

DRG MOTOR



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www.drgmotor.com



DRG Motor, elektrik motorları alanında güvenilir bir çözüm ortağı olarak güçlü stok yapısı ve geniş ürün yelpazesiyle müşterilerine hızlı ve etkin hizmet sunmaktadır. Müşterilerinin ihtiyaçlarını doğru analiz eden DRG Motor, uygun motor seçimi, teknik danışmanlık, kalite, fiyat, zamanında teslimat ve satış sonrası destek konularında en yüksek standartları hedeflemekte; her projenin özel gereksinimlerine uygun, verimli ve dayanıklı çözümler sunarak işletmelerin enerji kayıplarını en aza indirmeyi amaçlamaktadır. İzmir'deki merkezimiz, satış mağazamız, depomuz, pazarlama ekibimiz, yedek parça desteği ve satış sonrası servisimiz ile tüm iş süreçlerinde hızlı ve etkili çözümler üretmektedir. Alanında deneyimli ekibimiz, sektörel bilgi birikimini modern mühendislik anlayışıyla birleştirerek her ihtiyacıa uygun motor çözümleri geliştirmekte; dünya standartlarına uygun, sertifikalı ve güvenilir ürünlerle kaliteyi ön planda tutmaktadır. Müşteri memnuniyetini her zaman öncelik olarak gören firmamız, yüksek performanslı elektrik motorlarını en uygun fiyatlarla sunarak iş ortaklarının başarısına katkı sağlamayı hedeflemektedir.

DRG Motor, IE3, IE4 ve IE5 verimlilik sınıflarında, 0.12 kW'tan 355 kW'a kadar farklı gövde tiplerinde geniş motor seçenekleri sunmaktadır. Yüksek performans, enerji verimliliği ve uzun عمر odaklı üretilen motorlarımız, sanayi ve endüstriyel uygulamalarda güvenle kullanılmaktadır. DRG Motor, üstün üretim kalitesi, dayanıklılığı ve uygun fiyat politikası ile işletmelerin hem teknik hem de ekonomik bekleyenlerini en iyi şekilde karşılamayı hedefler.

DRG Motor is a trusted solution partner in the field of electric motors, offering a wide range of products and a strong inventory to ensure fast and efficient service. By accurately analyzing customer needs, DRG Motor aims for the highest standards in motor selection, technical consultancy, quality, pricing, on-time delivery, and after-sales support. The company is committed to providing efficient and durable solutions tailored to each project's specific requirements, helping businesses minimize energy losses and maximize performance. Our headquarters in İzmir, along with our showroom, warehouse, marketing team, spare parts supply, and after-sales service, focuses on delivering rapid and effective solutions across all operations. With a highly experienced team that combines deep industry knowledge and modern engineering principles, DRG Motor develops motor solutions to meet diverse needs. All products comply with international standards and certifications, reflecting the company's dedication to quality and reliability. Always prioritizing customer satisfaction, DRG Motor strives to support the success of its partners by offering high-performance electric motors at the most competitive prices.

DRG Motor offers a wide range of motors from 0.12 kW to 355 kW in various frame sizes, covering IE3, IE4, and IE5 efficiency classes. Designed for high performance, energy efficiency, and long service life, our motors are ideal for industrial and commercial applications. With DRG Motor's superior quality, durability, and competitive pricing, we aim to meet both the technical and economic expectations of our customers in the best possible way.

YÜKSEK VERİMLİ MOTORUN TANIMI (GENEL)

DESCRIPTION OF HI-EFFICIENT MOTOR(GENERALIZATION)

Yüksek verimli motor (IE3), premium verimli motor (IE3) ve süper premium verimli motor (IE5), IEC60034-30-1: 2020 ve GB18613-2020 verimlilik sınıflandırmamasına göre bağımsız olarak tarafımızdan geliştirilen enerji tasarruflu motorlardır. IE3, IE4 ve IE5, elektrik motorunun dünya çapında sınıflandırılmamış verimlilik sınıflandırmasıdır. optimize edilmiş bir sistem için potansiyel olarak %30-%60 oranında enerji tasarruflu sağlama beklenmektedir.

IE3, IE4 ve IE5 enerji verimliliği motorları IEC 60034- 1, Döner elektrik makineleri - Bölüm 1'e uygundur: Değerlendirme ve performans ve EC60034-2-1, Dönen elektrik makineleri - Bölüm 2-1: testlerden kayıtları ve verimliliği belirlemek için standart yöntemler, dünyadaki en yetkili verimlilik sınıflandırma standardıdır. Bu motorlar ayrıca NEMA, CSA, CEMEP, COPANT, AS, NZS, JIS, GB tarafından kapsanan verimlilik standartlarına da uygundur.

(IE3, GB3) & (IE4, GB2) & (IE5) enerji verimli motorlar 50Hz ve 60Hz'de, 1000V altında, S1 görevinde, 2P, 4P, 6P veya 8P'de, 0.12kW'dan 1000kW'a kadar geniş bir güç aralığını kapsar. İdeal yüksek verimli enerji tasarruflu ürünlerdir. Bu motorlar, pompalar, vantilatörler, takım tezgahları, redüktörler, paketleme makineleri, madencilik ekipmanları ve son inşaat ekipmanları gibi güç aktarım endüstrisinde yaygın olarak kullanılabilir.

High efficiency motor (IE3), premium efficiency motor (IE3) and super premium efficiency motor (IE5) are the energy-saving motors developed by ourselves independently according to the efficiency classification of IEC60034-30-1:2020 and GB18613-2020. IE3, IE4 and IE5 are the worldwide unified efficiency classification of electric motor. It is expected to potentially save energy by 30% – 60% for an optimized system.

IE3, IE4 and IE5 energy efficiency motors are according to IEC 60034-1, Rotating electrical machines – Part 1: Rating and performance, and IEC60034-2-1, Rotating electrical machines – Part 2-1: standard methods for determining losses and efficiency from tests, which is the most authoritative efficiency classification standard in the world. These motors are also in compliance with the efficiency standards covered by NEMA, CSA, CEMEP, COPANT, AS, NZS, JIS, GB.

(IE3) & (IE4) & (IE5) energy-efficiency motors are at 50Hz and 60Hz, 1000V below, S1 duty, on 2P, 4P, 6P or 8P, covering a wide power range from 0.12kW to 1000kW. They are the ideal hi-efficiency energy-saving products. These motors can be widely used in power transmission industry such as pumps, ventilators, machine tools, reducers, packing machines, mining equipment and construction equipment.

IE 5 VERİMLİLİK IE5 EFFICIENCY

**50Hz IE5 için nominal verimlilik sınırları (%)
Nominal efficiency limits(%)for 50Hz IE5**

PN kW	Kutup Sayısı / Senkron Hiz - Number Of Poles / Synchronous Speed 2/3000	4/1500	6/1000	8/750	PN kW	Kutup Sayısı / Senkron Hiz - Number Of Poles / Synchronous Speed 2/3000	4/1500	6/1000	8/750
0.12	71.4	74.3	69.8	67.4	11	94.0	94.6	93.7	92.2
0.18	75.2	78.7	74.6	71.9	15	94.5	95.1	94.3	92.9
0.20	76.2	79.6	75.7	73.0	18.5	94.9	95.3	94.6	93.3
0.25	78.3	81.5	78.1	75.2	22	95.1	95.5	94.9	93.6
0.37	81.7	84.3	81.6	78.4	30	95.5	95.9	95.3	94.1
0.40	82.3	84.8	82.2	78.9	37	95.8	96.1	95.6	94.4
0.55	84.6	86.7	84.2	80.6	45	96.0	96.3	95.8	94.7
0.75	86.3	88.2	85.7	82.0	55	96.2	96.5	96.0	94.9
1.1	87.8	89.5	87.2	84.0	75	96.5	96.7	96.3	95.3
1.5	88.9	90.4	88.4	85.5	90	96.6	96.9	96.5	95.5
2.2	90.2	91.4	89.7	87.2	110	96.8	97.0	96.6	95.7
3	91.1	92.1	90.6	88.4	132	96.9	97.1	96.8	95.9
4	91.8	92.8	91.4	89.4	160	97.0	97.2	96.9	96.1
5.5	92.6	93.4	92.2	90.4	200	97.2	97.4	97.0	96.3
7.5	93.3	94.0	92.9	91.3	250	97.2	97.4	97.0	96.3
					315~1000	97.2	97.4	97.0	96.3

IE 4 VERİMLİLİK IE4 EFFICIENCY

50Hz IE4 için nominal verimlilik sınırları (o/a) Nominal efficiency limits(%)for 50Hz IE4				60Hz IE4 için nominal verimlilik sınırları (o/a) Nominal efficiency limits(%)for 60Hz IE4			
PN kW	Kutup Sayısı / Senkron Hız - Number Of Poles / Synchronous Speed	PN kW	Kutup Sayısı / Senkron Hız - Number Of Poles / Synchronous Speed				
	2/3000 4/1500 6/1000 8/750		2/3600 4/1800 6/1200 8/900				
0.12	66.5	69.8	64.9	0.12	66.0	70.0	68.0
0.18	70.8	74.7	70.1	0.18	70.0	74.0	72.0
0.2	71.9	75.8	71.4	0.25	74.0	77.0	75.5
0.25	74.3	77.9	74.1	0.37	77.0	81.5	78.5
0.37	78.1	81.1	78.0	0.55	80.0	84.0	82.5
0.40	78.9	81.7	78.7	0.75	82.5	85.5	84.0
0.55	81.5	83.9	80.9	1.1	85.5	87.5	88.5
0.75	83.5	85.7	82.7	1.5	86.5	88.5	89.5
1.1	85.2	87.2	84.5	2.2	88.5	91.0	90.2
1.5	86.5	88.2	85.9	3.7	89.5	91.0	90.2
2.2	88.0	89.5	87.4	5.5	90.2	92.4	91.7
3	89.1	90.4	88.6	7.5	91.7	92.4	91.0
4	90.0	91.1	89.5	11	92.4	93.6	93.0
5.5	90.9	91.9	90.5	15	92.4	94.1	93.0
7.5	91.7	92.6	91.3	18.5	93.0	94.5	94.1
11	92.6	93.3	92.3	22	93.0	94.5	94.1
15	93.3	93.9	92.9	30	93.6	95.0	95.0
18.5	93.7	94.2	93.4	37	94.1	95.4	95.0
22	94.0	94.5	93.7	45	94.5	95.4	95.4
30	94.5	94.9	94.2	55	94.5	95.8	95.4
37	94.8	95.2	94.5	75	95.0	96.2	95.8
45	95.0	95.4	94.8	90	95.4	96.2	95.8
55	95.3	95.7	95.1	110	95.4	96.2	95.0
75	95.6	96.0	95.4	150	95.8	96.5	96.2
90	95.8	96.1	95.6	185	96.2	96.5	95.4
110	96.0	96.3	95.8	220	96.2	96.8	96.5
132	96.2	96.4	96.0	250~1000	96.2	96.8	96.5
160	96.3	96.6	96.2				
200	96.5	96.7	96.3				
250	96.5	96.7	96.5				
315~1000	96.5	96.7	96.6				
			95.4				

IE 3 VERİMLİLİK IE3 EFFICIENCY

50Hz IE3 için nominal verimlilik sınırları (o/a) Nominal efficiency limits(%)for 50Hz IE3				60Hz IE3 için nominal verimlilik sınırları (o/a) Nominal efficiency limits(%)for 60Hz IE3			
PN kW	Kutup Sayısı / Senkron Hız - Number Of Poles / Synchronous Speed	PN kW	Kutup Sayısı / Senkron Hız - Number Of Poles / Synchronous Speed				
	2/3000 4/1500 6/1000 8/750		2/3600 4/1800 6/1200 8/900				
0.12	60.8	64.8	57.7	0.12	62.0	66.0	64.0
0.18	65.9	69.9	63.9	0.18	65.6	69.5	67.5
0.2	67.2	71.1	65.4	0.25	69.5	73.4	71.4
0.25	69.7	73.5	68.6	0.37	73.4	78.2	75.3
0.37	73.8	77.3	73.5	0.55	76.8	81.1	81.7
0.40	74.6	78.0	74.4	0.75	77.0	83.5	82.5
0.55	77.8	80.8	77.2	1.1	84.0	86.5	87.5
0.75	80.7	82.5	78.9	1.5	85.5	86.5	88.5
1.1	82.7	84.1	81.0	2.2	86.5	89.5	89.5
1.5	84.2	85.3	82.5	3.7	88.5	89.5	86.5
2.2	85.9	86.7	84.3	5.5	89.5	91.7	91.0
3	87.1	87.7	85.6	7.5	90.2	91.7	91.0
4	88.1	88.6	86.8	11	91.0	92.4	91.7
5.5	89.2	89.6	88.0	15	91.0	93.0	91.7
7.5	90.1	90.4	89.1	18.5	91.7	93.6	93.0
11	91.2	91.4	90.3	22	91.7	93.6	93.0
15	91.9	92.1	91.2	30	92.4	94.1	94.1
18.5	92.4	92.6	91.7	37	93.0	94.5	94.1
22	92.7	93.0	92.2	45	93.6	95.0	94.5
30	93.3	93.6	92.9	55	93.6	95.4	94.5
37	93.7	93.9	93.3	75	94.1	95.4	95.0
45	94.0	94.2	93.7	90	95.0	95.4	95.0
55	94.3	94.6	94.1	110	95.0	95.8	94.1
75	94.7	95.0	94.6	150	95.4	96.2	95.8
90	95.0	95.2	94.9	185~1000	95.8	96.2	95.8
110	95.2	95.4	95.1				
132	95.4	95.6	95.4				
160	95.6	95.8	95.6				
200~1000	95.8	96.0	95.8				

