

## Overview

C27 is a polypropylene metallized film, with a cylindrical plastic can-type construction filled with resin. It uses faston and plastic deck or cable terminals.

## Applications

Typical applications include motor start S0 safety class.

## Benefits

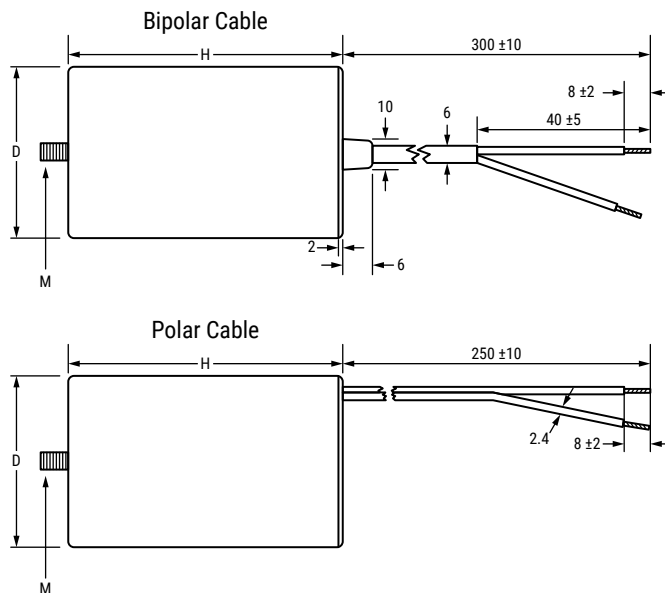
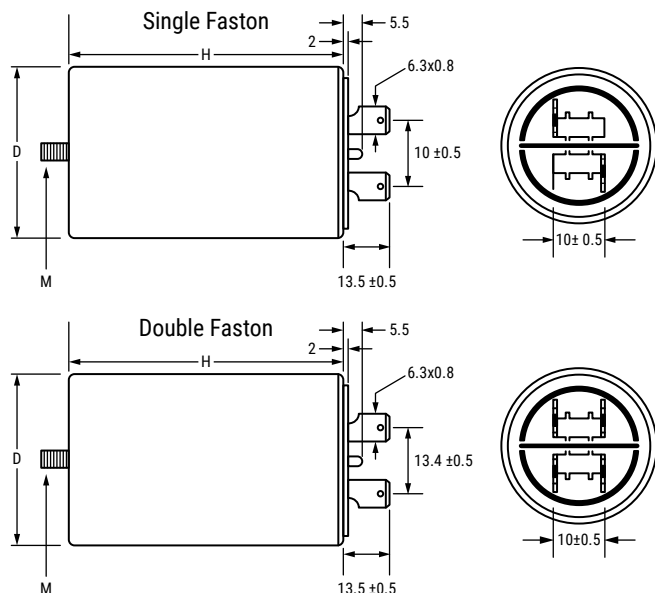
- Self-healing
- IMQ and UL810 approved (construction only)
- Rated frequency of 50 Hz and 60 Hz
- High capacitance density



## Part Number System

| C27                        | 4                                                                    | A                                              | C                                                                                | 2                                                                                                                        | 4100                                                                                                                             | AA                                                                                                                                                                                                                                                                                                                                      | 5                     | J         |
|----------------------------|----------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| Series                     |                                                                      | Marking                                        | Case and Fixing Bolt Code                                                        | Terminal Style                                                                                                           | Capacitance Code (pF)                                                                                                            | Packaging                                                                                                                                                                                                                                                                                                                               | Internal Use          | Tolerance |
| C27 = Motor Run Capacitors | 4 = 30,000 hours/420 VAC (Class A) or 10,000 hours/470 VAC (Class B) | C274:<br>C = Standard<br>N = UL<br>Z = Special | A = Without fixing bolt/flat bottom<br>C = Cylindrical plastic case with M8 bolt | 2 = Single faston 6.3 x 0.8                                                                                              | Digits 2 - 4 indicate the first three digits of the capacitance value.<br>First digit indicates the number of zeros to be added. | AA = Faston terminals standard<br>AF = Unipolar cable, L = 250 mm, stripped 8 mm<br>AL = Unipolar cable, L = 300 mm, stripped 8 mm,<br>LF = Bipolar cable L = 250 mm, unsheathed 40 mm, stripped 8mm<br>LG = Bipolar cable L = 300mm, unsheathed 40 mm, stripped 8 mm<br>LH = Bipolar cable L = 350 mm, unsheathed 40 mm, stripped 8 mm | 0, 1, 2, 5 = Standard | J = 5%    |
|                            | 6 = 10,000 hours/420 VAC (Class B) or 3,000 hours/470 VAC (Class C)  | C276:<br>A = Standard<br>N = UL<br>Z = Special |                                                                                  | 3 = Double faston 6.3 x 0.8                                                                                              |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                         |                       |           |
|                            | 7 = 10,000 hours/275 VAC (Class C) or 1,000 hours/425 VAC (Class D)  | C277:<br>L = Standard<br>N = UL<br>Z = Special |                                                                                  | A = Unipolar flexible cable (tinned end)<br>B = Unipolar flexible cable (untinned end)<br>F = Bipolar cable (tinned end) |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                         |                       |           |

