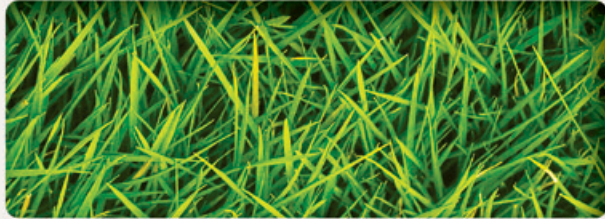


CHENG CHANG MACHINE ELECTRONIC CORP.

No.55-5, Ta-June Rd., Shen Kang Hsiang,
Taichung County Taiwan.
Tel: 886-4-25624099 . 25624091
Fax: 886-4-25624041



晟昌機電股份有限公司

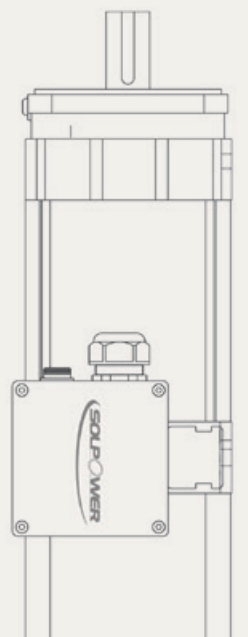
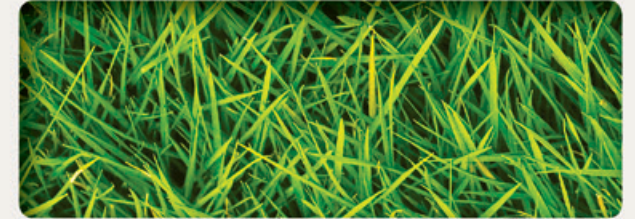
CHENG CHANG MACHINE ELECTRONIC CORP.
台灣省台中縣 429 神岡鄉大圳路 55-5 號
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Fax: 886-4-25624041

www.solpower.com.tw
E-mail : sol.power@solpower.com.tw
E-mail : sol.power@msa.hinet.net



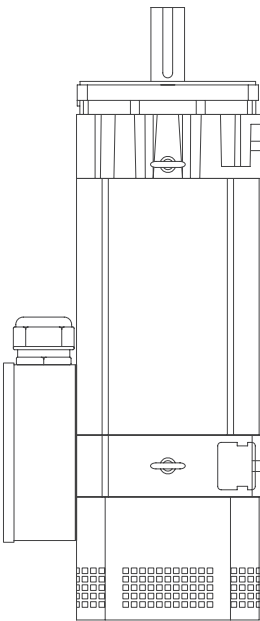
CHENG CHANG MACHINERY

Elaborate Low Inertia, Fast Dynamic Response,
High Performance Servomotor





Motor Characteristics :
energy saving
innovation
technology



5~8

synchronous
SPM07 SERIES
Servo motors with 8 poles
Rated torque output 12~30 nt-m

9~12

synchronous
SPM10 SERIES
Servo motors with 8 poles
Rated torque output 45~142 nt-m

13~16

synchronous
SPM13 SERIES
Servo motors with 8 poles
Rated torque output 118~400 nt-m

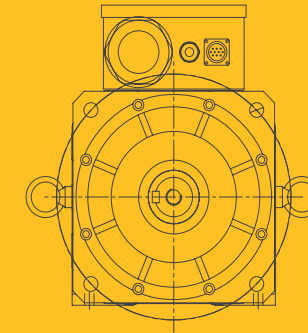




synchronous

SPM07 SERIES

Servo motors with 8 poles
Rated torque output 12~30 nt-m

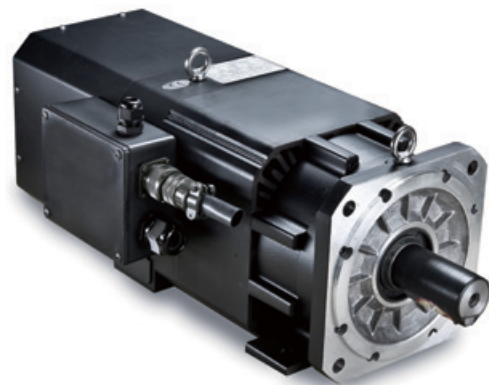


APPLICATIONS:

- INJECTION MOLDING MACHINE
- BLOW MOLDING MACHINE
- PRESS PUNCHING MACHINE
- PRESS FEEDER
- ROTARY CUTTER
- TEXTILE
- PRINTING MACHINE
- MACHINE TOOL
- ROBOTIC
- HANDLING SYSTEM
- CUT TO LENGTH
- PACKAGING MACHINE
- FLY SHEAR

GENERAL SPECIFICATION:

- INSULATION CLASS OF STATOR WINDING : F
- INSULATION Voltage : 1500Vrms/MIN
- INSULATION RESISTANCE : ABOVE 500VDC 10MΩ
- PROTECTION LEVEL : IP55
- OPERATING AMBIENT ENVIRONMENT : 0~40°C , 90%RH
NON-CONDENSING
- STORAGE AMBIENT ENVIRONMENT : -20~60°C , 90%RH
NON-CONDENSING
- VIBRATION CLASS : BLOW 1.8mm / S
- MOUNTING : PM7:B5 , PM10: B35 , PM13: B35
- FEEDBACK SYSTEM : ENCODER +5V , LINE DRIVER ,
/ RESOLVER , 2500PPR WITH U,V,W COMMUTATION
SIGNALS
- TERMINAL BOX & CONNECTOR : POWER : TERMINAL BOX
FEEDBACK DEVICE : CONNECTOR
- OVER TEMPERATURE PROTECTION : THERMO-SWITCH