Ortam Sıcaklığı: $-15^{\circ}\text{C} \leq \theta \leq 40^{\circ}\text{C}$
 Rakım: deniz seviyesinden 1000m yüksekliğe kadar
 Nominal Gerilim: 220/380V, 230/400V, 380/660V, 400/690V
 Nominal frekans: 50Hz, 60Hz
 Bağlantı: Starter 3kW ve altı, 4kW ve üstü için
 Delta Görev Tipi: Sürekli (S1)
 Yalıtım Sınıfı: BOK sıcaklık artışı ile F
 Koruma Derecesi: Motor gövdesi için IP54 veya IPSS,
 terminal kutusu için IPSS
 Soğutma Yöntemi: IC411

Ambient Temperature: $-15^{\circ}\text{C} \leq \theta \leq 40^{\circ}\text{C}$
 Altitude: up to 1000m above sea level
 Rated Voltage: 220/380V, 230/400V, 380/660V, 400/690V
 Rated Frequency: 50Hz, 60Hz
 Connection: Star for 3kW and below, Delta for 4kW and above
 Duty Type: Continuous (S1)
 Insulation Class: F with a temperature rise 80K
 Protection Degree: IP54 or IP55 for motor body, IP55 for terminal box
 Cooling Method: IC411

Bu seri motorlar on dokuz gövde boyutuna karşılık gelmektedir. Bunlar arasında, H63'ten H132'ye kadar olan gövde ve kapaklar dökme demir veya alüminyum-alüminyumdan yapılmıştır ve H160'in üzerindeki gövdeler yeterli mekanik mukavemete sahip dökme demirden yapılmıştır. Motorların tüm soğutma nervürleri toplam veya yatay dağılımlıdır. Böylece motor çok güzel görünür.

Terminal kutuları, H63'ten H132'ye kadar alüminyum döküm, H180'den H450'ye kadar döküm gövde yapılmıştır ve kullanıcılarla seçim sunmak için motorun üst tarafında bulunur.

This series motors amount to the nineteen frame sizes. Among of them, the frames and end-shields of the frame size from H63 to H132 are made of cast iron or aluminium-alloy, and the frames of H180 to H450 ar over are made of cast iron with sufficient mechanical strength. All cooling ribs of motors as sumeverical or horizontal distribution. So, the motor entirely looks very beautiful.

The terminal boxes are made of cast iron aluminium-alloy die-casting far frame size H63 up ta H280 ar high strength cast iron far H315 up ta H450 and located on the top are side of the motor for offering user's choose.

RULMAN ÖLÇÜLERİ BEARING SIZE

Çerçeve Boyutu Frame Size	Kutular Poles	Tahrik Ucu - Drive end				Tahriksiz uç - Nondrive end			
		Yatay - Horizontal		Dikey - Vertical		Yatay - Horizontal		Dikey - Vertical	
		IE1~IE3	IE4	IE1~IE3	IE4	IE1~IE3	IE4	IE1~IE3	IE4
56-63	2 to 6	6201-ZZ-C3		6201-ZZ-C3		6201-ZZ-C3		6201-ZZ-C3	
71	2 to 6	6202-ZZ-C3		6202-ZZ-C3		6202-ZZ-C3		6202-ZZ-C3	
80	2 to 8	6204-ZZ-C3		6204-ZZ-C3		6204-ZZ-C3		6204-ZZ-C3	
90	2 to 8	6205-ZZ-C3		6205-ZZ-C3		6205-ZZ-C3		6205-ZZ-C3	
100	2 to 8	6206-ZZ-C3		6206-ZZ-C3		6206-ZZ-C3		6206-ZZ-C3	
112	2 to 8	6206-ZZ-C3 (or6306-ZZ-C3)		6206-ZZ-C3 (or6306-ZZ-C3)		6206-ZZ-C3 (or6306-ZZ-C3)		6206-ZZ-C3 (or6306-ZZ-C3)	
132	2 to 8	6208-ZZ-C3 (or6308-ZZ-C3)		6208-ZZ-C3 (or6308-ZZ-C3)		6208-ZZ-C3 (or6308-ZZ-C3)		6208-ZZ-C3 (or6308-ZZ-C3)	
160	2	6309-C3	6209-C3	6309-C3	6209-C3	6309-C3	6209-C3	6309-C3	6209-C3
	4 to 8	6309-C3		6309-C3		6309-C3		6309-C3	
180	2	6311-C3	6211-C3	6311-C3	6211-C3	6311-C3	6211-C3	6311-C3	6211-C3
	4 to 8	6311-C3		6311-C3		6311-C3		6311-C3	
200	2	6312-C3	6212-C3	6312-C3	6212-C3	6312-C3	6212-C3	6312-C3	6212-C3
	4 to 8	6312-C3		6312-C3		6312-C3		6312-C3	
225	2	6313-C3	6312-C3	6313-C3	6312-C3	6313-C3	6312-C3	6313-C3	6312-C3
	4 to 8	6313-C3		6313-C3		6313-C3		6313-C3	
250	2	6314-C3	6313-C3	6314-C3	6313-C3	6314-C3	6313-C3	6314-C3	6313-C3
	4 to 8	6314-C3		6314-C3		6314-C3		6313-C3	
280	2	6314-C3		6314-C3		6314-C3		6314-C3	
	4 to 8	6317-C3		6317-C3		6317-C3	6314-C3	6317-C3	6314-C3
315	2	6317-C3		6317-C3		6317-C3		7317B	
	4 to 10	6319-C3(NU319E)		6319-C3		6319-C3		7319B	
355	2	6319-C3		6319-C3		6319-C3		7319B	
	4 to 10	6322-C3(NU322E)		6322-C3		6322-C3		7322B	
355X	2	6219-C3		6219-C3		6219-C3		7219B	
	4 to 12	6324-C3(NU324E)		6324-C3		6224-C3		7224B	
400	2	6219-C3		6219-C3		6219-C3		7219B	
	4 to 12	6326-C3(NU326E)		6326-C3		6326-C3		7326B	
450	2	6322-C3		6222-C3		6322-C3		7222B	
	4 to 12	6328-C3(NU328E)		6328-C3		6328-C3		7328B	
500	4 to 12	6330-C3(NU330E)		6330-C3		6330-C3		7330B	

IE3 SES NOISE

IE4 SES NOISE

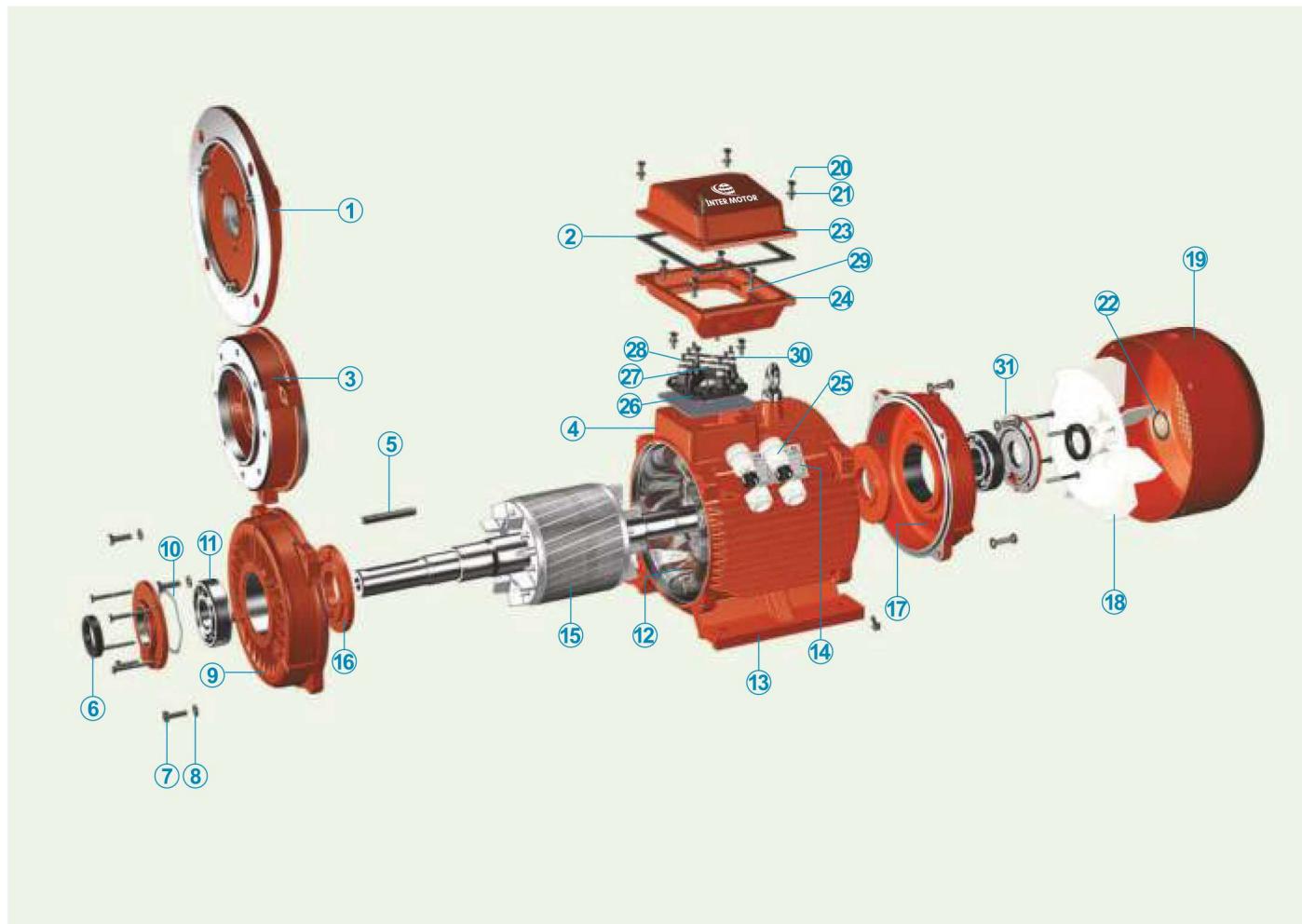
IE5 SES NOISE

Çıktı Output (kW)	Senkron Hız Synchronous speed (r/min)						Çıktı Output (kW)	Senkron Hız Synchronous speed (r/min)						Çıktı Output (kW)	Senkron Hız Synchronous speed (r/min)					
	3000(2Pole)		1500(4Pole)		1000(4Pole)			3000(2Pole)		1500(4Pole)		1000(4Pole)			3000(2Pole)		1500(4Pole)		1000(4Pole)	
	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)	50hz Lpfa dB(A)'da yüzey ses basının ölçülmesi Measuring surface sound pressure level at 50hz Lpfa dB(A)	Ses gücü seviyesi 50 hz LWA dB (A) Sound power level at 50 hz LWA dB (A)		
0.75	56	67	47	58	45	57	0.75	56	67	46	57	45	57	0.75	54	65	44	55	43	54
1.1	56	67	49	61	45	57	1.1	57	68	48	60	45	57	1.1	55	66	46	57	44	55
1.5	61	73	49	61	49	61	1.5	61	73	48	60	49	61	1.5	59	71	48	59	47	58
2.2	62	74	52	64	53	65	2.2	61	73	52	64	53	65	2.2	60	72	51	63	50	62
3	64	76	52	64	57	69	3	63	75	52	64	53	65	3	61	73	51	63	51	63
4	65	77	53	65	57	69	4	65	75	53	65	55	67	4	62	74	52	64	53	65
5.5	68	80	59	71	57	69	5.5	68	80	59	71	55	67	5.5	66	78	58	70	54	66
7.5	68	80	59	71	61	73	7.5	68	80	59	71	57	69	7.5	66	78	58	70	55	67
11	73	86	62	72	61	73	11	72	84	62	72	57	69	11	69	82	60	72	55	67
15	73	86	63	73	61	73	15	73	86	62	72	58	70	15	69	82	60	72	56	68
18.5	73	86	64	76	64	76	18.5	73	86	64	76	58	70	18.5	69	82	60	72	56	68
22	75	88	64	76	64	76	22	74	87	64	76	61	73	22	68	81	61	73	57	70
30	78	92	66	79	64	76	30	77	91	64	76	62	74	30	71	85	62	74	58	71
37	78	92	68	81	66	78	37	77	91	64	76	62	74	37	71	85	62	74	57	70
45	78	92	68	81	68	80	45	77	91	65	78	63	75	45	71	85	61	73	58	71
55	79	93	70	83	68	80	55	80	94	66	79	64	76	55	72	86	62	75	59	72
75	80	94	72	85	73	85	75	80	94	69	82	68	80	75	74	88	65	78	61	74
90	80	94	73	86	73	85	90	80	94	69	82	68	80	90	74	88	65	78	61	74
110	82	96	80	93	73	85	110	81	95	77	90	73	83	110	77	91	67	80	62	75
132	82	96	80	93	73	85	132	81	95	77	90	73	83	132	78	92	66	79	61	74
160	85	99	84	97	80	92	160	85	99	82	95	78	90	160	78	92	66	79	64	77
200	86	100	84	97	80	92	200	85	99	82	95	78	90	200	78	92	66	79	64	77
250	88	102	88	101	80	92	250	88	102	84	97	78	90	250	81	95	75	88	64	77
315	89	103	88	101			315	88	102	84	97			315	83	97	81	94		

