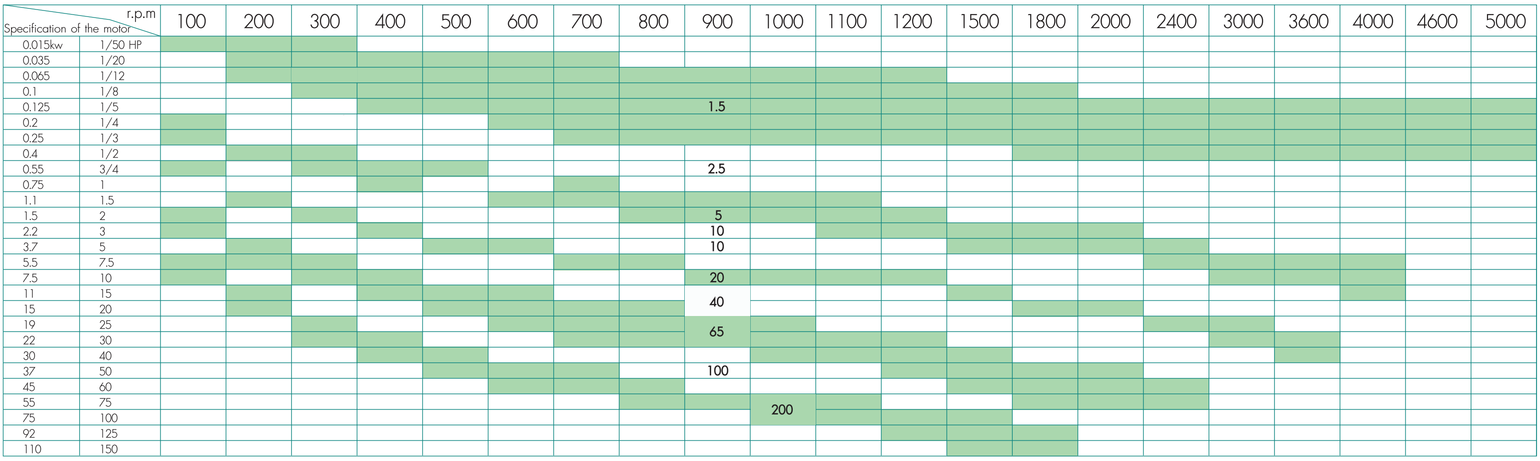
MAGNETIC Clutch & Brake

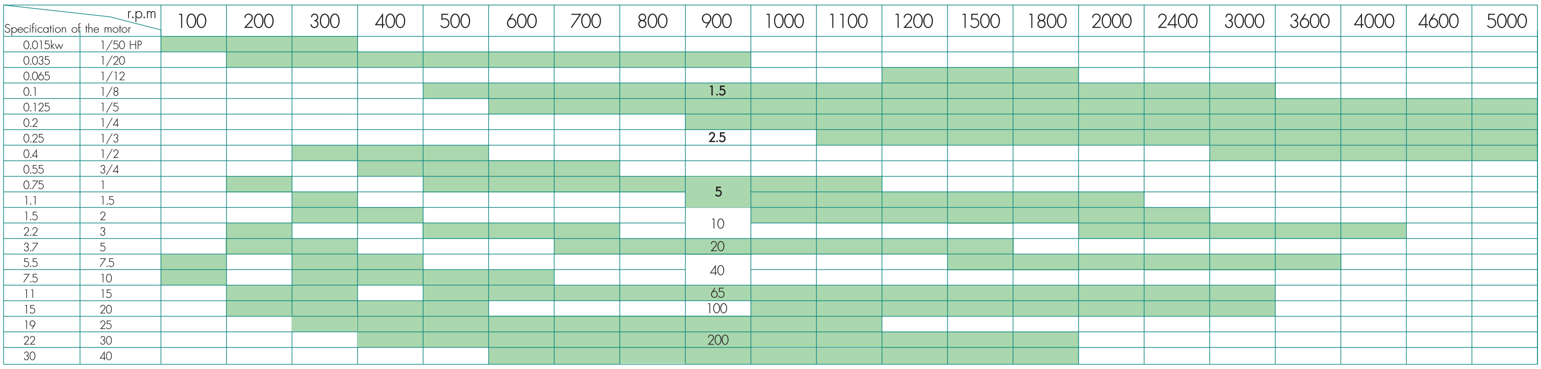
# MADE IN TAIWAN


# Special list in Manufacturing Industrial-use Clutches and Brake

## OPTOTION Chart II : Application of load after engagement



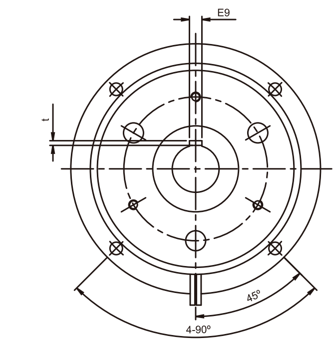

## OPTOTION Chart II : Engagement under load

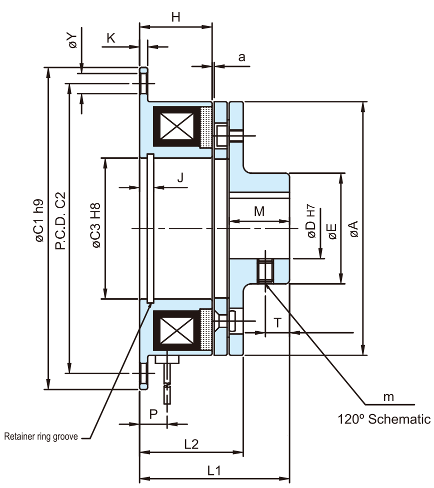



# CDG2 Series

**with long hub**

Electromagnetic Power-Applied Friction Clutch - Flange Mounted



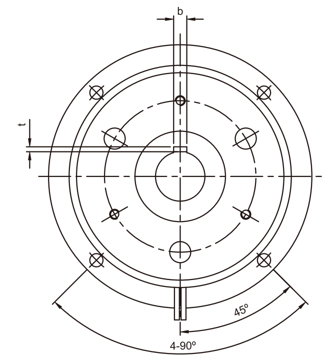



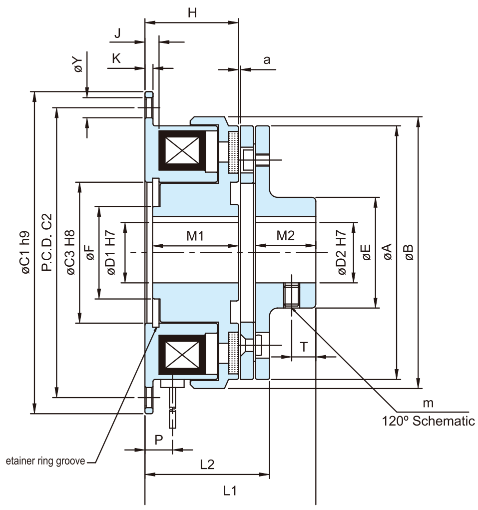

| MODEL | | CG20S6AA(AB) | CG21S5AA(AB) | CG22S5AA(AB) | CG2005AA(AB) | CG2010AA(AB) | CG2020AA(AB) | CG2040AA(AB) |
|---|---|---|---|---|---|---|---|---|
| Static Friction Torque [kgm](Nm) | | 0.55 (5.5) | 1.1 (11) | 2.2 (20) | 4.5 (45) | 9 (90) | 17.5 (175) | 35 (350) |
| Dynamic Friction Torque [kgm](Nm) | | 0.5 (5.0) | 1.0 (10) | 2.0 (22) | 4.0 (40) | 8 (80) | 16 (160) | 32 (320) |
| Power [24V](W) at 20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Radius | A | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| | C1 | 80 | 100 | 125 | 150 | 190 | 230 | 290 |
