

Type 947D Polypropylene, High Energy Density, DC Link Capacitors

High Current, High Capacitance for Inverter Applications



Type 947D series uses the most advanced metallized film technology for long life and high reliability in DC Link applications. This series combines high capacitance and very high ripple current capability needed for today's inverter designs for wind, solar, fuel cells, UPS systems and more.

Specifications

| | |
|--|---------------------------------------|
| Capacitance Range | 130 to 1500 μ F |
| Capacitance Tolerance | \pm 10% standard |
| Rated Voltage | 900 to 1300 Vdc |
| Operating Temperature Range | -45 °C to 85 °C (ambient) |
| Maximum rms Current | see data tables |
| Maximum rms Voltage | 230 Vac |
| Test Voltage between Terminals @ 25 °C | 150% rated DC voltage for 10 s |
| Test Voltage between Terminals and Case @ 25°C | 4 kVac @ 50/60 Hz for 10 s |
| Life Test | 7000 h @ 85 °C, rated voltage |
| Life Expectancy | 350,000 h @ 60 °C Core, rated voltage |
| RoHS Compliant | |

Dimensions

| Construction Details | |
|------------------------|-----------------------|
| Case Material | Aluminum Can |
| Resin Material | Dry Resin UL94V-0 |
| Terminal Material | Tin Plated Brass |
| Insulator Cap Material | Polypropylene UL94V-0 |



All dimensions have a \pm 1 mm tolerance
Consult factory for mounting options

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Part Numbering System

| | | | | | | | | |
|-------------|-------------------------------|-----------|---|--|--|--|--------------------------------|--------------------------------|
| 947D | 391 | K | 112 | C | E | R | S | N |
| Type | Capacitance | Tolerance | Voltage | Diameter ±1mm | Height ±1mm | Terminal | Mounting | Sleeve |
| 947D | 391 = 390 µF 152 = 1500 µF | K = ±10% | 901 = 900 Vdc 102 = 1000 Vdc 112 = 1100 Vdc 122 = 1200 Vdc 132 = 1300 Vdc | A = 85 mm B = 90 mm C = 100 mm D = 116 mm | C = 75 mm D = 87 mm E = 100 mm F = 112 mm G = 126 mm H = 136 mm J = 150 mm L = 162 mm | G = M6 Insert (32 mm) N = M8 Stud (32 mm) J = M8 Stud (45 mm) M = M6 Insert (45 mm) P = M8 Stud (50 mm) R = M6 Insert (50 mm) | F = Flat Base S = Stud Base | N = No Sleeve S = Black PVC |