KABLO GİRİŞİ CABLE ENTRY

SINIFLANDIRILMA NO CLASSIFIED NO	YAPI BÜYÜKLÜĞÜ FRAME SIZE	MAKS.FL.AMPER MAX.FL.AMPERS	GİRİŞ BOYUTU ENTRY SIZE
1	H56-80	2.6	1×M20×1.5
2	H90-100	6.8	1×M25×1.5
3	H112-132	15.4	2×M32×1.5
4	H160-180	42.5	2×M40×1.5
5	H200-225	84.2	2×M50×1.5
6	H250-280	166.6	2×M63×1.5
7	H315	358	2×M63×1.5
8	H355	546	2×M63×1.5
9	H400	1069	3×M63×1.5
10	H450	1469	3×M63×1.5
11	H500	1469	3×M63×1.5

PATLATILMIŞ GÖRÜNÜM
EXPLODED VIEW



- | | | |
|---------------------------------------|------------------------------------------------|-------------------------------------------------|
| 1. B5 Flanş (B5 Flange) | 12. Stator (Stator) | 23. Klemens Kutusu Kapağı (Terminal Box Lid) |
| 2. Conta (Gasket) | 13. Ayak (Feet) | 24. Klemens Kutusu Altı (Terminal Box Base) |
| 3. B14 Flans döküm gövde (B14 Flange) | 14. Etiket (Nameplate) | 25. Kablo Rakoru (Cable Gland) |
| 4. Gövde (Frame) | 15. Rotor (Rotor) | 26. Terminal Kartı (Terminal Board) |
| 5. Kama (Key) | 16. İç Rulman Tutucu Kapak (Inner Bearing Cap) | 27. Pirinç Papuç (Brass Lug) |
| 6. Yağ Keçesi (V Ring) Oil Seal | 17. Arka Kapak (Rear Endshield) | 28. Pirinç Somun (Brass Nut) |
| 7. Civata (Bolt) | 18. Fan (Fan) | 29. Topraklama (Earth Mark) |
| 8. Yaylı Rondela (Spring Washer) | 19. Tas (Fan Cowl) | 30. Pirinç Rondela (Brass Washer) |
| 9. Ön Kapak (Front Endshield) | 20. Vida (Screw) | 31. Dış Rulman Tutucu Kapak (Outer Bearing Cap) |
| 10. Rulman Baskı Yayı (Wave Washer) | 21. Pul (Washer) | |
| 11. Rulman (Bearing) | 22. Fan Sekmanı (Fan Clamp) | |



IE5 TANIMI IE5 DESIGNATION

IDF 112 M-2

Kutup Sayısı
No. of Poles

Çekirdek Uzunluğu
Core Length

Yapı Büyüklüğü
Frame Size

İnter Motor Tanımlama Sembolu

KORUMA DERECESİ PROTECTION DEGREE

IP- 5 5

Su Püskürtmeye Dayanıklı
Splashproof

Toza Karşı Korumalı
Protecting Against Dust

Uluslararası Koruma Sembolu
International Protection Symbol

SOĞUTMA YÖNTEMİ COOLING METHOD

IC- 411

Tamamen Kapalı Fan Soğutmalı Tip
Totally-Enclosed Fan-cooled Type

Uluslararası Soğutma Sembolu
International Cooling Symbol

IE TEKNİK VERİLER TECHNICAL DATA

3000 DEVİR 2 KUTUPLU 50HZ / SPEED 3000 RPM 2 POLE 50 HZ

Yüksek Verimli (IE5-döküm gövde motor) 50Hz TEKNİK VERİLER
High Efficiency (IE5-Cast-iron motor) 50Hz TECHNICAL DATA

Tip Type	Anma Gücü Rated Output		Anma Hızı Rpm Output Rpm	Verim Efficiency η % (IE5)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayısı Power Factor cosΦ	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	kW kw	HP HP						380	400	415					
IE -631-2	0.18	0.25	2745	75.2	75.2	73.7	0.80	0.45	0.43	0.42	0.63	2.2	2.2	5.5	12
IE -632-2	0.25	0.37	2745	78.3	78.3	76.7	0.81	0.60	0.57	0.55	0.87	2.2	2.2	5.5	12.5
IE -711-2	0.37	0.5	2765	81.7	81.7	80.1	0.81	0.85	0.81	0.78	1.28	2.2	2.2	6.1	14
IE -712-2	0.55	0.75	2765	84.6	84.6	82.9	0.82	1.20	1.14	1.10	1.90	2.3	2.3	6.1	15.3
IE -801-2	0.75	1	2910	86.3	86.3	84.6	0.82	1.61	1.53	1.47	2.46	2.3	2.3	8.5	20.8
IE -802-2	1.1	1.5	2920	87.8	87.8	86.0	0.83	2.29	2.18	2.10	3.60	2.2	2.3	8.5	22
IE -90S-2	1.5	2	2930	88.9	88.9	87.1	0.84	3.05	2.90	2.79	4.89	2.2	2.3	9.0	25.3
IE -90L-2	2.2	3	2930	90.2	90.2	88.4	0.85	4.36	4.14	3.99	7.17	2.2	2.3	9.0	30.5
IE -100L-2	3	4	2935	91.1	91.1	89.3	0.87	5.75	5.46	5.27	9.76	2.2	2.3	9.5	38.5
IE -112M-2	4	5.5	2940	91.8	91.8	90.0	0.88	7.52	7.15	6.89	13.0	2.2	2.3	9.5	51
IE -132S1-2	5.5	7.5	2945	92.6	92.6	90.7	0.88	10.3	9.7	9.39	17.8	2.0	2.3	9.5	80
IE -132S2-2	7.5	10	2950	93.3	93.3	91.4	0.88	13.9	13.2	12.7	24.3	2.0	2.3	9.5	89
IE -160M1-2	11	15	2960	94.0	94.0	92.1	0.89	20.0	19.0	18.3	35.5	2.0	2.3	9.5	139
IE -160M2-2	15	20	2960	94.5	94.5	92.6	0.89	27.1	25.7	24.8	48.4	2.0	2.3	9.5	154
IE -160L-2	18.5	25	2960	94.9	94.9	93.0	0.89	33.3	31.6	30.5	59.7	2.0	2.3	9.5	169
IE -180M-2	22	30	2965	95.1	95.1	93.2	0.89	39.5	37.5	36.2	70.9	2.0	2.3	9.5	232
IE -200L1-2	30	40	2970	95.5	95.5	93.6	0.89	53.6	50.9	49.1	96.5	2.0	2.3	9.0	273
IE -200L2-2	37	50	2970	95.8	95.8	93.9	0.89	65.9	62.6	60.4	119.0	2.0	2.3	9.0	315
IE -225M-2	45	60	2975	96.0	96.0	94.1	0.90	79.1	75.2	72.5	144.5	2.0	2.3	9.0	390
IE -250M-2	55	75	2975	96.2	96.2	94.3	0.90	96.5	91.7	88.4	176.6	2.0	2.3	9.0	545
IE -280S-2	75	100	2980	96.5	96.5	94.6	0.90	131	125	120	240.4	1.8	2.3	8.5	600
IE -280M-2	90	125	2982	96.6	96.6	94.7	0.90	157	149	144	288.2	1.8	2.3	8.5	660
IE -315S-2	110	150	2980	96.8	96.8	94.9	0.90	192	182	176	352.5	1.8	2.3	8.5	1030
IE -315M-2	132	180	2980	96.9	96.9	95.0	0.90	230	218	211	423.0	1.8	2.3	8.5	1100
IE -315L1-2	160	220	2980	97.0	97.0	95.1	0.91	275	262	252	512.8	1.8	2.3	8.5	1200
IE -315L2-2	200	270	2980	97.2	97.2	95.3	0.91	344	326	315	640.9	1.8	2.2	8.5	1250
IE -355M-2	250	340	2985	97.2	97.2	95.3	0.91	429	408	393	799.8	1.6	2.2	8.5	2070
IE -355L-2	315	430	2982	97.2	97.2	95.3	0.91	541	514	495	1009	1.6	2.2	8.5	2400

IE TEKNİK VERİLER TECHNICAL DATA

1500 DEVİR 4 KUTUPLU 50HZ / SPEED 1500 RPM 4 POLE 50 HZ

Tip Type	Anma Gucu Rated Output		Anma Hizi Rpm Output Rpm	Verim Efficiency η % (IE5)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayısı Power Factor cosΦ	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	KW kW	HP HP						380	400	415					
IE -631-4	0.12	0.18	1340	74.3	74.3	72.8	0.72	0.34	0.32	0.31	0.86	2.1	2.2	4.4	12.5
IE -632-4	0.18	0.25	1340	78.7	78.7	77.1	0.73	0.48	0.45	0.44	1.28	2.1	2.2	4.4	13.6
IE -711-4	0.25	0.37	1355	81.5	81.5	79.9	0.74	0.63	0.60	0.58	1.76	2.1	2.2	5.2	19
IE -712-4	0.37	0.5	1355	84.3	84.3	82.6	0.75	0.89	0.84	0.81	2.61	2.1	2.2	5.2	20.5
IE -801-4	0.55	0.75	1420	86.7	86.7	85.0	0.75	1.29	1.22	1.18	3.70	2.4	2.3	5.2	22
IE -802-4	0.75	1	1430	88.2	88.2	86.4	0.75	1.72	1.64	1.58	5.01	2.3	2.3	8.5	25.2
IE -90S-4	1.1	1.5	1445	89.5	89.5	87.7	0.76	2.46	2.33	2.25	7.27	2.3	2.3	8.5	31.3
IE -90L-4	1.5	2	1450	90.4	90.4	88.6	0.77	3.27	3.11	3.00	9.88	2.3	2.3	9.0	35.4
IE -100L1-4	2.2	3	1455	91.4	91.4	89.6	0.81	4.51	4.29	4.13	14.4	2.3	2.3	9.0	48.5
IE -100L2-4	3	4	1455	92.1	92.1	90.3	0.82	6.04	5.73	5.53	19.7	2.3	2.3	9.5	55
IE -112M-4	4	5.5	1460	92.8	92.8	90.9	0.82	7.99	7.59	7.31	26.2	2.2	2.3	9.5	62
IE -132S-4	5.5	7.5	1470	93.4	93.4	91.5	0.83	10.8	10.2	9.87	35.7	2.0	2.3	9.5	88
IE -132M-4	7.5	10	1470	94.0	94.0	92.1	0.84	14.4	13.7	13.2	48.7	2.0	2.3	9.5	100
IE -160M-4	11	15	1475	94.6	94.6	92.7	0.85	20.8	19.7	19.0	71.2	2.2	2.3	9.5	151
IE -160L-4	15	20	1475	95.1	95.1	93.2	0.86	27.9	26.5	25.5	97.1	2.2	2.3	9.5	163
IE -180M-4	18.5	25	1480	95.3	95.3	93.4	0.86	34.3	32.6	31.4	119.4	2.0	2.3	9.5	189
IE -180L-4	22	30	1480	95.5	95.5	93.6	0.86	40.7	38.7	37.3	142.0	2.0	2.3	9.5	220
IE -200L-4	30	40	1480	95.9	95.9	94.0	0.86	55.3	52.5	50.6	193.6	2.0	2.3	9.0	293
IE -225S-4	37	50	1485	96.1	96.1	94.2	0.86	68.0	64.6	62.3	237.9	2.0	2.3	9.0	388
IE -225M-4	45	60	1485	96.3	96.3	94.4	0.86	82.6	78.4	75.6	289.4	2.0	2.3	9.0	407
IE -250M-4	55	75	1485	96.5	96.5	94.6	0.86	101	95.7	92.2	353.7	2.2	2.3	9.0	572
IE -280S-4	75	100	1490	96.7	96.7	94.8	0.88	134	127	123	480.7	2.0	2.3	8.5	678
IE -280M-4	90	125	1490	96.9	96.9	95.0	0.88	160	152	147	576.8	2.0	2.3	8.5	765
IE -315S-4	110	150	1490	97.0	97.0	95.1	0.89	194	184	177	705.0	2.0	2.2	8.5	1020
IE -315M-4	132	180	1490	97.1	97.1	95.2	0.89	232	220	212	846.0	2.0	2.2	8.5	1090
IE -315L1-4	160	220	1490	97.2	97.2	95.3	0.89	281	267	257	1026	2.0	2.2	8.5	1150
IE -315L2-4	200	270	1490	97.4	97.4	95.5	0.90	347	329	317	1282	2.0	2.2	8.5	1235
IE -355M-4	250	340	1490	97.4	97.4	95.5	0.90	433	412	397	1602	2.0	2.2	8.5	1860
IE -355L-4	315	430	1490	97.4	97.4	95.5	0.90	546	519	500	2019	2.0	2.2	8.5	2100

