

## DRUM MOTOR 138LP

135.0Ø 0.06kW - 0.55kW, with planetary gearbox  
in polymer or polymer / steel combination for non-continuous operation

### Product description

This Pulley is the ideal operator for light and medium conveyors.

#### Characteristics

- 3-phase or 1-phase AC induction motor
- Single supply voltage
- on request: 3-phase dual supply voltage (possible delta/star connection)
- Integral motor protection
- Gearbox planetary-type polymer or polymer / steel combination
- Low noise operation
- Light and distributed weight
- Maintenance free
- Reversible operation

#### Applications

- Conveyors for light loads
- Recycling bottles
- Packaging equipment
- X-ray inspection systems at airports
- Pharmaceutical industry
- Food processing
- Cash desks in supermarkets
- Dry, Damp and frequent wash down applications

### TECHNICAL DATA

#### Motor Data

|                                    |   |
|------------------------------------|---|
| Type of Motor                      | Asynchronous squirrel-cage, IEC 34 (VDE 0530) |
| Insulation class of motor windings | Class F, IEC 34 (VDE 0530)                    |
| Voltage                            | 230 or 400 V ± 5% (IEC 34/38)                 |
| Frequency                          | 50/60 Hz                                      |
| Internal shaft sealing system      | Double-lipped of nitrile rubber, NBR          |
| External shaft sealing system      | Deflection seal nitrile rubber, NBR           |
| Protection rate                    | IP66  |
| Thermal protection                 | Bimetallic Contact                            |
| Ambient temperature, 3-phase motor | +5 to +40 °C                                  |
| Ambient temperature, 1-phase motor | +10 to +40 °C                                 |
| General technical data             |   |
| Max. Roller length (RL)            | 1212 mm                                       |

Drum motor with RL length greater than 706 mm have reinforced shaft.

All data and values declared in the catalogue refer to operation with a frequency of 50 Hz.



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### Materials

The following drum motor components are available in different versions, as shown in the below chart, with further options for the material type as indicated.

| Components            | Version                         | Material           |        |                 |               |
|-----------------------|---------------------------------|--------------------|--------|-----------------|---------------|
|                       |                                 | Standard Aluminium | Option |                 |               |
|                       |                                 |                    | Steel  | Stainless Steel | Brass /Nickel |
| Shell                 | Crowned                         | Std                | ✓      | ✓               |               |
|                       | Cylindrical                     | ✓                  | ✓      | ✓               |               |
|                       | Special crowns with grooves     | ✓                  | ✓      | ✓               |               |
| End housing           | Standard                        | Std                |        | ✓               |               |
| Shaft cap             | Standard                        | Std                |        |                 |               |
|                       | With cable protection           |                    |        | ✓               | ✓             |
| Electrical connection | Straight or 90° cable connector |                    |        | ✓               | ✓             |
|                       | Elbow connector                 | ✓                  |        | ✓               |               |

Please contact Rulmeca for further versions.

### Options

- Rubber lagging for standard belts
- Dynamic balancing
- 3-phase dual supply voltage (possible delta/star connection)
- Oil for Food (EU, FDA and USDA)
- Oil for low temperatures
- Non-horizontal mounting (more than  $\pm 5^\circ$ )
- For special versions, please contact RULMECA.

### Accessories

- Mounting brackets
- Idler Pulleys
- Rollers for conveyors

### Cable Specifications

Cable options available:

- Standard, screened
- Standard, unscreened
- Halogen-free, screened
- Halogen-free, unscreened

Available lengths: 1,9 m (other lengths available on request).

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**TECHNICAL DATA DRUM MOTOR 138LP - 3PHASE - 50HZ - STANDARD RANGE**

