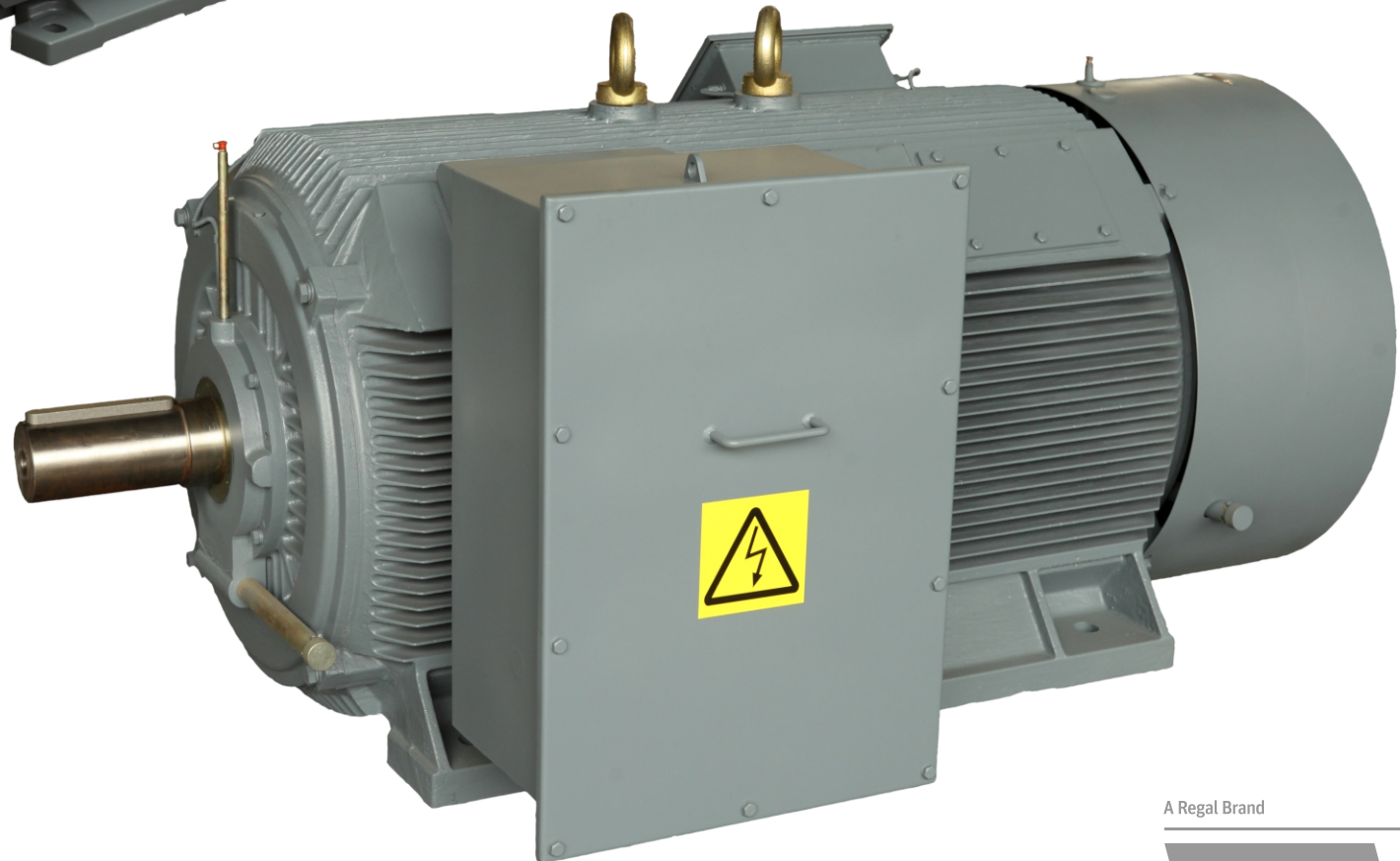
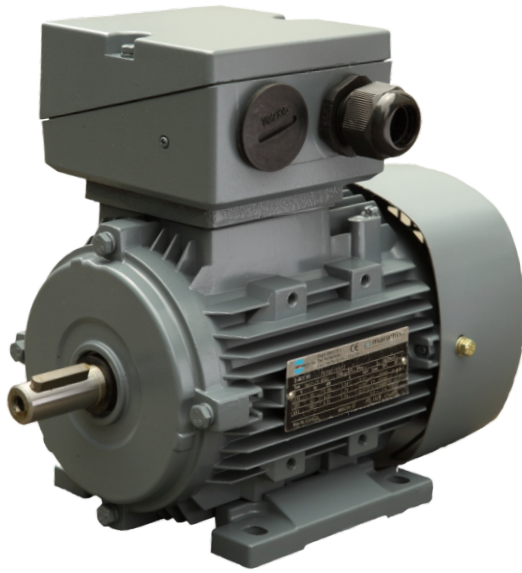


marathon™

— ELECTRIC MOTORS



A Regal Brand

REGAL

REGAL

Regal Beloit is a leading manufacturer of electrical and mechanical motion control and power generation products serving markets throughout the world. Regal Beloit products can be found in a vast variety of applications that virtually affect every aspect of life.

A relatively unknown brand, Regal Beloit stands at the forefront of some well-known brands such as Leeson and Marathon Motors, GE Commercial Motors, CMG, etc. Through these brands, RBC has gained a substantial market share and 3.5 billion-plus in turnover worldwide, thereby turning RBC into a major player in the electrical market. All brands represented by RBC have the same characteristics, and deliver the same level of excellence in terms of quality and reliability.

The extensive range of solutions reflects the slogan that Regal Beloit products are **"at the heart of what drives our world"**

Our Business Approach Makes the Difference !

In our main location in Eibergen as well as in the other locations in the EU you will find professional and dedicated staff working closely together to meet our customers' needs and requirements! Our service is not just limited to shipping product. We provide solutions not just products!

We believe that the lines of communication in our organisation are short, allowing us to serve the market quickly and always find the correct solution for all our customers effectively. Our employees' years of experience and their commitment to help and serve have earned Marathon the loyalty of their customers.

MARATHON - A Global Promise !



REGAL - Truly Global Electric Motors Manufacturing and Logistics !



Customer Service

Our future depends on the success of our customers. We will create closer relationships with our customers, actively listen to their feedback and respond promptly.

Globalisation

We want to be active at a global level for three reasons.

1. We want to be part of global markets with a strong growth.
2. Many of our customers are global players themselves, and we want to serve customers wherever they operate.
3. We want to use our global capabilities to find the best talent available and remain globally competitive.

Innovation

The future of the company is based on products that are new and in demand. Innovation involves a certain degree of risk, and we accept that. Still, we are committed to investing in new products, technologies and processes that deliver real value to our customers.

Sustainability

Our company's long-term sustainability requires not only continuous growth in profitability, but also personal responsibility for the impact we have on our world, and for the just and fair treatment of our employees.

Simplicity

Complexity is a serious disadvantage in business. We want to simplify every aspect of our business operations in order to eliminate complexities, so we can work faster, improve our flexibility and drive down our costs.

Integrity

We are a company that is honest, trustworthy, open, transparent and just.

High Energy Level

Our culture encourages a strong work ethic with teams that have an abundance of energy, creating a culture of commitment and respect for all.

Performance

We expect a high level of performance from everyone, and our shareholders count on us to achieve results, keep our promises and continue to improve.



One Regal

As a company, we are in the midst of simplification. While our customers know us best by our individual brand names, within our company we are one Regal, operating with a single vision and common initiatives.

We are consolidating our product lines, standardizing our computer systems, reducing the number of legal entities and streamlining our product brands - all with the idea of making it easier for customers to do business with us.

We are becoming a more dynamic enterprise-continuously innovating and growing to reach more people in more markets around the world.

And we are doing so with the confidence that comes with our years of industry experience.



European Headquarters of Regal Europe is located in 20,000m² facility in Eibergen, the Netherlands. This factory is ideally located due to its central location on an international network of motorways, railways, waterways and airports. Marathon, Leeson & 'rotor' motors are available at short lead times.



Regal UK 1,500m² facility is located in Wellingborough in Northamptonshire and distributes Marathon, Leeson and 'rotor' motors throughout the United Kingdom and Republic of Ireland.



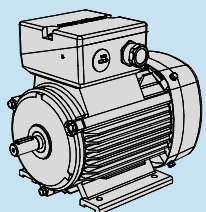


Marathon - Quality not compromised !

Our skilful and well trained staff can produce or modify motors to Customers' requirements and specifications in short lead time. Extensive stock of motors manufactured at other Regal facilities all over the world is also held at our premises in Eibergen. The stock control in our Oracle ERP system combined with product barcoding enable stock visibility worldwide and efficient distribution of Marathon motors directly to customers.

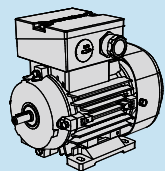
Our testing laboratory approved by a number marine accreditation bureaus can test low voltage (max 1000V) motors up to 1MW (1.6MW short term) at 50Hz and 60Hz.





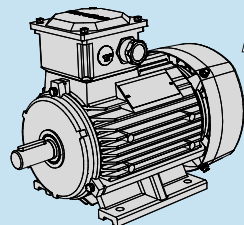
IE1

DM1 - LV Motors
Cast iron 71-400frame
IE1 range -page 16
Two-speed -page 29



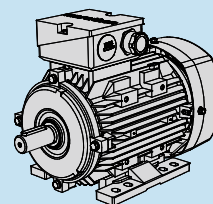
IE1

DMA2 - LV Motor
Aluminium 56-132frame
page 26



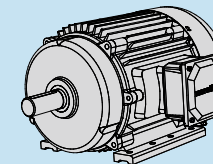
IE2

HJN - LV Motors
Cast iron 80-355frame
page 40



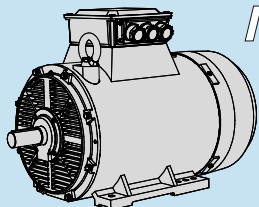
IE2

HJA - LV Motor
Aluminium 80-132frame
page 43



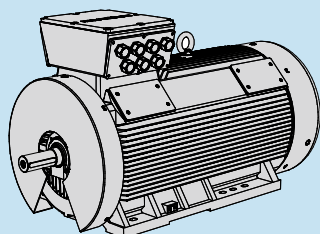
IE3

PE3 - LV Motors
Cast iron 112-280frame
page 44

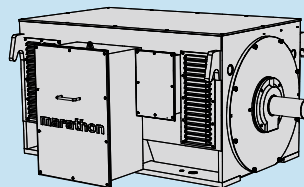


IE1

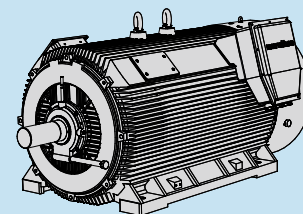
DM IP23 & HJO - LV Motors
Cast iron 160-355frame
DM IP23 -page 36
HJO 315 -page 35



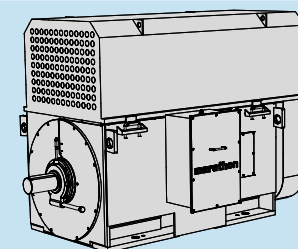
LVX - Large LV Motors
Cast iron 355-560 frame
page 48



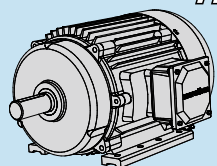
HDP - MV & HV IP25 Motors
Fabricated steel 355-630 frame
page 54 & page 70



HCM - MV & HV IP55 Motors
Cast iron 355-560frame
page 60 & page 76



HAA - MV & HV IP55 Motors
Fabricated steel 355-630frame
page 64 & page 80



IE4

SyMAX - PM AC Motors
Rolled steel 80-100frame
Cast iron 112-180frame
page 46

Single-phase Motors
Permanent capacitor motors
Capacitor start-capacitor run
Aluminium 71-100frame

ATEX Certified Motors
Zone1:
ATEX EX II 2G Ex d(e) IIC T4
ATEX EX II 2G Exe II T3
Zone2:
ATEX EX II 3G ExnA II T3
Zone21:
ATEX EX II 2D T125°C
Zone22:
ATEX EX II 3D T125°C

NEMA Motors
Marathon & Leeson
for North American market
UL & CSA approved

Three-phase Motors
for South American market
220/380/440/760V 60Hz
(DD/YY/D/Y)

Custom built MV & HV Motors
Air to air cooled
Air to water cooled
Fabricated steel frames
up to 900frame

Main Technical Data contained
in this Catalogue

Please contact our staff
for more information

Please note that the Production Programme as outlined above is not an exhaustive list of motors
Regal manufacture. For more information please visit our corporate website www.regalbeloit.com.

Motor DataSheets and Drawings available for download !

More than seven thousand DataSheets and Drawings of Low Voltage single speed and two-speed motors as well as Medium and High Voltage Motors are available for download from our Website.



Motor range	EuP Exempt:	EuP Eff Class:	EuP Exempt:
HJA	- Aluminium range of motors	----	IE2 0.75-7.5kW
HJN	- Cast iron range of motors	----	IE2 0.75-355kW
MLA	- Aluminium range of motors	----	IE2 0.75-18.5kW
MGA	- Cast iron range of motors	----	IE2 0.75-315kW
DM1	- Cast iron range of motors	0.37-0.55kW	IE1 0.75-355kW 400-500kW
DMA2	- Aluminium range of motors	0.06-0.55kW	IE1 0.75-18.5kW
DM-IP23	- Open drip-proof cast iron range	----	IE1 11-355kW 400-710kW
HJO-IP23	- Open drip-proof cast iron range	----	IE2 110-355kW
LVX(1.5kV)	- Large cast iron motors (1.5kV insulation system)	----	IE2 315-355kW 132-1500kW
LVX(3kV)	- Large cast iron motors (3kV insulation system)	----	IE2 315-355kW 250-1500kW
PE3	- cast iron range	----	IE3 4 (2.2)-200kW

Note!
There is no time limitation on sales of IE1 motors produced before the EuP Directive implementation date (16th June 2011) and equipped with CE Mark in the European Union.

Motors produced after the EuP Directive implementation date (16th June 2011) will not be equipped with CE Mark and can be sold in the outside of the European Union only.

CE Small motors (below 0.75kW) and large motors (above 375kW) are exempt from the EuP Directive and are equipped with CE mark for sale in the European Union.

To download Type Test Reports and Performance Curves please go to [CUSTOMER_ZONE](#)

Check Our Stock of Electric Motors Online!

Our current stock can be checked from our Web Stock page: Use comprehensive selectors to find our stock availability for your required electric motors. Every day new stock arrives in our warehouse. Should you not find motors you are looking for please contact us as we manufacture motors in short lead times, or can arrange supply from one of our warehouses in France, Spain, Singapore or from one of our over 100 stockholding distributors world-wide.



Installation & Maintenance Manual for Low Voltage motors is available in 5 languages from our Download page.

Installation & Maintenance Manual for Large Low Voltage, Medium and High Voltage motors is available in English only.

Learn about the History of Marathon Electric

marathon™

Since 1913, Marathon Electric has been dedicated to providing customers with quality products for targeted applications. Located in Wausau, Wisconsin, the company is composed of two strategic product lines: motors and generators. Marathon Electric Motors delivers efficient mechanical power solutions using AC electric motors up to 1250 HP.



Marathon Electric Generators offers power generation for the 21st century with a wide selection of generators (5 to 3,000 kW) for stand-by and continuous power. Proven top performers in every respect, Marathon Electric Generators offer powerful performance, reliable power generation, and easy installation.

DataSheets		Drawings	
Low Voltage	High Voltage	Low Voltage	High Voltage
			

1913 - 2013 One Hundred Years of Electric Motor Manufacturing

Millions of Satisfied Customers !

Continuous Product Development driven by Energy Savings

Marathon Electric Motors - Running Strong !



BASIC DIMENSIONS

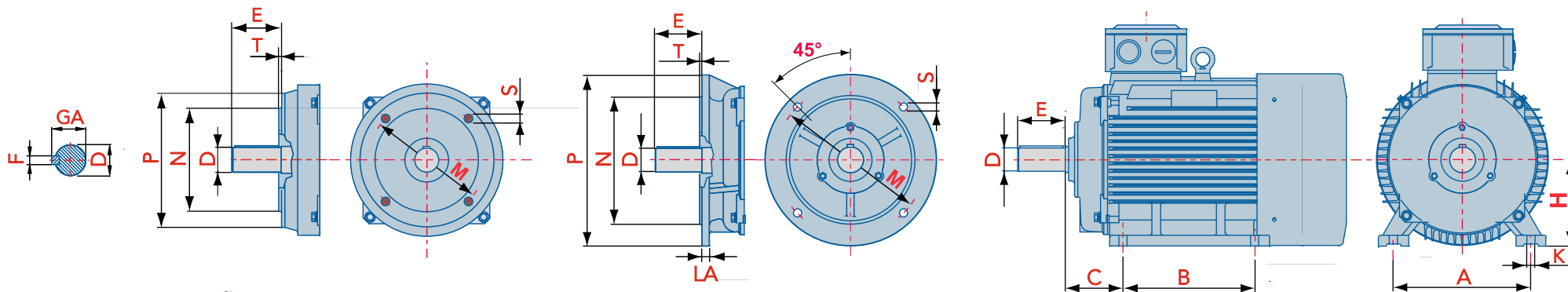
B14A - flange ("C" face)

The flange is smaller than the motor frame.
The holes are tapped.
Available for frame sizes 63 to 160 mm.

B5 - flange ("D" flange)

The flange is bigger than the motor frame.
The holes are not tapped.
B5 flanges are available for all motor sizes.

B3 - foot mounted motor



B14B - flange

The flange is bigger than B14A but smaller than B5 flange.
The holes are tapped. Available for frame sizes 63 to 160 mm.

SIZE	Shaft				B5 FLANGE ("D" flange)				B14A FLANGE ("C" face)				B14B FLANGE			
	Diameter D	Length E			PCD M	Spigot N	Diameter P	Hole Dia S	PCD M	Spigot N	Diameter P	Hole S	PCD M	Spigot N	Diameter P	Hole S
63 frame	11	23			115	95	140	10	75	60	90	M5	100	80	120	M6
71 frame	14	30			130	110	160	10	85	70	105	M6	115	95	140	M8
80 frame	19	40			165	130	200	12	100	80	120	M6	130	110	160	M8
90 frame	24	50			165	130	200	12	115	95	140	M8	130	110	160	M8
100 frame	28	60			215	180	250	14.5	130	110	160	M8	165	130	200	M10
112 frame	28	60			215	180	250	14.5	130	110	160	M8	165	130	200	M10
132 frame	38	80			265	230	300	14.5	165	130	200	M10	215	180	215	M12
160 frame	42	110			300	250	350	18.5	215	180	250	M12	265	230	300	M12
180 frame	48	110			300	250	350	18.5	--	--	--	--	--	--	--	--
200 frame	55	110			350	300	400	18.5	--	--	--	--	--	--	--	--
Poles	2p	4-8p	2p	4-8p												
225 frame	55	60	110	140	400	350	450	18.5	--	--	--	--	--	--	--	--
250 frame	60	65	140		500	450	550	18.5	--	--	--	--	--	--	--	--
280 frame	65	75	140		500	450	550	18.5	--	--	--	--	--	--	--	--
315 frame	65	80	140	170	600	550	660	24	--	--	--	--	--	--	--	--
355 frame	75	95	140	170	740	680	800	24	--	--	--	--	--	--	--	--

BASIC DIMENSIONS

Standard three-phase electric motors must comply with the standard maximum overall dimensions as specified in the DIN 42 673 standard. It is important to keep these maximum overall dimensions in mind when designing the driven equipment so the possibility to replace a standard electric motors with another make is guaranteed where possible.

A sufficient space around the electric motor must be maintained to enable motor mounting and connection as well as to enable sufficient air cooling during the operation. The maximum overall dimensions are applicable on all standard three-phase squirrel cage TEFC electric motors. (TEFC ≈ Totally Enclosed Fan Cooled).

Please download drawings from the Drawing Generator on our website:
www.regalbeloit.eu

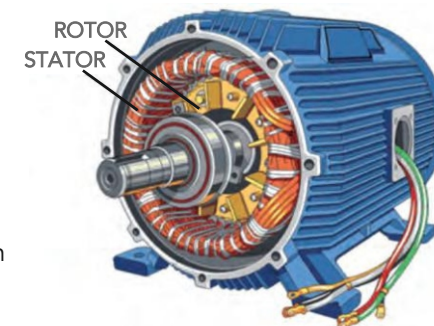
Frame	H	A	B	C	K	F		GA		DOWNLOAD DRAWINGS Low Voltage Motors 
63M	63	100	80	40	7 (M6)	4		12.5		
71M	71	112	90	45	7 (M6)	5		16		
80M	80	125	100	50	10 (M8)	6		21.5		
90S	90	140	100	56	10 (M8)	8		27		
90L	90	140	125	56	10 (M8)	8		27		
100L	100	160	140	63	12 (M10)	8		31		
112M	112	190	140	70	12 (M10)	8		31		
132S	132	216	140	89	12 (M10)	10		41		
132M	132	216	178	89	12 (M10)	10		41		
160M	160	254	210	108	15 (M12)	12		45		
160L	160	254	254	108	15 (M12)	12		45		
180M	180	279	241	121	15 (M12)	14		51.5		
180L	180	279	279	121	15 (M12)	14		51.5		
200L	200	318	305	133	19 (M16)	16		59		
						2p	4-8p	2p	4-8p	
225S	225	356	311	149	19 (M16)	18		64		
225M	225	356	311	149	19 (M16)	16	18	59	64	
250M	250	406	349	168	24 (M20)	18	18	64	69	
280S	280	457	368	190	24 (M20)	18	20	69	79.5	
280M	280	457	419	190	24 (M20)	18	20	69	79.5	
315S	315	508	406	216	28 (M24)	18	22	69	85	
315M	315	508	457	216	28 (M24)	18	22	69	85	
315L	315	508	508	216	28 (M24)	18	22	69	85	
355M	355	610	560	254	28 (M24)	20	25	85	106	
355L	355	610	630	254	28 (M24)	20	25	85	106	

Medium & High
Voltage Motors



MOTOR PRINCIPLE

An electric motor is a commonly used device that transforms electrical energy into mechanical energy through the interaction of magnetic fields. The main two components of an electric motor are the stator and the rotor. There is a copper windings in the stator, which when energised creates a rotating magnetic field, which induces electric current in the rotor cage. This creates a magnetic field in the rotor and it is the interaction of the two magnetic fields, which makes the rotor to rotate.



The rotating magnetic field of the stator always rotates faster than the rotor. The rotor is not rotating synchronously with the rotating magnetic field in the stator (hence it is an asynchronous electric motor). The speed difference between the rotating magnetic field in the stator and the rotor speed is called 'slip'. It is the slip, which enables voltage to be generated in the rotor cage creating the rotor current.

The interaction of the magnetic field in the stator and the magnetic field in the rotor produce the torque which is the mechanical output on the shaft. Higher shaft load provides more slip, more slip generates more rotor current, more rotor current produces more torque. This is the typical principle of asynchronous squirrel-cage electric motors.

The rotating speed of an electric motor depends on the number of poles and the frequency of the supply. A single speed electric motor has 2, 4, 6, 8, etc. poles (1, 2, 3 or 4 pole-pairs respectively) and the mains supply frequency is 50Hz or 60Hz as standard.

The more poles in an electric motor the lower the synchronous speed. The 2pole electric motor makes 50 revolutions per second, which is 3000rpm and a 4pole electric motor makes one half which is 1500rpm at 50Hz.

At 60Hz a 2pole electric motor makes 3600rpm and a 4pole electric motor 1800rpm. The following calculation is used to calculate the rotating speed of an electric motor:

$$\text{Asynchronous speed} = \frac{60 * f}{2p} - \text{slip} \quad [\text{rpm}]$$

f - mains frequency ; 2p - pole pairs

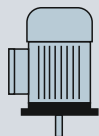
MOUNTING POSITIONS

1st digit	IM1... Foot mounted	IM2... Foot & Flange mounted			IM3... Flange mounted		
2nd digit	IM10	IM20	IM21	IM21	IM30	IM36	IM36
3rd digit	IM1001	IM2001	IM2101	IM2101	IM3001	IM3601	IM3601
4th digit	B3	B3/B5	B3/B14A	B3/B14B	B5	B14A	B14B
0							
1	IM1011 V5	IM2011 V15	IM2111 V15	IM2111 V15	IM3011 V1	IM3611 V18	IM3611 V18
3	IM1031 V6	IM2031 V36	IM2131 V36	IM2131 V36	IM3031 V3	IM3631 V19	IM3631 V19
5	IM1051 B6	IM2051	IM2151	IM2151			
6	IM1061 B7	IM2061	IM2161	IM2161			
7	IM1071 B8	IM2071	IM2171	IM2171			

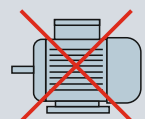
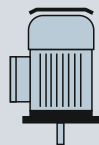
- 4th digit
- 1: Standard IEC shaft
 - 2: 2nd shaft end
 - 3: Conical shaft at DE
 - 4: Special shaft end(s)

Vertical motors with shaft down are to be specified as

Motor without Canopy



Motor with Canopy



No motor should be exposed to direct sunlight!

The specified mounting is to be mentioned when ordering an electric motor. The actual motor mounting may influence the protection class and bearing design. Flange-mounted electric motors need further specification of the required pitch circle diameter of the fixing holes in the flange (FF or FT type of flange + Dimension M).

FF (Flange Free holes) - B5 flanges,

FT (Flange Tapped holes) - B14A & B14B flanges

The pitch circle diameter (M) is specified in the Standard

Abbreviated mounting positions:

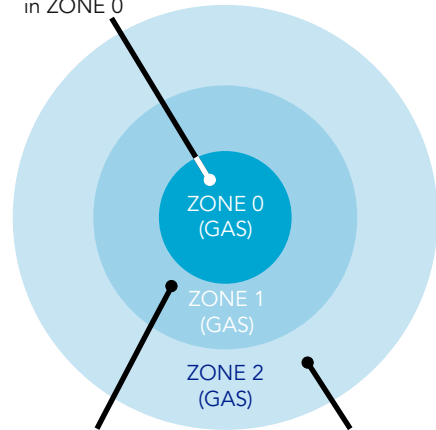
IM B35 B3/B5
IM B34A B3/B14A
IM B34B B3/B14B

ATEX EXPLANATION

GAS Explosive Atmospheres

To ATEX 94/9/EC & 1999/92/EC Directives

No motors can be installed in ZONE 0



CE...Ex II 2G Ex-d, Ex-d(e)

CE...Ex II 2G Ex-d, EEx-d(e)

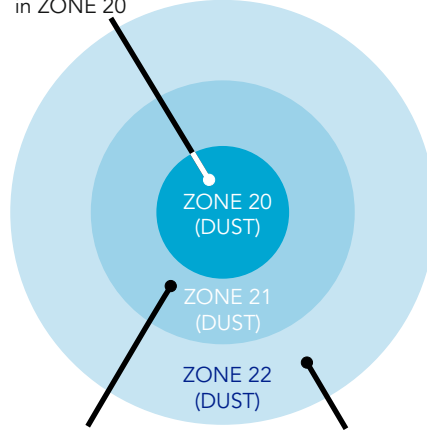
CE...Ex II 2G Ex-e

CE...Ex II 2G Ex-e

CE...Ex II 3G Ex-nA

DUST Explosive Atmospheres

No motors can be installed in ZONE 20



CE...Ex II 2D IP65

CE...Ex II 3D IP55 (non-conductive dust)

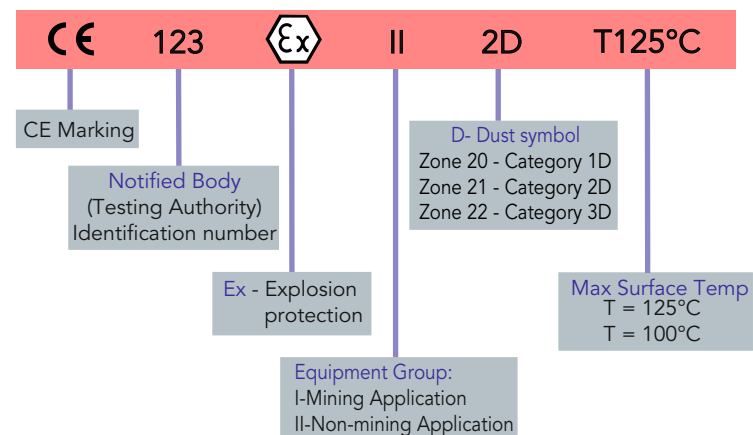
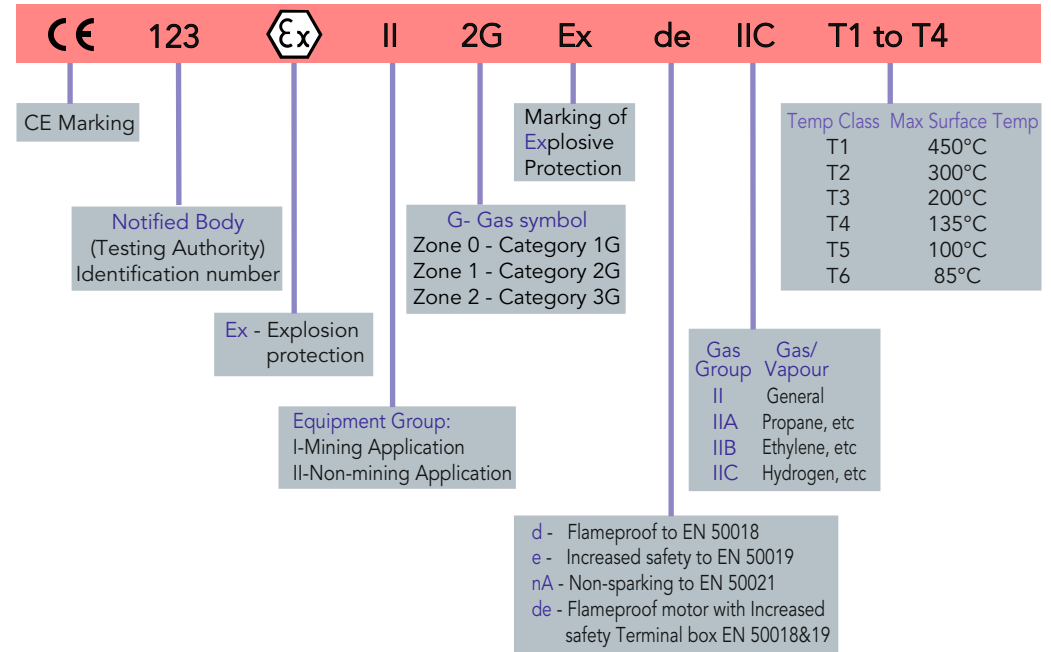
CE...Ex II 2D IP65 (conductive dust)

GAS			DUST		
Zone 0	Category 1G	Explosive Gases present continuously	Zone 20	Category 1D	Explosive Dust Atmosphere present continuously
Zone 1	Category 2G	Explosive Gases likely to occur in normal service	Zone 21	Category 2D	Explosive Dust Atmosphere likely to occur in normal service
Zone 2	Category 3G	Explosive Gases unlikely to occur and would be infrequent and short term	Zone 22	Category 3D	Explosive Dust Atmosphere unlikely to occur and would be infrequent and short term

"Ex" protection in North America (comparison of Zones and Divisions)

GAS	FM/UL	Class I Division 2	Class I Division 1	
	ATEX	Ex Zone 2	Ex Zone 1	Ex Zone 0
DUST	FM/UL	Class II Division 2	Class II Division 1	
	ATEX	Ex Zone 22	Ex Zone 21	Ex Zone 20

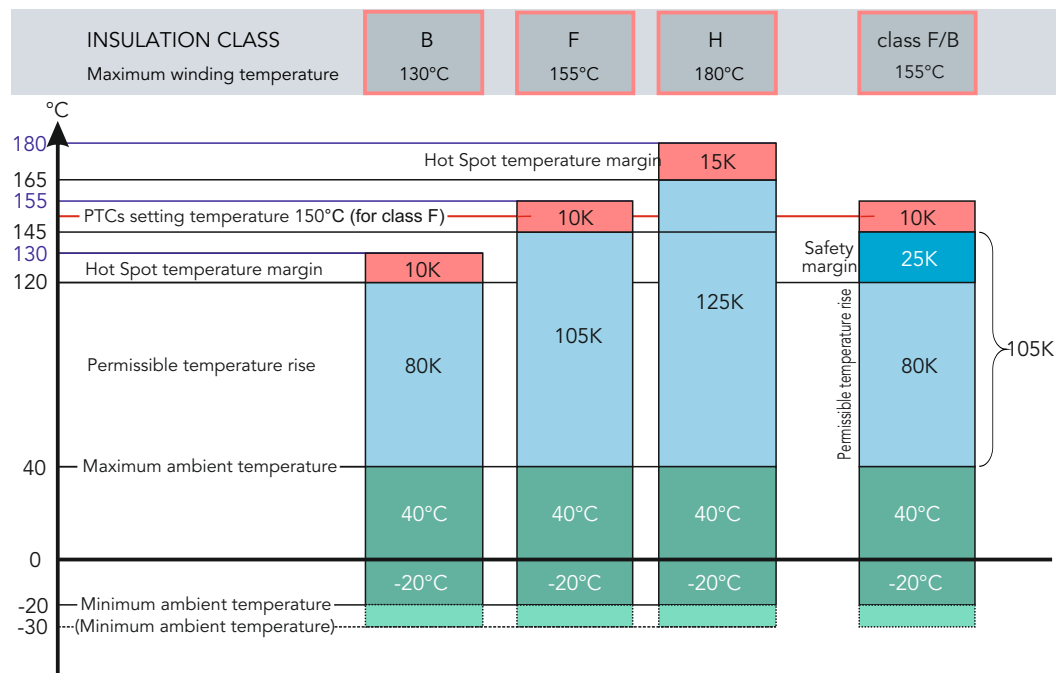
GAS & DUST MARKING



ATEX (ATmosphères EXplosibles) is defined for IEC (International Electrotechnical Commission) electric motors and other equipment. It is a European standard.