## Dimensions – Millimeters



| D     | H    | Mounting Stud (M) |
|-------|------|-------------------|
| +1/-0 | ±2   |                   |
| 25    | 56.5 | M8 x 10           |
| 25    | 58   | M8 x 11           |
| 25    | 55   | M8 x 12           |
| 25    | 58.5 | M8 x 13           |
| 25    | 57   | M8 x 14           |
| 30    | 56.5 | M8 x 15           |
| 30    | 55   | M8 x 16           |
| 30    | 69.5 | M8 x 17           |
| 30    | 58.5 | M8 x 18           |
| 30    | 57   | M8 x 19           |
| 35    | 56.5 | M8 x 20           |
| 35    | 73.5 | M8 x 21           |
| 35    | 55   | M8 x 22           |
| 35    | 57   | M8 x 23           |
| 35    | 71.5 | M8 x 24           |
| 35    | 74   | M8 x 25           |
| 35    | 94.5 | M8 x 26           |
| 35    | 69.5 | M8 x 27           |
| 35    | 58.5 | M8 x 28           |
| 35    | 95.5 | M8 x 29           |

| D     | H    | Mounting Stud (M) |
|-------|------|-------------------|
| +1/-0 | ±2   |                   |
| 40    | 73.5 | M8 x 30           |
| 40    | 71.5 | M8 x 31           |
| 40    | 74   | M8 x 32           |
| 40    | 94   | M8 x 33           |
| 40    | 69.5 | M8 x 34           |
| 40    | 95.5 | M8 x 35           |
| 45    | 93   | M8 x 36           |
| 45    | 74   | M8 x 37           |
| 45    | 95.5 | M8 x 38           |
| 45    | 94   | M8 x 39           |
| 45    | 120  | M8 x 40           |
| 45    | 71.5 | M8 x 41           |
| 50    | 95   | M8 x 42           |
| 50    | 120  | M8 x 43           |
| 55    | 120  | M8 x 44           |
| 55    | 121  | M8 x 45           |
| 55    | 93.5 | M8 x 46           |

## Qualification

|                     |                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------|
| Reference Standards | IEC 252, EN 60252-1:2011/A1/20131994, IMQ, UL810 (construction only), approved up to 500 VAC |
| Vibration Test      | IEC 68-2-6                                                                                   |

## Performance Characteristics

| Type of Service                                              | Continuous                                                                                                                                        |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Class                                              |                                                                                                                                                   |
| C27/4                                                        | Class A 30,000 hours at 420 VAC or Class B 10,000 hours at 470 VAC                                                                                |
| C27/6                                                        | Class B 10,000 hours at 420 VAC or Class C 3,000 hours at 470 VAC                                                                                 |
| C27/7                                                        | Class B 10,000 hours at 275 VAC or Class D 1,000 hours at 425 VAC (intermittent operation)                                                        |
| Temperature Range                                            | -25°C to +85°C                                                                                                                                    |
| Storage Temperature                                          | -40°C to +90°C                                                                                                                                    |
| Rated Voltage                                                | 470 VAC                                                                                                                                           |
| Rated Frequency                                              | 50 – 60 Hz                                                                                                                                        |
| Voltage Rise/Fall Time (Maximum):<br>C27/4<br>C27/6<br>c27/7 | 20 V/μs<br>15 V/μs<br>15 V/μs                                                                                                                     |
| Maximum Permissible Voltage                                  | 1.10 x rated voltage                                                                                                                              |
| Maximum Permissible Current                                  | 1.30 x rated current                                                                                                                              |
| Dissipation Factor (DF)                                      | 20 x 10 <sup>-4</sup> at +20°C, 50Hz                                                                                                              |
| Safety Class                                                 | S0                                                                                                                                                |
| Maximum Altitude                                             | 2,000 m                                                                                                                                           |
| Capacitance Tolerance                                        | ±5%                                                                                                                                               |
| Mounting                                                     | Any position                                                                                                                                      |
| Can                                                          | Polypropylene with self-extinguishing features V2 (UL 94)<br>Noryl with self-extinguishing features VI (UL 94) for diameters > 50 mm              |
| Faston                                                       | Faston execution: Nylon PA66 with self-extinguishing features V0                                                                                  |
| Disk                                                         | Cable execution: PC-A with self-extinguishing features V0<br>For diameters > 40 mm cable execution: Noryl PPO with self-extinguishing features VI |
| Filling Resin                                                | Polyurethane                                                                                                                                      |
| Dielectric                                                   | Polypropylene                                                                                                                                     |
| Plates                                                       | Self-healing metal layer                                                                                                                          |
| Test Voltage Terminal to Terminal (V <sub>TT</sub> )         | 2 V <sub>n</sub> for 2 seconds                                                                                                                    |
| Test Voltage Terminal to Can (V <sub>TC</sub> )              | 2,000 V for 2 seconds                                                                                                                             |
| Air Distance Between Live Parts                              | ≥ 5 mm                                                                                                                                            |
| Air Distance Between Live Parts and Case                     | ≥ 6 mm                                                                                                                                            |

