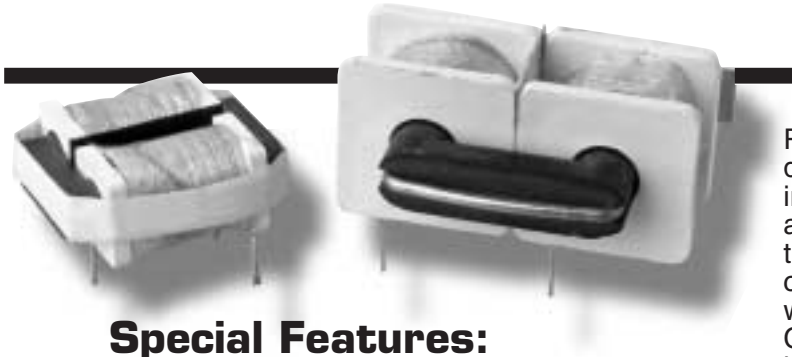
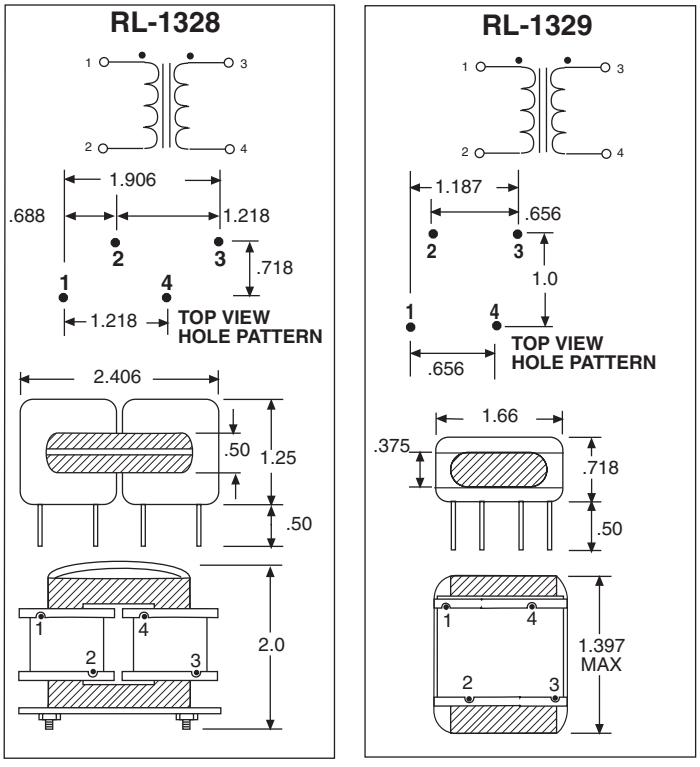
RoHS Compliant

# RL-1328
## RL-1329
## COMMON MODE CHOKES
U-CORE DESIGN



## Special Features:
- Designed to meet UL, CSA, VDE
- Low Profile
- Varnish Impregnated
- MTL Used Class B 130°C
- Nonlisted Values Available
- MIL Spec. and Encapsulation Available




ALL DIMENSIONS IN INCHES

Renco Common Mode Chokes are designed to help meet U.S. and international requirements for safety and EMI. By placing these chokes at the inputs of electrical equipment or circuits EMI feedback can be kept within specified limits. These low priced Common Mode Chokes are available in a wide range of standard inductances and with current ratings up to 35 Amps. All leads are pretinned to enable ease of soldering in PC mounting applications.

**Application:**
Under normal operating conditions, power supplied through the Common Mode Choke is balanced. When the equipment in which the choke is utilized generates electrical noise due to operation of relays, triacs, SCRs, etc., these transient noise pulses cause an imbalance in the power line current. Since the coils of the Common Mode Choke are out of phase with each other, noise being fed back to the power line is cancelled or minimized to an acceptable level and does not interfere with other equipment operating on the same power line.