NEMA (National Electrical Manufacturing Association) - North America
The UL (Underwriters Laboratories) or the FM (Factory Mutual) in the USA and the CSA (Canadian Standards Association) in Canada test and issue approvals for the equipment that has been developed and manufactured for use in hazardous areas.

INSULATION (TEMPERATURE) CLASSES



Various insulation materials are used in electric motors and each has its own function.

- Wire insulation
- Slot and phase insulation materials (insulation between the winding and the stator lamination pack and phase insulation between the windings heads).
- Winding impregnation.
- Insulating sleeve used to cover wire/lead connections.
- Insulation of winding leads (between the winding and the terminal board).

These materials are specified in thermal classes referenced as Y-A-E-B-F-H-C.

Every thermal class has its own temperature limit. Each material of a specific class needs to retain its mechanical and electrical properties within the temperature limit.

The maximum permissible temperature rise of the winding is determined based on the thermal class temperature limits. The temperature of the winding increases as a result of the copper and iron losses in the electric motor during operation. The winding temperature rise is determined through measuring the winding resistance, which increases with increasing temperature. To allow for any Hot Spots in winding lower temperature limits are specified for the insulation materials.

Marathon produce motors with insulation class F with winding temperature rise in accordance with the class B (max 80K). This means that the motors have a temperature reserve of 25K. This reserve can be utilised for short-term overload, a higher ambient temperature (above 40°C), for supply voltage/frequency fluctuation etc.

DEGREE OF PROTECTION

Motor	Degree of protection	Protection against mechanical particles		Protection against water
		accidental contact	solid foreign particles	
Open-circuit cooling	IP 23	against contact with fingers	against solid bodies larger than 12mm in diameter	against spraying water at up to 60° from the vertical
Totally enclosed fan cooled (TEFC)	IP 44	against contact with tools or similar objects	against solid bodies larger than 1mm in diameter	against splashing water from all directions
	IP 54	complete protection against accidental contact	against harmful dust deposits	against water jets from all directions
	IP 55			against non heavy seas, strong jets
	IP 56			against heavy seas, strong jets
	IP 65	complete protection against accidental contact	against the ingress of dust	against water jets from all directions
	IP 67			against submersion for specific time and pressure
	IP 68			against continuous submersion under conditions specified by the manufacturer

Depending on the operating conditions and the environment, the most suitable degree of protection must be chosen to prevent any damage due to water, foreign objects or dust, and to prevent accidental contact with internal rotating parts or with live parts. The degrees of protection for electrical machines are designated by a code with two letters and two numerals and in some cases, an extra letter:

IP IP (International Protection). Protection against contact with live or moving parts and the ingress of foreign bodies and water (not oil!).

[0 to 6] The 1st numeral denotes the degree of protection against contact with live or moving parts and against the ingress of foreign bodies.

[0 to 8] The 2nd numeral denotes the degree of protection against the ingress of water. W, S and M are extra letters for denoting special degrees of protection.

W for weather-protected machines; The extra letter W is inserted between the letters IP and the figures denoting the degree of protection, e.g. IPW23.

For special applications (such as open-circuit air cooled machines on ships' decks having the air inlets and outlets covered when not in use) an extra letter can be inserted after the figures denoting the degree of protection to indicate whether the protection against harmful water ingress with the machine stationary (letter S) or moving (letter M) has been certified or tested.

Standards

All electric motors featured in this catalogue meet the relevant IEC, EN, ISO, DIN and NEN standards. The most important standards are listed in the table below.

Description	EN-IEC	ISO	DIN
Nominal operation and properties	IEC 60034-1		
Degree of protection	IEC 60034-5		DIN 40050
Cooling method	IEC 60034-6		
Mountings	IEC 60034-7		
Direction of rotation & connection terminals marking	IEC 60034-8		
Noise	IEC 60034-9		
Voltage	IEC 60038		
Dimensions & tolerances	EN 50347		
Balancing		ISO 2373	DIN 45665
Energy Efficiency	IEC 60034-30		

ErP Directive 2009/125/EC Implementations Dates

- 16 Jun 2011: IE2 minimum efficiency for motors from 0.75 kW – 375 kW
- 01 Jan 2015: IE3 minimum efficiency for motors from 7.5 kW – 375 kW (IE2 motors can be used with frequency inverters)
- 01 Jan 2017: IE3 minimum efficiency for motors from 0.75 kW – 375 kW (IE2 motors can be used with frequency inverters)

ErP Regulation does not apply to:

- motors operating wholly immersed in a liquid
- motors completely integrated into a product
- motors specifically designed to operate:
 - at altitudes exceeding 1000 metres a.s.l. (soon to be changed to 4000 metres a.s.l.)
 - where ambient temperatures exceed 40°C (soon to be changed to outside of -30°C to +60°C)
 - in maximum operating temperature > 400°C
 - where ambient temperatures < -15°C (any motor) or < 0°C for a motor with air cooling
 - where water coolant temperature < 5°C or > 25°C
 - in potentially explosive atmospheres
- brake motors
- motors made solely for converter operation

ErP Regulation applies to:

- Single speed, three-phase 50Hz or 50/60Hz induction motors
- have 2 to 6 poles
 - have a rated voltage of U_n up to 1000 V
 - have a rated output P_n between 0.75 kW and 375 kW
 - are rated on the basis of S1 continuous duty operation

EFFICIENCY

HIGH	IE4* Super Premium Efficiency	
	IE3 Premium Efficiency	NEMA Premium EISA 2007 from Dec 2010
	IE2 High Efficiency	NEMA Energy Efficient EPAAct
	IE1 Standard Efficiency	
LOW		
	IEC Motors	NEMA Motors

*IE4 is under development

The mechanical and electrical performance of the basic Marathon motors is adapted for marine and offshore application. Due to often aggressive "salty" environment, almost all sizes of HJN, HJA and DM-IP23 series can be supplied in Marine Execution for below deck as well as above deck applications. The electric motor windings are based on ambient temperatures of up to 50°C and relative air humidity up to 96%. These electric motors meet various criteria set out by a number of Marine Classification Societies and are suitable for "essential service" when supplied with a marine certificate.

The rating plate specifies the Marine Classification Society and the ambient temperature specified by the society's regulations (usually IEC92.301 C). Classification Society" logo and the date of production would be specified on the rating plate. A 2.1 or 2.2 class certificate can, in most cases, be issued for marine motors.

EN 10204-2.1

The Declaration of Compliance 2.1 (factory declaration) is issued based on the electric motor serial number, invoice number and the customer order number. No testing is involved when issuing this document.

EN 10204-2.2

Test Certificate 2.2 (factory issued certificate) is issued based on the electric motor data set out in the Type Test Report (when the motor prototype have been tested) amended with certain other data (historical test data). The invoice number and the customer order number are also marked in the Test Certificate. A number of motor serial numbers of the same type can be included in one Test Certificate.

EN 10204-3.1

The relevant no-load and full-load tests are carried out on specific electric motor when the Inspection Certificate 3.1 (inspection report) is issued. A request for Inspection Certificate 3.1 must be made at the point of the order placement. This test is also referred to as the "routine test" and provides a reasonable guarantee of the correct performance of the electric motor when the tested data comply with the Type Test data. The invoice number and the customer order number are also marked in the Inspection Certificate. One Inspection Certificate is issued for each electric motor.

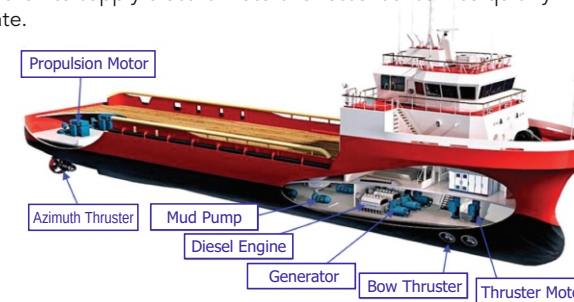
EN 10204-3.2

Inspection Certificate 3.2 is issued based on the test witnessed by an independent inspector (classified inspection report). The inspector (surveyor) can be appointed by the customer or by ourselves. In majority of the cases the surveyor would attend the testing in our approved test laboratory. External testing by certified laboratories have to be carried out in certain cases.

Type Approval Certificate

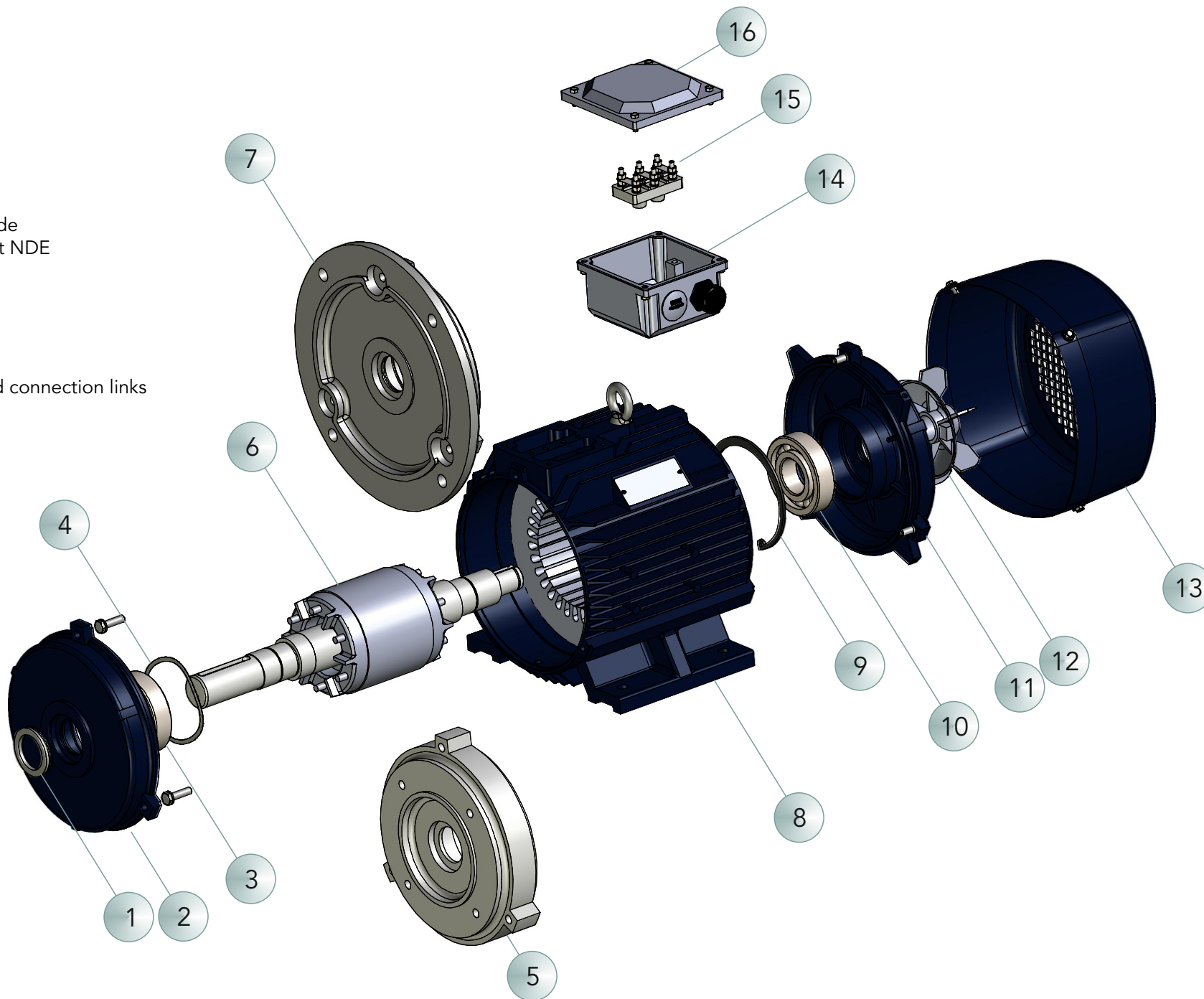
Marathon motors have been issued Type Approval by GL (Germanischer Lloyd), which covers HJN, HJA and DM-IP23 series. The tests are carried out in our approved test laboratory. This enables Marathon to supply electric motors for essential service quickly and with the relevant certificate.

GL Certificate



ELECTRIC MOTOR PARTS

- 1 - Shaft seal
- 2 - DE Endshield
- 3 - DE Bearing
- 4 - Wavy washer
- 5 - Flange (B14A)
- 6 - Rotor with shaft
- 7 - Flange (B5)
- 8 - Stator housing with stator inside
- 9 - Circlip for fixing the bearing at NDE
- 10 - NDE Bearing
- 11 - NDE Endshield
- 12 - Cooling fan
- 13 - Fan cover
- 14 - Terminal box
- 15 - Terminal block with 6 pins and connection links
- 16 - Terminal box lid



PAINT SPECIFICATION

Universal (standard paint finish)

Motor coating for non-special anti-corrosion requirements.

Motor coating for motors installed indoor and in general outdoor areas (max. temperature <150°C) with no industry gas concentration.

TH (optional paint finish available on request)

Motor coating for motors installed outdoor areas of tropical and humid environment with high humidity and temperature (max. temperature <150°C) and sunshine exposure as well as in areas with chemical gas pollution, but not severe industry gas concentration.

Surface Pre-treatment:

Universal

The surface of motor components must be clean, dry, de-greased, free of dirt and impurities, with roughness $\leq 25\mu\text{m}$. If there is small defect on the surface, such as a small pit, then sanding of the surface is carried out and then the surface is filled with filler (G07-5 perchloroethylene filler) in max thickness $\leq 100\mu\text{m}$.

The filler is then sanded down after it has hardened and is cleaned.

TH

All outer parts made of cast iron and/or steel are sand blasted or ball blasted.

Any surface imperfections such as burr, sand burning, welding slag etc is removed.

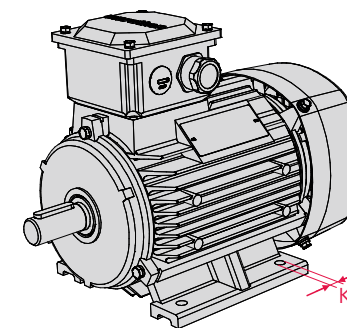
The surface must be clean and smooth with no visual imperfections, like oxidation, rust, grease or dust deposits, etc. The surface of motor components must be clean, dry, de-greased, free of dirt and impurities. The primer paint must be dry before the intermediate and top coats are applied.

Anticorrosion requirement	Thickness of primer (μm)	Primer Material	Thickness of intermediate coat (μm)	Intermediate coat Material	Thickness of top coat (μm)	Top coat Material	Total thickness (μm)
[Universal] Suitable for both indoor & outdoor installation Medium anti-corrosion protection	30-50	iron red epoxy resin ester	n/a	n/a	20-50	polyurethane paint	70-100
[TH] Installation in tropical and humid environment	35-50	epoxy zinc rich primer	35-50	epoxy mio barrier paint	30-50		120-150

FEET TIGHTENING TORQUE & BEARING SIZES

Frame-poles	Hole in the foot K [mm]	Bolt size
56	6	M5
63	7	M6
71	7	M6
80	10	M8
90	10	M8
100	12	M10
112	12	M10
132	12	M10
160	15	M12
180-2	15	M12
180-4/6/8	15	M12
200-2	19	M16
200-4/6/8	19	M16
225-2	19	M16
225-4/6/8	19	M16
250-2	24	M20
250-4/6/8	24	M20
280-2	24	M20
280-4/6/8	24	M20
315-2	28	M24
315-4/6/8	28	M24
355-2	28	M24
355-4/6/8	28	M24
400-2	35	M30
400-4/6/8	35	M30

Bolt Size	Grade<8.8 Tightening Torque Nm	Grade $\geq$ 8.8 Tightening Torque Nm
M4	1.3 Nm	3 Nm
M5	2.6 Nm	5 Nm
M6	4.5 Nm	8 Nm
M8	10 Nm	20 Nm
M10	20 Nm	40 Nm
M12	34 Nm	70 Nm
M16	83 Nm	170 Nm
M20	160 Nm	340 Nm
M24	280 Nm	600 Nm
M30	570 Nm	1200 Nm



Bearing Sizes

These bearing sizes are listed for standard motor execution! Customer specific motors can be fitted with a different bearing arrangement (such as roller bearing at DE and/or insulated bearing at NDE). Always check the motor's nameplate for correct bearing. More information (such as re-lubrication periods) can be found in Maintenance Manual which is available for download in a number of different languages from our website.

Standard Bearing Sizes		
Frame-poles	DE	NDE
80	6204-2Z	6204-2Z
90-2.4	6205-2Z-C3	6205-2Z-C3
90-6	6205-2Z	6205-2Z
100	6206-2Z-C3	6206-2Z-C3
112	6306-2Z-C3	6306-2Z-C3
132	6308-2Z-C3	6308-2Z-C3
160	6309-2Z-C3	6309-2Z-C3
180	6311-2Z-C3	6311-2Z-C3
200	6312-2Z-C3	6312-2Z-C3
225	6313-2Z-C3	6313-2Z-C3
250	6314-2Z-C3	6314-2Z-C3
280-2	6314-C3	6314-C3
280-4.6.8	6317-C3	6317-C3

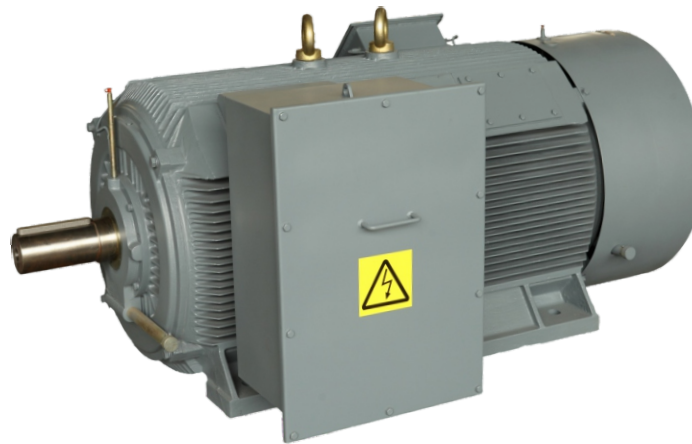
Standard Bearing Sizes		
Frame-poles	DE	NDE
315-2	6317-C3	6317-C3
315-4.6.8	6319-C3	6319-C3
355-2	6319-C3	6319-C3
355-4.6.8	6322-C3	6322-C3
400-2	6317-C3	6317-C3
400-4.6.8	6326-C3	6326-C3
450-2	6220-C3	6220M/C3 VLO241*
450-4.6.8	6328-C3	6328-C3
500-4.6.8	6330-C3	6330-C3
560-4.6.8	6334-C3	6330-C3
*2p-800kW and larger sizes have insulated bearing as standard		

MEDIUM & HIGH VOLTAGE MOTORS

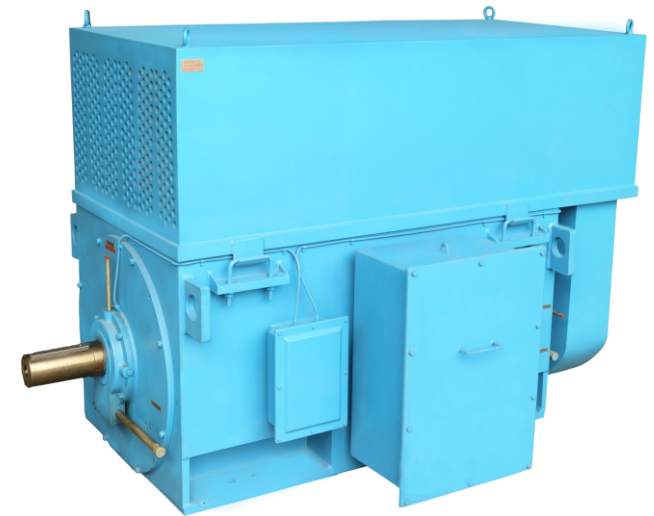
marathon™



HDP Open Drip-proof IP23 Range



HCM Cast Iron (TEFC) IP55 Range



HAA Fabricated Frame (CACA) IP55 Range

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			

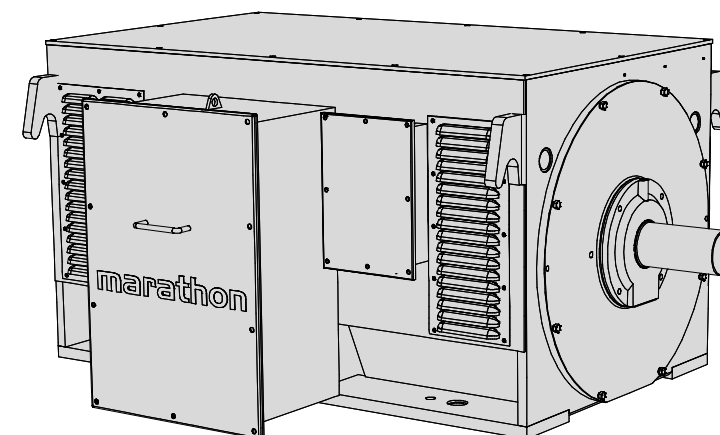
TYPE	Output	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor	Efficiency (at 50Hz)			60Hz	Rated torque	Ratio			Weigh
			50Hz	60Hz	at 3kV	at 3.3kV	at 4.16kV	at 5kV	at 6kV	at 6.6kV	at 4kV	at 4.16kV	at 6.6kV		100% Load	75% Load	50% Load			100% Load	Starting current	Starting torque	
	kW	rpm	rpm	A	A	A	A	A	A	A	A	A	cosφ	%	%	%	%	Nm					
1500rpm/1800rpm 4pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(SE)3551-4	185	355	1485	1782	45.1	41.0	32.6	27.1	22.6	20.5	34.0	32.7	20.6	0.85	92.8	92.4	91.0	92.3	1190	6.5	0.8	1.8	1560
HDP(SE)3552-4	200	355	1485	1782	48.6	44.2	35.1	29.2	24.3	22.1	36.7	35.3	22.2	0.85	93.1	92.7	91.3	92.6	1286	6.5	0.8	1.8	1650
HDP(SE)3553-4	220	355	1485	1782	53.4	48.5	38.5	32.0	26.7	24.3	40.3	38.7	24.4	0.85	93.3	92.9	91.5	92.8	1415	6.5	0.8	1.8	1780
HDP(SE)3554-4	250	355	1485	1782	60.6	55.1	43.7	36.4	30.3	27.5	45.7	43.9	27.7	0.85	93.4	93.0	91.6	92.9	1608	6.5	0.8	1.8	1900
HDP(SE)3555-4	280	355	1485	1782	67.0	60.9	48.3	40.2	33.5	30.5	50.5	48.6	30.6	0.86	93.5	93.1	91.7	93.0	1801	6.5	0.8	1.8	2070
HDP(SE)3556-4	315	355	1485	1782	75.3	68.5	54.3	45.2	37.7	34.2	56.8	54.6	34.4	0.86	93.6	93.2	91.8	93.1	2026	6.5	0.8	1.8	2320
HDP(SE)4001-4	355	400	1485	1782	84.7	77.0	61.1	50.8	42.3	38.5	63.9	61.4	38.7	0.86	93.8	93.4	92.0	93.3	2283	6.5	0.8	1.8	2250
HDP(SE)4002-4	400	400	1485	1782	95.2	86.6	68.7	57.1	47.6	43.3	71.8	69.0	43.5	0.86	94.0	93.6	92.2	93.5	2572	6.5	0.8	1.8	2320
HDP(SE)4003-4	450	400	1485	1782	106.9	97.2	77.1	64.1	53.5	48.6	80.6	77.5	48.9	0.86	94.2	93.8	92.4	93.7	2894	6.5	0.8	1.8	2450
HDP(SE)4004-4	500	400	1485	1782	117.3	106.6	84.6	70.4	58.6	53.3	88.4	85.0	53.6	0.87	94.3	93.9	92.5	93.8	3215	6.5	0.8	1.8	2530
HDP(SE)4005-4	560	400	1485	1782	131.1	119.2	94.5	78.7	65.5	59.6	98.8	95.0	59.9	0.87	94.5	94.1	92.7	94.0	3601	6.5	0.8	1.8	2630
HDP(SE)4501-4	630	450	1485	1782	147.0	133.6	106.0	88.2	73.5	66.8	110.8	106.6	67.2	0.87	94.8	94.4	93.0	94.3	4052	6.5	0.8	1.8	3390
HDP(SE)4502-4	710	450	1485	1782	165.3	150.3	119.2	99.2	82.7	75.1	124.7	119.9	75.5	0.87	95.0	94.6	93.2	94.5	4566	6.5	0.8	1.8	3490
HDP(SE)4503-4	800	450	1485	1782	186.1	169.2	134.2	111.7	93.0	84.6	140.3	134.9	85.0	0.87	95.1	94.7	93.3	94.6	5145	6.5	0.8	1.8	3600
HDP(SE)4504-4	900	450	1485	1782	209.1	190.1	150.8	125.5	104.6	95.1	157.7	151.6	95.6	0.87	95.2	94.8	93.4	94.7	5788	6.5	0.8	1.8	3750
HDP(SE)5001-4	1000	500	1485	1782	232.1	211.0	167.4	139.3	116.1	105.5	175.0	168.3	106.1	0.87	95.3	94.9	93.5	94.8	6431	6.5	0.7	1.8	5000
HDP(SE)5002-4	1120	500	1485	1782	256.8	233.4	185.2	154.1	128.4	116.7	193.6	186.1	117.3	0.88	95.4	95.0	93.6	94.9	7203	6.5	0.7	1.8	5250
HDP(SE)5003-4	1250	500	1485	1782	286.3	260.2	206.4	171.8	143.1	130.1	215.8	207.5	130.8	0.88	95.5	95.1	93.7	95.0	8039	6.5	0.7	1.8	5500
HDP(SE)5004-4	1400	500	1485	1782	320.3	291.2	231.0	192.2	160.1	145.6	241.5	232.2	146.3	0.88	95.6	95.2	93.8	95.1	9003	6.5	0.7	1.8	5750
HDP(SE)5601-4	1600	560	1485	1782	361.5	328.7	260.7	216.9	180.8	164.3	272.6	262.1	165.2	0.89	95.7	95.3	93.9	95.2	10290	6.5	0.6	1.8	6050
HDP(SE)5602-4	1800	560	1485	1782	406.3	369.4	293.0	243.8	203.2	184.7	306.3	294.5	185.7	0.89	95.8	95.4	94.0	95.3	11576	6.5	0.6	1.8	6350
HDP(SE)5603-4	2000	560	1485	1782	451.0	410.0	325.2	270.6	225.5	205.0	340.0	326.9	206.1	0.89	95.9	95.5	94.1	95.4	12862	6.5	0.6	1.8	6500
HDP(SE)6301-4	2240	630	1492	1790	504.6	458.7	363.9	302.7	252.3	229.3	380.4	365.8	230.5	0.89	96.0	95.6	94.2	95.5	14338	6.5	0.6	1.8	7550
HDP(SE)6302-4	2500	630	1492	1790	562.5	511.4	405.7	337.5	281.3	255.7	424.1	407.8	257.0	0.89	96.1	95.7	94.3	95.6	16002	6.5	0.6	1.8	7910
HDP(SE)6303-4	2800	630	1493	1792	629.4	572.2	453.9	377.6	314.7	286.1	474.5	456.3	287.6	0.89	96.2	95.8	94.4	95.7	17910	6.5	0.6	1.8	8300

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1500rpm/1800rpm 4pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(SE)400A-4	185	400	1480	1776	13.7	10.0	0.86	90.7	90.3	88.9	90.2	1194	7.0	0.7	1.8	2480
HDP(SE)400B-4	200	400	1480	1776	14.5	10.6	0.86	92.5	92.1	90.7	92.0	1291	7.0	0.7	1.8	2550
HDP(SE)4001-4	220	400	1480	1776	15.9	11.6	0.86	92.8	92.4	91.0	92.3	1420	7.0	0.7	1.8	2640
HDP(SE)4002-4	250	400	1480	1776	18.1	13.2	0.86	92.5	92.1	90.7	92.0	1613	7.0	0.7	1.8	2750
HDP(SE)4003-4	280	400	1480	1776	20.2	14.7	0.86	93.2	92.8	91.4	92.7	1807	7.0	0.7	1.8	2870
HDP(SE)4004-4	315	400	1480	1776	22.7	16.6	0.86	93.0	92.6	91.2	92.5	2033	7.0	0.7	1.8	3000
HDP(SE)4501-4	355	450	1485	1782	25.5	18.6	0.86	93.3	92.9	91.5	92.8	2283	7.0	0.7	1.8	2850
HDP(SE)4502-4	400	450	1485	1782	28.7	20.9	0.86	93.5	93.1	91.7	93.0	2572	7.0	0.7	1.8	2950
HDP(SE)4503-4	450	450	1485	1782	32.2	23.4	0.86	93.9	93.5	92.1	93.4	2894	7.0	0.7	1.8	3100
HDP(SE)4504-4	500	450	1485	1782	35.7	26.0	0.86	94.0	93.6	92.2	93.5	3215	7.0	0.7	1.8	3250
HDP(SE)4505-4	560	450	1485	1782	39.9	29.1	0.86	94.2	93.8	92.4	93.7	3601	7.0	0.7	1.8	3400
HDP(SE)4506-4	630	450	1485	1782	44.8	32.6	0.86	94.4	94.0	92.6	93.9	4052	7.0	0.7	1.8	3590
HDP(SE)5001-4	710	500	1485	1782	49.6	36.1	0.87	95.0	94.6	93.2	94.5	4566	7.0	0.7	1.8	4530
HDP(SE)5002-4	800	500	1485	1782	55.8	40.7	0.87	95.1	94.7	93.3	94.6	5145	7.0	0.7	1.8	4660
HDP(SE)5003-4	900	500	1485	1782	62.0	45.2	0.88	95.2	94.8	93.4	94.7	5788	7.0	0.7	1.8	4820
HDP(SE)5004-4	1000	500	1485	1782	68.8	50.2	0.88	95.3	94.9	93.5	94.8	6431	7.0	0.7	1.8	5110
HDP(SE)5005-4	1120	500	1485	1782	77.0	56.1	0.88	95.4	95.0	93.6	94.9	7203	7.0	0.7	1.8	5400
HDP(SE)5601-4	1250	560	1485	1782	84.9	61.9	0.89	95.5	95.1	93.7	95.0	8039	7.0	0.7	1.8	5900
HDP(SE)5602-4	1400	560	1485	1782	94.9	69.1	0.89	95.7	95.3	93.9	95.2	9003	7.0	0.7	1.8	6200
HDP(SE)5603-4	1600	560	1485	1782	108.3	78.9	0.89	95.8	95.4	94.0	95.3	10290	7.0	0.7	1.8	6500
HDP(SE)6301-4	1800	630	1492	1790	121.8	88.7	0.89	95.9	95.5	94.1	95.4	11521	7.0	0.6	1.8	7580
HDP(SE)6302-4	2000	630	1493	1792	135.2	98.4	0.89	96.0	95.6	94.2	95.5	12793	7.0	0.6	1.8	7950
HDP(SE)6303-4	2240	630	1493	1792	151.2	110.1	0.89	96.1	95.7	94.3	95.6	14328	7.0	0.6	1.8	8330

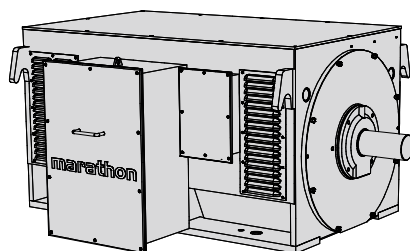


Medium Voltage - Fabricated Frame HDP Range - Open Drip-proof IP23 IC01 - 6pole & 8pole

