



# Press-Fit Aluminum Electrolytic Capacitors

## ALF20 & ALF40

Electronic Components  
**KEMET**  
CHARGED®

### Why Choose KEMET

KEMET Electronics Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

### Features & Benefits

- Eliminates soldering process problems
- Meets BS EN 60352-5:2012
- Compact size
- Reliable electrical contacts
- High ripple current
- Excellent surge voltage capability
- Customized spacing of press-fit connections
- Quick exchange of components

### Product Checklist

- What is the pin configuration required?
- What are the operational conditions of your application? Do you have a specification available?
  - What is the applied voltage VDC?
  - What is the operational temperature?
  - What is the applied ripple current spectrum?
  - What life expectancy is required?
  - What are the end of life criteria?
- Does the application have size constraints? If so, what are they?
- Does the application require UL recognized sleeving?

For more information, samples and engineering kits, please visit us at [www.kemet.com](http://www.kemet.com) or call 1.877.myKEMET.

### Applications

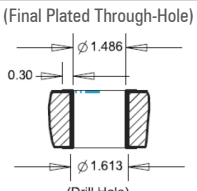
- Uninterruptible power supply (UPS)
- Switch mode power supplies (SMPS)
- Smoothing
- Energy storage
- Demanding power supplies
- Frequency inverters

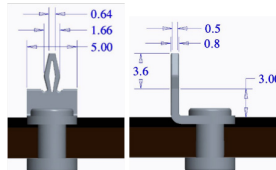


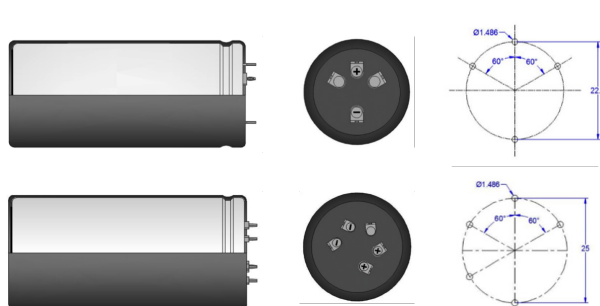
### Electrical/Physical Characteristics

Series	Case Sizes	Tolerances	Dielectric	Temperature Range	Voltage Options	Capacitance Values
ALF20	35, 40, 45, and 50 mm diameter,	±20% at 100 Hz +20°C	Aluminum Electrolytic	-40°C to +85°C	35 - 550 VDC	180 - 100,000 µf
ALF40	30 to 105 mm length			-40°C to +105°C	25 - 500 VDC	120 - 120,000 µf

### Printed Circuit Board (PCB) Requirements

PCB Thickness: 1.57 mm Minimum		
Drill	Ø 1.613 ±0.025	
Copper Thickness	0.025 minimum	
Final Plated Through-Hole Diameter	Ø 1.486 ±0.076	
Pin Insertion Force	125 N (28 lbf) maximum	
Pin Retention Force	62 N (14 lbf) minimum	

Material Specification (mm)		
Pin Length	6.6	
Pin Width	1.66	
Base Material	Copper Alloy C7025	
Plating Material	Ni and Sn	



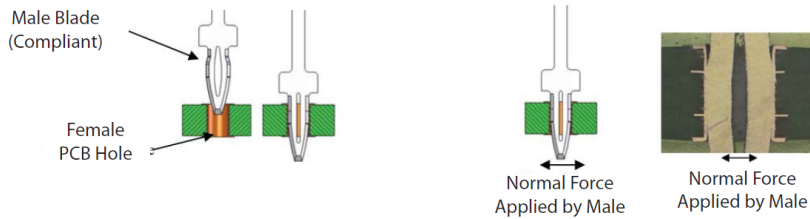


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### Press-Fit Male/Female Interconnects



### Insertion/Retention Forces

Tests performed on 4 and 5 pin press-fit decks show a consistent insertion force of 100 N per pin.

- 4 pin press-fit deck requires 400 N insertion force
- 5 pin press-fit deck requires 500 N insertion force

A force  $> 500$  N has been repeatedly applied to the finished product (4 pin version).