**Specifications:**
- Windings balanced within 1%
- @+80°C ambient, +40°C rise
- -55°C to +130°C operating temperature
- 2500 VAC Hipot winding to winding
- 2500 VAC Hipot winding to core
- All specifications measured @ +20°C
- Inductance values: ±25% @ 1KHz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| RL-1328-3<br>Renco Part No. | L @ 1KHz<br>(μH)* | Max. DCR*<br>(Ohms) | Leakage†<br>Inductance<br>(μH) Max. |
|---|---|---|---|
| RL-1328-3-100 | 100 | .033 | 20 |
| RL-1328-3-150 | 150 | .034 | 25 |
| RL-1328-3-180 | 180 | .035 | 28 |
| RL-1328-3-220 | 220 | .036 | 32 |
| RL-1328-3-270 | 270 | .037 | 37 |
| RL-1328-3-330 | 330 | .038 | 40 |
| RL-1328-3-390 | 390 | .039 | 45 |
| RL-1328-3-470 | 470 | .040 | 49 |
| RL-1328-3-560 | 560 | .041 | 50 |
| RL-1328-3-680 | 680 | .042 | 53 |
| RL-1328-3-820 | 820 | .044 | 66 |
| RL-1328-3-1000 | 1000 | .050 | 80 |
| RL-1328-3-1200 | 1200 | .055 | 93 |
| RL-1328-3-1500 | 1500 | .060 | 117 |
| RL-1328-3-1800 | 1800 | .066 | 150 |
| RL-1328-3-2200 | 2200 | .073 | 177 |
| RL-1328-3-2700 | 2700 | .083 | 220 |
| RL-1328-3-3300 | 3300 | .088 | 270 |
| RL-1328-3-3900 | 3900 | .100 | 320 |
| RL-1328-3-4700 | 4700 | .115 | 386 |
| RL-1328-3-5600 | 5600 | .121 | 462 |
| RL-1328-3-6800 | 6800 | .133 | 510 |
| RL-1328-3-8200 | 8200 | .144 | 688 |
| RL-1328-3-10000 | 10000 | .165 | 825 |
| RL-1328-3-12000 | 12000 | .188 | 980 |
| RL-1328-3-15000 | 15000 | .209 | 1210 |
| RL-1328-3-18000 | 18000 | .290 | 1430 |
| RL-1328-3-22000 | 22000 | .315 | 1730 |
| RL-1328-3-27000 | 27000 | .350 | 2123 |
| RL-1328-3-33000 | 33000 | .500 | 2640 |
| RL-1328-3-39000 | 39000 | .540 | 3080 |

Suggested rated current — 3 Amps

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| **RL-1328-5**<br>Renco Part No. | L @ 1KHz (µH)* | Max. DCR* (Ohms) | Leakage† Inductance (µH) Max. |
|---|---|---|---|
| RL-1328-5-100 | 100 | .010 | 17 |
| RL-1328-5-120 | 120 | .012 | 19 |
| RL-1328-5-150 | 150 | .013 | 21 |
| RL-1328-5-180 | 180 | .014 | 24 |
| RL-1328-5-220 | 220 | .015 | 26 |
| RL-1328-5-270 | 270 | .017 | 28 |
| RL-1328-5-330 | 330 | .019 | 30 |
| RL-1328-5-390 | 390 | .020 | 32 |
| RL-1328-5-470 | 470 | .022 | 35 |
| RL-1328-5-560 | 560 | .024 | 39 |
| RL-1328-5-680 | 680 | .027 | 48 |
| RL-1328-5-820 | 820 | .028 | 60 |
| RL-1328-5-1000 | 1000 | .031 | 72 |
| RL-1328-5-1200 | 1200 | .034 | 94 |
| RL-1328-5-1500 | 1500 | .037 | 100 |
| RL-1328-5-1800 | 1800 | .041 | 130 |
| RL-1328-5-2200 | 2200 | .047 | 167 |
| RL-1328-5-2700 | 2700 | .052 | 208 |
| RL-1328-5-3300 | 3300 | .057 | 248 |
| RL-1328-5-3900 | 3900 | .063 | 286 |
| RL-1328-5-4700 | 4700 | .075 | 349 |
| RL-1328-5-5600 | 5600 | .078 | 417 |
| RL-1328-5-6800 | 6800 | .088 | 506 |
| RL-1328-5-8200 | 8200 | .100 | 603 |
| RL-1328-5-10000 | 10000 | .110 | 733 |
| RL-1328-5-12000 | 12000 | .127 | 883 |

