

## IP Koruma Sınıfı

IEC 60034-5 standardına göre, su ve / veya yabancı maddelerin döner elektrik makinalarının gövdesini geçerek tehlike oluşturacak motor kısımlarına ulaşmasını engelleme derecesini belirleyen IP koruma sınıfı motorların etiketlerinde belirtilmektedir. Diğer koruma sınıfları için firmamız ile iletişime geçiniz.

| Birinci karakteristik sayı:<br>Katı yabancı maddelerin girişine karşı koruma |   | İkinci karakteristik sayı:<br>Suya karşı koruma |  |
|--|---|---|--|
| 0  | Korunmamış makine                               | 0   | Korunmamış makine  |
| 1  | 50 mm'den büyük katı cisimlere karşı korumalı   | 1   | Damlayan suya karşı korumalı                             |
| 2  | 12,5 mm'den büyük katı cisimlere karşı korumalı | 2   | 15°'ye kadar dikey olarak damlayan suya karşı korumalı   |
| 3  | 2,5 mm'den büyük katı cisimlere karşı korumalı  | 3   | 60°'ye kadar dikey olarak su püskürtmesine korumalı      |
| 4  | 1 mm'den büyük katı cisimlere karşı korumalı    | 4   | Püsküren suya karşı korumalı                             |
| 5  | Toza karşı korulamalı                           | 5   | Her yönden püskürtülen su jetine karşı korumalı          |
| 6  | Toz geçirmez                                    | 6   | Her yönden püskürtülen şiddetli su jetine karşı korumalı |
|  |   | 7   | Geçici suya daldırmanın etkilerine karşı korulamalı      |
|  |   | 8   | Su altında bırakılmanın etkilerine karşı korumalı        |

## İzolasyon Sınıfı

Standart üretim motorlarımız, B sınıfı sıcaklık artışı limitleri içerisinde tasarlanmıştır. F tipi izolasyona sahiptir. F tipi izolasyon 40°C ortam sıcaklığında, 10°C güvenlik payı dikkate alınarak maksimum 105°C sıcaklık artışına müsaade ettiği halde daha iyi performans ve daha uzun ömür için sıcaklık artışı, motorlarımız tasarlanırken 80°C ile sınırlandırılır.

Sıcaklık artışı ( $\Delta T^*$ ) ve sargının en sıcak noktalarındaki maksimum sıcaklıklar( $T_{max}$ ) IEC 60034-1 standartları sıcaklık sınıfına göre

|          | $\Delta T^*$ | $T_{max}$ |
|----------|--------------|-----------|
| B sınıfı | 80K          | 125°C     |
| F sınıfı | 105K         | 155°C     |
| H sınıfı | 125K         | 180°C     |

Ortam sıcaklığı 45°C 50°C 55°C 60°C

40°C'nin üzerindeki ortam sıcaklıklarında servis faktörü 95% 90% 85% 90%  
(B sınıfı sıcaklık artışı)

## Soğutma Metodu

IEC 60034-6 standartına göre tanımlanan ve motorlarımızda uygulanan soğutma metodlarının kod açıklaması aşağıdaki gibidir.

|                                  | IC    | 4     | (A)*  | 1     | (W)*  | 1     |
|----------------------------------|-------|-------|-------|-------|-------|-------|
| Kod harfleri                     | _____ | _____ | _____ | _____ | _____ | _____ |
| Devre düzenlemesi                | _____ | _____ | _____ | _____ | _____ | _____ |
| Primer soğutucu hareket metodu   | _____ | _____ | _____ | _____ | _____ | _____ |
| Sekonder soğutucu hareket metodu | _____ | _____ | _____ | _____ | _____ | _____ |

4: Gövde yüzeyinden soğutma

1: Motor içi hava sirkülasyonu

1: Mil üzerine monte edilen pervane ile gövde yüzeyinden

## Mekanik Üretim

### Gövde

Alüminyumdan imal edilen gövdeler sıcak geçirme yöntemi ile statora sabitlenir, soğutma yüzeyi ve dayanıklı yapı sağlar (Müşteri isteğine göre standarttan farklı ölçülerde imal edilebilmektedir).

### Kapaklar

Alüminyum alaşımından imal edilen kapaklar gövdeye sıkı geçecek şekilde işlenir ve uygun montaj elemanları ile gövdeye sabitlenir. Kapaklar, rulman yataklarını içerdiğinden milin yataklanmasında önemli rol oynar (Müşteri isteğine göre özel tasarımlar yapılabilmektedir).

### Klemens Kutusu

90 tip ve üzeri motorlar için alüminyumdan, daha küçük motorlarda ise plastik malzemeden imal edilen klemens kutuları motor elektrik bağlantısını yabancı maddelere karşı koruyarak büyük ölçüde güvenliği artırır. Tek fazlı motorlar ise farklı olarak klemens kutuları içerisinde daimi devre kondansatörü barındırır

### Pervane

Motor miline sıkı geçirilmiş polipropilen plastik malzemeden imal edilmiş pervane, motor dönüş yönüne bağımlı olmaksızın soğutma sağlar. Üretimi yaptığımız tüm motorlarımızda pervaneler polipropilen plastikten yapılmıştır (Müşteri isteğine göre pervaneler alüminyum malzemeden üretilebilmektedir).

### Boya

Tüm standart motorlarımız RAL 7016 boya ile boyanır. Özel istek üzerine RAL 9005 boya kullanılabilir.(Farklı renkler için irtibata geçiniz).

## Rulmanlar

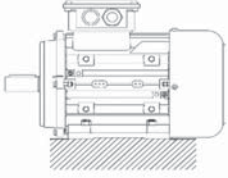
Standart tasarım rulmanlar sürekli yağlamaya sahiptir.

| Gövde Tipi | Kutup Sayısı  | Ön Rulman    | Arka Rulman  | Ölçüler  |
|------------|---------------|--------------|--------------|----------|
| 56         | 2 - 4         | 6201 - 2Z C3 | 6201 - 2Z C3 | 12x32x10 |
| 63         | 2 - 4         | 6202 - 2Z C3 | 6202 - 2Z C3 | 15x35x11 |
| 71         | 2 - 4 - 6     | 6202 - 2Z C3 | 6202 - 2Z C3 | 15x35x11 |
| 80         | 2 - 4 - 6 - 8 | 6204 - 2Z C3 | 6204 - 2Z C3 | 20x47x14 |
| 90S        | 2 - 4 - 6     | 6205 - 2Z C3 | 6205 - 2Z C3 | 25x52x15 |
| 90L        | 2 - 4 - 6     | 6205 - 2Z C3 | 6205 - 2Z C3 | 25x52x15 |
| 100        | 2 - 4 - 6     | 6206 - 2Z C3 | 6206 - 2Z C3 | 30x62x16 |
| 112        | 2 - 4 - 6     | 6206 - 2Z C3 | 6206 - 2Z C3 | 30x62x16 |
| 132S       | 2 - 4         | 6208 - 2Z C3 | 6208 - 2Z C3 | 30x62x16 |
| 132M       | 2 - 4         | 6208 - 2Z C3 | 6208 - 2Z C3 | 40x80x18 |