| | C2 | 72 | 90 | 112 | 137 | 175 | 215 | 270 |
| | C3 | 35 | 42 | 52 | 62 | 80 | 100 | 125 |
| | D | 15 (12) | 20 (15) | 25 (20) | 30 (25) | 40 (30) | 50 (40) | 60 (50) |
| | E | 27.5 | 31 | 41 | 49 | 65 | 83 | 105 |
| Shaft | H | 18 | 20 | 22 | 24 | 26 | 30 | 35 |
| | J | 3.5 | 4.3 | 5 | 5.5 | 6 | 7 | 8 |
| | K | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 |
| | L1 | 37 | 44.8 | 53 | 61.3 | 73.5 | 87.2 | 102.6 |
| | L2 | 25.5 | 28.8 | 33 | 37.3 | 42.5 | 51.2 | 59.6 |
| | M | 15 | 20 | 25 | 30 | 38 | 45 | 54 |
| | P | 7.5 | 9.5 | 9 | 9 | 9.5 | 10.5 | 15.5 |
| | T | 6 | 8 | 10 | 12 | 14 | 18 | 22 |
| | Y | 5 | 6 | 7 | 7 | 9.5 | 9.5 | 11.5 |
| | m | 2-M4 | 2-M5 | | 2-M6 | 2-M8 | | 2-M10 |
| | a | 0.2 (±0.05) | | | 0.3 ($^{+0.05}_{-0.1}$) | | 0.5 ($^{-0}_{-0.2}$) | |
| | b | 5 (4) | 5 (5) | 7 (5) | 7 (7) | 10 (7) | 12 (10) | 15 (12) |
| | t | 2.3 (1.8) | 2.3 (2.3) | 3.3 (2.3) | 3.3 (3.3) | 3.8 (3.3) | 3.8 (3.8) | 5.3 (3.8) |
| Weight (kg) | | 0.32 | 0.5 | 0.9 | 1.97 | 3.45 | 7.1 | 12.2 |
| Protective device | | 470KD07 | GD80KD10 | | GD80KD14 | | | |