Suggested rated current — 5 Amps

| **RL-1328-10**<br>Renco Part No. | L @ 1KHz (µH)* | Max. DCR* (Ohms) | Leakage† Inductance (µH) Max. |
|---|---|---|---|
| RL-1328-10-100 | 100 | .0080 | 10 |
| RL-1328-10-120 | 120 | .0085 | 11 |
| RL-1328-10-150 | 150 | .0090 | 13 |
| RL-1328-10-180 | 180 | .0095 | 14 |
| RL-1328-10-220 | 220 | .0100 | 16 |
| RL-1328-10-270 | 270 | .0120 | 22 |
| RL-1328-10-330 | 330 | .0130 | 26 |
| RL-1328-10-390 | 390 | .0140 | 29 |
| RL-1328-10-470 | 470 | .0160 | 38 |
| RL-1328-10-560 | 560 | .0170 | 43 |
| RL-1328-10-680 | 680 | .0190 | 53 |
| RL-1328-10-820 | 820 | .0200 | 63 |
| RL-1328-10-1000 | 1000 | .0220 | 75 |
| RL-1328-10-1200 | 1200 | .0240 | 94 |
| RL-1328-10-1500 | 1500 | .0270 | 119 |
| RL-1328-10-1800 | 1800 | .0320 | 140 |
| RL-1328-10-2200 | 2200 | .0350 | 176 |
| RL-1328-10-2700 | 2700 | .0390 | 215 |
| RL-1328-10-3300 | 3300 | .0450 | 267 |
| RL-1328-10-3900 | 3900 | .0490 | 316 |
| RL-1328-10-4700 | 4700 | .0560 | 380 |
| RL-1328-10-5600 | 5600 | .0660 | 460 |

Suggested rated current — 10 Amps

| **RL-1328-15**<br>Renco Part No. | L @ 1KHz (µH)* | Max. DCR* (Ohms) | Leakage† Inductance (µH) Max. |
|---|---|---|---|
| RL-1328-15-100 | 100 | .007 | 8 |
| RL-1328-15-120 | 120 | .007 | 12 |
| RL-1328-15-150 | 150 | .007 | 14 |
| RL-1328-15-180 | 180 | .007 | 16 |
| RL-1328-15-220 | 220 | .007 | 18 |
| RL-1328-15-270 | 270 | .008 | 21 |
| RL-1328-15-330 | 330 | .008 | 26 |
| RL-1328-15-390 | 390 | .010 | 29 |
| RL-1328-15-470 | 470 | .011 | 38 |
| RL-1328-15-560 | 560 | .012 | 42 |
| RL-1328-15-680 | 680 | .013 | 51 |
| RL-1328-15-820 | 820 | .014 | 62 |
| RL-1328-15-1000 | 1000 | .015 | 85 |
| RL-1328-15-1200 | 1200 | .018 | 93 |
| RL-1328-15-1500 | 1500 | .019 | 115 |
| RL-1328-15-1800 | 1800 | .021 | 146 |
| RL-1328-15-2200 | 2200 | .024 | 170 |
| RL-1328-15-2700 | 2700 | .027 | 208 |

Suggested rated current — 15 Amps

| **RL-1328-22**<br>Renco Part No. | L @ 1KHz (µH)* | Max. DCR* (Ohms) | Leakage† Inductance (µH) Max. |
|---|---|---|---|
| RL-1328-22-47 | 47 | .0025 | 7 |
| RL-1328-22-68 | 68 | .0028 | 8 |
| RL-1328-22-100 | 100 | .0032 | 9 |
| RL-1328-22-120 | 120 | .0037 | 10 |
| RL-1328-22-150 | 150 | .0040 | 15 |
| RL-1328-22-180 | 180 | .0043 | 18 |
| RL-1328-22-220 | 220 | .0047 | 20 |
| RL-1328-22-270 | 270 | .0050 | 25 |
| RL-1328-22-330 | 330 | .0055 | 31 |
| RL-1328-22-390 | 390 | .0060 | 35 |
| RL-1328-22-470 | 470 | .0065 | 38 |
| RL-1328-22-560 | 560 | .0070 | 45 |
| RL-1328-22-680 | 680 | .0080 | 50 |

Suggested rated current — 22 Amps

| **RL-1328-35**<br>Renco Part No. | L @ 1KHz (µH)* | Max. DCR* (Ohms) | Leakage† Inductance (µH) Max. |
|---|---|---|---|
| RL-1328-35-47 | 47 | .0020 | 5 |
| RL-1328-35-68 | 68 | .0021 | 6 |
| RL-1328-35-100 | 100 | .0023 | 9 |
| RL-1328-35-120 | 120 | .0025 | 10 |
| RL-1328-35-150 | 150 | .0026 | 11 |
| RL-1328-35-180 | 180 | .0028 | 15 |
| RL-1328-35-220 | 220 | .0032 | 18 |
| RL-1328-35-270 | 270 | .0037 | 24 |
| RL-1328-35-330 | 330 | .0040 | 27 |

Suggested rated current — 35 Amps

| RL-1329-2<br>Renco Part No. | L @ 1KHz<br>(μH)* | Max. DCR*<br>(Ohms) | Leakage†<br>Inductance<br>(μH) Max. |
|---|---|---|---|
| RL-1329-2-47 | 47 | .021 | 5 |
| RL-1329-2-68 | 68 | .022 | 6 |
| RL-1329-2-100 | 100 | .025 | 10 |
| RL-1329-2-150 | 150 | .031 | 20 |
| RL-1329-2-220 | 220 | .035 | 30 |
| RL-1329-2-330 | 330 | .044 | 55 |
| RL-1329-2-470 | 470 | .048 | 75 |
| RL-1329-2-680 | 680 | .058 | 90 |
| RL-1329-2-1000 | 1000 | .072 | 100 |
| RL-1329-2-1500 | 1500 | .077 | 110 |
| RL-1329-2-1800 | 1800 | .095 | 130 |
| RL-1329-2-2200 | 2200 | .099 | 138 |
| RL-1329-2-3300 | 3300 | .121 | 210 |
| RL-1329-2-4700 | 4700 | .132 | 242 |
| RL-1329-2-6800 | 6800 | .176 | 418 |
| RL-1329-2-10000 | 10000 | .216 | 627 |
| RL-1329-2-12000 | 12000 | .242 | 781 |
| RL-1329-2-15000 | 15000 | .355 | 924 |
| RL-1329-2-18000 | 18000 | .500 | 1100 |
| RL-1329-2-22000 | 22000 | .555 | 1430 |

Suggested rated current — 2 Amps

| RL-1329-3<br>Renco Part No. | L @ 1KHz<br>(μH)* | Max. DCR*<br>(Ohms) | Leakage†<br>Inductance<br>(μH) Max. |
|---|---|---|---|
| RL-1329-3-47 | 47 | .010 | 5 |
| RL-1329-3-68 | 68 | .011 | 6 |
| RL-1329-3-100 | 100 | .013 | 7 |
| RL-1329-3-150 | 150 | .017 | 11 |
| RL-1329-3-220 | 220 | .021 | 17 |
| RL-1329-3-330 | 330 | .024 | 22 |
| RL-1329-3-470 | 470 | .027 | 30 |
| RL-1329-3-680 | 680 | .034 | 42 |
| RL-1329-3-1000 | 1000 | .041 | 57 |
| RL-1329-3-1500 | 1500 | .052 | 88 |
| RL-1329-3-2200 | 2200 | .062 | 132 |
| RL-1329-3-3300 | 3300 | .074 | 190 |
| RL-1329-3-4700 | 4700 | .120 | 264 |
| RL-1329-3-6800 | 6800 | .185 | 410 |

