

### APW Series

#### Features

- Ideal for a variety of DC-DC converter Inductors Applications. Available on tape and reel for automatic insertion. Low DC resistance and large permissible DC current. This can be surface mount assembly and reflow soldering is also possible.

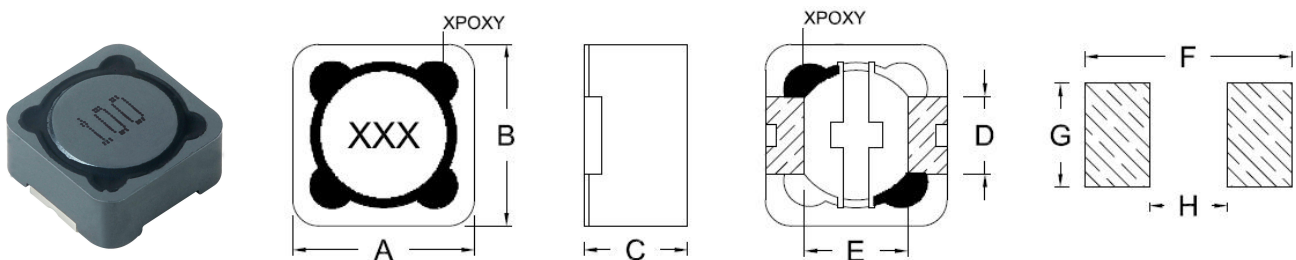
#### Applications

- Excellent for power line DC-DC conversion application used in hard disk, notebook computers and other electronic equipment.

#### Test Equipment and Conditions

- Inductance is measured with IM3536 LCR meter or equivalent.
- Maximum allowable DC current which causes 35% inductance reduction of the initial value ,or coil
- Temperature to rise by 40°C, whichever is smaller.(Reference ambient temperature 25°C) .
- Operating temperature: -40°C~+125°C.

#### External Dimensions (Unit : m/m)



| TYPE     | A       | B       | C       | D Typ. | E Typ. | F Typ. | G Typ. | H Typ. | Q'TY/Reel |
|----------|---------|---------|---------|--------|--------|--------|--------|--------|-----------|
| APW07A30 | 7.5Max  | 7.5Max  | 3.4Max  | 2.0    | 4.5    | 8.5    | 3.25   | 3.5    | 1000      |
| APW07A45 | 7.5Max  | 7.5Max  | 4.5Max  | 2.0    | 4.5    | 8.5    | 3.25   | 3.5    | 1000      |
| APW12A45 | 12.5Max | 12.5Max | 4.5Max  | 5.0    | 7.6    | 12.6   | 5.4    | 7.0    | 500       |
| APW12A60 | 12.5Max | 12.5Max | 6.0Max  | 5.0    | 7.6    | 12.6   | 5.4    | 7.0    | 500       |
| APW12A80 | 12.5Max | 12.5Max | 8.0Max  | 5.0    | 7.6    | 12.6   | 5.4    | 7.0    | 500       |
| APW12A10 | 12.5Max | 12.5Max | 10.0Max | 5.0    | 7.6    | 12.6   | 5.4    | 7.0    | 300       |

#### Part Number Code

APW   07   A   30   M   100  
 A      B      C      D      E      F

|    |                 |                  |
|----|-----------------|------------------|
| A: | Type of product | Power Inductors  |
| B: | Dimensions(mm)  | 07: 7.5 x7.5 Max |
| C: | Materials       | NO use           |
| D: | Thickness(mm)   | 30: 3.4 Max      |
| E: | Tolerance       | M: ±20%          |
| F: | Inductance      | 100=10uH         |