**Table 1 – Ratings & Part Number Reference**

| Capacitance Value (µF) | VAC | Maximum Dimensions (mm) |        | dV/dt (V/µs) | Termination                           | Packaging Quantity | Part Number     |
|------------------------|-----|-------------------------|--------|--------------|---------------------------------------|--------------------|-----------------|
|                        |     | D                       | H      |              |                                       |                    |                 |
| 1                      | 470 | 25                      | 56.5   | 20           | Single faston                         | 162                | C274AC24100AA0J |
| 1.25                   | 470 | 25                      | 58     | 20           | Single faston                         | 162                | C274AC24125AA0J |
| 1.5                    | 470 | 25                      | 58     | 20           | Single faston                         | 162                | C274AC24150AA0J |
| 2                      | 470 | 25                      | 58     | 20           | Single faston                         | 162                | C274AC24200AA0J |
| 2.5                    | 470 | 25                      | 58     | 20           | Single faston                         | 162                | C274AC24250AA0J |
| 3                      | 470 | 25                      | 58     | 20           | Single faston                         | 162                | C274AC24300AA0J |
| 4                      | 470 | 30                      | 56.5   | 20           | Single faston                         | 110                | C274AC24400AA0J |
| 5                      | 470 | 30                      | 56.5   | 20           | Single faston                         | 110                | C274AC24500AA0J |
| 6                      | 470 | 35                      | 56.5   | 20           | Single faston                         | 86                 | C274AC24600AA0J |
| 6.3                    | 470 | 35                      | 56.5   | 20           | Single faston                         | 86                 | C274AC24630AA0J |
| 7                      | 470 | 35                      | 56.5   | 20           | Single faston                         | 86                 | C274AC24700AA0J |
| 7.5                    | 470 | 35                      | 56.5   | 20           | Single faston                         | 86                 | C274AC24750AA0J |
| 8                      | 470 | 35                      | 56.5   | 20           | Single faston                         | 86                 | C274AC24800AA0J |
| 10                     | 470 | 35                      | 73.5   | 20           | Single faston                         | 86                 | C274AC25100AA0J |
| 12                     | 470 | 35                      | 73.5   | 20           | Single faston                         | 86                 | C274AC25120AA0J |
| 12.5                   | 470 | 35                      | 73.5   | 20           | Single faston                         | 86                 | C274AC25125AA0J |
| 16                     | 470 | 40                      | 73.5   | 20           | Single faston                         | 60                 | C274AC25160AA0J |
| 25                     | 470 | 45                      | 93     | 20           | Single faston                         | 50                 | C274AC25250AA0J |
| 30                     | 470 | 45                      | 93     | 20           | Single faston                         | 50                 | C274AC25300AA0J |
| 31.5                   | 470 | 45                      | 93     | 20           | Single faston                         | 50                 | C274AC25315AA0J |
| 1                      | 470 | 25                      | 56.5   | 20           | Double faston                         | 162                | C274AC34100AA0J |
| 1.5                    | 470 | 25                      | 58     | 20           | Double faston                         | 162                | C274AC34150AA0J |
| 2                      | 470 | 25                      | 58     | 20           | Double faston                         | 162                | C274AC34200AA0J |
| 2.5                    | 470 | 25                      | 56.5   | 20           | Double faston                         | 162                | C274AC34250AA0J |
| 3                      | 470 | 25                      | 58     | 20           | Double faston                         | 162                | C274AC34300AA0J |
| 4                      | 470 | 30                      | 56.5   | 20           | Double faston                         | 110                | C274AC34400AA0J |
| 5                      | 470 | 30                      | 56.5   | 20           | Double faston                         | 110                | C274AC34500AA0J |
| 6                      | 470 | 35                      | 56.5   | 20           | Double faston                         | 86                 | C274AC34600AA0J |
| 6.3                    | 470 | 35                      | 56.5   | 20           | Double faston                         | 86                 | C274AC34630AA0J |
