24g wire

6 serpentine coils with 24 wraps in 3 sets of 2, wired series

Measurements are
Rectified volts
Rectified amps
pair of coils read from centre tap to star point

Run 1 1 ohm resistor
Run 2 2 ohm resistor
Run 3 3 ohm resistor
Run 4 3.9 ohm resistor
Run 5 6.8 ohm resistor
Run 6 8.2 ohm resistor
24g wire
6 serpentine coils with 24 wraps in 3 sets of 2, wired:
Run 1 1 ohm resistor
Run 2 2 ohm resistor
Run 3 3 ohm resistor
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Run 1
dT = 0.103 sec
60sec / (0.103*4) = 145 rpm
1.2V * 1.1 = 1.32W
W/rev = 0.009
or
(1 + 1.5) * 1.6 A = 4W (without rectification loss)
W/rev = 0.02
Run 3

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Pot 1 (V)</th>
<th>Current</th>
<th>Pot 2 (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1548</td>
<td>1.547</td>
<td>3.98</td>
<td>1.250</td>
</tr>
<tr>
<td>1549</td>
<td>1.548</td>
<td>3.75</td>
<td>1.229</td>
</tr>
<tr>
<td>1550</td>
<td>1.549</td>
<td>3.70</td>
<td>1.202</td>
</tr>
<tr>
<td>1551</td>
<td>1.550</td>
<td>3.69</td>
<td>1.176</td>
</tr>
<tr>
<td>1552</td>
<td>1.551</td>
<td>3.64</td>
<td>1.170</td>
</tr>
</tbody>
</table>

24g wire
6 serpentine coils with 24 wraps in 3 sets of 2, wire
Run 1 1 ohm resistor
Run 2 2 ohm resistor
Run 3 3 ohm resistor
Run 4 3.9 ohm resistor
Run 5 6.8 ohm resistor
Run 6 8.2 ohm resistor

Run 4

<table>
<thead>
<tr>
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<th>Pot 1 (V)</th>
<th>Current</th>
<th>Pot 2 (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>1.6</td>
<td>2.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

24g wire
6 serpentine coils with 24 wraps in 3 sets of 2, wire
Run 1 1 ohm resistor
Run 2 2 ohm resistor
Run 3 3 ohm resistor
Run 4 3.9 ohm resistor
Run 5 6.8 ohm resistor
Run 6 8.2 ohm resistor

Run 5

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Pot 1 (V)</th>
<th>Current</th>
<th>Pot 2 (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

24g wire
6 serpentine coils with 24 wraps in 3 sets of 2, wire
Run 1 1 ohm resistor
Run 2 2 ohm resistor
Run 3 3 ohm resistor
Run 4 3.9 ohm resistor
Run 5 6.8 ohm resistor
Run 6 8.2 ohm resistor

Run 6

<table>
<thead>
<tr>
<th>Time (s)</th>
<th>Pot 1 (V)</th>
<th>Current</th>
<th>Pot 2 (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>1.5</td>
<td>1.7</td>
<td>1.9</td>
</tr>
</tbody>
</table>

24g wire
6 serpentine coils with 24 wraps in 3 sets of 2, wire
Run 1 1 ohm resistor
Run 2 2 ohm resistor
Run 3 3 ohm resistor
Run 4 3.9 ohm resistor
Run 5 6.8 ohm resistor
Run 6 8.2 ohm resistor

Statistics for: Run 3 | Current
min: 0.9904 at 1.611 max: 1.218 at 1.557
mean: 1.101 median: 1.091
std. dev: 0.05961 samples: 75
ΔA: 0.228

Statistics for: Run 3 | Potential 1
min: 3.118 at 1.623 max: 4.024 at 1.555
mean: 3.519 median: 3.498
std. dev: 0.2283 samples: 75

Statistics for: Run 5 | Current
min: 0.2648 at 1.667 max: 0.3707 at 1.569
mean: 0.3186 median: 0.3179
std. dev: 0.02528 samples: 123
ΔA: 0.106

Statistics for: Run 5 | Potential 1
min: 2.227 at 1.665 max: 3.074 at 1.581
mean: 2.647 median: 2.650
std. dev: 0.2138 samples: 123

Statistics for: Run 6 | Current
min: 0.4714 at 1.520 max: 0.5669 at 1.478
mean: 0.5190 median: 0.5190
std. dev: 0.02602 samples: 76
ΔA: 0.096

Statistics for: Run 6 | Potential 1
min: 4.330 at 1.531 max: 5.514 at 1.477
mean: 4.950 median: 4.973
std. dev: 0.3133 samples: 76
Δy: 1.18

Δt: 0.075 Δy: 1.60

Δt: 0.075 Δy: 2.34

Δt: 0.068 Δy: 0.51