

BRUSHLESS MOTOR FOR POWER TOOLS

Model: P10-29



Innovation

Quality first

Team work

Sharing

Product advantage

- ★ 10 series and 30 models brushless motor for power tools.
- ★ High power density design.
- ★ Endurance is more than 3000h.
- ★ Efficiency is above 80%.
- ★ High speed, high liability design.

42 Series: SEM4222018HI / SEM4222018I

Integrated structure, with hall solution or without hall solution.

Product Advantage

- High efficiency
- Low noise
- Long life
- No EMI



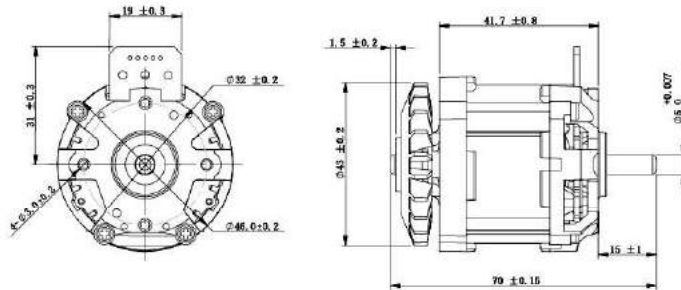
Applications

Wrench, Drill

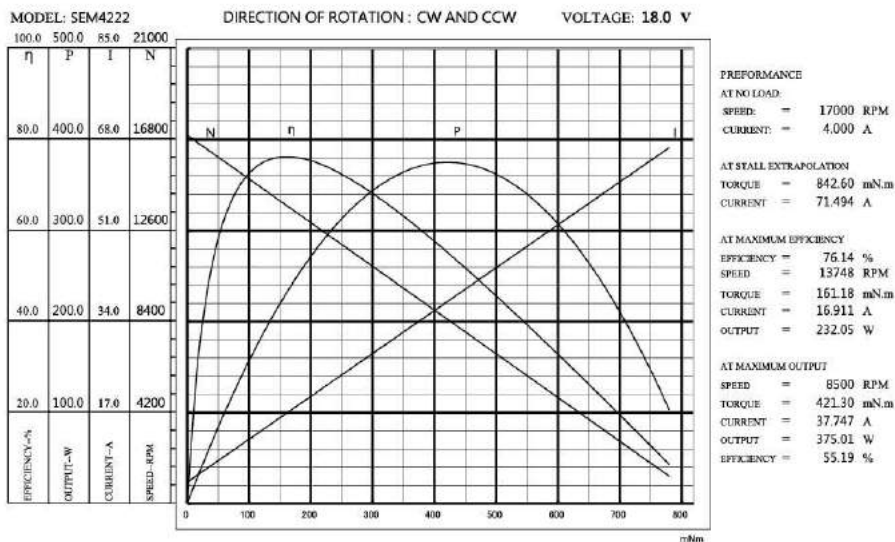
SEM4222 General & Basic information

- Rated voltage : 18V DC
- No load speed : $17000 \pm 10\%$ rpm
- No load current : ≤ 4 A
- Rated torque : 0.18N.m
- Rated power : 300W
- Working current : ≤ 25 A
- Life : > 3000 h

SEM4222 Outline drawing (Unit: mm)



SEM4222 Performance curve



46 Series: SEM4615018HS / SEM4615018S

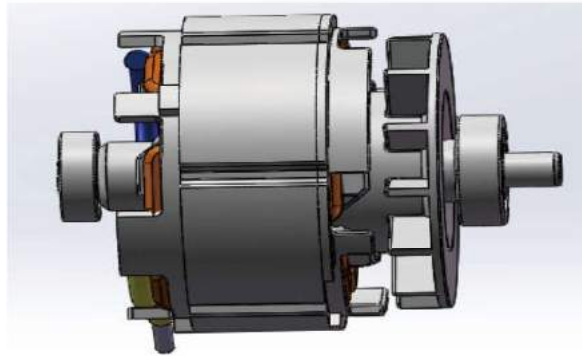
Separated structure, with hall solution or without hall solution.