| 7                      | 470 | 35                      | 56.5   | 20           | Double faston                         | 86                 | C274AC34700AA0J |
| 7.5                    | 470 | 35                      | 56.5   | 20           | Double faston                         | 86                 | C274AC34750AA0J |
| 8                      | 470 | 35                      | 56.5   | 20           | Double faston                         | 86                 | C274AC34800AA0J |
| 9                      | 470 | 35                      | 73.5   | 20           | Double faston                         | 86                 | C274AC34900AA0J |
| 10                     | 470 | 35                      | 73.5   | 20           | Double faston                         | 86                 | C274AC35100AA0J |
| 11                     | 470 | 35                      | 73.5   | 20           | Double faston                         | 86                 | C274AC35110AA0J |
| 12                     | 470 | 35                      | 73.5   | 20           | Double faston                         | 86                 | C274AC35120AA0J |
| 12.5                   | 470 | 35                      | 73.5   | 20           | Double faston                         | 86                 | C274AC35125AA0J |
| 14                     | 470 | 40                      | 73.5   | 20           | Double faston                         | 60                 | C274AC35140AA0J |
| 15                     | 470 | 40                      | 73.5   | 20           | Double faston                         | 60                 | C274AC35150AA0J |
| 16                     | 470 | 40                      | 73.5   | 20           | Double faston                         | 60                 | C274AC35160AA0J |
| 18                     | 470 | 45                      | 74     | 20           | Double faston                         | 50                 | C274AC35180AA0J |
| 20                     | 470 | 45                      | 74     | 20           | Double faston                         | 50                 | C274AC35200AA0J |
| 25                     | 470 | 45                      | 93     | 20           | Double faston                         | 50                 | C274AC35250AA0J |
| 30                     | 470 | 45                      | 93     | 20           | Double faston                         | 50                 | C274AC35300AA0J |
| 35                     | 470 | 50                      | 95     | 20           | Double faston                         | 40                 | C274AC35350AA0J |
| 40                     | 470 | 50                      | 120    | 20           | Double faston                         | 40                 | C274AC35400AA0J |
| 50                     | 470 | 50                      | 120    | 20           | Double faston                         | 40                 | C274AC35500AA0J |
| 55                     | 470 | 55                      | 120    | 20           | Double faston                         | 32                 | C274AC35550AA0J |
| 60                     | 470 | 55                      | 121    | 20           | Double faston                         | 32                 | C274AC35600AA0J |
| 1                      | 470 | 25                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 162                | C274ACA4100AL0J |
| 1.5                    | 470 | 25                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 162                | C274ACA4150AL0J |
| 2                      | 470 | 25                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 162                | C274ACA4200AL0J |
| 2.5                    | 470 | 25                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 162                | C274ACA4250AL0J |
| 3                      | 470 | 25                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 162                | C274ACA4300AL0J |
| 4                      | 470 | 30                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 110                | C274ACA4400AL0J |
| 5                      | 470 | 30                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 110                | C274ACA4500AL0J |
| 6                      | 470 | 35                      | 55     | 20           | Unipolar flexible cable (tinned end)  | 86                 | C274ACA4600AL0J |
| 1                      | 470 | 25                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 162                | C274ACF4100LF0J |
| 1.5                    | 470 | 25                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 162                | C274ACF4150LF0J |
| 2                      | 470 | 25                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 162                | C274ACF4200LF0J |
| 2.5                    | 470 | 25                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 162                | C274ACF4250LF0J |
| 3                      | 470 | 25                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 162                | C274ACF4300LF0J |
| Capacitance Value (µF) | VAC | B (mm)                  | H (mm) | dV/dt (V/µs) | Termination                           | Packaging Quantity | Part Number     |