Ratings

| PartNumber | Rated | | Can | Can | Lead | Current | | | | Thermal | | |
|------------------|-------|--------------------|----------|--------|---------|--------------------|----------------------|------|------|-----------------|-----------------|------|
| | Cap | Voltage | Diameter | Height | Spacing | Case | T _A =55°C | Typ | Typ | Resistance | | Max |
| | C | V _R | D | H | S | Area | I _{rms} | ESR | ESL | Θ _{cc} | Θ _{ca} | Mass |
| | (µF) | (V _{DC}) | (mm) | (mm) | (mm) | (mm ²) | (A) | (mΩ) | (nH) | (°C/W) | (°C/W) | (kg) |
| 947D311K901ACGSN | 310 | 900 | 85 | 75 | 32 | 31400 | 67 | 1.4 | 30 | 1.4 | 3.8 | 0.5 |
| 947D351K901BCMSN | 350 | 900 | 90 | 75 | 45 | 33900 | 73 | 1.2 | 30 | 1.3 | 3.5 | 0.6 |
| 947D371K901ADGSN | 370 | 900 | 85 | 87 | 32 | 34600 | 66 | 1.5 | 34 | 1.3 | 3.5 | 0.6 |
| 947D421K901BDMSN | 420 | 900 | 90 | 87 | 45 | 37300 | 75 | 1.2 | 33 | 1.3 | 3.2 | 0.6 |
| 947D441K901AEGSN | 440 | 900 | 85 | 100 | 32 | 38100 | 65 | 1.7 | 38 | 1.2 | 3.2 | 0.6 |
| 947D441K901CCRSN | 440 | 900 | 100 | 75 | 50 | 39300 | 85 | 1.0 | 30 | 1.1 | 3.1 | 0.7 |
| 947D501K901BEMSN | 500 | 900 | 90 | 100 | 45 | 41000 | 74 | 1.3 | 37 | 1.3 | 2.9 | 0.7 |
| 947D511K901AFGSN | 510 | 900 | 85 | 112 | 32 | 41300 | 64 | 1.9 | 42 | 1.2 | 2.9 | 0.7 |
| 947D541K901CDRSN | 540 | 900 | 100 | 87 | 50 | 43000 | 83 | 1.2 | 34 | 1.1 | 2.8 | 0.8 |
| 947D571K901AGGSN | 570 | 900 | 85 | 126 | 32 | 45000 | 63 | 2.1 | 46 | 1.1 | 2.7 | 0.8 |
| 947D581K901BFMSN | 580 | 900 | 90 | 112 | 45 | 44400 | 72 | 1.5 | 41 | 1.3 | 2.7 | 0.8 |
| 947D601K901DCRSN | 600 | 900 | 116 | 75 | 50 | 48500 | 102 | 0.9 | 35 | 0.8 | 2.5 | 0.9 |
| 947D631K901CERSN | 630 | 900 | 100 | 100 | 50 | 47100 | 82 | 1.3 | 38 | 1.0 | 2.5 | 0.9 |
| 947D641K901AHGSN | 640 | 900 | 85 | 136 | 32 | 47700 | 62 | 2.3 | 50 | 1.1 | 2.5 | 0.8 |
| 947D651K901BGMSN | 650 | 900 | 90 | 126 | 45 | 48300 | 71 | 1.6 | 45 | 1.2 | 2.5 | 0.9 |
| 947D711K901AJGSN | 710 | 900 | 85 | 150 | 32 | 51400 | 62 | 2.5 | 54 | 1.1 | 2.3 | 0.9 |
| 947D731K901BHMSN | 730 | 900 | 90 | 136 | 45 | 51200 | 69 | 1.8 | 49 | 1.2 | 2.3 | 0.9 |
| 947D731K901CFRSN | 730 | 900 | 100 | 112 | 50 | 50900 | 81 | 1.4 | 42 | 1.0 | 2.4 | 1.0 |
| 947D731K901DDRSN | 730 | 900 | 116 | 87 | 50 | 52800 | 101 | 1.0 | 40 | 0.8 | 2.3 | 1.1 |
| 947D781K901ALGSN | 780 | 900 | 85 | 162 | 32 | 54600 | 61 | 2.7 | 59 | 1.0 | 2.2 | 1.0 |
| 947D811K901BJMSN | 810 | 900 | 90 | 150 | 45 | 55100 | 68 | 1.9 | 53 | 1.2 | 2.2 | 1.0 |
| 947D821K901CGRSN | 820 | 900 | 100 | 126 | 50 | 55300 | 80 | 1.6 | 46 | 1.0 | 2.2 | 1.1 |
| 947D861K901DERSN | 860 | 900 | 116 | 100 | 50 | 57600 | 100 | 1.1 | 45 | 0.8 | 2.1 | 1.2 |
| 947D881K901BLMSN | 880 | 900 | 90 | 162 | 45 | 58500 | 67 | 2.1 | 58 | 1.2 | 2.1 | 1.1 |
| 947D921K901CHRSN | 920 | 900 | 100 | 136 | 50 | 58400 | 79 | 1.7 | 50 | 1.0 | 2.1 | 1.2 |
| 947D991K901DFRSN | 990 | 900 | 116 | 112 | 50 | 62000 | 99 | 1.2 | 50 | 0.8 | 1.9 | 1.3 |
| 947D102K901CJRSN | 1000 | 900 | 100 | 150 | 50 | 62800 | 78 | 1.9 | 54 | 0.9 | 1.9 | 1.3 |
| 947D112K901CLRSN | 1100 | 900 | 100 | 162 | 50 | 66600 | 77 | 2.0 | 59 | 0.9 | 1.8 | 1.4 |
| 947D112K901DGRSN | 1100 | 900 | 116 | 126 | 50 | 67100 | 98 | 1.3 | 55 | 0.8 | 1.8 | 1.5 |
| 947D122K901DHRSN | 1200 | 900 | 116 | 136 | 50 | 70700 | 96 | 1.4 | 60 | 0.8 | 1.7 | 1.6 |
| 947D132K901DJRSN | 1300 | 900 | 116 | 150 | 50 | 75800 | 95 | 1.5 | 65 | 0.8 | 1.6 | 1.7 |
| 947D152K901DLRSN | 1500 | 900 | 116 | 162 | 50 | 80200 | 94 | 1.6 | 70 | 0.7 | 1.5 | 1.8 |
| 947D241K102ACGSN | 240 | 1000 | 85 | 75 | 32 | 31400 | 63 | 1.5 | 30 | 1.4 | 3.8 | 0.5 |