| $P_N$<br>[kW] | np<br>(rpm) | $I_T$<br>[A] | gs     | i                   | $V_A$<br>[m/s] | $V_N$<br>[m/s] | $n_A$<br>[min <sup>-1</sup> ] | $M_N$<br>[Nm] | $F_T$<br>[N] | TE<br>[N] | RL<br>[mm]          |       |       |
|---------------|-------------|--------------|--------|---------------------|----------------|----------------|-------------------------------|---------------|--------------|-----------|---------------------|-------|-------|
| 0,06          | 4           | 0.38/0.22    | 4      | 316,81              | 0,03           | 0,03           | 4                             | 110,2         | 1.636        | 2000      | min 280<br>max 1212 |       |       |
|               |             |              |        | 185,08              | 0,05           | 0,05           | 7                             | 64,4          | 956          |           |                     |       |       |
|               |             |              |        | 141,38              | 0,06           | 0,07           | 8                             | 49,2          | 730          |           |                     |       |       |
|               |             |              |        | 107,95              | 0,08           | 0,09           | 11                            | 37,6          | 558          |           |                     |       |       |
|               |             |              | 3      | 74,27               | 0,12           | 0,13           | 17                            | 25,8          | 384          |           |                     |       |       |
|               |             |              |        | 56,60               | 0,16           | 0,17           | 23                            | 19,7          | 292          |           |                     |       |       |
|               |             |              |        | 43,07               | 0,21           | 0,23           | 30                            | 15,0          | 222          |           |                     |       |       |
|               |             |              |        | 32,72               | 0,27           | 0,30           | 38                            | 11,4          | 169          |           |                     |       |       |
|               |             |              |        | 28,36               | 0,31           | 0,35           | 44                            | 9,9           | 146          |           |                     |       |       |
|               |             |              |        | 24,56               | 0,36           | 0,40           | 51                            | 8,5           | 127          |           |                     |       |       |
|               |             |              |        | 21,25               | 0,42           | 0,46           | 59                            | 7,4           | 110          |           |                     |       |       |
|               |             |              |        | 2                   | 16,83          | 0,53           | 0,59                          | 75            | 5,9          |           |                     | 87    | 1500  |
|               |             |              | 0,12   | 4                   | 0.7/0.5        | 4              | 185,08                        | 0,05          | 0,05         |           |                     | 7     | 128,8 |
| 141,38        | 0,06        | 0,07         |        |                     |                |                | 8                             | 98,4          | 1.460        |           |                     |       |       |
| 107,95        | 0,08        | 0,09         |        |                     |                |                | 11                            | 75,1          | 1.115        |           |                     |       |       |
| 3             | 74,27       | 0,12         |        |                     |                | 0,13           | 17                            | 51,7          | 767          |           |                     |       |       |
|               | 56,60       | 0,16         |        |                     |                | 0,17           | 23                            | 39,4          | 585          |           |                     |       |       |
|               | 43,07       | 0,21         |        |                     |                | 0,23           | 30                            | 30,0          | 445          |           |                     |       |       |
|               | 32,72       | 0,27         |        |                     |                | 0,30           | 38                            | 22,8          | 338          |           |                     |       |       |
|               | 28,36       | 0,31         |        |                     |                | 0,35           | 44                            | 19,7          | 293          |           |                     |       |       |
|               | 24,56       | 0,36         |        |                     |                | 0,40           | 51                            | 17,1          | 254          |           |                     |       |       |
|               | 21,25       | 0,42         |        |                     |                | 0,46           | 59                            | 14,8          | 220          |           |                     |       |       |
| 2             | 16,83       | 0,53         |        |                     |                | 0,59           | 75                            | 11,7          | 174          |           |                     |       |       |
|               | 12,64       | 0,70         |        |                     |                | 0,78           | 99                            | 8,8           | 131          |           |                     |       |       |
|               | 10,88       | 0,82         |        |                     |                | 0,91           | 116                           | 7,6           | 112          |           |                     |       |       |
|               | 9,44        | 0,94         |        |                     |                | 1,05           | 133                           | 6,6           | 98           |           |                     |       |       |
|               | 8,09        | 1,10         |        |                     |                | 1,22           | 156                           | 5,6           | 84           |           |                     |       |       |
| 0,18          | 4           | 1.0/0.6      |        |                     |                | 4              | 141,38                        | 0,06          | 0,07         | 8         | 124,4               | 2.191 | 2000  |
|               |             |              | 107,95 | 0,08                | 0,09           |                | 11                            | 95,0          | 1.673        |           |                     |       |       |
|               |             |              | 3      | 74,27               | 0,12           | 0,13           | 17                            | 65,4          | 1.151        |           |                     |       |       |
|               |             |              |        | 56,60               | 0,16           | 0,17           | 23                            | 49,8          | 877          |           |                     |       |       |
|               |             |              |        | 43,07               | 0,21           | 0,23           | 30                            | 37,9          | 667          |           |                     |       |       |
|               |             |              |        | 32,72               | 0,27           | 0,30           | 38                            | 28,8          | 507          |           |                     |       |       |
|               |             |              |        | 28,36               | 0,31           | 0,35           | 44                            | 25,0          | 439          |           |                     |       |       |
|               |             |              |        | 24,56               | 0,36           | 0,40           | 51                            | 21,6          | 381          |           |                     |       |       |
|               |             |              |        | 21,25               | 0,42           | 0,46           | 59                            | 18,7          | 329          |           |                     |       |       |
|               |             |              |        | 16,83               | 0,53           | 0,59           | 75                            | 14,8          | 261          |           |                     |       |       |
|               |             |              | 2      | 12,64               | 0,70           | 0,78           | 99                            | 11,1          | 196          |           |                     |       |       |
|               |             |              |        | 10,88               | 0,82           | 0,91           | 116                           | 9,6           | 169          |           |                     |       |       |
|               |             |              |        | 9,44                | 0,94           | 1,05           | 133                           | 8,3           | 146          |           |                     |       |       |
|               |             |              |        | 8,09                | 1,10           | 1,22           | 156                           | 7,1           | 125          |           |                     |       |       |
|               |             |              |        | 8,09                | 1,10           | 1,22           | 156                           | 7,1           | 125          |           |                     |       |       |
|               |             |              | 1500   | min 305<br>max 1212 |                |                |                               |               |              |           |                     |       |       |