# CDF1 Series

**with hub**

Electromagnetic Power-Applied Friction Clutch - Flange Mounted

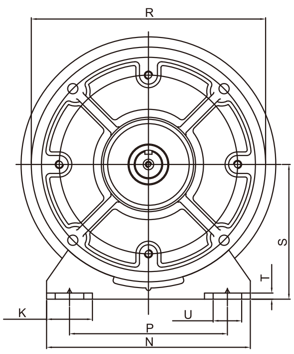


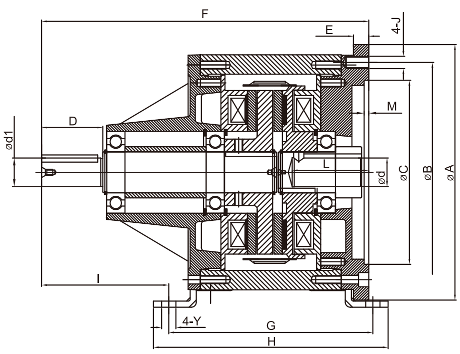



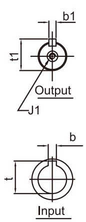

| MODEL | | CF10S6AA(AB) | CF11S5AA(AB) | CF12S5AA(AB) | CF1005AA(AB) | CF1010AA(AB) | CF1020AA(AB) | CF1040AA(AB) |
|---|---|---|---|---|---|---|---|---|
| Static Friction Torque [kgm](Nm) | | 0.55(5.5) | 1.1(11) | 2.2(22) | 4.5(45) | 9(90) | 17.5(175) | 35(350) |
| Dynamic Friction Torque [kgm](Nm) | | 0.5(5.0) | 1.0(10) | 2.0(20) | 4(40) | 8(80) | 16(160) | 32(320) |
| Power [24V](W) at 20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Radius | A | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| | B | 67.5 | 85 | 106 | 133 | 169 | 212.5 | 264 |
| | C1 | 80 | 100 | 125 | 150 | 190 | 230 | 290 |
| | C2 | 72 | 90 | 112 | 137 | 175 | 215 | 270 |
| | C3 | 35 | 42 | 52 | 62 | 80 | 100 | 125 |
| | D1 / D2 | 15 (12) | 20 (15) | 25 (20) | 30(25) | 40 (30) | 50 (40) | 60 (50) |
| | E | 27.5 | 31 | 41 | 49 | 65 | 83 | 105 |
| | F | 23(21) | 28 | 40 | 45 | 62 | 77 | 100 |
| | Y | 5 | 6 | 7 | 7 | 9.5 | 9.5 | 11.5 |
| Shaft | H | 24 | 26.5 | 30 | 33.5 | 37.5 | 44 | 51 |
| | J | 3.5 | 4.3 | 5 | 5.5 | 6 | 7 | 8 |
| | K | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 |
| | L1 | 43.05 | 51.3 | 60.9 | 70.8 | 85 | 101.2 | 118.5 |
| | L2 | 31.55 | 35.3 | 40.9 | 46.8 | 54 | 65.2 | 75.47 |
| | M1 | 22 | 24.1 | 27 | 30 | 34 | 40.15 | 47.15 |
| | M2 | 15 | 20 | 25 | 30 | 38 | 45 | 54 |
| | P | 7.5 | 9.5 | 8.9 | 9.5 | 9.5 | 10.5 | 15.5 |
| | T | 6 | 8 | 10 | 12 | 14 | 18 | 22 |
| | m | 2-M4 | 2-M5 | | 2-M6 | 2-M8 | | 2-M10 |
| | a | 0.2 (±0.05) | | | 0.3 ($^{+0.05}_{-0.1}$) | | 0.5 ($^{-0}_{-0.2}$) | |
| | b | 5 (4) | 5 (5) | 7 (5) | 7 (7) | 10 (7) | 12 (10) | 15 (12) |
| | t | 2.3 (1.8) | 2.3 (2.3) | 3.3 (2.3) | 3.3 (3.3) | 3.8 (3.3) | 3.8 (3.8) | 5.3 (3.8) |
| Weight (kg) | | 0.5 | 0.91 | 1.66 | 3.05 | 5.4 | 10.5 | 18.7 |
| Protective device | | 470KD07 | G80KD10 | | GD80KD14 | | | |