### APW Series

| Part Number  | Inductance (μH) | Test Frequency (KHz) | DC Resistance (Ω) Max. | Saturation Current (A) Max. |
|--------------|-----------------|----------------------|------------------------|-----------------------------|
| APW07A30M100 | 10.00           | 100                  | 0.072                  | 1.68                        |
| APW07A30M120 | 12.00           | 100                  | 0.098                  | 1.52                        |
| APW07A30M150 | 15.00           | 100                  | 0.130                  | 1.33                        |
| APW07A30M180 | 18.00           | 100                  | 0.140                  | 1.20                        |
| APW07A30M220 | 22.00           | 100                  | 0.190                  | 1.07                        |
| APW07A30M270 | 27.00           | 100                  | 0.210                  | 0.96                        |
| APW07A30M330 | 33.00           | 100                  | 0.240                  | 0.91                        |
| APW07A30M390 | 39.00           | 100                  | 0.320                  | 0.77                        |
| APW07A30M470 | 47.00           | 100                  | 0.360                  | 0.76                        |
| APW07A30M560 | 56.00           | 100                  | 0.470                  | 0.68                        |
| APW07A30M680 | 68.00           | 100                  | 0.520                  | 0.61                        |
| APW07A30M820 | 82.00           | 100                  | 0.690                  | 0.57                        |
| APW07A30M101 | 100.00          | 100                  | 0.790                  | 0.50                        |
| APW07A30M121 | 120.00          | 100                  | 0.890                  | 0.49                        |
| APW07A30M151 | 150.00          | 100                  | 1.270                  | 0.43                        |
| APW07A30M181 | 180.00          | 100                  | 1.450                  | 0.39                        |
| APW07A30M221 | 220.00          | 100                  | 1.650                  | 0.35                        |
| APW07A30M271 | 270.00          | 100                  | 2.310                  | 0.32                        |
| APW07A30M331 | 330.00          | 100                  | 2.620                  | 0.28                        |
| APW07A30M391 | 390.00          | 100                  | 2.940                  | 0.26                        |
| APW07A30M471 | 470.00          | 100                  | 4.180                  | 0.24                        |
| APW07A30M561 | 560.00          | 100                  | 4.670                  | 0.22                        |
| APW07A30M681 | 680.00          | 100                  | 5.730                  | 0.19                        |
| APW07A30M821 | 820.00          | 100                  | 6.540                  | 0.18                        |
| APW07A30M102 | 1000.00         | 100                  | 9.440                  | 0.16                        |
| APW07A45M100 | 10.00           | 100                  | 0.049                  | 1.84                        |
| APW07A45M120 | 12.00           | 100                  | 0.063                  | 1.71                        |
| APW07A45M150 | 15.00           | 100                  | 0.081                  | 1.47                        |
| APW07A45M180 | 18.00           | 100                  | 0.091                  | 1.31                        |
| APW07A45M220 | 22.00           | 100                  | 0.110                  | 1.23                        |
| APW07A45M270 | 27.00           | 100                  | 0.150                  | 1.12                        |
| APW07A45M330 | 33.00           | 100                  | 0.170                  | 0.96                        |
| APW07A45M390 | 39.00           | 100                  | 0.230                  | 0.91                        |
| APW07A45M470 | 47.00           | 100                  | 0.260                  | 0.88                        |
| APW07A45M560 | 56.00           | 100                  | 0.350                  | 0.75                        |
| APW07A45M680 | 68.00           | 100                  | 0.380                  | 0.69                        |
| APW07A45M820 | 82.00           | 100                  | 0.450                  | 0.61                        |
| APW07A45M101 | 100.00          | 100                  | 0.610                  | 0.60                        |
| APW07A45M121 | 120.00          | 100                  | 0.660                  | 0.52                        |
| APW07A45M151 | 150.00          | 100                  | 0.880                  | 0.46                        |
| APW07A45M181 | 180.00          | 100                  | 0.980                  | 0.42                        |
| APW07A45M221 | 220.00          | 100                  | 1.170                  | 0.36                        |