IE TEKNİK VERİLER TECHNICAL DATA

1000 DEVİR 6 KUTUPLU 50HZ / SPEED 1000 RPM 6 POLE 50 HZ

Yüksek Verimli (IE5-döküm gövde motor) 50Hz TEKNİK VERİLER High Efficiency (IE5-Cast-iron motor) 50Hz TECHNICAL DATA

Tip Type	Anma Gücü Rated Output		Anma Hızı Rpm Output Rpm	Verim Efficiency η % (IE5)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayısı Power Factor cosΦ	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	kW kW	HP HP						380	400	415					
IE -632-6	0.12	0.18	860	69.8	69.8	68.4	0.60	0.44	0.41	0.40	1.33	1.8	1.9	3.5	13
IE -711-6	0.18	0.25	860	74.6	74.6	73.1	0.66	0.56	0.53	0.51	2.00	1.9	2.0	4.0	14
IE -712-6	0.25	0.37	860	78.1	78.1	76.5	0.68	0.72	0.68	0.65	2.78	1.9	2.0	4.0	14.6
IE -801-6	0.37	0.5	895	81.6	81.6	80.0	0.70	0.98	0.93	0.90	3.95	1.9	2.0	4.7	19
IE -802-6	0.55	0.75	895	84.2	84.2	82.5	0.72	1.38	1.31	1.26	5.87	1.9	2.1	4.7	21
IE -90S-6	0.75	1	950	85.7	85.7	84.0	0.71	1.87	1.78	1.71	7.54	2.0	2.1	7.5	29.2
IE -90L-6	1.1	1.5	955	87.2	87.2	85.5	0.73	2.63	2.49	2.40	11.0	2.0	2.1	7.5	33.3
IE -100L-6	1.5	2	960	88.4	88.4	86.6	0.73	3.53	3.36	3.23	14.9	2.0	2.1	7.5	41.5
IE -112M-6	2.2	3	965	89.7	89.7	87.9	0.74	5.04	4.78	4.61	21.8	2.0	2.1	7.5	57.8
IE -132S-6	3	4	970	90.6	90.6	88.8	0.74	6.80	6.46	6.23	29.5	2.0	2.1	7.5	80
IE -132M1-6	4	5.5	975	91.4	91.4	89.6	0.74	8.99	8.54	8.23	39.2	2.0	2.1	8.0	92
IE -132M2-6	5.5	7.5	975	92.2	92.2	90.4	0.75	12.1	11.5	11.1	53.9	2.0	2.1	8.0	106
IE -160M-6	7.5	10	980	92.9	92.9	91.0	0.79	15.5	14.8	14.2	73.1	2.0	2.1	8.0	146
IE -160L-6	11	15	980	93.7	93.7	91.8	0.80	22.3	21.2	20.4	107.2	2.0	2.1	8.5	167
IE -180L-6	15	20	985	94.3	94.3	92.4	0.81	29.8	28.3	27.3	145.4	2.0	2.1	8.5	253
IE -200L1-6	18.5	25	985	94.6	94.6	92.7	0.81	36.7	34.8	33.6	179.4	2.0	2.1	8.5	275
IE -200L2-6	22	30	985	94.9	94.9	93.0	0.81	43.5	41.3	39.8	213.3	2.0	2.1	8.5	296
IE -225M-6	30	40	990	95.3	95.3	93.4	0.83	57.6	54.7	52.8	289.4	2.0	2.1	8.3	348
IE -250M-6	37	50	990	95.6	95.6	93.7	0.84	70.0	66.5	64.1	356.9	2.0	2.1	8.3	490
IE -280S-6	45	60	990	95.8	95.8	93.9	0.85	84.0	79.8	76.9	434.1	2.0	2.0	8.5	552
IE -280M-6	55	75	990	96.0	96.0	94.1	0.86	101	96.2	92.7	530.6	2.0	2.0	8.5	695
IE -315S-6	75	100	990	96.3	96.3	94.4	0.84	141	134	129	723.5	2.0	2.0	8.0	1000
IE -315M-6	90	125	990	96.5	96.5	94.6	0.85	167	158	153	868.2	2.0	2.0	8.0	1120
IE -315L1-6	110	150	990	96.6	96.6	94.7	0.85	204	193	186	1061	2.0	2.0	8.0	1200
IE -315L2-6	132	180	990	96.8	96.8	94.9	0.86	241	229	221	1273	2.0	2.0	8.0	1290
IE -355M1-6	160	220	990	96.9	96.9	95.0	0.86	292	277	267	1543	1.8	2.0	8.0	1840
IE -355M2-6	200	270	990	97.0	97.0	95.1	0.87	360	342	330	1929	1.8	2.0	8.0	1980
IE -355L-6	250	340	990	97.0	97.0	95.1	0.87	450	428	412	2412	1.8	2.0	8.0	2150

IEL TEKNİK VERİLER TECHNICAL DATA

3000 DEVİR 2 KUTUPLU 50HZ / SPEED 3000 RPM 2 POLE 50 HZ

Tip Type	Anma Gücü Rated Output		Anma Hızı Rated Output Rpm	Verim Efficiency η % (IE4)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayısı Power Factor $\cos\phi$	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	KW kW	HP HP						380	400	415					
IEL -631-2	0.18	0.25	2745	70.8	70.8	69.4	0.80	0.48	0.46	0.44	0.63	2.2	2.2	5.5	11.3
IEL -632-2	0.25	0.37	2745	74.3	74.3	72.8	0.81	0.63	0.60	0.58	0.87	2.2	2.2	5.5	11.8
IEL -711-2	0.37	0.5	2765	78.1	78.1	76.5	0.81	0.89	0.84	0.81	1.28	2.2	2.2	6.1	13.2
IEL -712-2	0.55	0.75	2765	81.5	81.5	79.9	0.82	1.25	1.19	1.14	1.90	2.3	2.3	6.1	14.5
IEL -801-2	0.75	1	2910	83.5	83.5	81.8	0.82	1.66	1.58	1.52	2.46	2.3	2.3	7.0	20
IEL -802-2	1.1	1.5	2920	85.2	85.2	83.5	0.83	2.36	2.25	2.16	3.60	2.2	2.3	7.3	21
IEL -90S-2	1.5	2	2930	86.5	86.5	84.8	0.84	3.14	2.98	2.87	4.89	2.2	2.3	7.6	24
IEL -90L-2	2.2	3	2930	88.0	88.0	86.2	0.85	4.47	4.25	4.09	7.17	2.2	2.3	7.6	29
IEL -100L-2	3	4	2935	89.1	89.1	87.3	0.87	5.88	5.59	5.38	9.76	2.2	2.3	7.8	37
IEL -112M-2	4	5.5	2940	90.0	90.0	88.2	0.88	7.67	7.29	7.03	13.0	2.2	2.3	8.3	48
IEL -132S1-2	5.5	7.5	2945	90.9	90.9	89.1	0.88	10.4	9.9	9.57	17.8	2.0	2.3	8.3	76
IEL -132S2-2	7.5	10	2950	91.7	91.7	89.9	0.88	14.1	13.4	12.9	24.3	2.0	2.3	7.9	85
IEL -160M1-2	11	15	2960	92.6	92.6	90.7	0.89	20.3	19.3	18.6	35.5	2.0	2.3	8.1	133
IEL -160M2-2	15	20	2960	93.3	93.3	91.4	0.89	27.4	26.1	25.1	48.4	2.0	2.3	8.1	146
IEL -160L-2	18.5	25	2960	93.7	93.7	91.8	0.89	33.7	32.0	30.9	59.7	2.0	2.3	8.2	160
IEL -180M-2	22	30	2965	94.0	94.0	92.1	0.89	40.0	38.0	36.6	70.9	2.0	2.3	8.2	221
IEL -200L1-2	30	40	2970	94.5	94.5	92.6	0.89	54.2	51.5	49.6	96.5	2.0	2.3	7.6	260
IEL -200L2-2	37	50	2970	94.8	94.8	92.9	0.89	66.6	63.3	61.0	119.0	2.0	2.3	7.6	309
IEL -225M-2	45	60	2975	95.0	95.0	93.1	0.90	80.0	76.0	73.2	144.5	2.0	2.3	7.7	370
IEL -250M-2	55	75	2975	95.3	95.3	93.4	0.90	97.4	92.6	89.2	176.6	2.0	2.3	7.7	520
IEL -280S-2	75	100	2980	95.6	95.6	93.7	0.90	132	126	121	240.4	1.8	2.3	7.1	570
IEL -280M-2	90	125	2982	95.8	95.8	93.9	0.90	159	151	145	288.2	1.8	2.3	7.1	630
IEL -315S-2	110	150	2980	96.0	96.0	94.1	0.90	193	184	177	352.5	1.8	2.3	7.1	985
IEL -315M-2	132	180	2980	96.2	96.2	94.3	0.90	232	220	212	423.0	1.8	2.3	7.1	1050
IEL -315L1-2	160	200	2980	96.3	96.3	94.4	0.91	277	264	254	512.8	1.8	2.3	7.2	1160
IEL -315L2-2	200	270	2980	96.5	96.5	94.6	0.91	346	329	317	640.9	1.8	2.2	7.2	1200
IEL -355M-2	250	340	2985	96.5	96.5	94.6	0.91	433	411	396	799.8	1.6	2.2	7.2	2050
IEL -355L-2	315	430	2982	96.5	96.5	94.6	0.91	545	518	499	1009	1.6	2.2	7.2	2380

IEL TEKNİK VERİLER TECHNICAL DATA

1500 DEVİR 4 KUTUPLU 50HZ / SPEED 1500 RPM 4 POLE 50 HZ

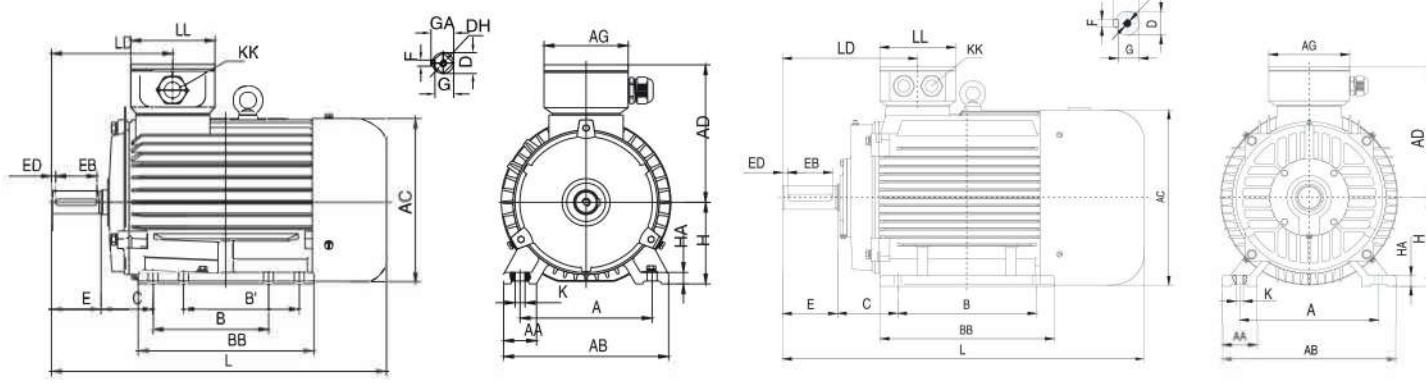
Yüksek Verimli (IE4-döküm gövde motor) 50Hz TEKNİK VERİLER High Efficiency (IE4-Cast-iron motor) 50Hz TECHNICAL DATA

