9.254)	0.750 (19.049)	1.525 (38.73)

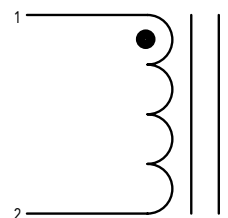
TOP VIEW



SIDE VIEW



SCHEMATIC



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# RL-1324-1

Renco Part No. RL-1324-1	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-1-1.0	1.0	0.003	87.0	8.1
RL-1324-1-1.2	1.2	0.003	68.0	8.1
RL-1324-1-1.5	1.5	0.004	56.0	8.1
RL-1324-1-1.8	1.8	0.004	56.0	8.1
RL-1324-1-2.2	2.2	0.005	47.0	8.1
RL-1324-1-2.7	2.7	0.005	47.0	8.1
RL-1324-1-3.3	3.3	0.005	40.0	8.1
RL-1324-1-3.9	3.9	0.006	36.0	8.1
RL-1324-1-4.7	4.7	0.007	32.0	8.1
RL-1324-1-5.6	5.6	0.007	29.0	8.1
RL-1324-1-6.8	6.8	0.008	26.0	8.1
RL-1324-1-8.2	8.2	0.009	24.5	8.1
RL-1324-1-10	10.0	0.010	21.2	8.1
RL-1324-1-12	12.0	0.011	19.0	8.1
RL-1324-1-15	15.0	0.015	17.5	6.4
RL-1324-1-18	18.0	0.016	16.5	6.4
RL-1324-1-22	22.0	0.020	15.8	4.9
RL-1324-1-27	27.0	0.030	14.4	4.0
RL-1324-1-33	33.0	0.040	13.2	3.6
RL-1324-1-39	39.0	0.046	11.8	3.6
RL-1324-1-47	47.0	0.062	11.0	2.5
RL-1324-1-56	56.0	0.069	10.0	2.5
RL-1324-1-68	68.0	0.077	8.9	2.5
RL-1324-1-82	82.0	0.083	8.2	2.5
RL-1324-1-100	100.0	0.095	7.5	2.5
RL-1324-1-120	120.0	0.127	5.8	1.8
RL-1324-1-150	150.0	0.181	5.6	1.4
RL-1324-1-180	180.0	0.217	5.1	1.4
RL-1324-1-220	220.0	0.240	4.3	1.4
RL-1324-1-270	270.0	0.300	4.1	1.4
RL-1324-1-330	330.0	0.336	3.8	1.1
RL-1324-1-390	390.0	0.460	3.3	0.9
RL-1324-1-470	470.0	0.636	3.2	0.7
RL-1324-1-560	560.0	0.696	2.9	0.7

## NOTES:

1. Isat LOWERS INDUCTANCE 5%
2. INDUCTANCE  $\pm$ 10% TESTED AT 1 kHz, 0.1 Vrms
3. RDC MEASURED AT 20°C
4. VALUES BELOW 10 $\mu$ H  $\pm$ 20%
5. 1000V HIPOT TEST WINDING TO CORE
6. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
7. I rms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
8. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
9. GRADE 5 CLASS S (-55°C TO +130°C)

THE RL-1324 IS DESIGNED TO MEET MIL-PRF-27, CLASS S, HOWEVER, THEY ARE NOT CURRENTLY LISTED ON THE DSCC QUALIFIED PRODUCTS LIST



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# RL-1324-2

Renco Part No. RL-1324-2	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-2-1.0	1.0	0.003	108.0	10.2
RL-1324-2-1.2	1.2	0.003	108.0	10.2
RL-1324-2-1.5	1.5	0.003	83.0	10.2
RL-1324-2-1.8	1.8	0.003	68.0	10.2
RL-1324-2-2.2	2.2	0.004	68.0	10.2
RL-1324-2-2.7	2.7	0.005	58.0	10.2
RL-1324-2-3.3	3.3	0.005	58.0	10.2
RL-1324-2-3.9	3.9	0.005	50.0	10.2
RL-1324-2-4.7	4.7	0.005	50.0	10.2
RL-1324-2-5.6	5.6	0.006	44.0	10.2
RL-1324-2-6.8	6.8	0.007	39.0	10.2
RL-1324-2-8.2	8.2	0.007	36.0	10.2
RL-1324-2-10	10.0	0.009	30.0	10.2
RL-1324-2-12	12.0	0.009	27.0	10.2
RL-1324-2-15	15.0	0.013	25.0	8.1
RL-1324-2-18	18.0	0.018	22.0	6.4
RL-1324-2-22	22.0	0.019	21.0	6.4
RL-1324-2-27	27.0	0.026	20.5	4.9
RL-1324-2-33	33.0	0.029	18.6	4.9
RL-1324-2-39	39.0	0.030	17.0	4.9
RL-1324-2-47	47.0	0.035	15.1	4.9
RL-1324-2-56	56.0	0.039	13.6	4.9
RL-1324-2-68	68.0	0.053	12.7	4.3
RL-1324-2-82	82.0	0.060	11.3	4.3