Standard Efficiency

TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio			
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(SE)3553-6	185	355	985	1182	46.9	42.6	33.8	28.1	23.4	21.3	35.4	34.0	21.4	0.82	92.6	92.2	90.8	92.1	1794	6.0	0.8	1.8	1860
HDP(SE)3554-6	200	355	985	1182	50.6	46.0	36.5	30.3	25.3	23.0	38.1	36.7	23.1	0.82	92.8	92.4	91.0	92.3	1939	6.0	0.8	1.8	1980
HDP(SE)3555-6	220	355	985	1182	55.5	50.5	40.0	33.3	27.8	25.2	41.9	40.3	25.4	0.82	93.0	92.6	91.2	92.5	2133	6.0	0.8	1.8	2070
HDP(SE)3556-6	250	355	985	1182	62.9	57.2	45.4	37.7	31.4	28.6	47.4	45.6	28.7	0.82	93.3	92.9	91.5	92.8	2424	6.0	0.8	1.8	2190
HDP(SE)4002-6	280	400	985	1182	69.4	63.1	50.1	41.7	34.7	31.6	52.4	50.3	31.7	0.83	93.5	93.1	91.7	93.0	2715	6.0	0.8	1.8	2810
HDP(SE)4003-6	315	400	985	1182	78.0	70.9	56.2	46.8	39.0	35.4	58.8	56.5	35.6	0.83	93.7	93.3	91.9	93.2	3054	6.0	0.8	1.8	2980
HDP(SE)4004-6	355	400	985	1182	87.7	79.7	63.2	52.6	43.8	39.8	66.1	63.6	40.1	0.83	93.9	93.5	92.1	93.4	3442	6.0	0.8	1.8	3170
HDP(SE)4005-6	400	400	985	1182	98.7	89.7	71.2	59.2	49.3	44.8	74.4	71.5	45.1	0.83	94.0	93.6	92.2	93.5	3878	6.0	0.8	1.8	3320
HDP(SE)4501-6	450	450	990	1188	109.3	99.4	78.8	65.6	54.7	49.7	82.4	79.3	50.0	0.84	94.3	93.9	92.5	93.8	4341	6.0	0.8	1.8	3170
HDP(SE)4502-6	500	450	990	1188	119.8	108.9	86.4	71.9	59.9	54.5	90.3	86.9	54.7	0.85	94.5	94.1	92.7	94.0	4823	6.0	0.8	1.8	3500
HDP(SE)4503-6	560	450	990	1188	133.9	121.7	96.6	80.3	66.9	60.9	101.0	97.1	61.2	0.85	94.7	94.3	92.9	94.2	5402	6.0	0.8	1.8	3750
HDP(SE)4504-6	630	450	990	1188	150.5	136.8	108.5	90.3	75.2	68.4	113.4	109.1	68.8	0.85	94.8	94.4	93.0	94.3	6077	6.0	0.8	1.8	3920
HDP(SE)5001-6	710	500	990	1188	169.2	153.8	122.0	101.5	84.6	76.9	127.6	122.7	77.3	0.85	95.0	94.6	93.2	94.5	6849	6.0	0.7	1.8	4520
HDP(SE)5002-6	800	500	990	1188	190.5	173.2	137.4	114.3	95.2	86.6	143.6	138.1	87.0	0.85	95.1	94.7	93.3	94.6	7717	6.0	0.7	1.8	4630
HDP(SE)5003-6	900	500	990	1188	214.1	194.6	154.4	128.4	107.0	97.3	161.4	155.2	97.8	0.85	95.2	94.8	93.4	94.7	8682	6.0	0.7	1.8	4770
HDP(SE)5004-6	1000	500	990	1188	237.6	216.0	171.3	142.6	118.8	108.0	179.1	172.2	108.6	0.85	95.3	94.9	93.5	94.8	9646	6.0	0.7	1.8	4920
HDP(SE)5601-6	1120	560	991	1189	262.7	238.8	189.5	157.6	131.4	119.4	198.1	190.5	120.0	0.86	95.4	95.0	93.6	94.9	10793	6.5	0.7	1.8	6030
HDP(SE)5602-6	1250	560	991	1189	292.9	266.3	211.2	175.7	146.5	133.1	220.8	212.3	133.8	0.86	95.5	95.1	93.7	95.0	12046	6.5	0.7	1.8	6280
HDP(SE)5603-6	1400	560	991	1189	327.7	297.9	236.3	196.6	163.9	149.0	247.1	237.6	149.7	0.86	95.6	95.2	93.8	95.1	13491	6.5	0.7	1.8	6440
HDP(SE)6301-6	1600	630	993	1192	374.1	340.1	269.8	224.5	187.1	170.1	282.1	271.2	171.0	0.86	95.7	95.3	93.9	95.2	15388	6.5	0.7	1.8	7400
HDP(SE)6302-6	1800	630	994	1193	420.5	382.2	303.2	252.3	210.2	191.1	317.0	304.8	192.1	0.86	95.8	95.4	94.0	95.3	17294	6.5	0.7	1.8	7750
HDP(SE)6303-6	2000	630	994	1193	466.7	424.3	336.6	280.0	233.4	212.1	351.9	338.3	213.3	0.86	95.9	95.5	94.1	95.4	19215	6.5	0.7	1.8	8100
750rpm/900rpm 8pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(SE)4003-8	220	400	740	888	58.4	53.1	42.1	35.1	29.2	26.6	44.1	42.4	26.7	0.78	92.9	92.5	91.1	92.4	2839	5.5	0.8	1.8	2780
HDP(SE)4004-8	250	400	740	888	65.5	59.5	47.2	39.3	32.7	29.8	49.4	47.5	29.9	0.79	93.0	92.6	91.2	92.5	3226	5.5	0.8	1.8	3130
HDP(SE)4005-8	280	400	740	888	73.2	66.5	52.8	43.9	36.6	33.3	55.2	53.1	33.4	0.79	93.2	92.8	91.4	92.7	3614	5.5	0.8	1.8	3410
HDP(SE)4501-8	315	450	740	888	81.1	73.8	58.5	48.7	40.6	36.9	61.2	58.8	37.1	0.8	93.4	93.0	91.6	92.9	4065	5.5	0.8	1.8	3130
HDP(SE)4502-8	355	450	740	888	91.3	83.0	65.9	54.8	45.7	41.5	68.9	66.2	41.7	0.8	93.5	93.1	91.7	93.0	4581	5.5	0.8	1.8	3350
HDP(SE)4503-8	400	450	740	888	102.7	93.4	74.1	61.6	51.3	46.7	77.4	74.5	46.9	0.8	93.7	93.3	91.9	93.2	5162	5.5	0.8	1.8	3430
HDP(SE)4504-8	450	450	740	888	114.0	103.6	82.2	68.4	57.0	51.8	85.9	82.6	52.1	0.81	93.8	93.4	92.0	93.3	5807	5.5	0.8	1.8	3650
HDP(SE)5001-8	500	500	740	888	126.0	114.5	90.9	75.6	63.0	57.3	95.0	91.3	57.6	0.81	94.3	93.9	92.5	93.8	6453	5.5	0.8	1.8	4310
HDP(SE)5002-8	560	500	740	888	139.2	126.6	100.4	83.5	69.6	63.3	105.0	100.9	63.6	0.82	94.4	94.0	92.6	93.9	7227	5.5	0.8	1.8	4570
HDP(SE)5003-8	630	500	740	888	156.5	142.2	112.8	93.9	78.2	71.1	118.0	113.4	71.5	0.82	94.5	94.1	92.7	94.0	8130	5.5	0.8	1.8	4910
HDP(SE)5004-8	710	500	740	888	176.2	160.1	127.0	105.7	88.1	80.1	132.8	127.7	80.5	0.82	94.6	94.2	92.8	94.1	9163	5.5	0.8	1.8	5190
HDP(SE)5601-8	800	560	740	888	193.5	176.0	139.6	116.1	96.8	88.0	145.9	140.3	88.4	0.84	94.7	94.3	92.9	94.2	10324	6.0	0.7	1.8	5920
HDP(SE)5602-8	900	560	740	888	217.5	197.7	156.9	130.5	108.8	98.9	164.0	157.7	99.4	0.84	94.8	94.4	93.0	94.3	11615	6.0	0.7	1.8	6180
HDP(SE)5603-8	1000	560	740	888	241.4	219.5	174.1	144.9	120.7	109.7	182.0	175.0	110.3	0.84	94.9	94.5	93.1	94.4	12905	6.0	0.7	1.8	6440
HDP(SE)6301-8	1120	630	744	893	270.1	245.6	194.8	162.1	135.1	122.8	203.7	195.8	123.4	0.84	95.0	94.6	93.2	94.5	14376	6.0	0.7	1.8	7780
HDP(SE)6302-8	1250	630	744	893	301.1	273.8	217.2	180.7	150.6	136.9	227.1	218.3	137.6	0.84	95.1	94.7	93.3	94.6	16045	6.0	0.7	1.8	8100
HDP(SE)6303-8	1400	630	744	893	336.9	306.3	243.0	202.2	168.5	153.2	254.0	244.3	154.0	0.84	95.2	94.8	93.4	94.7	17970	6.0	0.7	1.8	8380
HDP(SE)6304-8	1600	630	744	893	384.7	349.7	277.4	230.8	192.3	174.8	290.0	278.9	175.8	0.84	95.3	94.9	93.5	94.8	20538	6.0	0.7	1.8	8660

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(SE)4503-6	315	450	990	1188	23.9	17.4	0.82	92.8	92.4	91.0	92.3	3039	6.0	0.7	1.8	3270
HDP(SE)4504-6	355	450	990	1188	26.5	19.3	0.83	93.1	92.7	91.3	92.6	3424	6.0	0.7	1.8	3400
HDP(SE)4505-6	400	450	990	1188	29.8	21.7	0.83	93.3	92.9	91.5	92.8	3859	6.0	0.7	1.8	3530
HDP(SE)4506-6	450	450	990	1188	33.5	24.4	0.83	93.5	93.1	91.7	93.0	4341	6.0	0.7	1.8	3680
HDP(SE)5001-6	500	500	995	1194	37.0	27.0	0.83	93.9	93.5	92.1	93.4	4799	6.0	0.7	1.8	4460
HDP(SE)5002-6	560	500	995	1194	40.9	29.8	0.84	94.1	93.7	92.3	93.6	5375	6.0	0.7	1.8	4630
HDP(SE)5003-6	630	500	995	1194	45.9	33.4	0.84	94.4	94.0	92.6	93.9	6047	6.0	0.7	1.8	4770
HDP(SE)5004-6	710	500	995	1194	51.6	37.6	0.84	94.6	94.2	92.8	94.1	6815	6.0	0.7	1.8	5000
HDP(SE)5005-6	800	500	995	1194	58.1	42.3	0.84	94.7	94.3	92.9	94.2	7678	6.0	0.7	1.8	5400
HDP(SE)5601-6	900	560	990	1188	64.4	46.9	0.85	94.9	94.5	93.1	94.4	8682	6.0	0.7	1.8	5700
HDP(SE)5602-6	1000	560	990	1188	71.4	52.0	0.85	95.1	94.7	93.3	94.6	9646	6.0	0.7	1.8	5930
HDP(SE)5603-6	1120	560	990	1188	79.8	58.2	0.85	95.3	94.9	93.5	94.8	10804	6.0	0.7	1.8	6180
HDP(SE)5604-6	1250	560	990	1188	88.0	64.1	0.86	95.4	95.0	93.6	94.9	12058	6.0	0.7	1.8	6430
HDP(SE)6301-6	1400	630	995	1194	98.2	71.5	0.86	95.7	95.3	93.9	95.2	13437	6.0	0.6	1.8	7420
HDP(SE)6302-6	1600	630	995	1194	112.1	81.7	0.86	95.8	95.4	94.0	95.3	15357	6.0	0.6	1.8	7780
HDP(SE)6303-6	1800	630	995	1194	126.0	91.8	0.86	95.9	95.5	94.1	95.4	17276	6.0	0.6	1.8	8100
750rpm/900rpm 8pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(SE)500B-8	280	500	740	888	22.7	16.5	0.77	92.5	92.1	90.7	92.0	3614	6.0	0.7	1.8	4050
HDP(SE)5001-8	315	500	740	888	25.5	18.5	0.77	92.8	92.4	91.0	92.3	4065	6.0	0.7	1.8	4150
HDP(SE)5002-8	355	500	740	888	28.6	20.8	0.77	93.1	92.7	91.3	92.6	4581	6.0	0.7	1.8	4470
HDP(SE)5003-8	400	500	740	888	31.8	23.1	0.78	93.2	92.8	91.4	92.7	5162	6.0	0.7	1.8	4560
HDP(SE)5004-8	450	500	740	888	35.7	26.0	0.78	93.4	93.0	91.6	92.9	5807	6.0	0.7	1.8	4850
HDP(SE)5005-8	500	500	740	888	39.0	28.4	0.79	93.8	93.4	92.0	93.3	6453	6.0	0.7	1.8	4970
HDP(SE)5006-8	560	500	740	888	43.6	31.8	0.79	93.9	93.5	92.1	93.4	7227	6.0	0.7	1.8	5120
HDP(SE)5601-8	630	560	740	888	47.0	34.2	0.82	94.4	94.0	92.6	93.9	8130	6.0	0.7	1.8	5570
HDP(SE)5602-8	710	560	740	888	52.8	38.5	0.82	94.6	94.2	92.8	94.1	9163	6.0	0.7	1.8	5820
HDP(SE)5603-8	800	560	740	888	59.5	43.3	0.82	94.7	94.3	92.9	94.2	10324	6.0	0.7	1.8	6080
HDP(SE)5604-8	900	560	740	888	66.8	48.7	0.82	94.8	94.4	93.0	94.3	11615	6.0	0.7	1.8	6350
HDP(SE)6301-8	1000	630	744	893	73.2	53.3	0.83	95.0	94.6	93.2	94.5	12836	6.0	0.7	1.8	7800
HDP(SE)6302-8	1120	630	744	893	81.8	59.6	0.83	95.2	94.8	93.4	94.7	14376	6.0	0.7	1.8	8100
HDP(SE)6303-8	1250	630	745	894	91.2	66.5	0.83	95.3	94.9	93.5	94.8	16023	6.0	0.7	1.8	8400



"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			

TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
600rpm/720rpm 10pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(SE)4501-10	220	450	590	708	59.7	54.3	43.1	35.8	29.9	27.1	45.0	43.3	27.3	0.77	92.1	91.7	90.3	91.6	3561	5.5	0.8	1.8	2930
HDP(SE)4502-10	250	450	590	708	66.8	60.8	48.2	40.1	33.4	30.4	50.4	48.5	30.5	0.78	92.3	91.9	90.5	91.8	4047	5.5	0.8	1.8	3130
HDP(SE)4503-10	280	450	590	708	74.7	67.9	53.9	44.8	37.3	33.9	56.3	54.2	34.1	0.78	92.5	92.1	90.7	92.0	4532	5.5	0.8	1.8	3210
HDP(SE)4504-10	315	450	590	708	82.9	75.3	59.8	49.7	41.4	37.7	62.5	60.1	37.9	0.79	92.6	92.2	90.8	92.1	5099	5.5	0.8	1.8	3290
HDP(SE)4505-10	355	450	590	708	93.2	84.7	67.2	55.9	46.6	42.4	70.3	67.6	42.6	0.79	92.8	92.4	91.0	92.3	5746	5.5	0.8	1.8	3430
HDP(SE)5001-10	400	500	590	708	103.1	93.8	74.4	61.9	51.6	46.9	77.8	74.8	47.1	0.8	93.3	92.9	91.5	92.8	6475	5.5	0.8	1.8	4140
HDP(SE)5002-10	450	500	590	708	115.9	105.4	83.6	69.5	58.0	52.7	87.4	84.0	53.0	0.8	93.4	93.0	91.6	92.9	7284	5.5	0.8	1.8	4290
HDP(SE)5003-10	500	500	590	708	128.5	116.8	92.7	77.1	64.3	58.4	96.9	93.2	58.7	0.8	93.6	93.2	91.8	93.1	8093	5.5	0.8	1.8	4480
HDP(SE)5004-10	560	500	590	708	143.8	130.7	103.7	86.3	71.9	65.4	108.4	104.2	65.7	0.8	93.7	93.3	91.9	93.2	9064	5.5	0.8	1.8	4650
HDP(SE)5005-10	630	500	590	708	161.6	146.9	116.5	96.9	80.8	73.4	121.8	117.1	73.8	0.8	93.8	93.4	92.0	93.3	10197	5.5	0.8	1.8	4830
HDP(SE)5601-10	710	560	590	708	177.3	161.2	127.8	106.4	88.6	80.6	133.7	128.5	81.0	0.82	94.0	93.6	92.2	93.5	11492	6.0	0.7	1.8	6280
HDP(SE)5602-10	800	560	590	708	199.3	181.2	143.7	119.6	99.7	90.6	150.3	144.5	91.1	0.82	94.2	93.8	92.4	93.7	12949	6.0	0.7	1.8	6670
HDP(SE)5603-10	900	560	590	708	224.0	203.6	161.5	134.4	112.0	101.8	168.9	162.4	102.4	0.82	94.3	93.9	92.5	93.8	14568	6.0	0.7	1.8	7060
HDP(SE)6301-10	1000	630	594	713	251.3	228.4	181.2	150.8	125.6	114.2	189.5	182.2	114.8	0.82	93.4	93.0	91.6	92.9	16077	6.0	0.7	1.8	7800
HDP(SE)6302-10	1120	630	594	713	277.9	252.6	200.4	166.7	138.9	126.3	209.5	201.5	127.0	0.82	94.6	94.2	92.8	94.1	18007	6.0	0.7	1.8	8150
HDP(SE)6303-10	1250	630	594	713	309.5	281.3	223.2	185.7	154.7	140.7	233.3	224.4	141.4	0.82	94.8	94.4	93.0	94.3	20097	6.0	0.7	1.8	8430
HDP(SE)6304-10	1400	630	594	713	346.2	314.8	249.7	207.7	173.1	157.4	261.1	251.0	158.2	0.82	94.9	94.5	93.1	94.4	22508	6.0	0.7	1.8	8760
500rpm/600rpm 12pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(SE)4504-12	220	450	490	588	63.5	57.7	45.8	38.1	31.7	28.8	47.9	46.0	29.0	0.73	91.4	91.0	89.6	90.9	4288	5.5	0.8	1.8	3540
HDP(SE)4505-12	250	450	490	588	71.9	65.3	51.8	43.1	35.9	32.7	54.2	52.1	32.8	0.73	91.7	91.3	89.9	91.2	4872	5.5	0.8	1.8	3720
HDP(SE)5001-12	280	500	490	588	78.6	71.4	56.7	47.1	39.3	35.7	59.2	57.0	35.9	0.74	92.7	92.3	90.9	92.2	5457	5.5	0.8	1.8	4250
HDP(SE)5002-12	315	500	490	588	87.1	79.2	62.8	52.3	43.6	39.6	65.7	63.2	39.8	0.75	92.8	92.4	91.0	92.3	6139	5.5	0.8	1.8	4420
HDP(SE)5003-12	355	500	490	588	98.0	89.0	70.6	58.8	49.0	44.5	73.9	71.0	44.8	0.75	93.0	92.6	91.2	92.5	6919	5.5	0.8	1.8	4590
HDP(SE)5004-12	400	500	490	588	110.0	100.0	79.3	66.0	55.0	50.0	83.0	79.8	50.3	0.75	93.3	92.9	91.5	92.8	7796	5.5	0.8	1.8	4870
HDP(SE)5005-12	450	500	490	588	123.6	112.4	89.2	74.2	61.8	56.2	93.2	89.6	56.5	0.75	93.4	93.0	91.6	92.9	8770	5.5	0.8	1.8	5060
HDP(SE)5601-12	500	560	490	588	130.0	118.2	93.7	78.0	65.0	59.1	98.0	94.3	59.4	0.79	93.7	93.3	91.9	93.2	9745	6.0	0.7	1.8	5790
HDP(SE)5602-12	560	560	490	588	145.4	132.2	104.9	87.3	72.7	66.1	109.7	105.4	66.5	0.79	93.8	93.4	92.0	93.3	10914	6.0	0.7	1.8	6040
HDP(SE)5603-12	630	560	490	588	163.4	148.6	117.9	98.1	81.7	74.3	123.2	118.5	74.7	0.79	93.9	93.5	92.1	93.4	12279	6.0	0.7	1.8	6290
HDP(SE)6301-12	710	630	494	593	184.0	167.3	132.7	110.4	92.0	83.6	138.7	133.4	84.1	0.79	94.0	93.6	92.2	93.5	13726	6.0	0.7	1.8	7730
HDP(SE)6302-12	800	630	494	593	206.9	188.1	149.2	124.1	103.4	94.0	156.0	150.0	94.5	0.79	94.2	93.8	92.4	93.7	15466	6.0	0.7	1.8	8050
HDP(SE)6303-12	900	630	494	593	232.5	211.4	167.7	139.5	116.3	105.7	175.3	168.6	106.2	0.79	94.3	93.9	92.5	93.8	17399	6.0	0.7	1.8	8320
HDP(SE)6304-12	1000	630	494	593	258.1	234.6	186.1	154.8	129.0	117.3	194.6	187.1	117.9	0.79	94.4	94.0	92.6	93.9	19332	6.0	0.7	1.8	8590

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times.

They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**.

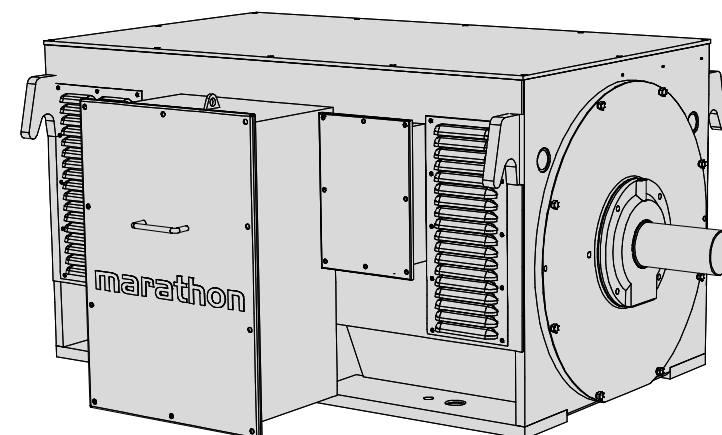
For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz: 3kV 3.3kV 4.16kV 5kV 6kV 6.6kV 10kV

60Hz: 4kV 4.16kV 6.6kV 13.8kV

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
600rpm/720rpm 10pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(SE)5002-10	250	500	595	714	21.2	15.4	0.74	92.2	91.8	90.4	91.7	4013	5.5	0.7	1.8	4100
HDP(SE)5003-10	280	500	595	714	23.6	17.2	0.74	92.4	92.0	90.6	91.9	4494	5.5	0.7	1.8	4240
HDP(SE)5004-10	315	500	595	714	26.5	19.3	0.74	92.6	92.2	90.8	92.1	5056	5.5	0.7	1.8	4400
HDP(SE)5005-10	355	500	595	714	29.4	21.5	0.75	92.8	92.4	91.0	92.3	5698	5.5	0.7	1.8	4620
HDP(SE)5006-10	400	500	595	714	33.1	24.1	0.75	93.0	92.6	91.2	92.5	6420	5.5	0.7	1.8	4850
HDP(SE)5601-10	450	560	590	708	36.2	26.4	0.77	93.2	92.8	91.4	92.7	7284	6.0	0.7	1.8	5540
HDP(SE)5602-10	500	560	590	708	40.1	29.2	0.77	93.4	93.0	91.6	92.9	8093	6.0	0.7	1.8	5870
HDP(SE)5603-10	560	560	590	708	44.3	32.3	0.78	93.5	93.1	91.7	93.0	9064	6.0	0.7	1.8	6280
HDP(SE)5604-10	630	560	590	708	49.8	36.3	0.78	93.7	93.3	91.9	93.2	10197	6.0	0.7	1.8	6680
HDP(SE)5605-10	710	560	590	708	56.0	40.8	0.78	93.9	93.5	92.1	93.4	11492	6.0	0.7	1.8	7050
HDP(SE)6301-10	800	630	594	713	61.2	44.6	0.8	94.3	93.9	92.5	93.8	12862	6.0	0.7	1.8	7800
HDP(SE)6302-10	900	630	593	712	68.7	50.1	0.8	94.5	94.1	92.7	94.0	14494	6.0	0.7	1.8	8120
HDP(SE)6303-10	1000	630	593	712	76.3	55.6	0.8	94.6	94.2	92.8	94.1	16105	6.0	0.7	1.8	8420
HDP(SE)6304-10	1120	630	593	712	85.4	62.2	0.8	94.7	94.3	92.9	94.2	18037	6.0	0.7	1.8	8780
500rpm/600rpm 12pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(SE)5601-12	315	560	490	588	27.0	19.7	0.73	92.3	91.9	90.5	91.8	6139	6.0	0.7	1.8	5580
HDP(SE)5602-12	355	560	490	588	30.4	22.1	0.73	92.5	92.1	90.7	92.0	6919	6.0	0.7	1.8	5790
HDP(SE)5603-12	400	560	490	588	34.1	24.9	0.73	92.7	92.3	90.9	92.2	7796	6.0	0.7	1.8	6040
HDP(SE)5604-12	450	560	490	588	38.3	27.9	0.73	92.9	92.5	91.1	92.4	8770	6.0	0.7	1.8	6280
HDP(SE)5605-12	500	560	490	588	42.4	30.9	0.73	93.2	92.8	91.4	92.7	9745	6.0	0.7	1.8	6530
HDP(SE)6301-12	560	630	492	590	46.7	34.0	0.74	93.5	93.1	91.7	93.0	10870	6.0	0.7	1.8	7730
HDP(SE)6302-12	630	630	493	592	52.5	38.2	0.74	93.7	93.3	91.9	93.2	12204	6.0	0.7	1.8	8050
HDP(SE)6303-12	710	630	493	592	59.0	43.0	0.74	93.9	93.5	92.1	93.4	13754	6.0	0.7	1.8	8320
HDP(SE)6304-12	800	630	492	590	66.2	48.2	0.74	94.3	93.9	92.5	93.8	15528	6.0	0.7	1.8	8650



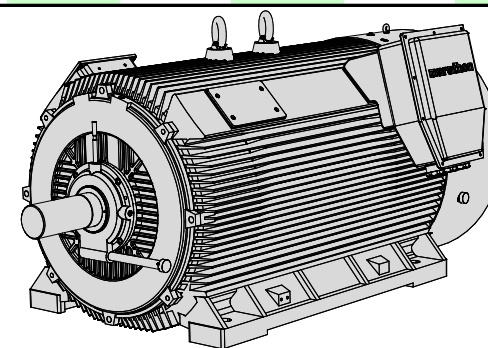
TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
3000rpm/3600rpm 2pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(SE)3551-2	185	355	2980	3576	45.1	41.0	32.6	27.1	22.6	20.5	34.0	32.7	20.6	0.84	93.9	93.5	92.1	93.4	593	7.0	0.7	2.0	1900
HCM(SE)3552-2	200	355	2980	3576	48.7	44.3	35.2	29.2	24.4	22.2	36.8	35.3	22.3	0.84	94.0	93.6	92.2	93.5	641	7.0	0.7	2.0	2000
HCM(SE)3553-2	220	355	2980	3576	53.5	48.6	38.6	32.1	26.8	24.3	40.3	38.8	24.5	0.84	94.2	93.8	92.4	93.7	705	7.0	0.7	2.0	2100
HCM(SE)3553-2	250	355	2980	3576	60.7	55.2	43.8	36.4	30.3	27.6	45.7	44.0	27.7	0.84	94.4	94.0	92.6	93.9	801	7.0	0.7	2.0	2200
HCM(SE)3555-2	280	355	2980	3576	66.2	60.2	47.8	39.7	33.1	30.1	49.9	48.0	30.3	0.86	94.6	94.2	92.8	94.1	897	7.0	0.7	2.0	2350
HCM(SE)4001-2	315	400	2980	3576	74.4	67.6	53.6	44.6	37.2	33.8	56.1	53.9	34.0	0.86	94.8	94.4	93.0	94.3	1009	7.0	0.7	2.0	2900
HCM(SE)4002-2	355	400	2980	3576	83.7	76.1	60.4	50.2	41.9	38.1	63.1	60.7	38.3	0.86	94.9	94.5	93.1	94.4	1138	7.0	0.7	2.0	3000
HCM(SE)4003-2	400	400	2980	3576	94.1	85.6	67.9	56.5	47.1	42.8	71.0	68.2	43.0	0.86	95.1	94.7	93.3	94.6	1282	7.0	0.7	2.0	3100
HCM(SE)4004-2	450	400	2980	3576	105.8	96.2	76.3	63.5	52.9	48.1	79.8	76.7	48.3	0.86	95.2	94.8	93.4	94.7	1442	7.0	0.7	2.0	3200
HCM(SE)4501-2	500	450	2982	3578	116.1	105.5	83.7	69.6	58.0	52.8	87.5	84.1	53.0	0.87	95.3	94.9	93.5	94.8	1601	7.0	0.7	2.0	3500
HCM(SE)4502-2	560	450	2982	3578	129.9	118.0	93.6	77.9	64.9	59.0	97.9	94.1	59.3	0.87	95.4	95.0	93.6	94.9	1793	7.0	0.7	2.0	3600
HCM(SE)4503-2	630	450	2982	3578	145.9	132.7	105.2	87.6	73.0	66.3	110.0	105.8	66.7	0.87	95.5	95.1	93.7	95.0	2018	7.0	0.7	2.0	3700
HCM(SE)4504-2	710	450	2982	3578	164.1	149.2	118.4	98.5	82.1	74.6	123.7	119.0	75.0	0.87	95.7	95.3	93.9	95.2	2274	7.0	0.7	2.0	3850
HCM(SE)5001-2	800	500	2982	3578	183.0	166.4	132.0	109.8	91.5	83.2	138.0	132.7	83.6	0.88	95.6	95.2	93.8	95.1	2562	7.0	0.7	2.0	5780
HCM(SE)5002-2	900	500	2982	3578	205.7	187.0	148.3	123.4	102.8	93.5	155.1	149.1	94.0	0.88	95.7	95.3	93.9	95.2	2882	7.0	0.7	2.0	6050
HCM(SE)5003-2	1000	500	2982	3578	228.0	207.3	164.5	136.8	114.0	103.7	171.9	165.3	104.2	0.88	95.9	95.5	94.1	95.4	3203	7.0	0.7	2.0	6320
HCM(SE)5004-2	1120	500	2982	3578	255.1	232.0	184.0	153.1	127.6	116.0	192.4	185.0	116.6	0.88	96.0	95.6	94.2	95.5	3587	7.0	0.7	2.0	6600
1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(SE)3551-4	185	355	1485	1782	45.2	41.1	32.6	27.1	22.6	20.6	34.1	32.8	20.7	0.84	93.7	93.3	91.9	93.2	1190	6.5	0.8	2.0	1900
HCM(SE)3552-4	200	355	1485	1782	48.8	44.4	35.2	29.3	24.4	22.2	36.8	35.4	22.3	0.84	93.9	93.5	92.1	93.4	1286	6.5	0.8	2.0	2000
HCM(SE)3553-4	220	355	1485	1782	53.6	48.7	38.6	32.1	26.8	24.3	40.4	38.8	24.5	0.84	94.1	93.7	92.3	93.6	1415	6.5	0.8	2.0	2100
HCM(SE)3554-4	250	355	1485	1782	60.7	55.2	43.8	36.4	30.4	27.6	45.8	44.0	27.8	0.84	94.3	93.9	92.5	93.8	1608	6.5	0.8	2.0	2200
HCM(SE)3555-4	280	355	1485	1782	67.9	61.7	49.0	40.7	33.9	30.9	51.2	49.2	31.0	0.84	94.5	94.1	92.7	94.0	1801	6.5	0.8	2.0	2300
HCM(SE)4001-4	315	400	1485	1782	75.4	68.5	54.4	45.2	37.7	34.3	56.8	54.7	34.5	0.85	94.6	94.2	92.8	94.1	2026	6.5	0.8	2.0	3000
HCM(SE)4002-4	355	400	1485	1782	84.8	77.1	61.1	50.9	42.4	38.5	63.9	61.5	38.7	0.85	94.8	94.4	93.0	94.3	2283	6.5	0.8	2.0	3100
HCM(SE)4003-4	400	400	1485	1782	95.3	86.7	68.8	57.2	47.7	43.3	71.9	69.1	43.6	0.85	95.0	94.6	93.2	94.5	2572	6.5	0.8	2.0	3200
HCM(SE)4004-4	450	400	1485	1782	107.0	97.3	77.2	64.2	53.5	48.6	80.7	77.6	48.9	0.85	95.2	94.8	93.4	94.7	2894	6.5	0.8	2.0	3300
HCM(SE)4501-4	500	450	1485	1782	117.4	106.7	84.7	70.4	58.7	53.4	88.5	85.1	53.7	0.86	95.3	94.9	93.5	94.8	3215	6.5	0.8	2.0	3600
HCM(SE)4502-4	560	450	1485	1782	131.4	119.4	94.7	78.8	65.7	59.7	99.0	95.2	60.0	0.86	95.4	95.0	93.6	94.9	3601	6.5	0.8	2.0	3700
HCM(SE)4503-4	630	450	1485	1782	147.6	134.2	106.5	88.6	73.8	67.1	111.3	107.0	67.5	0.86	95.5	95.1	93.7	95.0	4052	6.5	0.8	2.0	3800
HCM(SE)4504-4	710	450	1485	1782	166.2	151.1	119.9	99.7	83.1	75.5	125.3	120.5	75.9	0.86	95.6	95.2	93.8	95.1	4566	6.5	0.8	2.0	3950
HCM(SE)5001-4	800	500	1488	1786	187.1	170.1	134.9	112.2	93.5	85.0	141.0	135.6	85.5	0.86	95.7	95.3	93.9	95.2	5134	6.5	0.8	2.0	5820
HCM(SE)5002-4	900	500	1488	1786	210.2	191.1	151.6	126.1	105.1	95.6	158.5	152.4	96.1	0.86	95.8	95.4	94.0	95.3	5776	6.5	0.8	2.0	6100
HCM(SE)5003-4	1000	500	1488	1786	233.4	212.1	168.3	140.0	116.7	106.1	175.9	169.2	106.6	0.86	95.9	95.5	94.1	95.4	6418	6.5	0.8	2.0	6280
HCM(SE)5004-4	1120	500	1488	1786	261.1	237.3	188.3	156.7	130.5	118.7	196.8	189.3	119.3	0.86	96.0	95.6	94.2	95.5	7188	6.5	0.8	2.0	6420
HCM(SE)5601-4	1250	560	1488	1786	287.7	261.6	207.5	172.6	143.9	130.8	216.9	208.6	131.5	0.87	96.1	95.7	94.3	95.6	8023	6.5	0.7	2.0	8020
HCM(SE)5602-4	1400	560	1488	1786	321.9	292.7	232.2	193.2	161.0	146.3	242.7	233.4	147.1	0.87	96.2	95.8	94.4	95.7	8985	6.5	0.7	2.0	8390
HCM(SE)5603-4	1600	560	1488	1786	367.2	333.8	264.8	220.3	183.6	166.9	276.8	266.2	167.8	0.87	96.4	96.0	94.6	95.9	10269	6.5	0.7	2.0	8750
HCM(SE)5604-4	1800	560	1488	1786	412.6	375.1	297.6	247.6	206.3	187.6	311.1	299.1	188.5	0.87	96.5	96.1	94.7	96.0	11552	6.5	0.7	2.0	9100