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| Part Number  | Inductance (µH) | Test Frequency (KHz) | DC Resistance (Ω) Max. | Saturation Current (A) Max. |
|--------------|-----------------|----------------------|------------------------|-----------------------------|
| APW07A45M271 | 270.00          | 100                  | 1.640                  | 0.34                        |
| APW07A45M331 | 330.00          | 100                  | 1.860                  | 0.32                        |
| APW07A45M391 | 390.00          | 100                  | 2.850                  | 0.29                        |
| APW07A45M471 | 470.00          | 100                  | 3.010                  | 0.26                        |
| APW07A45M561 | 560.00          | 100                  | 3.620                  | 0.23                        |
| APW07A45M681 | 680.00          | 100                  | 4.630                  | 0.22                        |
| APW07A45M821 | 820.00          | 100                  | 5.200                  | 0.20                        |
| APW07A45M102 | 1000.00         | 100                  | 6.000                  | 0.18                        |
| APW12A45M2R2 | 2.20            | 100                  | 0.008                  | 7.00                        |
| APW12A45M2R7 | 2.70            | 100                  | 0.012                  | 6.70                        |
| APW12A45M3R5 | 3.50            | 100                  | 0.015                  | 6.60                        |
| APW12A45M3R9 | 3.90            | 100                  | 0.015                  | 6.50                        |
| APW12A45M4R7 | 4.70            | 100                  | 0.018                  | 5.60                        |
| APW12A45M5R6 | 5.60            | 100                  | 0.018                  | 5.20                        |
| APW12A45M6R8 | 6.80            | 100                  | 0.022                  | 4.90                        |
| APW12A45M7R6 | 7.60            | 100                  | 0.026                  | 4.70                        |
| APW12A45M8R2 | 8.20            | 100                  | 0.026                  | 4.60                        |
| APW12A45M100 | 10.00           | 100                  | 0.028                  | 4.50                        |
| APW12A45M120 | 12.00           | 100                  | 0.038                  | 4.00                        |
| APW12A45M150 | 15.00           | 100                  | 0.050                  | 3.20                        |
| APW12A45M180 | 18.00           | 100                  | 0.057                  | 3.10                        |
| APW12A45M220 | 22.00           | 100                  | 0.066                  | 2.90                        |
| APW12A45M270 | 27.00           | 100                  | 0.080                  | 2.80                        |
| APW12A45M330 | 33.00           | 100                  | 0.097                  | 2.70                        |
| APW12A45M390 | 39.00           | 100                  | 0.132                  | 2.10                        |
| APW12A45M470 | 47.00           | 100                  | 0.150                  | 1.90                        |
| APW12A45M560 | 56.00           | 100                  | 0.180                  | 1.80                        |
| APW12A45M680 | 68.00           | 100                  | 0.220                  | 1.50                        |
| APW12A45M820 | 82.00           | 100                  | 0.260                  | 1.30                        |
| APW12A45M101 | 100.00          | 100                  | 0.308                  | 1.20                        |
| APW12A45M121 | 120.00          | 100                  | 0.380                  | 1.10                        |
| APW12A45M151 | 150.00          | 100                  | 0.530                  | 0.95                        |
| APW12A45M181 | 180.00          | 100                  | 0.620                  | 0.85                        |
| APW12A45M221 | 220.00          | 100                  | 0.700                  | 0.80                        |
| APW12A45M271 | 270.00          | 100                  | 0.875                  | 0.60                        |
| APW12A45M331 | 330.00          | 100                  | 0.990                  | 0.50                        |
| APW12A60M1R8 | 1.80            | 100                  | 0.005                  | 8.00                        |
| APW12A60M2R7 | 2.70            | 100                  | 0.007                  | 7.00                        |
| APW12A60M3R9 | 3.90            | 100                  | 0.009                  | 6.00                        |
| APW12A60M4R7 | 4.70            | 100                  | 0.012                  | 5.30                        |
| APW12A60M6R1 | 6.10            | 100                  | 0.013                  | 4.80                        |
| APW12A60M6R8 | 6.80            | 100                  | 0.014                  | 4.70                        |