# CSM Series

Single-flange Electromagnetic Clutch Brake Module

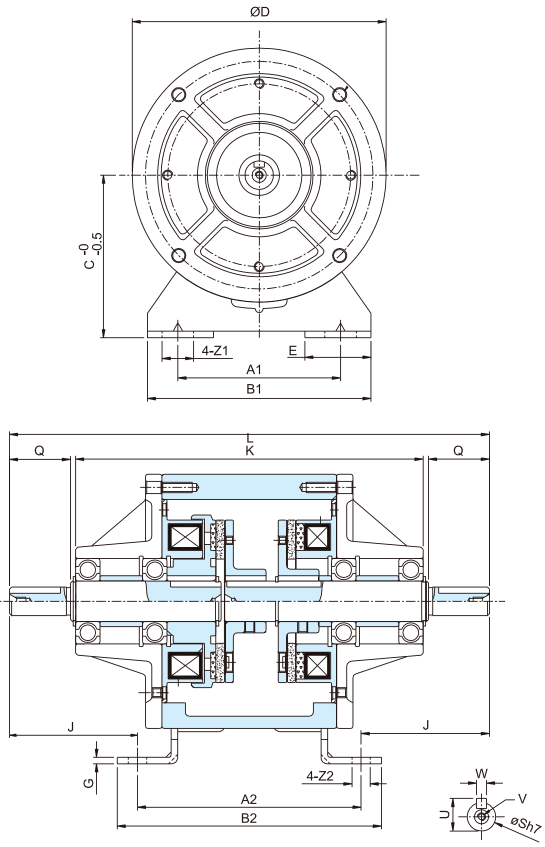


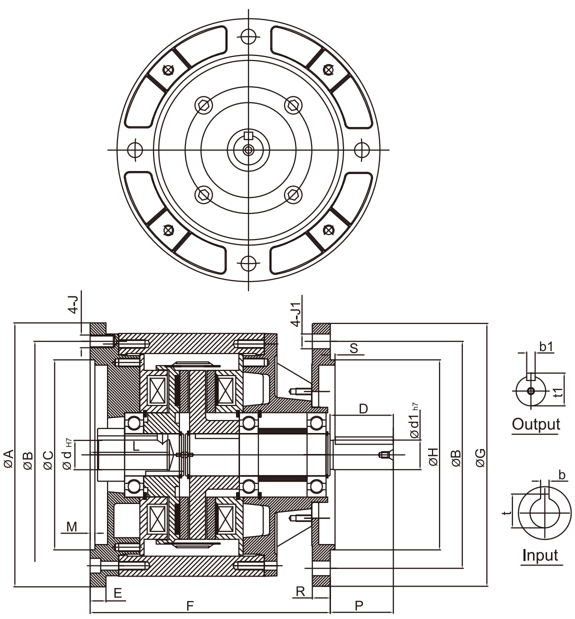

| MODEL | | CSM0S6AA | CSM1S5AA | CSM2S5AA | CSM005AA | CSM010AA | CSM020AA |
|---|---|---|---|---|---|---|---|
| Static Friction Torque [kgm](Nm) | | 0.55(5.5) | 1.1(11) | 2.2(22) | 4.5(45) | 9(90) | 17.5(175) |
| Dynamic Friction Torque [kgm](Nm) | | 0.5(5.0) | 1.0(10) | 2.0(20) | 4.0(40) | 8.0(80) | 16.0(160) |
| Power [24V](W) at 20℃ | | 11 | 15 | 20 | 25 | 35 | 45 |
| Radius | A | 160 | 160 | 200 | 200 | 250 | 300 |
| | B | 130 | 130 | 165 | 165 | 215 | 265 |
| | C | 110 | 110 | 130 | 130 | 180 | 230 |
| | J | M8*P1.25 | M8*P1.25 | M10*P1.5 | M10*P1.5 | M12*P1.5 | M12*P1.75 |
| | J1 | M4*P0.7*10L | M4*P0.7*8L | M6*P1*11L | M6*P1*11L | M6*P1*11L | M10*P1.5*17L |
| | R | 100 | 125 | 150 | 190 | 230 | 290 |
| | S | 90 | 90 | 110 | 112 | 132 | 160 |
| | T | 4.5 | 4.5 | 5 | 4.5 | 6 | 20 |
| | d | 11 | 14 | 19 | 24 | 28 | 38 |
| | d1 | 11 | 14 | 19 | 24 | 28 | 38 |
| Shaft | D | 27 | 30 | 40 | 50 | 60 | 80 |
| | E | 12 | 11 | 14.5 | 16.5 | 15 | 15 |
| | F | 135 | 162 | 194.5 | 244 | 320.6 | 386.9 |
| | G | 90 | 110 | 135 | 160 | 200 | 240 |
| | H | 105 | 130 | 160 | 185 | 230 | 270 |
| | I | 41 | 52 | 61.5 | 86.6 | 124.6 | 156 |
| | K | 27.5 | 15.5 | 35 | 42 | 45 | 47 |
| | L | 30 | 32 | 49 | 53.2 | 75 | 90 |
| | M | 3.5 | 4 | 5 | 5 | 4.5 | 6 |
| | N | 90 | 110 | 140 | 175 | 200 | 240 |
| | P | 65 | 80 | 105 | 135 | 155 | 195 |
| | U | 13.5 | 32.5 | 20 | 24 | 28 | 28 |
| | Y | 6.5 | 9 | 11 | 11 | 14 | 16 |
| | b | 4 | 5 | 6 | 8 | 8 | 10 |
| | t | 12.8 | 16.3 | 21.8 | 27.8 | 32 | 41.8 |
| | b1 | 4 | 5 | 5 | 7 | 7 | 10 |
| | t1 | 12.5 | 16 | 21 | 27 | 31 | 41.5 |
| Weight (kg) | | 2.1 | 4.5 | 8.5 | 14 | 24 | 47 |
| Protective device | | 470KD07 | G80KD10 | | G80KD14 | | |