Product Advantage

- High efficiency
- Low noise
- Long life
- No EMI

Applications

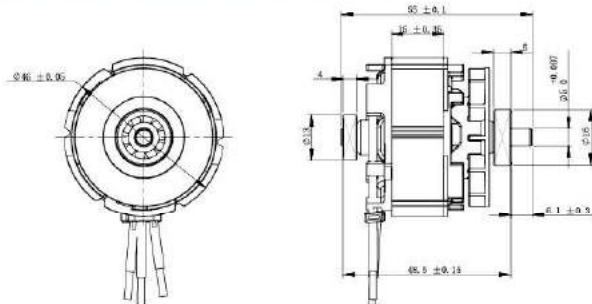
Wrench, Drill



SEM4615 General & Basic information

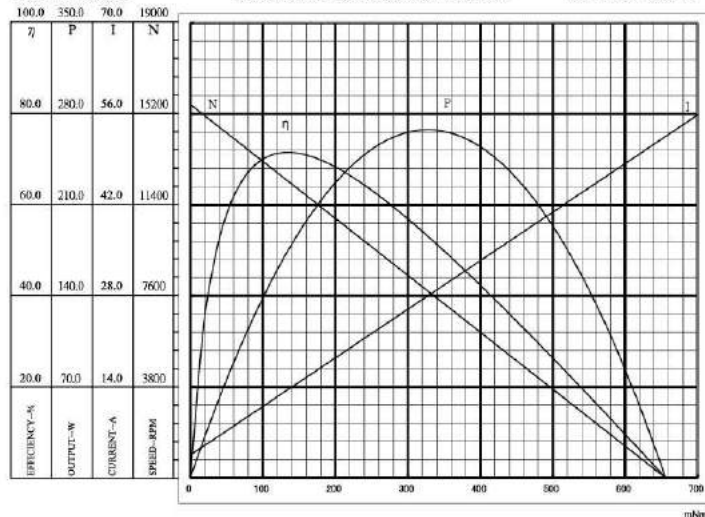
- Rated voltage : 18V DC
- No load speed : 15600±10% rpm
- No load current : ≤ 3.5A
- Rated torque : 0.18N.m
- Rated power : 200W
- Working current : ≤ 23A
- Life : > 3000h

SEM4615 Outline drawing (Unit: mm)



SEM4615 Performance curve

MODEL: SEM4615 DIRECTION OF ROTATION : CW AND CCW VOLTAGE: 18.0 V



PERFORMANCE

AT NO LOAD:
 SPEED = 15600 RPM
 CURRENT = 3.500 A

AT STALL EXTRAPOLATION:
 TORQUE = 655.64 mN.m
 CURRENT = 52.529 A

AT MAXIMUM EFFICIENCY:
 EFFICIENCY = 71.47 %
 SPEED = 12399 RPM
 TORQUE = 327.82 mN.m
 CURRENT = 28.014 A
 OUTPUT = 174.67 W

AT MAXIMUM OUTPUT:
 SPEED = 780 RPM
 TORQUE = 327.82 mN.m
 CURRENT = 28.014 A
 OUTPUT = 267.77 W
 EFFICIENCY = 53.10 %

48 Series: SEM4810018HI SEM4810018I SEM4810018HS SEM4810018S

Integrated structure or Separated structure, with hall solution or without hall solution.