# DRUM MOTOR 138LP

135.0Ø 0.06kW - 0.55kW, with planetary gearbox

in polymer or polymer / steel combination for non-continuous operation

TECHNICAL DATA DRUM MOTOR 138LP - 3PHASE - 50HZ - STANDARD RANGE

| $P_N$<br>[kW] | np<br>(rpm) | $I_f$<br>[A] | gs   | i      | $V_A$<br>[m/s] | $V_N$<br>[m/s] | $n_A$<br>[min <sup>-1</sup> ] | $M_N$<br>[Nm] | $F_T$<br>[N] | TE<br>[N] | RL<br>[mm]          |       |       |                     |      |                     |
|---------------|-------------|--------------|------|--------|----------------|----------------|-------------------------------|---------------|--------------|-----------|---------------------|-------|-------|---------------------|------|---------------------|
| 0,25          | 4           | 1.3/0.75     | 4    | 107,95 | 0,08           | 0,09           | 11                            | 156,5         | 2.323        | 2000      | min 320<br>max 1212 |       |       |                     |      |                     |
|               |             |              | 3    | 74,27  | 0,12           | 0,13           | 17                            | 107,7         | 1.598        |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 56,60  | 0,16           | 0,17           | 23                            | 82,0          | 1.218        |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 43,07  | 0,21           | 0,23           | 30                            | 62,4          | 927          |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 32,72  | 0,27           | 0,30           | 38                            | 47,4          | 704          |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 28,36  | 0,31           | 0,35           | 44                            | 41,1          | 610          |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 24,56  | 0,36           | 0,40           | 51                            | 35,6          | 529          |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 21,25  | 0,42           | 0,46           | 59                            | 30,8          | 457          |           |                     |       |       |                     |      |                     |
|               |             |              | 2    | 16,83  | 0,53           | 0,59           | 75                            | 24,4          | 362          |           |                     |       |       |                     |      |                     |
|               |             |              | 2    | 12,64  | 0,70           | 0,78           | 99                            | 18,3          | 272          |           |                     |       |       |                     |      |                     |
|               |             |              | 2    | 10,88  | 0,82           | 0,91           | 116                           | 15,8          | 234          |           |                     |       |       |                     |      |                     |
|               |             |              | 2    | 9,44   | 0,94           | 1,05           | 133                           | 13,7          | 203          |           |                     |       |       |                     |      |                     |
|               |             |              | 2    | 8,09   | 1,10           | 1,22           | 156                           | 11,7          | 174          |           |                     |       |       |                     |      |                     |
|               |             |              | 0,37 | 4      | 2.4/1.4        | 3              | 74,27                         | 0,12          | 0,13         |           |                     | 17    | 159,3 | 2.366               | 2000 | min 330<br>max 1212 |
| 3             | 56,60       | 0,16         |      |        |                | 0,17           | 23                            | 121,4         | 1.803        |           |                     |       |       |                     |      |                     |
| 3             | 43,07       | 0,21         |      |        |                | 0,23           | 30                            | 92,4          | 1.372        |           |                     |       |       |                     |      |                     |
| 3             | 32,72       | 0,27         |      |        |                | 0,30           | 38                            | 70,2          | 1.042        |           |                     |       |       |                     |      |                     |
| 3             | 28,36       | 0,31         |      |        |                | 0,35           | 44                            | 60,8          | 903          |           |                     |       |       |                     |      |                     |