# CDA Series Internal Electromagnetic Clutch Brake Module - Foot Mounted




| MODEL | | CDA0S6AA | CDA1S5AA | CDA2S5AA | CDA005AA | CDA010AA | CDA020AA |
|---|---|---|---|---|---|---|---|
| Static Friction Torque [kgm](Nm) | | 0.55 (5.5) | 1.1 (11) | 2.2 (22) | 4.5 (45) | 9 (90) | 17.5 (175) |
| Power [24V](W) at 20℃ | | 11 | 15 | 20 | 25 | 35 | 45 |
| Suspended load (kgf) | | 32 | 48 | 70 | 90 | 130 | 180 |
| Radius | A1 | 65 | 80 | 105 | 135 | 155 | 195 |
| | B1 | 90 | 110 | 140 | 175 | 200 | 240 |
| | C | 65 | 80 | 90 | 112 | 132 | 160 |
| | D | 100 | 125 | 150 | 190 | 230 | 290 |
| | E | 27.5 | 32.5 | 35 | 42 | 45 | 47 |
| | S | 11 | 14 | 19 | 24 | 28 | 38 |
| | U | 12.5 | 16 | 21 | 27 | 31 | 41.5 |
| | W | 4 | 5 | | 7 | | 10 |
| | Z1 | 13.5 | 15.5 | 20 | 24 | 28 | 28 |
| Shaft | A2 | 90 | 110 | 135 | 160 | 200 | 240 |
| | B2 | 105 | 130 | 160 | 185 | 230 | 270 |
| | G | 2.6 | 3.2 | 3.2 | 4.5 | 6 | 20 |
| | J | 48.5 | 63 | 80 | 108 | 145 | 188 |
| | K | 132 | 171 | 210 | 270 | 362 | 448 |
| | L | 187 | 236 | 295 | 376 | 490 | 616 |
| | Q | 25 | 30 | 40 | 50 | 60 | 80 |
| | V | M4*0.7P*8L | | M6*1P*11L | | | M10*1.5P*17L |
| | Z2 | 6.5 | 9 | 11 | | 14 | |
| Weight (kg) | | 2.1 | 4.2 | 6.8 | 12 | 22 | 49 |
| Protective device | | 470KD07 | G80KD10 | | G80KD14 | | |

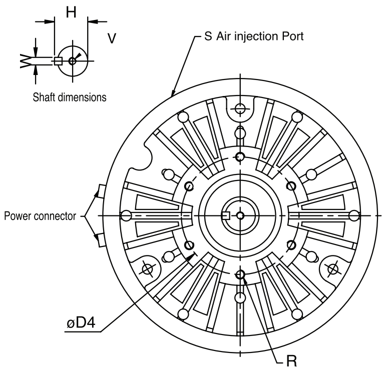
# CSN Series Dual-flange Electromagnetic Clutch Brake Module - Flange Mounted