Product Advantage

- High efficiency
- Low noise
- Long life
- No EMI

Applications

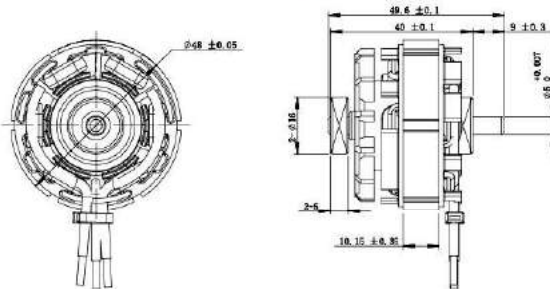
Wrench, Drill



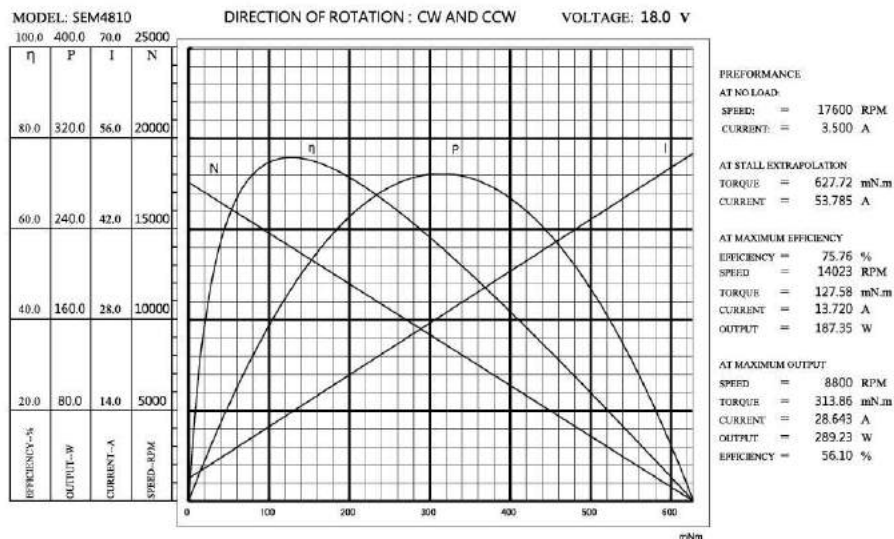
SEM4810 General & Basic information

- Rated voltage : 18V DC
- No load speed : 17500±10% rpm
- No load current : ≤ 3.5A
- Rated torque : 0.12N.m
- Rated power : 180W
- Working current : ≤ 18A
- Life : > 3000h

SEM4810 Outline drawing (Unit: mm)



SEM4810 Performance curve



48 Series: SEM4820018HS / SEM4820018S

Separated structure, with hall solution or without hall solution.

Product Advantage

- High efficiency
- Low noise
- Long life
- No EMI



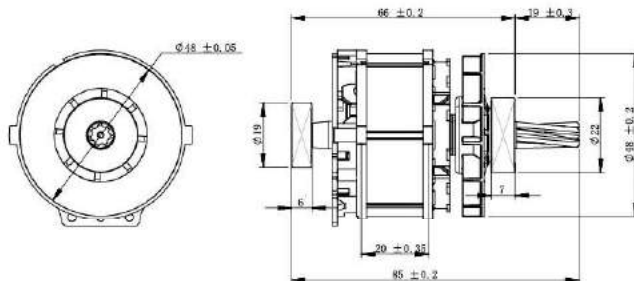
Applications

Wrench, Hammer, Drill

SEM4820 General & Basic information

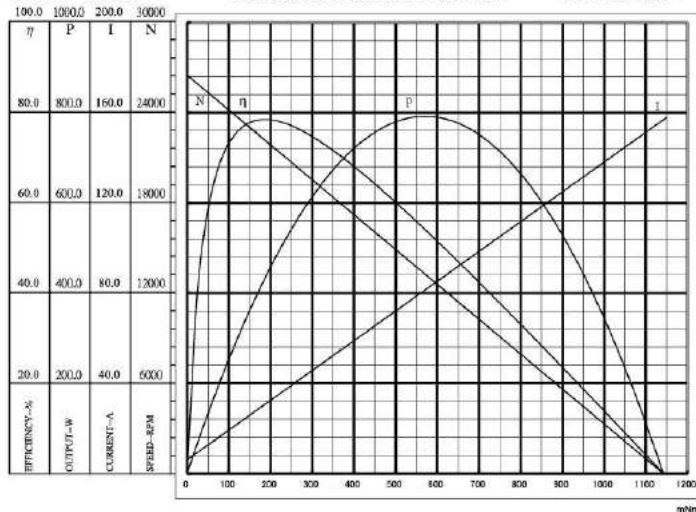
- Rated voltage : 18V DC
- No load speed : 26500±10% rpm
- No load current : ≤ 7.0A
- Rated torque : 0.2N.m
- Rated power : 450W
- Working current : ≤ 37A
- Life : > 3000h

SEM4820 Outline drawing (Unit: mm)



SEM4820 Performance curve

MODEL: SEM4820 DIRECTION OF ROTATION : CW AND CCW VOLTAGE: 18.0 V



PERFORMANCE

AT NO LOAD:

SPEED = 26500 RPM
CURRENT = 6.000 A

AT STALL EXTRAPOLATION

TORQUE = 1141.57 mN.m
CURRENT = 156.816 A

AT MAXIMUM EFFICIENCY

EFFICIENCY = 78.41 %
SPEED = 22165 RPM
TORQUE = 186.76 mN.m
CURRENT = 30.674 A
OUTPUT = 433.49 W

AT MAXIMUM OUTPUT

SPEED = 13250 RPM
TORQUE = 570.79 mN.m
CURRENT = 81.408 A
OUTPUT = 791.99 W
EFFICIENCY = 54.05 %

50 Series: SEM5030018HS-002 / SEM5030018S-002

Separated structure, with hall solution or without hall solution.