synchronous

SPM10 SERIES

Servo motors with 8 poles
Rated torque output 45~142 nt-m



synchronous

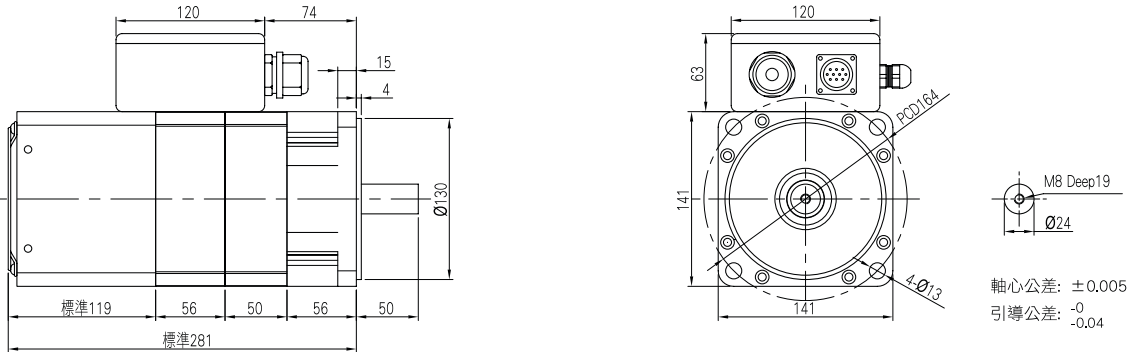
SPM13 SERIES

Servo motors with 8 poles
Rated torque output 118~400 nt-m

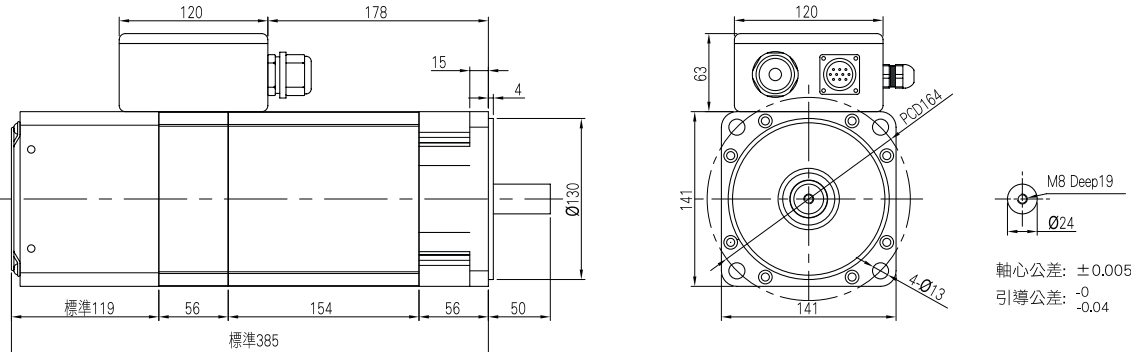
| Motor Type | Rated Power Kw | Rated Speed Rpm | Rated Torque Nm | Rated Frequency Hz | Rated Current A | Max Speed Rpm | Peak Torque Nm |
|------------|----------------|-----------------|-----------------|--------------------|-----------------|---------------|----------------|
| SPM-072-10 | 1.2 | 1000 | 12 | 66.7 | 2.1 | 7000 | 29 |
| SPM-072-15 | 1.9 | 1500 | 12 | 100.0 | 3.3 | 7000 | 29 |
| SPM-072-20 | 2.5 | 2000 | 12 | 133.3 | 4.3 | 7000 | 29 |
| SPM-072-30 | 3.7 | 3000 | 12 | 200.0 | 6.4 | 7000 | 29 |
| SPM-074-10 | 1.8 | 1000 | 17 | 66.7 | 3.2 | 7000 | 46 |
| SPM-074-15 | 2.8 | 1500 | 17 | 100.0 | 4.9 | 7000 | 46 |
| SPM-074-20 | 3.7 | 2000 | 17 | 133.3 | 6.5 | 7000 | 46 |
| SPM-074-30 | 5.5 | 3000 | 17 | 200.0 | 9.6 | 7000 | 46 |
| SPM-076-10 | 2.5 | 1000 | 24 | 66.7 | 4.3 | 7000 | 71 |
| SPM-076-15 | 3.8 | 1500 | 24 | 100.0 | 6.6 | 7000 | 71 |
| SPM-076-20 | 5.0 | 2000 | 24 | 133.3 | 8.7 | 7000 | 71 |
| SPM-076-30 | 7.5 | 3000 | 24 | 200.0 | 13 | 7000 | 71 |
| SPM-078-10 | 3.2 | 1000 | 30 | 66.7 | 5.6 | 7000 | 90 |
| SPM-078-15 | 4.8 | 1500 | 30 | 100.0 | 8.4 | 7000 | 90 |
| SPM-078-20 | 6.3 | 2000 | 30 | 133.3 | 11 | 7000 | 90 |
| SPM-078-30 | 9.5 | 3000 | 30 | 200.0 | 16.6 | 7000 | 90 |

| Ke (E.M.F.) vRMS /1000rpm | Kt Nm /Arms | Inertia Kg-cm2 | Resistance Ohm | Inductance MH | Weight Kg |
|---------------------------|-------------|----------------|----------------|---------------|-----------|
| 300 | 5.4 | 7 | 10.0 | 73.0 | 21 |
| 200 | 3.6 | 7 | 4.4 | 32.4 | |
| 150 | 2.7 | 7 | 2.5 | 18.3 | |
| 100 | 1.8 | 7 | 1.1 | 8.1 | |
| 300 | 5.4 | 13 | 5.7 | 44.0 | 24 |
| 200 | 3.6 | 13 | 2.5 | 19.6 | |
| 150 | 2.7 | 13 | 1.4 | 11.0 | |
| 100 | 1.8 | 13 | 0.6 | 4.9 | |
| 300 | 5.4 | 18 | 3.6 | 30.0 | 27 |
| 200 | 3.6 | 18 | 1.6 | 13.3 | |
| 150 | 2.7 | 18 | 0.9 | 7.5 | |
| 100 | 1.8 | 18 | 0.4 | 3.3 | |
| 300 | 5.4 | 24 | 2.3 | 20 | 30 |
| 200 | 3.6 | 24 | 1 | 8.9 | |
| 150 | 2.7 | 24 | 0.5 | 5 | |
| 100 | 1.8 | 24 | 0.2 | 2.2 | |