IEC 60034-7'e göre  
montaj düzenleri

## Ayak bağlantılı

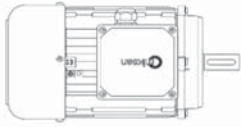
**B3 - IM 1001**



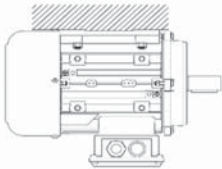
**IM B6 - IM 1051**



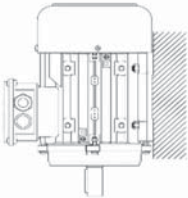
**IM B7 - IM 1061**



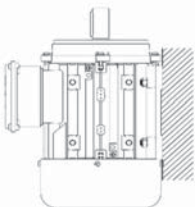
**IM B8 - IM 1071**



**IM V5 - IM 1011**

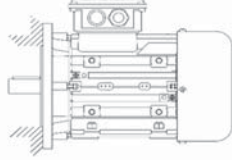


**IM V6 - IM 1031**

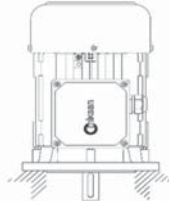


## Flanş bağlantılı

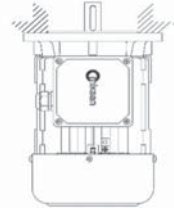
**IM B5 - IM 3001**



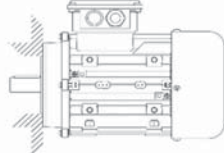
**IM V1 - IM 3011**



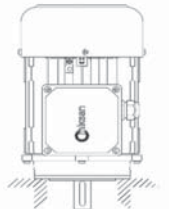
**IM V3 - IM 3031**



**IM B14 - IM 3601**



**IM V18 - IM 3611**

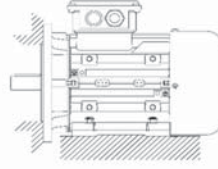


**IM V19 - IM 3631**

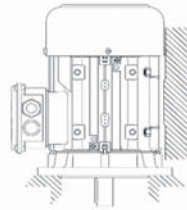


## Flanş ve ayak bağlantılı

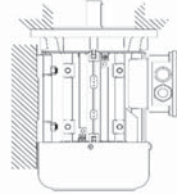
**IM B35 - IM 2001**



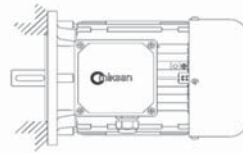
**IM V15 - IM 2011**



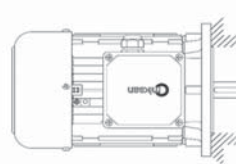
**IM V35 - IM 2031**



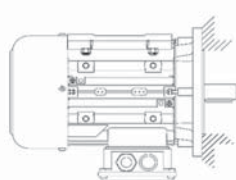
**IM 2051**



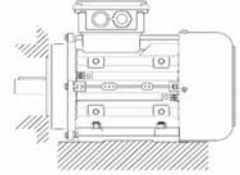
**IM 2061**



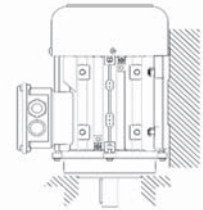
**IM 2071**



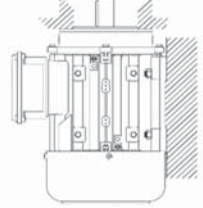
**IM B34 - IM 2101**



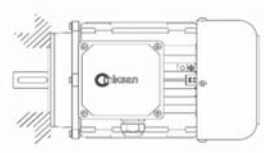
**IM V17 - IM 2111**



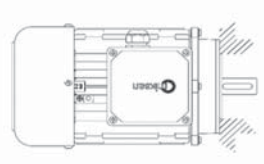
**IM V37 - IM 2131**



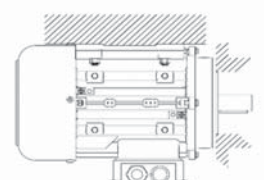
**IM 2151**



**IM 2161**



**IM 2171**





Gerilim : 400V - 50 Hz  
İzl Sınıfı : F  
İşl. Türü : S1  
IP : 54

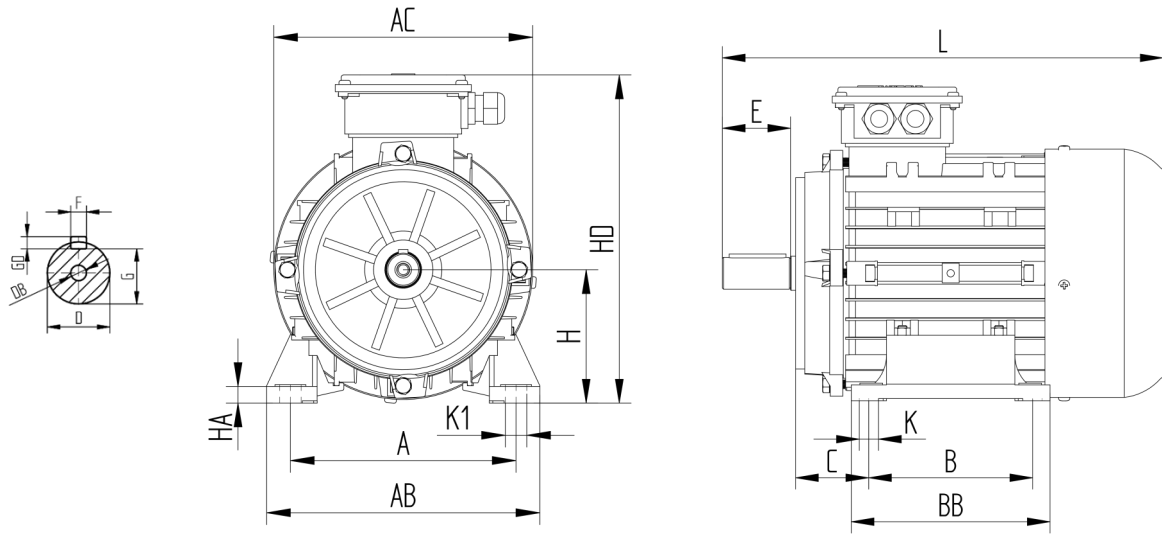
# IE3

| Tip                          | Pn   |      |                   | Tn<br>Nm | IE3 $\eta$ |      |      | cos $\varphi$ | I <sub>n</sub><br>400V | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | J<br>kgm <sup>2</sup> | kg   |
|------------------------------|------|------|-------------------|----------|------------|------|------|---------------|------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------|------|
|                              | kW   | HP   | min <sup>-1</sup> |          | 100%       | 75%  | 50%  |               |                        |                                |                                |                                |                       |      |
| <b>3000 min<sup>-1</sup></b> |      |      |                   |          |            |      |      |               |                        |                                |                                |                                |                       |      |
| 56 2A*                       | 0.09 | 0.12 | 2830              | 0.32     | 64.6       | 64.3 | 55.1 | 0.70          | 0.30                   | 3.7                            | 3.0                            | 3.1                            | 0.00014               | 2.3  |
| 56 2B*                       | 0.12 | 0.16 | 2860              | 0.40     | 63.4       | 63.2 | 56.0 | 0.72          | 0.37                   | 5.0                            | 3.7                            | 3.1                            | 0.00015               | 2.8  |
| 56 2C*                       | 0.18 | 0.25 | 2840              | 0.60     | 67.4       | 67.1 | 61.2 | 0.76          | 0.50                   | 5.0                            | 3.7                            | 3.1                            | 0.00016               | 3.2  |
| 63 2A*                       | 0.18 | 0.25 | 2800              | 0.61     | 65.1       | 64.8 | 59.8 | 0.65          | 0.65                   | 4.6                            | 2.8                            | 2.8                            | 0.00014               | 3.4  |
| 63 2B*                       | 0.25 | 0.34 | 2800              | 0.85     | 68.7       | 68.1 | 60.7 | 0.75          | 0.73                   | 4.2                            | 2.2                            | 3.5                            | 0.00017               | 3.8  |
| 63 2C*                       | 0.37 | 0.50 | 2790              | 1.26     | 68.3       | 68.1 | 61.2 | 0.70          | 1.15                   | 4.0                            | 2.0                            | 3.0                            | 0.00018               | 4.5  |
| 63 2D*                       | 0.55 | 0.75 | 2720              | 1.95     | 71.3       | 71.0 | 68.2 | 0.80          | 1.40                   | 3.9                            | 2.3                            | 3.1                            | 0.00042               | 5.2  |
| 71 2A*                       | 0.37 | 0.50 | 2800              | 1.58     | 73.2       | 73.0 | 69.2 | 0.72          | 1.10                   | 4.0                            | 2.5                            | 2.6                            | 0.00033               | 4.9  |
| 71 2B*                       | 0.55 | 0.75 | 2765              | 1.94     | 76.8       | 76.1 | 74.1 | 0.81          | 1.30                   | 4.5                            | 2.4                            | 2.5                            | 0.00043               | 6.0  |
| 71 2C IE3                    | 0.75 | 1.00 | 2775              | 2.55     | 77.4       | 77.5 | 74.2 | 0.80          | 1.78                   | 4.7                            | 2.6                            | 2.8                            | 0.00054               | 7.6  |
| 80 2B IE3                    | 0.75 | 1.00 | 2890              | 2.50     | 81.6       | 78.6 | 73.7 | 0.77          | 1.72                   | 6.1                            | 2.4                            | 3.2                            | 0.00067               | 8.7  |
| 80 2C IE3                    | 1.10 | 1.50 | 2885              | 3.70     | 82.8       | 81.4 | 78.0 | 0.76          | 2.34                   | 6.0                            | 2.6                            | 3.6                            | 0.00081               | 9.8  |
| 90S 2B IE3                   | 1.50 | 2.00 | 2907              | 4.93     | 84.2       | 83.0 | 79.3 | 0.81          | 3.23                   | 6.4                            | 3.0                            | 3.7                            | 0.0013                | 14.0 |
| 90L 2C IE3                   | 2.20 | 3.00 | 2905              | 7.24     | 85.9       | 85.2 | 82.4 | 0.83          | 4.48                   | 6.5                            | 3.1                            | 3.6                            | 0.0015                | 16.5 |
| 100 2B IE3                   | 3.00 | 4.00 | 2905              | 9.85     | 87.1       | 86.4 | 83.2 | 0.86          | 5.92                   | 7.6                            | 3.5                            | 4.1                            | 0.0030                | 21.8 |
| 100 2C IE3                   | 4.00 | 5.50 | 2895              | 13.2     | 88.1       | 87.8 | 87.0 | 0.82          | 7.25                   | 7.7                            | 3.0                            | 3.8                            | 0.0046                | 23.4 |
| 112 2B IE3                   | 4.00 | 5.50 | 2905              | 13.2     | 88.3       | 88.8 | 87.4 | 0.91          | 7.16                   | 7.1                            | 2.9                            | 3.6                            | 0.027                 | 26.9 |
| 112 2C IE3                   | 5.50 | 7.50 | 2900              | 18.1     | 91.0       | 89.7 | 88.8 | 0.87          | 9.85                   | 7.4                            | 2.8                            | 3.5                            | 0.029                 | 31.8 |
| 132S 2B IE3                  | 5.50 | 7.50 | 2910              | 18.1     | 91.0       | 89.8 | 89.0 | 0.92          | 9.73                   | 7.5                            | 2.7                            | 3.4                            | 0.015                 | 41.8 |
| 132S 2C IE3                  | 7.50 | 10.0 | 2935              | 24.5     | 90.1       | 90.0 | 89.6 | 0.90          | 13.4                   | 7.3                            | 2.7                            | 3.4                            | 0.018                 | 47.1 |
| 132M 2C IE3                  | 11.0 | 15.0 | 2930              | 35.9     | 91.2       | 91.1 | 90.2 | 0.90          | 19.6                   | 7.9                            | 2.5                            | 3.9                            | 0.022                 | 57.8 |
| <b>1500 min<sup>-1</sup></b> |      |      |                   |          |            |      |      |               |                        |                                |                                |                                |                       |      |
| 56 4A*                       | 0.06 | 0.08 | 1370              | 0.41     | 57.7       | 57.4 | 51.1 | 0.60          | 0.26                   | 3.0                            | 2.4                            | 2.6                            | 0.00014               | 2.3  |
| 56 4B*                       | 0.09 | 0.12 | 1385              | 0.62     | 59.8       | 59.2 | 54.4 | 0.62          | 0.39                   | 3.1                            | 2.8                            | 2.3                            | 0.00016               | 2.6  |
| 56 4C*                       | 0.12 | 0.16 | 1380              | 0.83     | 59.2       | 58.9 | 54.2 | 0.68          | 0.48                   | 3.2                            | 2.8                            | 2.4                            | 0.00018               | 3.3  |
| 63 4A*                       | 0.12 | 0.16 | 1400              | 0.82     | 57.4       | 57.0 | 53.4 | 0.63          | 0.60                   | 3.0                            | 2.0                            | 2.0                            | 0.00021               | 3.3  |
| 63 4B*                       | 0.18 | 0.25 | 1340              | 1.30     | 54.6       | 54.1 | 50.4 | 0.67          | 0.73                   | 2.8                            | 2.0                            | 2.0                            | 0.00026               | 3.5  |
| 63 4C*                       | 0.25 | 0.34 | 1340              | 1.80     | 60.8       | 60.4 | 56.5 | 0.66          | 1.00                   | 3.0                            | 2.0                            | 2.0                            | 0.00032               | 4.5  |
| 71 4A*                       | 0.25 | 0.34 | 1415              | 1.70     | 57.7       | 57.4 | 53.7 | 0.68          | 0.95                   | 3.3                            | 2.3                            | 2.5                            | 0.00049               | 4.7  |
| 71 4B*                       | 0.37 | 0.50 | 1410              | 2.50     | 62.8       | 62.5 | 56.9 | 0.68          | 1.25                   | 3.5                            | 2.4                            | 2.3                            | 0.00067               | 5.6  |
| 71 4C*                       | 0.55 | 0.75 | 1380              | 3.80     | 73.3       | 69.8 | 64.8 | 0.70          | 1.57                   | 3.4                            | 2.0                            | 2.1                            | 0.00082               | 6.3  |
| 80 4C IE3                    | 0.75 | 1.00 | 1435              | 5.00     | 82.5       | 81.6 | 80.8 | 0.71          | 1.90                   | 5.5                            | 2.6                            | 2.8                            | 0.0025                | 11.5 |
| 90S 4B IE3                   | 1.10 | 1.50 | 1437              | 7.37     | 84.1       | 83.9 | 82.4 | 0.72          | 2.73                   | 5.2                            | 2.8                            | 3.1                            | 0.0028                | 15.4 |
| 90L 4C IE3                   | 1.50 | 2.00 | 1430              | 10.1     | 85.3       | 84.4 | 82.8 | 0.72          | 3.48                   | 6.4                            | 3.6                            | 3.8                            | 0.0033                | 17.1 |
| 100 4B IE3                   | 2.20 | 3.00 | 1440              | 14.6     | 86.7       | 86.2 | 83.6 | 0.76          | 4.85                   | 6.9                            | 3.0                            | 3.6                            | 0.0054                | 22.0 |
| 100 4C IE3                   | 3.00 | 4.00 | 1440              | 19.9     | 87.7       | 87.0 | 85.2 | 0.78          | 7.00                   | 8.0                            | 3.9                            | 4.0                            | 0.0070                | 26.7 |
| 112 4C IE3                   | 4.00 | 5.50 | 1450              | 26.4     | 88.6       | 88.7 | 87.8 | 0.81          | 8.27                   | 6.8                            | 2.4                            | 3.0                            | 0.025                 | 32.2 |
| 132S 4B IE3                  | 5.50 | 7.50 | 1460              | 36.0     | 89.6       | 89.5 | 88.5 | 0.85          | 10.6                   | 6.9                            | 2.6                            | 3.3                            | 0.025                 | 49.9 |
| 132M 4C IE3                  | 7.50 | 10.0 | 1470              | 49.0     | 90.4       | 90.1 | 89.6 | 0.80          | 15.4                   | 7.5                            | 3.1                            | 3.5                            | 0.033                 | 56.2 |

\* ile işaretli olan motorların IEC 60034-2-1'e göre verim tayinleri yapılmamıştır.

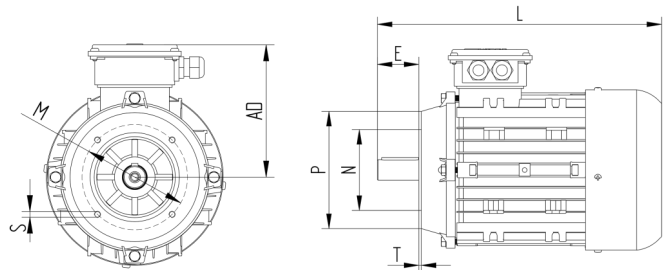


## PREMIUM VERİMLİ MOTORLAR IE3

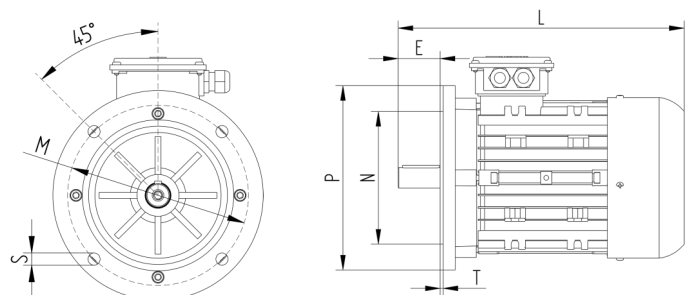


| IEC  | H   | HD  | L   | AC  | A   | B   | AB  | BB  | K1 | K    | HA | C  | E  | D  | DB  | GA   | FxGD |
|------|-----|-----|-----|-----|-----|-----|-----|-----|----|------|----|----|----|----|-----|------|------|
| 56   | 56  | 143 | 182 | 108 | 90  | 71  | 110 | 81  | 7  | 6    | 6  | 36 | 20 | 9  | -   | 10   | 3x3  |
| 63   | 63  | 168 | 210 | 124 | 100 | 80  | 120 | 100 | 10 | 7    | 7  | 40 | 23 | 11 | -   | 12.5 | 4x4  |
| 71   | 71  | 184 | 243 | 138 | 112 | 90  | 135 | 109 | 12 | 7    | 8  | 45 | 30 | 14 | M5  | 16.0 | 5x5  |
| 80   | 80  | 201 | 273 | 157 | 125 | 100 | 152 | 129 | 13 | 10   | 10 | 50 | 40 | 19 | M6  | 21.5 | 6x6  |
| 90S  | 90  | 229 | 308 | 175 | 140 | 100 | 170 | 127 | 13 | 10   | 10 | 56 | 50 | 24 | M8  | 27.0 | 8x8  |
| 90L  | 90  | 229 | 333 | 175 | 140 | 125 | 170 | 152 | 13 | 10   | 10 | 56 | 50 | 24 | M8  | 27.0 | 8x8  |
| 100  | 100 | 251 | 375 | 194 | 160 | 140 | 192 | 165 | 18 | 12   | 10 | 63 | 60 | 28 | M10 | 31.0 | 8x8  |
| 112  | 112 | 276 | 387 | 218 | 190 | 140 | 230 | 175 | 18 | 12   | 14 | 70 | 60 | 28 | M10 | 31.0 | 8x8  |
| 132S | 132 | 309 | 462 | 258 | 216 | 140 | 260 | 180 | 28 | 12.5 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |
| 132M | 132 | 309 | 493 | 258 | 216 | 178 | 260 | 218 | 28 | 12.5 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |

| IEC B14 | P   | N   | M   | T   | S   | AD  |
|---------|-----|-----|-----|-----|-----|-----|
| 56      | 78  | 50  | 65  | 2.5 | M5  | 87  |
| 63      | 90  | 60  | 75  | 2.5 | M5  | 105 |
| 71      | 105 | 70  | 85  | 2.5 | M6  | 113 |
| 80      | 122 | 80  | 100 | 3.0 | M6  | 121 |
| 90 S/L  | 138 | 95  | 115 | 3.0 | M8  | 139 |
| 100     | 160 | 110 | 130 | 3.5 | M8  | 151 |
| 112     | 160 | 110 | 130 | 3.5 | M8  | 164 |
| 132S/M  | 200 | 130 | 165 | 3.5 | M10 | 196 |



| IEC B5 | P   | N   | M   | T   | S    | AD  |
|--------|-----|-----|-----|-----|------|-----|
| 56     | 120 | 80  | 100 | 3.0 | 7    | 87  |
| 63     | 140 | 95  | 115 | 3.0 | 10   | 105 |
| 71     | 160 | 110 | 130 | 3.5 | 10   | 113 |
| 80     | 200 | 130 | 165 | 3.5 | 12   | 121 |
| 90 S/L | 200 | 130 | 165 | 3.5 | 12   | 139 |
| 100    | 250 | 180 | 215 | 4.0 | 13   | 151 |
| 112    | 250 | 180 | 215 | 4.0 | 13   | 164 |
| 132S/M | 300 | 230 | 265 | 4.0 | 14.5 | 196 |

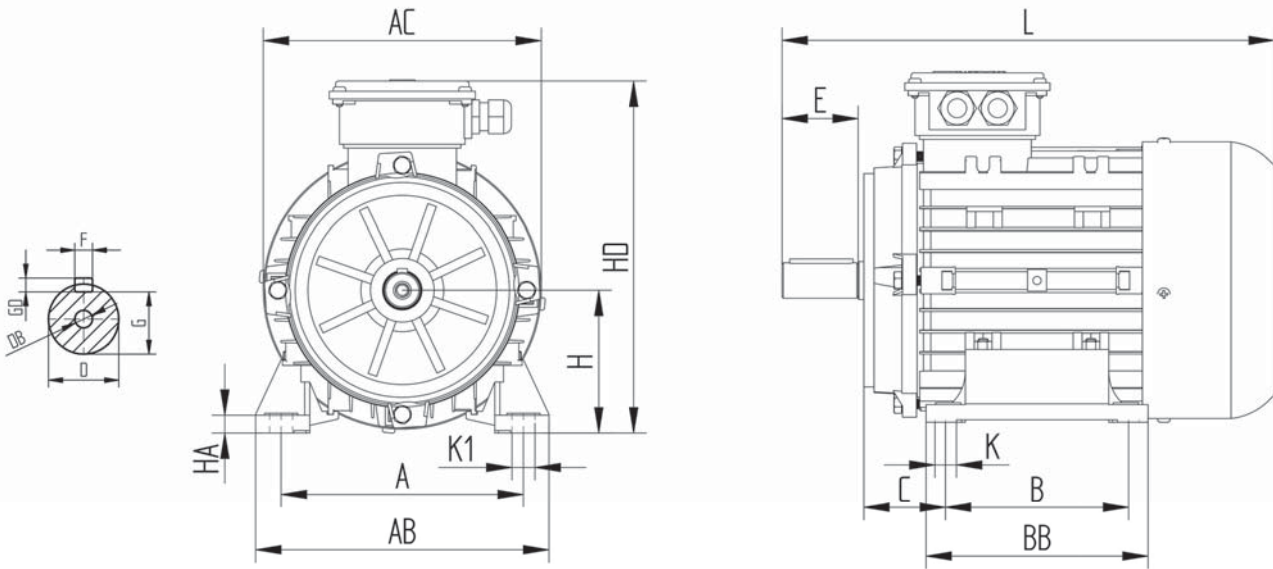


Gerilim : 400V - 50 Hz  
 İz Sınıfı : F  
 İşl. Türü : S1  
 IP : 54

## IE2

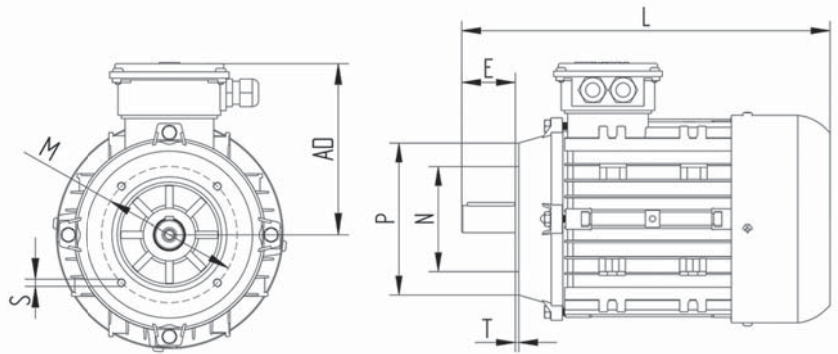
| Tip                          | P <sub>n</sub> |      | T <sub>n</sub> | IE2 $\eta$        |      |      | cos $\varphi$ | I <sub>n</sub> | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | J   | kg      |      |
|------------------------------|----------------|------|----------------|-------------------|------|------|---------------|----------------|--------------------------------|--------------------------------|--------------------------------|-----|---------|------|
|                              | kW             | HP   |                | min <sup>-1</sup> | Nm   | 100% |               |                |                                |                                |                                |     |         | 75%  |
| <b>3000 min<sup>-1</sup></b> |                |      |                |                   |      |      |               |                |                                |                                |                                |     |         |      |
| 56 2A*                       | 0.09           | 0.12 | 2830           | 0.32              | 64.6 | 64.3 | 55.1          | 0.70           | 0.30                           | 3.7                            | 3.0                            | 3.1 | 0.00014 | 2.3  |
| 56 2B*                       | 0.12           | 0.16 | 2860           | 0.40              | 63.4 | 63.2 | 56.0          | 0.72           | 0.37                           | 5.0                            | 3.7                            | 3.1 | 0.00015 | 2.8  |
| 56 2C*                       | 0.18           | 0.25 | 2840           | 0.60              | 67.4 | 67.1 | 61.2          | 0.76           | 0.50                           | 5.0                            | 3.7                            | 3.1 | 0.00016 | 3.2  |
| 63 2A*                       | 0.18           | 0.25 | 2800           | 0.61              | 65.1 | 64.8 | 59.8          | 0.65           | 0.65                           | 4.6                            | 2.8                            | 2.8 | 0.00014 | 3.4  |
| 63 2B*                       | 0.25           | 0.34 | 2800           | 0.85              | 68.7 | 68.1 | 60.7          | 0.75           | 0.73                           | 4.2                            | 2.2                            | 3.5 | 0.00017 | 3.8  |
| 63 2C*                       | 0.37           | 0.50 | 2790           | 1.26              | 68.3 | 68.1 | 61.2          | 0.70           | 1.15                           | 4.0                            | 2.0                            | 3.0 | 0.00018 | 4.5  |
| 63 2D*                       | 0.55           | 0.75 | 2720           | 1.95              | 71.3 | 71.0 | 68.2          | 0.80           | 1.40                           | 3.9                            | 2.3                            | 3.1 | 0.00042 | 5.2  |
| 71 2A*                       | 0.37           | 0.50 | 2800           | 1.58              | 73.2 | 73.0 | 69.2          | 0.72           | 1.10                           | 4.0                            | 2.5                            | 2.6 | 0.00033 | 4.9  |
| 71 2B*                       | 0.55           | 0.75 | 2765           | 1.94              | 76.8 | 76.1 | 74.1          | 0.81           | 1.30                           | 4.5                            | 2.4                            | 2.5 | 0.00043 | 6.0  |
| 71 2C IE2                    | 0.75           | 1.00 | 2775           | 2.60              | 77.4 | 77.5 | 74.2          | 0.80           | 1.78                           | 4.7                            | 2.6                            | 2.8 | 0.00054 | 7.6  |
| 80 2A IE2                    | 0.75           | 1.00 | 2820           | 2.55              | 77.4 | 77.6 | 74.8          | 0.81           | 1.72                           | 4.8                            | 3.2                            | 3.0 | 0.00067 | 8.0  |
| 80 2B IE2                    | 1.10           | 1.50 | 2805           | 3.75              | 79.6 | 80.0 | 78.0          | 0.84           | 2.34                           | 5.0                            | 2.5                            | 3.2 | 0.00081 | 9.1  |
| 80 2C IE2                    | 1.50           | 2.00 | 2830           | 5.10              | 81.3 | 81.0 | 79.3          | 0.81           | 3.31                           | 6.2                            | 2.8                            | 3.1 | 0.00092 | 10.1 |
| 90S 2A IE2                   | 1.50           | 2.00 | 2860           | 5.00              | 81.3 | 81.4 | 79.5          | 0.82           | 3.23                           | 6.1                            | 2.4                            | 2.6 | 0.0013  | 12.0 |
| 90L 2B IE2                   | 2.20           | 3.00 | 2865           | 7.35              | 83.2 | 83.0 | 81.7          | 0.81           | 4.48                           | 6.6                            | 2.7                            | 2.9 | 0.0016  | 15.0 |
| 90L 2C IE2                   | 3.00           | 4.00 | 2865           | 10.0              | 84.6 | 84.0 | 82.1          | 0.82           | 6.58                           | 6.7                            | 2.9                            | 3.1 | 0.0019  | 17.3 |
| 100 2A IE2                   | 3.00           | 4.00 | 2860           | 10.0              | 84.6 | 84.5 | 83.8          | 0.78           | 5.92                           | 6.7                            | 2.6                            | 3.1 | 0.0026  | 18.8 |
| 100 2B IE2                   | 4.00           | 5.50 | 2865           | 13.4              | 85.8 | 84.9 | 83.9          | 0.88           | 7.60                           | 7.6                            | 2.7                            | 3.0 | 0.0068  | 22.3 |
| 112 2A IE2                   | 4.00           | 5.50 | 2870           | 13.3              | 85.8 | 85.2 | 84.5          | 0.86           | 7.75                           | 6.6                            | 2.2                            | 2.6 | 0.0046  | 26.3 |
| 112 2B IE2                   | 5.50           | 7.50 | 2890           | 18.2              | 87.0 | 86.5 | 85.6          | 0.89           | 9.85                           | 7.3                            | 2.1                            | 2.6 | 0.0050  | 27.5 |
| 132S 2A IE2                  | 5.50           | 7.50 | 2885           | 18.2              | 87.0 | 87.0 | 86.4          | 0.89           | 9.73                           | 8.6                            | 2.2                            | 2.7 | 0.010   | 41.0 |
| 132S 2B IE2                  | 7.50           | 10.0 | 2890           | 24.8              | 88.1 | 88.0 | 87.7          | 0.91           | 13.4                           | 8.4                            | 2.3                            | 2.6 | 0.012   | 44.1 |
| 132M 2C IE2                  | 11.0           | 15.0 | 2910           | 36.2              | 89.4 | 89.3 | 88.6          | 0.90           | 19.6                           | 7.2                            | 2.0                            | 2.2 | 0.021   | 57.8 |
| <b>1500 min<sup>-1</sup></b> |                |      |                |                   |      |      |               |                |                                |                                |                                |     |         |      |
| 56 4A*                       | 0.06           | 0.08 | 1370           | 0.41              | 57.7 | 57.4 | 51.1          | 0.60           | 0.26                           | 3.0                            | 2.4                            | 2.6 | 0.00014 | 2.3  |
| 56 4B*                       | 0.09           | 0.12 | 1385           | 0.62              | 59.8 | 59.2 | 54.4          | 0.62           | 0.39                           | 3.1                            | 2.8                            | 2.3 | 0.00016 | 2.6  |
| 56 4C*                       | 0.12           | 0.16 | 1380           | 0.83              | 59.2 | 58.9 | 54.2          | 0.68           | 0.48                           | 3.2                            | 2.8                            | 2.4 | 0.00018 | 3.3  |
| 63 4A*                       | 0.12           | 0.16 | 1400           | 0.82              | 57.4 | 57.0 | 53.4          | 0.63           | 0.60                           | 3.0                            | 2.0                            | 2.0 | 0.00021 | 3.3  |
| 63 4B*                       | 0.18           | 0.25 | 1340           | 1.30              | 54.6 | 54.1 | 50.4          | 0.67           | 0.73                           | 2.8                            | 2.0                            | 2.0 | 0.00026 | 3.5  |
| 63 4C*                       | 0.25           | 0.34 | 1340           | 1.80              | 60.8 | 60.4 | 56.5          | 0.66           | 1.00                           | 3.0                            | 2.0                            | 2.0 | 0.00032 | 4.5  |
| 71 4A*                       | 0.25           | 0.34 | 1415           | 1.70              | 57.7 | 57.4 | 53.7          | 0.68           | 0.95                           | 3.3                            | 2.3                            | 2.5 | 0.00049 | 4.7  |
| 71 4B*                       | 0.37           | 0.50 | 1410           | 2.50              | 62.8 | 62.5 | 56.9          | 0.68           | 1.25                           | 3.5                            | 2.4                            | 2.3 | 0.00067 | 5.6  |
| 71 4C*                       | 0.55           | 0.75 | 1380           | 3.80              | 73.3 | 69.8 | 64.8          | 0.70           | 1.57                           | 3.4                            | 2.0                            | 2.1 | 0.00082 | 6.3  |
| 80 4B IE2                    | 0.75           | 1.00 | 1410           | 5.10              | 79.6 | 79.4 | 77.7          | 0.74           | 1.90                           | 4.0                            | 2.1                            | 2.1 | 0.008   | 9.6  |
| 90S 4A IE2                   | 1.10           | 1.50 | 1415           | 7.45              | 81.4 | 81.3 | 80.2          | 0.73           | 2.70                           | 5.5                            | 2.8                            | 3.1 | 0.008   | 12.6 |
| 90L 4B IE2                   | 1.50           | 2.00 | 1415           | 10.1              | 82.8 | 82.8 | 81.3          | 0.72           | 3.55                           | 6.0                            | 2.6                            | 3.0 | 0.009   | 15.2 |
| 100 4A IE2                   | 2.20           | 3.00 | 1425           | 14.9              | 84.3 | 84.1 | 82.3          | 0.76           | 4.60                           | 5.6                            | 2.1                            | 2.7 | 0.012   | 21.0 |
| 100 4C IE2                   | 3.00           | 4.00 | 1415           | 20.3              | 85.5 | 85.5 | 83.8          | 0.76           | 6.90                           | 5.4                            | 2.0                            | 2.5 | 0.016   | 23.7 |
| 112 4C IE2                   | 4.00           | 5.50 | 1440           | 26.6              | 86.6 | 86.6 | 85.1          | 0.81           | 8.40                           | 7.0                            | 2.1                            | 3.0 | 0.027   | 28.4 |
| 132S 4B IE2                  | 5.50           | 7.50 | 1455           | 36.1              | 87.7 | 87.9 | 87.1          | 0.78           | 11.7                           | 6.9                            | 2.5                            | 2.9 | 0.022   | 40.8 |
| 132M 4C IE2                  | 7.50           | 10.0 | 1460           | 49.1              | 88.7 | 88.7 | 87.9          | 0.76           | 15.8                           | 7.0                            | 2.2                            | 2.7 | 0.030   | 51.0 |

### 3 FAZ MOTOR TEKNİK ÖLÇÜLERİ

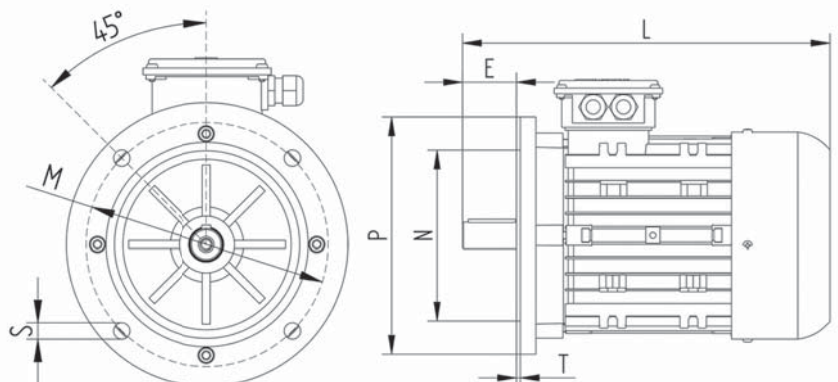


| IEC  | H   | HD  | L   | AC  | A   | B   | AB  | BB  | K1 | K  | HA | C  | E  | D  | DB  | GA   | FxGD |
|------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|-----|------|------|
| 56   | 56  | 143 | 182 | 108 | 90  | 71  | 110 | 81  | 7  | 6  | 6  | 36 | 20 | 9  | -   | 10.0 | 3x3  |
| 63   | 63  | 168 | 210 | 124 | 100 | 80  | 120 | 100 | 10 | 7  | 7  | 40 | 23 | 11 | -   | 12.5 | 4x4  |
| 71   | 71  | 184 | 243 | 138 | 112 | 90  | 135 | 109 | 12 | 7  | 8  | 45 | 30 | 14 | M5  | 16.0 | 5x5  |
| 80   | 80  | 201 | 273 | 157 | 125 | 100 | 152 | 129 | 13 | 10 | 10 | 50 | 40 | 19 | M6  | 21.5 | 6x6  |
| 90S  | 90  | 229 | 305 | 175 | 140 | 100 | 170 | 127 | 13 | 10 | 10 | 58 | 50 | 24 | M8  | 27.0 | 8x8  |
| 90L  | 90  | 229 | 333 | 175 | 140 | 125 | 170 | 152 | 13 | 10 | 10 | 58 | 50 | 24 | M8  | 27.0 | 8x8  |
| 100  | 100 | 251 | 375 | 194 | 160 | 140 | 192 | 165 | 18 | 12 | 10 | 63 | 60 | 28 | M10 | 31.0 | 8x8  |
| 112  | 112 | 276 | 388 | 218 | 190 | 140 | 230 | 175 | 18 | 12 | 14 | 71 | 60 | 28 | M10 | 31.0 | 8x8  |
| 132S | 132 | 309 | 464 | 258 | 216 | 140 | 260 | 180 | 28 | 12 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |
| 132M | 132 | 309 | 493 | 258 | 216 | 178 | 260 | 218 | 28 | 12 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |

| IEC B14 | P   | N   | M   | T   | S   | AD  |
|---------|-----|-----|-----|-----|-----|-----|
| 56      | 78  | 50  | 65  | 2.5 | M5  | 87  |
| 63      | 90  | 60  | 75  | 2.5 | M5  | 105 |
| 71      | 105 | 70  | 85  | 2.5 | M6  | 113 |
| 80      | 122 | 80  | 100 | 3.0 | M6  | 121 |
| 90 S/L  | 180 | 95  | 115 | 3.0 | M8  | 139 |
| 100     | 160 | 110 | 130 | 3.5 | M8  | 151 |
| 112     | 160 | 110 | 130 | 3.5 | M8  | 164 |
| 132     | 200 | 130 | 165 | 3.5 | M10 | 177 |

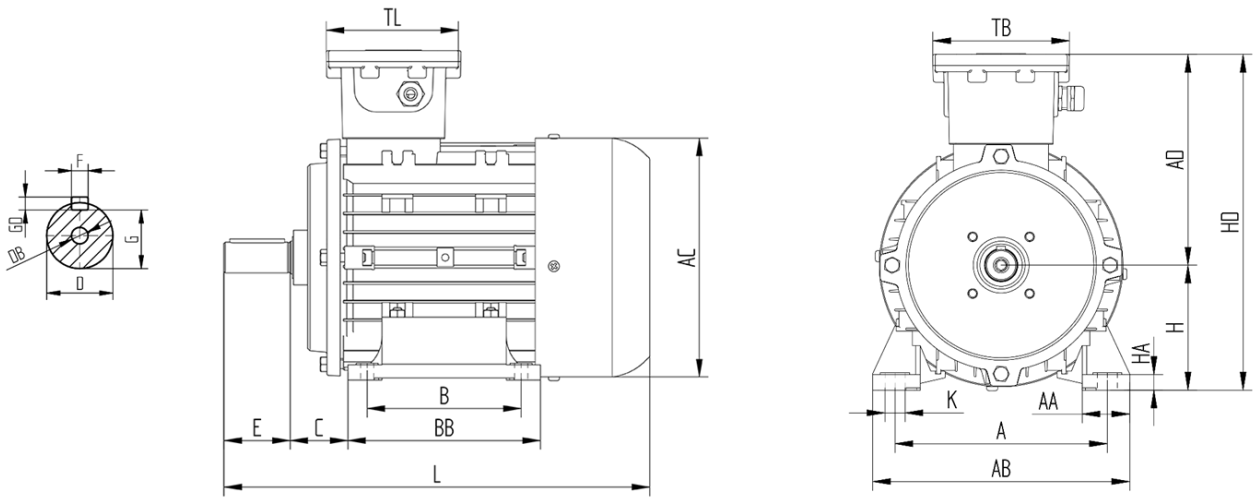


| IEC B5 | P   | N   | M   | T   | S  | AD  |
|--------|-----|-----|-----|-----|----|-----|
| 56     | 120 | 80  | 100 | 3.0 | 7  | 87  |
| 63     | 140 | 95  | 115 | 3.0 | 10 | 105 |
| 71     | 160 | 110 | 130 | 4.0 | 10 | 113 |
| 80     | 200 | 130 | 165 | 3.5 | 12 | 121 |
| 90 S/L | 200 | 130 | 165 | 3.0 | 12 | 139 |
| 100    | 250 | 180 | 215 | 4.0 | 15 | 151 |
| 112    | 250 | 180 | 215 | 4.0 | 15 | 164 |
| 132    | 300 | 230 | 265 | 4.0 | 15 | 177 |



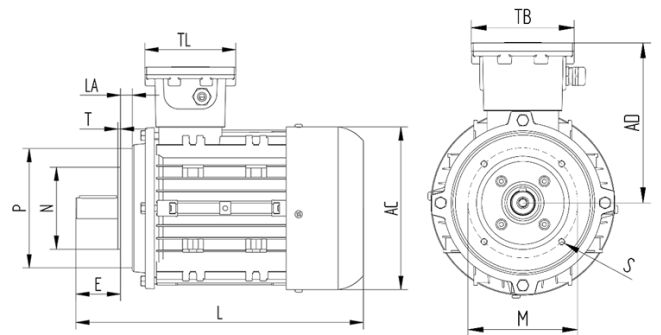


## EX EX-PROOF MOTOR TEKNİK ÖLÇÜLERİ

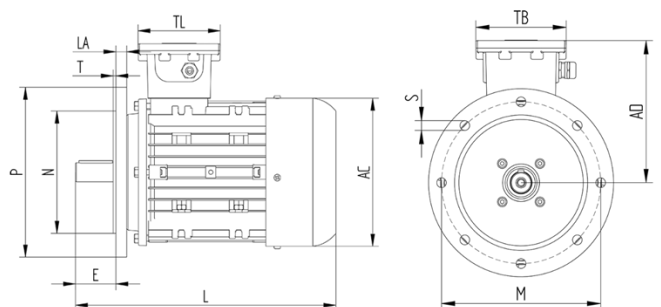


| IEC  | H   | HD  | L   | AC  | A   | B   | AB  | BB  | K1 | K    | HA | C  | E  | D  | DB  | GA   | FxGD |
|------|-----|-----|-----|-----|-----|-----|-----|-----|----|------|----|----|----|----|-----|------|------|
| 56   | 56  | 188 | 182 | 108 | 90  | 71  | 110 | 81  | 7  | 6    | 6  | 36 | 20 | 9  | -   | 10   | 3x3  |
| 63   | 63  | 204 | 210 | 124 | 100 | 80  | 120 | 100 | 10 | 7    | 7  | 40 | 23 | 11 | M4  | 12.5 | 4x4  |
| 71   | 71  | 220 | 243 | 138 | 112 | 90  | 135 | 109 | 12 | 7    | 8  | 45 | 30 | 14 | M5  | 16.0 | 5x5  |
| 80   | 80  | 236 | 273 | 157 | 125 | 100 | 152 | 129 | 13 | 10   | 10 | 50 | 40 | 19 | M6  | 21.5 | 6x6  |
| 90S  | 90  | 248 | 308 | 175 | 140 | 100 | 170 | 127 | 13 | 10   | 10 | 56 | 50 | 24 | M8  | 27.0 | 8x8  |
| 90L  | 90  | 248 | 333 | 175 | 140 | 125 | 170 | 152 | 13 | 10   | 10 | 56 | 50 | 24 | M8  | 27.0 | 8x8  |
| 100  | 100 | 274 | 375 | 194 | 160 | 140 | 192 | 165 | 18 | 12   | 10 | 63 | 60 | 28 | M10 | 31.0 | 8x8  |
| 112  | 112 | 302 | 387 | 218 | 190 | 140 | 230 | 175 | 18 | 12   | 14 | 70 | 60 | 28 | M10 | 31.0 | 8x8  |
| 132S | 132 | 358 | 462 | 258 | 216 | 140 | 260 | 180 | 28 | 12.5 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |
| 132M | 132 | 358 | 493 | 258 | 216 | 178 | 260 | 218 | 28 | 12.5 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |

| IEC B14 | P   | N   | M   | T   | LA   | S   | AD  | TB/TL |
|---------|-----|-----|-----|-----|------|-----|-----|-------|
| 56      | 80  | 50  | 65  | 2.5 | 10   | M5  | 132 | 122   |
| 63      | 90  | 60  | 75  | 2.5 | 10.5 | M5  | 141 | 122   |
| 71      | 105 | 70  | 85  | 2.5 | 12.8 | M6  | 149 | 122   |
| 80      | 122 | 80  | 100 | 3.0 | 13.8 | M6  | 156 | 122   |
| 90 S/L  | 138 | 95  | 115 | 3.0 | 13.8 | M8  | 164 | 122   |
| 100     | 160 | 110 | 130 | 3.5 | 16.0 | M8  | 174 | 122   |
| 112     | 160 | 110 | 130 | 3.5 | 16.0 | M8  | 190 | 122   |
| 132S/M  | 200 | 130 | 165 | 3.5 | 20.0 | M10 | 226 | 150   |



| IEC B5 | P   | N   | M   | T   | LA   | S    | AD  | TB/TL |
|--------|-----|-----|-----|-----|------|------|-----|-------|
| 56     | 120 | 80  | 100 | 3.0 | 8.0  | 7    | 132 | 122   |
| 63     | 140 | 95  | 115 | 3.0 | 8.0  | 10   | 141 | 122   |
| 71     | 160 | 110 | 130 | 3.5 | 10.0 | 10   | 149 | 122   |
| 80     | 200 | 130 | 165 | 3.5 | 12.0 | 12   | 156 | 122   |
| 90 S/L | 200 | 130 | 165 | 3.5 | 13.8 | 12   | 164 | 122   |
| 100    | 250 | 180 | 215 | 4.0 | 16.0 | 13   | 174 | 122   |
| 112    | 250 | 180 | 215 | 4.0 | 16.0 | 13   | 190 | 122   |
| 132S/M | 300 | 230 | 265 | 4.0 | 20.0 | 14.5 | 226 | 150   |



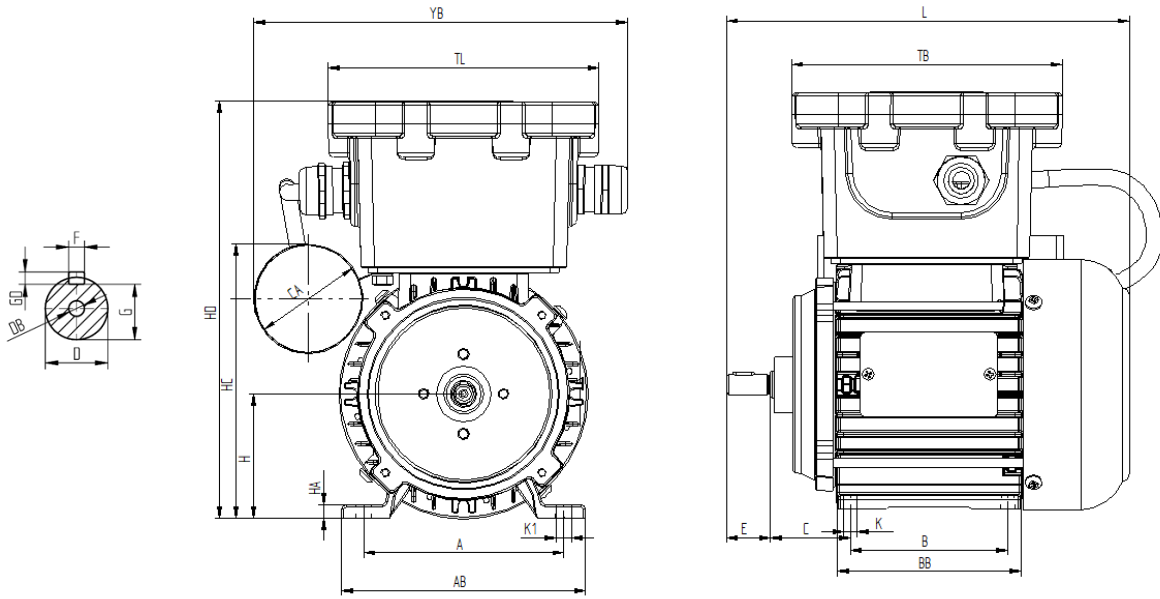
## EX SERİSİ EX-PROOF MOTORLAR

# EX SERİSİ

Gerilim : 400V 50Hz/460V 60Hz  
 İz Sınıf : F  
 IP : 55/65  
 İşl. Türü : S1  
 Serifika No : IEP 16 ATEX 0433X

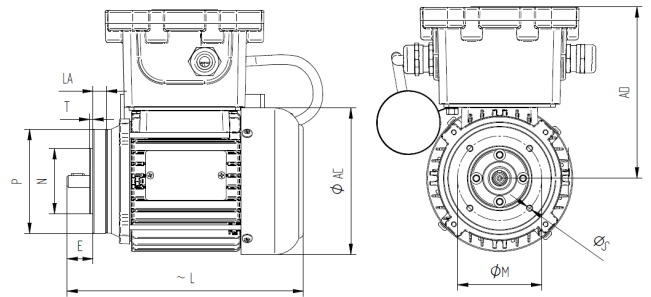
| Tip                          | P <sub>n(kw)</sub> |      | HP   |      | min <sup>-1</sup> |      | T <sub>n</sub><br>Nm | cos φ | I <sub>n</sub><br>400V | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | J<br>kgm <sup>2</sup> | kg   |
|------------------------------|--------------------|------|------|------|-------------------|------|----------------------|-------|------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------|------|
|                              | 50Hz               | 60Hz | 50Hz | 60Hz | 50Hz              | 60Hz |                      |       |                        |                                |                                |                                |                       |      |
| <b>3000 min<sup>-1</sup></b> |                    |      |      |      |                   |      |                      |       |                        |                                |                                |                                |                       |      |
| 56 2A EX                     | 0.09               | 0.11 | 0.12 | 0.15 | 2815              | 3370 | 0.31                 | 0.70  | 0.30                   | 3.7                            | 3.1                            | 2.9                            | 0.00014               | 4.0  |
| 56 2B EX                     | 0.12               | 0.14 | 0.16 | 0.21 | 2835              | 3395 | 0.41                 | 0.75  | 0.35                   | 4.9                            | 3.6                            | 3.0                            | 0.00015               | 4.2  |
| 56 2C EX                     | 0.18               | 0.22 | 0.25 | 0.33 | 2800              | 3355 | 0.62                 | 0.84  | 0.50                   | 4.9                            | 3.7                            | 2.9                            | 0.00016               | 4.4  |
| 63 2A EX                     | 0.18               | 0.22 | 0.25 | 0.30 | 2785              | 3345 | 0.63                 | 0.69  | 0.65                   | 4.2                            | 2.3                            | 2.7                            | 0.0001                | 4.8  |
| 63 2B EX                     | 0.25               | 0.30 | 0.34 | 0.41 | 2755              | 3310 | 0.87                 | 0.78  | 0.70                   | 4.5                            | 2.4                            | 2.8                            | 0.00012               | 5.3  |
| 63 2C EX                     | 0.37               | 0.44 | 0.50 | 0.60 | 2760              | 3315 | 1.30                 | 0.70  | 1.20                   | 4.3                            | 2.3                            | 2.6                            | 0.00021               | 5.7  |
| 71 2A EX                     | 0.37               | 0.44 | 0.50 | 0.60 | 2790              | 3350 | 1.25                 | 0.71  | 1.10                   | 4.0                            | 2.5                            | 2.6                            | 0.00032               | 6.5  |
| 71 2B EX                     | 0.55               | 0.66 | 0.74 | 0.98 | 2760              | 3310 | 1.90                 | 0.80  | 1.45                   | 4.5                            | 2.4                            | 2.5                            | 0.00065               | 7.4  |
| 80 2A EX                     | 0.75               | 0.90 | 1.00 | 1.20 | 2890              | 3470 | 2.50                 | 0.77  | 1.75                   | 6.1                            | 2.4                            | 3.2                            | 0.00078               | 10.2 |
| 80 2B EX                     | 1.10               | 1.32 | 1.50 | 1.80 | 2790              | 3350 | 3.80                 | 0.83  | 2.60                   | 5.0                            | 2.5                            | 3.2                            | 0.00087               | 10.2 |
| 90S 2A EX                    | 1.50               | 1.80 | 2.00 | 2.40 | 2907              | 3490 | 4.93                 | 0.81  | 3.25                   | 6.4                            | 3.0                            | 3.7                            | 0.0013                | 15.2 |
| 90L 2B EX                    | 2.20               | 2.64 | 3.00 | 3.60 | 2875              | 3450 | 7.30                 | 0.81  | 4.75                   | 6.6                            | 2.7                            | 2.9                            | 0.0016                | 15.3 |
| 100 2A EX                    | 3.00               | 3.60 | 4.00 | 4.80 | 2905              | 3485 | 9.85                 | 0.86  | 5.95                   | 7.6                            | 3.5                            | 4.1                            | 0.0026                | 23.4 |
| 100 2B EX                    | 4.00               | 4.80 | 5.50 | 6.60 | 2865              | 3440 | 13.2                 | 0.88  | 7.50                   | 7.6                            | 2.7                            | 3.0                            | 0.0036                | 23.7 |
| 112 2A EX                    | 4.00               | 4.80 | 5.50 | 6.60 | 2905              | 3485 | 13.2                 | 0.91  | 7.16                   | 7.1                            | 2.9                            | 3.6                            | 0.0046                | 28.3 |
| 112 2B EX                    | 5.50               | 6.60 | 7.50 | 9.00 | 2900              | 3480 | 18.1                 | 0.87  | 9.85                   | 7.4                            | 2.8                            | 3.5                            | 0.0050                | 33.2 |
| 132S 2A EX                   | 5.50               | 6.60 | 7.50 | 9.00 | 2910              | 3490 | 18.1                 | 0.92  | 9.73                   | 7.5                            | 2.7                            | 3.4                            | 0.015                 | 45.4 |
| 132S 2B EX                   | 7.50               | 9.50 | 10.0 | 12.0 | 2935              | 3520 | 24.5                 | 0.90  | 13.4                   | 7.3                            | 2.8                            | 3.4                            | 0.018                 | 51.5 |
| 132M 2C EX                   | 11.0               | 13.2 | 15.0 | 18.0 | 2910              | 3490 | 36.1                 | 0.91  | 19.7                   | 7.5                            | 3.0                            | 2.2                            | 0.021                 | 53.2 |
| <b>1500 min<sup>-1</sup></b> |                    |      |      |      |                   |      |                      |       |                        |                                |                                |                                |                       |      |
| 56 4A EX                     | 0.09               | 0.11 | 0.12 | 0.15 | 2815              | 3370 | 0.31                 | 0.70  | 0.30                   | 2.7                            | 2.4                            | 2.5                            | 0.00014               | 4.0  |
| 56 4B EX                     | 0.12               | 0.14 | 0.16 | 0.21 | 2835              | 3395 | 0.41                 | 0.75  | 0.35                   | 2.9                            | 2.2                            | 2.3                            | 0.00015               | 4.2  |
| 56 4C EX                     | 0.18               | 0.22 | 0.25 | 0.33 | 2800              | 3355 | 0.62                 | 0.84  | 0.50                   | 3.2                            | 2.1                            | 2.3                            | 0.00016               | 4.4  |
| 63 4A EX                     | 0.12               | 0.14 | 0.16 | 0.19 | 1380              | 1660 | 0.85                 | 0.60  | 0.65                   | 3.1                            | 2.2                            | 2.6                            | 0.00019               | 4.7  |
| 63 4B EX                     | 0.18               | 0.22 | 0.25 | 0.30 | 1330              | 1600 | 1.30                 | 0.68  | 0.75                   | 3.0                            | 1.9                            | 2.3                            | 0.00022               | 5.1  |
| 63 4C EX                     | 0.25               | 0.30 | 0.34 | 0.41 | 1320              | 1585 | 1.85                 | 0.66  | 1.05                   | 2.9                            | 2.0                            | 2.2                            | 0.00035               | 5.5  |
| 71 4A EX                     | 0.25               | 0.30 | 0.34 | 0.41 | 1420              | 1705 | 1.70                 | 0.70  | 1.00                   | 3.3                            | 2.3                            | 2.5                            | 0.00048               | 6.4  |
| 71 4B EX                     | 0.37               | 0.44 | 0.50 | 0.60 | 1425              | 1710 | 2.50                 | 0.62  | 1.35                   | 3.5                            | 2.4                            | 2.3                            | 0.00056               | 7.2  |
| 80 4A EX                     | 0.55               | 0.66 | 0.74 | 0.98 | 1410              | 1690 | 3.80                 | 0.73  | 1.50                   | 3.7                            | 2.0                            | 2.0                            | 0.0010                | 9.9  |
| 80 4B EX                     | 0.75               | 0.90 | 1.00 | 1.20 | 1430              | 1715 | 5.10                 | 0.70  | 2.10                   | 4.0                            | 2.1                            | 2.1                            | 0.0018                | 10.8 |
| 90L 4A EX                    | 1.10               | 1.32 | 1.50 | 1.80 | 1437              | 1725 | 7.40                 | 0.72  | 2.75                   | 5.2                            | 2.8                            | 3.1                            | 0.0032                | 16.6 |
| 90L 4B EX                    | 1.50               | 1.80 | 2.00 | 2.40 | 1415              | 1700 | 10.1                 | 0.75  | 3.55                   | 6.0                            | 2.6                            | 3.0                            | 0.0050                | 16.7 |
| 100 4A EX                    | 2.20               | 2.64 | 3.00 | 3.60 | 1440              | 1730 | 14.6                 | 0.76  | 4.90                   | 6.9                            | 3.0                            | 3.6                            | 0.0055                | 23.5 |
| 100 4C EX                    | 3.00               | 3.60 | 4.00 | 4.80 | 1425              | 1710 | 20.2                 | 0.70  | 7.70                   | 5.4                            | 2.0                            | 2.5                            | 0.0070                | 25.1 |
| 112 4A EX                    | 4.00               | 4.80 | 5.50 | 6.60 | 1445              | 1735 | 26.5                 | 0.81  | 8.50                   | 7.0                            | 2.1                            | 3.0                            | 0.026                 | 29.8 |
| 132S 4A EX                   | 5.5                | 6.6  | 7.5  | 9.00 | 1460              | 1750 | 36.0                 | 0.85  | 11.7                   | 6.9                            | 2.6                            | 3.3                            | 0.025                 | 54.3 |
| 132M 4B EX                   | 7.5                | 9.0  | 10.0 | 12.0 | 1460              | 1750 | 49.1                 | 0.76  | 15.9                   | 7.0                            | 2.2                            | 2.7                            | 0.033                 | 54.4 |
| <b>1000 min<sup>-1</sup></b> |                    |      |      |      |                   |      |                      |       |                        |                                |                                |                                |                       |      |
| 71 6A EX                     | 0.18               | 0.22 | 0.25 | 0.30 | 925               | 1110 | 1.90                 | 0.70  | 0.65                   | 3.1                            | 1.8                            | 2.0                            | 0.6                   | 6.4  |
| 71 6B EX                     | 0.25               | 0.30 | 0.34 | 0.41 | 920               | 1105 | 2.60                 | 0.71  | 0.90                   | 3.1                            | 1.9                            | 2.1                            | 0.9                   | 7.3  |

## EX MONO EX-PROOF MOTOR TEKNİK ÖLÇÜLERİ

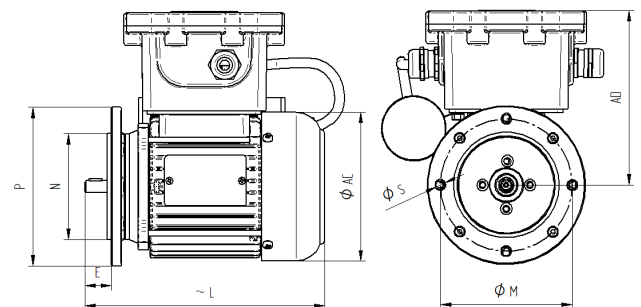


| IEC | H  | HD  | L   | AC  | A   | B  | AB  | BB  | K1 | K | HA | C  | E  | D  | DB | GA   | FxGD |
|-----|----|-----|-----|-----|-----|----|-----|-----|----|---|----|----|----|----|----|------|------|
| 56  | 56 | 188 | 182 | 113 | 90  | 71 | 110 | 81  | 7  | 6 | 6  | 36 | 20 | 9  | -  | 10   | 3x3  |
| 63  | 63 | 204 | 210 | 124 | 100 | 80 | 120 | 100 | 10 | 7 | 7  | 40 | 23 | 11 | M4 | 12.5 | 4x4  |
| 71  | 71 | 220 | 243 | 138 | 112 | 90 | 135 | 109 | 12 | 7 | 8  | 45 | 30 | 14 | M5 | 16.0 | 5x5  |

| IEC B14 | P   | N  | M  | T   | LA   | S  | AD  | TB/TL |
|---------|-----|----|----|-----|------|----|-----|-------|
| 56      | 80  | 50 | 65 | 2.5 | 10   | M5 | 132 | 122   |
| 63      | 90  | 60 | 75 | 2.5 | 10.5 | M5 | 141 | 122   |
| 71      | 105 | 70 | 85 | 2.5 | 12.8 | M6 | 149 | 122   |



| IEC B5 | P   | N   | M   | T   | LA   | S  | AD  | TB/TL |
|--------|-----|-----|-----|-----|------|----|-----|-------|
| 56     | 120 | 80  | 100 | 3.0 | 8.0  | 7  | 132 | 122   |
| 63     | 140 | 95  | 115 | 3.0 | 8.0  | 10 | 141 | 122   |
| 71     | 160 | 110 | 130 | 3.5 | 10.0 | 10 | 149 | 122   |





# MONO EX SERİSİ

|             |                     |
|-------------|---------------------|
| Gerilim     | : 230V 50Hz/60Hz    |
| İzıl Sınıfı | : F                 |
| IP          | : 65                |
| İşl. Türü   | : S1                |
| Serifika No | : IEP 21 ATEX 0995X |

| Tip                          | Pn <sub>(kW)</sub> |             | HP   |      | min <sup>-1</sup> |      | Tn<br>Nm | cos φ | I <sub>n</sub><br>400V | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | J<br>kgm <sup>2</sup> | kg  |
|------------------------------|--------------------|-------------|------|------|-------------------|------|----------|-------|------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------|-----|
|                              | 50Hz               | 60Hz        | 50Hz | 60Hz | 50Hz              | 60Hz |          |       |                        |                                |                                |                                |                       |     |
| <b>3000 min<sup>-1</sup></b> |                    |             |      |      |                   |      |          |       |                        |                                |                                |                                |                       |     |
| 56 2A EX                     | <b>0.09</b>        | <b>0.11</b> | 0.12 | 0.15 | 2825              | 3295 | 0.31     | 0.99  | 0.69                   | 3.6                            | 0.7                            | 1.9                            | 0.00014               | 4.0 |
| 56 2B EX                     | <b>0.12</b>        | <b>0.14</b> | 0.16 | 0.21 | 2795              | 3305 | 0.40     | 0.97  | 0.93                   | 3.6                            | 0.7                            | 1.9                            | 0.00015               | 4.2 |
| 56 2C EX                     | <b>0.18</b>        | <b>0.22</b> | 0.25 | 0.33 | 2800              | 3355 | 0.62     | 0.98  | 0.98                   | 3.4                            | 0.7                            | 1.7                            | 0.00016               | 4.4 |
| 63 2A EX                     | <b>0.18</b>        | <b>0.22</b> | 0.25 | 0.30 | 2785              | 3345 | 0.63     | 0.69  | 0.65                   | 4.2                            | 2.3                            | 2.7                            | 0.0001                | 4.8 |
| 63 2B EX                     | <b>0.25</b>        | <b>0.30</b> | 0.34 | 0.41 | 2755              | 3310 | 0.87     | 0.78  | 0.70                   | 4.5                            | 2.4                            | 2.8                            | 0.00012               | 5.3 |
| 63 2C EX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 2760              | 3315 | 1.30     | 0.70  | 1.20                   | 4.3                            | 2.3                            | 2.6                            | 0.00021               | 5.7 |
| 71 2A EX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 2790              | 3350 | 1.25     | 0.71  | 1.10                   | 4.0                            | 2.5                            | 2.6                            | 0.00032               | 6.5 |
| 71 2B EX                     | <b>0.55</b>        | <b>0.66</b> | 0.74 | 0.98 | 2760              | 3310 | 1.90     | 0.80  | 1.45                   | 4.5                            | 2.4                            | 2.5                            | 0.00065               | 7.4 |

## 1500 min<sup>-1</sup>

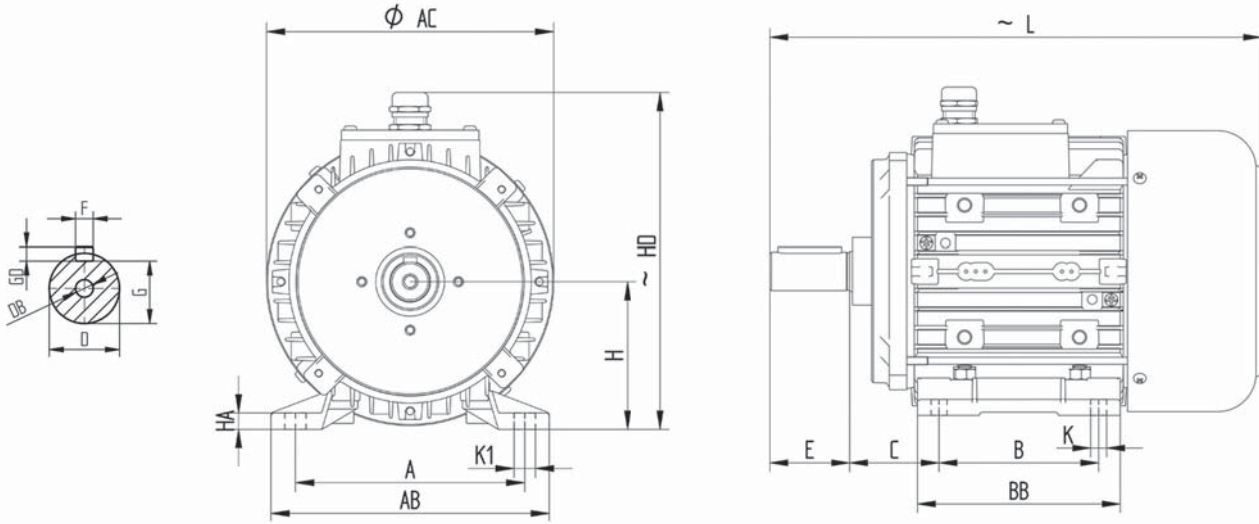
|          |             |             |      |      |      |      |      |      |      |     |      |     |         |     |
|----------|-------------|-------------|------|------|------|------|------|------|------|-----|------|-----|---------|-----|
| 56 4A EX | <b>0.09</b> | <b>0.11</b> | 0.12 | 0.15 | 2815 | 3370 | 0.31 | 0.70 | 0.30 | 2.1 | 0.41 | 1.4 | 0.00014 | 4.0 |
| 56 4B EX | <b>0.12</b> | <b>0.14</b> | 0.16 | 0.21 | 2835 | 3395 | 0.41 | 0.75 | 0.35 | 2.3 | 0.39 | 1.8 | 0.00015 | 4.2 |
| 56 4C EX | <b>0.18</b> | <b>0.22</b> | 0.25 | 0.33 | 2800 | 3355 | 0.62 | 0.84 | 0.50 | 2.6 | 0.40 | 1.7 | 0.00016 | 4.4 |
| 63 4A EX | <b>0.12</b> | <b>0.14</b> | 0.16 | 0.19 | 1380 | 1660 | 0.85 | 0.60 | 0.65 | 3.1 | 2.2  | 2.6 | 0.00019 | 4.7 |
| 63 4B EX | <b>0.18</b> | <b>0.22</b> | 0.25 | 0.30 | 1330 | 1600 | 1.30 | 0.68 | 0.75 | 3.0 | 1.9  | 2.3 | 0.00022 | 5.1 |
| 63 4C EX | <b>0.25</b> | <b>0.30</b> | 0.34 | 0.41 | 1320 | 1585 | 1.85 | 0.66 | 1.05 | 2.9 | 2.0  | 2.2 | 0.00035 | 5.5 |
| 71 4A EX | <b>0.25</b> | <b>0.30</b> | 0.34 | 0.41 | 1420 | 1705 | 1.70 | 0.70 | 1.00 | 3.3 | 2.3  | 2.5 | 0.00048 | 6.4 |
| 71 4B EX | <b>0.37</b> | <b>0.44</b> | 0.50 | 0.60 | 1425 | 1710 | 2.50 | 0.62 | 1.35 | 3.5 | 2.4  | 2.3 | 0.00056 | 7.2 |

# FX SERİSİ

II 2G EX db mb IIC T4 Gb  
II 2D EX tb mb IIC t120°C Db

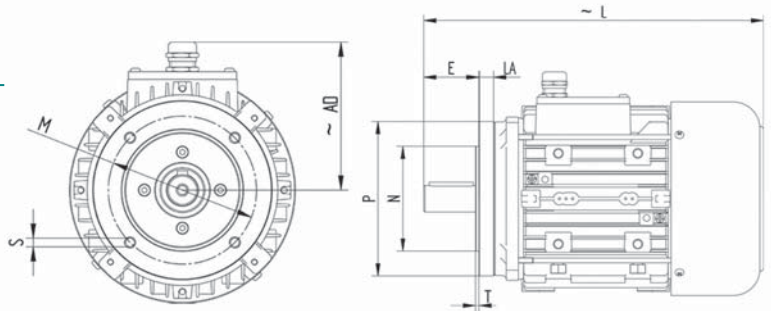
Gerilim : 400V 50Hz/460V 60Hz  
İzl Sınıfı : F  
İşl. Türü : S1  
IP : 65  
Serifika No : IEP 19 ATEX 0710

| Tip                          | Pn <sub>(kW)</sub> |             | HP   |      | min <sup>-1</sup> |      | Tn<br>Nm | cos φ | I <sub>n</sub><br>400V | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | J<br>10 <sup>-3</sup> kgm <sup>2</sup> | kg   |
|------------------------------|--------------------|-------------|------|------|-------------------|------|----------|-------|------------------------|--------------------------------|--------------------------------|--------------------------------|--|------|
|                              | 50Hz               | 60Hz        | 50Hz | 60Hz | 50Hz              | 60Hz |          |       |                        |                                |                                |                                |  |      |
| <b>3000 min<sup>-1</sup></b> |                    |             |      |      |                   |      |          |       |                        |                                |                                |                                |  |      |
| 63 2A FX                     | <b>0.18</b>        | <b>0.22</b> | 0.25 | 0.30 | 2785              | 3345 | 0.63     | 0.69  | 0.65                   | 4.2                            | 2.3                            | 2.7                            | 0.1                                    | 3.7  |
| 63 2B FX                     | <b>0.25</b>        | <b>0.30</b> | 0.34 | 0.41 | 2755              | 3310 | 0.87     | 0.78  | 0.70                   | 4.5                            | 2.4                            | 2.8                            | 0.1                                    | 4.2  |
| 63 2C FX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 2760              | 3315 | 1.30     | 0.70  | 1.20                   | 4.3                            | 2.3                            | 2.6                            | 0.2                                    | 4.6  |
| 71 2A FX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 2790              | 3350 | 1.25     | 0.71  | 1.10                   | 4.0                            | 2.5                            | 2.6                            | 0.3                                    | 5.4  |
| 71 2B FX                     | <b>0.55</b>        | <b>0.66</b> | 0.74 | 0.98 | 2760              | 3310 | 1.90     | 0.80  | 1.45                   | 4.5                            | 2.4                            | 2.5                            | 0.6                                    | 6.3  |
| 80 2A FX                     | <b>0.75</b>        | <b>0.90</b> | 1.00 | 1.20 | 2800              | 3360 | 2.50     | 0.82  | 1.85                   | 4.8                            | 3.2                            | 3.0                            | 0.7                                    | 8.0  |
| 80 2B FX                     | <b>1.10</b>        | <b>1.32</b> | 1.50 | 1.80 | 2790              | 3350 | 3.80     | 0.83  | 2.60                   | 5.0                            | 2.5                            | 3.2                            | 0.8                                    | 9.1  |
| 90S 2A FX                    | <b>1.50</b>        | <b>1.80</b> | 2.00 | 2.40 | 2865              | 3440 | 5.00     | 0.83  | 3.25                   | 6.1                            | 2.4                            | 2.6                            | 1.3                                    | 12.3 |
| 90L 2B FX                    | <b>2.20</b>        | <b>2.64</b> | 3.00 | 3.60 | 2875              | 3450 | 7.30     | 0.81  | 4.75                   | 6.6                            | 2.7                            | 2.9                            | 1.6                                    | 14.2 |
| 100 2A FX                    | <b>3.00</b>        | <b>3.60</b> | 4.00 | 4.80 | 2875              | 3450 | 9.95     | 0.80  | 6.45                   | 6.7                            | 2.6                            | 3.1                            | 2.6                                    | 19.1 |
| 100 2B FX                    | <b>4.00</b>        | <b>4.80</b> | 5.50 | 6.60 | 2865              | 3440 | 13.2     | 0.88  | 7.50                   | 7.6                            | 2.7                            | 3.0                            | 6.8                                    | 22.6 |
| 112 2A FX                    | <b>4.00</b>        | <b>4.80</b> | 5.50 | 6.60 | 2895              | 3475 | 13.3     | 0.86  | 7.75                   | 6.6                            | 2.2                            | 2.6                            | 4.6                                    | 26.6 |
| 112 2B FX                    | <b>5.50</b>        | <b>6.60</b> | 7.50 | 9.00 | 2890              | 3470 | 17.8     | 0.90  | 9.80                   | 7.3                            | 2.1                            | 2.3                            | 5.0                                    | 27.8 |
| <b>1500 min<sup>-1</sup></b> |                    |             |      |      |                   |      |          |       |                        |                                |                                |                                |  |      |
| 63 4A FX                     | <b>0.12</b>        | <b>0.14</b> | 0.16 | 0.19 | 1380              | 1660 | 0.85     | 0.60  | 0.65                   | 3.1                            | 2.2                            | 2.6                            | 0.2                                    | 3.6  |
| 63 4B FX                     | <b>0.18</b>        | <b>0.22</b> | 0.25 | 0.30 | 1330              | 1600 | 1.30     | 0.68  | 0.75                   | 3.0                            | 1.9                            | 2.3                            | 0.2                                    | 4.0  |
| 63 4C FX                     | <b>0.25</b>        | <b>0.30</b> | 0.34 | 0.41 | 1320              | 1585 | 1.95     | 0.66  | 1.05                   | 2.9                            | 2.0                            | 2.2                            | 0.3                                    | 4.4  |
| 71 4A FX                     | <b>0.25</b>        | <b>0.30</b> | 0.34 | 0.41 | 1420              | 1705 | 1.70     | 0.70  | 1.00                   | 3.3                            | 2.3                            | 2.5                            | 0.4                                    | 6.3  |
| 71 4B FX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 1425              | 1710 | 2.50     | 0.62  | 1.35                   | 3.5                            | 2.4                            | 2.3                            | 0.5                                    | 6.1  |
| 80 4A FX                     | <b>0.55</b>        | <b>0.66</b> | 0.74 | 0.98 | 1410              | 1690 | 3.80     | 0.73  | 1.50                   | 3.7                            | 2.0                            | 2.0                            | 0.6                                    | 8.8  |
| 80 4B FX                     | <b>0.75</b>        | <b>0.90</b> | 1.00 | 1.20 | 1430              | 1715 | 5.10     | 0.70  | 2.10                   | 4.0                            | 2.1                            | 2.1                            | 0.8                                    | 9.7  |
| 90S 4A FX                    | <b>1.10</b>        | <b>1.32</b> | 1.50 | 1.80 | 1420              | 1705 | 7.40     | 0.73  | 2.80                   | 5.5                            | 2.8                            | 3.1                            | 0.8                                    | 13.0 |
| 90L 4B FX                    | <b>1.50</b>        | <b>1.80</b> | 2.00 | 2.40 | 1415              | 1700 | 10.1     | 0.75  | 3.55                   | 6.0                            | 2.6                            | 3.0                            | 0.9                                    | 15.6 |
| 100 4A FX                    | <b>2.20</b>        | <b>2.64</b> | 3.00 | 3.60 | 1430              | 1715 | 14.6     | 0.76  | 4.90                   | 5.6                            | 2.1                            | 2.7                            | 1.2                                    | 21.3 |
| 100 4C FX                    | <b>3.00</b>        | <b>3.60</b> | 4.00 | 4.80 | 1425              | 1710 | 20.2     | 0.70  | 7.70                   | 5.4                            | 2.0                            | 2.5                            | 1.6                                    | 24.0 |
| 112 4C FX                    | <b>4.00</b>        | <b>4.80</b> | 5.50 | 6.60 | 1445              | 1735 | 26.5     | 0.81  | 8.50                   | 7.0                            | 2.1                            | 3.0                            | 2.7                                    | 28.7 |
| <b>1000 min<sup>-1</sup></b> |                    |             |      |      |                   |      |          |       |                        |                                |                                |                                |  |      |
| 71 6A FX                     | <b>0.18</b>        | <b>0.22</b> | 0.25 | 0.30 | 925               | 1110 | 1.90     | 0.70  | 0.65                   | 3.1                            | 1.8                            | 2.0                            | 0.8                                    | 5.3  |
| 71 6B FX                     | <b>0.25</b>        | <b>0.30</b> | 0.34 | 0.41 | 920               | 1105 | 2.60     | 0.71  | 0.90                   | 3.1                            | 1.9                            | 2.1                            | 1.0                                    | 6.2  |
| 80 6A FX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 930               | 1120 | 3.85     | 0.65  | 1.35                   | 3.7                            | 1.9                            | 2.2                            | 1.9                                    | 7.9  |
| 80 6B FX                     | <b>0.55</b>        | <b>0.66</b> | 0.75 | 0.90 | 920               | 1105 | 2.60     | 0.71  | 0.90                   | 3.6                            | 1.7                            | 2.0                            | 2.5                                    | 9.5  |
| 90 6A FX                     | <b>0.75</b>        | <b>0.90</b> | 1.00 | 1.20 | 911               | 1095 | 7.87     | 0.64  | 2.60                   | 3.7                            | 1.8                            | 1.9                            | 3.2                                    | 11.1 |
| 90 6B FX                     | <b>1.10</b>        | <b>1.32</b> | 1.50 | 1.80 | 912               | 1095 | 11.5     | 0.67  | 3.60                   | 3.8                            | 1.8                            | 1.9                            | 4.2                                    | 14.0 |
| 100 6A FX                    | <b>1.50</b>        | <b>1.80</b> | 2.00 | 2.40 | 935               | 1120 | 15.4     | 0.75  | 4.40                   | 4.5                            | 2.0                            | 2.0                            | 9.2                                    | 19.5 |
| 112 6A FX                    | <b>2.20</b>        | <b>2.64</b> | 3.00 | 3.60 | 930               | 1115 | 22.4     | 0.75  | 5.20                   | 4.4                            | 2.0                            | 2.1                            | 9.2                                    | 25.4 |

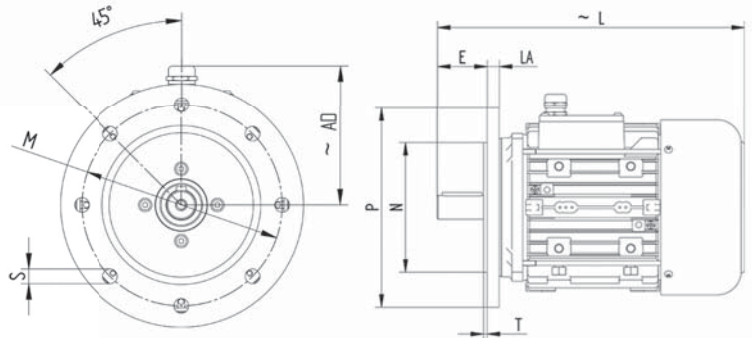


| IEC | H   | HD  | L   | AC  | A   | B   | AB  | BB  | K1 | K  | HA | C  | E  | D  | DB  | GA   | FxGD |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|-----|------|------|
| 63  | 63  | 155 | 211 | 124 | 100 | 80  | 120 | 100 | 10 | 7  | 7  | 40 | 23 | 11 | M4  | 12.5 | 4x4  |
| 71  | 71  | 171 | 243 | 138 | 112 | 90  | 135 | 109 | 12 | 7  | 8  | 45 | 30 | 14 | M5  | 16.0 | 5x5  |
| 80  | 80  | 188 | 273 | 157 | 125 | 100 | 152 | 129 | 13 | 10 | 10 | 50 | 40 | 19 | M6  | 21.5 | 6x6  |
| 90S | 90  | 205 | 308 | 175 | 140 | 100 | 170 | 127 | 13 | 10 | 10 | 56 | 50 | 24 | M8  | 27.0 | 8x8  |
| 90L | 90  | 205 | 333 | 175 | 140 | 125 | 170 | 152 | 13 | 10 | 10 | 56 | 50 | 24 | M8  | 27.0 | 8x8  |
| 100 | 100 | 225 | 375 | 194 | 160 | 140 | 192 | 165 | 18 | 12 | 10 | 63 | 60 | 28 | M10 | 31.0 | 8x8  |
| 112 | 112 | 252 | 387 | 218 | 190 | 140 | 230 | 175 | 18 | 12 | 14 | 70 | 60 | 28 | M10 | 31.0 | 8x8  |

| IEC B14 | P   | N   | M   | T   | LA   | S  | AD  |
|---------|-----|-----|-----|-----|------|----|-----|
| 63      | 90  | 60  | 75  | 2.5 | 10.5 | M5 | 92  |
| 71      | 105 | 70  | 85  | 2.5 | 12.8 | M6 | 100 |
| 80      | 122 | 80  | 100 | 3.0 | 13.8 | M6 | 108 |
| 90 S/L  | 180 | 95  | 115 | 3.0 | 13.8 | M8 | 115 |
| 100     | 160 | 110 | 130 | 3.5 | 16.0 | M8 | 125 |
| 112     | 160 | 110 | 130 | 3.5 | 16.0 | M8 | 140 |



| IEC B5 | P   | N   | M   | T   | LA   | S  | AD  |
|--------|-----|-----|-----|-----|------|----|-----|
| 63     | 140 | 95  | 115 | 3.0 | 8.0  | 10 | 141 |
| 71     | 160 | 110 | 130 | 3.5 | 10.0 | 10 | 149 |
| 80     | 200 | 130 | 165 | 3.5 | 12.0 | 12 | 156 |
| 90 S/L | 200 | 130 | 165 | 3.5 | 13.8 | 12 | 158 |
| 100    | 250 | 180 | 215 | 4.0 | 16.0 | 13 | 174 |
| 112    | 250 | 180 | 215 | 4.0 | 16.0 | 13 | 140 |

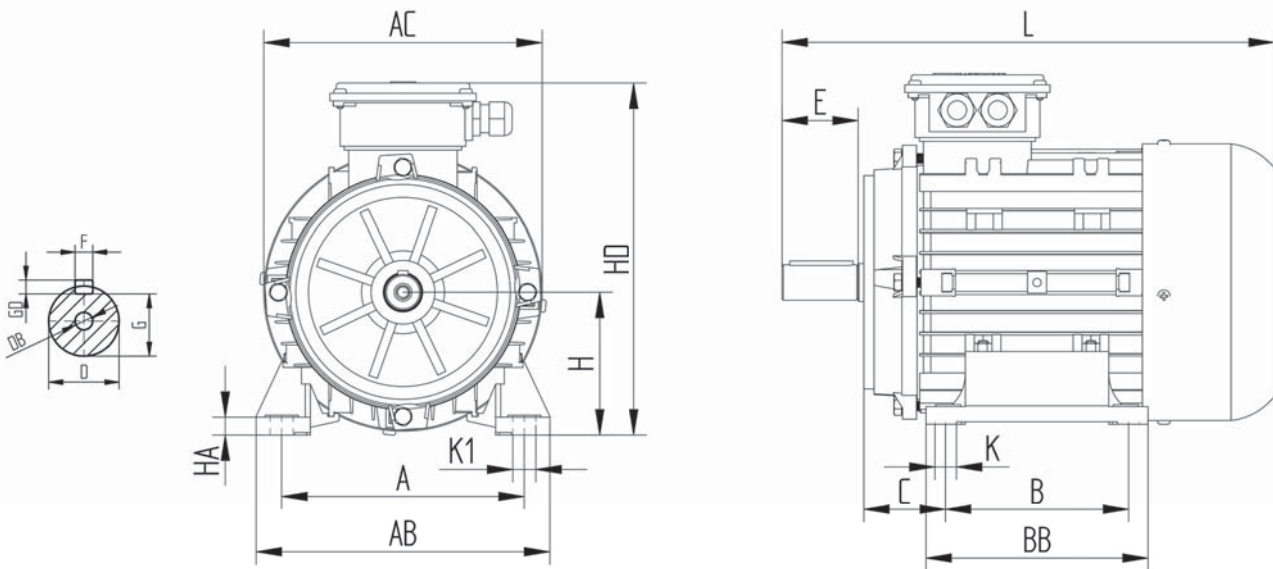




## TX SERİSİ

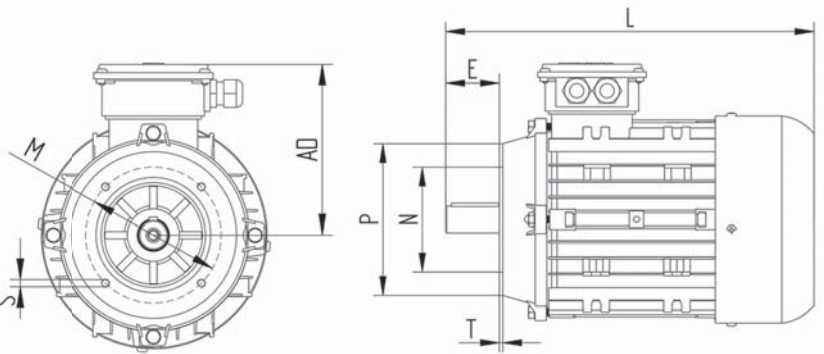
Gerilim : 400V 50Hz/460V 60Hz  
 İz Sınıfı : F  
 İşl. Türü : S1  
 IP : 65  
 Serifika No : IEP 18 ATEX 0584

| Tip                          | P <sub>n(kw)</sub> |             | HP   |      | min <sup>-1</sup> |      | T <sub>n</sub><br>Nm | cos φ | I <sub>n</sub><br>400V | I <sub>A</sub> /I <sub>N</sub> | M <sub>A</sub> /M <sub>N</sub> | M <sub>K</sub> /M <sub>N</sub> | J<br>10 <sup>-3</sup> kgm <sup>2</sup> | kg   |
|------------------------------|--------------------|-------------|------|------|-------------------|------|----------------------|-------|------------------------|--------------------------------|--------------------------------|--------------------------------|--|------|
|                              | 50Hz               | 60Hz        | 50Hz | 60Hz | 50Hz              | 60Hz |                      |       |                        |                                |                                |                                |  |      |
| <b>3000 min<sup>-1</sup></b> |                    |             |      |      |                   |      |                      |       |                        |                                |                                |                                |  |      |
| 63 2A TX                     | <b>0.18</b>        | <b>0.22</b> | 0.25 | 0.30 | 2785              | 3345 | 0.63                 | 0.69  | 0.65                   | 4.2                            | 2.3                            | 2.7                            | 0.1                                    | 3.8  |
| 63 2B TX                     | <b>0.25</b>        | <b>0.30</b> | 0.34 | 0.41 | 2755              | 3310 | 0.87                 | 0.78  | 0.70                   | 4.5                            | 2.4                            | 2.8                            | 0.1                                    | 4.3  |
| 63 2C TX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 2780              | 3335 | 1.27                 | 0.69  | 1.10                   | 4.4                            | 2.2                            | 2.6                            | 0.2                                    | 4.5  |
| 71 2A TX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 2790              | 3350 | 1.25                 | 0.71  | 1.10                   | 4.0                            | 2.5                            | 2.6                            | 0.3                                    | 5.5  |
| 71 2B TX                     | <b>0.55</b>        | <b>0.66</b> | 0.74 | 0.98 | 2760              | 3310 | 1.90                 | 0.80  | 1.45                   | 4.5                            | 2.4                            | 2.5                            | 0.6                                    | 6.4  |
| 71 2C TX                     | <b>0.75</b>        | <b>0.90</b> | 1.00 | 1.20 | 2750              | 3300 | 2.63                 | 0.81  | 1.80                   | 4.7                            | 2.6                            | 2.8                            | 0.6                                    | 7.7  |
| 80 2A TX                     | <b>0.75</b>        | <b>0.90</b> | 1.00 | 1.20 | 2800              | 3360 | 2.50                 | 0.82  | 1.85                   | 4.8                            | 3.2                            | 3.0                            | 0.7                                    | 8.1  |
| 80 2B TX                     | <b>1.10</b>        | <b>1.32</b> | 1.50 | 1.80 | 2790              | 3350 | 3.80                 | 0.83  | 2.60                   | 5.0                            | 2.5                            | 3.2                            | 0.8                                    | 9.2  |
| 80 2C TX                     | <b>1.50</b>        | <b>1.80</b> | 2.00 | 2.40 | 2830              | 3395 | 5.05                 | 0.81  | 3.35                   | 6.2                            | 2.8                            | 3.1                            | 1.0                                    | 10.2 |
| 90S 2A TX                    | <b>1.50</b>        | <b>1.80</b> | 2.00 | 2.40 | 2865              | 3440 | 5.00                 | 0.83  | 3.25                   | 6.1                            | 2.4                            | 2.6                            | 1.3                                    | 13.4 |
| 90L 2B TX                    | <b>2.20</b>        | <b>2.64</b> | 3.00 | 3.60 | 2875              | 3450 | 7.30                 | 0.81  | 4.75                   | 6.6                            | 2.7                            | 2.9                            | 1.6                                    | 15.3 |
| 90L 2C TX                    | <b>3.00</b>        | <b>3.60</b> | 4.00 | 4.80 | 2865              | 3440 | 10.2                 | 0.82  | 6.60                   | 6.7                            | 2.9                            | 3.1                            | 1.9                                    | 17.5 |
| 100 2A TX                    | <b>3.00</b>        | <b>3.60</b> | 4.00 | 4.80 | 2875              | 3450 | 9.95                 | 0.80  | 6.45                   | 6.7                            | 2.6                            | 3.1                            | 2.6                                    | 20.2 |
| 100 2B TX                    | <b>4.00</b>        | <b>4.80</b> | 5.50 | 6.60 | 2865              | 3440 | 13.2                 | 0.88  | 7.50                   | 7.6                            | 2.7                            | 3.0                            | 6.8                                    | 23.7 |
| 112 2A TX                    | <b>4.00</b>        | <b>4.80</b> | 5.50 | 6.60 | 2895              | 3475 | 13.3                 | 0.86  | 7.75                   | 6.6                            | 2.2                            | 2.6                            | 4.6                                    | 27.7 |
| 112 2B TX                    | <b>5.50</b>        | <b>6.60</b> | 7.50 | 9.00 | 2890              | 3470 | 17.8                 | 0.90  | 9.80                   | 7.3                            | 2.1                            | 2.3                            | 5.0                                    | 28.9 |
| 132S 2A TX                   | <b>5.50</b>        | <b>6.60</b> | 7.50 | 9.00 | 2885              | 3465 | 18.3                 | 0.89  | 10.3                   | 8.6                            | 2.2                            | 2.7                            | 10.0                                   | 41.2 |
| 132S 2B TX                   | <b>7.50</b>        | <b>9.00</b> | 10.0 | 12.0 | 2925              | 3510 | 24.5                 | 0.90  | 13.5                   | 8.4                            | 2.3                            | 2.6                            | 12.0                                   | 47.1 |
| 132M 2C TX                   | <b>11.0</b>        | <b>13.2</b> | 15.0 | 15.0 | 2930              | 3515 | 35.9                 | 0.90  | 19.7                   | 7.2                            | 2.0                            | 2.2                            | 21.0                                   | 58.0 |
| <b>1500 min<sup>-1</sup></b> |                    |             |      |      |                   |      |                      |       |                        |                                |                                |                                |  |      |
| 63 4A TX                     | <b>0.12</b>        | <b>0.14</b> | 0.16 | 0.19 | 1380              | 1660 | 0.85                 | 0.60  | 0.65                   | 3.1                            | 2.2                            | 2.6                            | 0.2                                    | 4.7  |
| 63 4B TX                     | <b>0.18</b>        | <b>0.22</b> | 0.25 | 0.30 | 1330              | 1600 | 1.30                 | 0.68  | 0.75                   | 3.0                            | 1.9                            | 2.3                            | 0.2                                    | 5.1  |
| 71 4A TX                     | <b>0.25</b>        | <b>0.30</b> | 0.34 | 0.41 | 1420              | 1705 | 1.70                 | 0.70  | 1.00                   | 3.3                            | 2.3                            | 2.5                            | 0.4                                    | 6.4  |
| 71 4B TX                     | <b>0.37</b>        | <b>0.44</b> | 0.50 | 0.60 | 1425              | 1710 | 2.50                 | 0.62  | 1.35                   | 3.5                            | 2.4                            | 2.3                            | 0.5                                    | 7.2  |
| 80 4A TX                     | <b>0.55</b>        | <b>0.66</b> | 0.74 | 0.98 | 1410              | 1690 | 3.80                 | 0.73  | 1.50                   | 3.7                            | 2.0                            | 2.0                            | 0.6                                    | 9.9  |
| 80 4B TX                     | <b>0.75</b>        | <b>0.90</b> | 1.00 | 1.20 | 1430              | 1715 | 5.10                 | 0.70  | 2.10                   | 4.0                            | 2.1                            | 2.1                            | 0.8                                    | 10.8 |
| 90S 4A TX                    | <b>1.10</b>        | <b>1.32</b> | 1.50 | 1.80 | 1420              | 1705 | 7.40                 | 0.73  | 2.80                   | 5.5                            | 2.8                            | 3.1                            | 0.8                                    | 14.1 |
| 90L 4B TX                    | <b>1.50</b>        | <b>1.80</b> | 2.00 | 2.40 | 1415              | 1700 | 10.1                 | 0.75  | 3.55                   | 6.0                            | 2.6                            | 3.0                            | 0.9                                    | 16.7 |
| 100 4A TX                    | <b>2.20</b>        | <b>2.64</b> | 3.00 | 3.60 | 1430              | 1715 | 14.6                 | 0.76  | 4.90                   | 5.6                            | 2.1                            | 2.7                            | 1.2                                    | 22.4 |
| 100 4C TX                    | <b>3.00</b>        | <b>3.60</b> | 4.00 | 4.80 | 1425              | 1710 | 20.2                 | 0.70  | 7.70                   | 5.4                            | 2.0                            | 2.5                            | 1.6                                    | 25.1 |
| 112 4C TX                    | <b>4.00</b>        | <b>4.80</b> | 5.50 | 6.60 | 1445              | 1735 | 26.5                 | 0.81  | 8.50                   | 7.0                            | 2.1                            | 3.0                            | 2.7                                    | 29.8 |
| 132S 4A TX                   | <b>5.50</b>        | <b>6.60</b> | 7.50 | 9.00 | 1455              | 1745 | 36.4                 | 0.78  | 11.7                   | 6.9                            | 2.5                            | 2.9                            | 9.0                                    | 41.0 |
| 132M 4A TX                   | <b>7.50</b>        | <b>9.00</b> | 10.0 | 12.0 | 1460              | 1750 | 49.1                 | 0.76  | 15.9                   | 7.0                            | 2.2                            | 2.7                            | 12.0                                   | 51.4 |

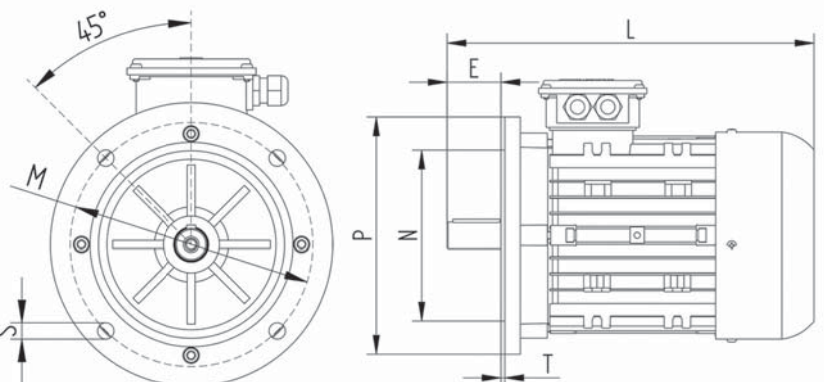


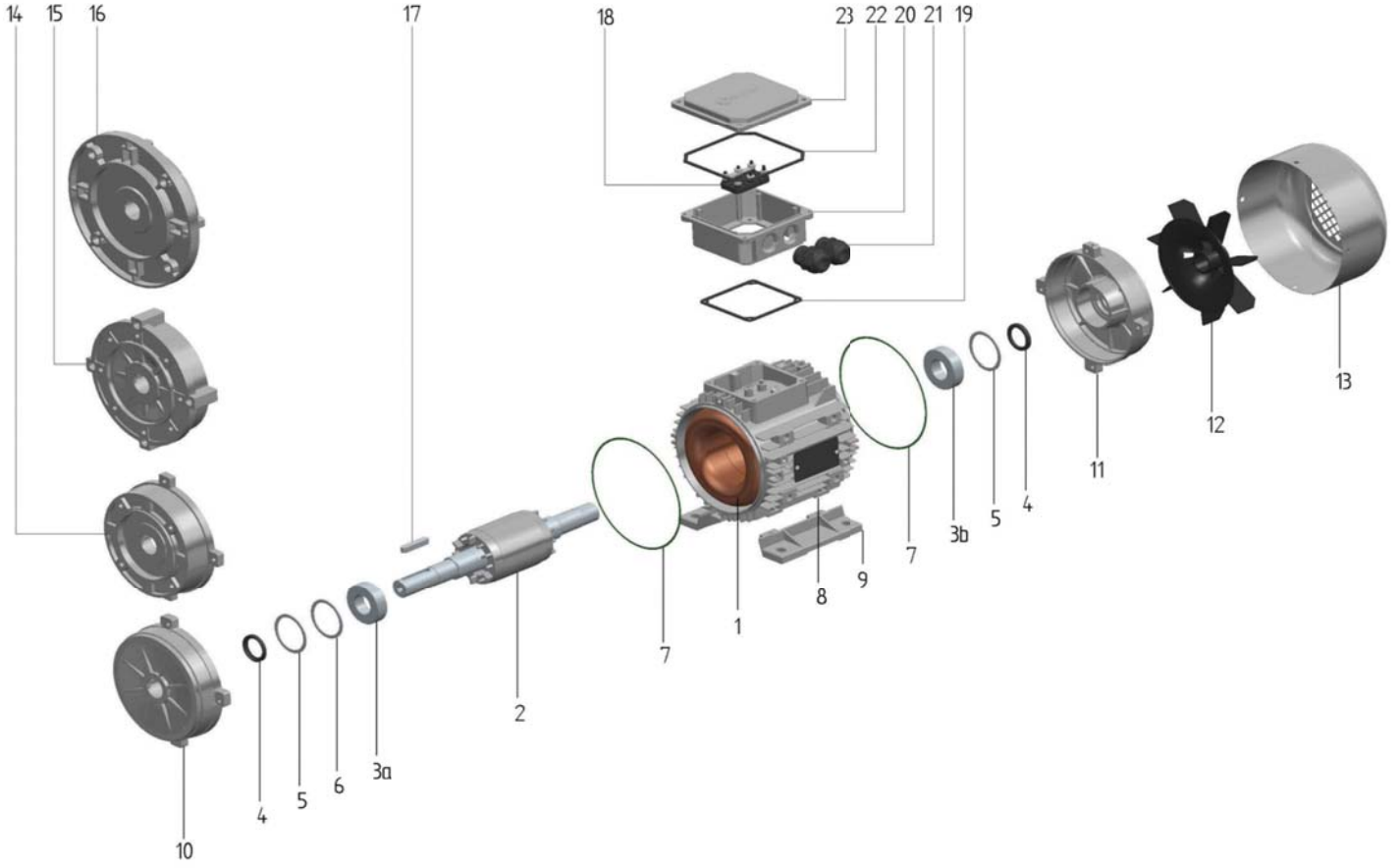
| IEC  | H   | HD  | L   | AC  | A   | B   | AB  | BB  | K1 | K  | HA | C  | E  | D  | DB  | GA   | FxGD |
|------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|-----|------|------|
| 63   | 63  | 168 | 210 | 124 | 100 | 80  | 120 | 100 | 10 | 7  | 7  | 40 | 23 | 11 | M4  | 12.5 | 4x4  |
| 71   | 71  | 184 | 243 | 138 | 112 | 90  | 135 | 109 | 12 | 7  | 8  | 45 | 30 | 14 | M5  | 16.0 | 5x5  |
| 80   | 80  | 201 | 273 | 157 | 125 | 100 | 152 | 129 | 13 | 10 | 10 | 50 | 40 | 19 | M6  | 21.5 | 6x6  |
| 90S  | 90  | 229 | 305 | 175 | 140 | 100 | 170 | 127 | 13 | 10 | 10 | 58 | 50 | 24 | M8  | 27.0 | 8x8  |
| 90L  | 90  | 229 | 333 | 175 | 140 | 125 | 170 | 152 | 13 | 10 | 10 | 58 | 50 | 24 | M8  | 27.0 | 8x8  |
| 100  | 100 | 251 | 375 | 194 | 160 | 140 | 192 | 165 | 18 | 12 | 10 | 63 | 60 | 28 | M10 | 31.0 | 8x8  |
| 112  | 112 | 276 | 388 | 218 | 190 | 140 | 230 | 175 | 18 | 12 | 14 | 71 | 60 | 28 | M10 | 31.0 | 8x8  |
| 132S | 132 | 328 | 464 | 258 | 216 | 140 | 260 | 180 | 28 | 12 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |
| 132M | 132 | 328 | 493 | 258 | 216 | 178 | 260 | 218 | 28 | 12 | 16 | 89 | 80 | 38 | M12 | 41.0 | 10x8 |

| IEC B14 | P   | N   | M   | T   | S   | AD  |
|---------|-----|-----|-----|-----|-----|-----|
| 63      | 90  | 60  | 75  | 2.5 | M5  | 105 |
| 71      | 105 | 70  | 85  | 2.5 | M6  | 113 |
| 80      | 122 | 80  | 100 | 3.0 | M6  | 121 |
| 90 S/L  | 180 | 95  | 115 | 3.0 | M8  | 139 |
| 100     | 160 | 110 | 130 | 3.5 | M8  | 151 |
| 112     | 160 | 110 | 130 | 3.5 | M8  | 164 |
| 132     | 200 | 130 | 165 | 3.5 | M10 | 196 |



| IEC B5 | P   | N   | M   | T   | S  | AD  |
|--------|-----|-----|-----|-----|----|-----|
| 63     | 140 | 95  | 115 | 3.0 | 10 | 105 |
| 71     | 160 | 110 | 130 | 4.0 | 10 | 113 |
| 80     | 200 | 130 | 165 | 3.5 | 12 | 121 |
| 90 S/L | 200 | 130 | 165 | 3.0 | 12 | 139 |
| 100    | 250 | 180 | 215 | 4.0 | 15 | 151 |
| 112    | 250 | 180 | 215 | 4.0 | 15 | 164 |
| 132    | 300 | 230 | 265 | 4.0 | 15 | 196 |





- 1 Sargılı stator
- 2 Milli rotor
- 3a Ön rulman
- 3b Arka rulman
- 4 Keçe/V-Ring
- 5 Rulman pul
- 6 Rulman baskı yayı
- 7 Klingrit conta
- 8 Gövde
- 9 Ayak
- 10 Ön kapak
- 11 Arka kapak

- 12 Soğutma pervanesi
- 13 Soğutma mahfaza taşı
- 14 B14 flanş
- 15 B14 büyük flanş
- 16 B5 flanş
- 17 Kama
- 18 Klemens
- 19 klemens kutusu conta(alt)
- 20 Trifaze klemens kutusu(alt)
- 21 Kablo giriş rakoru
- 22 Klemens kutusu conta(üst)
- 23 Trifaze klemens kutusu kapağı(üst)