



## DC brushless motors

DC brushless motors are 3-phase electromotors with Hall sensors.

We offer power range up to 660W output.

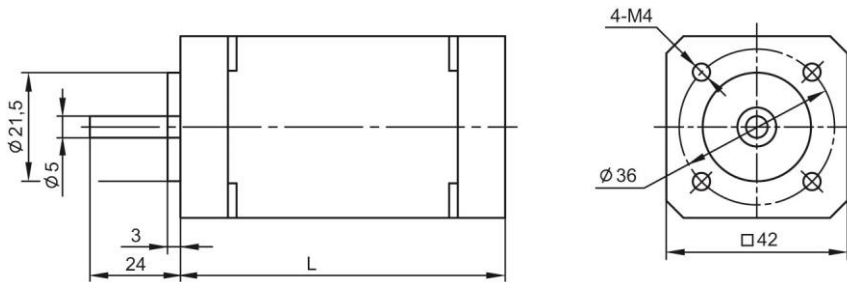
The main advantage of brushless DC motors is an absence of brushes and rubbing parts. Brushless motors are low noise, effective, low cost and long life.



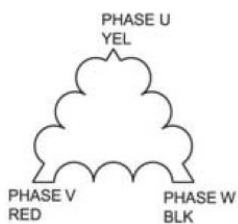
| Brushless motor | Power, W | Speed, rpm | Rated torque, kgf*cm | Max. torque, kgf*cm | Voltage VDC | Max. Current, Amp | Rotor inertia, g*cm <sup>2</sup> | Resistance*, Ohm | Inductance*, mH | Torque const, N*m/A | Poles number | Back EMF, V/rpm*10 <sup>3</sup> |
|-----------------|----------|------------|----------------------|---------------------|-------------|-------------------|----------------------------------|------------------|-----------------|---------------------|--------------|---------------------------------|
| SM42L61         | 52       | 4000       | 1,3                  | 3,8                 | 24          | 10,6              | 48                               | 0,8              | 1,2             | 0,036               | 8            | 3,7                             |
| SM42L100        | 105      |            | 2,5                  | 7,5                 |             | 20                | 96                               | 0,3              | 0,5             |                     |              | 3,9                             |
|                 | 138      |            | 3,3                  | 10                  | 36          | 16,5              | 173                              | 0,45             | 1,5             | 0,063               | 4            | 4,8                             |
| SM57L114        | 184      |            | 4,4                  | 12,7                |             | 20,5              | 230                              | 0,3              | 1,0             |                     |              | 6,6                             |
| SM86L98         | 440      | 3000       | 14,0                 | 42,0                | 48          | 37                | 1600                             | 0,2              | 0,5             | 0,113               | 8            | 9,2                             |
| SM86L125        | 660      |            | 21,0                 | 63,0                |             | 56                | 2400                             | 0,1              | 0,3             |                     |              | 0,112                           |