Tip Type	Anma Gücü Rated Output		Anma Hızı Rpm Output Rpm	Verim Efficiency η % (IE4)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayısi Power Factor $\cos\Phi$	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/in	Ağırlık kg Weight kg
	kW kW	HP HP						380	400	415					
IEL-631-4	0.12	0.18	1340	69.8	69.8	68.4	0.72	0.36	0.34	0.33	0.86	2.1	2.2	4.4	11.8
IEL-632-4	0.18	0.25	1340	74.7	74.7	73.2	0.73	0.50	0.48	0.46	1.28	2.1	2.2	4.4	12.6
IEL-711-4	0.25	0.37	1355	77.9	77.9	76.3	0.74	0.66	0.63	0.6	1.76	2.1	2.2	5.2	18
IEL-712-4	0.37	0.5	1355	81.1	81.1	79.5	0.75	0.92	0.88	0.85	2.61	2.1	2.2	5.2	19.5
IEL-801-4	0.55	0.75	1420	83.9	83.9	82.2	0.75	1.33	1.26	1.22	3.70	2.4	2.3	5.2	21
IEL-802-4	0.75	1	1430	85.7	85.7	84.0	0.75	1.77	1.68	1.62	5.01	2.3	2.3	6.6	24
IEL-90S-4	1.1	1.5	1445	87.2	87.2	85.5	0.76	2.52	2.40	2.31	7.27	2.3	2.3	6.8	30
IEL-90L-4	1.5	2	1450	88.2	88.2	86.4	0.77	3.36	3.19	3.07	9.88	2.3	2.3	7.0	34
IEL-100L1-4	2.2	3	1455	89.5	89.5	87.7	0.81	4.61	4.38	4.22	14.4	2.3	2.3	7.6	47
IEL-100L2-4	3	4	1455	90.4	90.4	88.6	0.82	6.15	5.84	5.63	19.7	2.3	2.3	7.6	53
IEL-112M-4	4	5.5	1460	91.1	91.1	89.3	0.82	8.14	7.73	7.45	26.2	2.2	2.3	7.8	60
IEL-132S-4	5.5	7.5	1470	91.9	91.9	90.1	0.83	11.0	10.4	10.0	35.7	2.0	2.3	7.9	85
IEL-132M-4	7.5	10	1470	92.6	92.6	90.7	0.84	14.6	13.9	13.4	48.7	2.0	2.3	7.5	96
IEL-160M-4	11	15	1475	93.3	93.3	91.4	0.85	21.1	20.0	19.3	71.2	2.2	2.3	7.7	146
IEL-160L-4	15	20	1475	93.9	93.9	92.0	0.86	28.2	26.8	25.8	97.1	2.2	2.3	7.8	156
IEL-180M-4	18.5	25	1480	94.2	94.2	92.3	0.86	34.7	33.0	31.8	119.4	2.0	2.3	7.8	181
IEL-180L-4	22	30	1480	94.5	94.5	92.6	0.86	41.1	39.1	37.7	142.0	2.0	2.3	7.8	209
IEL-200L-4	30	40	1480	94.9	94.9	93.0	0.86	55.8	53.1	51.1	193.6	2.0	2.3	7.3	280
IEL-225S-4	37	50	1485	95.2	95.2	93.3	0.86	68.7	65.2	62.9	237.9	2.0	2.3	7.4	373
IEL-225M-4	45	60	1485	95.4	95.4	93.5	0.86	83.3	79.2	76.3	289.4	2.0	2.3	7.4	390
IEL-250M-4	55	75	1485	95.7	95.7	93.8	0.86	102	96.5	93.0	353.7	2.2	2.3	7.4	553
IEL-280S-4	75	100	1490	96.0	96.0	94.1	0.88	135	128	124	480.7	2.0	2.3	6.9	655
IEL-280M-4	90	125	1490	96.1	96.1	94.2	0.88	162	154	148	576.8	2.0	2.3	6.9	730
IEL-315S-4	110	150	1490	96.3	96.3	94.4	0.89	195	185	179	705.0	2.0	2.2	7.0	980
IEL-315M-4	132	180	1490	96.4	96.4	94.5	0.89	234	222	214	846.0	2.0	2.2	7.0	1031
IEL-315L1-4	160	200	1490	96.6	96.6	94.7	0.89	283	269	259	1026	2.0	2.2	7.1	1093
IEL-315L2-4	200	270	1490	96.7	96.7	94.8	0.90	349	332	320	1282	2.0	2.2	7.1	1190
IEL-355M-4	250	340	1490	96.7	96.7	94.8	0.90	436	415	400	1602	2.0	2.2	7.1	1754
IEL-355L-4	315	430	1490	96.7	96.7	94.8	0.90	550	522	504	2019	2.0	2.2	7.1	1960

IEL TEKNİK VERİLER TECHNICAL DATA

1000 DEVİR 6 KUTUPLU 50HZ / SPEED 1000 RPM 6 POLE 50 HZ

Tip Type	Anma Gücü Rated Output		Anma Hızı Rated Output Rpm	Verim Efficiency η % (IE4)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayısı Power Factor $\cos\phi$	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	kW kW	HP HP						380	400	415					
IEL-632-6	0.12	0.18	860	64.9	64.9	63.6	0.60	0.47	0.44	0.43	1.33	1.8	1.9	3.5	12.3
IEL-711-6	0.18	0.25	860	70.1	70.1	68.7	0.66	0.59	0.56	0.54	2.00	1.9	2.0	4.0	13.3
IEL-712-6	0.25	0.37	860	74.1	74.1	72.6	0.68	0.75	0.72	0.69	2.78	1.9	2.0	4.0	13.8
IEL-801-6	0.37	0.5	895	78.0	78.0	76.4	0.70	1.03	0.98	0.94	3.95	1.9	2.0	4.7	18.2
IEL-802-6	0.55	0.75	895	80.9	80.9	79.3	0.72	1.43	1.36	1.31	5.87	1.9	2.1	4.7	20
IEL-90S-6	0.75	1	950	82.7	82.7	81.0	0.71	1.94	1.84	1.78	7.54	2.0	2.1	6.0	28
IEL-90L-6	1.1	1.5	955	84.5	84.5	82.8	0.73	2.71	2.57	2.48	11.0	2.0	2.1	6.0	32
IEL-100L-6	1.5	2	960	85.9	85.9	84.2	0.73	3.63	3.45	3.33	14.9	2.0	2.1	6.5	40
IEL-112M-6	2.2	3	965	87.4	87.4	85.7	0.74	5.17	4.91	4.73	21.8	2.0	2.1	6.6	56
IEL-132S-6	3	4	970	88.6	88.6	86.8	0.74	6.95	6.60	6.37	29.5	2.0	2.1	6.8	78
IEL-132M1-6	4	5.5	975	89.5	89.5	87.7	0.74	9.18	8.72	8.40	39.2	2.0	2.1	6.8	89
IEL-132M2-6	5.5	7.5	975	90.5	90.5	88.7	0.75	12.3	11.7	11.3	53.9	2.0	2.1	7.0	102
IEL-160M-6	7.5	10	980	91.3	91.3	89.5	0.79	15.8	15.0	14.5	73.1	2.0	2.1	7.0	140
IEL-160L-6	11	15	980	92.3	92.3	90.5	0.80	22.6	21.5	20.7	107.2	2.0	2.1	7.2	160
IEL-180L-6	15	20	985	92.9	92.9	91.0	0.81	30.3	28.8	27.7	145.4	2.0	2.1	7.3	245
IEL-200L1-6	18.5	25	985	93.4	93.4	91.5	0.81	37.2	35.3	34.0	179.4	2.0	2.1	7.3	265
IEL-200L2-6	22	30	985	93.7	93.7	91.8	0.81	44.0	41.8	40.3	213.3	2.0	2.1	7.4	285
IEL-225M-6	30	40	990	94.2	94.2	92.3	0.83	58.3	55.4	53.4	289.4	2.0	2.1	6.9	335
IEL-250M-6	37	50	990	94.5	94.5	92.6	0.84	70.8	67.3	64.8	356.9	2.0	2.1	7.1	471
IEL-280S-6	45	60	990	94.8	94.8	92.9	0.85	84.8	80.6	77.7	434.1	2.0	2.0	7.3	530
IEL-280M-6	55	75	990	95.1	95.1	93.2	0.86	102	97.1	93.6	530.6	2.0	2.0	7.3	670
IEL-315S-6	75	100	990	95.4	95.4	93.5	0.84	142	135	130	723.5	2.0	2.0	6.6	960
IEL-315M-6	90	125	990	95.6	95.6	93.7	0.85	168	160	154	868.2	2.0	2.0	6.7	1070
IEL-315L1-6	110	150	990	95.8	95.8	93.9	0.85	205	195	188	1061	2.0	2.0	6.7	1160
IEL-315L2-6	132	180	990	96.0	96.0	94.1	0.86	243	231	222	1273	2.0	2.0	6.8	1250
IEL-355M1-6	160	200	990	96.2	96.2	94.3	0.86	294	279	269	1543	1.8	2.0	6.8	1780
IEL-355M2-6	200	270	990	96.3	96.3	94.4	0.87	363	345	332	1929	1.8	2.0	6.8	1900
IEL-355L-6	250	340	990	96.5	96.5	94.6	0.87	452	430	414	2412	1.8	2.0	6.8	2100



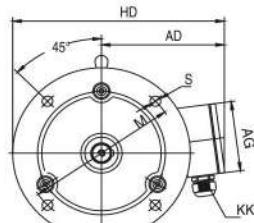
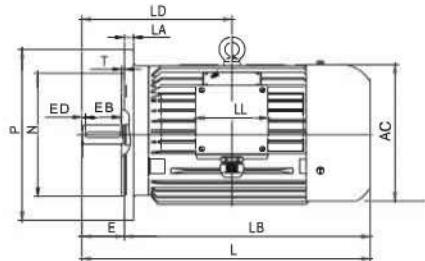
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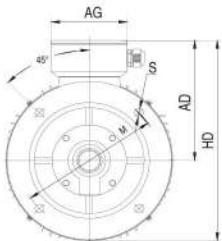
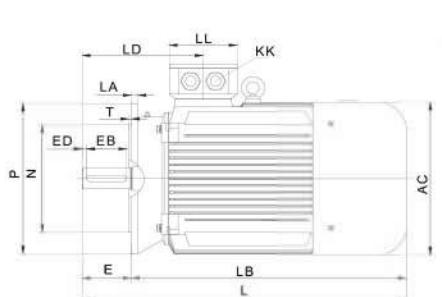
Tip Type	Kutup Pole	Φ	AB	AB	Φ	AB	AB	Φ	AB	AB	E	DH	E	EB	ED	E	E	GA	H	HA	K	KK	L	LD	LL
63	2,4,6,8	100	30	130	136	113	94	80	110	40	11	M4X12	23	16	3.5	4	8.5	12.5	63	8	4-Φ7	1-M20X1.5	250	80.5	94
71	2,4,6,8	112	32	144	155	119	94	90	120	45	14	M5X12	30	25	2.5	5	11	16	71	8	4-Φ7	1-M20X1.5	266	99	94
80	2,4,6,8	125	34	160	167	147	102	100	150	50	19	M6X16	40	30	5	6	15.5	21.5	80	10	4-Φ10	1-M25X1.5	311	119	102
90S	2,4,6,8	140	36	176	183.4155.5	102	100	180	56	24		M8X19	50	40	5	8	20	27	90	12	4-Φ10	1-M25X1.5	356	125	102
90L	2,4,6,8	140	36	176	183.4155.5	102	125	210	56	24		M8X19	50	40	5	8	20	27	90	12	4-Φ10	1-M25X1.5	386	125	102
100L	2,4,6,8	160	40	200	205.4	167	102	140	213	63	28	M10X22	60	50	5	8	24	31	100	14	4-Φ12	1-M32X1.5	411	147	102
112M	2,4,6,8	190	50	240	230	188	118	140	188	70	28	M10X22	60	50	5	8	24	31	112	15	4-Φ12	2-M32X1.5	394	147	110
132S	2,4,6,8	216	55	262	292.4	217	118	140	226	89	38	M12X28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32X1.5	503	179	110
132M	4,6,8	216	55	262	292.4	217	118	178	256	89	38	M12X28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32X1.5	533	179	110
160M	2,4,6,8	254	63	310	335	256	162	210	315	108	42	M16X36	110	90	10	12	37	45	160	20	4-Φ14.5	2-M40X1.5	648	248	152
160L	2,4,6,8	254	63	310	335	256	162	254	355	108	42	M16X36	110	90	10	12	37	45	160	20	4-Φ14.5	2-M40X1.5	688	248	152
180M	2,4,8	279	70	349	363	271	162	241	359	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40X1.5	711	271	152
180L	4,6,8	279	70	349	363	271	162	279	360	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-Φ14.5	2-M40X1.5	746	271	152
200L	2,4,6,8	318	70	395	418	312	210	305	372	133	55	M20X42	110	100	5	16	49	59	200	25	4-Φ18.5	2-M50X1.5	846	296	190
225S	4,8	356	75	431	465	334	210	286	431	149	60	M20X42	140	125	7.5	18	53	64	225	28	4-Φ18.5	2-M50X1.5	880	330	190
225M	2	356	75	431	465	334	210	311	466	149	55	M20X42	110	100	5	16	49	59	225	28	4-Φ18.5	2-M50X1.5	885	299	190
225M	4,6,8	356	75	431	465	334	210	311	466	149	60	M20X42	140	125	7.5	18	53	64	225	28	4-Φ18.5	2-M50X1.5	915	330	190
250M	2	406	80	484	525	379	248	349	515	168	60	M20X42	140	125	7.5	18	53	64	250	30	4-Φ24	2-M63X1.5	980	347	220
250M	4,6,8	406	80	484	525	379	248	349	515	168	65	M20X42	140	125	7.5	18	58	69	250	30	4-Φ24	2-M63X1.5	980	347	220
280S	2	457	85	542	588	412	248	368	510	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63X1.5	980	355	220
280S	4,6,8	457	85	542	588	412	248	368	510	190	75	M20X42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63X1.5	980	355	220
280M	2	457	85	542	588	412	248	419	550	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63X1.5	1020	355	220
280M	4,6,8	457	85	542	588	412	248	419	550	190	75	M20X42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63X1.5	1020	355	220
315S	2	508	120	628	620	524	320	406	570	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1158	397	280
315S	4,6,8,10	508	120	628	620	524	320	406	570	216	80	M20X42	170	160	5	22	71	85	315	45	4-Φ28	2-M63X1.5	1188	427	280
315M	2	508	120	628	620	524	320	457	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1268	397	280
315M	4,6,8,10	508	120	628	620	524	320	457	680	216	80	M20X42	170	160	5	22	71	85	315	45	4-Φ28	2-M63X1.5	1298	427	280
315L	2	508	120	628	620	524	320	508	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1268	397	280
315L	4,6,8,10	508	120	628	620	524	320	508	680	216	80	M20X42	170	160	5	22	71	85	315	45	4-Φ28	2-M63X1.5	1298	427	280
355M	2	610	116	726	698	639	380	560	750	254	75	M20X42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63X1.5	1496	422	330
355M	4,6,8,10	610	116	726	698	639	380	560	750	254	95	M24X50	170	160	5	25	86	100	355	52	6-Φ28	2-M63X1.5	1536	452	330
355L	2	610	116	726	698	639	380	630	750	254	75	M20X42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63X1.5	1496	422	330
355L	4,6,8,10	610	116	726	698	639	380	630	750	254	95	M24X50	170	160	5	25	86	100	355	52	6-Φ28	2-M63X1.5	1536	452	330