Product Advantage

- High efficiency
- Low noise
- Long life
- No EMI

Applications

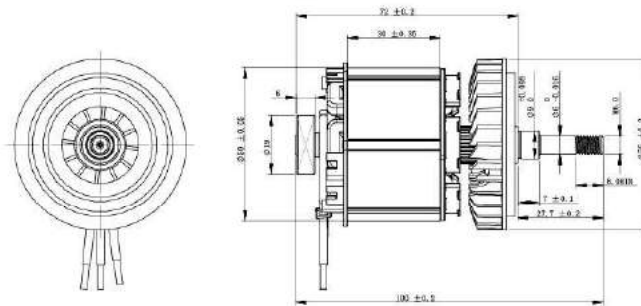
Angle Grinder



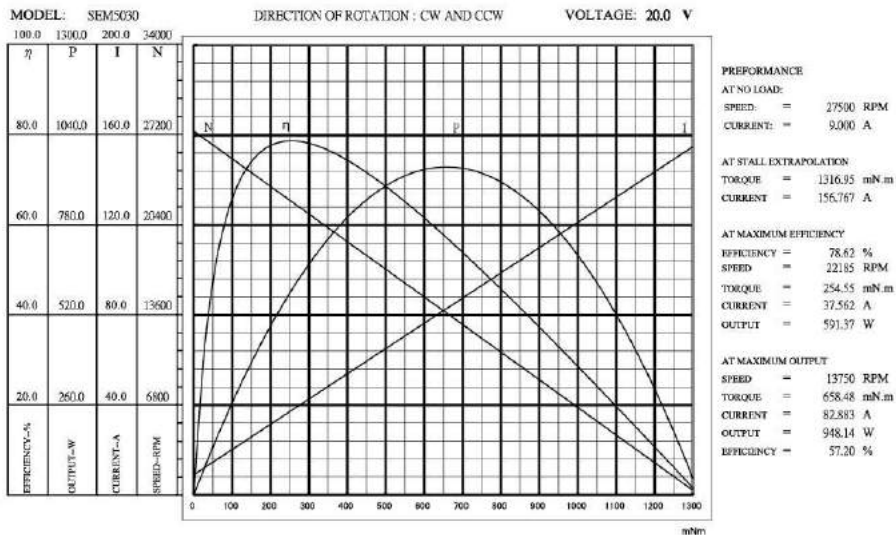
SEM5030 General & Basic information

- Rated voltage : 20V DC
- No load speed : 27500±10% rpm
- No load current : ≤ 9.0A
- Rated torque : 0.35N.m
- Rated power : 900W
- Working current : ≤ 45A
- Max protection current : ≤ 70A
- Life : > 3000h

SEM5030 Outline drawing (Unit: mm)



SEM5030 Performance curve



52 Series: SEM5230018HS / SEM5230018S

Separated structure, with hall solution or without hall solution.

