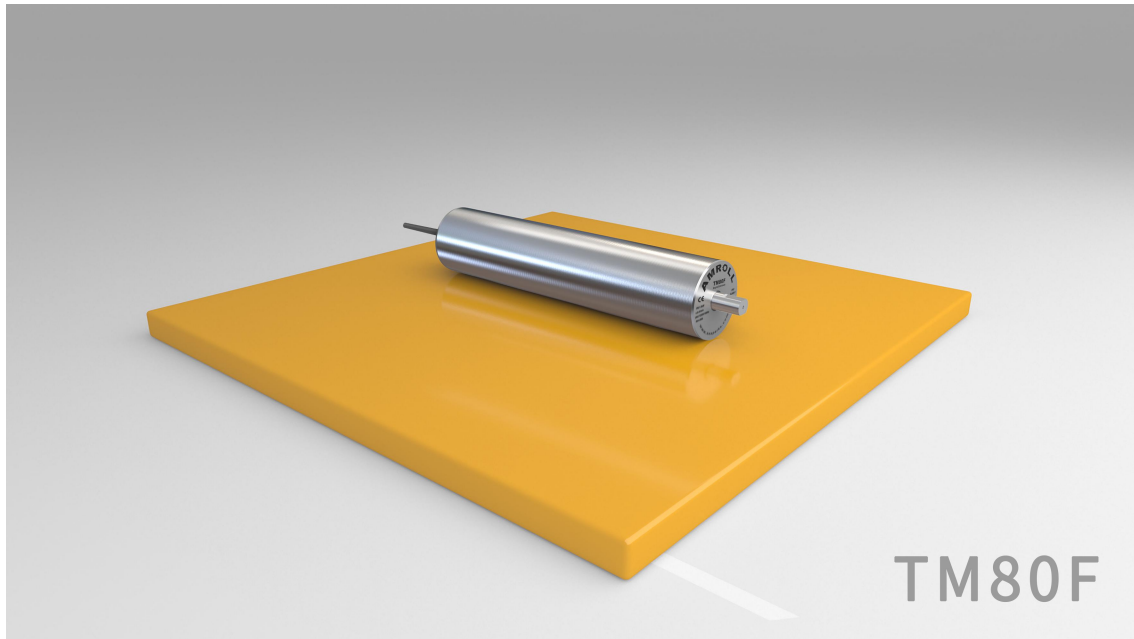




## AMROLL DRUM MOTOR--TM80F

TM80F asynchronous oil immersed drum motor, The design is based on the space limitation requirement of conveying equipment and the high efficiency application of transmission system. All stainless steel material can meet the strict requirements of sanitary and humid environment. This kind of drum motor is typically used in:

- Food processing conveyor
- Pharmaceutical packaging
- Belt conveyors

## TM80F drum motors have the following characters:

### Drum motor shell

- Stainless steel crowned shell treated with anti-rust oil
- The standard shell is coronal and the surface is machined with non-slip threads

### Gear transmission

- Gears machined and honed to AGMA/DIN 6 standards to ensure low noise

### Motor

- Common global voltages at 50 Hz or 60 Hz
- AC asynchronous motor
- Motor windings insulation class F
- All motors with thermal protection
- Oil cooled electrical motor
- Cable length minimum 1.2 meters outside shaft

### Sealing system

- Double shaft sealing system
- Sealing system-degree of protection IP 66/67

### Oil

- Pre lubricated with oil
- Oil change recommended every 50,000 hours of operation

### Other items

- Electromagnetic brakes are optional,but the length of the shell will be lengthened accordingly
- Belt speed and face width (L) on request
- International authority CE and UL safety certification
- Non-standard drum motors are available on request.

### AMROLL Drum Motor TM80F-1\*230V/50Hz

| Power [kW/hp]   | No.of poles | Gear stages | Gear ratio | Nominal belt speed [m/s] | Full load torque [Nm] | Full load belt pull [N] | Full load current [A] | Min. face width (L) [mm] | Min.L Weight [kg] |
|-----------------|-------------|-------------|------------|--------------------------|-----------------------|-------------------------|-----------------------|--------------------------|-------------------|
| 0.034/<br>0.045 | 4           | 3           | 74.79      | 0.08                     | 16.41                 | 400                     | 0.48                  | 320                      | 6                 |
|                 |             |             | 55.11      | 0.10                     | 13.11                 | 320                     |                       |                          |                   |
|                 |             |             | 37.89      | 0.15                     | 8.73                  | 214                     |                       |                          |                   |
|                 |             | 2           | 28.95      | 0.20                     | 6.55                  | 160                     |                       |                          |                   |
|                 |             |             | 21.33      | 0.27                     | 4.85                  | 118                     |                       |                          |                   |
|                 |             |             | 14.67      | 0.40                     | 3.28                  | 80                      |                       |                          |                   |
|                 |             |             | 11.81      | 0.50                     | 2.62                  | 64                      |                       |                          |                   |
| 0.06/0.08       | 2           | 3           | 74.79      | 0.15                     | 15.42                 | 391                     | 0.57                  | 320                      | 5                 |
|                 |             |             | 55.11      | 0.20                     | 11.01                 | 269                     |                       |                          |                   |
|                 |             |             | 37.89      | 0.30                     | 7.71                  | 188                     |                       |                          |                   |
|                 |             | 2           | 28.95      | 0.39                     | 5.91                  | 142                     |                       |                          |                   |
|                 |             |             | 21.33      | 0.52                     | 4.37                  | 104                     |                       |                          |                   |
|                 |             |             | 14.67      | 0.76                     | 2.95                  | 71                      |                       |                          |                   |
|                 |             |             | 11.81      | 0.95                     | 2.36                  | 56                      |                       |                          |                   |
| 0.085/<br>0.115 | 2           | 3           | 74.79      | 0.16                     | 19.28                 | 489                     | 0.66                  | 350                      | 6                 |
|                 |             |             | 55.11      | 0.22                     | 13.77                 | 336                     |                       |                          |                   |
|                 |             |             | 37.89      | 0.32                     | 9.63                  | 236                     |                       |                          |                   |
|                 |             | 2           | 28.95      | 0.41                     | 7.38                  | 177                     |                       |                          |                   |
|                 |             |             | 21.33      | 0.56                     | 5.46                  | 131                     |                       |                          |                   |
|                 |             |             | 14.67      | 0.81                     | 3.69                  | 89                      |                       |                          |                   |
|                 |             |             | 11.81      | 1.01                     | 2.96                  | 71                      |                       |                          |                   |
| 0.11/0.15       | 2           | 3           | 55.11      | 0.22                     | 22.02                 | 538                     | 0.99                  | 350                      | 6                 |
|                 |             |             | 37.89      | 0.32                     | 15.42                 | 376                     |                       |                          |                   |
|                 |             | 2           | 28.95      | 0.42                     | 11.82                 | 284                     |                       |                          |                   |
|                 |             |             | 21.33      | 0.56                     | 8.74                  | 208                     |                       |                          |                   |
|                 |             |             | 14.67      | 0.82                     | 5.90                  | 142                     |                       |                          |                   |
|                 |             |             | 11.81      | 1.02                     | 4.72                  | 112                     |                       |                          |                   |
|                 |             |             |            |                          |                       |                         |                       |                          |                   |

At the min. face width (L), the total weight of a drum motor grows approx.1.2 kg per 100 mm.

### AMROLL Drum Motor TM80F-3 \*400V/50Hz

| Power [kW/hp] | No. of poles | Gear stages | Gear ratio | Nominal belt speed [m/s] | Full load torque [Nm] | Full load belt pull [N] | Full load current [A] | Min. face width (L) [mm] | Min.L Weight [kg] |
|---------------|--------------|-------------|------------|--------------------------|-----------------------|-------------------------|-----------------------|--------------------------|-------------------|
| 0.04/0.05     | 4            | 3           | 74.79      | 0.08                     | 18.00                 | 450                     | 0.43                  | 310                      | 6                 |
|               |              |             | 55.11      | 0.10                     | 14.40                 | 360                     |                       |                          |                   |
|               |              |             | 37.89      | 0.15                     | 9.60                  | 240                     |                       |                          |                   |
| 0.06/0.08     | 2            | 3           | 74.79      | 0.15                     | 19.28                 | 489                     | 0.30                  | 310                      | 5                 |
|               |              |             | 55.11      | 0.20                     | 13.77                 | 336                     |                       |                          |                   |
|               |              |             | 37.89      | 0.30                     | 9.63                  | 236                     |                       |                          |                   |
|               |              | 2           | 28.95      | 0.39                     | 7.38                  | 177                     |                       |                          |                   |
|               |              |             | 21.33      | 0.52                     | 5.46                  | 131                     |                       |                          |                   |
|               |              |             | 14.67      | 0.76                     | 3.69                  | 89                      |                       |                          |                   |
|               |              |             | 11.81      | 0.95                     | 2.96                  | 71                      |                       |                          |                   |
|               | 4            | 3           | 55.11      | 0.10                     | 28.91                 | 705                     | 0.36                  | 320                      | 6                 |
|               |              |             | 37.89      | 0.15                     | 19.27                 | 470                     |                       |                          |                   |
| 0.09/0.12     | 2            | 3           | 74.79      | 0.16                     | 23.13                 | 587                     | 0.43                  | 350                      | 6                 |
|               |              |             | 55.11      | 0.22                     | 16.52                 | 403                     |                       |                          |                   |
|               |              |             | 37.89      | 0.32                     | 11.56                 | 283                     |                       |                          |                   |
|               |              | 2           | 28.95      | 0.41                     | 8.86                  | 212                     |                       |                          |                   |
|               |              |             | 21.33      | 0.56                     | 6.55                  | 157                     |                       |                          |                   |
|               |              |             | 14.67      | 0.82                     | 4.43                  | 106                     |                       |                          |                   |
|               |              |             | 11.81      | 1.01                     | 3.55                  | 85                      |                       |                          |                   |
| 0.12/0.16     | 2            | 3           | 55.11      | 0.22                     | 22.02                 | 538                     | 0.53                  | 350                      | 6                 |
|               |              |             | 37.89      | 0.32                     | 15.42                 | 376                     |                       |                          |                   |
|               |              | 2           | 28.95      | 0.42                     | 11.82                 | 284                     |                       |                          |                   |
|               |              |             | 21.33      | 0.56                     | 8.74                  | 208                     |                       |                          |                   |
|               |              |             | 14.67      | 0.82                     | 5.90                  | 142                     |                       |                          |                   |
|               |              |             | 11.81      | 1.02                     | 4.72                  | 112                     |                       |                          |                   |
|               |              |             |            |                          |                       |                         |                       |                          |                   |

At the min. face width (L), the total weight of a drum motor grows approx.1.2 kg per 100 mm.