**Table 1 – Ratings & Part Number Reference cont'd**

| Capacitance Value (µF) | VAC | Maximum Dimensions (mm) |        | dV/dt (V/µs) | Termination                           | Packaging Quantity | Part Number     |
|------------------------|-----|-------------------------|--------|--------------|---------------------------------------|--------------------|-----------------|
|                        |     | D                       | H      |              |                                       |                    |                 |
| 4                      | 470 | 30                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 110                | C274ACF4400LF0J |
| 5                      | 470 | 30                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 110                | C274ACF4500LF0J |
| 6                      | 470 | 35                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 86                 | C274ACF4600LF0J |
| 8                      | 470 | 35                      | 58.5   | 20           | Unsheathed bipolar cable (tinned end) | 86                 | C274ACF4800LF0J |
| 10                     | 470 | 35                      | 71.5   | 20           | Unsheathed bipolar cable (tinned end) | 86                 | C274ACF5100LF0J |
| 12                     | 470 | 35                      | 71.5   | 20           | Unsheathed bipolar cable (tinned end) | 86                 | C274ACF5120LF0J |
| 15                     | 470 | 40                      | 71.5   | 20           | Unsheathed bipolar cable (tinned end) | 60                 | C274ACF5150LF0J |
| 20                     | 470 | 45                      | 71.5   | 20           | Unsheathed bipolar cable (tinned end) | 50                 | C274ACF5200LF0J |
| 30                     | 470 | 45                      | 93     | 20           | Unsheathed bipolar cable (tinned end) | 50                 | C274ACF5300LF0J |
| 35                     | 470 | 50                      | 93     | 20           | Unsheathed bipolar cable (tinned end) | 40                 | C274ACF5350LF0J |
| 40                     | 470 | 50                      | 120    | 20           | Unsheathed bipolar cable (tinned end) | 40                 | C274ACF5400LF0J |
| 1.5                    | 470 | 25                      | 58     | 15           | Single faston                         | 162                | C276CC24150AA0J |
| 2                      | 470 | 25                      | 58     | 15           | Single faston                         | 162                | C276CC24200AA0J |
| 2.5                    | 470 | 25                      | 58     | 15           | Single faston                         | 162                | C276CC24250AA0J |
| 3                      | 470 | 25                      | 58     | 15           | Single faston                         | 162                | C276CC24300AA0J |
| 3.15                   | 470 | 25                      | 58     | 15           | Single faston                         | 162                | C276CC24315AA0J |
| 4                      | 470 | 25                      | 58     | 15           | Single faston                         | 162                | C276CC24400AA0J |
| 5                      | 470 | 25                      | 58     | 15           | Single faston                         | 162                | C276CC24500AA1J |
| 6                      | 470 | 30                      | 56.5   | 15           | Single faston                         | 110                | C276CC24600AA0J |
| 6.3                    | 470 | 30                      | 56.5   | 15           | Single faston                         | 110                | C276CC24630AA0J |
| 7                      | 470 | 30                      | 56.5   | 15           | Single faston                         | 110                | C276CC24700AA0J |
| 8                      | 470 | 35                      | 56.5   | 15           | Single faston                         | 86                 | C276CC24800AA0J |
| 9                      | 470 | 35                      | 56.5   | 15           | Single faston                         | 86                 | C276CC24900AA0J |
| 10                     | 470 | 35                      | 56.5   | 15           | Single faston                         | 86                 | C276CC25100AA0J |
| 11                     | 470 | 35                      | 56.5   | 15           | Single faston                         | 86                 | C276CC25110AA0J |
| 12                     | 470 | 35                      | 73.5   | 15           | Single faston                         | 86                 | C276CC25120AA0J |
| 12.5                   | 470 | 35                      | 73.5   | 15           | Single faston                         | 86                 | C276CC25125AA0J |
| 14                     | 470 | 35                      | 73.5   | 15           | Single faston                         | 86                 | C276CC25140AA0J |
| 15                     | 470 | 35                      | 73.5   | 15           | Single faston                         | 86                 | C276CC25150AA0J |
| 16                     | 470 | 35                      | 73.5   | 15           | Single faston                         | 86                 | C276CC25160AA0J |