| 3             | 24,56       | 0,36         |      |        |                | 0,40           | 51                            | 52,7          | 782          |           |                     |       |       |                     |      |                     |
| 3             | 21,25       | 0,42         |      |        |                | 0,46           | 59                            | 45,6          | 677          |           |                     |       |       |                     |      |                     |
| 2             | 16,83       | 0,53         |      |        |                | 0,59           | 75                            | 36,1          | 536          |           |                     |       |       |                     |      |                     |
| 2             | 12,64       | 0,70         |      |        |                | 0,78           | 99                            | 27,1          | 403          |           |                     |       |       |                     |      |                     |
| 2             | 10,88       | 0,82         |      |        |                | 0,91           | 116                           | 23,3          | 347          |           |                     |       |       |                     |      |                     |
| 2             | 9,44        | 0,94         |      |        |                | 1,05           | 133                           | 20,3          | 301          |           |                     |       |       |                     |      |                     |
| 2             | 8,09        | 1,10         |      |        |                | 1,22           | 156                           | 17,4          | 258          |           |                     |       |       |                     |      |                     |
| 0,55          | 4           | 2.9/1.7      |      |        |                | 3              | 43,07                         | 0,21          | 0,23         | 30        | 137,4               | 2.039 | 2000  | min 340<br>max 1212 |      |                     |
|               |             |              |      |        |                | 3              | 32,72                         | 0,27          | 0,30         | 38        | 104,3               | 1.549 |       |                     |      |                     |
|               |             |              | 3    | 28,36  | 0,31           | 0,35           | 44                            | 90,4          | 1.343        |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 24,56  | 0,36           | 0,40           | 51                            | 78,3          | 1.163        |           |                     |       |       |                     |      |                     |
|               |             |              | 3    | 21,25  | 0,42           | 0,46           | 59                            | 67,8          | 1.006        |           |                     |       |       |                     |      |                     |
|               |             |              | 2    | 16,83  | 0,53           | 0,59           | 75                            | 53,7          | 797          |           |                     |       |       |                     |      |                     |
|               |             |              | 2    | 12,64  | 0,70           | 0,78           | 99                            | 40,3          | 598          |           |                     |       |       |                     |      |                     |
|               |             |              | 1500 | 2      | 10,88          | 0,82           | 0,91                          | 116           | 34,7         | 515       |                     |       |       |                     |      |                     |
|               |             |              |      | 2      | 9,44           | 0,94           | 1,05                          | 133           | 30,1         | 447       |                     |       |       |                     |      |                     |
|               |             |              |      | 2      | 8,09           | 1,10           | 1,22                          | 156           | 25,8         | 383       |                     |       |       |                     |      |                     |

$P_N$  Nominal mechanical power  
 np Number of poles  
 rpm Actual rotor rpm at full load  
 $I_f$  Amperage (230/400V) at full load  
 gs Gear stages  
 i Gear ratio  
 $V_A$  Theoretical actual belt (tangential) speed at full load\*

$V_N$  Nominal belt (tangential) speed  
 $n_A$  Revolutions of shell at full load\*  
 $M_N$  Nominal Torque at full load  
 $F_T$  Belt pull (tangential force) on shell at full load\*  
 TE Maximum allowable belt tension (radial load)

RL Reference length  
 \* Valid for unlagged shells/ values can deviate at partly or no load conditions