IEL-IE

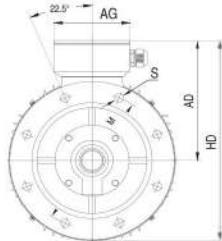
MONTAJ VE GENEL BOYUTLAR
MOUNTING AND OVERALL DIMENSIONS

IM B5 H63-355

71-132



160-200



225-355

Tip Type	Kutup Pole	AC	AD	B	B	DH	B	EB	ED	F	G	GA	HD	KK	L	LA	LD	U	M	N	P	S	U
63	2,4,6,8	136	113	94	11	M4X12	23	16	3.5	4	8.5	12.5	179	1-M20X1.5	250	10	80.5	94	115	95	140	10	3
71	2,4,6,8	155	119	94	14	M5X12	30	25	2.5	5	11	16	207	1-M20X1.5	266	10	99	94	130	110	160	10	3.5
80	2,4,6,8	167	147	102	19	M6X16	40	30	5	6	15.5	21.5	255	1-M25X1.5	311	12	150	102	165	130	200	12	3.5
90S	2,4,6,8	183.4	155.5	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	356	12	176	102	165	130	200	12	3.5
90L	2,4,6,8	183.4	155.5	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	386	12	191	102	165	130	200	12	3.5
100L	2,4,6,8	205.4	167	102	28	M10X22	60	50	5	8	24	31	299	1-M32X1.5	411	13	211	102	215	180	250	14.5	4
112M	2,4,6,8	230	188	118	28	M10X22	60	50	5	8	24	31	315	2-M32X1.5	394	14	205	110	215	180	250	14.5	4
132S	2,4,6,8	292.4	217	118	38	M12X28	80	65	7.5	10	33	41	353	2-M32X1.5	503	14	179	110	265	230	300	14.5	4
132M	4,6,8	292.4	217	118	38	M12X28	80	65	7.5	10	33	41	353	2-M32X1.5	533	14	179	110	265	230	300	14.5	4
160M	2,4,6,8	335	256	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	648	15	248	152	300	250	350	18.5	5
160L	2,4,6,8	335	256	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	688	15	248	152	300	250	350	18.5	5
180M	2,4,8	363	271	162	48	M16X36	110	90	10	14	42.5	51.5	445	2-M40X1.5	711	15	271	152	300	250	350	18.5	5
180L	4,6,8	363	271	162	48	M16X36	110	90	10	14	42.5	51.5	445	2-M40X1.5	746	15	271	152	300	250	350	18.5	5
200L	2,4,6,8	418	312	210	55	M20X42	110	100	5	16	49	59	499	2-M50X1.5	846	17	296	190	350	300	400	18.5	5
225S	4,8	465	334	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	880	20	330	190	400	350	450	18.5	5
225M	2	465	334	210	55	M20X42	110	100	5	16	49	59	547	2-M50X1.5	885	20	299	190	400	350	450	18.5	5
225M	4,6,8	465	334	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	915	20	330	190	400	350	450	18.5	5
250M	2	525	379	248	60	M20X42	140	125	7.5	18	53	64	633	2-M63X1.5	980	22	347	220	500	450	550	18.5	5
250M	4,6,8	525	379	248	65	M20X42	140	125	7.5	18	58	69	633	2-M63X1.5	980	22	347	220	500	450	550	18.5	5
280S	2	588	412	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	980	22	355	220	500	450	550	18.5	5
280S	4,6,8	588	412	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	980	22	355	220	500	450	550	18.5	5
280M	2	588	412	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	1020	22	355	220	500	450	550	18.5	5
280M	4,6,8	588	412	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	1020	22	355	220	500	450	550	18.5	5
315S	2	620	524	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1158	22	397	280	600	550	660	24	6
315S	4,6,8,10	620	524	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1188	22	427	280	600	550	660	24	6
315M	2	620	524	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1268	22	397	280	600	550	660	24	6
315M	4,6,8,10	620	524	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1288	22	427	280	600	550	660	24	6
315L	2	620	524	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1268	22	397	280	600	550	660	24	6
315L	4,6,8,10	620	524	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1298	22	427	280	600	550	660	24	6
355M	2	698	639	380	75	M20X42	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1496	25	422	330	740	680	800	24	6
355M	4,6,8,10	698	639	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1536	25	452	330	740	680	800	24	6
355L	2	698	639	380	75	M20X42	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1496	25	422	330	740	680	800	24	6
355L	4,6,8,10	698	639	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1536	25	452	330	740	680	800	24	6

IED TEKNİK VERİLER TECHNICAL DATA

3000 DEVİR 2 KUTUPLU 50HZ / SPEED 3000 RPM 2 POLE 50 HZ

Tip Type	Anma Gücü Rated Output		Anma Hızı Rpm Output Rpm	Verim Efficiency η % (IE3)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayısı Power Factor $\cos\Phi$	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	kW kw	HP HP						380	400	415					
IED-631-2	0.18	0.25	2730	65.9	65.9	64.6	0.80	0.52	0.49	0.47	0.63	2.2	2.2	5.5	9.5
IED-632-2	0.25	0.37	2730	69.7	69.7	68.3	0.81	0.67	0.64	0.62	0.87	2.2	2.2	5.5	10
IED-711-2	0.37	0.5	2750	73.8	73.8	72.3	0.81	0.94	0.89	0.86	1.28	2.2	2.2	6.1	11
IED-712-2	0.55	0.75	2750	77.8	77.8	76.2	0.82	1.31	1.24	1.20	1.91	2.3	2.3	6.1	12.1
IED-801-2	0.75	1	2880	80.7	80.7	79.1	0.82	1.72	1.64	1.58	2.49	2.3	2.3	7.0	18.1
IED-802-2	1.1	1.5	2880	82.7	82.7	81.0	0.83	2.43	2.31	2.23	3.65	2.2	2.3	7.3	19.5
IED-90S-2	1.5	2	2895	84.2	84.2	82.5	0.84	3.22	3.06	2.95	4.95	2.2	2.3	7.6	23.3
IED-90L-2	2.2	3	2895	85.9	85.9	84.2	0.85	4.58	4.35	4.19	7.26	2.2	2.3	7.6	27.1
IED-100L-2	3	4	2895	87.1	87.1	85.4	0.87	6.02	5.71	5.51	9.90	2.2	2.3	7.8	38.8
IED-112M-2	4	5.5	2905	88.1	88.1	86.3	0.88	7.84	7.45	7.18	13.1	2.2	2.3	8.3	48.3
IED-132S1-2	5.5	7.5	2930	89.2	89.2	87.4	0.88	10.6	10.1	9.75	17.9	2.0	2.3	8.3	55.1
IED-132S2-2	7.5	10	2930	90.1	90.1	88.3	0.88	14.4	13.7	13.2	24.4	2.0	2.3	7.9	69.2
IED-160M1-2	11	15	2945	91.2	91.2	89.4	0.89	20.6	19.6	18.9	35.7	2.0	2.3	8.1	113
IED-160M2-2	15	20	2945	91.9	91.9	90.1	0.89	27.9	26.5	25.5	48.6	2.0	2.3	8.1	123
IED-160L-2	18.5	25	2940	92.4	92.4	90.6	0.89	34.2	32.5	31.3	60.1	2.0	2.3	8.2	142
IED-180M-2	22	30	2955	92.7	92.7	90.8	0.89	40.5	38.5	37.1	71.1	2.0	2.3	8.2	182
IED-200L 1-2	30	40	2960	93.3	93.3	91.4	0.89	54.9	52.1	50.3	96.8	2.0	2.3	7.6	246
IED-200L2-2	37	50	2960	93.7	93.7	91.8	0.89	67.4	64.0	61.7	119.4	2.0	2.3	7.6	265
IED-225M-2	45	60	2965	94.0	94.0	92.1	0.90	80.8	76.8	74.0	144.9	2.0	2.3	7.7	323
IED-250M-2	55	75	2970	94.3	94.3	92.4	0.90	98.5	93.5	90.2	176.9	2.0	2.3	7.7	413
IED-280S-2	75	100	2975	94.7	94.7	92.8	0.90	134	127	122	240.8	1.8	2.3	7.1	546
IED-280M-2	90	125	2975	95.0	95.0	93.1	0.90	160	152	146	288.9	1.8	2.3	7.1	569
IED-315S-2	110	150	2978	95.2	95.2	93.3	0.90	195	185	179	352.8	1.8	2.3	7.1	897
IED-315M-2	132	180	2978	95.4	95.4	93.5	0.90	234	222	214	423.3	1.8	2.3	7.1	1029
IED-315L1-2	160	200	2980	95.6	95.6	93.7	0.91	279	265	256	512.8	1.8	2.3	7.2	1067
IED-315L2-2	200	270	2980	95.8	95.8	93.9	0.91	349	331	319	640.9	1.8	2.2	7.2	1194
IED-355M-2	250	340	2982	95.8	95.8	93.9	0.91	436	414	399	800.6	1.6	2.2	7.2	1685
IED-355L-2	315	430	2982	95.8	95.8	93.9	0.91	549	522	503	1009	1.6	2.2	7.2	1734