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
3000rpm/3600rpm 2pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(SE)4001-2	220	400	2980	3576	16.3	11.9	0.84	92.8	92.4	91.0	92.3	705	7.0	0.7	2.0	2900
HCM(SE)4002-2	250	400	2980	3576	18.5	13.5	0.84	93.0	92.6	91.2	92.5	801	7.0	0.7	2.0	3000
HCM(SE)4003-2	280	400	2980	3576	20.2	14.7	0.86	93.1	92.7	91.3	92.6	897	7.0	0.7	2.0	3100
HCM(SE)4004-2	315	400	2980	3576	22.7	16.5	0.86	93.3	92.9	91.5	92.8	1009	7.0	0.7	2.0	3200
HCM(SE)4501-2	355	450	2982	3578	25.5	18.6	0.86	93.5	93.1	91.7	93.0	1137	7.0	0.7	2.0	3500
HCM(SE)4502-2	400	450	2982	3578	28.6	20.9	0.86	93.8	93.4	92.0	93.3	1281	7.0	0.7	2.0	3600
HCM(SE)4503-2	450	450	2982	3578	32.2	23.4	0.86	93.9	93.5	92.1	93.4	1441	7.0	0.7	2.0	3700
HCM(SE)4504-2	500	450	2982	3578	35.3	25.7	0.87	94.0	93.6	92.2	93.5	1601	7.0	0.7	2.0	3850
HCM(SE)5001-2	560	500	2985	3582	39.5	28.7	0.87	94.2	93.8	92.4	93.7	1792	7.0	0.7	2.0	5500
HCM(SE)5002-2	630	500	2985	3582	44.3	32.3	0.87	94.4	94.0	92.6	93.9	2016	7.0	0.7	2.0	5780
HCM(SE)5003-2	710	500	2985	3582	49.8	36.3	0.87	94.6	94.2	92.8	94.1	2272	7.0	0.7	2.0	6050
HCM(SE)5004-2	800	500	2985	3582	55.4	40.3	0.88	94.8	94.4	93.0	94.3	2559	7.0	0.7	2.0	6320
HCM(SE)5005-2	900	500	2985	3582	62.2	45.3	0.88	95.0	94.6	93.2	94.5	2879	7.0	0.7	2.0	6600
1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(SE)4001-4	220	400	1482	1778	16.3	11.9	0.84	92.7	92.3	90.9	92.2	1418	6.5	0.8	2.0	3000
HCM(SE)4002-4	250	400	1482	1778	18.5	13.5	0.84	92.9	92.5	91.1	92.4	1611	6.5	0.8	2.0	3100
HCM(SE)4003-4	280	400	1482	1778	20.7	15.1	0.84	93.0	92.6	91.2	92.5	1804	6.5	0.8	2.0	3200
HCM(SE)4004-4	315	400	1482	1778	22.9	16.7	0.85	93.3	92.9	91.5	92.8	2030	6.5	0.8	2.0	3300
HCM(SE)4501-4	355	450	1485	1782	25.8	18.8	0.85	93.4	93.0	91.6	92.9	2283	6.5	0.8	2.0	3500
HCM(SE)4502-4	400	450	1485	1782	29.0	21.1	0.85	93.6	93.2	91.8	93.1	2572	6.5	0.8	2.0	3600
HCM(SE)4503-4	450	450	1485	1782	32.6	23.7	0.85	93.8	93.4	92.0	93.3	2894	6.5	0.8	2.0	3700
HCM(SE)4504-4	500	450	1485	1782	35.7	26.0	0.86	94.0	93.6	92.2	93.5	3215	6.5	0.8	2.0	3800
HCM(SE)4505-4	560	450	1485	1782	40.0	29.1	0.86	94.1	93.7	92.3	93.6	3601	6.5	0.8	2.0	3950
HCM(SE)5001-4	630	500	1488	1786	44.9	32.7	0.86	94.3	93.9	92.5	93.8	4043	6.5	0.8	2.0	5820
HCM(SE)5002-4	710	500	1488	1786	50.4	36.7	0.86	94.5	94.1	92.7	94.0	4557	6.5	0.8	2.0	6100
HCM(SE)5003-4	800	500	1488	1786	56.0	40.8	0.87	94.8	94.4	93.0	94.3	5134	6.5	0.8	2.0	6280
HCM(SE)5004-4	900	500	1488	1786	62.9	45.8	0.87	95.0	94.6	93.2	94.5	5776	6.5	0.8	2.0	6420
HCM(SE)5601-4	1000	560	1488	1786	69.8	50.8	0.87	95.1	94.7	93.3	94.6	6418	6.5	0.7	2.0	8020
HCM(SE)5602-4	1120	560	1488	1786	77.2	56.2	0.88	95.2	94.8	93.4	94.7	7188	6.5	0.7	2.0	8390
HCM(SE)5603-4	1250	560	1488	1786	86.0	62.6	0.88	95.4	95.0	93.6	94.9	8023	6.5	0.7	2.0	8750
HCM(SE)5604-4	1400	560	1488	1786	96.1	70.0	0.88	95.6	95.2	93.8	95.1	8985	6.5	0.7	2.0	9100

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

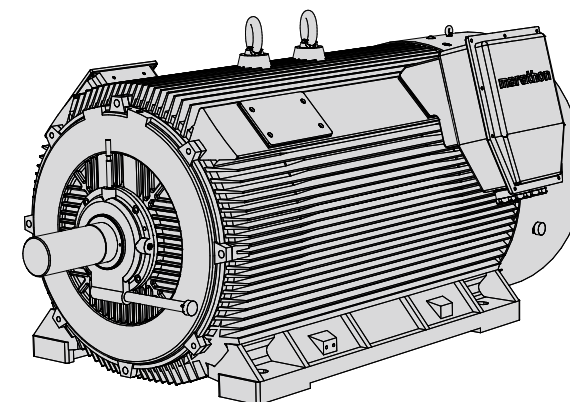
"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			



TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(SE)3551-6	160	355	985	1182	41.2	37.5	29.7	24.7	20.6	18.7	31.1	29.9	18.8	0.80	93.4	93.0	91.6	92.9	1551	6.0	0.8	2.0	2200
HCM(SE)3552-6	185	355	985	1182	47.6	43.3	34.3	28.6	23.8	21.6	35.9	34.5	21.8	0.80	93.5	93.1	91.7	93.0	1794	6.0	0.8	2.0	2300
HCM(SE)3553-6	200	355	985	1182	51.4	46.7	37.1	30.8	25.7	23.4	38.8	37.3	23.5	0.80	93.6	93.2	91.8	93.1	1939	6.0	0.8	2.0	2400
HCM(SE)4001-6	220	400	988	1186	55.0	50.0	39.7	33.0	27.5	25.0	41.5	39.9	25.2	0.82	93.8	93.4	92.0	93.3	2127	6.0	0.8	2.0	2900
HCM(SE)4002-6	250	400	988	1186	62.5	56.8	45.1	37.5	31.2	28.4	47.1	45.3	28.6	0.82	93.9	93.5	92.1	93.4	2416	6.0	0.8	2.0	3000
HCM(SE)4003-6	280	400	988	1186	69.8	63.5	50.4	41.9	34.9	31.7	52.7	50.6	31.9	0.82	94.1	93.7	92.3	93.6	2706	6.0	0.8	2.0	3200
HCM(SE)4004-6	315	400	988	1186	78.4	71.3	56.5	47.0	39.2	35.6	59.1	56.8	35.8	0.82	94.3	93.9	92.5	93.8	3045	6.0	0.8	2.0	3400
HCM(SE)4501-6	355	450	988	1186	87.1	79.2	62.8	52.3	43.6	39.6	65.7	63.2	39.8	0.83	94.5	94.1	92.7	94.0	3431	6.0	0.8	2.0	3500
HCM(SE)4502-6	400	450	988	1186	98.0	89.1	70.7	58.8	49.0	44.6	73.9	71.1	44.8	0.83	94.6	94.2	92.8	94.1	3866	6.0	0.8	2.0	3600
HCM(SE)4503-6	450	450	988	1186	110.2	100.2	79.5	66.1	55.1	50.1	83.1	79.9	50.3	0.83	94.7	94.3	92.9	94.2	4350	6.0	0.8	2.0	3700
HCM(SE)4504-6	500	450	988	1186	122.2	111.1	88.1	73.3	61.1	55.5	92.1	88.6	55.8	0.83	94.9	94.5	93.1	94.4	4833	6.0	0.8	2.0	3820
HCM(SE)5001-6	560	500	990	1188	136.5	124.1	98.5	81.9	68.3	62.1	102.9	99.0	62.4	0.83	95.1	94.7	93.3	94.6	5402	6.0	0.8	2.0	5610
HCM(SE)5002-6	630	500	990	1188	153.4	139.5	110.7	92.1	76.7	69.7	115.7	111.2	70.1	0.83	95.2	94.8	93.4	94.7	6077	6.0	0.8	2.0	5790
HCM(SE)5003-6	710	500	990	1188	172.8	157.0	124.6	103.7	86.4	78.5	130.2	125.2	78.9	0.83	95.3	94.9	93.5	94.8	6849	6.0	0.8	2.0	6010
HCM(SE)5004-6	800	500	990	1188	194.4	176.8	140.2	116.7	97.2	88.4	146.6	141.0	88.8	0.83	95.4	95.0	93.6	94.9	7717	6.0	0.8	2.0	6230
HCM(SE)5601-6	900	560	990	1188	215.7	196.1	155.5	129.4	107.8	98.0	162.6	156.4	98.6	0.84	95.6	95.2	93.8	95.1	8682	6.0	0.7	2.0	7650
HCM(SE)5602-6	1000	560	990	1188	239.4	217.6	172.7	143.6	119.7	108.8	180.5	173.6	109.4	0.84	95.7	95.3	93.9	95.2	9646	6.0	0.7	2.0	7950
HCM(SE)5603-6	1120	560	990	1188	267.9	243.5	193.2	160.7	133.9	121.8	201.9	194.2	122.4	0.84	95.8	95.4	94.0	95.3	10804	6.0	0.7	2.0	8250
HCM(SE)5604-6	1250	560	990	1188	298.6	271.5	215.4	179.2	149.3	135.7	225.2	216.5	136.5	0.84	95.9	95.5	94.1	95.4	12058	6.0	0.7	2.0	8550
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(SE)4001-8	160	400	738	886	43.5	39.5	31.4	26.1	21.7	19.8	32.8	31.5	19.9	0.76	93.2	92.8	91.4	92.7	2070	5.5	0.8	2.0	3000
HCM(SE)4002-8	185	400	738	886	50.2	45.6	36.2	30.1	25.1	22.8	37.9	36.4	22.9	0.76	93.3	92.9	91.5	92.8	2394	5.5	0.8	2.0	3100
HCM(SE)4003-8	200	400	738	886	53.5	48.6	38.6	32.1	26.7	24.3	40.3	38.8	24.4	0.77	93.5	93.1	91.7	93.0	2588	5.5	0.8	2.0	3200
HCM(SE)4004-8	220	400	738	886	58.7	53.3	42.3	35.2	29.3	26.7	44.2	42.5	26.8	0.77	93.7	93.3	91.9	93.2	2847	5.5	0.8	2.0	3300
HCM(SE)4501-8	250	450	740	888	65.7	59.7	47.4	39.4	32.8	29.9	49.5	47.6	30.0	0.78	93.9	93.5	92.1	93.4	3226	5.5	0.8	2.0	3500
HCM(SE)4502-8	280	450	740	888	73.4	66.7	52.9	44.1	36.7	33.4	55.4	53.2	33.6	0.78	94.1	93.7	92.3	93.6	3614	5.5	0.8	2.0	3600
HCM(SE)4503-8	315	450	740	888	82.5	75.0	59.5	49.5	41.3	37.5	62.2	59.8	37.7	0.78	94.2	93.8	92.4	93.7	4065	5.5	0.8	2.0	3700
HCM(SE)4504-8	355	450	740	888	92.8	84.4	66.9	55.7	46.4	42.2	70.0	67.3	42.4	0.78	94.4	94.0	92.6	93.9	4581	5.5	0.8	2.0	3820
HCM(SE)5001-8	400	500	742	890	103.1	93.7	74.4	61.9	51.6	46.9	77.7	74.8	47.1	0.79	94.5	94.1	92.7	94.0	5148	5.5	0.8	2.0	5250
HCM(SE)5002-8	450	500	742	890	115.9	105.3	83.6	69.5	57.9	52.7	87.4	84.0	53.0	0.79	94.6	94.2	92.8	94.1	5792	5.5	0.8	2.0	5490
HCM(SE)5003-8	500	500	742	890	126.9	115.3	91.5	76.1	63.4	57.7	95.7	92.0	58.0	0.80	94.8	94.4	93.0	94.3	6435	5.5	0.8	2.0	5750
HCM(SE)5004-8	560	500	742	890	142.0	129.1	102.4	85.2	71.0	64.5	107.0	102.9	64.9	0.80	94.9	94.5	93.1	94.4	7208	5.5	0.8	2.0	6020
HCM(SE)5601-8	630	560	745	894	157.4	143.1	113.5	94.4	78.7	71.5	118.7	114.1	71.9	0.81	95.1	94.7	93.3	94.6	8076	5.5	0.7	2.0	7000
HCM(SE)5602-8	710	560	745	894	177.0	160.9	127.7	106.2	88.5	80.5	133.5	128.3	80.9	0.81	95.3	94.9	93.5	94.8	9101	5.5	0.7	2.0	7350
HCM(SE)5603-8	800	560	745	894	199.2	181.1	143.7	119.5	99.6	90.6	150.2	144.4	91.0	0.81	95.4	95.0	93.6	94.9	10255	5.5	0.7	2.0	7700
HCM(SE)5604-8	900	560	745	894	223.7	203.3	161.3	134.2	111.8	101.7	168.6	162.2	102.2	0.81	95.6	95.2	93.8	95.1	11537	5.5	0.7	2.0	8100

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(SE)4501-6	220	450	985	1182	16.7	12.2	0.82	92.5	92.1	90.7	92.0	2133	6.0	0.8	2.0	3400
HCM(SE)4502-6	250	450	985	1182	19.0	13.8	0.82	92.7	92.3	90.9	92.2	2424	6.0	0.8	2.0	3500
HCM(SE)4503-6	280	450	985	1182	21.2	15.5	0.82	92.9	92.5	91.1	92.4	2715	6.0	0.8	2.0	3600
HCM(SE)4504-6	315	450	985	1182	23.8	17.4	0.82	93.1	92.7	91.3	92.6	3054	6.0	0.8	2.0	3700
HCM(SE)4505-6	355	450	985	1182	26.8	19.5	0.82	93.3	92.9	91.5	92.8	3442	6.0	0.8	2.0	3820
HCM(SE)5001-6	400	500	985	1182	30.1	21.9	0.82	93.5	93.1	91.7	93.0	3878	6.0	0.8	2.0	5450
HCM(SE)5002-6	450	500	988	1186	33.4	24.3	0.83	93.7	93.3	91.9	93.2	4350	6.0	0.8	2.0	5610
HCM(SE)5003-6	500	500	988	1186	37.0	27.0	0.83	93.9	93.5	92.1	93.4	4833	6.0	0.8	2.0	5790
HCM(SE)5004-6	560	500	990	1188	41.4	30.2	0.83	94.1	93.7	92.3	93.6	5402	6.0	0.8	2.0	6010
HCM(SE)5005-6	630	500	990	1188	46.5	33.9	0.83	94.3	93.9	92.5	93.8	6077	6.0	0.8	2.0	6230
HCM(SE)5601-6	710	560	992	1190	52.3	38.1	0.83	94.5	94.1	92.7	94.0	6835	6.0	0.7	2.0	7400
HCM(SE)5602-6	800	560	992	1190	58.8	42.8	0.83	94.7	94.3	92.9	94.2	7702	6.0	0.7	2.0	7650
HCM(SE)5603-6	900	560	992	1190	65.2	47.5	0.84	94.9	94.5	93.1	94.4	8664	6.0	0.7	2.0	7950
HCM(SE)5604-6	1000	560	992	1190	72.3	52.7	0.84	95.1	94.7	93.3	94.6	9627	6.0	0.7	2.0	8250
HCM(SE)5605-6	1120	560	992	1190	80.8	58.8	0.84	95.3	94.9	93.5	94.8	10782	6.0	0.7	2.0	8550
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(SE)4501-8	220	450	740	888	18.3	13.4	0.75	92.4	92.0	90.6	91.9	2839	5.5	0.8	2.0	3600
HCM(SE)4502-8	250	450	740	888	20.8	15.1	0.75	92.6	92.2	90.8	92.1	3226	5.5	0.8	2.0	3700
HCM(SE)4503-8	280	450	740	888	22.6	16.5	0.77	92.8	92.4	91.0	92.3	3614	5.5	0.8	2.0	3820
HCM(SE)5001-8	315	500	742	890	25.4	18.5	0.77	93.0	92.6	91.2	92.5	4054	5.5	0.8	2.0	5250
HCM(SE)5002-8	355	500	742	890	28.6	20.8	0.77	93.2	92.8	91.4	92.7	4569	5.5	0.8	2.0	5490
HCM(SE)5003-8	400	500	742	890	31.3	22.8	0.79	93.4	93.0	91.6	92.9	5148	5.5	0.8	2.0	5750
HCM(SE)5004-8	450	500	742	890	35.2	25.6	0.79	93.5	93.1	91.7	93.0	5792	5.5	0.8	2.0	6020
HCM(SE)5601-8	500	560	745	894	39.0	28.4	0.79	93.7	93.3	91.9	93.2	6409	5.5	0.7	2.0	6650
HCM(SE)5602-8	560	560	745	894	43.6	31.8	0.79	93.9	93.5	92.1	93.4	7179	5.5	0.7	2.0	7000
HCM(SE)5603-8	630	560	745	894	48.3	35.2	0.80	94.1	93.7	92.3	93.6	8076	5.5	0.7	2.0	7350
HCM(SE)5604-8	710	560	745	894	54.3	39.6	0.80	94.3	93.9	92.5	93.8	9101	5.5	0.7	2.0	7700
HCM(SE)5605-8	800	560	745	894	61.1	44.5	0.80	94.5	94.1	92.7	94.0	10255	5.5	0.7	2.0	8100



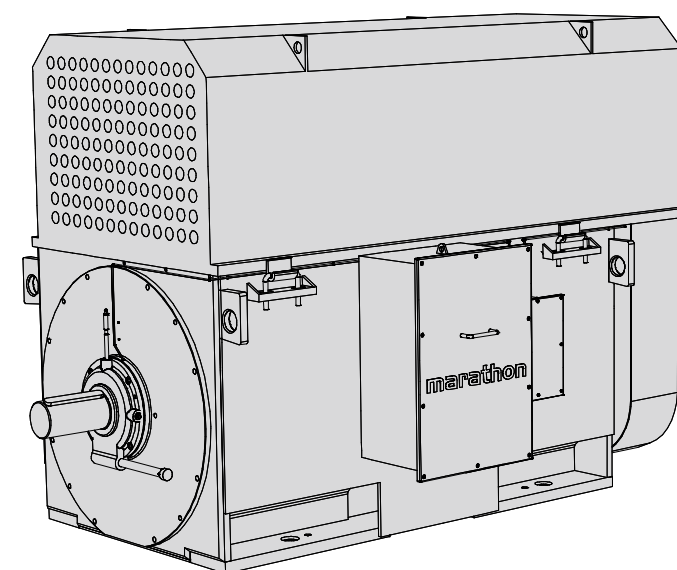
TYPE	Output	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor	Efficiency (at 50Hz)			60Hz	Rated torque	Ratio			Weigh
			50Hz	60Hz	at 3kV	at 3.3kV	at 4.16kV	at 5kV	at 6kV	at 6.6kV	at 4kV	at 4.16kV	at 6.6kV		100% Load %	75% Load %	50% Load %			100% Load %	Starting current	Starting torque	
	kW	rpm	rpm	A	A	A	A	A	A	A	A	cosφ	%	%	%	%	Nm						
1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HAA(SE)3551-4	185	355	1485	1782	45.1	41.0	32.6	27.1	22.6	20.5	34.0	32.7	20.6	0.85	92.8	92.4	91.0	92.3	1190	6.5	0.7	1.8	2150
HAA(SE)3552-4	200	355	1480	1776	48.7	44.3	35.2	29.2	24.4	22.2	36.8	35.3	22.3	0.85	92.9	92.5	91.1	92.4	1291	6.5	0.7	1.8	2210
HAA(SE)3553-4	220	355	1480	1776	53.6	48.7	38.6	32.1	26.8	24.3	40.4	38.8	24.5	0.85	93.0	92.6	91.2	92.5	1420	6.5	0.7	1.8	2300
HAA(SE)3554-4	250	355	1480	1776	60.8	55.3	43.8	36.5	30.4	27.6	45.8	44.1	27.8	0.85	93.1	92.7	91.3	92.6	1613	6.5	0.7	1.8	2390
HAA(SE)4002-4	280	400	1485	1782	67.2	61.1	48.5	40.3	33.6	30.6	50.7	48.7	30.7	0.86	93.2	92.8	91.4	92.7	1801	6.5	0.7	1.8	3090
HAA(SE)4003-4	315	400	1485	1782	75.6	68.7	54.5	45.3	37.8	34.3	57.0	54.8	34.5	0.86	93.3	92.9	91.5	92.8	2026	6.5	0.7	1.8	3190
HAA(SE)4004-4	355	400	1485	1782	85.0	77.2	61.3	51.0	42.5	38.6	64.1	61.6	38.8	0.86	93.5	93.1	91.7	93.0	2283	6.5	0.7	1.8	3290
HAA(SE)4005-4	400	400	1485	1782	95.5	86.8	68.9	57.3	47.8	43.4	72.0	69.3	43.7	0.86	93.7	93.3	91.9	93.2	2572	6.5	0.7	1.8	3400
HAA(SE)4006-4	450	400	1485	1782	107.2	97.5	77.3	64.3	53.6	48.7	80.9	77.8	49.0	0.86	93.9	93.5	92.1	93.4	2894	6.5	0.7	1.8	3510
HAA(SE)4502-4	500	450	1485	1782	119.0	108.2	85.8	71.4	59.5	54.1	89.8	86.3	54.4	0.86	94.0	93.6	92.2	93.5	3215	6.5	0.7	1.8	3800
HAA(SE)4503-4	560	450	1485	1782	133.0	120.9	95.9	79.8	66.5	60.5	100.3	96.5	60.8	0.86	94.2	93.8	92.4	93.7	3601	6.5	0.7	1.8	3890
HAA(SE)4504-4	630	450	1485	1782	149.3	135.8	107.7	89.6	74.7	67.9	112.6	108.3	68.2	0.86	94.4	94.0	92.6	93.9	4052	6.5	0.7	1.8	4030
HAA(SE)4505-4	710	450	1485	1782	168.0	152.7	121.1	100.8	84.0	76.3	126.6	121.8	76.8	0.86	94.6	94.2	92.8	94.1	4566	6.5	0.7	1.8	4140
HAA(SE)5001-4	800	500	1485	1782	186.7	169.7	134.6	112.0	93.3	84.9	140.8	135.3	85.3	0.87	94.8	94.4	93.0	94.3	5145	6.5	0.7	1.8	5340
HAA(SE)5002-4	900	500	1485	1782	209.8	190.7	151.3	125.9	104.9	95.4	158.2	152.1	95.9	0.87	94.9	94.5	93.1	94.4	5788	6.5	0.7	1.8	5500
HAA(SE)5003-4	1000	500	1485	1782	232.9	211.7	167.9	139.7	116.4	105.8	175.6	168.8	106.4	0.87	95.0	94.6	93.2	94.5	6431	6.5	0.7	1.8	5850
HAA(SE)5004-4	1120	500	1485	1782	260.5	236.8	187.9	156.3	130.3	118.4	196.4	188.9	119.0	0.87	95.1	94.7	93.3	94.6	7203	6.5	0.7	1.8	6120
HAA(SE)5601-4	1250	560	1485	1782	287.2	261.1	207.1	172.3	143.6	130.5	216.5	208.2	131.2	0.88	95.2	94.8	93.4	94.7	8039	6.5	0.6	1.8	7500
HAA(SE)5602-4	1400	560	1485	1782	321.3	292.1	231.7	192.8	160.6	146.0	242.2	232.9	146.8	0.88	95.3	94.9	93.5	94.8	9003	6.5	0.6	1.8	7600
HAA(SE)5603-4	1600	560	1485	1782	366.8	333.4	264.5	220.1	183.4	166.7	276.5	265.9	167.6	0.88	95.4	95.0	93.6	94.9	10290	6.5	0.6	1.8	7730
HAA(SE)6301-4	1800	630	1485	1782	412.2	374.7	297.3	247.3	206.1	187.4	310.8	298.8	188.4	0.88	95.5	95.1	93.7	95.0	11576	6.5	0.6	1.8	9400
HAA(SE)6302-4	2000	630	1485	1782	457.5	415.9	330.0	274.5	228.8	208.0	345.0	331.7	209.1	0.88	95.6	95.2	93.8	95.1	12862	6.5	0.6	1.8	9800
HAA(SE)6303-4	2240	630	1485	1782	511.9	465.4	369.2	307.1	255.9	232.7	385.9	371.1	233.9	0.88	95.7	95.3	93.9	95.2	14405	6.5	0.6	1.8	10300

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque	
1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(SE)4001-4	200	400	1485	1782	15.1	11.0	0.83	92.0	91.6	90.2	91.5	1286	7.0	0.7	1.8	2950
HAA(SE)4002-4	220	400	1485	1782	16.6	12.1	0.83	92.2	91.8	90.4	91.7	1415	7.0	0.7	1.8	3035
HAA(SE)4003-4	250	400	1485	1782	18.8	13.7	0.83	92.3	91.9	90.5	91.8	1608	7.0	0.7	1.8	3130
HAA(SE)4501-4	280	450	1485	1782	20.2	14.7	0.86	93.0	92.6	91.2	92.5	1801	7.0	0.7	1.8	3435
HAA(SE)4502-4	315	450	1485	1782	22.7	16.5	0.86	93.1	92.7	91.3	92.6	2026	7.0	0.7	1.8	3495
HAA(SE)4503-4	355	450	1485	1782	25.6	18.6	0.86	93.2	92.8	91.4	92.7	2283	7.0	0.7	1.8	3615
HAA(SE)4504-4	400	450	1485	1782	28.8	21.0	0.86	93.3	92.9	91.5	92.8	2572	7.0	0.7	1.8	3660
HAA(SE)4505-4	450	450	1485	1782	32.3	23.5	0.86	93.5	93.1	91.7	93.0	2894	7.0	0.7	1.8	3740
HAA(SE)4506-4	500	450	1485	1782	35.9	26.1	0.86	93.6	93.2	91.8	93.1	3215	7.0	0.7	1.8	3880
HAA(SE)5001-4	560	500	1485	1782	40.1	29.2	0.86	93.7	93.3	91.9	93.2	3601	7.0	0.7	1.8	5180
HAA(SE)5002-4	630	500	1485	1782	45.0	32.8	0.86	93.9	93.5	92.1	93.4	4052	7.0	0.7	1.8	5430
HAA(SE)5003-4	710	500	1485	1782	50.6	36.9	0.86	94.2	93.8	92.4	93.7	4566	7.0	0.7	1.8	5690
HAA(SE)5004-4	800	500	1485	1782	56.9	41.4	0.86	94.4	94.0	92.6	93.9	5145	7.0	0.7	1.8	5940
HAA(SE)5005-4	900	500	1485	1782	63.9	46.6	0.86	94.5	94.1	92.7	94.0	5788	7.0	0.7	1.8	6240
HAA(SE)5601-4	1000	560	1490	1788	70.2	51.1	0.87	94.6	94.2	92.8	94.1	6409	6.5	0.6	1.8	8610
HAA(SE)5602-4	1120	560	1490	1788	78.5	57.2	0.87	94.7	94.3	92.9	94.2	7179	6.5	0.6	1.8	9010
HAA(SE)5603-4	1250	560	1490	1788	87.5	63.7	0.87	94.8	94.4	93.0	94.3	8012	6.5	0.6	1.8	9510
HAA(SE)5604-4	1400	560	1490	1788	97.8	71.2	0.87	95.0	94.6	93.2	94.5	8973	6.5	0.6	1.8	9700
HAA(SE)6302-4	1600	630	1492	1790	111.7	81.3	0.87	95.1	94.7	93.3	94.6	10241	6.5	0.6	1.8	9900
HAA(SE)6303-4	1800	630	1492	1790	125.5	91.4	0.87	95.2	94.8	93.4	94.7	11521	6.5	0.6	1.8	10100
HAA(SE)6304-4	2000	630	1492	1790	139.3	101.5	0.87	95.3	94.9	93.5	94.8	12802	6.5	0.6	1.8	10300



TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HAA(SE)355A-6	185	355	985	1182	47.0	42.7	33.9	28.2	23.5	21.4	35.4	34.1	21.5	0.82	92.4	92.0	90.6	91.9	1794	6.0	0.7	1.8	2280
HAA(SE)355B-6	200	355	985	1182	50.7	46.1	36.6	30.4	25.3	23.0	38.2	36.8	23.2	0.82	92.6	92.2	90.8	92.1	1939	6.0	0.7	1.8	2380
HAA(SE)4003-6	220	400	990	1188	55.6	50.6	40.1	33.4	27.8	25.3	42.0	40.3	25.4	0.82	92.8	92.4	91.0	92.3	2122	6.0	0.7	1.8	3100
HAA(SE)4004-6	250	400	990	1188	63.1	57.4	45.5	37.9	31.5	28.7	47.6	45.7	28.8	0.82	93.0	92.6	91.2	92.5	2412	6.0	0.7	1.8	3220
HAA(SE)4005-6	280	400	990	1188	70.4	64.0	50.8	42.3	35.2	32.0	53.1	51.1	32.2	0.82	93.3	92.9	91.5	92.8	2701	6.0	0.7	1.8	3350
HAA(SE)4006-6	315	400	990	1188	79.1	71.9	57.0	47.4	39.5	35.9	59.6	57.3	36.1	0.82	93.5	93.1	91.7	93.0	3039	6.0	0.7	1.8	3500
HAA(SE)4502-6	355	450	985	1182	87.8	79.9	63.4	52.7	43.9	39.9	66.2	63.7	40.1	0.83	93.7	93.3	91.9	93.2	3442	6.0	0.7	1.8	4210
HAA(SE)4503-6	400	450	985	1182	98.9	89.9	71.3	59.3	49.4	44.9	74.6	71.7	45.2	0.83	93.8	93.4	92.0	93.3	3878	6.0	0.7	1.8	4310
HAA(SE)4504-6	450	450	985	1182	110.9	100.8	80.0	66.5	55.4	50.4	83.6	80.4	50.7	0.83	94.1	93.7	92.3	93.6	4363	6.0	0.7	1.8	4540
HAA(SE)4505-6	500	450	985	1182	122.9	111.8	88.7	73.8	61.5	55.9	92.7	89.1	56.2	0.83	94.3	93.9	92.5	93.8	4848	6.0	0.7	1.8	4680
HAA(SE)5001-6	560	500	990	1188	135.9	123.6	98.0	81.5	68.0	61.8	102.5	98.5	62.1	0.84	94.4	94.0	92.6	93.9	5402	6.0	0.7	1.8	5100
HAA(SE)5002-6	630	500	990	1188	152.7	138.9	110.2	91.6	76.4	69.4	115.2	110.7	69.8	0.84	94.5	94.1	92.7	94.0	6077	6.0	0.7	1.8	5200
HAA(SE)5003-6	710	500	990	1188	171.6	156.0	123.7	103.0	85.8	78.0	129.4	124.4	78.4	0.84	94.8	94.4	93.0	94.3	6849	6.0	0.7	1.8	5340
HAA(SE)5004-6	800	500	990	1188	193.1	175.6	139.3	115.9	96.6	87.8	145.6	140.0	88.3	0.84	94.9	94.5	93.1	94.4	7717	6.0	0.7	1.8	5490
HAA(SE)5601-6	900	560	990	1188	214.5	195.0	154.7	128.7	107.3	97.5	161.7	155.5	98.0	0.85	95.0	94.6	93.2	94.5	8682	6.5	0.7	1.8	7050
HAA(SE)5602-6	1000	560	990	1188	238.1	216.4	171.7	142.9	119.0	108.2	179.5	172.6	108.8	0.85	95.1	94.7	93.3	94.6	9646	6.5	0.7	1.8	7250
HAA(SE)5603-6	1120	560	990	1188	266.4	242.2	192.1	159.8	133.2	121.1	200.8	193.1	121.7	0.85	95.2	94.8	93.4	94.7	10804	6.5	0.7	1.8	7450
HAA(SE)6301-6	1250	630	990	1188	293.5	266.8	211.7	176.1	146.8	133.4	221.3	212.8	134.1	0.86	95.3	94.9	93.5	94.8	12058	6.5	0.7	1.8	9600
HAA(SE)6302-6	1400	630	990	1188	328.4	298.6	236.8	197.0	164.2	149.3	247.6	238.1	150.1	0.86	95.4	95.0	93.6	94.9	13505	6.5	0.7	1.8	10100
HAA(SE)6303-6	1600	630	990	1188	374.9	340.8	270.4	225.0	187.5	170.4	282.7	271.8	171.3	0.86	95.5	95.1	93.7	95.0	15434	6.5	0.7	1.8	10500
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HAA(SE)4003-8	185	400	740	888	49.3	44.9	35.6	29.6	24.7	22.4	37.2	35.8	22.6	0.78	92.5	92.1	90.7	92.0	2388	5.5	0.8	1.8	3230
HAA(SE)4004-8	200	400	740	888	53.2	48.4	38.4	31.9	26.6	24.2	40.1	38.6	24.3	0.78	92.7	92.3	90.9	92.2	2581	5.5	0.8	1.8	3400
HAA(SE)4005-8	220	400	740	888	58.4	53.1	42.1	35.1	29.2	26.6	44.1	42.4	26.7	0.78	92.9	92.5	91.1	92.4	2839	5.5	0.8	1.8	3560
HAA(SE)4502-8	250	450	740	888	65.5	59.5	47.2	39.3	32.7	29.8	49.4	47.5	29.9	0.79	93.0	92.6	91.2	92.5	3226	5.5	0.8	1.8	4110
HAA(SE)4503-8	280	450	740	888	73.2	66.5	52.8	43.9	36.6	33.3	55.2	53.1	33.4	0.79	93.2	92.8	91.4	92.7	3614	5.5	0.8	1.8	4350
HAA(SE)4504-8	315	450	740	888	82.2	74.7	59.3	49.3	41.1	37.3	62.0	59.6	37.5	0.79	93.4	93.0	91.6	92.9	4065	5.5	0.8	1.8	4610
HAA(SE)4505-8	355	450	740	888	92.5	84.1	66.7	55.5	46.2	42.0	69.7	67.1	42.3	0.79	93.5	93.1	91.7	93.0	4581	5.5	0.8	1.8	4850
HAA(SE)5001-8	400	500	740	888	102.7	93.4	74.1	61.6	51.3	46.7	77.4	74.5	46.9	0.8	93.7	93.3	91.9	93.2	5162	5.5	0.8	1.8	4970
HAA(SE)5002-8	450	500	740	888	115.4	104.9	83.2	69.2	57.7	52.5	87.0	83.7	52.7	0.8	93.8	93.4	92.0	93.3	5807	5.5	0.8	1.8	5140
HAA(SE)5003-8	500	500	740	888	127.7	116.1	92.1	76.6	63.8	58.0	96.3	92.6	58.4	0.8	94.2	93.8	92.4	93.7	6453	5.5	0.8	1.8	5330
HAA(SE)5004-8	560	500	740	888	142.7	129.7	102.9	85.6	71.4	64.9	107.6	103.5	65.2	0.8	94.4	94.0	92.6	93.9	7227	5.5	0.8	1.8	5520
HAA(SE)5601-8	630	560	740	888	156.5	142.2	112.8	93.9	78.2	71.1	118.0	113.4	71.5	0.82	94.5	94.1	92.7	94.0	8130	6.0	0.7	1.8	7300
HAA(SE)5602-8	710	560	740	888	176.2	160.1	127.0	105.7	88.1	80.1	132.8	127.7	80.5	0.82	94.6	94.2	92.8	94.1	9163	6.0	0.7	1.8	7525
HAA(SE)5603-8	800	560	740	888	198.3	180.2	143.0	119.0	99.1	90.1	149.5	143.7	90.6	0.82	94.7	94.3	92.9	94.2	10324	6.0	0.7	1.8	7750
HAA(SE)6301-8	900	630	740	888	217.5	197.7	156.9	130.5	108.8	98.9	164.0	157.7	99.4	0.84	94.8	94.4	93.0	94.3	11615	6.0	0.7	1.8	9140
HAA(SE)6302-8	1000	630	740	888	241.4	219.5	174.1	144.9	120.7	109.7	182.0	175.0	110.3	0.84	94.9	94.5	93.1	94.4	12905	6.0	0.7	1.8	9410
HAA(SE)6303-8	1120	630	740	888	270.1	245.6	194.8	162.1	135.1	122.8	203.7	195.8	123.4	0.84	95.0	94.6	93.2	94.5	14454	6.0	0.7	1.8	9910
HAA(SE)6304-8	1250	630	740	888	301.1	273.8	217.2	180.7	150.6	136.9	227.1	218.3	137.6	0.84	95.1	94.7	93.3	94.6	16132	6.0	0.7	1.8	10300

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(SE)4503-6	250	450	980	1176	18.5	13.5	0.84	93.0	92.6	91.2	92.5	2436	6.0	0.7	1.8	4990
HAA(SE)4504-6	280	450	980	1176	20.7	15.1	0.84	93.1	92.7	91.3	92.6	2729	6.0	0.7	1.8	5140
HAA(SE)4505-6	315	450	980	1176	23.2	16.9	0.84	93.2	92.8	91.4	92.7	3070	6.0	0.7	1.8	5300
HAA(SE)4506-6	355	450	980	1176	26.2	19.1	0.84	93.3	92.9	91.5	92.8	3459	6.0	0.7	1.8	5520
HAA(SE)5001-6	400	500	995	1194	29.8	21.7	0.83	93.5	93.1	91.7	93.0	3839	6.5	0.7	1.8	5010
HAA(SE)5002-6	450	500	995	1194	32.7	23.8	0.85	93.6	93.2	91.8	93.1	4319	6.5	0.7	1.8	5160
HAA(SE)5003-6	500	500	995	1194	36.2	26.4	0.85	93.7	93.3	91.9	93.2	4799	6.5	0.7	1.8	6350
HAA(SE)5004-6	560	500	995	1194	40.6	29.5	0.85	93.8	93.4	92.0	93.3	5375	6.5	0.7	1.8	5540
HAA(SE)5005-6	630	500	995	1194	45.5	33.2	0.85	94.0	93.6	92.2	93.5	6047	6.5	0.7	1.8	5750
HAA(SE)5601-6	710	560	995	1194	50.5	36.8	0.86	94.4	94.0	92.6	93.9	6815	6.5	0.7	1.8	8260
HAA(SE)5602-6	800	560	995	1194	56.8	41.4	0.86	94.6	94.2	92.8	94.1	7678	6.5	0.7	1.8	8780
HAA(SE)5603-6	900	560	995	1194	63.7	46.4	0.86	94.8	94.4	93.0	94.3	8638	6.5	0.7	1.8	9330
HAA(SE)5604-6	1000	560	995	1194	70.5	51.4	0.86	95.2	94.8	93.4	94.7	9598	6.5	0.7	1.8	9820
HAA(SE)6301-6	1120	630	995	1194	78.9	57.5	0.86	95.3	94.9	93.5	94.8	10750	6.0	0.6	1.8	9400
HAA(SE)6302-6	1250	630	995	1194	88.0	64.1	0.86	95.4	95.0	93.6	94.9	11997	6.0	0.6	1.8	9900
HAA(SE)6303-6	1400	630	995	1194	98.4	71.7	0.86	95.5	95.1	93.7	95.0	13437	6.0	0.6	1.8	10400
HAA(SE)6304-6	1600	630	995	1194	112.4	81.8	0.86	95.6	95.2	93.8	95.1	15357	6.0	0.6	1.8	10900
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(SE)4501-8	200	450	745	894	16.9	12.3	0.74	92.4	92.0	90.6	91.9	2564	5.5	0.7	1.8	4960
HAA(SE)4502-8	220	450	745	894	18.6	13.5	0.74	92.5	92.1	90.7	92.0	2820	5.5	0.7	1.8	5080
HAA(SE)5001-8	250	500	745	894	19.4	14.1	0.80	92.9	92.5	91.1	92.4	3205	6.0	0.7	1.8	5100
HAA(SE)5002-8	280	500	745	894	21.7	15.8	0.80	93.0	92.6	91.2	92.5	3589	6.0	0.7	1.8	5250
HAA(SE)5003-8	315	500	745	894	24.4	17.8	0.80	93.2	92.8	91.4	92.7	4038	6.0	0.7	1.8	5420
HAA(SE)5004-8	355	500	745	894	27.4	20.0	0.80	93.4	93.0	91.6	92.9	4551	6.0	0.7	1.8	5570
HAA(SE)5005-8	400	500	745	894	30.8	22.5	0.80	93.6	93.2	91.8	93.1	5128	6.0	0.7	1.8	5720
HAA(SE)5006-8	450	500	745	894	34.7	25.3	0.80	93.7	93.3	91.9	93.2	5768	6.0	0.7	1.8	5880
HAA(SE)5007-8	500	500	745	894	38.5	28.0	0.80	93.8	93.4	92.0	93.3	6409	6.0	0.7	1.8	6040
HAA(SE)5602-8	560	560	745	894	42.0	30.6	0.82	93.9	93.5	92.1	93.4	7179	6.0	0.7	1.8	8160
HAA(SE)5603-8	630	560	745	894	47.2	34.4	0.82	94.0	93.6	92.2	93.5	8076	6.0	0.7	1.8	8640
HAA(SE)5604-8	710	560	745	894	53.1	38.7	0.82	94.2	93.8	92.4	93.7	9101	6.0	0.7	1.8	8800
HAA(SE)6301-8	800	630	742	890	59.0	43.0	0.83	94.3	93.9	92.5	93.8	10296	6.0	0.7	1.8	9020
HAA(SE)6302-8	900	630	742	890	66.2	48.3	0.83	94.5	94.1	92.7	94.0	11584	6.0	0.7	1.8	9350
HAA(SE)6303-8	1000	630	742	890	73.5	53.6	0.83	94.6	94.2	92.8	94.1	12871	6.0	0.7	1.8	9700
HAA(SE)6304-8	1120	630	742	890	82.3	59.9	0.83	94.7	94.3	92.9	94.2	14415	6.0	0.7	1.8	10500

TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio				
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque		Weight kg
600rpm/720rpm 10pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																								
HAA(SE)4501-10	185	450	585	702	51.8	47.1	37.3	31.1	25.9	23.5	39.0	37.5	23.7	0.75	91.7	91.3	89.9	91.2	3020	5.5	0.8	1.8	3980	
HAA(SE)4502-10	200	450	585	702	55.8	50.8	40.3	33.5	27.9	25.4	42.1	40.5	25.5	0.75	91.9	91.5	90.1	91.4	3265	5.5	0.8	1.8	4120	
HAA(SE)4503-10	220	450	585	702	61.3	55.7	44.2	36.8	30.6	27.9	46.2	44.4	28.0	0.75	92.1	91.7	90.3	91.6	3591	5.5	0.8	1.8	4260	
HAA(SE)4504-10	250	450	585	702	69.5	63.2	50.1	41.7	34.8	31.6	52.4	50.4	31.8	0.75	92.3	91.9	90.5	91.8	4081	5.5	0.8	1.8	4440	
HAA(SE)4505-10	280	450	585	702	77.7	70.6	56.0	46.6	38.8	35.3	58.6	56.3	35.5	0.75	92.5	92.1	90.7	92.0	4571	5.5	0.8	1.8	4620	
HAA(SE)5001-10	315	500	585	702	86.0	78.1	62.0	51.6	43.0	39.1	64.8	62.3	39.3	0.76	92.8	92.4	91.0	92.3	5142	5.5	0.8	1.8	5000	
HAA(SE)5002-10	355	500	585	702	96.7	87.9	69.7	58.0	48.3	43.9	72.9	70.1	44.2	0.76	93.0	92.6	91.2	92.5	5795	5.5	0.8	1.8	5140	
HAA(SE)5003-10	400	500	585	702	108.6	98.7	78.3	65.1	54.3	49.3	81.9	78.7	49.6	0.76	93.3	92.9	91.5	92.8	6530	5.5	0.8	1.8	5320	
HAA(SE)5004-10	450	500	585	702	122.0	110.9	88.0	73.2	61.0	55.5	92.0	88.5	55.8	0.76	93.4	93.0	91.6	92.9	7346	5.5	0.8	1.8	5480	
HAA(SE)5601-10	500	560	590	708	131.8	119.8	95.1	79.1	65.9	59.9	99.4	95.6	60.2	0.78	93.6	93.2	91.8	93.1	8093	6.0	0.7	1.8	6900	
HAA(SE)5602-10	560	560	590	708	147.5	134.1	106.3	88.5	73.7	67.0	111.2	106.9	67.4	0.78	93.7	93.3	91.9	93.2	9064	6.0	0.7	1.8	7075	
HAA(SE)5603-10	630	560	590	708	165.7	150.7	119.5	99.4	82.9	75.3	125.0	120.1	75.7	0.78	93.8	93.4	92.0	93.3	10197	6.0	0.7	1.8	7270	
HAA(SE)5604-10	710	560	590	708	186.4	169.4	134.4	111.8	93.2	84.7	140.5	135.1	85.2	0.78	94.0	93.6	92.2	93.5	11492	6.0	0.7	1.8	7500	
HAA(SE)6301-10	800	630	590	708	204.3	185.7	147.3	122.6	102.2	92.9	154.0	148.1	93.4	0.8	94.2	93.8	92.4	93.7	12949	6.0	0.7	1.8	8710	
HAA(SE)6302-10	900	630	590	708	229.6	208.7	165.6	137.8	114.8	104.4	173.1	166.5	104.9	0.8	94.3	93.9	92.5	93.8	14568	6.0	0.7	1.8	9310	
HAA(SE)6303-10	1000	630	590	708	254.8	231.7	183.8	152.9	127.4	115.8	192.1	184.8	116.5	0.8	94.4	94.0	92.6	93.9	16186	6.0	0.7	1.8	9710	
HAA(SE)6304-10	1120	630	590	708	284.8	258.9	205.4	170.9	142.4	129.5	214.7	206.5	130.2	0.8	94.6	94.2	92.8	94.1	18129	6.0	0.7	1.8	10100	
500rpm/600rpm 12pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																								
HAA(SE)4504-12	185	450	490	588	55.4	50.4	40.0	33.2	27.7	25.2	41.8	40.2	25.3	0.7	91.8	91.4	90.0	91.3	3606	5.5	0.8	1.8	4280	
HAA(SE)4505-12	200	450	490	588	59.8	54.3	43.1	35.9	29.9	27.2	45.1	43.3	27.3	0.7	92.0	91.6	90.2	91.5	3898	5.5	0.8	1.8	4430	
HAA(SE)5001-12	220	500	490	588	63.8	58.0	46.0	38.3	31.9	29.0	48.1	46.2	29.1	0.72	92.2	91.8	90.4	91.7	4288	5.5	0.8	1.8	5030	
HAA(SE)5002-12	250	500	490	588	72.2	65.7	52.1	43.3	36.1	32.8	54.5	52.4	33.0	0.72	92.5	92.1	90.7	92.0	4872	5.5	0.8	1.8	5200	
HAA(SE)5003-12	280	500	490	588	80.7	73.4	58.2	48.4	40.4	36.7	60.9	58.5	36.9	0.72	92.7	92.3	90.9	92.2	5457	5.5	0.8	1.8	5410	
HAA(SE)5004-12	315	500	490	588	90.7	82.5	65.4	54.4	45.4	41.2	68.4	65.8	41.5	0.72	92.8	92.4	91.0	92.3	6139	5.5	0.8	1.8	5630	
HAA(SE)5601-12	355	560	490	588	99.3	90.3	71.6	59.6	49.6	45.1	74.9	72.0	45.4	0.74	93.0	92.6	91.2	92.5	6919	6.0	0.7	1.8	6920	
HAA(SE)5602-12	400	560	490	588	111.5	101.4	80.4	66.9	55.8	50.7	84.1	80.8	51.0	0.74	93.3	92.9	91.5	92.8	7796	6.0	0.7	1.8	7100	
HAA(SE)5603-12	450	560	490	588	125.3	113.9	90.4	75.2	62.7	57.0	94.5	90.8	57.3	0.74	93.4	93.0	91.6	92.9	8770	6.0	0.7	1.8	7290	
HAA(SE)5604-12	500	560	490	588	138.8	126.2	100.1	83.3	69.4	63.1	104.6	100.6	63.4	0.74	93.7	93.3	91.9	93.2	9745	6.0	0.7	1.8	7480	
HAA(SE)6301-12	560	630	490	588	151.2	137.4	109.0	90.7	75.6	68.7	114.0	109.6	69.1	0.76	93.8	93.4	92.0	93.3	10914	6.0	0.7	1.8	9490	
HAA(SE)6302-12	630	630	490	588	169.9	154.5	122.5	101.9	84.9	77.2	128.1	123.2	77.6	0.76	93.9	93.5	92.1	93.4	12279	6.0	0.7	1.8	9690	
HAA(SE)6303-12	710	630	490	588	191.3	173.9	137.9	114.8	95.6	86.9	144.2	138.7	87.4	0.76	94.0	93.6	92.2	93.5	13838	6.0	0.7	1.8	9910	
HAA(SE)6304-12	800	630	490	588	215.1	195.5	155.1	129.0	107.5	97.8	162.2	155.9	98.3	0.76	94.2	93.8	92.4	93.7	15592	6.0	0.7	1.8	10250	

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times.

They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**.

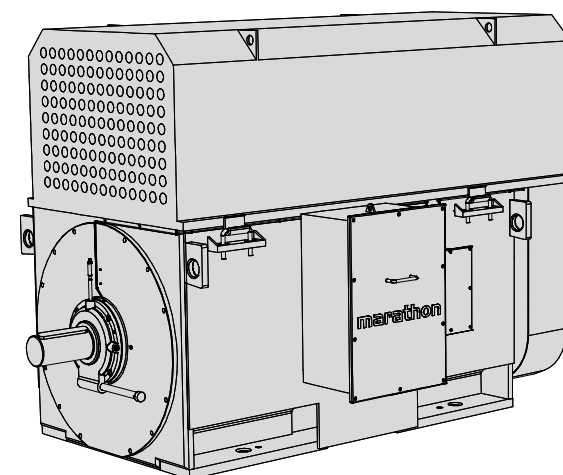
For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz: 3kV 3.3kV 4.16kV 5kV 6kV 6.6kV 10kV

60Hz: 4kV 4.16kV 6.6kV 13.8kV

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
600rpm/720rpm 10pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(SE)5003-10	220	500	595	714	17.7	12.9	0.78	92.0	91.6	90.2	91.5	3531	5.5	0.7	1.8	4910
HAA(SE)5004-10	250	500	595	714	20.0	14.6	0.78	92.3	91.9	90.5	91.8	4013	5.5	0.7	1.8	4990
HAA(SE)5005-10	280	500	595	714	22.4	16.3	0.78	92.5	92.1	90.7	92.0	4494	5.5	0.7	1.8	5130
HAA(SE)5006-10	315	500	595	714	25.3	18.5	0.78	92.0	91.6	90.2	91.5	5056	5.5	0.7	1.8	5290
HAA(SE)5601-10	355	560	595	714	28.0	20.4	0.79	92.6	92.2	90.8	92.1	5698	5.5	0.7	1.8	7240
HAA(SE)5602-10	400	560	595	714	31.5	23.0	0.79	92.8	92.4	91.0	92.3	6420	5.5	0.7	1.8	7590
HAA(SE)5603-10	450	560	595	714	35.4	25.8	0.79	93.0	92.6	91.2	92.5	7223	5.5	0.7	1.8	7980
HAA(SE)5604-10	500	560	595	714	39.1	28.5	0.79	93.5	93.1	91.7	93.0	8025	5.5	0.7	1.8	8350
HAA(SE)5605-10	560	560	595	714	43.7	31.8	0.79	93.7	93.3	91.9	93.2	8988	5.5	0.7	1.8	8750
HAA(SE)6301-10	630	630	595	714	48.4	35.2	0.80	94.0	93.6	92.2	93.5	10112	6.0	0.7	1.8	8700
HAA(SE)6302-10	710	630	595	714	54.5	39.7	0.80	94.1	93.7	92.3	93.6	11396	6.0	0.7	1.8	9000
HAA(SE)6303-10	800	630	595	714	61.3	44.7	0.80	94.2	93.8	92.4	93.7	12840	6.0	0.7	1.8	9320
HAA(SE)6304-10	900	630	595	714	68.9	50.2	0.80	94.3	93.9	92.5	93.8	14445	6.0	0.7	1.8	9720
HAA(SE)6305-10	1000	630	595	714	76.4	55.6	0.80	94.5	94.1	92.7	94.0	16050	6.0	0.7	1.8	10150
500rpm/600rpm 12pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(SE)5601-12	250	560	495	594	21.2	15.4	0.74	92.2	91.8	90.4	91.7	4823	5.5	0.7	1.8	6690
HAA(SE)5602-12	280	560	495	594	23.6	17.2	0.74	92.4	92.0	90.6	91.9	5402	5.5	0.7	1.8	6940
HAA(SE)5603-12	315	560	495	594	26.5	19.3	0.74	92.6	92.2	90.8	92.1	6077	5.5	0.7	1.8	7300
HAA(SE)5604-12	355	560	495	594	29.8	21.7	0.74	92.8	92.4	91.0	92.3	6849	5.5	0.7	1.8	7580
HAA(SE)5605-12	400	560	495	594	33.6	24.4	0.74	93.0	92.6	91.2	92.5	7717	5.5	0.7	1.8	7860
HAA(SE)6301-12	450	630	495	594	37.7	27.4	0.74	93.2	92.8	91.4	92.7	8682	6.0	0.7	1.8	9220
HAA(SE)6302-12	500	630	495	594	41.8	30.4	0.74	93.4	93.0	91.6	92.9	9646	6.0	0.7	1.8	9500
HAA(SE)6303-12	560	630	495	594	46.7	34.0	0.74	93.5	93.1	91.7	93.0	10804	6.0	0.7	1.8	9720
HAA(SE)6304-12	630	630	495	594	52.5	38.2	0.74	93.7	93.3	91.9	93.2	12155	6.0	0.7	1.8	9920
HAA(SE)6305-12	710	630	495	594	59.0	43.0	0.74	93.9	93.5	92.1	93.4	13698	6.0	0.7	1.8	10150



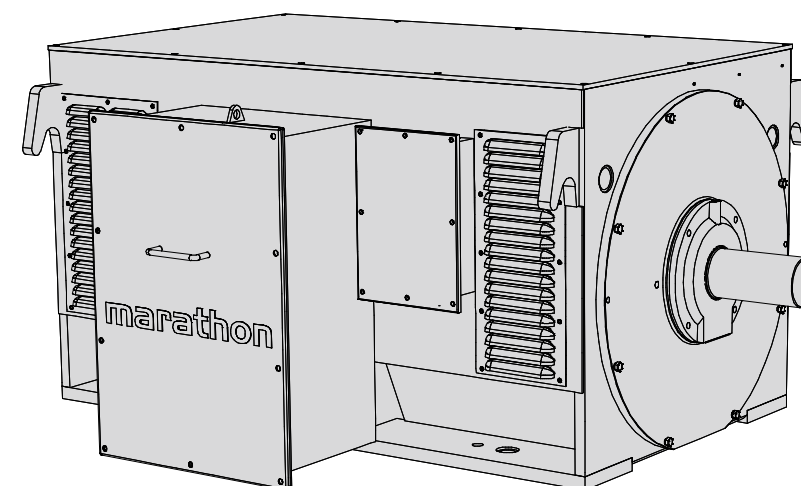
TYPE	Output	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor	Efficiency (at 50Hz)			60Hz	Rated torque	Ratio			Weight
			50Hz	60Hz	at 3kV	at 3.3kV	at 4.16kV	at 5kV	at 6kV	at 6.6kV	at 4kV	at 4.16kV	at 6.6kV		100% Load	75% Load	50% Load			Starting current	Starting torque	B/down torque	
	kW	rpm	rpm	A	A	A	A	A	A	A	A	A	cosφ	%	%	%	%	Nm					
1500rpm/1800rpm 4pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(HE)3551-4	185	355	1485	1782	44.8	40.7	32.3	26.9	22.4	20.4	33.8	32.5	20.5	0.85	93.5	92.6	90.5	93.0	1190	6.5	0.8	1.8	1560
HDP(HE)3552-4	200	355	1485	1782	48.3	43.9	34.9	29.0	24.2	22.0	36.4	35.0	22.1	0.85	93.7	92.8	90.7	93.2	1286	6.5	0.8	1.8	1650
HDP(HE)3553-4	220	355	1485	1782	53.0	48.2	38.2	31.8	26.5	24.1	40.0	38.4	24.2	0.85	94.0	93.1	91.0	93.5	1415	6.5	0.8	1.8	1780
HDP(HE)3554-4	250	355	1485	1782	60.0	54.6	43.3	36.0	30.0	27.3	45.3	43.5	27.4	0.85	94.3	93.4	91.3	93.8	1608	6.5	0.8	1.8	1900
HDP(HE)3555-4	280	355	1485	1782	66.3	60.3	47.8	39.8	33.2	30.1	50.0	48.1	30.3	0.86	94.5	93.6	91.5	94.0	1801	6.5	0.8	1.8	2070
HDP(HE)3556-4	315	355	1485	1782	74.4	67.6	53.6	44.6	37.2	33.8	56.1	53.9	34.0	0.86	94.8	93.9	91.8	94.3	2026	6.5	0.8	1.8	2320
HDP(HE)4001-4	355	400	1485	1782	83.6	76.0	60.3	50.2	41.8	38.0	63.1	60.6	38.2	0.86	95.0	94.1	92.0	94.5	2283	6.5	0.8	1.8	2250
HDP(HE)4002-4	400	400	1485	1782	94.1	85.6	67.9	56.5	47.1	42.8	71.0	68.2	43.0	0.86	95.1	94.2	92.1	94.6	2572	6.5	0.8	1.8	2320
HDP(HE)4003-4	450	400	1485	1782	105.7	96.1	76.2	63.4	52.8	48.0	79.7	76.6	48.3	0.86	95.3	94.4	92.3	94.8	2894	6.5	0.8	1.8	2450
HDP(HE)4004-4	500	400	1485	1782	115.9	105.4	83.6	69.6	58.0	52.7	87.4	84.1	53.0	0.87	95.4	94.5	92.4	94.9	3215	6.5	0.8	1.8	2530
HDP(HE)4005-4	560	400	1485	1782	129.6	117.8	93.4	77.7	64.8	58.9	97.7	93.9	59.2	0.87	95.6	94.7	92.6	95.1	3601	6.5	0.8	1.8	2630
HDP(HE)4501-4	630	450	1485	1782	145.5	132.2	104.9	87.3	72.7	66.1	109.7	105.5	66.5	0.87	95.8	94.9	92.8	95.3	4052	6.5	0.8	1.8	3390
HDP(HE)4502-4	710	450	1485	1782	163.6	148.7	118.0	98.2	81.8	74.4	123.3	118.6	74.8	0.87	96.0	95.1	93.0	95.5	4566	6.5	0.8	1.8	3490
HDP(HE)4503-4	800	450	1485	1782	184.3	167.6	132.9	110.6	92.2	83.8	139.0	133.6	84.2	0.87	96.0	95.1	93.0	95.5	5145	6.5	0.8	1.8	3600
HDP(HE)4504-4	900	450	1485	1782	207.2	188.3	149.4	124.3	103.6	94.2	156.2	150.2	94.7	0.87	96.1	95.2	93.1	95.6	5788	6.5	0.8	1.8	3750
HDP(HE)5001-4	1000	500	1485	1782	230.0	209.0	165.8	138.0	115.0	104.5	173.4	166.7	105.1	0.87	96.2	95.3	93.2	95.7	6431	6.5	0.7	1.8	5000
HDP(HE)5002-4	1120	500	1485	1782	254.4	231.2	183.4	152.6	127.2	115.6	191.8	184.4	116.2	0.88	96.3	95.4	93.3	95.8	7203	6.5	0.7	1.8	5250
HDP(HE)5003-4	1250	500	1485	1782	283.6	257.8	204.5	170.2	141.8	128.9	213.8	205.6	129.6	0.88	96.4	95.5	93.4	95.9	8039	6.5	0.7	1.8	5500
HDP(HE)5004-4	1400	500	1485	1782	317.6	288.7	229.0	190.6	158.8	144.4	239.5	230.2	145.1	0.88	96.4	95.5	93.4	95.9	9003	6.5	0.7	1.8	5750
HDP(HE)5601-4	1600	560	1485	1782	358.5	325.9	258.6	215.1	179.3	163.0	270.3	259.9	163.8	0.89	96.5	95.6	93.5	96.0	10290	6.5	0.6	1.8	6050
HDP(HE)5602-4	1800	560	1485	1782	402.9	366.3	290.6	241.8	201.5	183.2	303.8	292.1	184.1	0.89	96.6	95.7	93.6	96.1	11576	6.5	0.6	1.8	6350
HDP(HE)5603-4	2000	560	1485	1782	447.2	406.6	322.5	268.3	223.6	203.3	337.2	324.2	204.3	0.89	96.7	95.8	93.7	96.2	12862	6.5	0.6	1.8	6500
HDP(HE)6301-4	2240	630	1492	1790	500.4	454.9	360.9	300.2	250.2	227.5	377.2	362.7	228.6	0.89	96.8	95.9	93.8	96.3	14338	6.5	0.6	1.8	7550
HDP(HE)6302-4	2500	630	1492	1790	557.9	507.2	402.3	334.7	279.0	253.6	420.6	404.4	254.9	0.89	96.9	96.0	93.9	96.4	16002	6.5	0.6	1.8	7910
HDP(HE)6303-4	2800	630	1493	1792	624.8	568.0	450.6	374.9	312.4	284.0	471.1	452.9	285.5	0.89	96.9	96.0	93.9	96.4	17910	6.5	0.6	1.8	8300