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**TECHNICAL DATA DRUM MOTOR 138LP - 1PHASE - 50HZ - STANDARD RANGE**

| $P_N$<br>[kW] | np<br>(rpm)         | $I_N$<br>[A] | gs   | i                   | $V_A$<br>[m/s]      | $V_N$<br>[m/s] | $n_A$<br>[min <sup>-1</sup> ] | $M_N$<br>[Nm] | $F_T$<br>[N] | TE<br>[N] | RL<br>[mm]          |
|---------------|---------------------|--------------|------|---------------------|---------------------|----------------|-------------------------------|---------------|--------------|-----------|---------------------|
| 0,09          | 4                   | 0,7          | 4    | 185,08              | 0,05                | 0,05           | 7                             | 96,6          | 1.434        | 2000      | min 290<br>max 1212 |
|               |                     |              |      | 141,38              | 0,06                | 0,07           | 8                             | 73,8          | 1.095        |           |                     |
|               |                     |              |      | 107,95              | 0,08                | 0,09           | 11                            | 56,3          | 836          |           |                     |
|               |                     |              | 3    | 74,27               | 0,12                | 0,13           | 17                            | 38,8          | 575          |           |                     |
|               |                     |              |      | 56,60               | 0,16                | 0,17           | 23                            | 29,5          | 439          |           |                     |
|               |                     |              |      | 43,07               | 0,21                | 0,23           | 30                            | 22,5          | 334          |           |                     |
|               |                     |              |      | 32,72               | 0,27                | 0,30           | 38                            | 17,1          | 254          |           |                     |
|               |                     |              |      | 28,36               | 0,31                | 0,35           | 44                            | 14,8          | 220          |           |                     |
|               |                     |              |      | 24,56               | 0,36                | 0,40           | 51                            | 12,8          | 190          |           |                     |
|               |                     |              | 2    | 21,25               | 0,42                | 0,46           | 59                            | 11,1          | 165          |           |                     |
|               |                     |              |      | 16,83               | 0,53                | 0,59           | 75                            | 8,8           | 130          |           |                     |
|               |                     |              |      | 12,64               | 0,70                | 0,78           | 99                            | 6,6           | 98           |           |                     |
|               |                     |              |      | 10,88               | 0,82                | 0,91           | 116                           | 5,7           | 84           |           |                     |
|               |                     |              |      | 9,44                | 0,94                | 1,05           | 133                           | 4,9           | 73           |           |                     |
|               |                     |              |      | 1500                | min 285<br>max 1212 |                |                               |               |              |           |                     |
| 0,12          | 4                   | 1,05         | 4    | 185,08              | 0,05                | 0,05           | 7                             | 128,8         | 1.912        | 2000      | min 290<br>max 1212 |
|               |                     |              |      | 141,38              | 0,06                | 0,07           | 8                             | 98,4          | 1.460        |           |                     |
|               |                     |              |      | 107,95              | 0,08                | 0,09           | 11                            | 75,1          | 1.115        |           |                     |
|               |                     |              | 3    | 74,27               | 0,12                | 0,13           | 17                            | 51,7          | 767          |           |                     |
|               |                     |              |      | 56,60               | 0,16                | 0,17           | 23                            | 39,4          | 585          |           |                     |
|               |                     |              |      | 43,07               | 0,21                | 0,23           | 30                            | 30,0          | 445          |           |                     |
|               |                     |              |      | 32,72               | 0,27                | 0,30           | 38                            | 22,8          | 338          |           |                     |