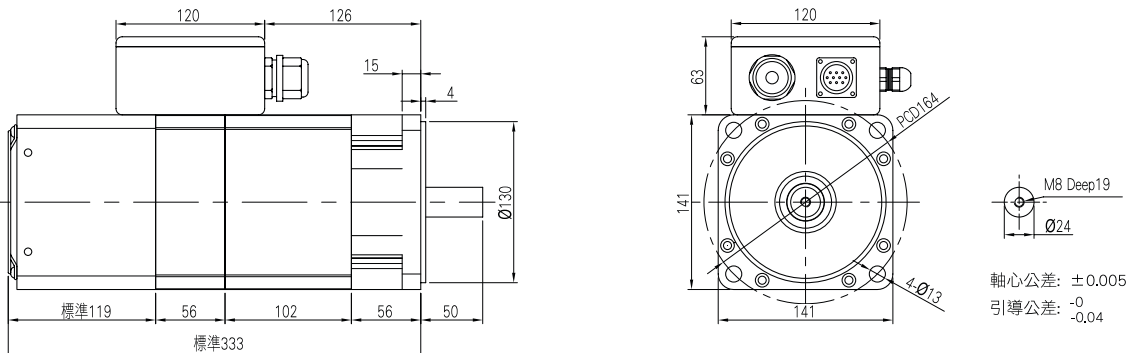
SPM-072



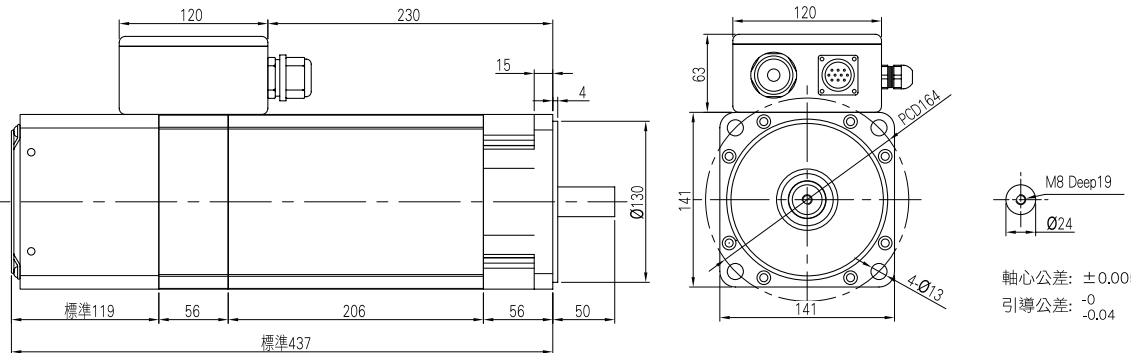
SPM-076



SPM-074



SPM-078



| Motor Type | Rated Power Kw | Rated Speed Rpm | Rated Torque Nm | Rated Frequency Hz | Rated Current A | Max Speed Rpm |
|------------|----------------|-----------------|-----------------|--------------------|-----------------|---------------|
| SPM-102-10 | 4.75 | 1000 | 45 | 66.7 | 9.0 | 4000 |
| SPM-102-15 | 7.1 | 1500 | 45 | 100.0 | 13.5 | 4000 |
| SPM-102-20 | 9.5 | 2000 | 45 | 133.3 | 18.0 | 4000 |
| SPM-102-30 | 14.25 | 3000 | 45 | 200.0 | 27.0 | 4000 |
| SPM-103-10 | 5.5 | 1000 | 52 | 66.7 | 10.5 | 4000 |
| SPM-103-15 | 8.3 | 1500 | 52 | 100.0 | 15.8 | 4000 |
| SPM-103-20 | 11 | 2000 | 52 | 133.3 | 21.0 | 4000 |
| SPM-103-30 | 16.5 | 3000 | 52 | 200.0 | 31.5 | 4000 |
| SPM-104-10 | 7.5 | 1000 | 71 | 66.7 | 14.0 | 4000 |
| SPM-104-15 | 11.3 | 1500 | 71 | 100.0 | 21.0 | 4000 |
| SPM-104-20 | 15 | 2000 | 71 | 133.3 | 28.0 | 4000 |
| SPM-104-30 | 22.5 | 3000 | 71 | 200.0 | 42.0 | 4000 |
| SPM-105-10 | 9.25 | 1000 | 88 | 66.7 | 17.5 | 4000 |
| SPM-105-15 | 13.9 | 1500 | 88 | 100.0 | 26.3 | 4000 |
| SPM-105-20 | 18.5 | 2000 | 88 | 133.3 | 35.0 | 4000 |
| SPM-105-30 | 27.75 | 3000 | 88 | 200.0 | 52.5 | 4000 |
| SPM-106-10 | 11 | 1000 | 104 | 66.7 | 20.8 | 4000 |
| SPM-106-15 | 16.5 | 1500 | 104 | 100.0 | 31.2 | 4000 |
| SPM-106-20 | 22 | 2000 | 104 | 133.3 | 41.6 | 4000 |
| SPM-106-30 | 33 | 3000 | 104 | 200.0 | 62.4 | 4000 |
| SPM-108-10 | 13 | 1000 | 124 | 66.7 | 24.6 | 4000 |
| SPM-108-15 | 19.5 | 1500 | 124 | 100.0 | 36.9 | 4000 |
| SPM-108-20 | 26 | 2000 | 124 | 133.3 | 49.2 | 4000 |