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| PartNumber | Rated | | Can | | Lead | Current | | | | Thermal | | Max Mass (kg) |
|------------------|-------|------------------------|-------|----------|-----------|--------------------|----------------------------|---------|---------|------------------------|------------------------|---------------|
| | Cap C | Voltage V _R | Dia D | Height H | Spacing S | Case Area | T _A =55 °C Irms | Typ ESR | Typ ESL | Resistance | | |
| | (μF) | (V _{DC}) | (mm) | (mm) | (mm) | (mm ²) | (A) | (mΩ) | (nH) | Θ _{cc} (°C/W) | Θ _{ca} (°C/W) | |
| 947D271K102BCMSN | 270 | 1000 | 90 | 75 | 45 | 33900 | 69 | 1.3 | 30 | 1.3 | 3.5 | 0.6 |
| 947D291K102ADGSN | 290 | 1000 | 85 | 87 | 32 | 34600 | 62 | 1.7 | 34 | 1.4 | 3.5 | 0.6 |
| 947D331K102BDMSN | 330 | 1000 | 90 | 87 | 45 | 37300 | 71 | 1.3 | 33 | 1.3 | 3.2 | 0.6 |
| 947D341K102AEGSN | 340 | 1000 | 85 | 100 | 32 | 38100 | 61 | 1.9 | 38 | 1.3 | 3.2 | 0.6 |
| 947D341K102CCRSN | 340 | 1000 | 100 | 75 | 50 | 39300 | 81 | 1.1 | 30 | 1.2 | 3.1 | 0.7 |
| 947D391K102BEMSN | 390 | 1000 | 90 | 100 | 45 | 41000 | 70 | 1.5 | 37 | 1.2 | 2.9 | 0.7 |
| 947D401K102AFGSN | 400 | 1000 | 85 | 112 | 32 | 41300 | 60 | 2.1 | 42 | 1.2 | 2.9 | 0.7 |
| 947D421K102CDRSN | 420 | 1000 | 100 | 87 | 50 | 43000 | 79 | 1.3 | 34 | 1.1 | 2.8 | 0.8 |
| 947D451K102AGGSN | 450 | 1000 | 85 | 126 | 32 | 45000 | 60 | 2.3 | 46 | 1.2 | 2.7 | 0.8 |
| 947D451K102BFMSN | 450 | 1000 | 90 | 112 | 45 | 44400 | 68 | 1.7 | 41 | 1.2 | 2.7 | 0.8 |
| 947D471K102DCRSN | 470 | 1000 | 116 | 75 | 50 | 48500 | 98 | 0.9 | 35 | 0.9 | 2.5 | 0.9 |
| 947D491K102CERSN | 490 | 1000 | 100 | 100 | 50 | 47100 | 78 | 1.4 | 38 | 1.1 | 2.5 | 0.9 |
| 947D501K102AHGSN | 500 | 1000 | 85 | 136 | 32 | 47700 | 58 | 2.5 | 50 | 1.1 | 2.5 | 0.8 |
| 947D511K102BGMSN | 510 | 1000 | 90 | 126 | 45 | 48300 | 67 | 1.8 | 45 | 1.2 | 2.5 | 0.9 |
| 947D551K102AJGSN | 550 | 1000 | 85 | 150 | 32 | 51400 | 58 | 2.7 | 54 | 1.1 | 2.3 | 0.9 |
| 947D571K102BHMSN | 570 | 1000 | 90 | 136 | 45 | 51200 | 66 | 2.0 | 49 | 1.2 | 2.3 | 0.9 |
| 947D571K102CFRSN | 570 | 1000 | 100 | 112 | 50 | 50900 | 77 | 1.6 | 42 | 1.0 | 2.4 | 1.0 |
| 947D571K102DDRSN | 570 | 1000 | 116 | 87 | 50 | 52800 | 96 | 1.0 | 40 | 0.8 | 2.3 | 1.1 |
| 947D601K102ALGSN | 600 | 1000 | 85 | 162 | 32 | 54600 | 57 | 3.0 | 59 | 1.1 | 2.2 | 1.0 |
| 947D631K102BJMSN | 630 | 1000 | 90 | 150 | 45 | 55100 | 65 | 2.2 | 53 | 1.1 | 2.2 | 1.0 |
| 947D641K102CGRSN | 640 | 1000 | 100 | 126 | 50 | 55300 | 76 | 1.7 | 46 | 1.0 | 2.2 | 1.1 |
| 947D671K102DERSN | 670 | 1000 | 116 | 100 | 50 | 57600 | 95 | 1.2 | 45 | 0.8 | 2.1 | 1.2 |
| 947D691K102BLMSN | 690 | 1000 | 90 | 162 | 45 | 58500 | 64 | 2.3 | 58 | 1.1 | 2.1 | 1.1 |
| 947D721K102CHRSN | 720 | 1000 | 100 | 136 | 50 | 58400 | 74 | 1.9 | 50 | 1.0 | 2.1 | 1.2 |
| 947D771K102DFRSN | 770 | 1000 | 116 | 112 | 50 | 62000 | 94 | 1.3 | 50 | 0.8 | 1.9 | 1.3 |
| 947D791K102CJRSN | 790 | 1000 | 100 | 150 | 50 | 62800 | 74 | 2.1 | 54 | 1.0 | 1.9 | 1.3 |
| 947D871K102CLRSN | 870 | 1000 | 100 | 162 | 50 | 66600 | 73 | 2.2 | 59 | 0.9 | 1.8 | 1.4 |
| 947D871K102DGRSN | 870 | 1000 | 116 | 126 | 50 | 67100 | 93 | 1.4 | 55 | 0.8 | 1.8 | 1.5 |
| 947D971K102DHRSN | 970 | 1000 | 116 | 136 | 50 | 70700 | 91 | 1.5 | 60 | 0.8 | 1.7 | 1.6 |
| 947D102K102DJRSN | 1000 | 1000 | 116 | 150 | 50 | 75800 | 90 | 1.7 | 65 | 0.8 | 1.6 | 1.7 |
| 947D112K102DLRSN | 1100 | 1000 | 116 | 162 | 50 | 80200 | 89 | 1.8 | 70 | 0.8 | 1.5 | 1.8 |
| 947D191K112ACGSN | 190 | 1100 | 85 | 75 | 32 | 31400 | 60 | 1.6 | 30 | 1.5 | 3.8 | 0.5 |
| 947D221K112BCMSN | 220 | 1100 | 90 | 75 | 45 | 33900 | 65 | 1.5 | 30 | 1.4 | 3.5 | 0.6 |
| 947D231K112ADGSN | 230 | 1100 | 85 | 87 | 32 | 34600 | 59 | 1.9 | 34 | 1.4 | 3.5 | 0.6 |
| 947D261K112BDMSN | 260 | 1100 | 90 | 87 | 45 | 37300 | 68 | 1.5 | 33 | 1.2 | 3.2 | 0.6 |
| 947D271K112AEGSN | 270 | 1100 | 85 | 100 | 32 | 38100 | 58 | 2.1 | 38 | 1.3 | 3.2 | 0.6 |
| 947D271K112CCRSN | 270 | 1100 | 100 | 75 | 50 | 39300 | 77 | 1.2 | 30 | 1.2 | 3.1 | 0.7 |
| 947D311K112BEMSN | 310 | 1100 | 90 | 100 | 45 | 41000 | 67 | 1.7 | 37 | 1.2 | 2.9 | 0.7 |
| 947D321K112AFGSN | 320 | 1100 | 85 | 112 | 32 | 41300 | 57 | 2.3 | 42 | 1.3 | 2.9 | 0.7 |
| 947D331K112CDRSN | 330 | 1100 | 100 | 87 | 50 | 43000 | 75 | 1.4 | 34 | 1.1 | 2.8 | 0.8 |
| 947D361K112AGGSN | 360 | 1100 | 85 | 126 | 32 | 45000 | 56 | 2.5 | 46 | 1.2 | 2.7 | 0.8 |
| 947D361K112BFMSN | 360 | 1100 | 90 | 112 | 45 | 44400 | 65 | 1.8 | 41 | 1.2 | 2.7 | 0.8 |