|               |                     |              |      | 28,36               | 0,31                | 0,35           | 44                            | 19,7          | 293          |           |                     |
|               |                     |              |      | 24,56               | 0,36                | 0,40           | 51                            | 17,1          | 254          |           |                     |
|               |                     |              | 2    | 21,25               | 0,42                | 0,46           | 59                            | 14,8          | 220          |           |                     |
|               |                     |              |      | 16,83               | 0,53                | 0,59           | 75                            | 11,7          | 174          |           |                     |
|               |                     |              |      | 12,64               | 0,70                | 0,78           | 99                            | 8,8           | 131          |           |                     |
|               |                     |              |      | 10,88               | 0,82                | 0,91           | 116                           | 7,6           | 112          |           |                     |
|               |                     |              |      | 9,44                | 0,94                | 1,05           | 133                           | 6,6           | 98           |           |                     |
|               |                     |              |      | 8,09                | 1,10                | 1,22           | 156                           | 5,6           | 84           |           |                     |
| 1500          | min 295<br>max 1212 |              |      |                     |                     |                |                               |               |              |           |                     |
| 0,18          | 4                   | 1,6          | 4    | 141,38              | 0,06                | 0,07           | 8                             | 147,6         | 2.191        | 2000      | min 300<br>max 1212 |
|               |                     |              |      | 107,95              | 0,08                | 0,09           | 11                            | 112,7         | 1.673        |           |                     |
|               |                     |              | 3    | 74,27               | 0,12                | 0,13           | 17                            | 77,5          | 1.151        |           |                     |
|               |                     |              |      | 56,60               | 0,16                | 0,17           | 23                            | 59,1          | 877          |           |                     |
|               |                     |              |      | 43,07               | 0,21                | 0,23           | 30                            | 45,0          | 667          |           |                     |
|               |                     |              |      | 32,72               | 0,27                | 0,30           | 38                            | 34,1          | 507          |           |                     |
|               |                     |              |      | 28,36               | 0,31                | 0,35           | 44                            | 29,6          | 439          |           |                     |
|               |                     |              |      | 24,56               | 0,36                | 0,40           | 51                            | 25,6          | 381          |           |                     |
|               |                     |              | 2    | 21,25               | 0,42                | 0,46           | 59                            | 22,2          | 329          |           |                     |
|               |                     |              |      | 16,83               | 0,53                | 0,59           | 75                            | 17,6          | 261          |           |                     |
|               |                     |              |      | 12,64               | 0,70                | 0,78           | 99                            | 13,2          | 196          |           |                     |
|               |                     |              |      | 10,88               | 0,82                | 0,91           | 116                           | 11,4          | 169          |           |                     |
|               |                     |              |      | 9,44                | 0,94                | 1,05           | 133                           | 9,9           | 146          |           |                     |
|               |                     |              |      | 8,09                | 1,10                | 1,22           | 156                           | 8,4           | 125          |           |                     |
|               |                     |              | 1500 | min 315<br>max 1212 |                     |                |                               |               |              |           |                     |

