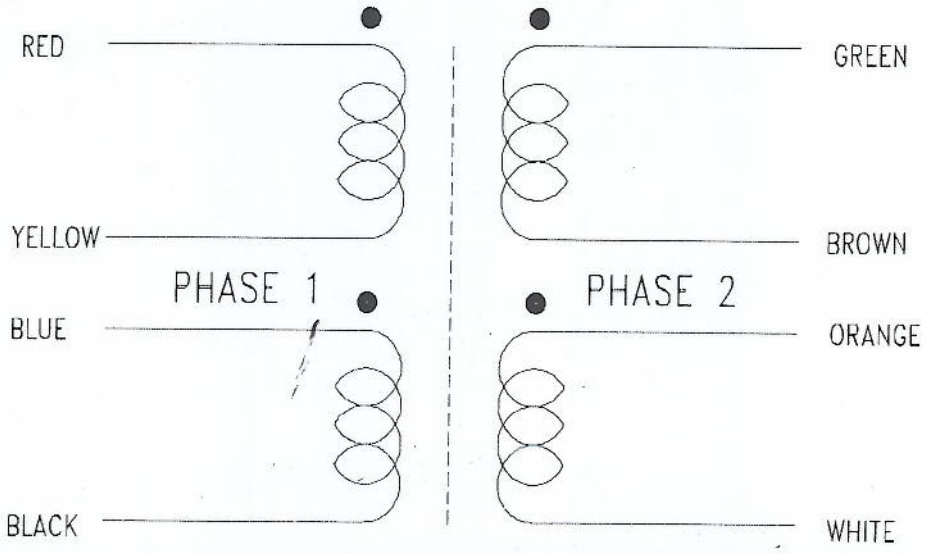
STEPPER MOTORS
MODEL U42

- Nominal Series Winding Resistance: 0.65 Ω
- Nominal Parallel Winding Resistance: 0.16 Ω

- Nominal Series Winding Inductance: 10 mH
- Nominal Parallel Winding Inductance: 2.5 mH

- Recommended Series Winding Current: 5.4 A peak (3.8 A.RMS)
- Recommended Parallel Winding Current: 7.2 A peak (5.1 A.RMS)

- Nominal Series Torque rating: 1000 oz-in



PARALLEL CONNECTION	
A+	RED and BLUE
A-	YELLOW and BLACK
B+	GREEN and ORANGE
B-	BROWN and WHITE

SERIES CONNECTION	
Connect YELLOW and BLUE:	
A+	RED
A-	BLACK
Connect BROWN and ORANGE:	
B+	GREEN
B-	WHITE

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Empire Magnetics Inc.

-RTD *TEMPERATURE SENSOR OPTION*

The -RTD option consists of a Platinum Resistance Thermometer type sensor bonded inside the motor. This sensor has a very linear response over a wide range. Resistance is 100Ω at 0°C and varies by a nominal .39Ω per °C.

RTD's are used to monitor motor temperature. Drive current to the motor should be cut if motor temperature becomes excessive. Compatible temperature controllers are available from Omega Engineering and other manufacturers.

Resistance of the sensor varies with motor temperature according to the table below.

Temperature °C	Ohms	Temperature °C	Ohms
-45	82.3	55	121.3
-40	84.3	60	123.2
-35	86.3	65	125.2
-30	88.2	70	127.1
-25	90.2	75	129
-20	92.2	80	130.9
-15	94.1	85	132.8
-10	96.1	90	134.7
-5	98	95	136.6
0	100	100	138.5
5	101.9	105	140.4
10	103.9	110	142.3
15	105.8	115	144.2
20	107.8	120	146.1
25	109.7	125	147.9
30	111.7	130	149.8
35	113.6	135	151.7
40	115.5	140	153.6
45	117.5	145	155.4
50	119.4	150	157.3

Maximum Recommended Sensing Current: 10 mA
Maximum Recommended Sensing Voltage: 1 VDC