

EM VAR 01 | EMER VAR 01

Electro-Magnetic Single Disc Clutch & Brake Combination

Characteristics

- Electrically operated 24 VDC
- Single friction face
- Clutch activated by power on
- Brake activated by power on = **EM**
Brake activated by power off = **EMER**
- Shafts at both sides
- Standard with lead termination or connector as option

Utilisation

- Coupling of a pulley or a shaft

Particularities

- For dry use
- Input and output with flange M1 or cover

Adjustments

- No wear compensation required

Maintenance Manual

- SM 305

IEC Mounting Flanges

Permitted combinations and dimensions

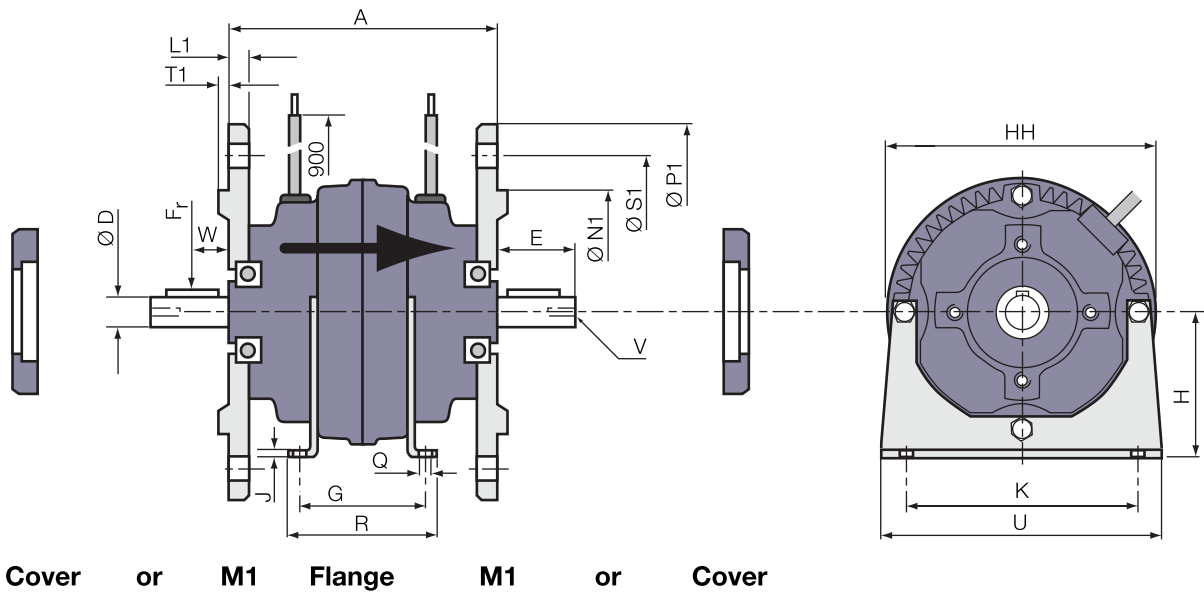
Selection and Heat Dissipation Curves

See page 14

| Size | EM2 | EMER2 | EM3 | EMER3 | EM4 | EMER4 | EM5 | EMER5 | EM6 | EMER6 |
|--------------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| Flange M1 | 115 | X | X | - | - | - | - | - | - | - |
| | 130 | X | X | X | X | X | X | - | - | - |
| | 165 | - | - | X | X | X | X | X | - | - |
| | 215 | - | - | - | - | - | - | X | X | X |
| | 265 | - | - | - | - | - | - | - | - | X |
| Cover | X | X | X | X | X | X | X | X | X | X |

| Size with | | 115 EM2 EMER2 | 130 EM2 EMER2 | 130 EM3 EMER3 | 130 EM4 EMER4 | 165 EM3 EMER3 | 165 EM4 EMER4 | 165 EM5 EMER5 | 215 EM5 EMER5 | 215 EM6 EMER6 | 265 EM6 EMER6 | |
|--------------|----|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------|
| Flange M1 | L1 | 10 | 10 | 12 | 14 | 12 | 14 | 14 | 17 | 14 | 17 | |
| | N1 | h8 | 95 | 110 | 110 | 110 | 130 | 130 | 180 | 180 | 230 | |
| | P1 | | 140 | 160 | 160 | 160 | 200 | 200 | 250 | 250 | 300 | |
| | S1 | | 115 4x Ø9 | 130 4x Ø9 | 130 4x Ø9 | 130 4x Ø9 | 165 4x Ø11 | 165 4x Ø11 | 165 4x Ø11 | 215 4x Ø14 | 215 4x Ø14 | 265 4x Ø14 |
| | T1 | | 3 | 3,5 | 3,5 | 3,5 | 3,5 | 3,5 | 3,5 | 4 | 4 | 4 |