# DRUM MOTOR 138LP

135.0Ø 0.06kW - 0.55kW, with planetary gearbox

in polymer or polymer / steel combination for non-continuous operation

TECHNICAL DATA DRUM MOTOR 138LP - 1PHASE - 50HZ - STANDARD RANGE

| $P_N$<br>[kW] | np<br>(rpm) | $I_f$<br>[A] | gs   | i      | $V_A$<br>[m/s] | $V_N$<br>[m/s] | $n_A$<br>[min <sup>-1</sup> ] | $M_N$<br>[Nm] | $F_T$<br>[N] | TE<br>[N] | RL<br>[mm]          |
|---------------|-------------|--------------|------|--------|----------------|----------------|-------------------------------|---------------|--------------|-----------|---------------------|
| 0,25          | 4           | 2,1          | 4    | 107,95 | 0,08           | 0,09           | 11                            | 156,5         | 2.323        | 2000      | min 315<br>max 1212 |
|               |             |              | 3    | 74,27  | 0,12           | 0,13           | 17                            | 107,7         | 1.598        |           |                     |
|               |             |              | 3    | 56,60  | 0,16           | 0,17           | 23                            | 82,0          | 1.218        |           |                     |
|               |             |              | 3    | 43,07  | 0,21           | 0,23           | 30                            | 62,4          | 927          |           |                     |
|               |             |              | 3    | 32,72  | 0,27           | 0,30           | 38                            | 47,4          | 704          |           |                     |
|               |             |              | 3    | 28,36  | 0,31           | 0,35           | 44                            | 41,1          | 610          |           |                     |
|               |             |              | 3    | 24,56  | 0,36           | 0,40           | 51                            | 35,6          | 529          |           |                     |
|               |             |              | 3    | 21,25  | 0,42           | 0,46           | 59                            | 30,8          | 457          |           |                     |
|               |             |              | 2    | 16,83  | 0,53           | 0,59           | 75                            | 24,4          | 362          |           |                     |
|               |             |              | 2    | 12,64  | 0,70           | 0,78           | 99                            | 18,3          | 272          |           |                     |
|               |             |              | 2    | 10,88  | 0,82           | 0,91           | 116                           | 15,8          | 234          |           |                     |
|               |             |              | 2    | 9,44   | 0,94           | 1,05           | 133                           | 13,7          | 203          |           |                     |
|               |             |              | 2    | 8,09   | 1,10           | 1,22           | 156                           | 11,7          | 174          |           |                     |
|               |             |              | 0,37 | 4      | 2,6            | 3              | 74,27                         | 0,12          | 0,13         | 17        | 159,3               |
| 3             | 56,60       | 0,16         |      |        |                | 0,17           | 23                            | 121,4         | 1.803        |           |                     |
| 3             | 43,07       | 0,21         |      |        |                | 0,23           | 30                            | 92,4          | 1.372        |           |                     |
| 3             | 32,72       | 0,27         |      |        |                | 0,30           | 38                            | 70,2          | 1.042        |           |                     |
| 3             | 28,36       | 0,31         |      |        |                | 0,35           | 44                            | 60,8          | 903          |           |                     |
| 3             | 24,56       | 0,36         |      |        |                | 0,40           | 51                            | 52,7          | 782          |           |                     |
| 3             | 21,25       | 0,42         |      |        |                | 0,46           | 59                            | 45,6          | 677          |           |                     |
| 2             | 16,83       | 0,53         |      |        |                | 0,59           | 75                            | 36,1          | 536          |           |                     |
| 2             | 12,64       | 0,70         |      |        |                | 0,78           | 99                            | 27,1          | 403          |           |                     |
| 2             | 10,88       | 0,82         |      |        |                | 0,91           | 116                           | 23,3          | 347          |           |                     |
| 2             | 9,44        | 0,94         |      |        |                | 1,05           | 133                           | 20,3          | 301          |           |                     |
| 2             | 8,09        | 1,10         |      |        |                | 1,22           | 156                           | 17,4          | 258          |           |                     |
| 2             | 8,09        | 1,10         |      |        |                | 1,22           | 156                           | 17,4          | 258          |           |                     |
| 0,5           | 4           | 3,6          |      |        |                | 3              | 56,60                         | 0,16          | 0,17         | 23        | 164,1               |
|               |             |              | 3    | 43,07  | 0,21           | 0,23           | 30                            | 124,9         | 1.854        |           |                     |
|               |             |              | 3    | 32,72  | 0,27           | 0,30           | 38                            | 94,9          | 1.408        |           |                     |
|               |             |              | 3    | 28,36  | 0,31           | 0,35           | 44                            | 82,2          | 1.221        |           |                     |
|               |             |              | 3    | 24,56  | 0,36           | 0,40           | 51                            | 71,2          | 1.057        |           |                     |
|               |             |              | 3    | 21,25  | 0,42           | 0,46           | 59                            | 61,6          | 915          |           |                     |
|               |             |              | 2    | 16,83  | 0,53           | 0,59           | 75                            | 48,8          | 724          |           |                     |
|               |             |              | 2    | 12,64  | 0,70           | 0,78           | 99                            | 36,6          | 544          |           |                     |
|               |             |              | 2    | 10,88  | 0,82           | 0,91           | 116                           | 31,5          | 468          |           |                     |
|               |             |              | 2    | 9,44   | 0,94           | 1,05           | 133                           | 27,4          | 406          |           |                     |
|               |             |              | 2    | 8,09   | 1,10           | 1,22           | 156                           | 23,5          | 348          |           |                     |
|               |             |              | 2    | 8,09   | 1,10           | 1,22           | 156                           | 23,5          | 348          |           |                     |