Type 947D Polypropylene, High Energy Density, DC Link Capacitors

High Current, High Capacitance for Inverter Applications

| PartNumber | Rated | | Can | | Lead | Current | | | | Thermal | | Max Mass (kg) |
|------------------|------------|---|------------|---------------|----------------|------------------------------|--|--------------|--------------|-------------------|-----------------|---------------|
| | Cap C (μF) | Voltage V _r (V _{DC}) | Dia D (mm) | Height H (mm) | Spacing S (mm) | Case Area (mm ²) | T _A =55 °C I _{rms} (A) | Typ ESR (mΩ) | Typ ESL (nH) | Resistance (°C/W) | | |
| | | | | | | | | | | Θ _{cc} | Θ _{ca} | |
| 947D371K112DCRSN | 370 | 1100 | 116 | 75 | 50 | 48500 | 94 | 1.0 | 35 | 0.9 | 2.5 | 0.9 |
| 947D391K112CERSN | 390 | 1100 | 100 | 100 | 50 | 47100 | 74 | 1.6 | 38 | 1.1 | 2.5 | 0.9 |
| 947D411K112BGMSN | 410 | 1100 | 90 | 126 | 45 | 48300 | 64 | 2.0 | 45 | 1.1 | 2.5 | 0.9 |
| 947D421K112AHGSN | 420 | 1100 | 85 | 136 | 32 | 47700 | 55 | 2.8 | 50 | 1.2 | 2.5 | 0.8 |
| 947D441K112AJGSN | 440 | 1100 | 85 | 150 | 32 | 51400 | 55 | 3.0 | 54 | 1.1 | 2.3 | 0.9 |
| 947D451K112CFRSN | 450 | 1100 | 100 | 112 | 50 | 50900 | 73 | 1.7 | 42 | 1.1 | 2.4 | 1.0 |
| 947D451K112DDRSN | 450 | 1100 | 116 | 87 | 50 | 52800 | 92 | 1.1 | 40 | 0.9 | 2.3 | 1.1 |
| 947D461K112BHMSN | 460 | 1100 | 90 | 136 | 45 | 51200 | 63 | 2.2 | 49 | 1.1 | 2.3 | 0.9 |
| 947D481K112ALGSN | 480 | 1100 | 85 | 162 | 32 | 54600 | 54 | 3.2 | 59 | 1.1 | 2.2 | 1.0 |
| 947D501K112BJMSN | 500 | 1100 | 90 | 150 | 45 | 55100 | 62 | 2.4 | 53 | 1.1 | 2.2 | 1.0 |
| 947D521K112CGRSN | 520 | 1100 | 100 | 126 | 50 | 55300 | 72 | 1.9 | 46 | 1.0 | 2.2 | 1.1 |
| 947D541K112DERSN | 540 | 1100 | 116 | 100 | 50 | 57600 | 91 | 1.3 | 45 | 0.8 | 2.1 | 1.2 |
| 947D551K112BLMSN | 550 | 1100 | 90 | 162 | 45 | 58500 | 61 | 2.6 | 58 | 1.1 | 2.1 | 1.1 |
| 947D581K112CHRSN | 580 | 1100 | 100 | 136 | 50 | 58400 | 71 | 2.1 | 50 | 1.0 | 2.1 | 1.2 |
| 947D621K112DFRSN | 620 | 1100 | 116 | 112 | 50 | 62000 | 90 | 1.4 | 50 | 0.8 | 1.9 | 1.3 |
| 947D641K112CJRSN | 640 | 1100 | 100 | 150 | 50 | 62800 | 70 | 2.2 | 54 | 1.0 | 1.9 | 1.3 |
| 947D701K112CLRSN | 700 | 1100 | 100 | 162 | 50 | 66600 | 69 | 2.4 | 59 | 1.0 | 1.8 | 1.4 |