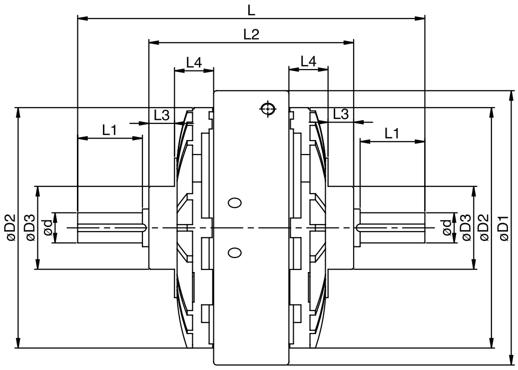



| MODEL | | CSN0S6AA | CSN1S5AA | CSN2S5AA | CSN005AA | CSN010AA | CSN020AA |
|---|---|---|---|---|---|---|---|
| Static Friction Torque [kgm](Nm) | | 0.55(5.5) | 1.1(11) | 2.2(22) | 4.5(45) | 9(90) | 17.5(175) |
| Dynamic Friction Torque [kgm](Nm) | | 0.5(5.0) | 1.0(10) | 2.0(20) | 4.0(40) | 8.0(80) | 16.0(16) |
| Power [24V](W) at 20℃ | | 11 | 15 | 20 | 25 | 35 | 45 |
| Radius | A | 160 | 160 | 200 | 200 | 250 | 300 |
| | B | 130 | 130 | 165 | 165 | 215 | 265 |
| | C | 110 | 110 | 130 | 130 | 180 | 230 |
| | H | 110 | 110 | 130 | 130 | 180 | 230 |
| | J | M8*P1.25 | M8*P1.25 | M10*P1.5 | M10*P1.5 | M12*P1.75 | M12*P1.75 |
| | J1 | 10 | 10 | 11 | 11 | 14 | 15 |
| | d | 11 | 14 | 19 | 24 | 28 | 38 |
| | d1 | 11 | 14 | 19 | 24 | 28 | 38 |
| | D | 25 | 30 | 40 | 50 | 60 | 80 |
| Shaft | E | 12 | 11 | 14.5 | 16.5 | 15 | 15 |
| | F | 96 | 120 | 131.5 | 154.5 | 227.5 | 277 |
| | L | 30 | 32 | 49 | 53.2 | 75 | 90 |
| | M | 3.5 | 4 | 5 | 5 | 4.5 | 6 |
| | P | 28 | 29 | 38.7 | 46 | 59.75 | 74 |
| | R | 12 | 13 | 15 | 15 | 17 | 25 |
| | S | 3 | 3 | 3.5 | 3.5 | 4.5 | 4 |
| | b | 4 | 5 | 6 | 8 | 8 | 10 |
| | t | 12.8 | 16.3 | 21.8 | 27.8 | 32 | 41.8 |
| | b1 | 4 | 5 | 6 | 8 | 8 | 10 |
| | t1 | 12.5 | 16 | 21.5 | 27 | 31 | 41.5 |
| Weight (kg) | | 2.1 | 4.2 | 8 | 13 | 23 | 46 |
| Protective device | | 470KD07 | G80KD10 | | G80KD14 | | |

# ZKC Series

## Magnetic Particle Clutch

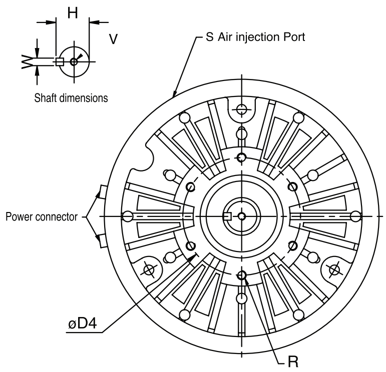


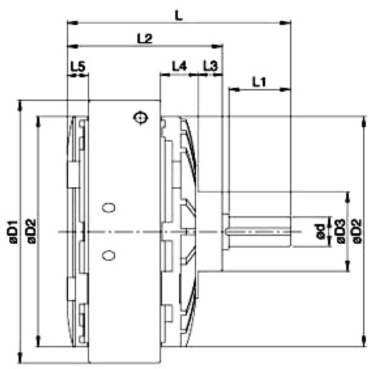




| MODEL | | ZKC1S2AA | ZKC2S5AA | ZKC005AA | ZKC010AA | ZKC020AA | ZKC040AA |
|---|---|---|---|---|---|---|---|
| Rated torque [kgm](Nm) | | 1.2 (12) | 2.5 (25) | 5 (50) | 10 (100) | 20 (200) | 40 (400) |
| Capacity DC24V (75°C) | Current (A) | 0.94 | 1.24 | 2.15 | 2.4 | 2.7 | 3.5 |
| | Power (W) | 22.5 | 30 | 51.5 | 57.6 | 64.8 | 84 |
| | Number of hours set (S) | 0.1 | 0.12 | 0.13 | 0.25 | 0.37 | 0.4 |
| Moment of inertia ($kgm^2$) | Input side | $1.34*10^{-3}$ | $3.8*10^{-3}$ | $9.5*10^{-3}$ | $3.5*10^{-2}$ | $9.15*10^{-2}$ | $2.4*10^{-1}$ |
| | Output side | $4.90*10^{-4}$ | $1.49*10^{-3}$ | $4.8*10^{-3}$ | $2.5*10^{-2}$ | $6.89*10^{-2}$ | $2.2*10^{-1}$ |
| Allowable slippage rate with forced-air cooling | Air pressure (Pa) | $3*10^{4}$ | $5*10^{4}$ | $1*10^{5}$ | $6*10^{4}$ | $5*10^{4}$ | $2*10^{5}$ |
| | Air volume ($m^3$/min) | 0.2 | 0.4 | 0.6 | 1.1 | 1.6 | 2.0 |
| | Power (W) | 250 | 380 | 700 | 1100 | 1900 | 2800 |
| Weight (kg) | | 5.7 | 10 | 16 | 38.5 | 61 | 114.5 |
| Maximum speed (r/min) | | 1800 | | | | | |
| Weight of powder (g) | | 20 | 33 | 60 | 140 | 225 | 370 |
| Exterior domensions | D1 | 152 | 182 | 219 | 276 | 325 | 395 |
| | D2 | 126 | 159.5 | 195 | 260.5 | 301 | 360 |
| | D3 (g7) | 42 | 55 | 74 | 100 | 110 | 130 |
| | D4 | 64 | 78 | 100 | 140 | 150 | 200 |
| | L | 191.7 | 230 | 293.9 | 359 | 407.2 | 500.4 |
| | L1 | 29.5 | 43 | 55 | 65 | 69 | 92 |
| | L2 | 124 | 136 | 172 | 216 | 250 | 291 |
| | L3 | 15 | 17 | 30 | 28 | 30 | 35 |
| | L4 | 25.5 | 26 | 28 | 46 | 56 | 66.5 |
| | d (h7) | 15 | 20 | 25 | 30 | 35 | 45 |
| | H ($^{0}_{-0.2}$) | 17 | 22 | 28 | 33 | 38.5 | 48.5 |
| | W (p7) | 5 | | 7 | | 10 | 12 |
| | V | M4*0.7P*8L | M5*0.8P*10L | M6*1P*12L | M10*1.5P*20L | | |
| | R | 6-M6*1P*10L | | | 6-M10*1.5P*15L | | 8-M10*1.5P*15L |
| | S | 1/8 | | 1/4 | 3/8 | | |