$P_N$  Nominal mechanical power

np Number of poles

rpm Actual rotor rpm at full load

$I_f$  Amperage (230/400V) at full load

gs Gear stages

i Gear ratio

$V_A$  Theoretical actual belt (tangential) speed at full load\*

$V_N$  Nominal belt (tangential) speed

$n_A$  Revolutions of shell at full load\*

$M_N$  Nominal Torque at full load

$F_T$  Belt pull (tangential force) on shell at full load\*

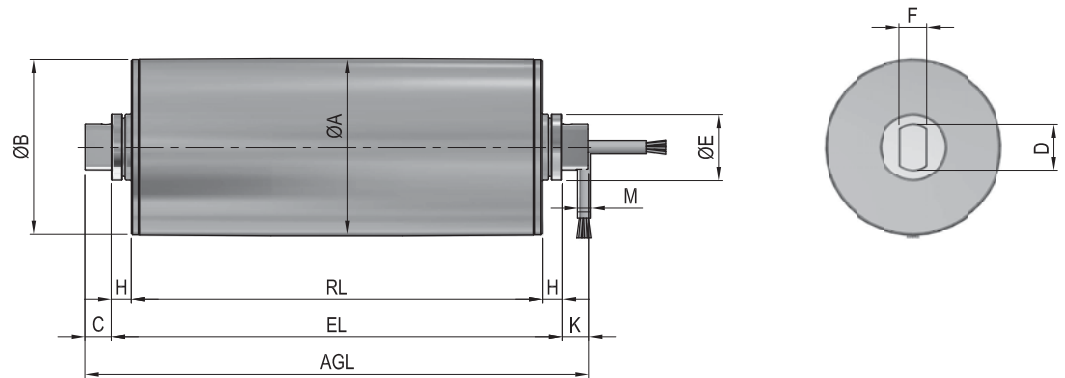
TE Maximum allowable belt tension (radial load)

RL Reference length

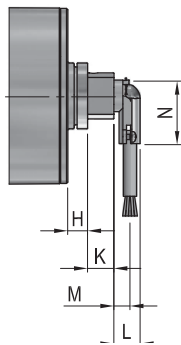
\* Valid for unlagged shells/ values can deviate at partly or no load conditions

## DRUM MOTOR 138LP

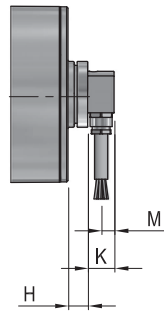
135.0Ø 0.06kW - 0.55kW, with planetary gearbox  
in polymer or polymer / steel combination for non-continuous operation



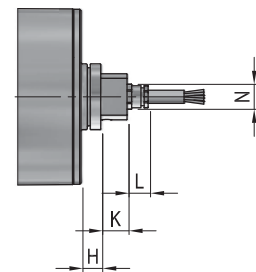
Drum motor Standard Version



Elbow connector in aluminium



Cable connection 90°



Straight connector

## DRUM MOTOR 138LP

135.0Ø 0.06kW - 0.55kW, with planetary gearbox

in polymer or polymer / steel combination for non-continuous operation

| Type/Option                         | A<br>mm | B<br>mm | C<br>mm | D<br>mm | E<br>mm | F<br>mm | G<br>mm | H<br>mm | K<br>mm | L<br>mm | M<br>mm | N<br>mm | Q<br>mm | T<br>mm |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Drum Motor Standard EL=11 Version   | 134,7   | 133,5   | 20      | 35      | 50      | 21      |         | 15      | 20      |         | 8       |         |         |         |
| Drum Motor Alternative EL=6 Version |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Elbow connector in aluminium        |         |         |         |         |         |         |         |         | 20      | 18      | 12      | 48      |         |         |
| Cable connection 90°                |         |         |         |         |         |         |         |         | 20      |         | 10      |         |         |         |
| Straight Connector                  |         |         |         |         |         |         |         |         | 20      | 15      |         | 20      |         |         |

Average weights for drum motor & idler type 138LP

| RL [mm]    | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750  | 800  | +50mm up to    | 1200 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|----------------|------|
| all motors | 6.8 | 7.2 | 7.5 | 7.9 | 8.2 | 8.6 | 8.9 | 9.3 | 9.6 | 11.0 | 11.4 | +0.45 kg up to | 14.9 |
| idler 80LP | 2.0 | 2.4 | 2.8 | 3.2 | 3.6 | 4.0 | 4.4 | 4.8 | 5.2 | 5.6  | 6.0  | +0.35 kg up to | 8.8  |

- Weights are orientative due to different shell executions and motor powers