## TM80F optional list-drum motor/idler pulley

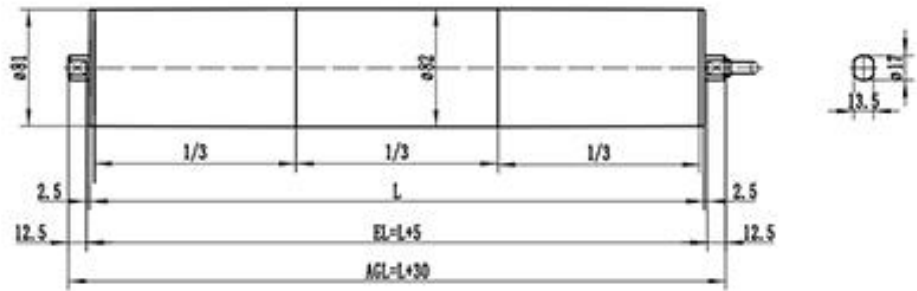
| Specifications                             | Drum motor | Idler pulley |
|--------------------------------------------|------------|--------------|
| <b>Shell</b>                               |            |              |
| Stainless steel(std. 304) crowned          | 1          | 1            |
| Stainless steel(std. 304) cylindrical      | 2          | 2            |
| Stainless steel(std. 304) cylindrical+ key | 2          | 2            |
| <b>End housing (front &amp; rear)</b>      |            |              |
| Cast stainless steel(std. 304)             | 1          | 1            |
| <b>Shaft (front &amp; rear)</b>            |            |              |
| Stainless steel(std. 304)                  | 1          | 1            |
| <b>Electrical motors</b>                   |            |              |
| 1 or 3-phase asynchronous motor            | 1          |              |
| Voltage 1*230V/50Hz or 3*400v/50Hz         | 1          |              |
| Most common global voltages at 50 or 60 Hz | 1          |              |
| Thermal protection                         | 1          |              |
| <b>Lubricating oil</b>                     |            |              |
| Food grade oil (FDA and USDA)              | 2          |              |
| <b>Electrical connection</b>               |            |              |
| Straight cable connector                   | 1          |              |
| Elbow stainless steel cable connector      | 2          |              |
| Oil resistant PVC cable                    | 1          |              |
| LS halogen-free cable                      | 2          |              |
| <b>Other options</b>                       |            |              |
| Mechanical backstop                        | 2          |              |
| Operation with VFD                         | 2          |              |

Note:

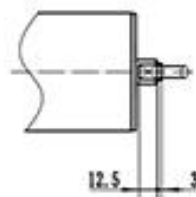
1-fitted as standard 2-optional extras

## Standard Dimension

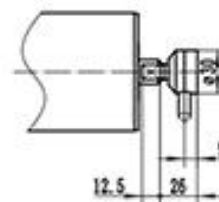
## TM80F Drum motor



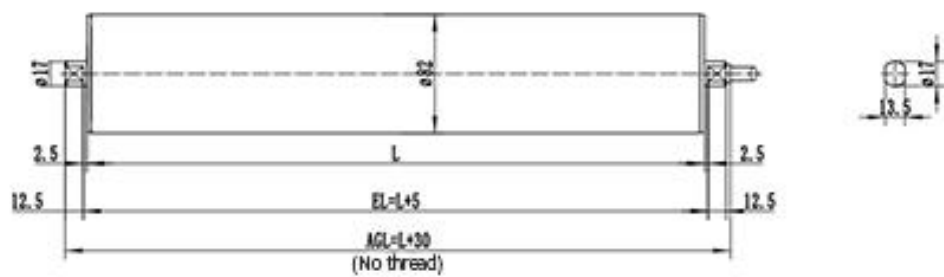
Straight cable connector

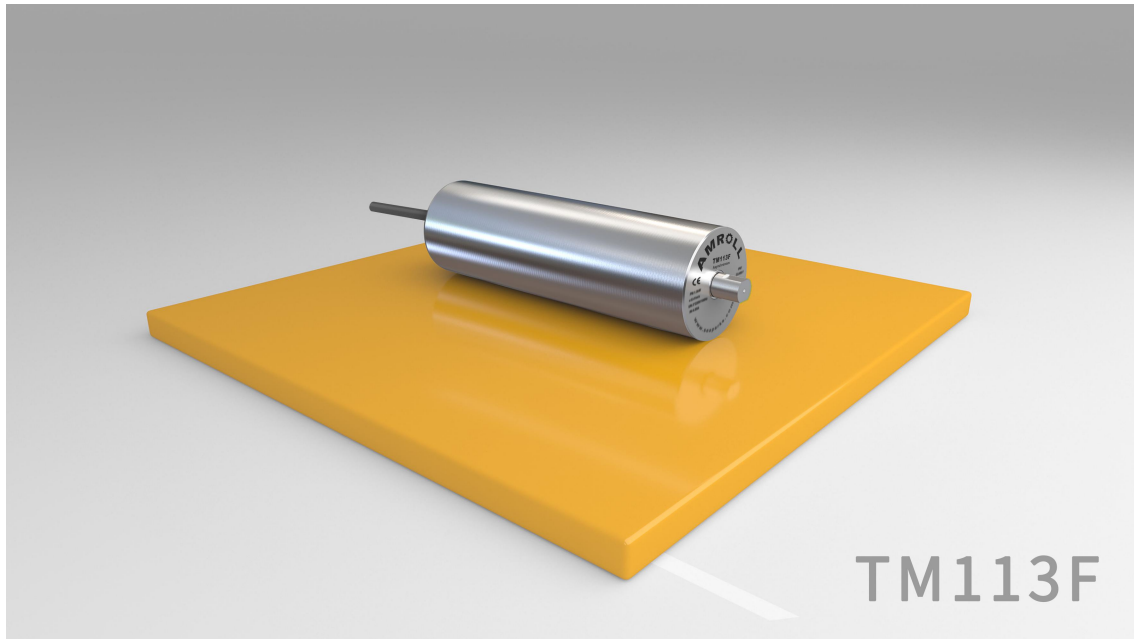


Elbow stainless steel cable connector



TM80F Idler roller





## AMROLL DRUM MOTOR--TM113F

TM113F asynchronous oil immersed drum motor, all stainless steel material can meet the strict requirements of sanitary and humid environment. This product meets the requirements of high power operation and low noise in the limited transmission system space. This kind of drum motor is typically used in:

- Food processing conveyor
- Pharmaceutical packaging
- Belt conveyors

## TM113F drum motors have the following characters:

### Drum motor shell

- Stainless steel crowned shell treated with anti-rust oil
- The standard shell is coronal and the surface is machined with non-slip threads

### Gear transmission

- Gears machined and honed to AGMA/DIN 6 standards to ensure low noise

### Motor

- Common global voltages at 50 Hz or 60 Hz
- AC asynchronous motor
- Motor windings insulation class F
- All motors with thermal protection
- Oil cooled electrical motor
- Cable length minimum 1.2 meters outside shaft

### Sealing system

- Double shaft sealing system
- Sealing system-degree of protection IP 66/67

### Oil

- Pre lubricated with oil
- Oil change recommended every 50,000 hours of operation

### Other items

- Electromagnetic brakes are optional, but the length of the shell will be lengthened accordingly
- Belt speed and face width (L) on request
- International authority CE and UL safety certification
- Non-standard drum motors are available on request.

### AMROLL Drum Motor TM113F-1\*230V/50Hz

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
| 0.12/0.16        | 4              | 3              | 60.66         | 0.15                           | 49.04                       | 868                           | 0.84                        | 340                            | 13                      |
|                  |                |                | 49.36         | 0.18                           | 39.83                       | 705                           |                             |                                |                         |
|                  |                |                | 41.07         | 0.21                           | 35.41                       | 627                           |                             |                                |                         |
|                  |                |                | 37.70         | 0.23                           | 31.87                       | 564                           |                             |                                |                         |
|                  |                |                | 31.59         | 0.27                           | 25.49                       | 451                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.34                           | 21.24                       | 376                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.40                           | 17.68                       | 313                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.44                           | 15.93                       | 282                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 0.55                           | 12.88                       | 230                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.65                           | 10.85                       | 192                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.71                           | 10.34                       | 183                           |                             |                                |                         |
|                  | 6              | 3              | 60.66         | 0.08                           | 79.67                       | 1410                          | 1.00                        | 340                            | 15                      |
|                  |                |                | 49.36         | 0.10                           | 63.73                       | 1128                          |                             |                                |                         |
| 0.15/0.20        | 4              | 3              | 60.66         | 0.14                           | 61.30                       | 1085                          | 1.24                        | 340                            | 13                      |
|                  |                |                | 49.36         | 0.17                           | 49.78                       | 881                           |                             |                                |                         |
|                  |                |                | 41.07         | 0.21                           | 44.24                       | 783                           |                             |                                |                         |
|                  |                |                | 37.70         | 0.22                           | 39.83                       | 705                           |                             |                                |                         |
|                  |                |                | 31.59         | 0.26                           | 31.87                       | 564                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.33                           | 26.56                       | 470                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.39                           | 22.15                       | 392                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.43                           | 19.94                       | 353                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 0.54                           | 16.27                       | 288                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.64                           | 13.56                       | 240                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.70                           | 12.94                       | 229                           |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
| 0.18/0.24        | 4              | 3              | 60.66         | 0.14                           | 73.56                       | 1302                          | 1.40                        | 355                            | 14                      |
|                  |                |                | 49.36         | 0.17                           | 59.78                       | 1058                          |                             |                                |                         |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
|                  |                |                | 41.07         | 0.21                           | 53.11                       | 940                           |                             |                                |                         |
|                  |                |                | 37.70         | 0.22                           | 47.80                       | 846                           |                             |                                |                         |
|                  |                |                | 31.59         | 0.26                           | 38.25                       | 677                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.33                           | 31.87                       | 564                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.39                           | 26.56                       | 470                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.43                           | 23.90                       | 423                           |                             |                                |                         |
|                  |                |                | 15.71         | 0.54                           | 19.49                       | 345                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.64                           | 16.27                       | 288                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.70                           | 15.48                       | 274                           |                             |                                |                         |
|                  |                |                | 49.36         | 0.17                           | 76.33                       | 1351                          |                             |                                |                         |
|                  |                |                | 41.07         | 0.20                           | 67.86                       | 1201                          |                             |                                |                         |
|                  |                |                | 37.70         | 0.22                           | 61.08                       | 1081                          |                             |                                |                         |
|                  |                |                | 31.59         | 0.26                           | 48.87                       | 865                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.32                           | 40.74                       | 721                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.38                           | 33.96                       | 601                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.42                           | 30.57                       | 541                           |                             |                                |                         |
|                  |                |                | 15.71         | 0.53                           | 24.97                       | 442                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.63                           | 20.79                       | 368                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.68                           | 19.78                       | 350                           |                             |                                |                         |
| 0.23/0.31        | 4              | 3              |               |                                |                             |                               | 1.67                        | 370                            | 15                      |
|                  |                | 2              |               |                                |                             |                               |                             |                                |                         |

At the min. face width (L), the total weight of a drum motor grows approx.2kg per 100 mm.

### AMROLL Drum Motor TM113F-3 \*400V/50Hz

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
| 0.12/0.16        | 4              | 3              | 60.66         | 0.14                           | 49.04                       | 868                           | 0.42                        | 340                            | 10                      |
|                  |                |                | 49.36         | 0.17                           | 39.83                       | 705                           |                             |                                |                         |
|                  |                |                | 41.07         | 0.20                           | 35.41                       | 627                           |                             |                                |                         |
|                  |                |                | 37.70         | 0.22                           | 31.87                       | 564                           |                             |                                |                         |
|                  |                |                | 31.59         | 0.27                           | 25.49                       | 451                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.33                           | 21.24                       | 376                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.39                           | 17.68                       | 313                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.43                           | 15.93                       | 282                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 0.54                           | 12.88                       | 230                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.64                           | 10.85                       | 192                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.70                           | 10.34                       | 183                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.70                           | 10.34                       | 183                           |                             |                                |                         |
|                  | 6              | 3              | 60.66         | 0.09                           | 79.67                       | 1410                          | 0.67                        | 340                            | 13                      |
|                  |                |                | 49.36         | 0.11                           | 63.73                       | 1128                          |                             |                                |                         |
| 0.15/0.20        | 4              | 3              | 60.66         | 0.14                           | 61.30                       | 1085                          | 0.47                        | 340                            | 13                      |
|                  |                |                | 49.36         | 0.17                           | 49.78                       | 881                           |                             |                                |                         |
|                  |                |                | 41.07         | 0.20                           | 44.24                       | 783                           |                             |                                |                         |
|                  |                |                | 37.70         | 0.22                           | 39.83                       | 705                           |                             |                                |                         |
|                  |                |                | 31.59         | 0.26                           | 31.87                       | 564                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.32                           | 26.56                       | 470                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.39                           | 22.15                       | 392                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.42                           | 19.94                       | 353                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 0.53                           | 16.27                       | 288                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.64                           | 13.56                       | 240                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.69                           | 12.94                       | 229                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.69                           | 12.94                       | 229                           |                             |                                |                         |
|                  | 6              | 3              | 49.36         | 0.11                           | 79.67                       | 1410                          | 0.82                        | 340                            | 15                      |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
| 0.18/0.24        | 4              | 3              | 60.66         | 0.14                           | 73.56                       | 1302                          | 0.57                        | 340                            | 13                      |
|                  |                |                | 49.36         | 0.17                           | 59.78                       | 1058                          |                             |                                |                         |
|                  |                |                | 41.07         | 0.20                           | 53.11                       | 940                           |                             |                                |                         |
|                  |                |                | 37.70         | 0.22                           | 47.80                       | 846                           |                             |                                |                         |
|                  |                |                | 31.59         | 0.26                           | 38.25                       | 677                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.32                           | 31.87                       | 564                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.39                           | 26.56                       | 470                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.42                           | 23.90                       | 423                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 0.53                           | 19.49                       | 345                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.64                           | 16.27                       | 288                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.69                           | 15.48                       | 274                           |                             |                                |                         |
| 0.25/0.34        | 4              | 3              | 49.36         | 0.16                           | 82.99                       | 1469                          | 0.84                        | 355                            | 15                      |
|                  |                |                | 41.07         | 0.20                           | 73.73                       | 1305                          |                             |                                |                         |
|                  |                |                | 37.70         | 0.22                           | 66.39                       | 1175                          |                             |                                |                         |
|                  |                |                | 31.59         | 0.26                           | 53.11                       | 940                           |                             |                                |                         |
|                  |                |                | 25.70         | 0.32                           | 44.29                       | 784                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.38                           | 36.89                       | 653                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.42                           | 33.22                       | 588                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 0.52                           | 27.12                       | 480                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.62                           | 22.60                       | 400                           |                             |                                |                         |
|                  |                |                | 12.00         | 0.68                           | 21.47                       | 380                           |                             |                                |                         |
| 0.37/0.50        | 4              | 3              | 31.59         | 0.26                           | 78.60                       | 1391                          | 1.13                        | 370                            | 15                      |
|                  |                |                | 25.70         | 0.32                           | 65.50                       | 1159                          |                             |                                |                         |
|                  |                |                | 21.38         | 0.38                           | 54.59                       | 966                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.42                           | 49.13                       | 870                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 0.52                           | 40.14                       | 710                           |                             |                                |                         |
|                  |                |                | 13.07         | 0.62                           | 33.45                       | 592                           |                             |                                |                         |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
|                  |                |                | 12.00         | 0.68                           | 31.86                       | 564                           |                             |                                |                         |
| 0.55/0.75        | 2              | 3              | 41.07         | 0.40                           | 81.14                       | 1436                          | 1.24                        | 370                            | 15                      |
|                  |                |                | 38.50         | 0.44                           | 73.03                       | 1293                          |                             |                                |                         |
|                  |                |                | 31.59         | 0.53                           | 59.66                       | 1056                          |                             |                                |                         |
|                  |                |                | 25.70         | 0.65                           | 49.72                       | 880                           |                             |                                |                         |
|                  |                |                | 21.38         | 0.79                           | 40.57                       | 718                           |                             |                                |                         |
|                  |                |                | 19.63         | 0.85                           | 36.51                       | 646                           |                             |                                |                         |
|                  |                | 2              | 15.71         | 1.10                           | 29.83                       | 528                           |                             |                                |                         |
|                  |                |                | 13.07         | 1.30                           | 24.86                       | 440                           |                             |                                |                         |
|                  |                |                | 12.00         | 1.40                           | 23.68                       | 419                           |                             |                                |                         |

At the min. face width (L), the total weight of a drum motor grows approx.2 kg per 100 mm.

## TM113F optional list-drum motor/idler pulley

| Specifications                                | Drum motor | Idler pulley |
|-----------------------------------------------|------------|--------------|
| <b>Shell</b>                                  |            |              |
| Stainless steel(std. 304) crowned             | 1          | 1            |
| Stainless steel(std. 304) cylindrical         | 2          | 2            |
| Stainless steel(std. 304) cylindrical+ key    | 2          | 2            |
| <b>End housing (front &amp; rear)</b>         |            |              |
| Cast stainless steel(std. 304)                | 1          | 1            |
| <b>Shaft (front &amp; rear)</b>               |            |              |
| Stainless steel(std. 304)                     | 1          | 1            |
| <b>Rubber lagging</b>                         |            |              |
| Hot vulcanized black smooth rubber lagging    | 2          | 2            |
| White and blue rubber lagging in food quality | 2          | 2            |
| Urethane lagging                              | 2          | 2            |
| Sprockets for modular belting                 | 2          | 2            |
| V-grooves in the rubber lagging               | 3          | 3            |
| <b>Electrical motors</b>                      |            |              |
| 1 or 3-phase asynchronous motor               | 1          |              |
| Voltage 1*230V/50Hz or 3*400v/50Hz            | 1          |              |
| Dual voltage motor                            | 2          |              |
| Most common global voltages at 50 or 60 Hz    | 1          |              |
| Thermal protection                            | 1          |              |
| <b>Lubricating oil</b>                        |            |              |
| Food grade oil (FDA and USDA)                 | 2          |              |
| <b>Electrical connection</b>                  |            |              |
| Straight cable connector                      | 1          |              |
| Elbow stainless steel cable connector         | 2          |              |
| Terminal box connector                        | 3          |              |
| Oil resistant PVC cable                       | 1          |              |
| LS halogen-free cable                         | 2          |              |
| Screened cable (for VFD and brakes)           | 3          |              |
| <b>Other options</b>                          |            |              |
| Mechanical backstop                           | 2          |              |
| Electromagnetic brake                         | 2          |              |

| Specifications                           | Drum motor | Idler pulley |
|------------------------------------------|------------|--------------|
| Modified for vertical or angled mounting | 3          |              |
| Operation with VFD                       | 2          |              |

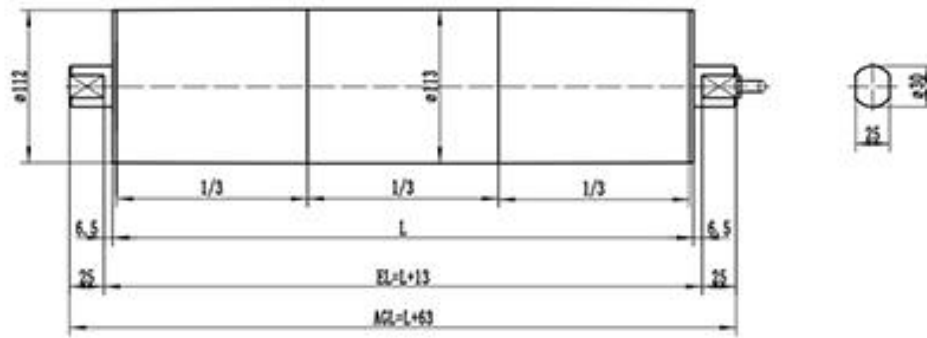
Note:

1-fitted as standard 2-optional extras

3-available as limited option but need to confirm with manufacturer

## Standard Dimension

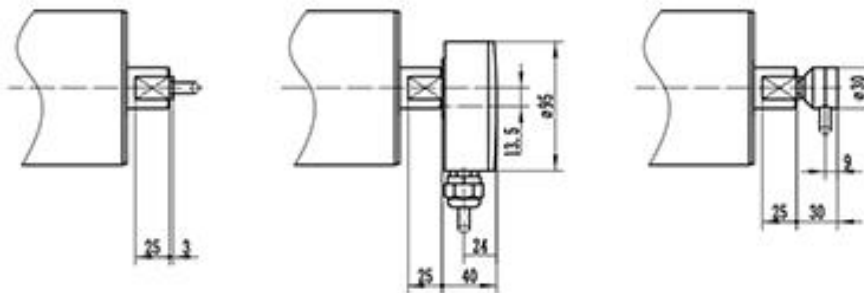
### TM113F Drum motor



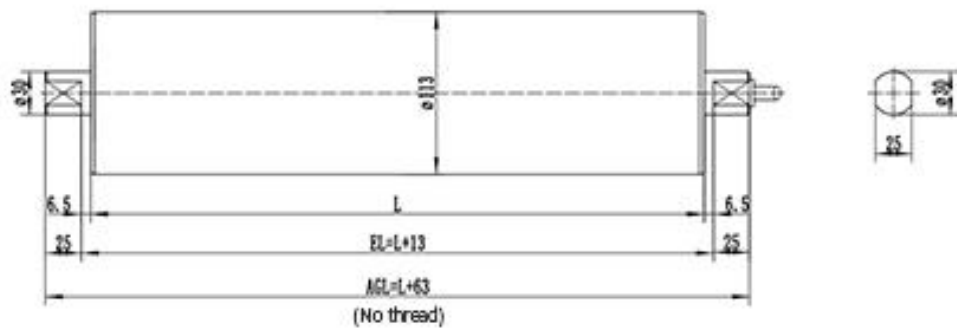
Straight cable connector

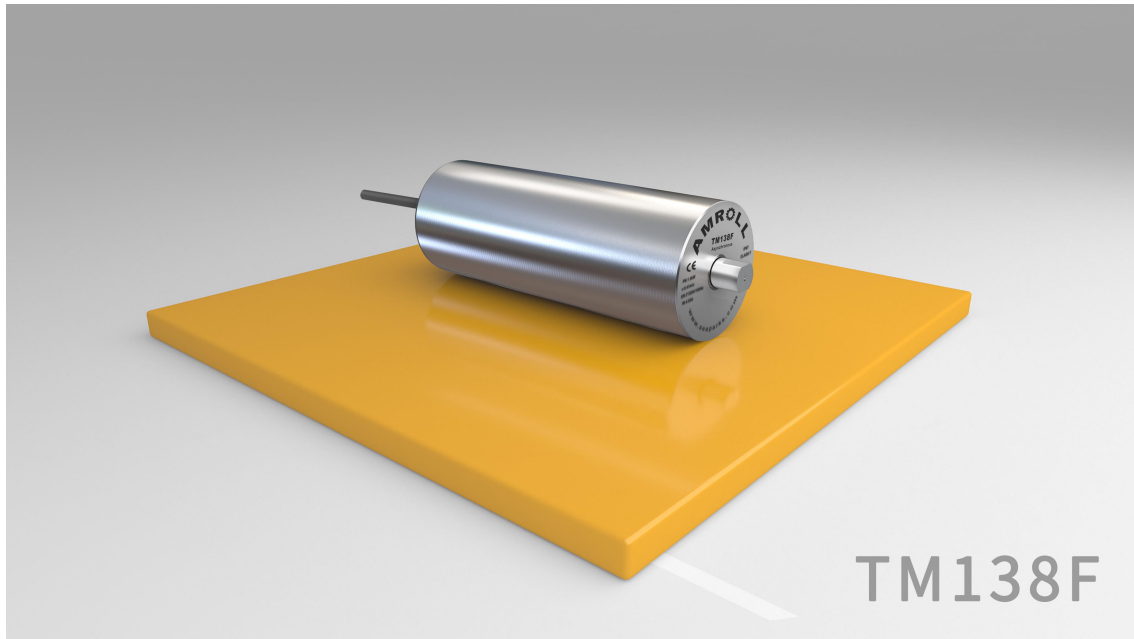
Terminal box connector

Elbow stainless steel cable connector



### TM113F Idler roller





## AMROLL DRUM MOTOR--TM138F

TM138F asynchronous oil immersed drum motor, the effective power of the motor is up to 1.10kW. All stainless steel material can meet the strict requirements of sanitary and humid environment. This kind of drum motor is typically used in:

- Medium load belt conveyor
- Meat processing conveyor
- Food processing conveyor
- Packaging machine
- Belt sorting conveyor
- Assembly line
- Belt conveyor for agricultural products
- Warehousing and vehicle loading

## TM138F drum motors have the following characters:

### Drum motor shell

- Stainless steel crowned shell treated with anti-rust oil
- The standard shell is coronal and the surface is machined with non-slip threads

### Gear transmission

- Gears machined and honed to AGMA/DIN 6 standards to ensure low noise

### Motor

- Common global voltages at 50 Hz or 60 Hz
- AC asynchronous motor
- Motor windings insulation class F
- All motors with thermal protection
- Oil cooled electrical motor
- Cable length minimum 1.2 meters outside shaft

### Sealing system

- Double shaft sealing system
- Sealing system-degree of protection IP 66/67

### Oil

- Pre lubricated with oil
- Oil change recommended every 50,000 hours of operation

### Other items

- Electromagnetic brakes are optional,but the length of the shell will be lengthened accordingly
- Belt speed and face width (L) on request
- International authority CE and UL safety certification
- Non-standard drum motors are available on request.

### AMROLL Drum Motor TM138F-3 \*400V/50Hz

| Power [kW/hp] | No.of poles | Gear stages | Gear ratio | Nominal belt speed [m/s] | Full load torque [Nm] | Full load belt pull [N] | Full load current [A] | Min. face width (L) [mm] | Min.L Weight [kg] |
|---------------|-------------|-------------|------------|--------------------------|-----------------------|-------------------------|-----------------------|--------------------------|-------------------|
| 0.25/0.34     | 6           | 3           | 58.87      | 0.11                     | 162.15                | 2350                    | 0.99                  | 350                      | 14                |
|               |             |             | 53.21      | 0.13                     | 135.10                | 1958                    |                       |                          |                   |
|               |             |             | 48.36      | 0.14                     | 115.85                | 1679                    |                       |                          |                   |
| 0.37/0.50     | 2           | 3           | 16.87      | 1.19                     | 21.87                 | 317                     | 0.92                  | 350                      | 14                |
|               |             |             | 15.33      | 1.32                     | 19.46                 | 282                     |                       |                          |                   |
|               | 4           | 3           | 58.87      | 0.17                     | 150.01                | 2174                    | 1.05                  | 350                      | 14                |
|               |             |             | 53.21      | 0.19                     | 133.31                | 1932                    |                       |                          |                   |
|               |             |             | 48.36      | 0.21                     | 119.99                | 1739                    |                       |                          |                   |
|               |             |             | 37.23      | 0.28                     | 95.98                 | 1391                    |                       |                          |                   |
|               |             |             | 29.33      | 0.35                     | 75.00                 | 1087                    |                       |                          |                   |
|               |             |             | 26.51      | 0.39                     | 66.65                 | 966                     |                       |                          |                   |
|               |             |             | 24.10      | 0.42                     | 60.03                 | 870                     |                       |                          |                   |
|               |             |             | 18.55      | 0.55                     | 48.02                 | 696                     |                       |                          |                   |
|               |             | 2           | 16.87      | 0.60                     | 43.75                 | 634                     |                       |                          |                   |
|               |             |             | 15.33      | 0.67                     | 38.92                 | 564                     |                       |                          |                   |
|               |             |             | 11.80      | 0.87                     | 30.64                 | 444                     |                       |                          |                   |
|               | 6           | 3           | 58.87      | 0.11                     | 239.98                | 3478                    | 1.50                  | 350                      | 14                |
|               |             |             | 53.21      | 0.13                     | 199.96                | 2898                    |                       |                          |                   |
|               |             |             | 48.36      | 0.14                     | 171.40                | 2484                    |                       |                          |                   |
| 0.55/0.75     | 2           | 3           | 58.87      | 0.34                     | 111.51                | 1616                    | 1.28                  | 350                      | 14                |
|               |             |             | 53.21      | 0.38                     | 99.08                 | 1436                    |                       |                          |                   |
|               |             |             | 48.36      | 0.42                     | 89.22                 | 1293                    |                       |                          |                   |
|               |             |             | 37.23      | 0.54                     | 71.35                 | 1034                    |                       |                          |                   |
|               |             |             | 29.33      | 0.69                     | 55.75                 | 808                     |                       |                          |                   |
|               |             |             | 26.51      | 0.76                     | 49.54                 | 718                     |                       |                          |                   |
|               |             |             | 24.10      | 0.84                     | 44.57                 | 646                     |                       |                          |                   |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
|                  |                |                | 18.55         | 1.10                           | 35.67                       | 517                           |                             |                                |                         |
|                  |                | 2              | 16.87         | 1.20                           | 32.45                       | 471                           |                             |                                |                         |
|                  |                |                | 15.33         | 1.30                           | 28.91                       | 419                           |                             |                                |                         |
|                  |                |                | 11.80         | 1.70                           | 22.77                       | 330                           |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
|                  | 4              | 3              | 58.87         | 0.17                           | 222.94                      | 3231                          | 1.57                        | 400                            | 17                      |
|                  |                |                | 53.21         | 0.19                           | 198.17                      | 2872                          |                             |                                |                         |
|                  |                |                | 48.36         | 0.21                           | 178.37                      | 2585                          |                             |                                |                         |
|                  |                |                | 37.23         | 0.27                           | 142.69                      | 2068                          |                             |                                |                         |
|                  |                |                | 29.33         | 0.34                           | 111.51                      | 1616                          |                             |                                |                         |
|                  |                |                | 26.51         | 0.38                           | 99.08                       | 1436                          |                             |                                |                         |
|                  |                |                | 24.10         | 0.42                           | 89.22                       | 1293                          |                             |                                |                         |
|                  |                |                | 18.55         | 0.54                           | 71.35                       | 1034                          |                             |                                |                         |
|                  |                | 2              | 16.87         | 0.60                           | 65.07                       | 943                           |                             |                                |                         |
|                  |                |                | 15.33         | 0.65                           | 57.82                       | 838                           |                             |                                |                         |
|                  |                |                | 11.80         | 0.85                           | 45.54                       | 660                           |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
| 0.75//1.02       | 2              | 3              | 58.87         | 0.34                           | 152.01                      | 2203                          | 1.63                        | 400                            | 17                      |
|                  |                |                | 53.21         | 0.38                           | 135.10                      | 1958                          |                             |                                |                         |
|                  |                |                | 48.36         | 0.41                           | 121.65                      | 1763                          |                             |                                |                         |
|                  |                |                | 37.23         | 0.54                           | 97.29                       | 1410                          |                             |                                |                         |
|                  |                |                | 29.33         | 0.68                           | 76.04                       | 1102                          |                             |                                |                         |
|                  |                |                | 26.51         | 0.75                           | 67.55                       | 979                           |                             |                                |                         |
|                  |                |                | 24.10         | 0.83                           | 60.79                       | 881                           |                             |                                |                         |
|                  |                |                | 18.55         | 1.08                           | 48.65                       | 705                           |                             |                                |                         |
|                  |                | 2              | 16.87         | 1.18                           | 44.37                       | 643                           |                             |                                |                         |
|                  |                |                | 15.33         | 1.30                           | 39.40                       | 571                           |                             |                                |                         |
|                  |                |                | 11.80         | 1.68                           | 31.05                       | 450                           |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
|                  | 4              | 3              | 48.36         | 0.21                           | 243.23                      | 3525                          | 2.00                        | 400                            | 18                      |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
|                  |                |                | 37.23         | 0.27                           | 194.58                      | 2820                          |                             |                                |                         |
|                  |                |                | 29.33         | 0.34                           | 152.01                      | 2203                          |                             |                                |                         |
|                  |                |                | 26.51         | 0.38                           | 135.10                      | 1958                          |                             |                                |                         |
|                  |                |                | 24.10         | 0.42                           | 121.65                      | 1763                          |                             |                                |                         |
|                  |                |                | 18.55         | 0.54                           | 97.29                       | 1410                          |                             |                                |                         |
|                  |                |                | 16.87         | 0.60                           | 88.73                       | 1286                          |                             |                                |                         |
|                  |                | 2              | 15.33         | 0.66                           | 78.87                       | 1143                          |                             |                                |                         |
|                  |                |                | 11.80         | 0.85                           | 62.10                       | 900                           |                             |                                |                         |
| 1.10/1.50        | 2              | 3              | 48.36         | 0.41                           | 178.37                      | 2585                          | 2.62                        | 400                            | 18                      |
|                  |                |                | 37.23         | 0.54                           | 142.69                      | 2068                          |                             |                                |                         |
|                  |                |                | 29.33         | 0.68                           | 111.50                      | 1616                          |                             |                                |                         |
|                  |                |                | 26.51         | 0.75                           | 99.08                       | 1436                          |                             |                                |                         |
|                  |                |                | 24.10         | 0.83                           | 89.22                       | 1293                          |                             |                                |                         |
|                  |                |                | 18.55         | 1.08                           | 71.35                       | 1034                          |                             |                                |                         |
|                  |                | 2              | 16.87         | 1.18                           | 63.69                       | 923                           |                             |                                |                         |
|                  |                |                | 15.33         | 1.30                           | 57.82                       | 838                           |                             |                                |                         |
|                  |                |                | 11.80         | 1.69                           | 45.54                       | 660                           |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |

At the min. face width (L), the total weight of a drum motor grows approx.2.5kg per 100 mm.

## TM138F optional list-drum motor/idler pulley

| Specifications                                | Drum motor | Idler pulley |
|-----------------------------------------------|------------|--------------|
| <b>Shell</b>                                  |            |              |
| Stainless steel(std. 304) crowned             | 1          | 1            |
| Stainless steel(std. 304) cylindrical         | 2          | 2            |
| Stainless steel(std. 304) cylindrical+ key    | 2          | 2            |
| <b>End housing (front &amp; rear)</b>         |            |              |
| Cast stainless steel(std. 304)                | 1          | 1            |
| <b>Shaft (front &amp; rear)</b>               |            |              |
| Stainless steel(std. 304)                     | 1          | 1            |
| <b>Rubber lagging</b>                         |            |              |
| Hot vulcanized black smooth rubber lagging    | 2          | 2            |
| White and blue rubber lagging in food quality | 2          | 2            |
| Urethane lagging                              | 2          | 2            |
| Sprockets for modular belting                 | 2          | 2            |
| V-grooves in the rubber lagging               | 3          | 3            |
| <b>Electrical motors</b>                      |            |              |
| 3-phase asynchronous motor                    | 1          |              |
| 3*400V/50Hz                                   | 1          |              |
| Dual voltage motor                            | 2          |              |
| Most common global voltages at 50 or 60 Hz    | 1          |              |
| Thermal protection                            | 1          |              |
| <b>Lubricating oil</b>                        |            |              |
| Food grade oil (FDA and USDA)                 | 2          |              |
| <b>Electrical connection</b>                  |            |              |
| Straight cable connector                      | 1          |              |
| Elbow stainless steel cable connector         | 2          |              |
| Terminal box connector                        | 3          |              |
| Oil resistant PVC cable                       | 1          |              |
| LS halogen-free cable                         | 2          |              |
| Screened cable (for VFD and brakes)           | 3          |              |
| <b>Other options</b>                          |            |              |
| Mechanical backstop                           | 2          |              |
| Electromagnetic brake                         | 2          |              |

| Specifications                           | Drum motor | Idler pulley |
|------------------------------------------|------------|--------------|
| Modified for vertical or angled mounting | 3          |              |
| Operation with VFD                       | 2          |              |

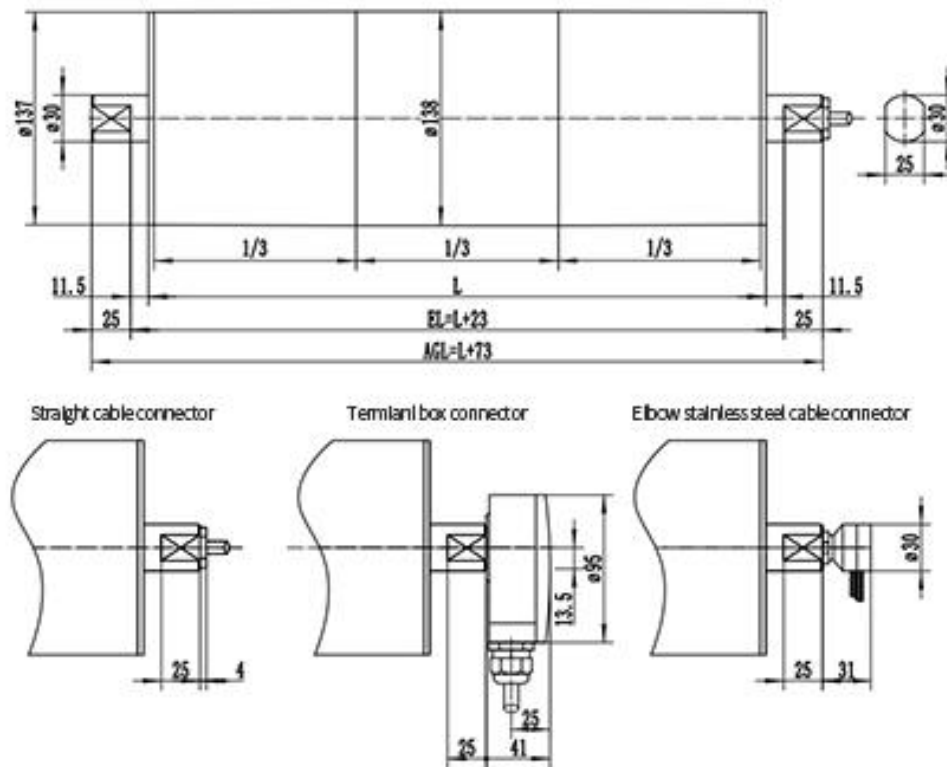
Note:

1-fitted as standard 2-optional extras

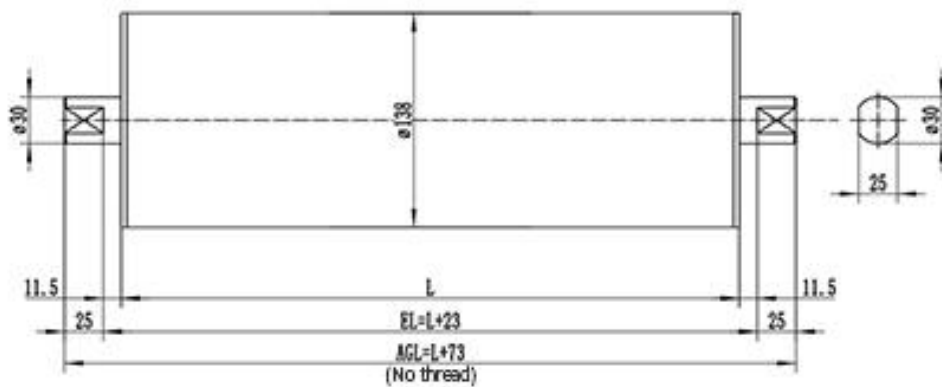
3-available as limited option but need to confirm with manufacturer

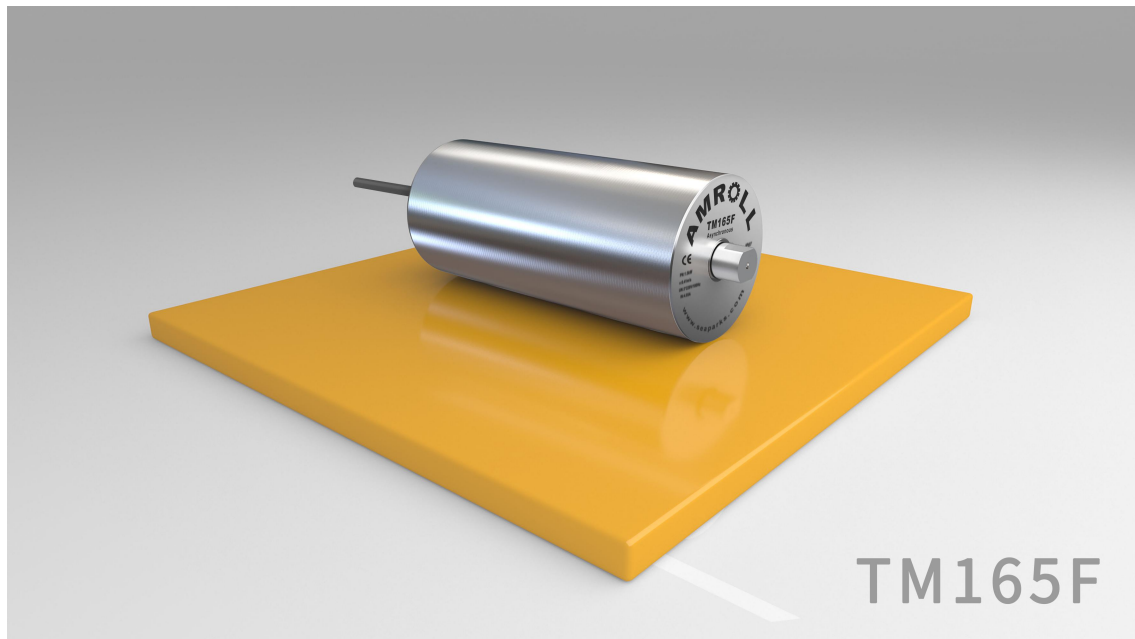
## Standard Dimension

## TM138F Drum motor



TM138F Idler roller





## AMROLL DRUM MOTOR--TM165F

TM165F asynchronous oil immersed drum motor, It is mainly used for belt conveying equipment with heavy load. With characteristics of strong shape, impact resistance and strong torque, is the best choice of large load conveying equipment. All stainless steel material can meet the strict requirements of sanitary and humid environment. This kind of drum motor is typically used in:

- Meat processing conveyor
- Food processing conveyor
- Packaging machine
- Belt sorting conveyor
- Assembly line
- Belt conveyor for agricultural products
- Warehousing and vehicle loading

## TM165F drum motors have the following characters:

### Drum motor shell

- Stainless steel crowned shell treated with anti-rust oil
- The standard shell is coronal and the surface is machined with non-slip threads

### Gear transmission

- Gears machined and honed to AGMA/DIN 6 standards to ensure low noise

### Motor

- Common global voltages at 50 Hz or 60 Hz
- AC asynchronous motor
- Motor windings insulation class F
- Oil cooled electrical motor
- Cable length minimum 1.2 meters outside shaft

### Sealing system

- Double shaft sealing system
- Sealing system-degree of protection IP 66/67

### Oil

- Pre lubricated with oil
- Oil change recommended every 50,000 hours of operation

### Other items

- Electromagnetic brakes are optional, but the length of the shell will be lengthened accordingly
- Belt speed and face width (L) on request
- International authority CE and UL safety certification
- Non-standard drum motors are available on request.

### AMROLL Drum Motor TM165F-3 \*400V/50Hz

| Power [kW/hp] | No.of poles | Gear stages | Gear ratio | Nominal belt speed [m/s] | Full load torque [Nm] | Full load belt pull [N] | Full load current [A] | Min. face width (L) [mm] | Min.L Weight [kg] |
|---------------|-------------|-------------|------------|--------------------------|-----------------------|-------------------------|-----------------------|--------------------------|-------------------|
| 0.25/<br>0.34 | 8           | 3           | 62.37      | 0.10                     | 193.88                | 2350                    | 1.32                  | 400                      | 36                |
|               |             |             | 46.56      | 0.13                     | 149.13                | 1808                    |                       |                          |                   |
|               |             |             | 39.31      | 0.16                     | 121.17                | 1469                    |                       |                          |                   |
|               |             |             | 28.71      | 0.21                     | 96.94                 | 1175                    |                       |                          |                   |
|               |             |             | 24.23      | 0.25                     | 77.55                 | 940                     |                       |                          |                   |
|               |             | 2           | 19.64      | 0.31                     | 61.88                 | 750                     |                       |                          |                   |
|               |             |             | 14.66      | 0.42                     | 49.50                 | 600                     |                       |                          |                   |
|               |             |             | 12.38      | 0.50                     | 39.60                 | 480                     |                       |                          |                   |
| 0.37/<br>0.50 | 4           | 3           | 62.37      | 0.20                     | 143.47                | 1739                    | 0.98                  | 400                      | 36                |
|               |             |             | 46.56      | 0.26                     | 114.77                | 1391                    |                       |                          |                   |
|               |             |             | 39.31      | 0.31                     | 89.67                 | 1087                    |                       |                          |                   |
|               |             |             | 28.71      | 0.42                     | 71.73                 | 870                     |                       |                          |                   |
|               |             |             | 24.23      | 0.50                     | 57.39                 | 696                     |                       |                          |                   |
|               |             | 2           | 19.64      | 0.62                     | 46.51                 | 564                     |                       |                          |                   |
|               |             |             | 14.66      | 0.82                     | 36.63                 | 444                     |                       |                          |                   |
|               |             |             | 12.38      | 1.00                     | 29.30                 | 355                     |                       |                          |                   |
|               | 6           | 3           | 62.37      | 0.13                     | 220.72                | 2675                    | 1.25                  | 400                      | 36                |
|               |             |             | 46.56      | 0.17                     | 168.79                | 2046                    |                       |                          |                   |
|               | 8           | 3           | 62.37      | 0.10                     | 286.94                | 3478                    | 1.58                  | 450                      | 43                |
|               |             |             | 46.56      | 0.13                     | 220.72                | 2675                    |                       |                          |                   |
|               |             |             | 39.31      | 0.16                     | 179.33                | 2174                    |                       |                          |                   |
|               |             |             | 28.71      | 0.21                     | 143.47                | 1739                    |                       |                          |                   |
|               |             |             | 24.23      | 0.25                     | 114.77                | 1391                    |                       |                          |                   |
|               |             | 2           | 19.64      | 0.31                     | 91.58                 | 1110                    |                       |                          |                   |
|               |             |             | 14.66      | 0.41                     | 73.26                 | 888                     |                       |                          |                   |
|               |             |             | 12.38      | 0.50                     | 58.61                 | 710                     |                       |                          |                   |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
| 0.55/<br>0.75    | 4              | 3              | 62.37         | 0.19                           | 213.26                      | 2585                          | 1.45                        | 400                            | 36                      |
|                  |                |                | 46.56         | 0.26                           | 170.61                      | 2068                          |                             |                                |                         |
|                  |                |                | 39.31         | 0.31                           | 133.29                      | 1616                          |                             |                                |                         |
|                  |                |                | 28.71         | 0.42                           | 106.63                      | 1293                          |                             |                                |                         |
|                  |                |                | 24.23         | 0.50                           | 85.31                       | 1034                          |                             |                                |                         |
|                  |                | 2              | 19.64         | 0.61                           | 69.14                       | 838                           |                             |                                |                         |
|                  |                |                | 14.66         | 0.82                           | 54.45                       | 660                           |                             |                                |                         |
|                  |                |                | 12.38         | 1.00                           | 43.56                       | 528                           |                             |                                |                         |
|                  | 6              | 3              | 62.37         | 0.13                           | 328.10                      | 3977                          | 1.76                        | 450                            | 43                      |
|                  |                |                | 46.56         | 0.17                           | 250.90                      | 3041                          |                             |                                |                         |
| 0.75/<br>1.02    | 4              | 3              | 62.37         | 0.20                           | 290.81                      | 3525                          | 2.00                        | 400                            | 36                      |
|                  |                |                | 46.56         | 0.27                           | 232.65                      | 2820                          |                             |                                |                         |
|                  |                |                | 39.31         | 0.32                           | 181.76                      | 2203                          |                             |                                |                         |
|                  |                |                | 28.71         | 0.43                           | 145.41                      | 1763                          |                             |                                |                         |
|                  |                |                | 24.23         | 0.51                           | 116.33                      | 1410                          |                             |                                |                         |
|                  |                | 2              | 19.64         | 0.63                           | 94.29                       | 1143                          |                             |                                |                         |
|                  |                |                | 14.66         | 0.84                           | 74.25                       | 900                           |                             |                                |                         |
|                  |                |                | 12.38         | 1.00                           | 59.40                       | 720                           |                             |                                |                         |
|                  | 6              | 3              | 46.56         | 0.17                           | 342.13                      | 4147                          | 2.23                        | 450                            | 43                      |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
| 1.10/<br>1.50    | 2              | 3              | 62.37         | 0.40                           | 133.29                      | 1616                          | 2.24                        | 400                            | 36                      |
|                  |                |                | 46.56         | 0.54                           | 106.63                      | 1293                          |                             |                                |                         |
|                  |                |                | 39.31         | 0.63                           | 213.26                      | 2585                          |                             |                                |                         |
|                  |                |                | 28.71         | 0.87                           | 170.61                      | 2068                          |                             |                                |                         |
|                  |                |                | 24.23         | 1.03                           | 85.31                       | 1034                          |                             |                                |                         |
|                  |                | 2              | 19.64         | 1.26                           | 69.14                       | 838                           |                             |                                |                         |
|                  |                |                | 14.66         | 1.70                           | 54.45                       | 660                           |                             |                                |                         |
|                  |                |                | 12.38         | 2.00                           | 43.56                       | 528                           |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
|                  | 4              | 3              | 46.56         | 0.26                           | 341.22                      | 4136                          | 2.83                        | 450                            | 43                      |
|                  |                |                | 39.31         | 0.31                           | 266.58                      | 3232                          |                             |                                |                         |
|                  |                |                | 28.71         | 0.43                           | 213.26                      | 2585                          |                             |                                |                         |
|                  |                |                | 24.23         | 0.50                           | 170.61                      | 2068                          |                             |                                |                         |
|                  |                | 2              | 19.64         | 0.62                           | 133.29                      | 1616                          |                             |                                |                         |
|                  |                |                | 14.66         | 0.83                           | 106.63                      | 1293                          |                             |                                |                         |
|                  |                |                | 12.38         | 1.00                           | 85.31                       | 1034                          |                             |                                |                         |
| 1.50/<br>2.04    | 4              | 3              | 28.71         | 0.43                           | 290.81                      | 3525                          | 3.55                        | 450                            | 43                      |
|                  |                |                | 24.23         | 0.51                           | 232.65                      | 2820                          |                             |                                |                         |
|                  |                | 2              | 19.64         | 0.63                           | 188.57                      | 2286                          |                             |                                |                         |
|                  |                |                | 14.66         | 0.84                           | 148.50                      | 1800                          |                             |                                |                         |
|                  |                |                | 12.38         | 1.00                           | 118.80                      | 1440                          |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
| 2.20/<br>3.00    | 2              | 3              | 46.56         | 0.53                           | 341.22                      | 4136                          | 4.33                        | 450                            | 43                      |
|                  |                |                | 39.31         | 0.62                           | 266.58                      | 3231                          |                             |                                |                         |
|                  |                |                | 28.71         | 0.85                           | 213.26                      | 2585                          |                             |                                |                         |
|                  |                |                | 24.23         | 1.00                           | 170.61                      | 2068                          |                             |                                |                         |
|                  |                | 2              | 19.64         | 1.25                           | 138.29                      | 1676                          |                             |                                |                         |
|                  |                |                | 14.66         | 1.68                           | 108.90                      | 1320                          |                             |                                |                         |
|                  |                |                | 12.38         | 2.00                           | 87.12                       | 1056                          |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |

At the min. face width (L), the total weight of a drum motor grows approx.3.8kg per 100 mm.

## TM165F optional list-drum motor/idler pulley

| Specifications                                | Drum motor | Idler pulley |
|-----------------------------------------------|------------|--------------|
| <b>Shell</b>                                  |            |              |
| Stainless steel(std. 304) crowned             | 1          | 1            |
| Stainless steel(std. 304) cylindrical         | 2          | 2            |
| Stainless steel(std. 304) cylindrical+ key    | 2          | 2            |
| <b>End housing (front &amp; rear)</b>         |            |              |
| Cast stainless steel(std. 304)                | 1          | 1            |
| <b>Shaft (front &amp; rear)</b>               |            |              |
| Stainless steel(std. 304)                     | 1          | 1            |
| <b>Rubber lagging</b>                         |            |              |
| Hot vulcanized black smooth rubber lagging    | 2          | 2            |
| White and blue rubber lagging in food quality | 2          | 2            |
| Urethane lagging                              | 2          | 2            |
| Sprockets for modular belting                 | 2          | 2            |
| V-grooves in the rubber lagging               | 3          | 3            |
| <b>Electrical motors</b>                      |            |              |
| 3-phase asynchronous motor                    | 1          |              |
| 3*400V/50Hz                                   | 1          |              |
| Dual voltage motor                            | 2          |              |
| Most common global voltages at 50 or 60 Hz    | 1          |              |
| Thermal protection                            | 1          |              |
| <b>Lubricating oil</b>                        |            |              |
| Food grade oil (FDA and USDA)                 | 2          |              |
| <b>Electrical connection</b>                  |            |              |
| Straight cable connector                      | 1          |              |
| Elbow stainless steel cable connector         | 2          |              |
| Terminal box connector                        | 3          |              |
| Oil resistant PVC cable                       | 1          |              |
| LS halogen-free cable                         | 2          |              |
| Screened cable (for VFD and brakes)           | 3          |              |
| <b>Other options</b>                          |            |              |
| Mechanical backstop                           | 2          |              |
| Electromagnetic brake                         | 2          |              |

| Specifications                           | Drum motor | Idler pulley |
|------------------------------------------|------------|--------------|
| Modified for vertical or angled mounting | 3          |              |
| Operation with VFD                       | 2          |              |

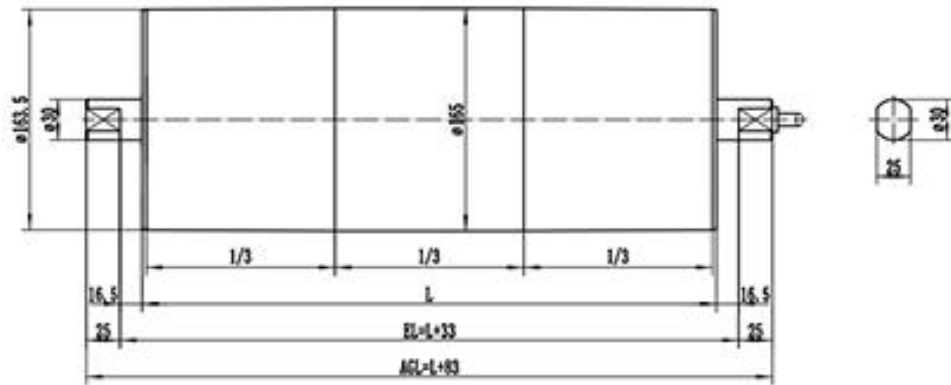
Note:

1-fitted as standard 2-optional extras

3-available as limited option but need to confirm with manufacturer

## Standard Dimension

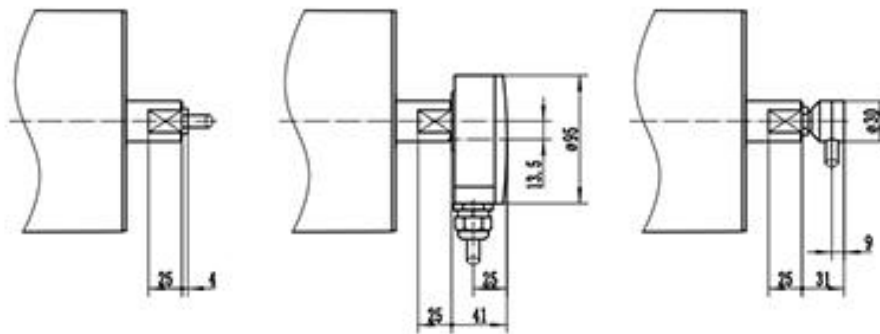
## TM165F Drum motor



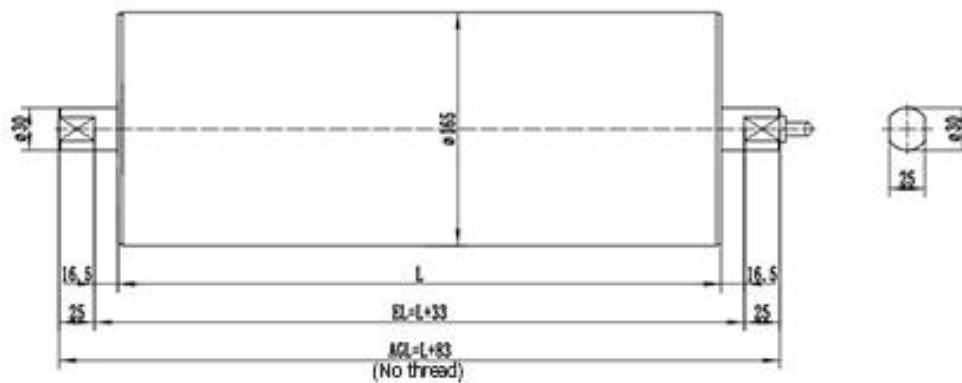
Straight cable connector

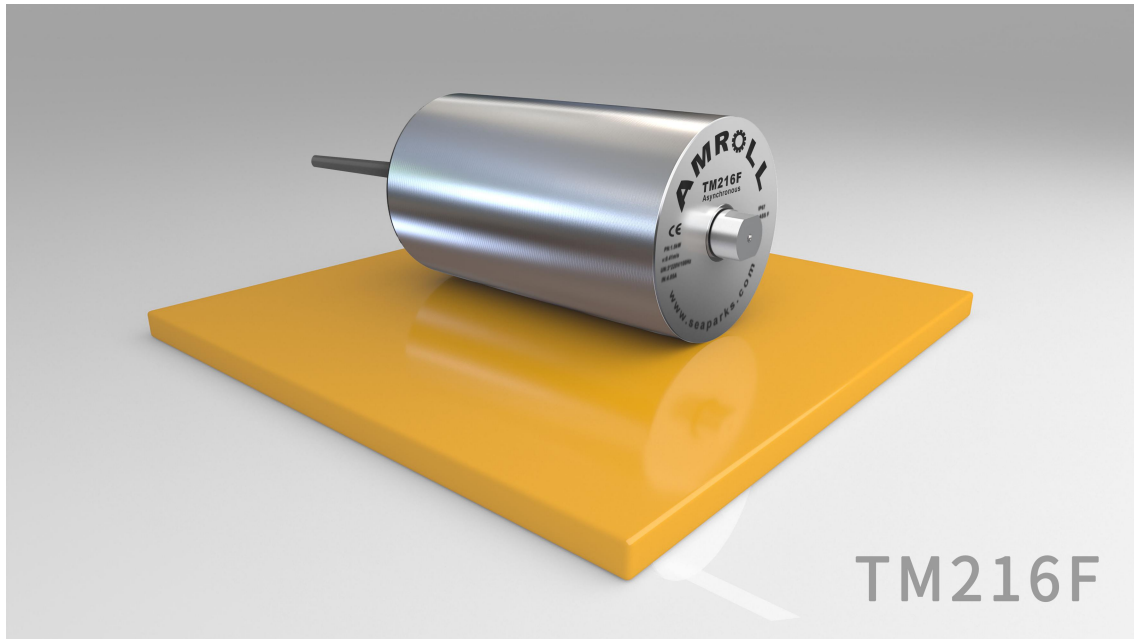
Terminal box connector

Elbow stainless steel cable connector



TM165F Idler roller





## AMROLL DRUM MOTOR--TM216F

TM216F asynchronous oil immersed drum motor, It is a heavy roller designed for conveying single heavy items or bulk materials, Its power range is 0.37kw to 4.0kw, all stainless steel material can meet the strict requirements of sanitary and humid environment. This kind of drum motor is typically used in:

- Slaughter conveyors
- Food processing conveyor
- Belt conveyor for agricultural products
- Steep incline conveyors

## TM216F drum motors have the following characters:

### Drum motor shell

- Stainless steel crowned shell treated with anti-rust oil
- The standard shell is coronal and the surface is machined with non-slip threads

### Gear transmission

- Gears machined and honed to AGMA/DIN 6 standards to ensure low noise

### Motor

- Common global voltages at 50 Hz or 60 Hz
- AC asynchronous motor
- Motor windings insulation class F
- Oil cooled electrical motor
- Cable length minimum 1.2 meters outside shaft

### Sealing system

- Double shaft sealing system
- Sealing system-degree of protection IP 66/67

### Oil

- Pre lubricated with oil
- Oil change recommended every 50,000 hours of operation

### Other items

- Electromagnetic brakes are optional, but the length of the shell will be lengthened accordingly
- Belt speed and face width (L) on request
- International authority CE and UL safety certification
- Non-standard drum motors are available on request.

### AMROLL Drum Motor TM216F-3 \*400V/50Hz

| Power [kW/hp] | No.of poles | Gear stages | Gear ratio | Nominal belt speed [m/s] | Full load torque [Nm] | Full load belt pull [N] | Full load current [A] | Min. face width (L) [mm] | Min.L Weight [kg] |
|---------------|-------------|-------------|------------|--------------------------|-----------------------|-------------------------|-----------------------|--------------------------|-------------------|
| 0.37/0.50     | 8           | 3           | 77.33      | 0.11                     | 375.62                | 3478                    | 1.64                  | 510                      | 56                |
|               |             |             | 63.18      | 0.13                     | 288.94                | 2675                    |                       |                          |                   |
|               |             |             | 48.58      | 0.17                     | 234.77                | 1274                    |                       |                          |                   |
|               |             |             | 41.26      | 0.20                     | 187.81                | 1739                    |                       |                          |                   |
|               |             |             | 31.73      | 0.26                     | 150.25                | 1391                    |                       |                          |                   |
|               |             | 2           | 24.61      | 0.34                     | 119.88                | 1110                    |                       |                          |                   |
|               |             |             | 20.11      | 0.42                     | 95.90                 | 888                     |                       |                          |                   |
|               |             |             | 15.46      | 0.54                     | 76.72                 | 710                     |                       |                          |                   |
| 0.55/0.75     | 8           | 3           | 77.33      | 0.10                     | 558.36                | 5170                    | 1.67                  | 510                      | 58                |
|               |             |             | 63.18      | 0.13                     | 429.51                | 3977                    |                       |                          |                   |
|               |             |             | 48.58      | 0.16                     | 348.98                | 3231                    |                       |                          |                   |
|               |             |             | 41.26      | 0.19                     | 279.18                | 2585                    |                       |                          |                   |
|               |             |             | 31.73      | 0.25                     | 223.34                | 2068                    |                       |                          |                   |
|               |             | 2           | 24.61      | 0.32                     | 178.20                | 1650                    |                       |                          |                   |
|               |             |             | 20.11      | 0.40                     | 142.56                | 1320                    |                       |                          |                   |
|               |             |             | 15.46      | 0.51                     | 114.05                | 1056                    |                       |                          |                   |
| 0.75/1.02     | 8           | 3           | 63.18      | 0.13                     | 585.69                | 5423                    | 2.38                  | 510                      | 58                |
|               |             |             | 48.58      | 0.16                     | 475.88                | 4406                    |                       |                          |                   |
|               |             |             | 41.26      | 0.19                     | 380.70                | 3525                    |                       |                          |                   |
|               |             |             | 31.73      | 0.25                     | 304.56                | 2820                    |                       |                          |                   |
|               |             | 2           | 24.61      | 0.32                     | 243.00                | 2250                    |                       |                          |                   |
|               |             |             | 20.11      | 0.40                     | 194.40                | 1800                    |                       |                          |                   |
|               |             |             | 15.46      | 0.51                     | 155.52                | 1440                    |                       |                          |                   |
| 1.10/1.50     | 4           | 3           | 77.33      | 0.21                     | 558.36                | 5179                    | 2.27                  | 510                      | 58                |
|               |             |             | 63.18      | 0.26                     | 446.69                | 4136                    |                       |                          |                   |
|               |             |             | 48.58      | 0.34                     | 348.98                | 3231                    |                       |                          |                   |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
|                  |                |                | 41.26         | 0.40                           | 279.18                      | 2585                          |                             |                                |                         |
|                  |                |                | 31.73         | 0.52                           | 228.10                      | 2112                          |                             |                                |                         |
|                  |                | 2              | 24.61         | 0.67                           | 181.03                      | 1676                          |                             |                                |                         |
|                  |                |                | 20.11         | 0.82                           | 142.56                      | 1320                          |                             |                                |                         |
|                  |                |                | 15.46         | 1.10                           | 114.05                      | 1056                          |                             |                                |                         |
|                  | 6              | 3              | 63.18         | 0.17                           | 670.87                      | 6212                          | 2.86                        | 510                            | 61                      |
|                  |                |                | 48.58         | 0.22                           | 558.36                      | 5179                          |                             |                                |                         |
|                  |                |                | 41.26         | 0.26                           | 446.69                      | 4136                          |                             |                                |                         |
|                  |                |                | 31.73         | 0.34                           | 348.98                      | 3231                          |                             |                                |                         |
|                  |                | 2              | 24.61         | 0.44                           | 279.18                      | 2585                          |                             |                                |                         |
|                  |                |                | 20.11         | 0.54                           | 228.10                      | 2112                          |                             |                                |                         |
|                  |                |                | 15.46         | 0.70                           | 181.03                      | 1676                          |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
| 1.50/2.04        | 4              | 3              | 63.18         | 0.26                           | 609.12                      | 5640                          | 2.87                        | 510                            | 61                      |
|                  |                |                | 48.58         | 0.34                           | 475.88                      | 4406                          |                             |                                |                         |
|                  |                |                | 41.26         | 0.40                           | 380.70                      | 3525                          |                             |                                |                         |
|                  |                |                | 31.73         | 0.52                           | 304.56                      | 2820                          |                             |                                |                         |
|                  |                | 2              | 24.61         | 0.66                           | 246.86                      | 2285                          |                             |                                |                         |
|                  |                |                | 20.11         | 0.81                           | 194.40                      | 1800                          |                             |                                |                         |
|                  |                |                | 15.46         | 1.10                           | 155.52                      | 1440                          |                             |                                |                         |
| 2.20/3.00        | 4              | 3              | 48.58         | 0.34                           | 698.00                      | 6463                          | 4.86                        | 510                            | 62                      |
|                  |                |                | 41.26         | 0.40                           | 558.36                      | 5170                          |                             |                                |                         |
|                  |                |                | 31.73         | 0.52                           | 446.69                      | 4136                          |                             |                                |                         |
|                  |                | 2              | 24.61         | 0.66                           | 362.06                      | 3352                          |                             |                                |                         |
|                  |                |                | 20.11         | 0.81                           | 285.12                      | 2640                          |                             |                                |                         |
|                  |                |                | 15.46         | 1.10                           | 228.10                      | 2112                          |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |
| 3.50/4.76        | 4              | 3              | 31.73         | 0.52                           | 609.12                      | 5640                          | 7.69                        | 510                            | 73                      |
|                  |                | 2              | 24.61         | 0.67                           | 475.88                      | 4406                          |                             |                                |                         |

| Power<br>[kW/hp] | No.of<br>poles | Gear<br>stages | Gear<br>ratio | Nominal<br>belt speed<br>[m/s] | Full load<br>torque<br>[Nm] | Full load<br>belt pull<br>[N] | Full load<br>current<br>[A] | Min.<br>face width<br>(L) [mm] | Min.L<br>Weight<br>[kg] |
|------------------|----------------|----------------|---------------|--------------------------------|-----------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------|
|                  |                |                | 20.11         | 0.81                           | 380.70                      | 3525                          |                             |                                |                         |
|                  |                |                | 15.46         | 1.10                           | 304.56                      | 2820                          |                             |                                |                         |
| 4.00/5.44        | 2              | 3              | 41.26         | 0.80                           | 507.60                      | 4700                          | 8.63                        | 510                            | 73                      |
|                  |                |                | 31.73         | 1.00                           | 406.08                      | 3760                          |                             |                                |                         |
|                  |                | 2              | 24.61         | 1.32                           | 329.14                      | 3048                          |                             |                                |                         |
|                  |                |                | 20.11         | 1.60                           | 259.20                      | 2400                          |                             |                                |                         |
|                  |                |                | 15.46         | 2.10                           | 207.36                      | 1920                          |                             |                                |                         |
|                  |                |                |               |                                |                             |                               |                             |                                |                         |

At the min. face width (L), the total weight of a drum motor grows approx.5kg per 100 mm.

## TM216F optional list-drum motor/idler pulley

| Specifications                                | Drum motor | Idler pulley |
|-----------------------------------------------|------------|--------------|
| <b>Shell</b>                                  |            |              |
| Stainless steel(std. 304) crowned             | 1          | 1            |
| Stainless steel(std. 304) cylindrical         | 2          | 2            |
| Stainless steel(std. 304) cylindrical+ key    | 2          | 2            |
| <b>End housing (front &amp; rear)</b>         |            |              |
| Cast stainless steel(std. 304)                | 1          | 1            |
| <b>Shaft (front &amp; rear)</b>               |            |              |
| Stainless steel(std. 304)                     | 1          | 1            |
| <b>Rubber lagging</b>                         |            |              |
| Hot vulcanized black smooth rubber lagging    | 2          | 2            |
| White and blue rubber lagging in food quality | 2          | 2            |
| Urethane lagging                              | 2          | 2            |
| Sprockets for modular belting                 | 2          | 2            |
| V-grooves in the rubber lagging               | 3          | 3            |
| <b>Electrical motors</b>                      |            |              |
| 3-phase asynchronous motor                    | 1          |              |
| 3*400V/50Hz                                   | 1          |              |
| Dual voltage motor                            | 2          |              |
| Most common global voltages at 50 or 60 Hz    | 1          |              |
| Thermal protection                            | 1          |              |
| <b>Lubricating oil</b>                        |            |              |
| Food grade oil (FDA and USDA)                 | 2          |              |
| <b>Electrical connection</b>                  |            |              |
| Straight cable connector                      | 1          |              |
| Elbow stainless steel cable connector         | 2          |              |
| Terminal box connector                        | 3          |              |
| Oil resistant PVC cable                       | 1          |              |
| LS halogen-free cable                         | 2          |              |
| Screened cable (for VFD and brakes)           | 3          |              |
| <b>Other options</b>                          |            |              |
| Mechanical backstop                           | 2          |              |
| Electromagnetic brake                         | 2          |              |

| Specifications                           | Drum motor | Idler pulley |
|------------------------------------------|------------|--------------|
| Modified for vertical or angled mounting | 3          |              |
| Operation with VFD                       | 2          |              |

Note:

1-fitted as standard 2-optional extras

3-available as limited option but need to confirm with manufacturer

## Standard Dimension

### TM216F Drum motor