| SPM-108-30 | 39 | 3000 | 124 | 200.0 | 73.8 | 4000 |
| SPM-109-10 | 15 | 1000 | 142 | 66.7 | 28.4 | 4000 |
| SPM-109-15 | 22.5 | 1500 | 142 | 100.0 | 42.6 | 4000 |
| SPM-109-20 | 30 | 2000 | 142 | 133.3 | 56.8 | 4000 |
| SPM-109-30 | 45 | 3000 | 142 | 200.0 | 85.2 | 4000 |

| Peak Torque Nm | Ke (E.M.F.) vRMS /1000rpm | Kt Nm /Arms | Inertia Kg-cm2 | Resistance Ohm | Inductance MH | Weight Kg |
|----------------|---------------------------|-------------|----------------|----------------|---------------|-----------|
| 122 | 300 | 5 | 60 | 5.5 | 54.0 | 36.6 |
| 122 | 200 | 3.6 | 60 | 2.4 | 24.0 | |
| 122 | 150 | 2.5 | 60 | 1.4 | 13.5 | |
| 122 | 100 | 1.7 | 60 | 0.6 | 6.0 | |
| 141 | 300 | 5 | 75 | 4.1 | 46.5 | 44 |
| 141 | 200 | 3.6 | 75 | 1.8 | 20.7 | |
| 141 | 150 | 2.5 | 75 | 1.0 | 11.6 | |
| 141 | 100 | 1.7 | 75 | 0.5 | 5.2 | |
| 200 | 300 | 5 | 89 | 2.3 | 34.2 | 52 |
| 200 | 200 | 3.6 | 89 | 1.0 | 15.2 | |
| 200 | 150 | 2.5 | 89 | 0.6 | 8.6 | |
| 200 | 100 | 1.7 | 89 | 0.3 | 3.8 | |
| 237 | 300 | 5 | 105 | 1.5 | 27.7 | 59.6 |
| 237 | 200 | 3.6 | 105 | 0.6 | 12.3 | |
| 237 | 150 | 2.5 | 105 | 0.4 | 6.9 | |
| 237 | 100 | 1.7 | 105 | 0.2 | 3.1 | |
| 280 | 300 | 5 | 120 | 1.0 | 23.5 | 67.3 |
| 280 | 200 | 3.6 | 120 | 0.5 | 10.4 | |
| 280 | 150 | 2.5 | 120 | 0.3 | 5.9 | |
| 280 | 100 | 1.7 | 120 | 0.1 | 2.6 | |
| 335 | 300 | 5 | 150 | 0.6 | 19 | 82.7 |
| 335 | 200 | 3.6 | 150 | 0.3 | 8.3 | |
| 335 | 150 | 2.5 | 150 | 0.2 | 4.7 | |
| 335 | 100 | 1.7 | 150 | 0.1 | 2 | |
| 398 | 300 | 5 | 165 | 0.6 | 17.0 | 90.4 |
| 398 | 200 | 3.6 | 165 | 0.2 | 7.6 | |
| 398 | 150 | 2.5 | 165 | 0.1 | 4.3 | |
| 398 | 100 | 1.7 | 165 | 0.1 | 1.9 | |