Renco Part No. RL-1324-2	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-2-100	100.0	0.080	10.4	3.6
RL-1324-2-120	120.0	0.090	9.4	3.6
RL-1324-2-150	150.0	0.098	8.6	3.6
RL-1324-2-180	180.0	0.110	7.8	3.6
RL-1324-2-220	220.0	0.150	7.0	2.5
RL-1324-2-270	270.0	0.213	6.3	1.8
RL-1324-2-330	330.0	0.305	5.2	1.4
RL-1324-2-390	390.0	0.320	4.9	1.4
RL-1324-2-470	470.0	0.356	4.5	1.4
RL-1324-2-560	560.0	0.388	4.1	1.4
RL-1324-2-680	680.0	0.430	3.7	1.4
RL-1324-2-820	820.0	0.590	3.4	1.1
RL-1324-2-1000	1000.0	0.818	3.1	0.9
RL-1324-2-1200	1200.0	1.140	2.7	0.7
RL-1324-2-1500	1500.0	1.260	2.4	0.7
RL-1324-2-1800	1800.0	1.390	2.2	0.7
RL-1324-2-2200	2200.0	1.540	2.0	0.7

#### NOTES:

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2. INDUCTANCE  $\pm 10\%$  TESTED AT 1 kHz, 0.1 Vrms
3. RDC MEASURED AT 20°C
4. VALUES BELOW 10 $\mu$ H  $\pm 20\%$
5. 1000V HIPOT TEST WINDING TO CORE
6. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
7. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
8. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
9. GRADE 5 CLASS S (-55°C TO +130°C)

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# RL-1324-3

Renco Part No. RL-1324-3	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-3-1.0	1.0	0.003	116.0	18.9
RL-1324-3-1.2	1.2	0.003	116.0	18.9
RL-1324-3-1.5	1.5	0.003	116.0	18.9
RL-1324-3-1.8	1.8	0.003	90.0	18.9
RL-1324-3-2.2	2.2	0.003	90.0	18.9
RL-1324-3-2.7	2.7	0.003	74.0	18.9
RL-1324-3-3.3	3.3	0.003	74.0	18.9
RL-1324-3-3.9	3.9	0.003	62.0	18.9
RL-1324-3-4.7	4.7	0.003	54.0	18.9
RL-1324-3-5.6	5.6	0.003	54.0	18.9
RL-1324-3-6.8	6.8	0.004	47.0	18.9
RL-1324-3-8.2	8.2	0.004	42.0	18.9
RL-1324-3-10	10.0	0.006	38.0	15.3
RL-1324-3-12	12.0	0.008	35.0	12.1
RL-1324-3-15	15.0	0.009	32.0	12.1
RL-1324-3-18	18.0	0.010	29.0	12.1
RL-1324-3-22	22.0	0.011	25.0	12.1
RL-1324-3-27	27.0	0.012	23.0	12.1
RL-1324-3-33	33.0	0.017	20.0	12.1
RL-1324-3-39	39.0	0.022	19.0	10.2
RL-1324-3-47	47.0	0.024	19.1	8.1
RL-1324-3-56	56.0	0.026	17.5	8.1
RL-1324-3-68	68.0	0.029	15.6	8.1
RL-1324-3-82	82.0	0.032	14.0	8.1
RL-1324-3-100	100.0	0.034	13.2	8.1
RL-1324-3-120	120.0	0.046	12.1	6.4
RL-1324-3-150	150.0	0.064	10.8	4.9
RL-1324-3-180	180.0	0.072	9.7	4.9
RL-1324-3-220	220.0	0.080	8.7	4.9
RL-1324-3-270	270.0	0.110	7.9	4.0
RL-1324-3-330	330.0	0.122	7.1	4.0
RL-1324-3-390	390.0	0.169	6.7	3.6
RL-1324-3-470	470.0	0.187	6.0	3.6
RL-1324-3-560	560.0	0.205	5.5	3.6
RL-1324-3-680	680.0	0.256	5.0	2.5