IED TEKNİK VERİLER TECHNICAL DATA

1500 DEVİR 4 KUTUPLU 50HZ / SPEED 1500 RPM 4 POLE 50 HZ

Tip Type	Anma Gucu Rated Output		Anma Hizi Rpm Output Rpm	Verim Efficiency η % (IE3)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayı Power Factor $\cos\Phi$	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	kW kW	HP HP						380	400	415					
IED-631-4	0.12	0.18	1320	64.8	64.8	63.5	0.72	0.39	0.37	0.36	0.87	2.1	2.2	4.4	9.8
IED-632-4	0.18	0.25	1320	69.9	69.9	68.5	0.73	0.54	0.51	0.49	1.30	2.1	2.2	4.4	10.5
IED-711-4	0.25	0.37	1340	73.5	73.5	72.0	0.74	0.70	0.66	0.64	1.78	2.1	2.2	5.2	15.2
IED-712-4	0.37	0.5	1340	77.3	77.3	75.8	0.75	0.97	0.92	0.89	2.64	2.1	2.2	5.2	16.6
IED-801-4	0.55	0.75	1400	80.8	80.8	79.2	0.75	1.38	1.31	1.26	3.75	2.4	2.3	5.2	17.6
IED-802-4	0.75	1	1420	82.5	82.5	80.9	0.75	1.84	1.75	1.69	5.04	2.3	2.3	6.6	18.4
IED-90S-4	1.1	1.5	1445	84.1	84.1	82.4	0.76	2.61	2.48	2.39	7.27	2.3	2.3	6.8	24.2
IED-90L-4	1.5	2	1445	85.3	85.3	83.6	0.77	3.47	3.3	3.18	9.91	2.3	2.3	7.0	29.7
IED-100L1-4	2.2	3	1450	86.7	86.7	85.0	0.81	4.76	4.52	4.36	14.5	2.3	2.3	7.6	41.5
IED-100L2-4	3	4	1450	87.7	87.7	85.9	0.82	6.34	6.02	5.8	19.8	2.3	2.3	7.6	46
IED-112M-4	4	5.5	1450	88.6	88.6	86.8	0.82	8.37	7.95	7.66	26.3	2.2	2.3	7.8	63.2
IED-132S-4	5.5	7.5	1460	89.6	89.6	87.8	0.83	11.2	10.7	10.3	36.0	2.0	2.3	7.9	71.2
IED-132M-4	7.5	10	1460	90.4	90.4	88.6	0.84	15.0	14.3	13.7	49.1	2.0	2.3	7.5	85.1
IED-160M-4	11	15	1465	91.4	91.4	89.6	0.85	21.5	20.4	19.7	71.7	2.2	2.3	7.7	121
IED-160L-4	15	20	1465	92.1	92.1	90.3	0.86	28.8	27.3	26.3	97.8	2.2	2.3	7.8	142
IED-180M-4	18.5	25	1470	92.6	92.6	90.7	0.86	35.3	33.5	32.3	120.2	2.0	2.3	7.8	181
IED-180L-4	22	30	1470	93.0	93.0	91.1	0.86	41.8	39.7	38.3	142.9	2.0	2.3	7.8	209
IED-200L-4	30	40	1475	93.6	93.6	91.7	0.86	56.6	53.8	51.8	194.2	2.0	2.3	7.3	284
IED-225S-4	37	50	1485	93.9	93.9	92.0	0.86	69.6	66.1	63.7	237.9	2.0	2.3	7.4	328
IED-225M-4	45	60	1485	94.2	94.2	92.3	0.86	84.4	80.2	77.3	289.4	2.0	2.3	7.4	363
IED-250M-4	55	75	1485	94.6	94.6	92.7	0.86	103	97.6	94.1	353.7	2.2	2.3	7.4	442
IED-280S-4	75	100	1486	95.0	95.0	93.1	0.88	136	129	125	482.0	2.0	2.3	6.9	569
IED-280M-4	90	125	1486	95.2	95.2	93.3	0.88	163	155	149	578.4	2.0	2.3	6.9	639
IED-315S-4	110	150	1488	95.4	95.4	93.5	0.89	197	187	180	706.0	2.0	2.2	7.0	939
IED-315M-4	132	180	1488	95.6	95.6	93.7	0.89	236	224	216	847.2	2.0	2.2	7.0	1033
IED-315L1-4	160	200	1488	95.8	95.8	93.9	0.89	285	271	261	1027	2.0	2.2	7.1	1126
IED-315L2-4	200	270	1490	96.0	96.0	94.1	0.90	352	334	322	1282	2.0	2.2	7.1	1238
IED-355M-4	250	340	1490	96.0	96.0	94.1	0.90	440	418	403	1602	2.0	2.2	7.1	1830
IED-355L-4	315	430	1490	96.0	96.0	94.1	0.90	554	526	507	2019	2.0	2.2	7.1	1950

IED TEKNİK VERİLER TECHNICAL DATA

1000 DEVİR 6 KUTUPLU 50HZ / SPEED 1000 RPM 6 POLE 50 HZ

Yüksek Verimli (IE3-döküm gövde motor) 50Hz TEKNİK VERİLER
 High Efficiency (IE3-Cast-iron motor) 50Hz TECHNICAL DATA

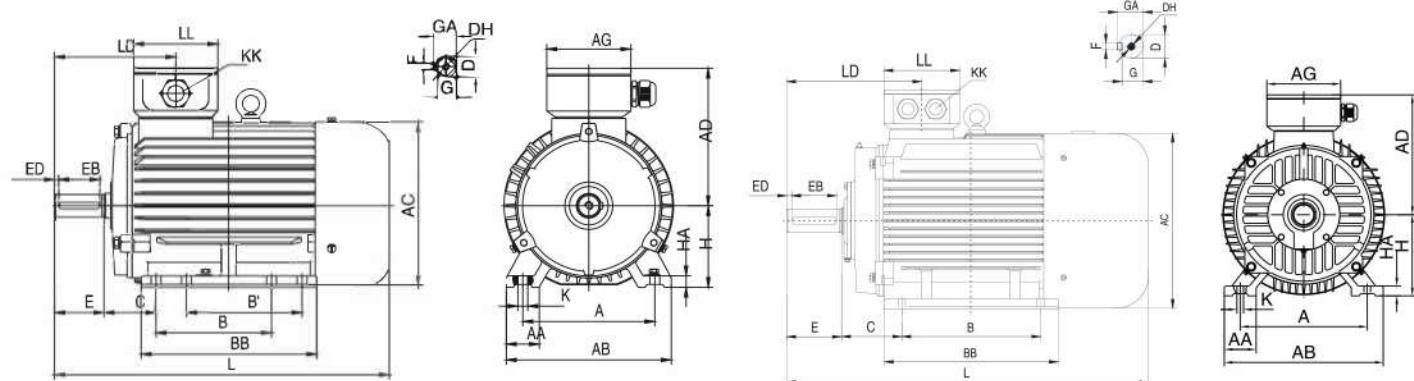
Tip Type	Anma Gücü Rated Output		Anma Hızı Rpm Output Rpm	Verim Efficiency η % (IE3)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Guç Katsayısı Power Factor $\cos\Phi$	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/In	Ağırlık kg Weight kg
	kW kW	HP HP						380	400	415					
IED -632-6	0.12	0.18	855	57.7	57.7	56.5	0.60	0.53	0.50	0.48	1.34	1.8	1.9	3.5	10.3
IED -711-6	0.18	0.25	855	63.9	63.9	62.6	0.66	0.65	0.62	0.59	2.01	1.9	2.0	4.0	11
IED -712-6	0.25	0.37	855	68.6	68.6	67.2	0.68	0.81	0.77	0.75	2.79	1.9	2.0	4.0	11.5
IED -801-6	0.37	0.5	890	73.5	73.5	72.0	0.70	1.09	1.04	1.00	3.97	1.9	2.0	4.7	15.2
IED -802-6	0.55	0.75	890	77.2	77.2	75.7	0.72	1.50	1.43	1.38	5.90	1.9	2.1	4.7	16.6
IED -90S-6	0.75	1	935	78.9	78.9	77.3	0.71	2.03	1.93	1.86	7.66	2.0	2.1	6.0	24.1
IED -90L-6	1.1	1.5	945	81.0	81.0	79.4	0.73	2.83	2.69	2.59	11.1	2.0	2.1	6.0	25.7
IED -100L-6	1.5	2	949	82.5	82.5	80.9	0.73	3.78	3.59	3.47	15.1	2.0	2.1	6.5	34.9
IED -112M-6	2.2	3	955	84.3	84.3	82.6	0.74	5.36	5.09	4.91	22.0	2.0	2.1	6.6	54.2
IED -132S-6	3	4	968	85.6	85.6	83.9	0.74	7.20	6.84	6.59	29.6	2.0	2.1	6.8	62.3
IED -132M1-6	4	5.5	968	86.8	86.8	85.1	0.74	9.46	8.99	8.66	39.5	2.0	2.1	6.8	75.2
IED -132M2-6	5.5	7.5	968	88.0	88.0	86.2	0.75	12.7	12.0	11.6	54.3	2.0	2.1	7.0	82.3
IED -160M-6	7.5	10	970	89.1	89.1	87.3	0.79	16.2	15.4	14.8	73.8	2.0	2.1	7.0	112
IED -160L-6	11	15	970	90.3	90.3	88.5	0.80	23.1	22.0	21.2	108.3	2.0	2.1	7.2	134
IED -180L-6	15	20	978	91.2	91.2	89.4	0.81	30.9	29.3	28.2	146.5	2.0	2.1	7.3	197
IED -200L1-6	18.5	25	980	91.7	91.7	89.9	0.81	37.8	35.9	34.7	180.3	2.0	2.1	7.3	234
IED -200L2-6	22	30	980	92.2	92.2	90.4	0.81	44.8	42.5	41.0	214.4	2.0	2.1	7.4	251
IED -225M-6	30	40	980	92.9	92.9	91.0	0.83	59.1	56.2	54.1	292.3	2.0	2.1	6.9	308
IED -250M-6	37	50	985	93.3	93.3	91.4	0.84	71.7	68.1	65.7	358.7	2.0	2.1	7.1	383
IED -280S-6	45	60	985	93.7	93.7	91.8	0.85	85.8	81.6	78.6	436.3	2.0	2.0	7.3	501
IED -280M-6	55	75	985	94.1	94.1	92.2	0.86	103	98.1	94.6	533.2	2.0	2.0	7.3	573
IED -315S-6	75	100	985	94.6	94.6	92.7	0.84	143	136	131	727.2	2.0	2.0	6.6	843
IED -315M-6	90	125	988	94.9	94.9	93.0	0.85	170	161	155	869.9	2.0	2.0	6.7	941
IED -315L1-6	110	150	988	95.1	95.1	93.2	0.85	207	196	189	1063	2.0	2.0	6.7	1017
IED -315L2-6	132	180	988	95.4	95.4	93.5	0.86	244	232	224	1276	2.0	2.0	6.8	1121
IED -355M1-6	160	200	990	95.6	95.6	93.7	0.86	296	281	271	1543	1.8	2.0	6.8	1715
IED -355M2-6	200	270	990	95.8	95.8	93.9	0.87	365	346	334	1929	1.8	2.0	6.8	1846
IED -355L-6	250	340	990	95.8	95.8	93.9	0.87	456	433	417	2412	1.8	2.0	6.8	2085

IED TEKNİK VERİLER TECHNICAL DATA

750 DEVİR 8 KUTUPLU 50HZ / SPEED 750 RPM 8 POLE 50 HZ

Tip Type	Anma Gucu Rated Output		Anma Hizi Rpm Output Rpm	Verim Efficiency η % (IE3)	% 75 Verimlilik Efficiency at % 75 Load	% 50 Verimlilik Efficiency at % 50 Load	Güç Katsayı Power Factor $\cos\Phi$	Anma Akımı Rated Current A			Anma Torku Nm Rated Torque Nm	Ts/Tn	Tmax/Tn	Is/in	Ağırlık kg Weight kg
	kW kW	HP HP						380	400	415					
IED-712-8	0.12	0.18	605	50.7	50.7	49.7	0.57	0.63	0.60	0.58	1.89	1.8	1.9	2.8	11
IED-801-8	0.18	0.25	650	58.7	58.7	57.5	0.61	0.76	0.73	0.70	2.64	1.8	1.9	3.3	14.5
IED-802-8	0.25	0.37	650	64.1	64.1	62.8	0.61	0.97	0.92	0.89	3.67	1.8	1.9	3.3	16.7
IED-90S-8	0.37	0.5	675	69.3	69.3	67.9	0.61	1.33	1.26	1.22	5.23	1.8	1.9	4.0	28.2
IED-90L-8	0.55	0.75	675	73.0	73.0	71.5	0.61	1.88	1.78	1.72	7.78	1.8	2.0	4.0	29.7
IED-100L1-8	0.75	1	685	75.0	75.0	73.5	0.67	2.27	2.15	2.08	10.5	1.8	2.0	4.0	40
IED-100L2-8	1.1	1.5	685	77.7	77.7	76.1	0.69	3.12	2.96	2.85	15.3	1.8	2.0	5.0	41.4
IED-112M-8	1.5	2	695	79.7	79.7	78.1	0.70	4.08	3.88	3.74	20.6	1.8	2.0	5.0	57.5
IED-132S-8	2.2	3	710	81.9	81.9	80.3	0.71	5.75	5.46	5.26	29.6	1.8	2.0	6.0	74.8
IED-132M-8	3	4	710	83.5	83.5	81.8	0.73	7.48	7.10	6.85	40.4	1.8	2.0	6.0	89.1
IED-160M1-8	4	5.5	725	84.8	84.8	83.1	0.73	9.82	9.33	8.99	52.7	1.9	2.0	6.0	101
IED-160M2-8	5.5	7.5	725	86.2	86.2	84.5	0.74	13.1	12.4	12.0	72.4	1.9	2.0	6.0	126.5
IED-160L-8	7.5	10	725	87.3	87.3	85.6	0.75	17.4	16.5	15.9	98.8	1.9	2.0	6.0	136
IED-180L-8	11	15	735	88.6	88.6	86.8	0.75	25.2	23.9	23.0	142.9	2.0	2.0	6.5	198
IED-200L-8	15	20	730	89.6	89.6	87.8	0.76	33.5	31.8	30.6	196.2	2.0	2.0	6.6	234
IED-225S-8	18.5	25	730	90.1	90.1	88.3	0.76	41.0	39.0	37.6	242.0	1.9	2.0	6.6	284
IED-225M-8	22	30	730	90.6	90.6	88.8	0.78	47.3	44.9	43.3	287.8	1.9	2.0	6.6	325
IED-250M-8	30	40	735	91.3	91.3	89.5	0.79	63.2	60.0	57.9	389.8	1.9	2.0	6.5	425
IED-280S-8	37	50	735	91.8	91.8	90.0	0.79	77.5	73.6	71.0	480.7	1.9	2.0	6.6	518
IED-280M-8	45	60	735	92.2	92.2	90.4	0.79	93.9	89.2	85.9	584.7	1.9	2.0	6.6	582
IED-315S-8	55	75	735	92.5	92.5	90.7	0.81	112	106	102	714.6	1.8	2.0	6.6	852
IED-315M-8	75	100	735	93.1	93.1	91.2	0.81	151	144	138	974.5	1.8	2.0	6.2	952
IED-315L1-8	90	125	735	93.4	93.4	91.5	0.82	179	170	163	1169	1.8	2.0	6.4	1040
IED-315L2-8	110	150	735	93.7	93.7	91.8	0.82	218	207	199	1429	1.8	2.0	6.4	1056
IED-355M1-8	132	180	740	94.0	94.0	92.1	0.82	260	247	238	1704	1.8	2.0	6.4	1784
IED-355M2-8	160	220	740	94.3	94.3	92.4	0.82	314	299	288	2065	1.8	2.0	6.4	1941
IED-355L-8	200	270	740	94.6	94.6	92.7	0.83	387	368	354	2581	1.8	2.0	6.4	2026