| 18                     | 470 | 40                      | 73.5   | 15           | Single faston                         | 60                 | C276CC25180AA0J |
| 20                     | 470 | 40                      | 73.5   | 15           | Single faston                         | 60                 | C276CC25200AA0J |
| 25                     | 470 | 45                      | 74     | 15           | Single faston                         | 50                 | C276CC25250AA0J |
| 30                     | 470 | 45                      | 74     | 15           | Single faston                         | 50                 | C276CC25300AA0J |
| 35                     | 470 | 45                      | 93     | 15           | Single faston                         | 50                 | C276CC25350AA0J |
| 40                     | 470 | 45                      | 94     | 15           | Single faston                         | 50                 | C276CC25400AA0J |
| 60                     | 470 | 50                      | 120    | 15           | Single faston                         | 40                 | C276CC25600AA0J |
| 1.5                    | 470 | 25                      | 56.5   | 15           | Double faston                         | 162                | C276CC34150AA0J |
| 2.5                    | 470 | 25                      | 58     | 15           | Double faston                         | 162                | C276CC34250AA0J |
| 3                      | 470 | 25                      | 58     | 15           | Double faston                         | 162                | C276CC34300AA0J |
| 3.15                   | 470 | 25                      | 58     | 15           | Double faston                         | 162                | C276CC34315AA0J |
| 4                      | 470 | 25                      | 58     | 15           | Double faston                         | 162                | C276CC34400AA0J |
| 5                      | 470 | 30                      | 56.5   | 15           | Double faston                         | 110                | C276CC34500AA0J |
| 6                      | 470 | 30                      | 56.5   | 15           | Double faston                         | 110                | C276CC34600AA0J |
| 6.3                    | 470 | 30                      | 56.5   | 15           | Double faston                         | 110                | C276CC34630AA0J |
| 7                      | 470 | 30                      | 56.5   | 15           | Double faston                         | 110                | C276CC34700AA0J |
| 8                      | 470 | 35                      | 56.5   | 15           | Double faston                         | 86                 | C276CC34800AA0J |
| 10                     | 470 | 35                      | 56.5   | 15           | Double faston                         | 86                 | C276CC35100AA0J |
| 11                     | 470 | 35                      | 56.5   | 15           | Double faston                         | 86                 | C276CC35110AA0J |
| 12                     | 470 | 35                      | 74     | 15           | Double faston                         | 86                 | C276CC35120AA0J |
| 12.5                   | 470 | 35                      | 73.5   | 15           | Double faston                         | 86                 | C276CC35125AA0J |
| 14                     | 470 | 35                      | 73.5   | 15           | Double faston                         | 86                 | C276CC35140AA0J |
| 15                     | 470 | 35                      | 73.5   | 15           | Double faston                         | 86                 | C276CC35150AA0J |
| 16                     | 470 | 35                      | 74     | 15           | Double faston                         | 86                 | C276CC35160AA0J |
| 17.5                   | 470 | 40                      | 73.5   | 15           | Double faston                         | 60                 | C276CC35175AA0J |
| 18                     | 470 | 40                      | 73.5   | 15           | Double faston                         | 60                 | C276CC35180AA0J |
| 20                     | 470 | 40                      | 74     | 15           | Double faston                         | 60                 | C276CC35200AA0J |
| 22                     | 470 | 40                      | 73.5   | 15           | Double faston                         | 60                 | C276CC35220AA0J |
| 25                     | 470 | 40                      | 94     | 15           | Double faston                         | 60                 | C276CC35250AA1J |
| 30                     | 470 | 45                      | 74     | 15           | Double faston                         | 50                 | C276CC35300AA0J |
| 31.5                   | 470 | 45                      | 93     | 15           | Double faston                         | 50                 | C276CC35315AA0J |
| 35                     | 470 | 45                      | 93     | 15           | Double faston                         | 50                 | C276CC35350AA0J |
| Capacitance Value (µF) | VAC | B (mm)                  | H (mm) | dV/dt (V/µs) | Termination                           | Packaging Quantity | Part Number     |