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1500rpm/1800rpm 4pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(HE)400A-4	185	400	1480	1776	13.9	10.1	0.83	92.9	92.0	89.5	92.4	1194	7.0	0.7	1.8	2480
HDP(HE)400B-4	200	400	1480	1776	14.9	10.9	0.83	93.2	92.3	89.8	92.7	1291	7.0	0.7	1.8	2550
HDP(HE)4001-4	220	400	1480	1776	16.4	11.9	0.83	93.5	92.6	90.1	93.0	1420	7.0	0.7	1.8	2640
HDP(HE)4002-4	250	400	1480	1776	18.5	13.5	0.83	93.9	93.0	90.5	93.4	1613	7.0	0.7	1.8	2750
HDP(HE)4003-4	280	400	1480	1776	20.7	15.1	0.83	94.1	93.2	90.7	93.6	1807	7.0	0.7	1.8	2870
HDP(HE)4004-4	315	400	1480	1776	23.2	16.9	0.83	94.3	93.4	90.9	93.8	2033	7.0	0.7	1.8	3000
HDP(HE)4501-4	355	450	1485	1782	25.2	18.4	0.86	94.6	93.7	91.2	94.1	2283	7.0	0.7	1.8	2850
HDP(HE)4502-4	400	450	1485	1782	28.4	20.7	0.86	94.7	93.8	91.3	94.2	2572	7.0	0.7	1.8	2950
HDP(HE)4503-4	450	450	1485	1782	31.8	23.1	0.86	95.1	94.2	91.7	94.6	2894	7.0	0.7	1.8	3100
HDP(HE)4504-4	500	450	1485	1782	35.3	25.7	0.86	95.1	94.2	91.7	94.6	3215	7.0	0.7	1.8	3250
HDP(HE)4505-4	560	450	1485	1782	39.5	28.7	0.86	95.3	94.4	91.9	94.8	3601	7.0	0.7	1.8	3400
HDP(HE)4506-4	630	450	1485	1782	44.3	32.3	0.86	95.5	94.6	92.1	95.0	4052	7.0	0.7	1.8	3590
HDP(HE)5001-4	710	500	1485	1782	49.1	35.8	0.87	96.0	95.1	92.6	95.5	4566	7.0	0.7	1.8	4530
HDP(HE)5002-4	800	500	1485	1782	55.3	40.3	0.87	96.0	95.1	92.6	95.5	5145	7.0	0.7	1.8	4660
HDP(HE)5003-4	900	500	1485	1782	61.4	44.8	0.88	96.1	95.2	92.7	95.6	5788	7.0	0.7	1.8	4820
HDP(HE)5004-4	1000	500	1485	1782	68.2	49.7	0.88	96.2	95.3	92.8	95.7	6431	7.0	0.7	1.8	5110
HDP(HE)5005-4	1120	500	1485	1782	76.3	55.6	0.88	96.3	95.4	92.9	95.8	7203	7.0	0.7	1.8	5400
HDP(HE)5601-4	1250	560	1485	1782	84.1	61.3	0.89	96.4	95.5	93.0	95.9	8039	7.0	0.7	1.8	5900
HDP(HE)5602-4	1400	560	1485	1782	94.1	68.6	0.89	96.5	95.6	93.1	96.0	9003	7.0	0.7	1.8	6200
HDP(HE)5603-4	1600	560	1485	1782	107.4	78.3	0.89	96.6	95.7	93.2	96.1	10290	7.0	0.7	1.8	6500
HDP(HE)6301-4	1800	630	1492	1790	120.8	88.0	0.89	96.7	95.8	93.3	96.2	11521	7.0	0.6	1.8	7580
HDP(HE)6302-4	2000	630	1493	1792	134.0	97.6	0.89	96.8	95.9	93.4	96.3	12793	7.0	0.6	1.8	7950
HDP(HE)6303-4	2240	630	1493	1792	150.0	109.2	0.89	96.9	96.0	93.5	96.4	14328	7.0	0.6	1.8	8330



Medium Voltage - Fabricated Frame HDP Range - Open Drip-proof IP23 IC01 - 6pole & 8pole

Higher Efficiency

TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio			
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(HE)3553-6	185	355	985	1182	46.3	42.1	33.4	27.8	23.2	21.1	34.9	33.6	21.2	0.82	93.7	92.8	90.7	93.2	1794	6.0	0.8	1.8	1860
HDP(HE)3554-6	200	355	985	1182	49.9	45.4	36.0	30.0	25.0	22.7	37.7	36.2	22.8	0.82	94.0	93.1	91.0	93.5	1939	6.0	0.8	1.8	1980
HDP(HE)3555-6	220	355	985	1182	54.8	49.8	39.5	32.9	27.4	24.9	41.3	39.7	25.0	0.82	94.2	93.3	91.2	93.7	2133	6.0	0.8	1.8	2070
HDP(HE)3556-6	250	355	985	1182	62.2	56.5	44.8	37.3	31.1	28.3	46.9	45.1	28.4	0.82	94.4	93.5	91.4	93.9	2424	6.0	0.8	1.8	2190
HDP(HE)4002-6	280	400	985	1182	68.7	62.5	49.5	41.2	34.4	31.2	51.8	49.8	31.4	0.83	94.5	93.6	91.5	94.0	2715	6.0	0.8	1.8	2810
HDP(HE)4003-6	315	400	985	1182	77.0	70.0	55.6	46.2	38.5	35.0	58.1	55.9	35.2	0.83	94.8	93.9	91.8	94.3	3054	6.0	0.8	1.8	2980
HDP(HE)4004-6	355	400	985	1182	86.6	78.7	62.4	51.9	43.3	39.3	65.3	62.8	39.6	0.83	95.1	94.2	92.1	94.6	3442	6.0	0.8	1.8	3170
HDP(HE)4005-6	400	400	985	1182	97.5	88.7	70.3	58.5	48.8	44.3	73.5	70.7	44.6	0.83	95.1	94.2	92.1	94.6	3878	6.0	0.8	1.8	3320
HDP(HE)4501-6	450	450	990	1188	108.1	98.2	77.9	64.8	54.0	49.1	81.5	78.3	49.4	0.84	95.4	94.5	92.4	94.9	4341	6.0	0.8	1.8	3170
HDP(HE)4502-6	500	450	990	1188	118.4	107.7	85.4	71.1	59.2	53.8	89.3	85.8	54.1	0.85	95.6	94.7	92.6	95.1	4823	6.0	0.8	1.8	3500
HDP(HE)4503-6	560	450	990	1188	132.5	120.4	95.5	79.5	66.2	60.2	99.9	96.0	60.5	0.85	95.7	94.8	92.7	95.2	5402	6.0	0.8	1.8	3750
HDP(HE)4504-6	630	450	990	1188	148.9	135.4	107.4	89.3	74.4	67.7	112.3	107.9	68.0	0.85	95.8	94.9	92.8	95.3	6077	6.0	0.8	1.8	3920
HDP(HE)5001-6	710	500	990	1188	167.5	152.2	120.8	100.5	83.7	76.1	126.2	121.4	76.5	0.85	96.0	95.1	93.0	95.5	6849	6.0	0.7	1.8	4520
HDP(HE)5002-6	800	500	990	1188	188.7	171.5	136.1	113.2	94.3	85.8	142.3	136.8	86.2	0.85	96.0	95.1	93.0	95.5	7717	6.0	0.7	1.8	4630
HDP(HE)5003-6	900	500	990	1188	212.0	192.8	152.9	127.2	106.0	96.4	159.9	153.7	96.9	0.85	96.1	95.2	93.1	95.6	8682	6.0	0.7	1.8	4770
HDP(HE)5004-6	1000	500	990	1188	235.4	214.0	169.7	141.2	117.7	107.0	177.4	170.6	107.5	0.85	96.2	95.3	93.2	95.7	9646	6.0	0.7	1.8	4920
HDP(HE)5601-6	1120	560	991	1189	260.3	236.6	187.7	156.2	130.1	118.3	196.2	188.7	118.9	0.86	96.3	95.4	93.3	95.8	10793	6.5	0.7	1.8	6030
HDP(HE)5602-6	1250	560	991	1189	290.2	263.8	209.3	174.1	145.1	131.9	218.8	210.4	132.6	0.86	96.4	95.5	93.4	95.9	12046	6.5	0.7	1.8	6280
HDP(HE)5603-6	1400	560	991	1189	325.0	295.5	234.4	195.0	162.5	147.7	245.0	235.6	148.5	0.86	96.4	95.5	93.4	95.9	13491	6.5	0.7	1.8	6440
HDP(HE)6301-6	1600	630	993	1192	371.0	337.3	267.6	222.6	185.5	168.7	279.7	269.0	169.5	0.86	96.5	95.6	93.5	96.0	15388	6.5	0.7	1.8	7400
HDP(HE)6302-6	1800	630	994	1193	417.0	379.1	300.7	250.2	208.5	189.5	314.4	302.3	190.5	0.86	96.6	95.7	93.6	96.1	17294	6.5	0.7	1.8	7750
HDP(HE)6303-6	2000	630	994	1193	462.8	420.8	333.8	277.7	231.4	210.4	348.9	335.5	211.5	0.86	96.7	95.8	93.7	96.2	19215	6.5	0.7	1.8	8100
750rpm/900rpm 8pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HDP(HE)4003-8	220	400	740	888	57.9	52.7	41.8	34.8	29.0	26.3	43.7	42.0	26.5	0.78	93.7	92.8	90.7	93.2	2839	5.5	0.8	1.8	2780
HDP(HE)4004-8	250	400	740	888	64.9	59.0	46.8	38.9	32.4	29.5	48.9	47.0	29.6	0.79	93.9	93.0	90.9	93.4	3226	5.5	0.8	1.8	3130
HDP(HE)4005-8	280	400	740	888	72.5	65.9	52.3	43.5	36.2	32.9	54.7	52.6	33.1	0.79	94.1	93.2	91.1	93.6	3614	5.5	0.8	1.8	3410
HDP(HE)4501-8	315	450	740	888	80.3	73.0	57.9	48.2	40.1	36.5	60.5	58.2	36.7	0.8	94.4	93.5	91.4	93.9	4065	5.5	0.8	1.8	3130
HDP(HE)4502-8	355	450	740	888	90.2	82.0	65.0	54.1	45.1	41.0	68.0	65.4	41.2	0.8	94.7	93.8	91.7	94.2	4581	5.5	0.8	1.8	3350
HDP(HE)4503-8	400	450	740	888	101.4	92.2	73.1	60.8	50.7	46.1	76.5	73.5	46.3	0.8	94.9	94.0	91.9	94.4	5162	5.5	0.8	1.8	3430
HDP(HE)4504-8	450	450	740	888	112.5	102.3	81.2	67.5	56.3	51.2	84.9	81.6	51.4	0.81	95.0	94.1	92.0	94.5	5807	5.5	0.8	1.8	3650
HDP(HE)5001-8	500	500	740	888	124.5	113.2	89.8	74.7	62.3	56.6	93.9	90.3	56.9	0.81	95.4	94.5	92.4	94.9	6453	5.5	0.8	1.8	4310
HDP(HE)5002-8	560	500	740	888	137.6	125.1	99.2	82.6	68.8	62.6	103.8	99.8	62.9	0.82	95.5	94.6	92.5	95.0	7227	5.5	0.8	1.8	4570
HDP(HE)5003-8	630	500	740	888	154.7	140.6	111.5	92.8	77.3	70.3	116.6	112.1	70.7	0.82	95.6	94.7	92.6	95.1	8130	5.5	0.8	1.8	4910
HDP(HE)5004-8	710	500	740	888	174.3	158.5	125.7	104.6	87.2	79.2	131.4	126.4	79.6	0.82	95.6	94.7	92.6	95.1	9163	5.5	0.8	1.8	5190
HDP(HE)5601-8	800	560	740	888	191.5	174.1	138.1	114.9	95.8	87.1	144.4	138.8	87.5	0.84	95.7	94.8	92.7	95.2	10324	6.0	0.7	1.8	5920
HDP(HE)5602-8	900	560	740	888	215.2	195.7	155.2	129.1	107.6	97.8	162.3	156.0	98.4	0.84	95.8	94.9	92.8	95.3	11615	6.0	0.7	1.8	6180
HDP(HE)5603-8	1000	560	740	888	238.9	217.2	172.3	143.3	119.5	108.6	180.1	173.2	109.2	0.84	95.9	95.0	92.9	95.4	12905	6.0	0.7	1.8	6440
HDP(HE)6301-8	1120	630	744	893	267.3	243.0	192.8	160.4	133.6	121.5	201.5	193.8	122.1	0.84	96.0	95.1	93.0	95.5	14376	6.0	0.7	1.8	7780
HDP(HE)6302-8	1250	630	744	893	298.3	271.2	215.1	179.0	149.2	135.6	224.9	216.3	136.3	0.84	96.0	95.1	93.0	95.5	16045	6.0	0.7	1.8	8100
HDP(HE)6303-8	1400	630	744	893	333.8	303.4	240.7	200.3	166.9	151.7	251.6	242.0	152.5	0.84	96.1	95.2	93.1	95.6	17970	6.0	0.7	1.8	8380
HDP(HE)6304-8	1600	630	744	893	381.1	346.4	274.8	228.6	190.5	173.2	287.3	276.2	174.1	0.84	96.2	95.3	93.2	95.7	20538	6.0	0.7	1.8	8660

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(HE)4503-6	315	450	990	1188	23.6	17.2	0.82	93.8	92.9	90.4	93.3	3039	6.0	0.7	1.8	3270
HDP(HE)4504-6	355	450	990	1188	26.2	19.1	0.83	94.4	93.5	91.0	93.9	3424	6.0	0.7	1.8	3400
HDP(HE)4505-6	400	450	990	1188	29.4	21.4	0.83	94.6	93.7	91.2	94.1	3859	6.0	0.7	1.8	3530
HDP(HE)4506-6	450	450	990	1188	33.1	24.1	0.83	94.7	93.8	91.3	94.2	4341	6.0	0.7	1.8	3680
HDP(HE)5001-6	500	500	995	1194	36.6	26.6	0.83	95.1	94.2	91.7	94.6	4799	6.0	0.7	1.8	4460
HDP(HE)5002-6	560	500	995	1194	40.4	29.5	0.84	95.2	94.3	91.8	94.7	5375	6.0	0.7	1.8	4630
HDP(HE)5003-6	630	500	995	1194	45.3	33.0	0.84	95.5	94.6	92.1	95.0	6047	6.0	0.7	1.8	4770
HDP(HE)5004-6	710	500	995	1194	51.0	37.2	0.84	95.6	94.7	92.2	95.1	6815	6.0	0.7	1.8	5000
HDP(HE)5005-6	800	500	995	1194	57.5	41.9	0.84	95.7	94.8	92.3	95.2	7678	6.0	0.7	1.8	5400
HDP(HE)5601-6	900	560	990	1188	63.7	46.4	0.85	95.9	95.0	92.5	95.4	8682	6.0	0.7	1.8	5700
HDP(HE)5602-6	1000	560	990	1188	70.8	51.5	0.85	96.0	95.1	92.6	95.5	9646	6.0	0.7	1.8	5930
HDP(HE)5603-6	1120	560	990	1188	79.1	57.6	0.85	96.2	95.3	92.8	95.7	10804	6.0	0.7	1.8	6180
HDP(HE)5604-6	1250	560	990	1188	87.1	63.5	0.86	96.3	95.4	92.9	95.8	12058	6.0	0.7	1.8	6430
HDP(HE)6301-6	1400	630	995	1194	97.4	70.9	0.86	96.5	95.6	93.1	96.0	13437	6.0	0.6	1.8	7420
HDP(HE)6302-6	1600	630	995	1194	111.2	81.0	0.86	96.6	95.7	93.2	96.1	15357	6.0	0.6	1.8	7780
HDP(HE)6303-6	1800	630	995	1194	125.1	91.1	0.86	96.6	95.7	93.2	96.1	17276	6.0	0.6	1.8	8100
750rpm/900rpm 8pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(HE)500B-8	280	500	740	888	22.3	16.3	0.77	94.0	93.1	90.6	93.5	3614	6.0	0.7	1.8	4050
HDP(HE)5001-8	315	500	740	888	25.1	18.3	0.77	94.2	93.3	90.8	93.7	4065	6.0	0.7	1.8	4150
HDP(HE)5002-8	355	500	740	888	28.2	20.5	0.77	94.4	93.5	91.0	93.9	4581	6.0	0.7	1.8	4470
HDP(HE)5003-8	400	500	740	888	31.3	22.8	0.78	94.6	93.7	91.2	94.1	5162	6.0	0.7	1.8	4560
HDP(HE)5004-8	450	500	740	888	35.2	25.7	0.78	94.6	93.7	91.2	94.1	5807	6.0	0.7	1.8	4850
HDP(HE)5005-8	500	500	740	888	38.5	28.0	0.79	95.0	94.1	91.6	94.5	6453	6.0	0.7	1.8	4970
HDP(HE)5006-8	560	500	740	888	43.0	31.4	0.79	95.1	94.2	91.7	94.6	7227	6.0	0.7	1.8	5120
HDP(HE)5601-8	630	560	740	888	46.4	33.8	0.82	95.5	94.6	92.1	95.0	8130	6.0	0.7	1.8	5570
HDP(HE)5602-8	710	560	740	888	52.3	38.1	0.82	95.6	94.7	92.2	95.1	9163	6.0	0.7	1.8	5820
HDP(HE)5603-8	800	560	740	888	58.9	42.9	0.82	95.7	94.8	92.3	95.2	10324	6.0	0.7	1.8	6080
HDP(HE)5604-8	900	560	740	888	66.1	48.2	0.82	95.8	94.9	92.4	95.3	11615	6.0	0.7	1.8	6350
HDP(HE)6301-8	1000	630	744	893	72.5	52.8	0.83	96.0	95.1	92.6	95.5	12836	6.0	0.7	1.8	7800
HDP(HE)6302-8	1120	630	744	893	81.1	59.1	0.83	96.1	95.2	92.7	95.6	14376	6.0	0.7	1.8	8100
HDP(HE)6303-8	1250	630	745	894	90.4	65.8	0.83	96.2	95.3	92.8	95.7	16023	6.0	0.7	1.8	8400

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			

TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio				
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque		Weight kg
600rpm/720rpm 10pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																								
HDP(HE)4501-10	220	450	590	708	59.1	53.8	42.6	35.5	29.6	26.9	44.6	42.9	27.0	0.77	93.0	92.1	90.0	92.5	3561	5.5	0.8	1.8	2930	
HDP(HE)4502-10	250	450	590	708	66.2	60.2	47.7	39.7	33.1	30.1	49.9	48.0	30.2	0.78	93.2	92.3	90.2	92.7	4047	5.5	0.8	1.8	3130	
HDP(HE)4503-10	280	450	590	708	74.0	67.2	53.3	44.4	37.0	33.6	55.8	53.6	33.8	0.78	93.4	92.5	90.4	92.9	4532	5.5	0.8	1.8	3210	
HDP(HE)4504-10	315	450	590	708	82.0	74.5	59.1	49.2	41.0	37.3	61.8	59.4	37.5	0.79	93.6	92.7	90.6	93.1	5099	5.5	0.8	1.8	3290	
HDP(HE)4505-10	355	450	590	708	91.8	83.5	66.2	55.1	45.9	41.7	69.2	66.6	42.0	0.79	94.2	93.3	91.2	93.7	5746	5.5	0.8	1.8	3430	
HDP(HE)5001-10	400	500	590	708	101.7	92.5	73.4	61.0	50.9	46.2	76.7	73.7	46.5	0.8	94.6	93.7	91.6	94.1	6475	5.5	0.8	1.8	4140	
HDP(HE)5002-10	450	500	590	708	114.4	104.0	82.5	68.7	57.2	52.0	86.3	83.0	52.3	0.8	94.6	93.7	91.6	94.1	7284	5.5	0.8	1.8	4290	
HDP(HE)5003-10	500	500	590	708	126.9	115.3	91.5	76.1	63.4	57.7	95.7	92.0	58.0	0.8	94.8	93.9	91.8	94.3	8093	5.5	0.8	1.8	4480	
HDP(HE)5004-10	560	500	590	708	142.0	129.1	102.4	85.2	71.0	64.5	107.0	102.9	64.9	0.8	94.9	94.0	91.9	94.4	9064	5.5	0.8	1.8	4650	
HDP(HE)5005-10	630	500	590	708	159.5	145.0	115.0	95.7	79.8	72.5	120.3	115.7	72.9	0.8	95.0	94.1	92.0	94.5	10197	5.5	0.8	1.8	4830	
HDP(HE)5601-10	710	560	590	708	175.2	159.3	126.4	105.1	87.6	79.6	132.1	127.0	80.1	0.82	95.1	94.2	92.1	94.6	11492	6.0	0.7	1.8	6280	
HDP(HE)5602-10	800	560	590	708	197.0	179.1	142.1	118.2	98.5	89.6	148.5	142.8	90.0	0.82	95.3	94.4	92.3	94.8	12949	6.0	0.7	1.8	6670	
HDP(HE)5603-10	900	560	590	708	221.4	201.3	159.7	132.9	110.7	100.6	166.9	160.5	101.2	0.82	95.4	94.5	92.4	94.9	14568	6.0	0.7	1.8	7060	
HDP(HE)6301-10	1000	630	594	713	245.8	223.4	177.2	147.5	122.9	111.7	185.3	178.2	112.3	0.82	95.5	94.6	92.5	95.0	16077	6.0	0.7	1.8	7800	
HDP(HE)6302-10	1120	630	594	713	275.0	250.0	198.3	165.0	137.5	125.0	207.3	199.3	125.6	0.82	95.6	94.7	92.6	95.1	18007	6.0	0.7	1.8	8150	
HDP(HE)6303-10	1250	630	594	713	306.2	278.4	220.8	183.7	153.1	139.2	230.9	222.0	139.9	0.82	95.8	94.9	92.8	95.3	20097	6.0	0.7	1.8	8430	
HDP(HE)6304-10	1400	630	594	713	342.6	311.5	247.1	205.6	171.3	155.7	258.3	248.4	156.6	0.82	95.9	95.0	92.9	95.4	22508	6.0	0.7	1.8	8760	
500rpm/600rpm 12pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																								
HDP(HE)4504-12	220	450	490	588	62.8	57.1	45.3	37.7	31.4	28.5	47.3	45.5	28.7	0.73	92.4	91.5	89.4	91.9	4288	5.5	0.8	1.8	3540	
HDP(HE)4505-12	250	450	490	588	71.1	64.6	51.3	42.7	35.5	32.3	53.6	51.6	32.5	0.73	92.7	91.8	89.7	92.2	4872	5.5	0.8	1.8	3720	
HDP(HE)5001-12	280	500	490	588	77.6	70.5	55.9	46.5	38.8	35.3	58.5	56.2	35.4	0.74	93.9	93.0	90.9	93.4	5457	5.5	0.8	1.8	4250	
HDP(HE)5002-12	315	500	490	588	85.9	78.1	61.9	51.5	42.9	39.0	64.8	62.3	39.3	0.75	94.1	93.2	91.1	93.6	6139	5.5	0.8	1.8	4420	
HDP(HE)5003-12	355	500	490	588	96.6	87.8	69.7	58.0	48.3	43.9	72.8	70.0	44.1	0.75	94.3	93.4	91.3	93.8	6919	5.5	0.8	1.8	4590	
HDP(HE)5004-12	400	500	490	588	108.5	98.6	78.2	65.1	54.3	49.3	81.8	78.7	49.6	0.75	94.6	93.7	91.6	94.1	7796	5.5	0.8	1.8	4870	
HDP(HE)5005-12	450	500	490	588	122.1	111.0	88.0	73.2	61.0	55.5	92.0	88.5	55.8	0.75	94.6	93.7	91.6	94.1	8770	5.5	0.8	1.8	5060	
HDP(HE)5601-12	500	560	490	588	128.4	116.7	92.6	77.0	64.2	58.3	96.8	93.1	58.7	0.79	94.9	94.0	91.9	94.4	9745	6.0	0.7	1.8	5790	
HDP(HE)5602-12	560	560	490	588	143.6	130.5	103.6	86.2	71.8	65.3	108.3	104.1	65.6	0.79	95.0	94.1	92.0	94.5	10914	6.0	0.7	1.8	6040	
HDP(HE)5603-12	630	560	490	588	161.4	146.7	116.4	96.8	80.7	73.4	121.7	117.0	73.7	0.79	95.1	94.2	92.1	94.6	12279	6.0	0.7	1.8	6290	
HDP(HE)6301-12	710	630	494	593	181.9	165.3	131.2	109.1	90.9	82.7	137.1	131.9	83.1	0.79	95.1	94.2	92.1	94.6	13726	6.0	0.7	1.8	7730	
HDP(HE)6302-12	800	630	494	593	204.5	185.9	147.5	122.7	102.3	93.0	154.2	148.3	93.4	0.79	95.3	94.4	92.3	94.8	15466	6.0	0.7	1.8	8050	
HDP(HE)6303-12	900	630	494	593	229.8	208.9	165.7	137.9	114.9	104.5	173.3	166.6	105.0	0.79	95.4	94.5	92.4	94.9	17399	6.0	0.7	1.8	8320	
HDP(HE)6304-12	1000	630	494	593	255.1	231.9	184.0	153.1	127.5	116.0	192.3	184.9	116.6	0.79	95.5	94.6	92.5	95.0	19332	6.0	0.7	1.8	8590	

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times.

They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**.

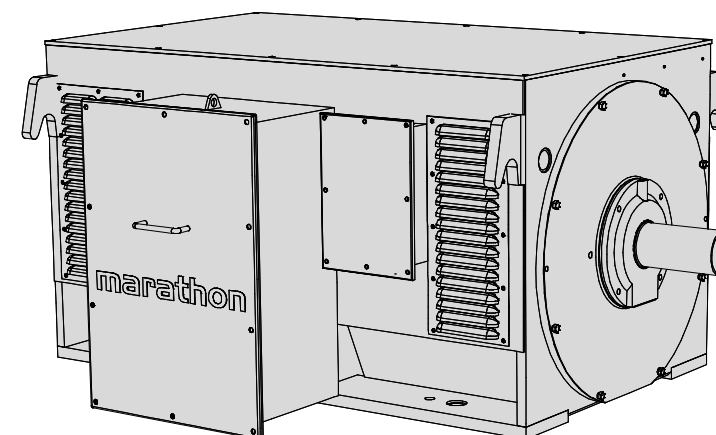
For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages

50Hz: 3kV 3.3kV 4.16kV 5kV 6kV 6.6kV 10kV

60Hz: 4kV 4.16kV 6.6kV 13.8kV

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
600rpm/720rpm 10pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(HE)5002-10	250	500	595	714	20.8	15.2	0.74	93.6	92.7	90.2	93.1	4013	5.5	0.7	1.8	4100
HDP(HE)5003-10	280	500	595	714	23.3	17.0	0.74	93.8	92.9	90.4	93.3	4494	5.5	0.7	1.8	4240
HDP(HE)5004-10	315	500	595	714	26.1	19.0	0.74	94.0	93.1	90.6	93.5	5056	5.5	0.7	1.8	4400
HDP(HE)5005-10	355	500	595	714	29.0	21.1	0.75	94.2	93.3	90.8	93.7	5698	5.5	0.7	1.8	4620
HDP(HE)5006-10	400	500	595	714	32.7	23.8	0.75	94.3	93.4	90.9	93.8	6420	5.5	0.7	1.8	4850
HDP(HE)5601-10	450	560	590	708	35.7	26.0	0.77	94.5	93.6	91.1	94.0	7284	6.0	0.7	1.8	5540
HDP(HE)5602-10	500	560	590	708	39.6	28.9	0.77	94.6	93.7	91.2	94.1	8093	6.0	0.7	1.8	5870
HDP(HE)5603-10	560	560	590	708	43.8	31.9	0.78	94.7	93.8	91.3	94.2	9064	6.0	0.7	1.8	6280
HDP(HE)5604-10	630	560	590	708	49.1	35.8	0.78	94.9	94.0	91.5	94.4	10197	6.0	0.7	1.8	6680
HDP(HE)5605-10	710	560	590	708	55.3	40.3	0.78	95.1	94.2	91.7	94.6	11492	6.0	0.7	1.8	7050
HDP(HE)6301-10	800	630	594	713	60.5	44.1	0.8	95.4	94.5	92.0	94.9	12862	6.0	0.7	1.8	7800
HDP(HE)6302-10	900	630	593	712	67.9	49.5	0.8	95.6	94.7	92.2	95.1	14494	6.0	0.7	1.8	8120
HDP(HE)6303-10	1000	630	593	712	75.5	55.0	0.8	95.6	94.7	92.2	95.1	16105	6.0	0.7	1.8	8420
HDP(HE)6304-10	1120	630	593	712	84.5	61.5	0.8	95.7	94.8	92.3	95.2	18037	6.0	0.7	1.8	8780
500rpm/600rpm 12pole, IP23, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HDP(HE)5601-12	315	560	490	588	26.6	19.4	0.73	93.7	92.8	90.3	93.2	6139	6.0	0.7	1.8	5580
HDP(HE)5602-12	355	560	490	588	29.9	21.8	0.73	93.9	93.0	90.5	93.4	6919	6.0	0.7	1.8	5790
HDP(HE)5603-12	400	560	490	588	33.6	24.5	0.73	94.1	93.2	90.7	93.6	7796	6.0	0.7	1.8	6040
HDP(HE)5604-12	450	560	490	588	37.8	27.5	0.73	94.2	93.3	90.8	93.7	8770	6.0	0.7	1.8	6280
HDP(HE)5605-12	500	560	490	588	41.8	30.5	0.73	94.5	93.6	91.1	94.0	9745	6.0	0.7	1.8	6530
HDP(HE)6301-12	560	630	492	590	46.1	33.6	0.74	94.7	93.8	91.3	94.2	10870	6.0	0.7	1.8	7730
HDP(HE)6302-12	630	630	493	592	51.8	37.7	0.74	94.9	94.0	91.5	94.4	12204	6.0	0.7	1.8	8050
HDP(HE)6303-12	710	630	493	592	58.3	42.4	0.74	95.1	94.2	91.7	94.6	13754	6.0	0.7	1.8	8320
HDP(HE)6304-12	800	630	492	590	65.5	47.7	0.74	95.3	94.4	91.9	94.8	15528	6.0	0.7	1.8	8650