Suggested rated current — 3 Amps

| **RL-1329-5**<br>Renco Part No. | L @ 1KHz (μH)* | Max. DCR* (Ohms) | Leakage† Inductance (μH) Max. |
|---|---|---|---|
| RL-1329-5-47 | 47 | .009 | 6 |
| RL-1329-5-68 | 68 | .010 | 8 |
| RL-1329-5-100 | 100 | .011 | 10 |
| RL-1329-5-120 | 120 | .012 | 13 |
| RL-1329-5-150 | 150 | .013 | 16 |
| RL-1329-5-180 | 180 | .014 | 18 |
| RL-1329-5-220 | 220 | .015 | 20 |
| RL-1329-5-270 | 270 | .016 | 30 |
| RL-1329-5-330 | 330 | .017 | 35 |
| RL-1329-5-390 | 390 | .018 | 45 |
| RL-1329-5-470 | 470 | .019 | 55 |
| RL-1329-5-560 | 560 | .021 | 65 |
| RL-1329-5-680 | 680 | .023 | 75 |
| RL-1329-5-820 | 820 | .025 | 80 |
| RL-1329-5-1000 | 1000 | .029 | 85 |
| RL-1329-5-1200 | 1200 | .031 | 90 |
| RL-1329-5-1500 | 1500 | .034 | 100 |
| RL-1329-5-1800 | 1800 | .036 | 110 |
| RL-1329-5-2200 | 2200 | .042 | 121 |
| RL-1329-5-2700 | 2700 | .058 | 143 |
| RL-1329-5-3300 | 3300 | .060 | 176 |
| RL-1329-5-3900 | 3900 | .085 | 209 |
| RL-1329-5-4700 | 4700 | .120 | 290 |
| RL-1329-5-5600 | 5600 | .165 | 297 |

Suggested rated current —5 Amps

| **RL-1329-10**<br>Renco Part No. | L @ 1KHz (μH)* | Max. DCR* (Ohms) | Leakage† Inductance (μH) Max. |
|---|---|---|---|
| RL-1329-10-47 | 47 | .0060 | 3.7 |
| RL-1329-10-68 | 68 | .0065 | 4.8 |
| RL-1329-10-100 | 100 | .0070 | 6.5 |
| RL-1329-10-120 | 120 | .0080 | 7.5 |
| RL-1329-10-150 | 150 | .0090 | 10.0 |
| RL-1329-10-180 | 180 | .0100 | 12.0 |
| RL-1329-10-270 | 270 | .0120 | 15.0 |
| RL-1329-10-330 | 330 | .0130 | 17.0 |
| RL-1329-10-390 | 390 | .0140 | 21.0 |
| RL-1329-10-470 | 470 | .0150 | 25.0 |
| RL-1329-10-560 | 560 | .0200 | 30.0 |
| RL-1329-10-680 | 680 | .0230 | 37.0 |
| RL-1329-10-820 | 820 | .0250 | 44.0 |
| RL-1329-10-1000 | 1000 | .0280 | 57.0 |
| RL-1329-10-1200 | 1200 | .0320 | 85.0 |

Suggested rated current —10 Amps

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| RL-1329-15<br>Renco Part No. | L @ 1KHz (μH)* | Max. DCR* (Ohms) | Leakage† Inductance (μH) Max. |
|---|---|---|---|
| RL-1329-15-27 | 27 | .0035 | 4 |
| RL-1329-15-47 | 47 | .0040 | 5 |
| RL-1329-15-68 | 68 | .0045 | 6 |
| RL-1329-15-100 | 100 | .0050 | 9 |
| RL-1329-15-150 | 150 | .0055 | 11 |
| RL-1329-15-180 | 180 | .0060 | 15 |
| RL-1329-15-220 | 220 | .0070 | 17 |