| 947D701K112DGRSN | 700 | 1100 | 116 | 126 | 50 | 67100 | 89 | 1.5 | 55 | 0.8 | 1.8 | 1.5 |
| 947D781K112DHRSN | 780 | 1100 | 116 | 136 | 50 | 70700 | 87 | 1.7 | 60 | 0.8 | 1.7 | 1.6 |
| 947D861K112DJRSN | 860 | 1100 | 116 | 150 | 50 | 75800 | 86 | 1.8 | 65 | 0.8 | 1.6 | 1.7 |
| 947D941K112DLRSN | 940 | 1100 | 116 | 162 | 50 | 80200 | 85 | 1.9 | 70 | 0.8 | 1.5 | 1.8 |
| 947D151K122ACGSN | 150 | 1200 | 85 | 75 | 32 | 31400 | 57 | 1.8 | 30 | 1.5 | 3.8 | 0.5 |
| 947D181K122BCMSN | 180 | 1200 | 90 | 75 | 45 | 33900 | 62 | 1.6 | 30 | 1.4 | 3.5 | 0.6 |
| 947D191K122ADGSN | 190 | 1200 | 85 | 87 | 32 | 34600 | 56 | 2.0 | 34 | 1.4 | 3.5 | 0.6 |
| 947D221K122AEGSN | 220 | 1200 | 85 | 100 | 32 | 38100 | 55 | 2.3 | 38 | 1.4 | 3.2 | 0.6 |
| 947D221K122BDMSN | 220 | 1200 | 90 | 87 | 45 | 37300 | 65 | 1.6 | 33 | 1.2 | 3.2 | 0.6 |
| 947D221K122CCRSN | 220 | 1200 | 100 | 75 | 50 | 39300 | 73 | 1.3 | 30 | 1.2 | 3.1 | 0.7 |
| 947D251K122BEMSN | 250 | 1200 | 90 | 100 | 45 | 41000 | 64 | 1.8 | 37 | 1.1 | 2.9 | 0.7 |
| 947D261K122AFGSN | 260 | 1200 | 85 | 112 | 32 | 41300 | 54 | 2.5 | 42 | 1.3 | 2.9 | 0.7 |
| 947D271K122CDRSN | 270 | 1200 | 100 | 87 | 50 | 43000 | 72 | 1.5 | 34 | 1.2 | 2.8 | 0.8 |
| 947D291K122AGGSN | 290 | 1200 | 85 | 126 | 32 | 45000 | 54 | 2.8 | 46 | 1.2 | 2.7 | 0.8 |
| 947D291K122BFMSN | 290 | 1200 | 90 | 112 | 45 | 44400 | 62 | 2.0 | 41 | 1.1 | 2.7 | 0.8 |
| 947D311K122DCRSN | 310 | 1200 | 116 | 75 | 50 | 48500 | 90 | 1.1 | 35 | 0.9 | 2.5 | 0.9 |
| 947D321K122CERSN | 320 | 1200 | 100 | 100 | 50 | 47100 | 71 | 1.7 | 38 | 1.1 | 2.5 | 0.9 |
| 947D331K122AHGSN | 330 | 1200 | 85 | 136 | 32 | 47700 | 53 | 3.0 | 50 | 1.2 | 2.5 | 0.8 |
| 947D331K122BGMSN | 330 | 1200 | 90 | 126 | 45 | 48300 | 61 | 2.2 | 45 | 1.1 | 2.5 | 0.9 |
| 947D361K122AJGSN | 360 | 1200 | 85 | 150 | 32 | 51400 | 52 | 3.3 | 54 | 1.2 | 2.3 | 0.9 |
| 947D371K122BHMSN | 370 | 1200 | 90 | 136 | 45 | 51200 | 60 | 2.4 | 49 | 1.1 | 2.3 | 0.9 |
| 947D371K122CFRSN | 370 | 1200 | 100 | 112 | 50 | 50900 | 69 | 1.9 | 42 | 1.1 | 2.4 | 1.0 |
| 947D371K122DDRSN | 370 | 1200 | 116 | 87 | 50 | 52800 | 88 | 1.2 | 40 | 0.9 | 2.3 | 1.1 |
| 947D401K122ALGSN | 400 | 1200 | 85 | 162 | 32 | 54600 | 52 | 3.5 | 59 | 1.1 | 2.2 | 1.0 |
| 947D411K122BJMSN | 410 | 1200 | 90 | 150 | 45 | 55100 | 59 | 2.6 | 53 | 1.1 | 2.2 | 1.0 |

Type 947D Polypropylene, High Energy Density, DC Link Capacitors

High Current, High Capacitance for Inverter Applications

| PartNumber | Cap C (μ F) | Rated Voltage V_R (V_{DC}) | Can Dia D (mm) | Can Height H (mm) | Lead Spacing S (mm) | Case Area (mm ²) | Current | | | Thermal | | Max Mass (kg) |
|-------------------|------------------------|---|-------------------------|----------------------------|------------------------------|------------------------------------|---|-----------------------------|--------------------|--|--|---------------------|
| | | | | | | | $T_A=55^\circ\text{C}$ I _{rms} (A) | Typ ESR (m Ω) | Typ ESL (nH) | Resistance Θ_{cc} ($^\circ\text{C}/\text{W}$) | Θ_{ca} ($^\circ\text{C}/\text{W}$) | |
| 947D421K122CGRSN | 420 | 1200 | 100 | 126 | 50 | 55300 | 69 | 2.1 | 46 | 1.1 | 2.2 | 1.1 |
| 947D441K122DERSN | 440 | 1200 | 116 | 100 | 50 | 57600 | 87 | 1.4 | 45 | 0.9 | 2.1 | 1.2 |
| 947D451K122BLMSN | 450 | 1200 | 90 | 162 | 45 | 58500 | 58 | 2.8 | 58 | 1.0 | 2.1 | 1.1 |
| 947D471K122CHRSN | 470 | 1200 | 100 | 136 | 50 | 58400 | 67 | 2.2 | 50 | 1.0 | 2.1 | 1.2 |
| 947D511K122DFRSN | 510 | 1200 | 116 | 112 | 50 | 62000 | 86 | 1.5 | 50 | 0.8 | 1.9 | 1.3 |
| 947D521K122CJRSN | 520 | 1200 | 100 | 150 | 50 | 62800 | 67 | 2.4 | 54 | 1.0 | 1.9 | 1.3 |
| 947D571K122CLRSN | 570 | 1200 | 100 | 162 | 50 | 66600 | 66 | 2.6 | 59 | 1.0 | 1.8 | 1.4 |
| 947D571K122DGRSN | 570 | 1200 | 116 | 126 | 50 | 67100 | 85 | 1.6 | 55 | 0.8 | 1.8 | 1.5 |
| 947D641K122DHRSN | 640 | 1200 | 116 | 136 | 50 | 70700 | 83 | 1.8 | 60 | 0.8 | 1.7 | 1.6 |
| 947D711K122DJRSN | 710 | 1200 | 116 | 150 | 50 | 75800 | 82 | 1.9 | 65 | 0.8 | 1.6 | 1.7 |
| 947D771K122DLRSN | 770 | 1200 | 116 | 162 | 50 | 80200 | 81 | 2.1 | 70 | 0.8 | 1.5 | 1.8 |
| 947D131K132ACGSN | 130 | 1300 | 85 | 75 | 32 | 31400 | 54 | 1.9 | 30 | 1.6 | 3.8 | 0.5 |
| 947D151K132BCMSN | 150 | 1300 | 90 | 75 | 45 | 33900 | 60 | 1.7 | 30 | 1.5 | 3.5 | 0.6 |
| 947D161K132ADGSN | 160 | 1300 | 85 | 87 | 32 | 34600 | 53 | 2.2 | 34 | 1.5 | 3.5 | 0.6 |
| 947D181K132BDMMSN | 180 | 1300 | 90 | 87 | 45 | 37300 | 62 | 1.8 | 33 | 1.1 | 3.2 | 0.6 |
| 947D191K132AEGSN | 190 | 1300 | 85 | 100 | 32 | 38100 | 53 | 2.5 | 38 | 1.4 | 3.2 | 0.6 |
| 947D191K132CCRSN | 190 | 1300 | 100 | 75 | 50 | 39300 | 70 | 1.4 | 30 | 1.2 | 3.1 | 0.7 |
| 947D211K132AFGSN | 210 | 1300 | 85 | 112 | 32 | 41300 | 52 | 2.7 | 42 | 1.3 | 2.9 | 0.7 |