Renco Part No. RL-1324-3	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-3-820	820.0	0.288	4.5	2.5
RL-1324-3-1000	1000.0	0.426	4.1	1.8
RL-1324-3-1200	1200.0	0.462	3.7	1.8
RL-1324-3-1500	1500.0	0.518	3.4	1.8
RL-1324-3-1800	1800.0	0.705	2.8	1.4
RL-1324-3-2200	2200.0	1.020	2.5	1.1
RL-1324-3-2700	2700.0	1.140	2.3	1.1
RL-1324-3-3300	3300.0	1.270	2.0	1.1
RL-1324-3-3900	3900.0	1.670	1.8	0.9
RL-1324-3-4700	4700.0	1.860	1.7	0.9

#### NOTES:

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5. 1000V HIPOT TEST WINDING TO CORE
6. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
7. Irms - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
8. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
9. GRADE 5 CLASS S (-55°C TO +130°C)

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# RL-1324-4

Renco Part No. RL-1324-4	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-4-1.8	1.8	0.002	150.0	24.3
RL-1324-4-2.2	2.2	0.002	150.0	24.3
RL-1324-4-2.7	2.7	0.003	115.0	24.3
RL-1324-4-3.3	3.3	0.003	115.0	24.3
RL-1324-4-3.9	3.9	0.003	95.0	24.3
RL-1324-4-4.7	4.7	0.003	95.0	24.3
RL-1324-4-5.6	5.6	0.004	79.0	24.3
RL-1324-4-6.8	6.8	0.004	79.0	24.3
RL-1324-4-8.2	8.2	0.004	69.0	24.3
RL-1324-4-10	10.0	0.005	61.0	24.3
RL-1324-4-12	12.0	0.005	55.0	24.3
RL-1324-4-15	15.0	0.006	49.0	24.3
RL-1324-4-18	18.0	0.008	41.0	24.3
RL-1324-4-22	22.0	0.009	39.0	18.9
RL-1324-4-27	27.0	0.010	36.0	18.9
RL-1324-4-33	33.0	0.011	31.0	18.9
RL-1324-4-39	39.0	0.012	28.0	18.9
RL-1324-4-47	47.0	0.018	27.0	12.9
RL-1324-4-56	56.0	0.019	26.1	12.9
RL-1324-4-68	68.0	0.021	24.4	12.9
RL-1324-4-82	82.0	0.023	22.4	12.9
RL-1324-4-100	100.0	0.025	20.0	12.9
RL-1324-4-120	120.0	0.028	18.0	12.9
RL-1324-4-150	150.0	0.040	16.4	10.2
RL-1324-4-180	180.0	0.045	14.6	10.2
RL-1324-4-220	220.0	0.050	13.2	10.2
RL-1324-4-270	270.0	0.056	11.8	10.2
RL-1324-4-330	330.0	0.074	11.4	10.2
RL-1324-4-390	390.0	0.082	10.1	8.1
RL-1324-4-470	470.0	0.114	9.2	6.4
RL-1324-4-560	560.0	0.125	8.3	6.4
RL-1324-4-680	680.0	0.139	7.6	6.4
RL-1324-4-820	820.0	0.154	6.8	6.4
RL-1324-4-1000	1000.0	0.216	6.2	4.9
RL-1324-4-1200	1200.0	0.232	5.7	4.9

Renco Part No. RL-1324-4	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-4-1500	1500.0	0.324	5.1	4.0
RL-1324-4-1800	1800.0	0.360	4.6	4.0
RL-1324-4-2200	2200.0	0.494	4.2	3.6
RL-1324-4-2700	2700.0	0.555	3.8	3.6
RL-1324-4-3300	3300.0	0.773	3.4	2.5
RL-1324-4-3900	3900.0	0.845	3.1	2.5
RL-1324-4-4700	4700.0	1.140	2.9	1.8
RL-1324-4-5600	5600.0	1.600	2.5	1.8
RL-1324-4-6800	6800.0	1.760	2.3	1.4
RL-1324-4-8200	8200.0	1.950	2.0	1.4
RL-1324-4-10000	10000.0	2.760	1.8	1.1
RL-1324-4-12000	12000.0	3.040	1.7	1.1
RL-1324-4-15000	15000.0	3.390	1.5	1.1

## NOTES:

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5. 1000V HIPOT TEST WINDING TO CORE
6. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
7. I<sub>rms</sub> - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
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# RL-1324-5