\* line-to-line

### Brushless motor SM42L61

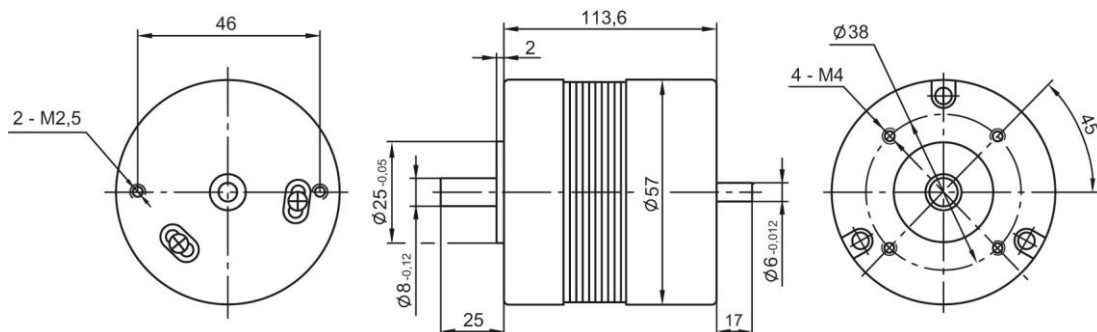


SM42L61 Length L=61mm, SM42L100 Length L=100mm



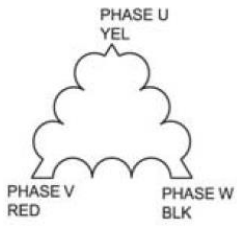
| Lead color | Lead Gauge   | Function | Description                     |
|------------|--------------|----------|---------------------------------|
| RED        | UL1007 26AWG | Vcc      | Supply voltage for Hall sensors |
| BLUE       |              | Hall A   | Hall sensors                    |
| GREEN      |              | Hall B   |                                 |
| WHITE      |              | Hall C   |                                 |
| BLACK      |              | GND      | Ground for Hall sensors         |
| YELLOW     | UL1007 20AWG | PHASE A  | Motor phases                    |
| RED        |              | PHASE B  |                                 |
| BLACK      |              | PHASE C  |                                 |

### Brushless motor SM57L114



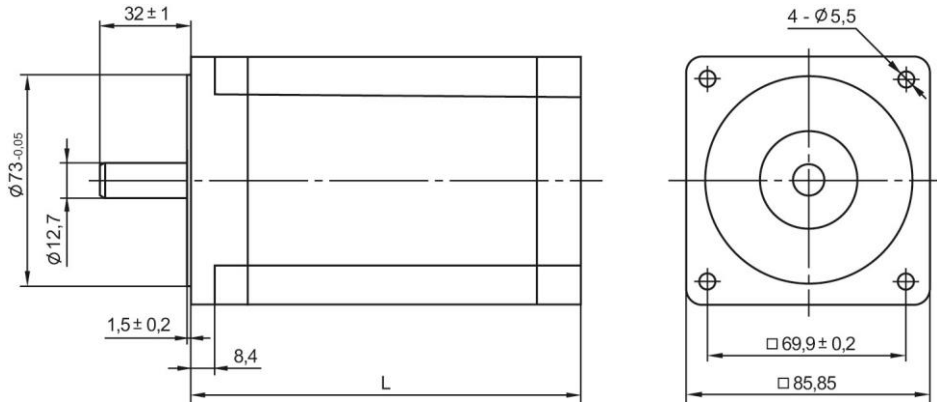
SM57L114 Length A=115mm

Date of sale:



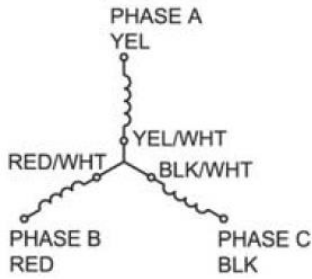
| Lead color | Lead Gauge   | Function | Description                     |
|------------|--------------|----------|---------------------------------|
| RED        | UL1007 26AWG | Vcc      | Supply voltage for Hall sensors |
| BLUE       |              | Hall A   | Hall sensors                    |
| GREEN      |              | Hall B   |                                 |
| WHITE      |              | Hall C   |                                 |
| BLACK      |              | GND      | Ground for Hall sensors         |
| YELLOW     | UL1007 20AWG | PHASE A  | Motor phases                    |
| RED        |              | PHASE B  |                                 |
| BLACK      |              | PHASE C  |                                 |

**Brushless motor**



**SM86L**

SM86L98 Length L=96mm,  
SM86L125 Length L=123mm



| Lead Color          | Lead Gauge    | Function | Description                     |
|---------------------|---------------|----------|---------------------------------|
| RED                 | UL1007 26AWG  | Vcc      | Supply voltage for Hall sensors |
| BLUE                |               | Hall A   | Hall sensors                    |
| GREEN               |               | Hall B   |                                 |
| WHITE               |               | Hall C   |                                 |
| BLACK               |               | GND      | Ground for Hall sensors         |
| Yellow & Yel/White  | UL3266 AWG20# | Phase U  | Motor phases                    |
| Red & Red/White     |               | Phase V  |                                 |
| Black & Black/White |               | Phase W  |                                 |

Date of sale: