

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

High Current, High Capacitance for Inverter Applications



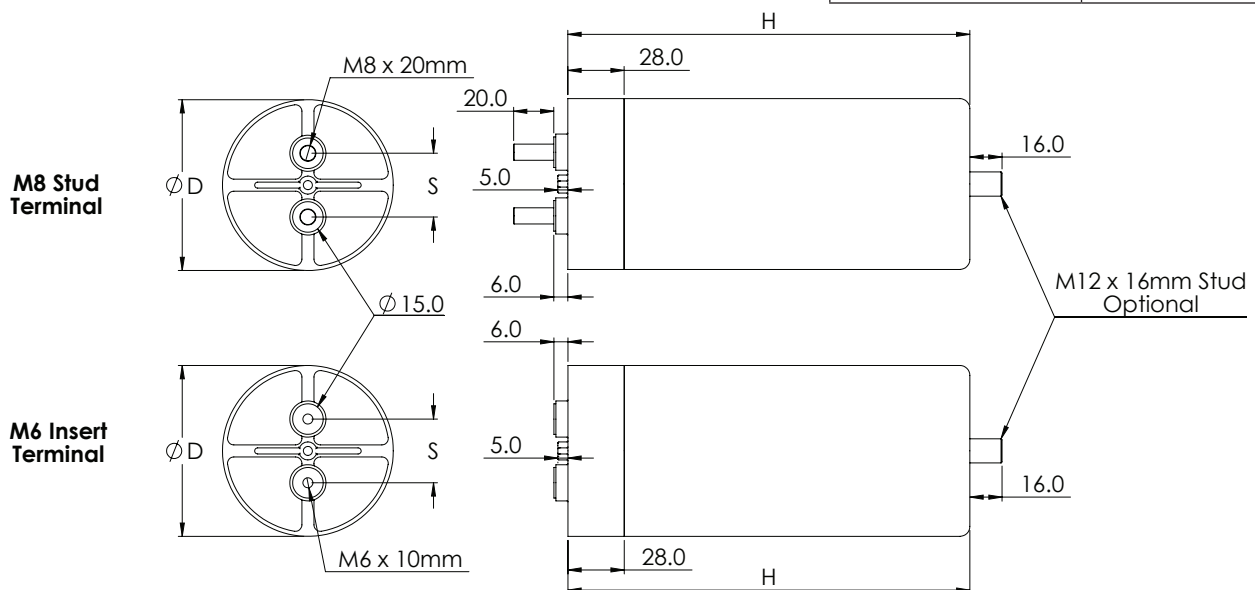
Type 947D series uses the most advanced metallized film technology for long life and high reliability in DC Link applications. This series combines high capacitance and very high ripple current capability needed for today's inverter designs for wind, solar, fuel cells, UPS systems and more.

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 |

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 | 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 | Voltage V_r (V_{DC}) | Dia D (mm) | Height H (mm) | Spacing S (mm) | Case Area (mm ²) | $T_A=55^\circ\text{C}$ Irms (A) | Typ ESR (m Ω) | Typ ESL (nH) | Resistance | | |
| | (μF) | (V_{DC}) | (mm) | (mm) | (mm) | (mm ²) | (A) | (m Ω) | (nH) | Θ_{cc} ($^\circ\text{C}/\text{W}$) | Θ_{ca} ($^\circ\text{C}/\text{W}$) | |
| 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 | Rated | Can | Can | Lead | Case | Current | | | Thermal | | Max |
|-------------------|------|--------------------|------|--------|---------|--------------------|-----------------------|------|------|-----------------|-----------------|------|
| | C | Voltage | Dia | Height | Spacing | | T _A =55 °C | Typ | Typ | Resistance | Max | |
| | (μF) | V _R | D | H | S | Area | I _{rms} | ESR | ESL | θ _{cc} | θ _{ca} | Mass |
| | | (V _{DC}) | (mm) | (mm) | (mm) | (mm ²) | (A) | (mΩ) | (nH) | (°C/W) | (°C/W) | (kg) |
| 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

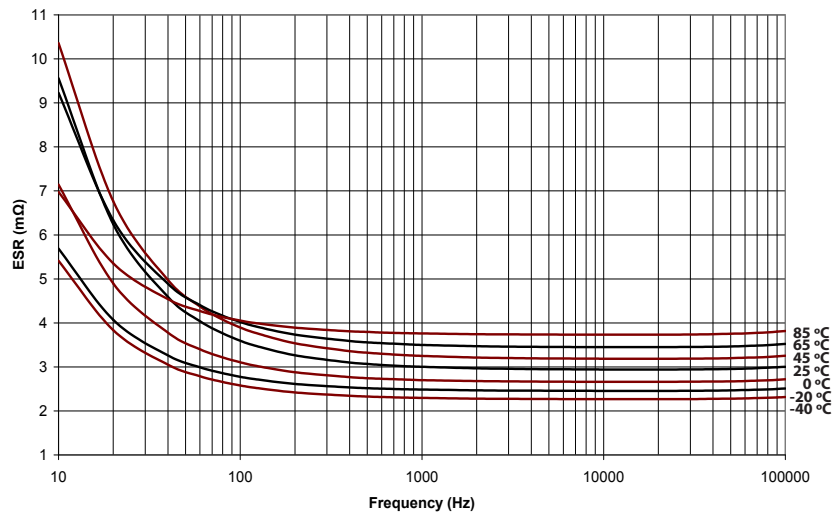
947D641K901AHGSN ESR vs Frequency and Temperature



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

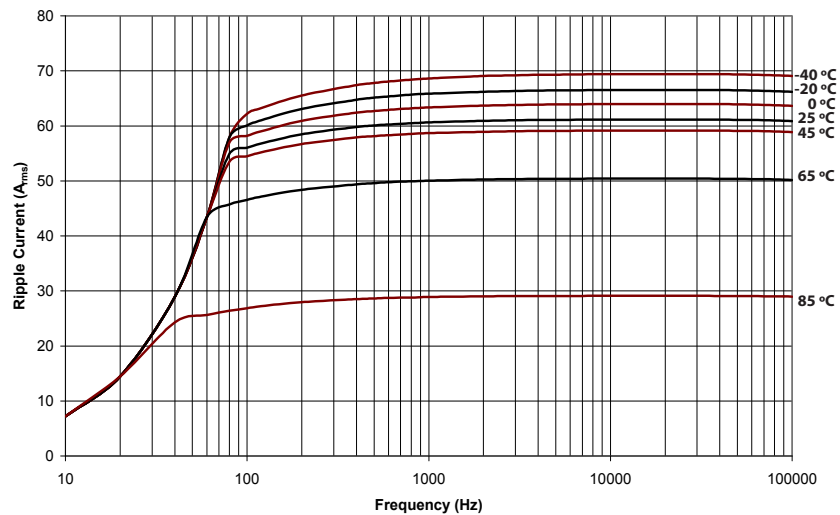
947D421K112AHGSN Rated Ripple Current, Still Air, 7kh Life



947D481K112ALGSN ESR vs Frequency and Temperature



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



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<http://moschip.ru/get-element>

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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