Technical drawing of a mechanical part, likely a motor or pump housing, showing front, side, and detail views with dimensions and tolerances.

Front View Dimensions:

- Overall width: 198
- Overall height: 150
- Top flange width: 75
- Bottom flange width: 160
- Top flange thickness: 12
- Bottom flange thickness: 10
- Internal diameter of top flange: $\phi 14$
- Internal diameter of bottom flange: $\phi 42$
- Internal diameter of central bore: $\phi 12$
- Internal diameter of central bore (tolerance): $\phi 12 \pm 0.005$
- Internal diameter of central bore (tolerance): $\phi 12 \pm 0.04$

Side View Dimensions:

- Overall height: 100
- Overall width: 198
- Internal diameter of top flange: $\phi 14$
- Internal diameter of bottom flange: $\phi 42$
- Internal diameter of central bore: $\phi 12$
- Internal diameter of central bore (tolerance): $\phi 12 \pm 0.005$
- Internal diameter of central bore (tolerance): $\phi 12 \pm 0.04$

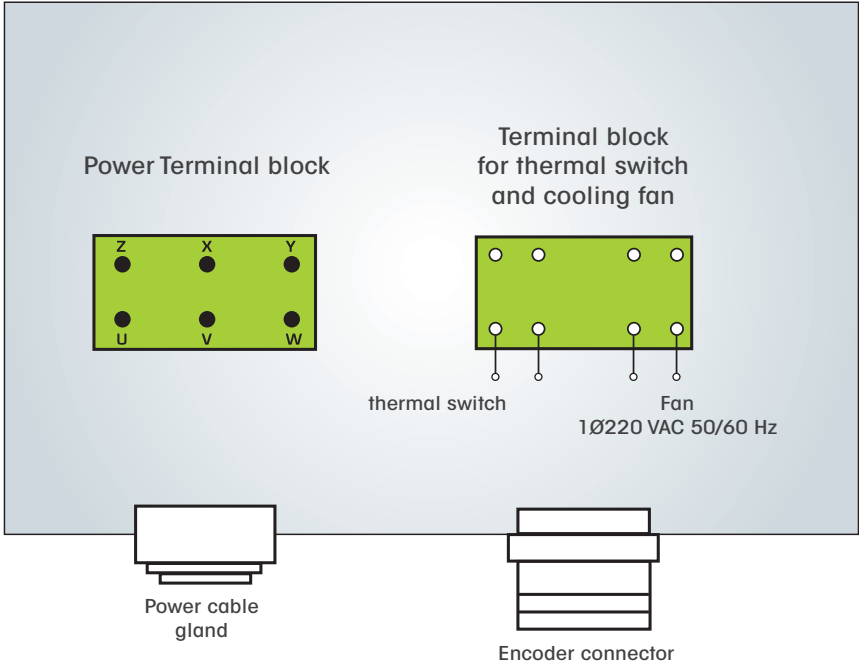
Detail View Dimensions:

- Overall width: 12
- Overall height: 45
- Internal diameter of top flange: $\phi 14$
- Internal diameter of bottom flange: $\phi 42$
- Internal diameter of central bore: $\phi 12$
- Internal diameter of central bore (tolerance): $\phi 12 \pm 0.005$
- Internal diameter of central bore (tolerance): $\phi 12 \pm 0.04$

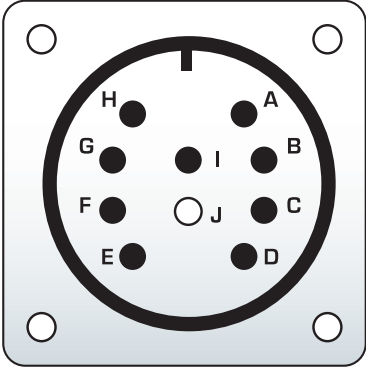
| Motor Type | Rated Power Kw | Rated Speed Rpm | Rated Torque Nm | Rated Frequency Hz | Rated Current A | Max Speed Rpm |
|------------|----------------|-----------------|-----------------|--------------------|-----------------|---------------|
| SPM-132-10 | 12.5 | 1000 | 118 | 66.7 | 23.6 | 4000 |
| SPM-132-15 | 18.8 | 1500 | 118 | 100.0 | 35.5 | 4000 |
| SPM-132-20 | 25 | 2000 | 118 | 133.3 | 47.3 | 4000 |
| SPM-132-30 | 37.5 | 3000 | 118 | 200.0 | 70.9 | 4000 |
| SPM-133-10 | 18.75 | 1000 | 179 | 66.7 | 35.8 | 4000 |
| SPM-133-15 | 28.1 | 1500 | 179 | 100.0 | 53.7 | 4000 |
| SPM-133-20 | 37.5 | 2000 | 179 | 133.3 | 71.6 | 4000 |
| SPM-133-30 | 56.24 | 3000 | 179 | 200.0 | 107.4 | 4000 |
| SPM-134-10 | 22.5 | 1000 | 215 | 66.7 | 43.0 | 4000 |
| SPM-134-15 | 33.8 | 1500 | 215 | 100.0 | 64.5 | 4000 |
| SPM-134-20 | 45 | 2000 | 215 | 133.3 | 86.0 | 4000 |
| SPM-134-30 | 67.5 | 3000 | 215 | 200.0 | 129.0 | 4000 |
| SPM-135-10 | 27.5 | 1000 | 263 | 66.7 | 52.6 | 4000 |
| SPM-135-15 | 41.3 | 1500 | 263 | 100.0 | 78.9 | 4000 |
| SPM-135-20 | 55 | 2000 | 263 | 133.3 | 105.2 | 4000 |
| SPM-135-30 | 82.5 | 3000 | 263 | 200.0 | 157.8 | 4000 |
| SPM-136-10 | 32 | 1000 | 303 | 66.7 | 60.4 | 4000 |
| SPM-136-15 | 48.0 | 1500 | 303 | 100.0 | 90.6 | 4000 |
| SPM-136-20 | 64 | 2000 | 303 | 133.3 | 120.8 | 4000 |
| SPM-136-30 | 96 | 3000 | 303 | 200.0 | 181.2 | 4000 |
| SPM-137-10 | 37.5 | 1000 | 355 | 66.7 | 71.0 | 4000 |
| SPM-137-15 | 56.3 | 1500 | 355 | 100.0 | 106.5 | 4000 |
| SPM-137-20 | 75 | 2000 | 355 | 133.3 | 142.0 | 4000 |
| SPM-137-30 | 112.5 | 3000 | 355 | 200.0 | 213.0 | 4000 |
| SPM-138-10 | 41 | 1000 | 388 | 66.7 | 77.5 | 4000 |
| SPM-138-15 | 61.5 | 1500 | 388 | 100.0 | 116.3 | 4000 |
| SPM-138-20 | 82 | 2000 | 388 | 133.3 | 155.0 | 4000 |
| SPM-138-30 | 123 | 3000 | 388 | 200.0 | 232.5 | 4000 |

| Peak Torque Nm | Ke (E.M.F.) vRMS /1000rpm | Kt Nm /Arms | Inertia Kg-cm2 | Resistance Ohm | Inductance MH | Weight Kg |
|----------------|---------------------------|-------------|----------------|----------------|---------------|-----------|
| 326 | 300 | 5 | 220 | 1.1 | 21.5 | 110 |
| 326 | 200 | 3.6 | 220 | 0.5 | 9.6 | |
| 326 | 150 | 2.5 | 220 | 0.3 | 5.4 | |
| 326 | 100 | 1.7 | 220 | 0.1 | 2.4 | |
| 513 | 300 | 5 | 290 | 1.1 | 14.3 | 130 |
| 513 | 200 | 3.6 | 290 | 0.5 | 6.4 | |
| 513 | 150 | 2.5 | 290 | 0.3 | 3.6 | |
| 513 | 100 | 1.7 | 290 | 0.1 | 1.6 | |
| 616 | 300 | 5 | 360 | 0.3 | 12.0 | 150 |
| 616 | 200 | 3.6 | 360 | 0.1 | 5.3 | |
| 616 | 150 | 2.5 | 360 | 0.1 | 3.0 | |
| 616 | 100 | 1.7 | 360 | 0.0 | 1.3 | |
| 774 | 300 | 5 | 430 | 0.2 | 9.8 | 169 |
| 774 | 200 | 3.6 | 430 | 0.1 | 4.3 | |
| 774 | 150 | 2.5 | 430 | 0.1 | 2.4 | |
| 774 | 100 | 1.7 | 430 | 0.0 | 1.1 | |
| 877 | 300 | 5 | 500 | 0.2 | 8.4 | 189 |
| 877 | 200 | 3.6 | 500 | 0.1 | 3.7 | |
| 877 | 150 | 2.5 | 500 | 0.0 | 2.1 | |
| 877 | 100 | 1.7 | 500 | 0.0 | 0.9 | |
| 1062 | 300 | 5 | 570 | 0.1 | 7.2 | 207 |
| 1062 | 200 | 3.6 | 570 | 0.1 | 3.2 | |
| 1062 | 150 | 2.5 | 570 | 0.0 | 1.8 | |
| 1062 | 100 | 1.7 | 570 | 0.0 | 0.8 | |
| 1169 | 300 | 5 | 630 | 0.1 | 6.6 | 228 |
| 1169 | 200 | 3.6 | 630 | 0.0 | 2.9 | |
| 1169 | 150 | 2.5 | 630 | 0.0 | 1.7 | |
| 1169 | 100 | 1.7 | 630 | 0.0 | 0.7 | |

Power Terminal block

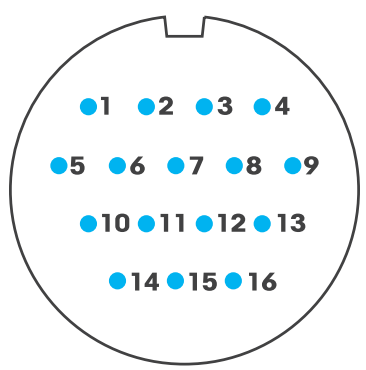


Resolver



| SECONDARY | | | |
|-----------|----|-----------|----|
| A | S1 | RED | |
| B | S2 | YEL | |
| C | S3 | BLK | |
| D | S4 | BLU | |
| PRIMARY | | | |
| H | R1 | RED / WHT | AC |
| I | R2 | YEL / WHT | 7V |

Encoder Connection



- 1 → A
- 2 → \bar{A}
- 3 → B
- 4 → \bar{B}
- 5 → Z
- 6 → \bar{Z}
- 7 → U
- 8 → \bar{U}
- 9 → V
- 10 → \bar{V}
- 11 → W
- 12 → \bar{W}
- 13 → +VCC
- 14 → 0V
- 15 → Shield