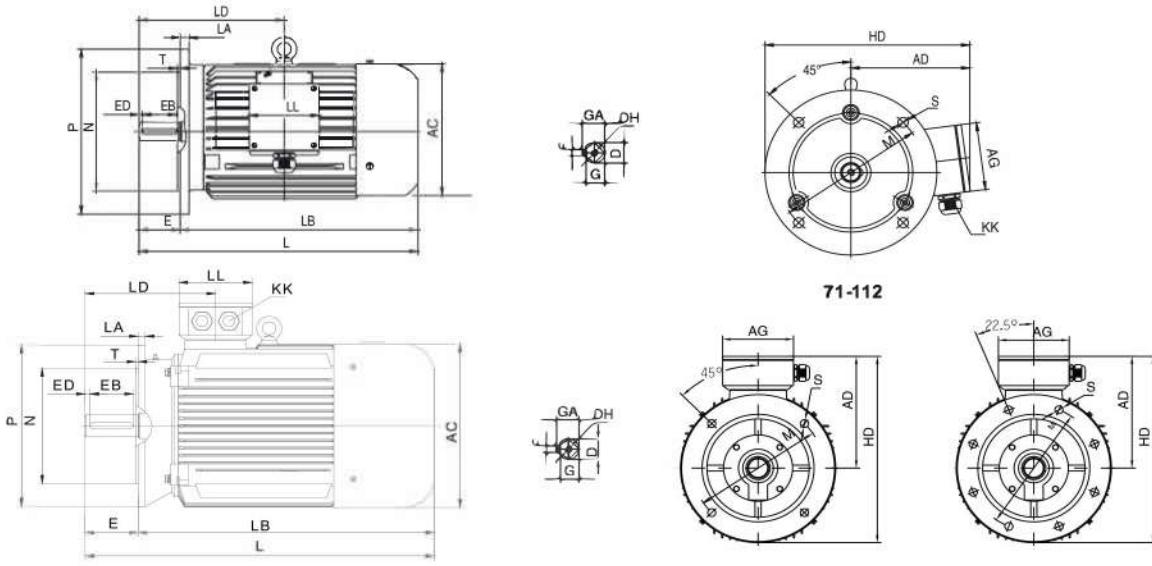
IM B3 H63-355



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Tip Type	Kutup Pole	A	AA	AB	AC	AD	AG	B	BB	C	D	DH	E	EB	ED	F	G	GA	GA	HA	K	KK	L	LD	LL
63	2, 4, 6	100	30	130	120	113	94	80	110	40	11	M4X12	23	16	3.5	4	8.5	12.5	63	8	4-Φ7	1-M20X1.5	217	80.5	94
71	2, 4, 6	112	32	144	136	119	94	90	120	45	14	M5X12	30	25	2.5	5	11	16	71	8	4-Φ7	1-M20X1.5	242	99	94
80	2,4,6,8	125	34	160	167	147	102	100	150	50	19	M6X16	40	30	5	6	15.5	21.5	80	10	4-Φ10	1-M25X1.5	304	119	102
90S	2,4,6,8	140	36	176	182.4	154.5	102	100	161	56	24	M8X19	50	40	5	8	20	27	90	12	4-Φ10	1-M25X1.5	336	143	102
90L	2,4,6,8	140	36	176	182.4	154.5	102	125	186	56	24	M8X19	50	40	5	8	20	27	90	12	4-Φ10	1-M25X1.5	361	143	102
100L	2,4,6,8	160	40	200	205.4	166	102	140	213	63	28	M10X22	60	50	5	8	24	31	100	14	4-Φ12	1-M32X1.5	406	147	102
112M	2,4,6,8	190	50	240	230	188	118	140	188	70	28	M10X22	60	50	5	8	24	31	112	15	4-Φ12	2-M32X1.5	394	147	110
132S	2,4,6,8	216	55	262	258.4	203	118	140	200	89	38	M12X28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32X1.5	438	172	110
132M	4,6,8	216	55	262	258.4	203	118	178	238	89	38	M12X28	80	65	7.5	10	33	41	132	18	4-Φ12	2-M32X1.5	476	172	110
160M	2,4,6,8	254	65	314	314	251	162	210	260	108	42	M16X36	110	90	10	12	37	45	160	20	4-Φ145	2-M40X1.5	608	256	152
160L	2,4,6,8	254	65	314	314	251	162	254	304	108	42	M16X36	110	90	10	12	37	45	160	20	4-Φ145	2-M40X1.5	652	256	152
180M	2,4,8	279	70	349	355	267	162	241	311	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-Φ145	2-M40X1.5	688	271	152
180L	4,6,8	279	70	349	355	267	162	279	349	121	48	M16X36	110	90	10	14	42.5	51.5	180	22	4-Φ145	2-M40X1.5	726	271	152
200L	2,4,6,8	318	70	388	397	299	210	305	369	133	55	M20X42	110	100	5	16	49	59	200	25	4-Φ185	2-M50X1.5	779	296	190
225S	4,8	356	75	431	446	322	210	286	368	149	60	M20X42	140	125	7.5	18	53	64	225	28	4-Φ185	2-M50X1.5	824	329	190
225M	2	356	75	431	446	322	210	311	393	149	55	M20X42	110	100	5	16	49	59	225	28	4-Φ185	2-M50X1.5	819	299	190
225M	4,6,8	356	75	431	446	322	210	311	393	149	60	M20X42	140	125	7.5	18	53	64	225	28	4-Φ185	2-M50X1.5	849	329	190
250M	2	406	80	484	485	358	248	349	445	168	60	M20X42	140	125	7.5	18	53	64	250	30	4-Φ24	2-M63X1.5	910	347	218
250M	4,6,8	406	80	484	485	358	248	349	445	168	65	M20X42	140	125	7.5	18	58	69	250	30	4-Φ24	2-M63X1.5	910	347	218
280S	2	457	85	542	547	387	248	368	485	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63X1.5	982	355.5	218
280S	4,6,8	457	85	542	547	387	248	368	485	190	75	M20X42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63X1.5	982	355.5	218
280M	2	457	85	542	547	387	248	419	536	190	65	M20X42	140	125	7.5	18	58	69	280	35	4-Φ24	2-M63X1.5	1033	355.5	218
280M	4,6,8	457	85	542	547	387	248	419	536	190	75	M20X42	140	125	7.5	20	67.5	79.5	280	35	4-Φ24	2-M63X1.5	1033	355.5	218
315S	2	508	120	628	620	527	320	406	570	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1194	397	280
315S	4,6,8,10	508	120	628	620	527	320	406	570	216	80	M20X42	170	160	5	22	71	85	315	45	4-Φ28	2-M63X1.5	1224	427	280
315M	2	508	120	628	620	527	320	457	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1304	397	280
315M	4,6,8,10	508	120	628	620	527	320	457	680	216	80	M20X42	170	160	5	22	71	85	315	45	4-Φ28	2-M63X1.5	1334	427	280
315L	2	508	120	628	620	527	320	508	680	216	65	M20X42	140	125	7.5	18	58	69	315	45	4-Φ28	2-M63X1.5	1304	397	280
315L	4,6,8,10	508	120	628	620	527	320	508	680	216	80	M20X42	170	160	5	22	71	85	315	45	4-Φ28	2-M63X1.5	1334	427	280
355M	2	610	116	726	698	642	380	560	750	254	75	M20X42	140	130	5	20	67.5	79.5	355	52	6-Φ28	2-M63X1.5	1486	414	330
355M	4,6,8,10	610	116	726	698	642	380	560	750	254	95	M24X50	170	160	5	25	86	100	355	52	6-Φ28	2-M63X1.5	1516	444	330
355L	2	610	116	726	698	642	380	630	750	254	95	M24X50	170	160	5	25	86	100	355	52	6-Φ28	2-M63X1.5	1516	444	330

IED MONTAJ VE GENEL BOYUTLAR
 MOUNTING AND OVERALL DIMENSIONS
IM B5 H63-355

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225-355

Tip Type	Kutup Pole	AC	AD	AÖ	D	DH	E	EB	ED	F	G	GA	HD	KK	L	LA	LB	AÖ	LL	M	N	P	S	T
63	2,4,6	120	113	94	11	M4X12	23	16	3.5	4	8.5	12.5	183	1-M20X1.5	217	10	194	80.5	94	115	95	140	10	3
71	2,4,6	136	119	94	14	M5X12	30	25	2.5	5	11	16	199	1-M20X1.5	242	10	212	99	94	130	110	160	10	3.5
80	2,4,6,8	167	154.5	102	19	M6X16	40	30	5	6	15.5	21.5	254.5	1-M25X1.5	304	12	264	112	102	165	130	200	12	3.5
90S	2,4,6,8	182.4	162	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	336	12	286	130	102	165	130	200	12	3.5
90L	2,4,6,8	182.4	162	102	24	M8X19	50	40	5	8	20	27	262	1-M25X1.5	361	12	311	130	102	165	130	200	12	3.5
100L	2,4,6,8	205.4	173.5	102	28	M10X22	60	50	5	8	24	31	298.5	1-M32X1.5	406	13	346	139	102	215	180	250	14.5	4
112M	2,4,6,8	230	188	118	28	M10X22	60	50	5	8	24	31	315	2-M32X1.5	394	14	334	205	110	215	180	250	14.5	4
132S	2,4,6,8	258.4	203	118	38	M12X28	80	65	7.5	10	33	41	353	2-M32X1.5	438	14	390	172	110	265	230	300	14.5	4
132M	4,6,8	258.4	203	118	38	M12X28	80	65	7.5	10	33	41	353	2-M32X1.5	476	14	428	172	110	265	230	300	14.5	4
160M	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	608	15	498	256	152	300	250	350	18.5	5
160L	2,4,6,8	314	251	162	42	M16X36	110	90	10	12	37	45	426	2-M40X1.5	652	15	542	256	152	300	250	350	18.5	5
180M	2,4,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	444.5	2-M40X1.5	688	15	578	271	152	300	250	350	18.5	5
180L	4,6,8	355	267	162	48	M16X36	110	90	10	14	42.5	51.5	444.5	2-M40X1.5	726	15	616	271	152	300	250	350	18.5	5
200L	2,4,6,8	397	299	210	55	M20X42	110	100	5	16	49	59	499	2-M50X1.5	779	17	669	296	190	350	300	400	18.5	5
225S	4,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	824	20	684	329	190	400	350	450	18.5	5
225M	2	446	322	210	55	M20X42	110	100	5	16	49	59	547	2-M50X1.5	819	20	709	299	190	400	350	450	18.5	5
225M	4,6,8	446	322	210	60	M20X42	140	125	7.5	18	53	64	547	2-M50X1.5	849	20	709	329	190	400	350	450	18.5	5
250M	2	485	358	248	60	M20X42	140	125	7.5	18	53	64	633	2-M63X1.5	910	22	770	347	218	500	450	550	18.5	5
250M	4,6,8	485	358	248	65	M20X42	140	125	7.5	18	58	69	633	2-M63X1.5	910	22	770	347	218	500	450	550	18.5	5
280S	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280S	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	982	22	842	355.5	218	500	450	550	18.5	5
280M	2	547	387	248	65	M20X42	140	125	7.5	18	58	69	662	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
280M	4,6,8	547	387	248	75	M20X42	140	125	7.5	20	67.5	79.5	662	2-M63X1.5	1033	22	893	355.5	218	500	450	550	18.5	5
315S	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1194	22	1054	397	280	600	550	660	24	6
315S	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1224	22	1054	427	280	600	550	660	24	6
315M	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315M	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
315L	2	620	527	320	65	M20X42	140	125	7.5	18	58	69	857	2-M63X1.5	1304	22	1164	397	280	600	550	660	24	6
315L	4,6,8,10	620	527	320	80	M20X42	170	160	5	22	71	85	857	2-M63X1.5	1334	22	1164	427	280	600	550	660	24	6
355M	2	698	642	380	75	M20X42	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355M	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6
355L	2	698	642	380	75	M20X42	140	130	5	20	67.5	79.5	1042	2-M63X1.5	1486	25	1346	414	330	740	680	800	24	6
355L	4,6,8,10	698	642	380	95	M24X50	170	160	5	25	86	100	1042	2-M63X1.5	1516	25	1346	444	330	740	680	800	24	6