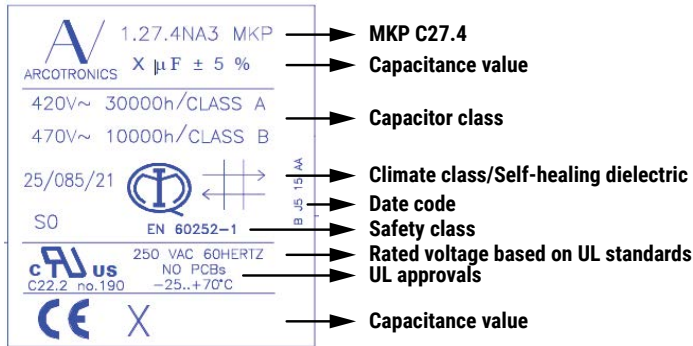
**Table 1 – Ratings & Part Number Reference cont'd**

| Capacitance Value (µF) | VAC | Maximum Dimensions (mm) |        | dV/dt (V/µs) | Termination                           | Packaging Quantity | Part Number     |
|------------------------|-----|-------------------------|--------|--------------|---------------------------------------|--------------------|-----------------|
|                        |     | D                       | H      |              |                                       |                    |                 |
| 40                     | 470 | 45                      | 93     | 15           | Double faston                         | 50                 | C276CC35400AA0J |
| 45                     | 470 | 50                      | 95     | 15           | Double faston                         | 40                 | C276CC35450AA0J |
| 50                     | 470 | 50                      | 120    | 15           | Double faston                         | 40                 | C276CC35500AA0J |
| 60                     | 470 | 50                      | 120    | 15           | Double faston                         | 40                 | C276CC35600AA0J |
| 2                      | 470 | 25                      | 58.5   | 15           | Unsheathed bipolar cable (tinned end) | 162                | C276CCF4200LG0J |
| 3                      | 470 | 25                      | 57     | 15           | Unsheathed bipolar cable (tinned end) | 162                | C276CCF4300LG0J |
| 4                      | 470 | 25                      | 58.5   | 15           | Unsheathed bipolar cable (tinned end) | 162                | C276CCF4400LG0J |
| 5                      | 470 | 30                      | 57     | 15           | Unsheathed bipolar cable (tinned end) | 110                | C276CCF4500LG0J |
| 5.5                    | 470 | 30                      | 58.5   | 15           | Unsheathed bipolar cable (tinned end) | 110                | C276CCF4550LG0J |
| 6                      | 470 | 30                      | 58.5   | 15           | Unsheathed bipolar cable (tinned end) | 110                | C276CCF4600LG0J |
| 8                      | 470 | 35                      | 58.5   | 15           | Unsheathed bipolar cable (tinned end) | 86                 | C276CCF4800LG0J |
| 10                     | 470 | 35                      | 58.5   | 15           | Unsheathed bipolar cable (tinned end) | 86                 | C276CCF5100LG0J |
| 12                     | 470 | 35                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 86                 | C276CCF5120LG0J |
| 12.5                   | 470 | 35                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 86                 | C276CCF5125LG0J |
| 14                     | 470 | 35                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 86                 | C276CCF5140LG0J |
| 16                     | 470 | 35                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 86                 | C276CCF5160LG0J |
| 16                     | 470 | 35                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 86                 | C276CCF5160LF0J |
| 20                     | 470 | 40                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 60                 | C276CCF5200LG0J |
| 25                     | 470 | 45                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 50                 | C276CCF5250LG0J |
| 30                     | 470 | 45                      | 71.5   | 15           | Unsheathed bipolar cable (tinned end) | 50                 | C276CCF5300LG0J |
| 35                     | 470 | 45                      | 95.5   | 15           | Unsheathed bipolar cable (tinned end) | 50                 | C276CCF5350LG0J |
| 40                     | 470 | 45                      | 95.5   | 15           | Unsheathed bipolar cable (tinned end) | 50                 | C276CCF5400LG0J |
| 50                     | 470 | 50                      | 95     | 15           | Unsheathed bipolar cable (tinned end) | 40                 | C276CCF5500LH2J |
| 3                      | 470 | 25                      | 55     | 15           | Polar cable (untinned end)            | 162                | C276CCB4300AF0J |
| 4                      | 470 | 25                      | 55     | 15           | Polar cable (untinned end)            | 162                | C276CCB4400AF0J |
| 5                      | 470 | 30                      | 55     | 15           | Polar cable (untinned end)            | 110                | C276CCB4500AF0J |
| 7                      | 470 | 30                      | 55     | 15           | Polar cable (untinned end)            | 110                | C276CCB4700AF0J |
| 8                      | 470 | 35                      | 55     | 15           | Polar cable (untinned end)            | 86                 | C276CCB4800AF0J |
| 8.5                    | 470 | 35                      | 55     | 15           | Polar cable (untinned end)            | 86                 | C276CCB4850AF0J |
| 9                      | 470 | 35                      | 55     | 15           | Polar cable (untinned end)            | 86                 | C276CCB4900AF0J |
| 12                     | 470 | 35                      | 69.5   | 15           | Polar cable (untinned end)            | 86                 | C276CCB5120AF0J |
| 12.5                   | 470 | 35                      | 69.5   | 15           | Polar cable (untinned end)            | 86                 | C276CCB5125AF0J |
| 14                     | 470 | 35                      | 69.5   | 15           | Polar cable (untinned end)            | 86                 | C276CCB5140AF0J |
| 5                      | 425 | 25                      | 56.5   | 15           | Single faston                         | 162                | C277LC24500AA0J |
| 16                     | 425 | 35                      | 74     | 15           | Single faston                         | 86                 | C277LC25160AA0J |
| 50                     | 425 | 45                      | 93     | 15           | Double faston                         | 50                 | C277LC35500AA0J |
| 70                     | 425 | 50                      | 95     | 15           | Double faston                         | 40                 | C277LC35700AA0J |
| 4                      | 425 | 25                      | 55     | 15           | Polar cable (untinned end)            | 162                | C277LCB4400AF0J |
| 5                      | 425 | 25                      | 55     | 15           | Polar cable (untinned end)            | 162                | C277LCB4500AF0J |
| 7                      | 425 | 30                      | 55     | 15           | Polar cable (untinned end)            | 110                | C277LCB4700AF0J |
| 8                      | 425 | 30                      | 55     | 15           | Polar cable (untinned end)            | 110                | C277LCB4800AF0J |
| 9                      | 425 | 30                      | 55     | 15           | Polar cable (untinned end)            | 110                | C277LCB4900AF0J |
| 30                     | 425 | 40                      | 95.5   | 15           | Unsheathed bipolar cable (tinned end) | 60                 | C277LCF5300LG2J |
| Capacitance Value (µF) | VAC | B (mm)                  | H (mm) | dV/dt (V/µs) | Termination                           | Packaging Quantity | Part Number     |

