# **Applimotion, Inc.**

# **Application Specific Motion Solutions**

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# **LARC Linear ARC Motor kits**

#### **UTH Motor:**

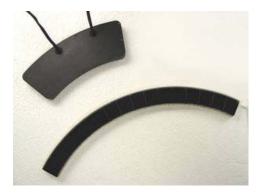
Geared to high output and high motor constant, the UTH motors combine some of the unique attributes of our ULT series, but add high performance magnets. Keeping with tradition, large through holes and low profile pancake construction allow them to fit into tight spots.

#### Features:

- Wide Range of Diameters from 29 mm to 533 mm. Special sizes can also be created with short lead time.
- <u>High motor constant</u> Low phase resistance for the motor size allows operation with low voltage power supplies and provides the high output with minimum voltage drop.
- Optional Windings Select your voltage, speed and current, Applimotion will create a special winding to optimize torque or efficiency.
- Sinusoidal Torque Curves motor designs for optimum performance with sinusoidal current control.
- Single Slot wound Stators machine wound for more consistent performance and high reliability with no copper forming required.
- Optional Back Iron Rings A standard set of iron rings are offered for each motor. Optional rings are available allowing more options for higher integration.
- Optional Hall Device Feedback internally mounted PCA doesn't add to motor height offered on some motors, others require
  externally mounted hall device board.

## **Images**

#### LARC Rotor



#### Part number identification

```
ARC-100-A-15-A-N-000

Mechanical Configuration: 000=std, 001 no back iron
Feedback Option, N=none, H=Halls
Winding Option - factory code
Axial Length mm
Magnetic Attributes - factory code
Diameter mm
Motor Series
("x" designates a standard option, contact factory for more details.)
```

### Data table



|   | Part number<br>LARC Series | R<br>(ohm) | L<br>(mh) | Ke<br>(v/krpm) | Kt<br>(oz-in/a) | Kt sine<br>(oz-in/a) | Km<br>(oz-in/w1/2) | Thermal Res<br>(degC/Watt) | Torque<br>(oz-in) | Current (amp) |
|---|----------------------------|------------|-----------|----------------|-----------------|----------------------|--------------------|----------------------------|-------------------|---------------|
| 4 | ARC-112-A-20-A-x-xxx       | 5.3        | 1.1       | 20.2           | 27.3            | 23.7                 | 11.9               | 1.5                        | 91.9              | 3.4           |
| 4 | ARC-200-A-23-A-x-xxx       | 1.4        | 0.6       | 35             | 47.3            | 41                   | 40                 | 1.5                        | 309.8             | 6.6           |
|   | ARC-225-A-33-A-x-xxx       | 10.9       | 9.1       | 389            | 525.9           | 455.5                | 159.3              | 0.6                        | 1951              | 3.7           |
| 4 | ARC-325-A-40-A-x-xxx       | 50         | 38.4      | 670            | 905.8           | 784.5                | 128.1              | 0.6                        | 1569              | 1.7           |
| 4 | ARC-545-A-40-A-x-xxx       | 57         | 32        | 1250           | 1690            | 1463.5               | 223.8              | 0.5                        | 3003.2            | 1.8           |
| 4 | ARC-765-A-40-A-x-xxx       | 18         | 13        | 1485           | 2007.7          | 1738.7               | 473.2              | 0.3                        | 8978.8            | 4.5           |

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