# ZKB Series

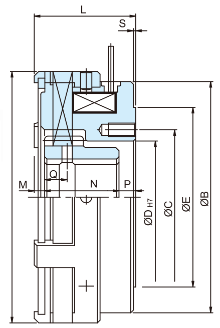
## Magnetic Particle Clutch

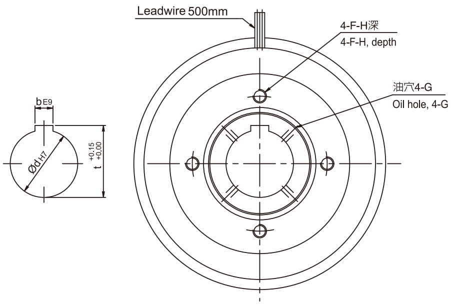



| MODEL | | ZKB1S2AA | ZKB2S5AA | ZKB005AA | ZKB010AA | ZKB020AA | ZKB040AA |
|---|---|---|---|---|---|---|---|
| [kgf-m](N-m) Rated truning distance | | 1.2 (12) | 2.5 (25) | 5 (50) | 10 (100) | 20 (200) | 40 (400) |
| Capacity DC24V (75°C) | Current (A) | 0.94 | 1.24 | 2.15 | 2.4 | 2.7 | 3.5 |
| | Power (W) | 22.5 | 30 | 51.5 | 57.6 | 64.8 | 84 |
| | Number of hours set (S) | 0.1 | 0.12 | 0.13 | 0.25 | 0.37 | 0.4 |
| Moment of inertia ($KGcm^2$) | | $1.34*10^{-3}$ | $3.8*10^{-3}$ | $9.5*10^{-3}$ | $3.5*10^{-2}$ | $9.15*10^{-2}$ | $2.4*10^{-1}$ |
| Allowable slippage rate with forced-air cooling | Air pressure (Pa) | $3*10^{4}$ | $5*10^{4}$ | $1*10^{5}$ | $6*10^{4}$ | $5*10^{4}$ | $2*10^{5}$ |
| | Air volume ($m^3$/min) | 0.2 | 0.4 | 0.6 | 1.1 | 1.6 | 2.0 |
| | Power (W) | 250 | 380 | 700 | 1100 | 1900 | 2800 |
| Weight (kg) | | 5.2 | 9 | 14.5 | 34 | 53 | 100 |
| Maximum speed (r/min) | | 1800 | | | | | |
| Weight of powder (g) | | 20 | 33 | 60 | 140 | 225 | 370 |
| Exterior domensions | D1 | 152 | 182 | 219 | 278 | 327 | 395 |
| | D2 | 126 | 160 | 196 | 260 | 301 | 365 |
| | D3 (g7) | 42 | 55 | 74 | 100 | 110 | 1 0 |
| | D4 | 64 | 78 | 100 | 140 | 150 | 200 |
| | L | 132 | 155 | 193 | 239 | 278 | 388 |
| | L1 | 29 | 43 | 55 | 65 | 69 | 92 |
| | L2 | 98 | 108 | 132 | 167 | 199 | 234 |
| | L3 | 15 | 17 | 30 | 28 | 30 | 35 |
| | L4 | 25.5 | 26 | 28 | 46 | 56 | 70 |
| | L5 | 14.5 | 15 | 18 | 21.5 | 32 | 40 |
| | d (h7) | 15 | 20 | 25 | 30 | 35 | 45 |
| | H ($^{0}_{-0.2}$) | 17 | 22 | 28 | 33 | 38.5 | 48.5 |
| | W (p7) | 5 | | 7 | | 10 | 12 |
| | V | M4*0.7P*8L | M5*0.8P*10L | M6*1P*12L | M10*1.5P*20L | | |
| | R | 6-M6*1P*10L | | | 6-M10*1.5P*15L | | 8-M10*1.5P*15L |
| | S | 1/8 | | 1/4 | 3/8 | | |