Renco Part No. RL-1324-4	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-5-1.8	1.8	0.002	155.0	31.5
RL-1324-5-2.2	2.2	0.002	155.5	31.5
RL-1324-5-2.7	2.7	0.002	125.0	31.5
RL-1324-5-3.3	3.3	0.002	125.0	31.5
RL-1324-5-3.9	3.9	0.003	102.0	31.5
RL-1324-5-4.7	4.7	0.003	87.0	31.5
RL-1324-5-5.6	5.6	0.003	87.0	31.5
RL-1324-5-6.8	6.8	0.003	87.0	31.5
RL-1324-5-8.2	8.2	0.003	76.0	31.5
RL-1324-5-10	10.0	0.004	67.0	31.5
RL-1324-5-12	12.0	0.004	60.0	31.5
RL-1324-5-15	15.0	0.005	49.0	31.5
RL-1324-5-18	18.0	0.007	45.0	24.3
RL-1324-5-22	22.0	0.007	42.0	24.3
RL-1324-5-27	27.0	0.008	35.0	24.3
RL-1324-5-33	33.0	0.009	34.0	24.3
RL-1324-5-39	39.0	0.010	30.0	24.3
RL-1324-5-47	47.0	0.011	28.0	24.3
RL-1324-5-56	56.0	0.013	26.0	18.9
RL-1324-5-68	68.0	0.015	23.0	18.9
RL-1324-5-82	82.0	0.017	20.0	18.9
RL-1324-5-100	100.0	0.018	19.0	18.9
RL-1324-5-120	120.0	0.022	18.0	15.3
RL-1324-5-150	150.0	0.025	16.0	15.3
RL-1324-5-180	180.0	0.035	14.0	12.1
RL-1324-5-220	220.0	0.040	13.0	12.1
RL-1324-5-270	270.0	0.044	11.0	12.1
RL-1324-5-330	330.0	0.049	10.0	12.1
RL-1324-5-390	390.0	0.070	9.7	10.2
RL-1324-5-470	470.0	0.078	8.8	10.2
RL-1324-5-560	560.0	0.105	8.1	8.1
RL-1324-5-680	680.0	0.115	7.4	8.1
RL-1324-5-820	820.0	0.127	6.7	8.1
RL-1324-5-1000	1000.0	0.176	6.1	6.4
RL-1324-5-1200	1200.0	0.195	5.5	6.4

Renco Part No. RL-1324-4	Inductance ( $\mu$ H)	DCR Max. (Ohms)	Isat (A)	Irms (A)
RL-1324-5-1500	1500.0	0.274	5.0	4.9
RL-1324-5-1800	1800.0	0.302	4.5	4.9
RL-1324-5-2200	2200.0	0.338	4.1	4.9
RL-1324-5-2700	2700.0	0.459	3.7	4.0
RL-1324-5-3300	3300.0	0.642	3.4	3.6
RL-1324-5-3900	3900.0	0.699	3.0	3.6
RL-1324-5-4700	4700.0	0.775	2.8	3.6
RL-1324-5-5600	5600.0	0.843	2.6	3.6
RL-1324-5-6800	6800.0	1.150	2.3	2.5
RL-1324-5-8200	8200.0	1.260	2.1	2.5
RL-1324-5-10000	10000.0	1.740	1.9	1.8
RL-1324-5-12000	12000.0	1.920	1.7	1.8
RL-1324-5-15000	15000.0	2.170	1.5	1.8

#### NOTES:

1. Isat LOWERS INDUCTANCE 5%
2. INDUCTANCE  $\pm$ 10% TESTED AT 1 kHz, 0.1 Vrms
3. RDC MEASURED AT 20°C
4. VALUES BELOW 10 $\mu$ H  $\pm$ 20%
5. 1000V HIPOT TEST WINDING TO CORE
6. ELECTRICAL SPECIFICATIONS MEASURED AT 25°C
7. I<sub>rms</sub> - CURRENT THAT CAUSES THE TEMPERATURE TO RISE APPROX. 40°C ABOVE AMBIENT OF 25°C
8. Isat - DC CURRENT THAT WILL CAUSE INDUCTANCE TO DROP BY 5%
9. GRADE 5 CLASS S (-55°C TO +130°C)

THE RL-1324 IS DESIGNED TO MEET MIL-PRF-27, CLASS S, HOWEVER, THEY ARE NOT CURRENTLY LISTED ON THE DSCC QUALIFIED PRODUCTS LIST