Product Advantage

- High efficiency
- Low noise
- Long life
- No EMI



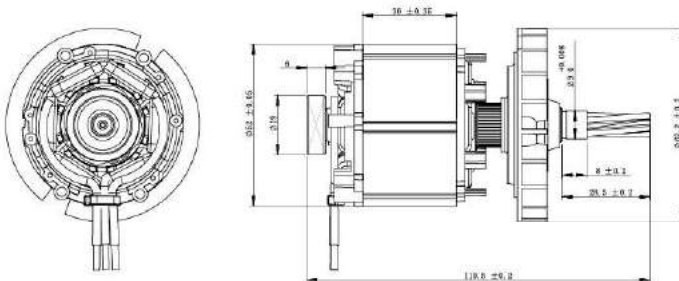
Applications

Angle Grinder, Hammer

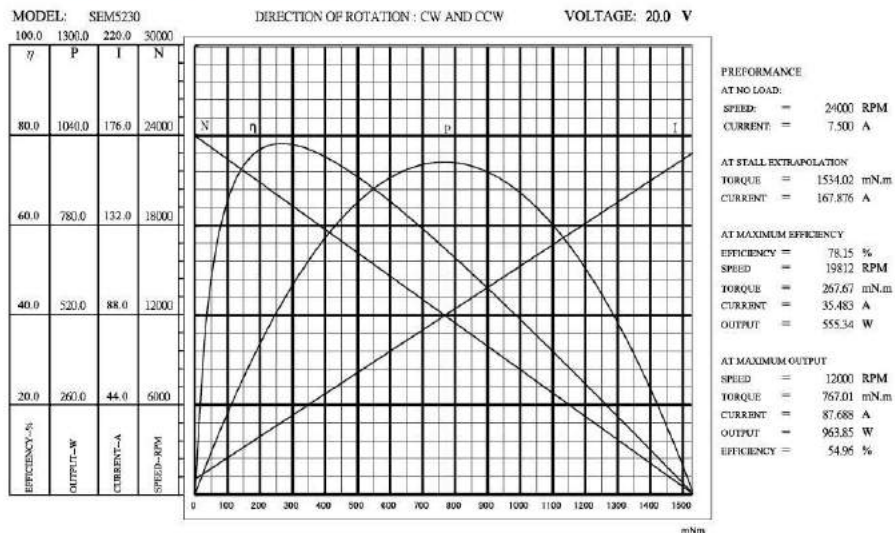
SEM5230 General & Basic information

- Rated voltage : 20V DC
- No load speed : 24000±10% rpm
- No load current : ≤ 8.5A
- Rated torque : 0.3N.m
- Rated power : 900W
- Working current : ≤ 45A
- Life : > 3000h

SEM5230 Outline drawing



SEM5230 Performance curve



72 Series: SEM7234048HI / SEM7234048I

Integrated structure, with hall solution or without hall solution.

Product Advantage

- High efficiency
- Low noise
- Long life
- No EMI



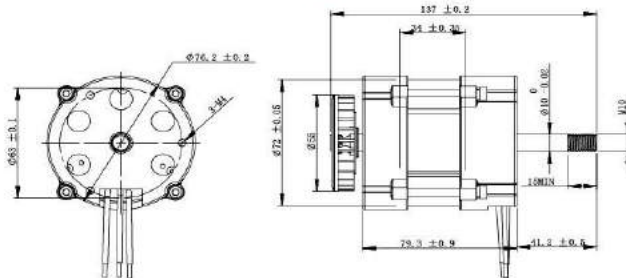
Applications

Wrench, Drill, Chain Saw

SEM7234 General & Basic information

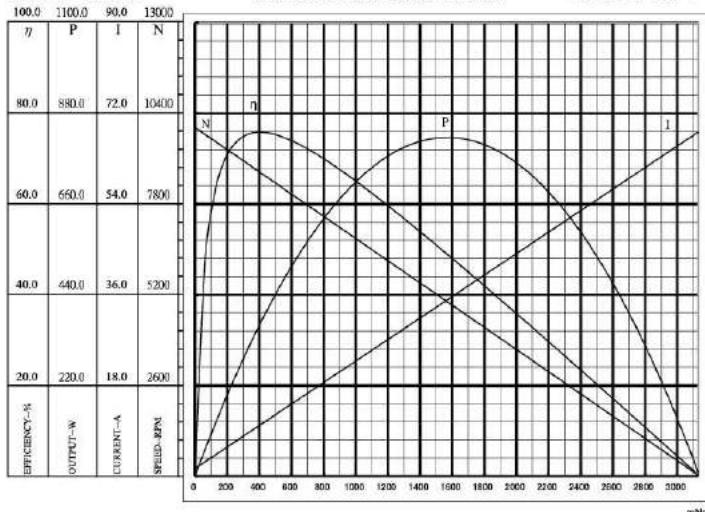
- Rated voltage : 48V DC
- No load speed : 10000±10% rpm
- No load current : ≤ 3.0A
- Rated torque : 0.6N.m
- Rated power : 500W
- Working current : ≤ 15A
- Life : > 3000h

SEM7234 Outline drawing (Unit: mm)



SEM7234 Performance curve

MODEL: SEM7234 DIRECTION OF ROTATION : CW AND CCW VOLTAGE: 48.0 V



PERFORMANCE

AT NO LOAD:
 SPEED = 10000 RPM
 CURRENT = 1.500 A

AT STALL EXTRAPOLATION
 TORQUE = 3139.45 mN.m
 CURRENT = 66.500 A

AT MAXIMUM EFFICIENCY
 EFFICIENCY = 75.78 %
 SPEED = 8711 RPM
 TORQUE = 404.69 mN.m
 CURRENT = 10.137 A
 OUTPUT = 369.16 W

AT MAXIMUM OUTPUT
 SPEED = 5000 RPM
 TORQUE = 1569.73 mN.m
 CURRENT = 35.000 A
 OUTPUT = 821.91 W
 EFFICIENCY = 48.92 %