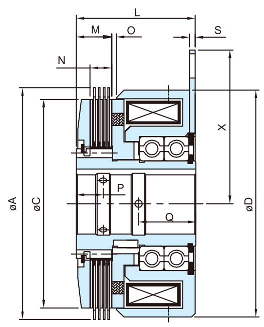
# MWI Series Oil Actuated Multi-disc Electromagnetic Brake

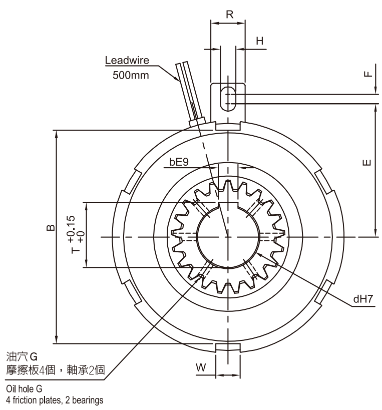



| MODEL | | MWI1S2AA | MWI2S5AA | MWI005AA | MWI010AA | MWI020AA |
|---|---|---|---|---|---|---|
| Static Friction Torque [kgm](Nm) | | 2.5 (25) | 5.0(50) | 10 (100) | 20 (200) | 40(400) |
| Dynamic Friction Torque [kgm](Nm) | | 1.2 (12) | 2.5(25) | 5.0 (50) | 10 (100) | 20(200) |
| Power [24V](W) at 20℃ | | 8 | 12 | 18 | 24 | 28 |
| Radius | A | 80 | 95 | 112 | 132 | 157 |
| | B | 73 | 87 | 103 | 122 | 148 |
| | C | 42 | 50 | 60 | 70 | 95 |
| | D | 32 | 40 | 50 | 56 | 74 |
| | E | - | - | 80 | 95 | 116 |
| | F | M5*0.8P | M6*1P | | M8*1.25P | M10*1.5P |
| | G | 2 | 3 | | | |
| | H | 8 | 12 | | | 20 |
| Shaft | L | 30 | 37 | 45 | 52 | 61 |
| | M | 3.5 | 4 | 3 | 4 | 7.8 |
| | N | 23 | 27 | 33 | 35 | 48 |
| | P | 3.5 | 6 | 9 | 13 | 5.2 |
| | Q | 7 | 8.5 | 10 | 13 | 6 |
| | S | - | - | | 1 | 3 |
| | d | 20 | 25 | 30 | 40 | 52 |
| | b | 6 | 8 | | 12 | 15 |
| | t | 21.7 | 26.7 | 32 | 42.5 | 57 |
| Weight (kg) | | 0.7 | 1.3 | 2.0 | 3.3 | 4.5 |
| Protective device | | GD80KD10 | | GD80KD14 | | |

# MWJ Series Oil Actuated Multi-disc Electromagnetic Clutch




| MODEL | | MWJ1S2AA | MWJ2S5AA | MWJ005AA | MWJ010AA | MWJ020AA |
|---|---|---|---|---|---|---|
| Static Friction Torque [kgm](Nm) | | 2.5 (25) | 5.0 (50) | 10(100) | 20(200) | 40(400) |
| Dynamic Friction Torque [kgm](Nm) | | 1.2(12) | 2.5(25) | 5.0(50) | 10(100) | 20(200) |
| Power [24V](W) at 20℃ | | 12 | 17 | 22 | 48 | 51 |
| Radius | A | 80 | 95 | 112 | 132 | 157 |
| | B | 73.4 | 87.5 | 103 | 122 | 145 |
| | C | 71 | 85.5 | 101 | 120 | 142 |
| | D | 78 | 93 | 110 | 130 | 155 |
| | E | 47 | 56.5 | 62.5 | 77 | 91 |
| | F | 2.7 | 3.7 | | 4.5 | 5.5 |
| | G | 2 | 3 | | | |
| | H | 6.3 | | | 6.5 | |
| | X | 53 | 63 | 69 | 85.5 | 99.5 |
| Shaft | L | 45 | 49 | 57 | 63 | 78 |
| | M | 13 | 14.5 | 17.7 | 21.1 | 26.6 |
| | N | 8.3 | 8.8 | 12.2 | 14 | |
| | O | 2.5 | 2 | 1.2 | 1.4 | 2.5 |
| | P | 10 | 11 | 12.5 | 14 | 20.5 |
| | Q | 21.5 | 23.5 | 27.5 | 23.7 | 31 |
| | R | 12 | 14 | | 16 | |
| | S | 2 | 2.3 | | 3 | |
| | W | 9 | 10 | | 12 | |
| | d | 20 | 25 | 30 | 40 | 50 |
| | b | 6 | 8 | | 12 | 14 |
| | t | 21.7 | 26.7 | 32.5 | 42.5 | 52.5 |
| Weight (kg) | | 1.4 | 2.0 | 3.0 | 4.8 | 7.7 |
| Protective device | | GD80KD10 | | GD80KD14 | | |