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|--------------|-----------------|----------------------|------------------------|-----------------------------|
| APW12A60M7R6 | 7.60            | 100                  | 0.017                  | 4.50                        |
| APW12A60M8R2 | 8.20            | 100                  | 0.020                  | 4.30                        |
| APW12A60M100 | 10.00           | 100                  | 0.040                  | 4.00                        |
| APW12A60M120 | 12.00           | 100                  | 0.027                  | 3.50                        |
| APW12A60M150 | 15.00           | 100                  | 0.030                  | 3.30                        |
| APW12A60M180 | 18.00           | 100                  | 0.034                  | 3.00                        |
| APW12A60M220 | 22.00           | 100                  | 0.036                  | 2.80                        |
| APW12A60M270 | 27.00           | 100                  | 0.051                  | 2.30                        |
| APW12A60M330 | 33.00           | 100                  | 0.060                  | 2.10                        |
| APW12A60M390 | 39.00           | 100                  | 0.068                  | 2.00                        |
| APW12A60M470 | 47.00           | 100                  | 0.075                  | 1.80                        |
| APW12A60M560 | 56.00           | 100                  | 0.110                  | 1.70                        |
| APW12A60M680 | 68.00           | 100                  | 0.120                  | 1.50                        |
| APW12A60M820 | 82.00           | 100                  | 0.140                  | 1.40                        |
| APW12A60M101 | 100.00          | 100                  | 0.180                  | 1.30                        |
| APW12A60M121 | 120.00          | 100                  | 0.200                  | 1.10                        |
| APW12A60M151 | 150.00          | 100                  | 0.230                  | 1.00                        |
| APW12A60M181 | 180.00          | 100                  | 0.290                  | 0.90                        |
| APW12A60M221 | 220.00          | 100                  | 0.450                  | 0.80                        |
| APW12A60M271 | 270.00          | 100                  | 0.500                  | 0.75                        |
| APW12A60M331 | 330.00          | 100                  | 0.590                  | 0.68                        |
| APW12A60M391 | 390.00          | 100                  | 0.690                  | 0.65                        |
| APW12A60M471 | 470.00          | 100                  | 0.770                  | 0.58                        |
| APW12A60M561 | 560.00          | 100                  | 0.860                  | 0.54                        |
| APW12A60M681 | 680.00          | 100                  | 1.200                  | 0.48                        |
| APW12A60M821 | 820.00          | 100                  | 1.340                  | 0.43                        |
| APW12A60M102 | 1000.00         | 100                  | 1.530                  | 0.40                        |
| APW12A80M1R2 | 1.20            | 100                  | 0.007                  | 9.80                        |
| APW12A80M1R8 | 1.80            | 100                  | 0.0115                 | 8.00                        |
| APW12A80M3R3 | 3.30            | 100                  | 0.013                  | 7.50                        |
| APW12A80M4R7 | 4.70            | 100                  | 0.015                  | 6.80                        |
| APW12A80M6R1 | 6.10            | 100                  | 0.017                  | 6.60                        |
| APW12A80M7R6 | 7.60            | 100                  | 0.020                  | 5.90                        |
| APW12A80M100 | 10.00           | 100                  | 0.021                  | 5.40                        |
| APW12A80M120 | 12.00           | 100                  | 0.024                  | 4.90                        |
| APW12A80M150 | 15.00           | 100                  | 0.027                  | 4.50                        |
| APW12A80M180 | 18.00           | 100                  | 0.039                  | 3.90                        |
| APW12A80M220 | 22.00           | 100                  | 0.043                  | 3.60                        |
| APW12A80M270 | 27.00           | 100                  | 0.045                  | 3.40                        |
| APW12A80M330 | 33.00           | 100                  | 0.064                  | 3.00                        |
| APW12A80M390 | 39.00           | 100                  | 0.072                  | 2.75                        |
| APW12A80M470 | 47.00           | 100                  | 0.077                  | 2.50                        |
| APW12A80M560 | 56.00           | 100                  | 0.097                  | 2.35                        |