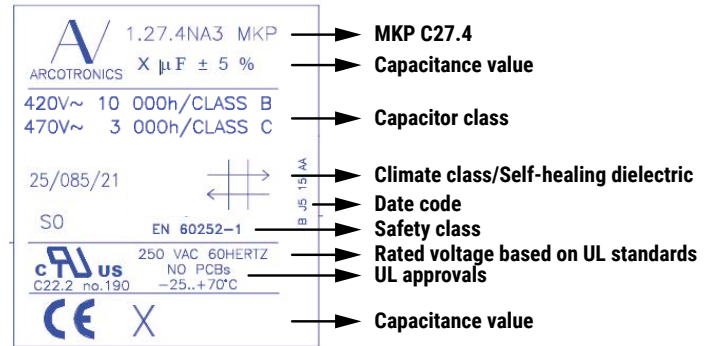
## Marking

### C27.4

From 1  $\mu$ F up to 45  $\mu$ F

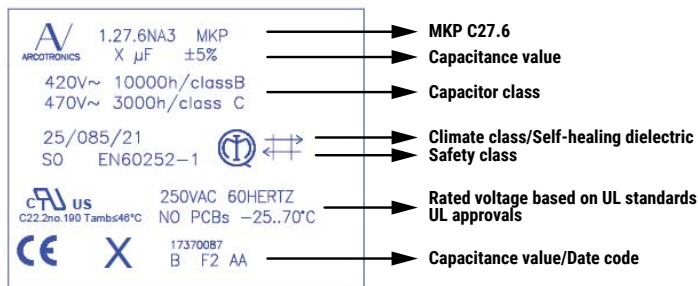


Over 45  $\mu$ F

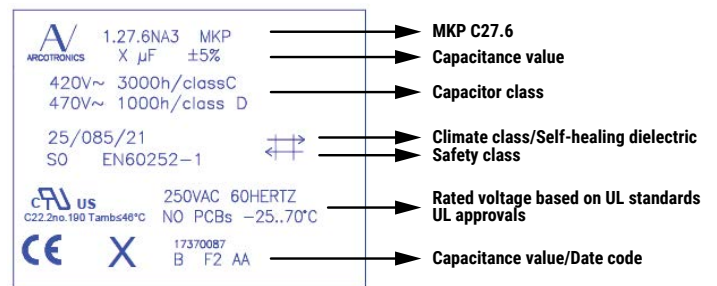


### C27.6

From 1  $\mu$ F up to 55  $\mu$ F



Over 55  $\mu$ F



## Marking (cont.d)

| Manufacturing Date Code (IEC-60062) |      |           |      |
|-------------------------------------|------|-----------|------|
| Y = Year, Z = Month                 |      |           |      |
| Year                                | Code | Month     | Code |
| 2010                                | A    | January   | 1    |
| 2011                                | B    | February  | 2    |
| 2012                                | C    | March     | 3    |
| 2013                                | D    | April     | 4    |
| 2014                                | E    | May       | 5    |
| 2015                                | F    | June      | 6    |
| 2016                                | H    | July      | 7    |
| 2017                                | J    | August    | 8    |
| 2018                                | K    | September | 9    |
| 2019                                | L    | October   | 0    |
| 2020                                | M    | November  | N    |
| 2021                                | N    | December  | D    |
| 2022                                | P    |           |      |
| 2023                                | R    |           |      |
| 2024                                | S    |           |      |
| 2025                                | T    |           |      |
| 2026                                | U    |           |      |
| 2027                                | V    |           |      |
| 2028                                | W    |           |      |
| 2029                                | X    |           |      |
| 2030                                | A    |           |      |

## Environmental Compliance

As a leading global supplier of electronic components and an environmentally conscious company, KEMET continually aspires to improve the environmental effects of our manufacturing processes and our finished electronic components.

In Europe (RoHS Directive) and in some other geographical areas such as China (China RoHS), legislation has been enacted to prevent or otherwise limit the use of certain hazardous materials including lead (Pb), in electronic equipment. KEMET monitors legislation globally to ensure compliance and endeavors to adjust our manufacturing processes and/or electronic components as may be required by applicable law.

For military, medical, automotive, and some commercial applications, the use of lead (Pb) in the termination is necessary and/or required by design. KEMET is committed to communicating RoHS compliance to our customers. Information related to RoHS compliance will be provided in datasheets and using specific identifiers on the packaging labels.

All KEMET power film capacitors are RoHS compliant.

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## Materials & Environment

The selection of raw materials used by KEMET for the production of its electronic components is the result of extensive experience and with specific attention toward environmental protection. KEMET selects its suppliers according to ISO 9001 standards and performs statistical analysis on the raw materials purchased before acceptance for use in the manufacture of our electronic components. All materials are, to the best of KEMET's knowledge, non-toxic and free from cadmium, mercury, chrome and compounds, polychlorine triphenyl (PCB), bromide and chlorinedioxins bromurate clorurate, CFC and HCFC, and asbestos.

## Insulation Resistance

As the capacitor temperature increases, the insulation resistance decreases. This is due to the increased electron activity. Low insulation resistance can also be the result of moisture trapped in the windings, caused by a prolonged exposure to excessive humidity.

## Dissipation Factor

Dissipation factor is a complex function involved with the inefficiency of the capacitor. The  $\tan \delta$  may change up and down with increased temperature. For more information, please refer to Performance Characteristics.

## Sealing

### Hermetically Sealed Capacitors

As the temperature increases, the pressure inside the capacitor increases. If the internal pressure is high enough, it can cause a breach in the capacitor, which can result in leakage, impregnation, filling fluid or moisture susceptibility.

### Resin Encased/Wrap & Fill Capacitors

The resin seals on resin-encased and wrap-and-fill capacitors will withstand short-term exposure to high humidity environments without degradation. Resins and plastic tapes will form a pseudo-impervious barrier to humidity and chemicals. These case materials are somewhat porous and through osmosis can cause contaminants to enter the capacitor. The second area of contaminated absorption is the lead-wire/resin interface. Since resins cannot bond 100% to tinned wires, there can be a path formed up to the lead wire into the capacitor section. Aqueous cleaning of circuit boards can aggravate this condition.

### Barometric Pressure

The altitude at which hermetically sealed capacitors are operated, controls the voltage rating of the capacitor. As the barometric pressure decreases, the susceptibility to terminal arc-over increases. Non-hermetic capacitors can be affected by internal stresses due to pressure changes. This can be in the form of capacitance changes, or dielectric arc-over, as well as low insulation resistance. Heat transfer can also be affected by altitude operation. Heat, generated in an operation, cannot be dissipated properly and can result in high RI2 losses and eventual failure.

### Radiation

Radiation capabilities of capacitors must be taken into consideration. Electrical degradation in the form of dielectric embitterment can take place causing shorts or opens.

## KEMET Electronics Corporation Sales Offices

For a complete list of our global sales offices, please visit [www.kemet.com/sales](http://www.kemet.com/sales).

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### Disclaimer

All product specifications, statements, information and data (collectively, the "Information") in this datasheet are subject to change. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

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Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

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# Mouser Electronics

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