Suggested rated current —15 Amps

| RL-1329-22<br>Renco Part No. | L @ 1KHz (μH)* | Max. DCR* (Ohms) | Leakage† Inductance (μH) Max. |
|---|---|---|---|
| RL-1329-22-6.8 | 6.8 | .0028 | 1.5 |
| RL-1329-22-15 | 15.0 | .0030 | 1.8 |
| RL-1329-22-27 | 27.0 | .0032 | 2.7 |
| RL-1329-22-39 | 39.0 | .0036 | 3.5 |
| RL-1329-22-56 | 56.0 | .0040 | 5.6 |
| RL-1329-22-82 | 82.0 | .0045 | 6.7 |
| RL-1329-22-100 | 100.0 | .0050 | 7.8 |

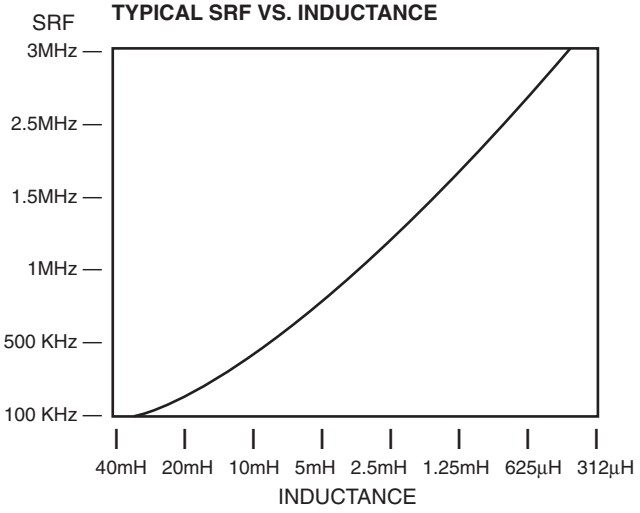
Suggested rated current —22 Amps

**NOTES:**

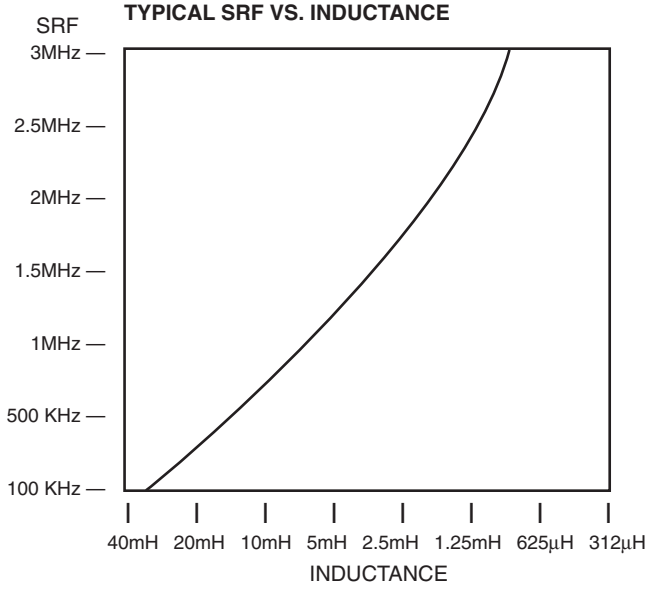
* Measured between 1 and 2 or 3 and 4.

† Measured across 1 and 2 with 3 and 4 shorted, or measured across 3 and 4 with 1 and 2 shorted.

**RL-1328**
**TYPICAL SRF VS. INDUCTANCE**




**RL-1329**
**TYPICAL SRF VS. INDUCTANCE**





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