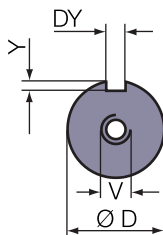
Electro-Magnetic Single Disc Clutch & Brake Combination



| Sizes | | EM2 | EMER2 | EM3 | EMER3 | EM4 | EMER4 | EM5 | EMER5 | EM6 | EMER6 | |
|---------------------------|----------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Nom. Torque | [Nm] | 7.5 | 4.5 | 15 | 9 | 25 | 14 | 50 | 28 | 130 | 75 | |
| Max. Speed | [min ⁻¹] | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | |
| Power | P20 [24V] | [W] | 13 | 12 | 11 | 12 | 26 | 20 | 20 | 24 | 30 | 36 |
| | A | | 136 | 147 | 144 | 155 | 160 | 171 | 170 | 181 | 230 | 241 |
| | D ^{J6} xE | | 11x23 14x30 | 11x23 14x30 | 14x30 19x40 | 14x30 19x40 | 19x40 24x50 | 19x40 24x50 | 24x50 28x60 | 24x50 28x60 | 28x60 38x80 | 28x60 38x80 |
| | G | | 90 | 101 | 105 | 116 | 117 | 128 | 124 | 135 | 160 | 171 |
| | H | | 63 | 63 | 71 | 71 | 90 | 90 | 100 | 100 | 132 | 132 |
| | HH | | 112 | 112 | 142 | 142 | 180 | 180 | 200 | 200 | 240 | 240 |
| | J | | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 |
| | K | | 100 | 100 | 112 | 112 | 140 | 140 | 160 | 160 | 216 | 216 |
| | Q | | 7 | 7 | 9 | 9 | 10 | 10 | 12 | 12 | 12 | 12 |
| | R | | 109 | 120 | 120 | 131 | 136 | 147 | 140 | 151 | 186 | 197 |
| | U | | 116 | 116 | 144 | 144 | 170 | 170 | 200 | 200 | 264 | 264 |
| | W | | 11 | 11 | 20 | 20 | 20 | 20 | 30 | 30 | 35 | 35 |
| | X | | 100 | 100 | 110 | 110 | 122 | 122 | - | - | - | - |
| Inertia | [kgm ²] | | 0,00011 | 0,00011 | 0,0003 | 0,0003 | 0,0008 | 0,0008 | 0,0018 | 0,0018 | 0,0085 | 0,0085 |
| Coil Build up time | tb [s] | | 0,025 | 0,030 | 0,030 | 0,040 | 0,052 | 0,040 | 0,070 | 0,080 | 0,11 | 0,09 |
| Coil Delay Time | td [s] | | 0,004 | 0,003 | 0,005 | 0,003 | 0,006 | 0,005 | 0,0012 | 0,008 | 0,02 | 0,01 |
| Radial Load | Fr [N] | | 480 | 480 | 900 | 900 | 1450 | 1450 | 1850 | 1850 | 3000 | 3000 |
| Weight | [kg] | | 2,9 | 2,9 | 4,0 | 4,0 | 7,0 | 7,0 | 11 | 11 | 23 | 23 |
| Connection | | | Cable | | | | | | | | | |

Keyway BS 4235
DIN 6885
NF E 22-175

Option Connector



| | | | | | | |
|--------|---------|---------|---------|---------|----------|----------|
| ØD | 11 | 14 | 19 | 24 | 28 | 38 |
| DY x Y | 4 x 2,5 | 5 x 3 | 6 x 3,5 | 8 x 4 | 8 x 4 | 10 x 5 |
| V | M4 x 10 | M5 x 12 | M6 x 16 | M8 x 19 | M10 x 22 | M12 x 28 |