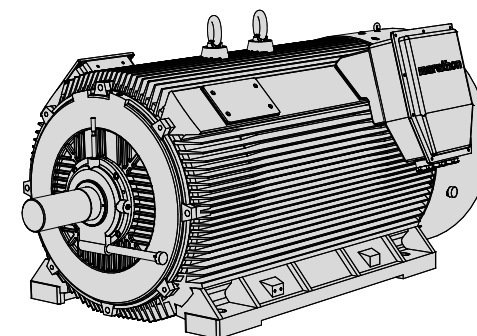
TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque	
3000rpm/3600rpm 2pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(HE)3551-2	185	355	2980	3576	45.0	40.9	32.5	27.0	22.5	20.5	34.0	32.7	20.6	0.84	94.1	93.5	91.7	93.6	593	7.0	0.7	2.0	1900
HCM(HE)3552-2	200	355	2980	3576	48.6	44.2	35.0	29.2	24.3	22.1	36.6	35.2	22.2	0.84	94.3	93.7	91.9	93.8	641	7.0	0.7	2.0	2000
HCM(HE)3553-2	220	355	2980	3576	53.4	48.5	38.5	32.0	26.7	24.3	40.3	38.7	24.4	0.84	94.4	93.8	92.0	93.9	705	7.0	0.7	2.0	2100
HCM(HE)3553-2	250	355	2980	3576	60.5	55.0	43.7	36.3	30.3	27.5	45.7	43.9	27.7	0.84	94.6	94.0	92.2	94.1	801	7.0	0.7	2.0	2200
HCM(HE)3555-2	280	355	2980	3576	66.2	60.2	47.7	39.7	33.1	30.1	49.9	48.0	30.2	0.86	94.7	94.1	92.3	94.2	897	7.0	0.7	2.0	2350
HCM(HE)4001-2	315	400	2980	3576	74.4	67.7	53.7	44.7	37.2	33.8	56.1	54.0	34.0	0.86	94.7	94.1	92.3	94.2	1009	7.0	0.7	2.0	2900
HCM(HE)4002-2	355	400	2980	3576	83.8	76.2	60.4	50.3	41.9	38.1	63.2	60.8	38.3	0.86	94.8	94.2	92.4	94.3	1138	7.0	0.7	2.0	3000
HCM(HE)4003-2	400	400	2980	3576	94.0	85.5	67.8	56.4	47.0	42.7	70.9	68.2	43.0	0.86	95.2	94.6	92.8	94.7	1282	7.0	0.7	2.0	3100
HCM(HE)4004-2	450	400	2980	3576	105.6	96.0	76.1	63.3	52.8	48.0	79.6	76.5	48.2	0.86	95.4	94.8	93.0	94.9	1442	7.0	0.7	2.0	3200
HCM(HE)4501-2	500	450	2982	3578	115.7	105.2	83.4	69.4	57.8	52.6	87.2	83.9	52.9	0.87	95.6	95.0	93.2	95.1	1601	7.0	0.7	2.0	3500
HCM(HE)4502-2	560	450	2982	3578	129.4	117.7	93.4	77.7	64.7	58.8	97.6	93.8	59.1	0.87	95.7	95.1	93.3	95.2	1793	7.0	0.7	2.0	3600
HCM(HE)4503-2	630	450	2982	3578	145.5	132.2	104.9	87.3	72.7	66.1	109.7	105.5	66.5	0.87	95.8	95.2	93.4	95.3	2018	7.0	0.7	2.0	3700
HCM(HE)4504-2	710	450	2982	3578	163.8	148.9	118.1	98.3	81.9	74.4	123.5	118.7	74.8	0.87	95.9	95.3	93.5	95.4	2274	7.0	0.7	2.0	3850
HCM(HE)5001-2	800	500	2982	3578	182.1	165.5	131.3	109.2	91.0	82.8	137.3	132.0	83.2	0.88	96.1	95.5	93.7	95.6	2562	7.0	0.7	2.0	5780
HCM(HE)5002-2	900	500	2982	3578	204.6	186.0	147.6	122.8	102.3	93.0	154.3	148.3	93.5	0.88	96.2	95.6	93.8	95.7	2882	7.0	0.7	2.0	6050
HCM(HE)5003-2	1000	500	2982	3578	227.1	206.5	163.8	136.3	113.6	103.2	171.2	164.6	103.8	0.88	96.3	95.7	93.9	95.8	3203	7.0	0.7	2.0	6320
HCM(HE)5004-2	1120	500	2982	3578	254.1	231.0	183.2	152.5	127.0	115.5	191.6	184.2	116.1	0.88	96.4	95.8	94.0	95.9	3587	7.0	0.7	2.0	6600
1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(HE)3551-4	185	355	1485	1782	44.9	40.9	32.4	27.0	22.5	20.4	33.9	32.6	20.5	0.84	94.3	93.7	91.9	93.8	1190	6.5	0.8	2.0	1900
HCM(HE)3552-4	200	355	1485	1782	48.6	44.2	35.0	29.2	24.3	22.1	36.6	35.2	22.2	0.84	94.3	93.7	91.9	93.8	1286	6.5	0.8	2.0	2000
HCM(HE)3553-4	220	355	1485	1782	53.3	48.5	38.5	32.0	26.7	24.2	40.2	38.7	24.4	0.84	94.5	93.9	92.1	94.0	1415	6.5	0.8	2.0	2100
HCM(HE)3554-4	250	355	1485	1782	60.5	55.0	43.7	36.3	30.3	27.5	45.7	43.9	27.7	0.84	94.6	94.0	92.2	94.1	1608	6.5	0.8	2.0	2200
HCM(HE)3555-4	280	355	1485	1782	67.7	61.6	48.9	40.6	33.9	30.8	51.1	49.1	31.0	0.84	94.7	94.1	92.3	94.2	1801	6.5	0.8	2.0	2300
HCM(HE)4001-4	315	400	1485	1782	75.2	68.3	54.2	45.1	37.6	34.2	56.7	54.5	34.3	0.85	94.9	94.3	92.5	94.4	2026	6.5	0.8	2.0	3000
HCM(HE)4002-4	355	400	1485	1782	84.6	76.9	61.0	50.8	42.3	38.5	63.8	61.3	38.7	0.85	95.0	94.4	92.6	94.5	2283	6.5	0.8	2.0	3100
HCM(HE)4003-4	400	400	1485	1782	95.2	86.6	68.7	57.1	47.6	43.3	71.8	69.0	43.5	0.85	95.1	94.5	92.7	94.6	2572	6.5	0.8	2.0	3200
HCM(HE)4004-4	450	400	1485	1782	106.9	97.2	77.1	64.1	53.5	48.6	80.6	77.5	48.9	0.85	95.3	94.7	92.9	94.8	2894	6.5	0.8	2.0	3300
HCM(HE)4501-4	500	450	1485	1782	117.3	106.6	84.6	70.4	58.6	53.3	88.4	85.0	53.6	0.86	95.4	94.8	93.0	94.9	3215	6.5	0.8	2.0	3600
HCM(HE)4502-4	560	450	1485	1782	131.1	119.2	94.5	78.7	65.5	59.6	98.8	95.0	59.9	0.86	95.6	95.0	93.2	95.1	3601	6.5	0.8	2.0	3700
HCM(HE)4503-4	630	450	1485	1782	147.2	133.8	106.1	88.3	73.6	66.9	111.0	106.7	67.2	0.86	95.8	95.2	93.4	95.3	4052	6.5	0.8	2.0	3800
HCM(HE)4504-4	710	450	1485	1782	165.5	150.5	119.4	99.3	82.8	75.2	124.8	120.0	75.6	0.86	96.0	95.4	93.6	95.5	4566	6.5	0.8	2.0	3950
HCM(HE)5001-4	800	500	1488	1786	186.5	169.5	134.5	111.9	93.2	84.8	140.6	135.2	85.2	0.86	96.0	95.4	93.6	95.5	5134	6.5	0.8	2.0	5820
HCM(HE)5002-4	900	500	1488	1786	209.6	190.5	151.1	125.7	104.8	95.3	158.0	151.9	95.8	0.86	96.1	95.5	93.7	95.6	5776	6.5	0.8	2.0	6100
HCM(HE)5003-4	1000	500	1488	1786	232.6	211.5	167.8	139.6	116.3	105.7	175.4	168.6	106.3	0.86	96.2	95.6	93.8	95.7	6418	6.5	0.8	2.0	6280
HCM(HE)5004-4	1120	500	1488	1786	260.3	236.6	187.7	156.2	130.1	118.3	196.2	188.7	118.9	0.86	96.3	95.7	93.9	95.8	7188	6.5	0.8	2.0	6420
HCM(HE)5601-4	1250	560	1488	1786	286.8	260.8	206.9	172.1	143.4	130.4	216.3	207.9	131.1	0.87	96.4	95.8	94.0	95.9	8023	6.5	0.7	2.0	8020
HCM(HE)5602-4	1400	560	1488	1786	321.3	292.1	231.7	192.8	160.6	146.0	242.2	232.9	146.8	0.87	96.4	95.8	94.0	95.9	8985	6.5	0.7	2.0	8390
HCM(HE)5603-4	1600	560	1488	1786	366.8	333.4	264.5	220.1	183.4	166.7	276.5	265.9	167.6	0.87	96.5	95.9	94.1	96.0	10269	6.5	0.7	2.0	8750
HCM(HE)5604-4	1800	560	1488	1786	412.2	374.7	297.3	247.3	206.1	187.4	310.8	298.8	188.3	0.87	96.6	96.0	94.2	96.1	11552	6.5	0.7	2.0	9100

TYPE	Output kW	Frame Size	Speed		Current		Power Factor	Efficiency (at 50Hz)			60Hz Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			100% Load %	Starting current	Starting torque	
3000rpm/3600rpm 2pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(HE)4001-2	220	400	2980	3576	16.1	11.7	0.84	94.2	93.5	91.8	93.7	705	7.0	0.7	2.0	2900
HCM(HE)4002-2	250	400	2980	3576	18.2	13.3	0.84	94.4	93.7	92.0	93.9	801	7.0	0.7	2.0	3000
HCM(HE)4003-2	280	400	2980	3576	20.1	14.6	0.85	94.6	93.9	92.2	94.1	897	7.0	0.7	2.0	3100
HCM(HE)4004-2	315	400	2980	3576	22.6	16.4	0.85	94.8	94.1	92.4	94.3	1009	7.0	0.7	2.0	3200
HCM(HE)4501-2	355	450	2982	3578	25.1	18.3	0.86	95.0	94.3	92.6	94.5	1137	7.0	0.7	2.0	3500
HCM(HE)4502-2	400	450	2982	3578	28.2	20.5	0.86	95.2	94.5	92.8	94.7	1281	7.0	0.7	2.0	3600
HCM(HE)4503-2	450	450	2982	3578	31.7	23.1	0.86	95.4	94.7	93.0	94.9	1441	7.0	0.7	2.0	3700
HCM(HE)4504-2	500	450	2982	3578	35.1	25.6	0.86	95.5	94.8	93.1	95.0	1601	7.0	0.7	2.0	3850
HCM(HE)5001-2	560	500	2985	3582	38.9	28.3	0.87	95.6	94.9	93.2	95.1	1792	7.0	0.7	2.0	5500
HCM(HE)5002-2	630	500	2985	3582	43.7	31.9	0.87	95.6	94.9	93.2	95.1	2016	7.0	0.7	2.0	5780
HCM(HE)5003-2	710	500	2985	3582	49.2	35.9	0.87	95.7	95.0	93.3	95.2	2272	7.0	0.7	2.0	6050
HCM(HE)5004-2	800	500	2985	3582	54.8	39.9	0.88	95.8	95.1	93.4	95.3	2559	7.0	0.7	2.0	6320
HCM(HE)5005-2	900	500	2985	3582	61.6	44.9	0.88	95.9	95.2	93.5	95.4	2879	7.0	0.7	2.0	6600
1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(HE)4001-4	220	400	1482	1778	16.1	11.7	0.84	94.0	93.3	91.6	93.5	1418	6.5	0.8	2.0	3000
HCM(HE)4002-4	250	400	1482	1778	18.3	13.3	0.84	94.1	93.4	91.7	93.6	1611	6.5	0.8	2.0	3100
HCM(HE)4003-4	280	400	1482	1778	20.4	14.9	0.84	94.2	93.5	91.8	93.7	1804	6.5	0.8	2.0	3200
HCM(HE)4004-4	315	400	1482	1778	22.9	16.7	0.84	94.4	93.7	92.0	93.9	2030	6.5	0.8	2.0	3300
HCM(HE)4501-4	355	450	1485	1782	25.5	18.6	0.85	94.6	93.9	92.2	94.1	2283	6.5	0.8	2.0	3500
HCM(HE)4502-4	400	450	1485	1782	28.7	20.9	0.85	94.7	94.0	92.3	94.2	2572	6.5	0.8	2.0	3600
HCM(HE)4503-4	450	450	1485	1782	32.1	23.4	0.85	95.1	94.4	92.7	94.6	2894	6.5	0.8	2.0	3700
HCM(HE)4504-4	500	450	1485	1782	35.3	25.7	0.86	95.1	94.4	92.7	94.6	3215	6.5	0.8	2.0	3800
HCM(HE)4505-4	560	450	1485	1782	39.5	28.7	0.86	95.3	94.6	92.9	94.8	3601	6.5	0.8	2.0	3950
HCM(HE)5001-4	630	500	1488	1786	44.3	32.3	0.86	95.5	94.8	93.1	95.0	4043	6.5	0.8	2.0	5820
HCM(HE)5002-4	710	500	1488	1786	49.7	36.2	0.86	96.0	95.3	93.6	95.5	4557	6.5	0.8	2.0	6100
HCM(HE)5003-4	800	500	1488	1786	55.3	40.3	0.87	96.0	95.3	93.6	95.5	5134	6.5	0.8	2.0	6280
HCM(HE)5004-4	900	500	1488	1786	62.2	45.3	0.87	96.1	95.4	93.7	95.6	5776	6.5	0.8	2.0	6420
HCM(HE)5601-4	1000	560	1488	1786	69.8	50.8	0.86	96.2	95.5	93.8	95.7	6418	6.5	0.7	2.0	8020
HCM(HE)5602-4	1120	560	1488	1786	78.1	56.9	0.86	96.3	95.6	93.9	95.8	7188	6.5	0.7	2.0	8390
HCM(HE)5603-4	1250	560	1488	1786	86.1	62.7	0.87	96.4	95.7	94.0	95.9	8023	6.5	0.7	2.0	8750
HCM(HE)5604-4	1400	560	1488	1786	96.3	70.1	0.87	96.5	95.8	94.1	96.0	8985	6.5	0.7	2.0	9100

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

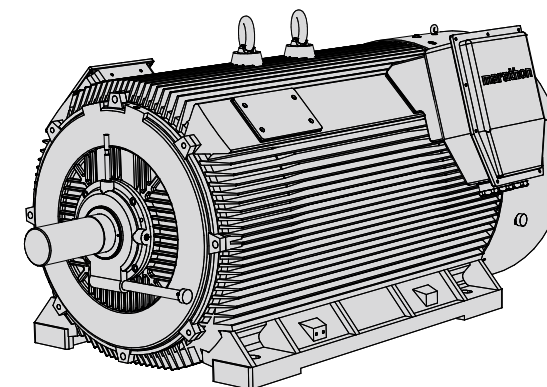
"Standard Line" Voltages

50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
60Hz:	4kV	4.16kV	6.6kV	13.8kV			



TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(HE)3551-6	160	355	985	1182	41.1	37.4	29.7	24.7	20.6	18.7	31.0	29.8	18.8	0.80	93.6	93.0	91.2	93.1	1551	6.0	0.8	2.0	2200
HCM(HE)3552-6	185	355	985	1182	47.4	43.1	34.2	28.5	23.7	21.6	35.8	34.4	21.7	0.80	93.8	93.2	91.4	93.3	1794	6.0	0.8	2.0	2300
HCM(HE)3553-6	200	355	985	1182	51.2	46.5	36.9	30.7	25.6	23.3	38.6	37.1	23.4	0.80	94.0	93.4	91.6	93.5	1939	6.0	0.8	2.0	2400
HCM(HE)4001-6	220	400	988	1186	54.8	49.8	39.5	32.9	27.4	24.9	41.3	39.7	25.0	0.82	94.3	93.7	91.9	93.8	2127	6.0	0.8	2.0	2900
HCM(HE)4002-6	250	400	988	1186	62.1	56.4	44.8	37.3	31.0	28.2	46.8	45.0	28.4	0.82	94.5	93.9	92.1	94.0	2416	6.0	0.8	2.0	3000
HCM(HE)4003-6	280	400	988	1186	69.4	63.1	50.0	41.6	34.7	31.5	52.3	50.3	31.7	0.82	94.7	94.1	92.3	94.2	2706	6.0	0.8	2.0	3200
HCM(HE)4004-6	315	400	988	1186	77.9	70.8	56.2	46.7	39.0	35.4	58.7	56.5	35.6	0.82	94.9	94.3	92.5	94.4	3045	6.0	0.8	2.0	3400
HCM(HE)4501-6	355	450	988	1186	86.6	78.7	62.4	51.9	43.3	39.3	65.3	62.8	39.6	0.83	95.1	94.5	92.7	94.6	3431	6.0	0.8	2.0	3500
HCM(HE)4502-6	400	450	988	1186	97.5	88.7	70.3	58.5	48.8	44.3	73.5	70.7	44.6	0.83	95.1	94.5	92.7	94.6	3866	6.0	0.8	2.0	3600
HCM(HE)4503-6	450	450	988	1186	109.4	99.4	78.9	65.6	54.7	49.7	82.5	79.3	50.0	0.83	95.4	94.8	93.0	94.9	4350	6.0	0.8	2.0	3700
HCM(HE)4504-6	500	450	988	1186	121.3	110.2	87.5	72.8	60.6	55.1	91.4	87.9	55.4	0.83	95.6	95.0	93.2	95.1	4833	6.0	0.8	2.0	3820
HCM(HE)5001-6	560	500	990	1188	135.7	123.3	97.8	81.4	67.8	61.7	102.3	98.4	62.0	0.83	95.7	95.1	93.3	95.2	5402	6.0	0.8	2.0	5610
HCM(HE)5002-6	630	500	990	1188	152.5	138.6	110.0	91.5	76.2	69.3	115.0	110.5	69.7	0.83	95.8	95.2	93.4	95.3	6077	6.0	0.8	2.0	5790
HCM(HE)5003-6	710	500	990	1188	171.5	155.9	123.7	102.9	85.7	78.0	129.3	124.3	78.4	0.83	96.0	95.4	93.6	95.5	6849	6.0	0.8	2.0	6010
HCM(HE)5004-6	800	500	990	1188	193.2	175.7	139.3	115.9	96.6	87.8	145.7	140.1	88.3	0.83	96.0	95.4	93.6	95.5	7717	6.0	0.8	2.0	6230
HCM(HE)5601-6	900	560	990	1188	214.6	195.1	154.7	128.7	107.3	97.5	161.8	155.5	98.0	0.84	96.1	95.5	93.7	95.6	8682	6.0	0.7	2.0	7650
HCM(HE)5602-6	1000	560	990	1188	238.2	216.5	171.8	142.9	119.1	108.3	179.6	172.7	108.8	0.84	96.2	95.6	93.8	95.7	9646	6.0	0.7	2.0	7950
HCM(HE)5603-6	1120	560	990	1188	266.5	242.2	192.2	159.9	133.2	121.1	200.9	193.2	121.8	0.84	96.3	95.7	93.9	95.8	10804	6.0	0.7	2.0	8250
HCM(HE)5604-6	1250	560	990	1188	297.1	270.1	214.2	178.3	148.5	135.0	224.0	215.4	135.7	0.84	96.4	95.8	94.0	95.9	12058	6.0	0.7	2.0	8550
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HCM(HE)4001-8	160	400	738	886	43.4	39.4	31.3	26.0	21.7	19.7	32.7	31.5	19.8	0.76	93.4	92.8	91.0	92.9	2070	5.5	0.8	2.0	3000
HCM(HE)4002-8	185	400	738	886	50.1	45.5	36.1	30.1	25.1	22.8	37.8	36.3	22.9	0.76	93.5	92.9	91.1	93.0	2394	5.5	0.8	2.0	3100
HCM(HE)4003-8	200	400	738	886	53.3	48.5	38.5	32.0	26.7	24.2	40.2	38.7	24.4	0.77	93.7	93.1	91.3	93.2	2588	5.5	0.8	2.0	3200
HCM(HE)4004-8	220	400	738	886	58.6	53.2	42.2	35.1	29.3	26.6	44.2	42.5	26.8	0.77	93.9	93.3	91.5	93.4	2847	5.5	0.8	2.0	3300
HCM(HE)4501-8	250	450	740	888	65.6	59.6	47.3	39.3	32.8	29.8	49.4	47.5	30.0	0.78	94.1	93.5	91.7	93.6	3226	5.5	0.8	2.0	3500
HCM(HE)4502-8	280	450	740	888	73.3	66.6	52.8	44.0	36.6	33.3	55.2	53.1	33.5	0.78	94.3	93.7	91.9	93.8	3614	5.5	0.8	2.0	3600
HCM(HE)4503-8	315	450	740	888	82.2	74.8	59.3	49.3	41.1	37.4	62.0	59.6	37.6	0.78	94.5	93.9	92.1	94.0	4065	5.5	0.8	2.0	3700
HCM(HE)4504-8	355	450	740	888	92.5	84.1	66.7	55.5	46.2	42.0	69.7	67.1	42.3	0.78	94.7	94.1	92.3	94.2	4581	5.5	0.8	2.0	3820
HCM(HE)5001-8	400	500	742	890	102.7	93.3	74.1	61.6	51.3	46.7	77.4	74.4	46.9	0.79	94.9	94.3	92.5	94.4	5148	5.5	0.8	2.0	5250
HCM(HE)5002-8	450	500	742	890	115.4	104.9	83.2	69.2	57.7	52.5	87.0	83.7	52.7	0.79	95.0	94.4	92.6	94.5	5792	5.5	0.8	2.0	5490
HCM(HE)5003-8	500	500	742	890	126.1	114.6	90.9	75.7	63.0	57.3	95.1	91.4	57.6	0.80	95.4	94.8	93.0	94.9	6435	5.5	0.8	2.0	5750
HCM(HE)5004-8	560	500	742	890	141.1	128.2	101.7	84.6	70.5	64.1	106.4	102.3	64.5	0.80	95.5	94.9	93.1	95.0	7208	5.5	0.8	2.0	6020
HCM(HE)5601-8	630	560	745	894	156.6	142.3	112.9	93.9	78.3	71.2	118.1	113.5	71.5	0.81	95.6	95.0	93.2	95.1	8076	5.5	0.7	2.0	7000
HCM(HE)5602-8	710	560	745	894	176.5	160.4	127.3	105.9	88.2	80.2	133.0	127.9	80.6	0.81	95.6	95.0	93.2	95.1	9101	5.5	0.7	2.0	7350
HCM(HE)5603-8	800	560	745	894	198.6	180.6	143.2	119.2	99.3	90.3	149.7	144.0	90.8	0.81	95.7	95.1	93.3	95.2	10255	5.5	0.7	2.0	7700
HCM(HE)5604-8	900	560	745	894	223.2	202.9	161.0	133.9	111.6	101.5	168.3	161.8	102.0	0.81	95.8	95.2	93.4	95.3	11537	5.5	0.7	2.0	8100

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(HE)4501-6	220	450	985	1182	16.5	12.1	0.82	93.6	92.9	91.2	93.1	2133	6.0	0.8	2.0	3400
HCM(HE)4502-6	250	450	985	1182	18.8	13.7	0.82	93.8	93.1	91.4	93.3	2424	6.0	0.8	2.0	3500
HCM(HE)4503-6	280	450	985	1182	21.0	15.3	0.82	94.0	93.3	91.6	93.5	2715	6.0	0.8	2.0	3600
HCM(HE)4504-6	315	450	985	1182	23.5	17.2	0.82	94.2	93.5	91.8	93.7	3054	6.0	0.8	2.0	3700
HCM(HE)4505-6	355	450	985	1182	26.5	19.3	0.82	94.4	93.7	92.0	93.9	3442	6.0	0.8	2.0	3820
HCM(HE)5001-6	400	500	985	1182	29.4	21.4	0.83	94.6	93.9	92.2	94.1	3878	6.0	0.8	2.0	5450
HCM(HE)5002-6	450	500	988	1186	33.1	24.1	0.83	94.7	94.0	92.3	94.2	4350	6.0	0.8	2.0	5610
HCM(HE)5003-6	500	500	988	1186	36.6	26.6	0.83	95.1	94.4	92.7	94.6	4833	6.0	0.8	2.0	5790
HCM(HE)5004-6	560	500	990	1188	40.9	29.8	0.83	95.2	94.5	92.8	94.7	5402	6.0	0.8	2.0	6010
HCM(HE)5005-6	630	500	990	1188	45.9	33.4	0.83	95.5	94.8	93.1	95.0	6077	6.0	0.8	2.0	6230
HCM(HE)5601-6	710	560	992	1190	51.7	37.6	0.83	95.6	94.9	93.2	95.1	6835	6.0	0.7	2.0	7400
HCM(HE)5602-6	800	560	992	1190	58.2	42.4	0.83	95.7	95.0	93.3	95.2	7702	6.0	0.7	2.0	7650
HCM(HE)5603-6	900	560	992	1190	64.5	47.0	0.84	95.9	95.2	93.5	95.4	8664	6.0	0.7	2.0	7950
HCM(HE)5604-6	1000	560	992	1190	71.6	52.2	0.84	96.0	95.3	93.6	95.5	9627	6.0	0.7	2.0	8250
HCM(HE)5605-6	1120	560	992	1190	80.0	58.3	0.84	96.2	95.5	93.8	95.7	10782	6.0	0.7	2.0	8550
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HCM(HE)4501-8	220	450	740	888	17.4	12.7	0.78	93.6	92.9	91.2	93.1	2839	5.5	0.8	2.0	3600
HCM(HE)4502-8	250	450	740	888	19.7	14.4	0.78	93.8	93.1	91.4	93.3	3226	5.5	0.8	2.0	3700
HCM(HE)4503-8	280	450	740	888	22.0	16.1	0.78	94.0	93.3	91.6	93.5	3614	5.5	0.8	2.0	3820
HCM(HE)5001-8	315	500	742	890	24.8	18.0	0.78	94.2	93.5	91.8	93.7	4054	5.5	0.8	2.0	5250
HCM(HE)5002-8	355	500	742	890	27.8	20.3	0.78	94.4	93.7	92.0	93.9	4569	5.5	0.8	2.0	5490
HCM(HE)5003-8	400	500	742	890	30.9	22.5	0.79	94.5	93.8	92.1	94.0	5148	5.5	0.8	2.0	5750
HCM(HE)5004-8	450	500	742	890	34.8	25.3	0.79	94.6	93.9	92.2	94.1	5792	5.5	0.8	2.0	6020
HCM(HE)5601-8	500	560	745	894	38.0	27.7	0.80	95.0	94.3	92.6	94.5	6409	5.5	0.7	2.0	6650
HCM(HE)5602-8	560	560	745	894	42.5	31.0	0.80	95.1	94.4	92.7	94.6	7179	5.5	0.7	2.0	7000
HCM(HE)5603-8	630	560	745	894	47.0	34.3	0.81	95.5	94.8	93.1	95.0	8076	5.5	0.7	2.0	7350
HCM(HE)5604-8	710	560	745	894	52.9	38.6	0.81	95.6	94.9	93.2	95.1	9101	5.5	0.7	2.0	7700
HCM(HE)5605-8	800	560	745	894	59.6	43.4	0.81	95.7	95.0	93.3	95.2	10255	5.5	0.7	2.0	8100

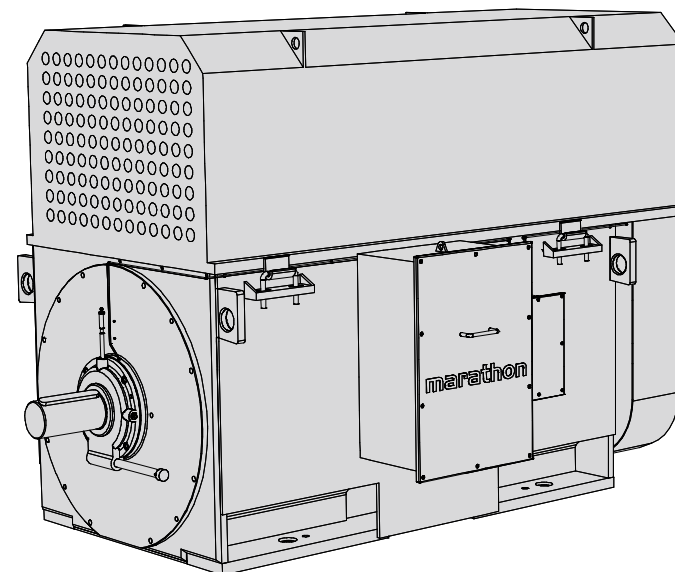


TYPE	Output	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
	kW	1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																					
HAA(HE)3551-4	185	355	1485	1782	44.7	40.6	32.2	26.8	22.3	20.3	33.7	32.4	20.4	0.85	93.8	93.1	91.4	93.3	1190	6.5	0.7	1.8	2150
HAA(HE)3552-4	200	355	1480	1776	48.2	43.8	34.7	28.9	24.1	21.9	36.3	34.9	22.0	0.85	94.0	93.3	91.6	93.5	1291	6.5	0.7	1.8	2210
HAA(HE)3553-4	220	355	1480	1776	52.9	48.1	38.1	31.7	26.4	24.0	39.9	38.3	24.2	0.85	94.2	93.5	91.8	93.7	1420	6.5	0.7	1.8	2300
HAA(HE)3554-4	250	355	1480	1776	60.0	54.5	43.2	36.0	30.0	27.3	45.2	43.5	27.4	0.85	94.4	93.7	92.0	93.9	1613	6.5	0.7	1.8	2390
HAA(HE)4002-4	280	400	1485	1782	66.5	60.5	48.0	39.9	33.3	30.2	50.2	48.2	30.4	0.86	94.2	93.5	91.8	93.7	1801	6.5	0.7	1.8	3090
HAA(HE)4003-4	315	400	1485	1782	74.5	67.7	53.7	44.7	37.3	33.9	56.2	54.0	34.1	0.86	94.6	93.9	92.2	94.1	2026	6.5	0.7	1.8	3190
HAA(HE)4004-4	355	400	1485	1782	83.9	76.3	60.5	50.3	41.9	38.1	63.3	60.8	38.3	0.86	94.7	94.0	92.3	94.2	2283	6.5	0.7	1.8	3290
HAA(HE)4005-4	400	400	1485	1782	0.9	0.9	0.7	0.6	0.5	0.4	0.7	0.7	0.4	86	94.9	94.2	92.5	94.4	2572	6.5	0.7	1.8	3400
HAA(HE)4006-4	450	400	1485	1782	105.9	96.3	76.4	63.5	52.9	48.1	79.8	76.8	48.4	0.86	95.1	94.4	92.7	94.6	2894	6.5	0.7	1.8	3510
HAA(HE)4502-4	500	450	1485	1782	117.7	107.0	84.8	70.6	58.8	53.5	88.7	85.3	53.8	0.86	95.1	94.4	92.7	94.6	3215	6.5	0.7	1.8	3800
HAA(HE)4503-4	560	450	1485	1782	131.5	119.5	94.8	78.9	65.8	59.8	99.1	95.3	60.1	0.86	95.3	94.6	92.9	94.8	3601	6.5	0.7	1.8	3890
HAA(HE)4504-4	630	450	1485	1782	147.6	134.2	106.5	88.6	73.8	67.1	111.3	107.0	67.5	0.86	95.5	94.8	93.1	95.0	4052	6.5	0.7	1.8	4030
HAA(HE)4505-4	710	450	1485	1782	166.2	151.1	119.9	99.7	83.1	75.5	125.3	120.5	75.9	0.86	95.6	94.9	93.2	95.1	4566	6.5	0.7	1.8	4140
HAA(HE)5001-4	800	500	1485	1782	184.7	167.9	133.2	110.8	92.4	84.0	139.3	133.9	84.4	0.87	95.8	94.9	92.7	95.3	5145	6.5	0.7	1.8	5340
HAA(HE)5002-4	900	500	1485	1782	207.6	188.7	149.7	124.6	103.8	94.4	156.5	150.5	94.9	0.87	95.9	95.0	92.8	95.4	5788	6.5	0.7	1.8	5500
HAA(HE)5003-4	1000	500	1485	1782	230.4	209.5	166.2	138.3	115.2	104.7	173.7	167.0	105.3	0.87	96.0	95.1	92.9	95.5	6431	6.5	0.7	1.8	5850
HAA(HE)5004-4	1120	500	1485	1782	258.1	234.6	186.1	154.8	129.0	117.3	194.6	187.1	117.9	0.87	96.0	95.1	92.9	95.5	7203	6.5	0.7	1.8	6120
HAA(HE)5601-4	1250	560	1485	1782	284.5	258.6	205.1	170.7	142.2	129.3	214.5	206.2	130.0	0.88	96.1	95.2	93.0	95.6	8039	6.5	0.6	1.8	7500
HAA(HE)5602-4	1400	560	1485	1782	318.3	289.3	229.5	191.0	159.1	144.7	240.0	230.7	145.4	0.88	96.2	95.3	93.1	95.7	9003	6.5	0.6	1.8	7600
HAA(HE)5603-4	1600	560	1485	1782	363.4	330.3	262.0	218.0	181.7	165.2	273.9	263.4	166.0	0.88	96.3	95.4	93.2	95.8	10290	6.5	0.6	1.8	7730
HAA(HE)6301-4	1800	630	1485	1782	408.4	371.2	294.5	245.0	204.2	185.6	307.9	296.0	186.6	0.88	96.4	95.5	93.3	95.9	11576	6.5	0.6	1.8	9400
HAA(HE)6302-4	2000	630	1485	1782	453.7	412.5	327.2	272.2	226.9	206.2	342.1	328.9	207.3	0.88	96.4	95.5	93.3	95.9	12862	6.5	0.6	1.8	9800
HAA(HE)6303-4	2240	630	1485	1782	507.7	461.5	366.1	304.6	253.8	230.8	382.7	368.0	232.0	0.88	96.5	95.6	93.4	96.0	14405	6.5	0.6	1.8	10300

"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times. They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**. For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages	50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
	60Hz:	4kV	4.16kV	6.6kV	13.8kV			

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1500rpm/1800rpm 4pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(HE)4001-4	200	400	1485	1782	14.9	10.9	0.83	93.1	92.2	89.9	92.6	1286	7.0	0.7	1.8	2950
HAA(HE)4002-4	220	400	1485	1782	16.4	11.9	0.83	93.4	92.5	90.2	92.9	1415	7.0	0.7	1.8	3035
HAA(HE)4003-4	250	400	1485	1782	18.6	13.5	0.83	93.6	92.7	90.4	93.1	1608	7.0	0.7	1.8	3130
HAA(HE)4501-4	280	450	1485	1782	20.0	14.6	0.86	94.0	93.1	90.8	93.5	1801	7.0	0.7	1.8	3435
HAA(HE)4502-4	315	450	1485	1782	22.4	16.3	0.86	94.3	93.4	91.1	93.8	2026	7.0	0.7	1.8	3495
HAA(HE)4503-4	355	450	1485	1782	25.3	18.4	0.86	94.3	93.4	91.1	93.8	2283	7.0	0.7	1.8	3615
HAA(HE)4504-4	400	450	1485	1782	28.4	20.7	0.86	94.4	93.5	91.2	93.9	2572	7.0	0.7	1.8	3660
HAA(HE)4505-4	450	450	1485	1782	31.9	23.2	0.86	94.8	93.9	91.6	94.3	2894	7.0	0.7	1.8	3740
HAA(HE)4506-4	500	450	1485	1782	35.4	25.8	0.86	94.8	93.9	91.6	94.3	3215	7.0	0.7	1.8	3880
HAA(HE)5001-4	560	500	1485	1782	39.1	28.5	0.87	95.0	94.1	91.8	94.5	3601	7.0	0.7	1.8	5180
HAA(HE)5002-4	630	500	1485	1782	43.9	32.0	0.87	95.2	94.3	92.0	94.7	4052	7.0	0.7	1.8	5430
HAA(HE)5003-4	710	500	1485	1782	49.2	35.9	0.87	95.7	94.8	92.5	95.2	4566	7.0	0.7	1.8	5690
HAA(HE)5004-4	800	500	1485	1782	55.5	40.4	0.87	95.7	94.8	92.5	95.2	5145	7.0	0.7	1.8	5940
HAA(HE)5005-4	900	500	1485	1782	62.3	45.4	0.87	95.8	94.9	92.6	95.3	5788	7.0	0.7	1.8	6240
HAA(HE)5601-4	1000	560	1490	1788	69.2	50.4	0.87	95.9	95.0	92.7	95.4	6409	6.5	0.6	1.8	8610
HAA(HE)5602-4	1120	560	1490	1788	77.4	56.4	0.87	96.0	95.1	92.8	95.5	7179	6.5	0.6	1.8	9010
HAA(HE)5603-4	1250	560	1490	1788	86.3	62.9	0.87	96.1	95.2	92.9	95.6	8012	6.5	0.6	1.8	9510
HAA(HE)5604-4	1400	560	1490	1788	96.6	70.4	0.87	96.2	95.3	93.0	95.7	8973	6.5	0.6	1.8	9700
HAA(HE)6302-4	1600	630	1492	1790	109.0	79.4	0.88	96.3	95.4	93.1	95.8	10241	6.5	0.6	1.8	9900
HAA(HE)6303-4	1800	630	1492	1790	122.5	89.2	0.88	96.4	95.5	93.2	95.9	11521	6.5	0.6	1.8	10100
HAA(HE)6304-4	2000	630	1492	1790	136.0	99.0	0.88	96.5	95.6	93.3	96.0	12802	6.5	0.6	1.8	10300



TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HAA(HE)355A-6	185	355	985	1182	46.2	42.0	33.3	27.7	23.1	21.0	34.9	33.5	21.1	0.82	93.9	93.2	91.5	93.4	1794	6.0	0.7	1.8	2280
HAA(HE)355B-6	200	355	985	1182	49.9	45.3	36.0	29.9	24.9	22.7	37.6	36.2	22.8	0.82	94.1	93.4	91.7	93.6	1939	6.0	0.7	1.8	2380
HAA(HE)4003-6	220	400	990	1188	55.0	50.0	39.7	33.0	27.5	25.0	41.5	39.9	25.2	0.82	93.8	93.1	91.4	93.3	2122	6.0	0.7	1.8	3100
HAA(HE)4004-6	250	400	990	1188	62.4	56.7	45.0	37.5	31.2	28.4	47.1	45.3	28.5	0.82	94.0	93.3	91.6	93.5	2412	6.0	0.7	1.8	3220
HAA(HE)4005-6	280	400	990	1188	69.7	63.4	50.3	41.8	34.8	31.7	52.5	50.5	31.8	0.82	94.3	93.6	91.9	93.8	2701	6.0	0.7	1.8	3350
HAA(HE)4006-6	315	400	990	1188	78.2	71.1	56.4	46.9	39.1	35.6	59.0	56.7	35.8	0.82	94.5	93.8	92.1	94.0	3039	6.0	0.7	1.8	3500
HAA(HE)4502-6	355	450	985	1182	86.7	78.9	62.6	52.0	43.4	39.4	65.4	62.9	39.6	0.83	94.9	94.2	92.5	94.4	3442	6.0	0.7	1.8	4210
HAA(HE)4503-6	400	450	985	1182	97.6	88.8	70.4	58.6	48.8	44.4	73.6	70.8	44.6	0.83	95.0	94.3	92.6	94.5	3878	6.0	0.7	1.8	4310
HAA(HE)4504-6	450	450	985	1182	109.6	99.6	79.0	65.8	54.8	49.8	82.6	79.5	50.1	0.83	95.2	94.5	92.8	94.7	4363	6.0	0.7	1.8	4540
HAA(HE)4505-6	500	450	985	1182	121.5	110.5	87.6	72.9	60.8	55.2	91.6	88.1	55.5	0.83	95.4	94.7	93.0	94.9	4848	6.0	0.7	1.8	4680
HAA(HE)5001-6	560	500	990	1188	134.3	122.1	96.9	80.6	67.2	61.1	101.3	97.4	61.4	0.84	95.5	94.6	92.4	95.0	5402	6.0	0.7	1.8	5100
HAA(HE)5002-6	630	500	990	1188	151.0	137.3	108.9	90.6	75.5	68.6	113.8	109.5	69.0	0.84	95.6	94.7	92.5	95.1	6077	6.0	0.7	1.8	5200
HAA(HE)5003-6	710	500	990	1188	169.8	154.4	122.5	101.9	84.9	77.2	128.0	123.1	77.6	0.84	95.8	94.9	92.7	95.3	6849	6.0	0.7	1.8	5340
HAA(HE)5004-6	800	500	990	1188	191.1	173.8	137.8	114.7	95.6	86.9	144.1	138.6	87.3	0.84	95.9	95.0	92.8	95.4	7717	6.0	0.7	1.8	5490
HAA(HE)5601-6	900	560	990	1188	212.3	193.0	153.1	127.4	106.1	96.5	160.0	153.9	97.0	0.85	96.0	95.1	92.9	95.5	8682	6.5	0.7	1.8	7050
HAA(HE)5602-6	1000	560	990	1188	235.9	214.4	170.1	141.5	117.9	107.2	177.8	171.0	107.8	0.85	96.0	95.1	92.9	95.5	9646	6.5	0.7	1.8	7250
HAA(HE)5603-6	1120	560	990	1188	263.9	239.9	190.3	158.3	131.9	119.9	198.9	191.3	120.6	0.85	96.1	95.2	93.0	95.6	10804	6.5	0.7	1.8	7450
HAA(HE)6301-6	1250	630	990	1188	290.8	264.3	209.7	174.5	145.4	132.2	219.2	210.8	132.9	0.86	96.2	95.3	93.1	95.7	12058	6.5	0.7	1.8	9600
HAA(HE)6302-6	1400	630	990	1188	325.3	295.8	234.6	195.2	162.7	147.9	245.3	235.8	148.7	0.86	96.3	95.4	93.2	95.8	13505	6.5	0.7	1.8	10100
HAA(HE)6303-6	1600	630	990	1188	371.4	337.7	267.9	222.9	185.7	168.8	280.0	269.3	169.7	0.86	96.4	95.5	93.3	95.9	15434	6.5	0.7	1.8	10500
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HAA(HE)4003-8	185	400	740	888	48.8	44.4	35.2	29.3	24.4	22.2	36.8	35.4	22.3	0.78	93.5	92.8	91.1	93.0	2388	5.5	0.8	1.8	3230
HAA(HE)4004-8	200	400	740	888	52.7	47.9	38.0	31.6	26.3	23.9	39.7	38.2	24.1	0.78	93.7	93.0	91.3	93.2	2581	5.5	0.8	1.8	3400
HAA(HE)4005-8	220	400	740	888	57.8	52.6	41.7	34.7	28.9	26.3	43.6	41.9	26.4	0.78	93.9	93.2	91.5	93.4	2839	5.5	0.8	1.8	3560
HAA(HE)4502-8	250	450	740	888	64.8	58.9	46.7	38.9	32.4	29.5	48.9	47.0	29.6	0.79	94.0	93.3	91.6	93.5	3226	5.5	0.8	1.8	4110
HAA(HE)4503-8	280	450	740	888	72.4	65.8	52.2	43.4	36.2	32.9	54.6	52.5	33.1	0.79	94.2	93.5	91.8	93.7	3614	5.5	0.8	1.8	4350
HAA(HE)4504-8	315	450	740	888	81.3	73.9	58.6	48.8	40.6	37.0	61.3	58.9	37.1	0.79	94.4	93.7	92.0	93.9	4065	5.5	0.8	1.8	4610
HAA(HE)4505-8	355	450	740	888	91.3	83.0	65.9	54.8	45.7	41.5	68.9	66.2	41.7	0.79	94.7	94.0	92.3	94.2	4581	5.5	0.8	1.8	4850
HAA(HE)5001-8	400	500	740	888	101.4	92.2	73.1	60.8	50.7	46.1	76.5	73.5	46.3	0.8	94.9	94.0	91.8	94.4	5162	5.5	0.8	1.8	4970
HAA(HE)5002-8	450	500	740	888	114.0	103.6	82.2	68.4	57.0	51.8	85.9	82.6	52.1	0.8	95.0	94.1	91.9	94.5	5807	5.5	0.8	1.8	5140
HAA(HE)5003-8	500	500	740	888	126.2	114.7	91.0	75.7	63.1	57.4	95.2	91.5	57.7	0.8	95.3	94.4	92.2	94.8	6453	5.5	0.8	1.8	5330
HAA(HE)5004-8	560	500	740	888	141.1	128.2	101.7	84.6	70.5	64.1	106.4	102.3	64.5	0.8	95.5	94.6	92.4	95.0	7227	5.5	0.8	1.8	5520
HAA(HE)5601-8	630	560	740	888	154.7	140.6	111.5	92.8	77.3	70.3	116.6	112.1	70.7	0.82	95.6	94.7	92.5	95.1	8130	6.0	0.7	1.8	7300
HAA(HE)5602-8	710	560	740	888	174.3	158.5	125.7	104.6	87.2	79.2	131.4	126.4	79.6	0.82	95.6	94.7	92.5	95.1	9163	6.0	0.7	1.8	7525
HAA(HE)5603-8	800	560	740	888	196.2	178.4	141.5	117.7	98.1	89.2	147.9	142.2	89.6	0.82	95.7	94.8	92.6	95.2	10324	6.0	0.7	1.8	7750
HAA(HE)6301-8	900	630	740	888	215.2	195.7	155.2	129.1	107.6	97.8	162.3	156.0	98.4	0.84	95.8	94.9	92.7	95.3	11615	6.0	0.7	1.8	9140
HAA(HE)6302-8	1000	630	740	888	238.9	217.2	172.3	143.3	119.5	108.6	180.1	173.2	109.2	0.84	95.9	95.0	92.8	95.4	12905	6.0	0.7	1.8	9410
HAA(HE)6303-8	1120	630	740	888	267.3	243.0	192.8	160.4	133.6	121.5	201.5	193.8	122.1	0.84	96.0	95.1	92.9	95.5	14454	6.0	0.7	1.8	9910
HAA(HE)6304-8	1250	630	740	888	298.3	271.2	215.1	179.0	149.2	135.6	224.9	216.3	136.3	0.84	96.0	95.1	92.9	95.5	16132	6.0	0.7	1.8	10300

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
1000rpm/1200rpm 6pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(HE)4503-6	250	450	980	1176	18.8	13.7	0.82	93.6	92.7	90.4	93.1	2436	6.0	0.7	1.8	4990
HAA(HE)4504-6	280	450	980	1176	21.0	15.3	0.82	93.9	93.0	90.7	93.4	2729	6.0	0.7	1.8	5140
HAA(HE)4505-6	315	450	980	1176	23.5	17.2	0.82	94.2	93.3	91.0	93.7	3070	6.0	0.7	1.8	5300
HAA(HE)4506-6	355	450	980	1176	26.5	19.3	0.82	94.2	93.3	91.0	93.7	3459	6.0	0.7	1.8	5520
HAA(HE)5001-6	400	500	995	1194	29.1	21.2	0.84	94.4	93.5	91.2	93.9	3839	6.5	0.7	1.8	5010
HAA(HE)5002-6	450	500	995	1194	32.7	23.8	0.84	94.5	93.6	91.3	94.0	4319	6.5	0.7	1.8	5160
HAA(HE)5003-6	500	500	995	1194	36.2	26.4	0.84	94.9	94.0	91.7	94.4	4799	6.5	0.7	1.8	6350
HAA(HE)5004-6	560	500	995	1194	40.5	29.5	0.84	95.0	94.1	91.8	94.5	5375	6.5	0.7	1.8	5540
HAA(HE)5005-6	630	500	995	1194	45.4	33.1	0.84	95.3	94.4	92.1	94.8	6047	6.5	0.7	1.8	5750
HAA(HE)5601-6	710	560	995	1194	50.6	36.8	0.85	95.4	94.5	92.2	94.9	6815	6.5	0.7	1.8	8260
HAA(HE)5602-6	800	560	995	1194	56.9	41.4	0.85	95.5	94.6	92.3	95.0	7678	6.5	0.7	1.8	8780
HAA(HE)5603-6	900	560	995	1194	63.9	46.5	0.85	95.7	94.8	92.5	95.2	8638	6.5	0.7	1.8	9330
HAA(HE)5604-6	1000	560	995	1194	70.9	51.6	0.85	95.8	94.9	92.6	95.3	9598	6.5	0.7	1.8	9820
HAA(HE)6301-6	1120	630	995	1194	78.3	57.1	0.86	96.0	95.1	92.8	95.5	10750	6.0	0.6	1.8	9400
HAA(HE)6302-6	1250	630	995	1194	87.3	63.6	0.86	96.1	95.2	92.9	95.6	11997	6.0	0.6	1.8	9900
HAA(HE)6303-6	1400	630	995	1194	97.6	71.1	0.86	96.3	95.4	93.1	95.8	13437	6.0	0.6	1.8	10400
HAA(HE)6304-6	1600	630	995	1194	111.4	81.2	0.86	96.4	95.5	93.2	95.9	15357	6.0	0.6	1.8	10900
750rpm/900rpm 8pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(HE)4501-8	200	450	745	894	16.6	12.1	0.75	93.0	92.1	89.8	92.5	2564	5.5	0.7	1.8	4960
HAA(HE)4502-8	220	450	745	894	18.2	13.2	0.75	93.3	92.4	90.1	92.8	2820	5.5	0.7	1.8	5080
HAA(HE)5001-8	250	500	745	894	19.9	14.5	0.77	94.0	93.1	90.8	93.5	3205	6.0	0.7	1.8	5100
HAA(HE)5002-8	280	500	745	894	22.3	16.2	0.77	94.2	93.3	91.0	93.7	3589	6.0	0.7	1.8	5250
HAA(HE)5003-8	315	500	745	894	24.7	18.0	0.78	94.5	93.6	91.3	94.0	4038	6.0	0.7	1.8	5420
HAA(HE)5004-8	355	500	745	894	27.8	20.3	0.78	94.4	93.5	91.2	93.9	4551	6.0	0.7	1.8	5570
HAA(HE)5005-8	400	500	745	894	30.9	22.5	0.79	94.5	93.6	91.3	94.0	5128	6.0	0.7	1.8	5720
HAA(HE)5006-8	450	500	745	894	34.8	25.3	0.79	94.6	93.7	91.4	94.1	5768	6.0	0.7	1.8	5880
HAA(HE)5007-8	500	500	745	894	38.5	28.0	0.79	95.0	94.1	91.8	94.5	6409	6.0	0.7	1.8	6040
HAA(HE)5602-8	560	560	745	894	42.5	31.0	0.80	95.1	94.2	91.9	94.6	7179	6.0	0.7	1.8	8160
HAA(HE)5603-8	630	560	745	894	47.0	34.3	0.81	95.5	94.6	92.3	95.0	8076	6.0	0.7	1.8	8640
HAA(HE)5604-8	710	560	745	894	52.9	38.6	0.81	95.6	94.7	92.4	95.1	9101	6.0	0.7	1.8	8800
HAA(HE)6301-8	800	630	742	890	58.2	42.4	0.83	95.7	94.8	92.5	95.2	10296	6.0	0.7	1.8	9020
HAA(HE)6302-8	900	630	742	890	65.4	47.6	0.83	95.8	94.9	92.6	95.3	11584	6.0	0.7	1.8	9350
HAA(HE)6303-8	1000	630	742	890	72.5	52.8	0.83	96.0	95.1	92.8	95.5	12871	6.0	0.7	1.8	9700
HAA(HE)6304-8	1120	630	742	890	81.1	59.1	0.83	96.1	95.2	92.9	95.6	14415	6.0	0.7	1.8	10500

TYPE	Output kW	Frame Size	Speed		Current (at 50Hz) of "Standard Line" Voltages						and at 60Hz			Power Factor cosφ	Efficiency (at 50Hz)			60Hz	Rated torque Nm	Ratio			
			50Hz rpm	60Hz rpm	at 3kV A	at 3.3kV A	at 4.16kV A	at 5kV A	at 6kV A	at 6.6kV A	at 4kV A	at 4.16kV A	at 6.6kV A		100% Load %	75% Load %	50% Load %	100% Load %		Starting current	Starting torque	B/down torque	
600rpm/720rpm 10pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HAA(HE)4501-10	185	450	585	702	51.2	46.6	36.9	30.7	25.6	23.3	38.6	37.1	23.4	0.75	92.7	92.0	90.3	92.2	3020	5.5	0.8	1.8	3980
HAA(HE)4502-10	200	450	585	702	55.2	50.2	39.8	33.1	27.6	25.1	41.7	40.1	25.2	0.75	92.9	92.2	90.5	92.4	3265	5.5	0.8	1.8	4120
HAA(HE)4503-10	220	450	585	702	60.6	55.1	43.7	36.4	30.3	27.6	45.7	44.0	27.7	0.75	93.1	92.4	90.7	92.6	3591	5.5	0.8	1.8	4260
HAA(HE)4504-10	250	450	585	702	68.8	62.5	49.6	41.3	34.4	31.3	51.8	49.9	31.4	0.75	93.3	92.6	90.9	92.8	4081	5.5	0.8	1.8	4440
HAA(HE)4505-10	280	450	585	702	76.8	69.9	55.4	46.1	38.4	34.9	57.9	55.7	35.1	0.75	93.5	92.8	91.1	93.0	4571	5.5	0.8	1.8	4620
HAA(HE)5001-10	315	500	585	702	84.9	77.1	61.2	50.9	42.4	38.6	64.0	61.5	38.8	0.76	94.0	93.1	90.9	93.5	5142	5.5	0.8	1.8	5000
HAA(HE)5002-10	355	500	585	702	95.3	86.7	68.7	57.2	47.7	43.3	71.9	69.1	43.6	0.76	94.3	93.4	91.2	93.8	5795	5.5	0.8	1.8	5140
HAA(HE)5003-10	400	500	585	702	107.2	97.4	77.3	64.3	53.6	48.7	80.8	77.7	49.0	0.76	94.5	93.6	91.4	94.0	6530	5.5	0.8	1.8	5320
HAA(HE)5004-10	450	500	585	702	120.5	109.5	86.9	72.3	60.2	54.8	90.8	87.3	55.0	0.76	94.6	93.7	91.5	94.1	7346	5.5	0.8	1.8	5480
HAA(HE)5601-10	500	560	590	708	130.1	118.3	93.8	78.1	65.1	59.2	98.1	94.3	59.5	0.78	94.8	93.9	91.7	94.3	8093	6.0	0.7	1.8	6900
HAA(HE)5602-10	560	560	590	708	145.6	132.4	105.0	87.4	72.8	66.2	109.8	105.6	66.5	0.78	94.9	94.0	91.8	94.4	9064	6.0	0.7	1.8	7075
HAA(HE)5603-10	630	560	590	708	163.6	148.8	118.0	98.2	81.8	74.4	123.4	118.6	74.8	0.78	95.0	94.1	91.9	94.5	10197	6.0	0.7	1.8	7270
HAA(HE)5604-10	710	560	590	708	184.2	167.5	132.8	110.5	92.1	83.7	138.9	133.5	84.2	0.78	95.1	94.2	92.0	94.6	11492	6.0	0.7	1.8	7500
HAA(HE)6301-10	800	630	590	708	201.9	183.6	145.6	121.2	101.0	91.8	152.3	146.4	92.3	0.8	95.3	94.4	92.2	94.8	12949	6.0	0.7	1.8	8710
HAA(HE)6302-10	900	630	590	708	227.0	206.3	163.7	136.2	113.5	103.2	171.1	164.5	103.7	0.8	95.4	94.5	92.3	94.9	14568	6.0	0.7	1.8	9310
HAA(HE)6303-10	1000	630	590	708	251.9	229.0	181.7	151.1	126.0	114.5	189.9	182.6	115.1	0.8	95.5	94.6	92.4	95.0	16186	6.0	0.7	1.8	9710
HAA(HE)6304-10	1120	630	590	708	281.8	256.2	203.2	169.1	140.9	128.1	212.5	204.3	128.8	0.8	95.6	94.7	92.5	95.1	18129	6.0	0.7	1.8	10100
500rpm/600rpm 12pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																							
HAA(HE)4504-12	185	450	490	588	54.8	49.8	39.5	32.9	27.4	24.9	41.3	39.7	25.0	0.7	92.8	92.1	90.4	92.3	3606	5.5	0.8	1.8	4280
HAA(HE)4505-12	200	450	490	588	59.1	53.8	42.6	35.5	29.6	26.9	44.6	42.9	27.0	0.7	93.0	92.3	90.6	92.5	3898	5.5	0.8	1.8	4430
HAA(HE)5001-12	220	500	490	588	62.9	57.2	45.4	37.7	31.4	28.6	47.4	45.6	28.7	0.72	93.5	92.6	90.4	93.0	4288	5.5	0.8	1.8	5030
HAA(HE)5002-12	250	500	490	588	71.3	64.8	51.4	42.8	35.7	32.4	53.8	51.7	32.6	0.72	93.7	92.8	90.6	93.2	4872	5.5	0.8	1.8	5200
HAA(HE)5003-12	280	500	490	588	79.7	72.5	57.5	47.8	39.9	36.2	60.1	57.8	36.4	0.72	93.9	93.0	90.8	93.4	5457	5.5	0.8	1.8	5410
HAA(HE)5004-12	315	500	490	588	89.5	81.3	64.5	53.7	44.7	40.7	67.5	64.9	40.9	0.72	94.1	93.2	91.0	93.6	6139	5.5	0.8	1.8	5630
HAA(HE)5601-12	355	560	490	588	97.9	89.0	70.6	58.7	49.0	44.5	73.8	71.0	44.7	0.74	94.3	93.4	91.2	93.8	6919	6.0	0.7	1.8	6920
HAA(HE)5602-12	400	560	490	588	110.1	100.1	79.4	66.1	55.0	50.0	83.0	79.8	50.3	0.74	94.5	93.6	91.4	94.0	7796	6.0	0.7	1.8	7100
HAA(HE)5603-12	450	560	490	588	123.7	112.5	89.2	74.2	61.9	56.2	93.3	89.7	56.5	0.74	94.6	93.7	91.5	94.1	8770	6.0	0.7	1.8	7290
HAA(HE)5604-12	500	560	490	588	137.2	124.7	98.9	82.3	68.6	62.4	103.4	99.4	62.7	0.74	94.8	93.9	91.7	94.3	9745	6.0	0.7	1.8	7480
HAA(HE)6301-12	560	630	490	588	149.4	135.8	107.8	89.7	74.7	67.9	112.7	108.3	68.3	0.76	94.9	94.0	91.8	94.4	10914	6.0	0.7	1.8	9490
HAA(HE)6302-12	630	630	490	588	167.9	152.7	121.1	100.8	84.0	76.3	126.6	121.7	76.7	0.76	95.0	94.1	91.9	94.5	12279	6.0	0.7	1.8	9690
HAA(HE)6303-12	710	630	490	588	189.1	171.9	136.3	113.4	94.5	85.9	142.5	137.1	86.4	0.76	95.1	94.2	92.0	94.6	13838	6.0	0.7	1.8	9910
HAA(HE)6304-12	800	630	490	588	212.6	193.3	153.3	127.5	106.3	96.6	160.3	154.1	97.1	0.76	95.3	94.4	92.2	94.8	15592	6.0	0.7	1.8	10250

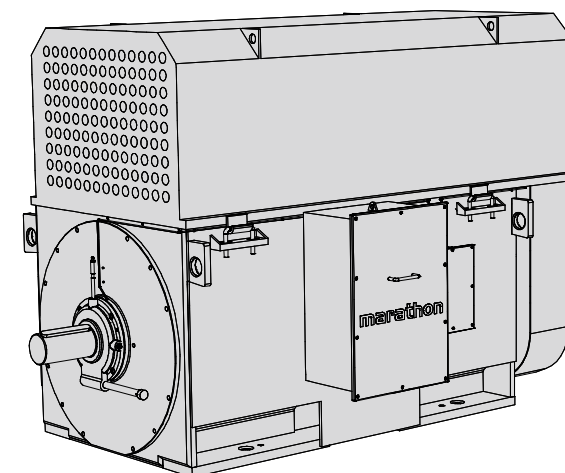
"Standard Line" High Voltage motors are pre-designed standard motors available at reduced lead times.

They are available as **Standard Efficiency Motors** and also as **Higher Efficiency Motors**.

For different voltages, speeds and power outputs please contact the Marathon staff.

"Standard Line" Voltages	50Hz:	3kV	3.3kV	4.16kV	5kV	6kV	6.6kV	10kV
	60Hz:	4kV	4.16kV	6.6kV	13.8kV			

TYPE	Output kW	Frame Size	Speed		Current		Power Factor cosφ	Efficiency (at 50Hz)			60Hz 100% Load %	Rated torque Nm	Ratio			Weight kg
			50Hz rpm	60Hz rpm	50Hz 10kV A	60Hz 13.8kV A		100% Load %	75% Load %	50% Load %			Starting current	Starting torque	B/down torque	
600rpm/720rpm 10pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(HE)5003-10	220	500	595	714	18.4	13.4	0.74	93.2	92.3	90.0	92.7	3531	5.5	0.7	1.8	4910
HAA(HE)5004-10	250	500	595	714	20.9	15.2	0.74	93.5	92.6	90.3	93.0	4013	5.5	0.7	1.8	4990
HAA(HE)5005-10	280	500	595	714	23.0	16.7	0.75	93.8	92.9	90.6	93.3	4494	5.5	0.7	1.8	5130
HAA(HE)5006-10	315	500	595	714	25.8	18.8	0.75	94.0	93.1	90.8	93.5	5056	5.5	0.7	1.8	5290
HAA(HE)5601-10	355	560	595	714	28.3	20.6	0.77	94.2	93.3	91.0	93.7	5698	5.5	0.7	1.8	7240
HAA(HE)5602-10	400	560	595	714	31.8	23.2	0.77	94.3	93.4	91.1	93.8	6420	5.5	0.7	1.8	7590
HAA(HE)5603-10	450	560	595	714	35.7	26.0	0.77	94.5	93.6	91.3	94.0	7223	5.5	0.7	1.8	7980
HAA(HE)5604-10	500	560	595	714	39.1	28.5	0.78	94.6	93.7	91.4	94.1	8025	5.5	0.7	1.8	8350
HAA(HE)5605-10	560	560	595	714	43.8	31.9	0.78	94.7	93.8	91.5	94.2	8988	5.5	0.7	1.8	8750
HAA(HE)6301-10	630	630	595	714	48.5	35.3	0.79	94.9	94.0	91.7	94.4	10112	6.0	0.7	1.8	8700
HAA(HE)6302-10	710	630	595	714	54.6	39.7	0.79	95.1	94.2	91.9	94.6	11396	6.0	0.7	1.8	9000
HAA(HE)6303-10	800	630	595	714	61.3	44.6	0.79	95.4	94.5	92.2	94.9	12840	6.0	0.7	1.8	9320
HAA(HE)6304-10	900	630	595	714	68.8	50.1	0.79	95.6	94.7	92.4	95.1	14445	6.0	0.7	1.8	9720
HAA(HE)6305-10	1000	630	595	714	76.4	55.7	0.79	95.6	94.7	92.4	95.1	16050	6.0	0.7	1.8	10150
500rpm/600rpm 12pole, IP55, class F/B, ambient temperature -20°C to +40°C, up to 1000m above sea level, protection 6xPT100 in winding & 1xPT100 in each bearing																
HAA(HE)5601-12	250	560	495	594	21.2	15.4	0.73	93.4	92.5	90.2	92.9	4823	5.5	0.7	1.8	6690
HAA(HE)5602-12	280	560	495	594	23.6	17.2	0.73	93.7	92.8	90.5	93.2	5402	5.5	0.7	1.8	6940
HAA(HE)5603-12	315	560	495	594	26.5	19.3	0.73	94.0	93.1	90.8	93.5	6077	5.5	0.7	1.8	7300
HAA(HE)5604-12	355	560	495	594	29.9	21.8	0.73	93.9	93.0	90.7	93.4	6849	5.5	0.7	1.8	7580
HAA(HE)5605-12	400	560	495	594	33.6	24.5	0.73	94.1	93.2	90.9	93.6	7717	5.5	0.7	1.8	7860
HAA(HE)6301-12	450	630	495	594	37.3	27.2	0.74	94.2	93.3	91.0	93.7	8682	6.0	0.7	1.8	9220
HAA(HE)6302-12	500	630	495	594	41.3	30.1	0.74	94.5	93.6	91.3	94.0	9646	6.0	0.7	1.8	9500
HAA(HE)6303-12	560	630	495	594	46.1	33.6	0.74	94.7	93.8	91.5	94.2	10804	6.0	0.7	1.8	9720
HAA(HE)6304-12	630	630	495	594	51.8	37.7	0.74	94.9	94.0	91.7	94.4	12155	6.0	0.7	1.8	9920
HAA(HE)6305-12	710	630	495	594	58.3	42.4	0.74	95.1	94.2	91.9	94.6	13698	6.0	0.7	1.8	10150



All products are covered by standard manufacturers' warranty.

Returning the Motors Suspected to be Faulty:

Please be advised that you need an authorisation to return a motor, which you suspect is faulty. Please contact Regal Beloit BV to advise that you wish to return an item, which you or your customer suspect to be faulty. We will issue a RAN (Returns Authorisation Number) and fax, e-mail or post the relevant RAN Form to you to be filled and enclosed with the returned item(s).

Returning of Unwanted Unused Items:

Please note that the (above) same procedure applies for returning unwanted unused items. Not all items however can be accepted back and credit issued. All orders for non-standard items should be thoroughly considered before order placement as any "specials" cannot be accepted back and credit issued should the items became unwanted. This applies also to the items modified by us upon customers' requests (includes brake motors, encoders, force ventilation etc.). Any unwanted unused items must be returned back to Regal Bleoit as soon as possible as items not returned within a reasonable period of time cannot be accepted back due to the manufacturers' warranty wholly or partially expired.

Warranty Assessment:

To be considered for Warranty assessment the items must be in its original condition (must be complete, must not be disassembled, etc). We then test the items, compare our findings with the findings found in the RAN Form and write you a letter where we summarise our findings. If faulty we state whether we found the fault to be a manufacturers' fault or an application fault (e.g. motor overloaded) and whether we do or do not accept the item back under warranty.

If an item is accepted back under warranty a Credit Note is then issued or the item replaced. If the item is not accepted under warranty the original invoice still stands. Regal Beloit however do not accept any third party invoices for unauthorised inspection and/or repairs.

Site Visits:

Some customers require a site visit and Warranty Assessment to be carried out at the installation site. Due to the fact that there is specialist equipment involved in fault finding, items are usually required to be sent back to Regal Beloit or if more practical to our service partner in the area. There could be however instances that items may not be economical to transport back to our facility in the Netherlands. In these cases Regal Beloit may ask the customer to provide photographic evidence of the fault. Regal Beloit however do not accept any third party invoices for unauthorised inspection and/or repairs.

Claims for Goods Delivered Damaged:

All items are checked for damage before packing. Best packing practices are employed to minimise the possibility of damage during transportation. Despite of this effort damage during transit can occur. Upon receipt of a consignment from Regal Beloit please check the contents for damaged items before you sign a carriers' note. The carriers would not accept liability if a consignment is signed for as "Received in good condition" and consequently Regal Beloit cannot entertain damage claims under these circumstances.

Regal Beloit bv, Mors 2, 7150 AA Eibergen, Netherlands
hereby declare under their full responsibility that the product:

Marathon® electric motors



marathon™

the series HJN..., HJA..., LVX..., LAL..., HJO-ODP..., PE3...
all frame sizes, speeds and power outputs
and derived executions

the series DM1 (71-80frame & 355-400frame only) in 2, 4 & 6pole speeds
power outputs less than 0.75kW or more than 375kW
and derived executions

the series DM1 (71-400frame) in 8, 10 & 12pole speeds
all power outputs
and derived executions

the series DMA2 (56 to 80frame only) in 2, 4 & 6pole speeds
power outputs less than 0.75kW
and derived executions

the series DMA2 (56 to 132frame) in 8pole speed
all power outputs
and derived executions

comply with the requirements of the following European Directives;

2006/95/EEGCouncil Directive on the approximation of the laws of the Member States relating to electrical equipment for use within certain voltage limits.

2004/108/EEG Council Directive on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Conformity with the requirements of these Directives is testified by complete adherence to the following standards:

EN 60 034 – 1 EN 60 034 – 6 EN 60 034 – 12
EN 60 034 – 5 EN 60 034 – 9 EN 60 034 – 14
EN 60 204 – 1, article 15

The named products are intended for installation in machinery equipment. Commissioning is prohibited until the end product has been approved and verified to conform with the provision of Directive 2006/42/EEC.

Eibergen, 17 February 2013

J Hodek
Operations Director
Regal Beloit bv

This declaration does not give assurance of properties within the meaning of product liability. The safety instructions provided in the product documentation must be observed.

form./N-077/05



NSF International Strategic Registrations

789 North Dixboro Road, Ann Arbor, Michigan 48105
(888) NSF-9000 | www.nsf-isr.org

Certificate of Registration

This certifies that the Quality Management System of
Regal Beloit B.V. - Netherlands

Van Oldenbarneveldstraat 85
Arnhem, 6828ZN, The Netherlands

has been assessed by NSF-ISR and found to be in conformance to the following standard(s):

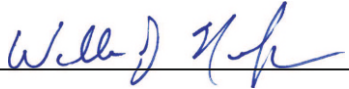
ISO 9001:2008

Scope of Registration:

The design, assembly, modification of the import and sale of the distribution of the provision of service and repair of electric motors and other power-technical products.



Certificate Number:	C0026928-IS6-C0089293
Certificate Issue Date:	22-JAN-2013
Registration Date:	24-SEP-2012
Expiration Date *:	23-SEP-2015


William Niedzwiecki,
President & General Manager,
NSF-ISR, Ltd.

marathon™



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