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|--------------|-----------------|----------------------|------------------------|-----------------------------|
| APW12A80M680 | 68.00           | 100                  | 0.10                   | 2.10                        |
| APW12A80M820 | 82.00           | 100                  | 0.12                   | 1.95                        |
| APW12A80M101 | 100.00          | 100                  | 0.15                   | 1.70                        |
| APW12A80M121 | 120.00          | 100                  | 0.17                   | 1.60                        |
| APW12A80M151 | 150.00          | 100                  | 0.19                   | 1.42                        |
| APW12A80M181 | 180.00          | 100                  | 0.25                   | 1.30                        |
| APW12A80M221 | 220.00          | 100                  | 0.35                   | 1.16                        |
| APW12A80M271 | 270.00          | 100                  | 0.39                   | 1.06                        |
| APW12A80M331 | 330.00          | 100                  | 0.48                   | 0.95                        |
| APW12A80M391 | 390.00          | 100                  | 0.54                   | 0.88                        |
| APW12A80M471 | 470.00          | 100                  | 0.79                   | 0.79                        |
| APW12A80M561 | 560.00          | 100                  | 0.87                   | 0.73                        |
| APW12A80M681 | 680.00          | 100                  | 1.00                   | 0.67                        |
| APW12A80M821 | 820.00          | 100                  | 1.20                   | 0.60                        |
| APW12A80M102 | 1000.00         | 100                  | 1.30                   | 0.55                        |
| APW12A10M1R0 | 1.00            | 100                  | 0.006                  | 11.50                       |
| APW12A10M2R5 | 2.50            | 100                  | 0.008                  | 10.00                       |
| APW12A10M3R3 | 3.30            | 100                  | 0.010                  | 8.70                        |
| APW12A10M4R7 | 4.70            | 100                  | 0.012                  | 8.40                        |
| APW12A10M6R8 | 6.80            | 100                  | 0.014                  | 7.10                        |
| APW12A10M100 | 10.00           | 100                  | 0.018                  | 6.90                        |
| APW12A10M150 | 15.00           | 100                  | 0.026                  | 5.20                        |
| APW12A10M220 | 22.00           | 100                  | 0.029                  | 4.95                        |
| APW12A10M330 | 33.00           | 100                  | 0.053                  | 3.60                        |
| APW12A10M470 | 47.00           | 100                  | 0.063                  | 3.45                        |
| APW12A10M560 | 56.00           | 100                  | 0.068                  | 2.95                        |
| APW12A10M680 | 68.00           | 100                  | 0.093                  | 2.85                        |
| APW12A10M820 | 82.00           | 100                  | 0.099                  | 2.60                        |
| APW12A10M101 | 100.00          | 100                  | 0.13                   | 2.45                        |
| APW12A10M121 | 120.00          | 100                  | 0.16                   | 2.20                        |
| APW12A10M151 | 150.00          | 100                  | 0.18                   | 1.90                        |
| APW12A10M181 | 180.00          | 100                  | 0.20                   | 1.85                        |
| APW12A10M221 | 220.00          | 100                  | 0.25                   | 1.70                        |
| APW12A10M331 | 330.00          | 100                  | 0.39                   | 1.28                        |
| APW12A10M471 | 470.00          | 100                  | 0.47                   | 1.25                        |
| APW12A10M561 | 560.00          | 100                  | 0.65                   | 0.98                        |
| APW12A10M681 | 680.00          | 100                  | 0.73                   | 0.95                        |
| APW12A10M821 | 820.00          | 100                  | 0.83                   | 0.93                        |
| APW12A10M102 | 1000.00         | 100                  | 1.25                   | 0.78                        |
| APW12A10M152 | 1500.00         | 100                  | 1.25                   | 0.58                        |
| APW12A10M182 | 1800.00         | 100                  | 2.00                   | 0.54                        |
| APW12A10M222 | 2200.00         | 100                  | 2.60                   | 0.52                        |