| 947D211K132BEMSN | 210 | 1300 | 90 | 100 | 45 | 41000 | 61 | 2.0 | 37 | 1.1 | 2.9 | 0.7 |
| 947D231K132CDRSN | 230 | 1300 | 100 | 87 | 50 | 43000 | 69 | 1.6 | 34 | 1.2 | 2.8 | 0.8 |
| 947D241K132AGGSN | 240 | 1300 | 85 | 126 | 32 | 45000 | 51 | 3.0 | 46 | 1.3 | 2.7 | 0.8 |
| 947D241K132BFMSN | 240 | 1300 | 90 | 112 | 45 | 44400 | 60 | 2.2 | 41 | 1.1 | 2.7 | 0.8 |
| 947D251K132DCRSN | 250 | 1300 | 116 | 75 | 50 | 48500 | 87 | 1.2 | 35 | 0.9 | 2.5 | 0.9 |
| 947D271K132AHGSN | 270 | 1300 | 85 | 136 | 32 | 47700 | 50 | 3.3 | 50 | 1.2 | 2.5 | 0.8 |
| 947D271K132CERSN | 270 | 1300 | 100 | 100 | 50 | 47100 | 68 | 1.8 | 38 | 1.2 | 2.5 | 0.9 |
| 947D281K132BGMSN | 280 | 1300 | 90 | 126 | 45 | 48300 | 59 | 2.4 | 45 | 1.0 | 2.5 | 0.9 |
| 947D301K132AJGSN | 300 | 1300 | 85 | 150 | 32 | 51400 | 50 | 3.5 | 54 | 1.2 | 2.3 | 0.9 |
| 947D311K132BHMSN | 310 | 1300 | 90 | 136 | 45 | 51200 | 58 | 2.7 | 49 | 1.0 | 2.3 | 0.9 |
| 947D311K132CFRSN | 310 | 1300 | 100 | 112 | 50 | 50900 | 66 | 2.0 | 42 | 1.1 | 2.4 | 1.0 |
| 947D311K132DDRSN | 310 | 1300 | 116 | 87 | 50 | 52800 | 85 | 1.3 | 40 | 0.9 | 2.3 | 1.1 |
| 947D331K132ALGSN | 330 | 1300 | 85 | 162 | 32 | 54600 | 49 | 3.8 | 59 | 1.2 | 2.2 | 1.0 |
| 947D341K132BJMSN | 340 | 1300 | 90 | 150 | 45 | 55100 | 57 | 2.9 | 53 | 1.0 | 2.2 | 1.0 |
| 947D351K132CGRSN | 350 | 1300 | 100 | 126 | 50 | 55300 | 66 | 2.2 | 46 | 1.1 | 2.2 | 1.1 |
| 947D371K132DERSN | 370 | 1300 | 116 | 100 | 50 | 57600 | 84 | 1.5 | 45 | 0.9 | 2.1 | 1.2 |
| 947D381K132BLMSN | 380 | 1300 | 90 | 162 | 45 | 58500 | 56 | 3.1 | 58 | 1.0 | 2.1 | 1.1 |
| 947D391K132CHRSN | 390 | 1300 | 100 | 136 | 50 | 58400 | 64 | 2.4 | 50 | 1.1 | 2.1 | 1.2 |
| 947D421K132DFRSN | 420 | 1300 | 116 | 112 | 50 | 62000 | 82 | 1.6 | 50 | 0.9 | 1.9 | 1.3 |
| 947D431K132CJRSN | 430 | 1300 | 100 | 150 | 50 | 62800 | 64 | 2.6 | 54 | 1.0 | 1.9 | 1.3 |
| 947D471K132CLRSN | 470 | 1300 | 100 | 162 | 50 | 66600 | 63 | 2.8 | 59 | 1.0 | 1.8 | 1.4 |
| 947D481K132DGRSN | 480 | 1300 | 116 | 126 | 50 | 67100 | 82 | 1.8 | 55 | 0.9 | 1.8 | 1.5 |
| 947D531K132DHRSN | 530 | 1300 | 116 | 136 | 50 | 70700 | 80 | 1.9 | 60 | 0.8 | 1.7 | 1.6 |
| 947D591K132DJRSN | 590 | 1300 | 116 | 150 | 50 | 75800 | 79 | 2.1 | 65 | 0.8 | 1.6 | 1.7 |
| 947D641K132DLRSN | 640 | 1300 | 116 | 162 | 50 | 80200 | 78 | 2.2 | 70 | 0.8 | 1.5 | 1.8 |

Type 947D Polypropylene, High Energy Density, DC Link Capacitors

High Current, High Capacitance for Inverter Applications

Expected Lifetime Predictions

- Capacitance: C (μF)
- Equivalent Series Resistance: ESR ($\text{m}\Omega$)
- Frequency: f (kHz)
- Ripple Current: I (A_{rms})
- Ambient Temperature: T_A ($^{\circ}\text{C}$)
- Core Temperature: T_C ($^{\circ}\text{C}$)
- Total Thermal Resistance: Θ ($^{\circ}\text{C}/\text{W}$)
- Thermal Resistance case-to-ambient: Θ_{CA} ($^{\circ}\text{C}/\text{W}$)
- Thermal Resistance core-to-case: Θ_{CC} ($^{\circ}\text{C}/\text{W}$)
- Airflow Speed: v (m/s)
- Applied Voltage: V_A (V_{DC})
- Rated Voltage: V_R (V_{DC})

Use the 10 kHz ESR from the ratings tables.

For operation below 10 kHz, the ESR will need to be adjusted using the following equation: $\text{ESR} - 31.83 / (10C) + 31.83 / (fC)$.

Compute $\Theta = \Theta_{\text{CC}} + \Theta_{\text{CA}}$. In the ratings tables, Θ_{CA} is for still air. For moving air use the capacitor surface area A and airflow speed v to calculate $\theta_{\text{ca}} = 1 / [A(5 + 17(v + 0.1)^{0.66})]$.

Look up Expected Lifetime on the graph using V_A / V_R and $T_C = T_A + I^2 (\text{ESR} / 1000) \Theta$

The maximum allowed temperature rise is 40°C and the maximum allowed core temperature is 95°C .

Expected Lifetime vs Core Temperature and Applied DC Voltage



Type 947D Polypropylene, High Energy Density, DC Link Capacitors

High Current, High Capacitance for Inverter Applications

Typical Performance Curves

947D641K901AHGSN ESR vs Frequency and Temperature



947D641K901AHGSN Rated Ripple Current, Still Air, 7kh Life



947D421K112AHGSN ESR vs Frequency and Temperature



Type 947D Polypropylene, High Energy Density, DC Link Capacitors

High Current, High Capacitance for Inverter Applications

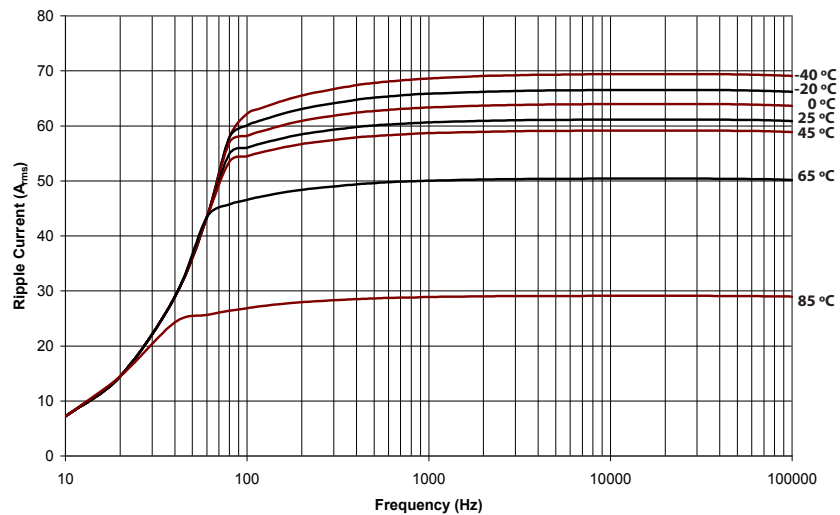
947D421K112AHGSN Rated Ripple Current, Still Air, 7kh Life



947D481K112ALGSN ESR vs Frequency and Temperature



947D481K112ALGSN Rated Ripple Current, Still Air, 7kh Life



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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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