

# ***AHT ELECTRIC MOTOR CATALOGUE***

***IE3***

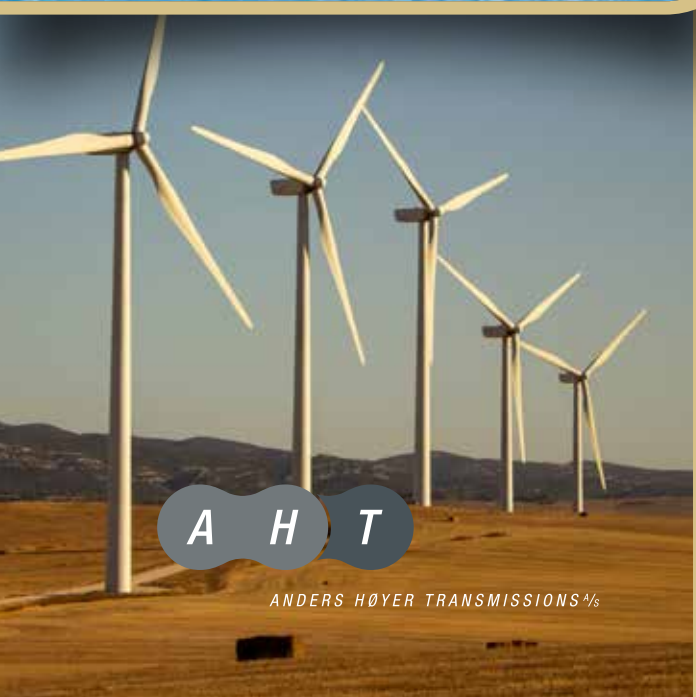
***– feel the difference***



ANDERS HØYER TRANSMISSIONS A/S



# *AHT, motors for all industries*



A H T

ANDERS HØYER TRANSMISSIONS A/S



# ***AHT ALUMINIUM ELECTRIC MOTORS***

***Three phase premium efficiency  
asynchronous aluminium motors***

***IE3***

# AHT ALUMINIUM ELECTRIC MOTORS

*Three phase premium efficiency asynchronous aluminium motors*



AHT Aluminium Electric Motors are manufactured according to the premium efficiency demands and fulfilling the EC Directive 2009/125, and the low voltage EC Directive 2014/35/EU.

AHT Aluminium Electric are manufactured according to the international standard IEC 60034-30.

Our motors are widely applied in various industries and machinery such as: pumps, fans, HPU, water & wastewater treatment, road machinery, petroleum, chemical & metallurgy, cement industry, pulp and paper industry, general wood industry.

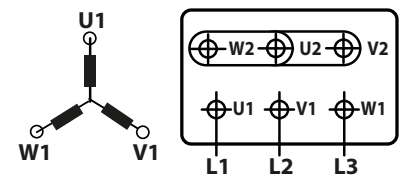
## AHT standard motor specification

Aluminium housing:	Frame size 63-160
Cast Iron housing:	Frame size 180 - 355
Removable feet	Frame size 63-250
Terminal box pos	On top
Protection Class:	IP55
Cooling:	IC411 (TEFC)
Fixed bearing:	Drive End
Voltage:	230/400VΔY up to 3kW / 400/690VΔY from 4kW
Frequency:	50Hz
Ambient temperature:	-20° to +40°
Altitude:	< 1000 meters above sea level
Duty:	S1-100%
Vibration level:	Grade-A
Insulation class:	F
Temperature rise:	B
Winding protection:	3 x PTC 155°C
Color:	RAL 7030
Bearing type:	frame size 63-160 = C&U / frame size 180-355 SKF/FAG
Bearings:	life time greased up to frame size 160

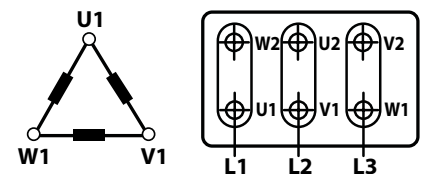
Important notice:  
AHT reserves the right to implement changes without further notice.  
Data in the catalog are not binding.  
Motors are multistamped with 60Hs data

## Connecting Diagrams

### Y-Connecting



### D-Connecting



## Technical Specifications

## ALUMINIUM MOTORS

Rated Output		IEC Frame	Rated Speed r/m	Full Load Current $I_N$ (A)		Efficiency $\eta\%$			Power Factor $\cos\phi$			Locked Rotor Current $I_L/I_N$	Locked Rotor Torque $T_L/T_N$	Break-down Torque $T_b/T_N$	Sound LP dB(A)	Moment of Inertia J(kgm <sup>2</sup> )	Weight kg
						Full Load %											
kW	HP			380V	400V	100	75	50	100	75	50						
<b>3000r/m (2 Pole) 50Hz</b>																	
0.75	1	80M1	2855	1.77	1.68	80.7	81.1	79.4	0.80	0.74	0.62	6.8	3.3	3.7	66	0.001	11
1.1	1.5	80M2	2855	2.53	2.40	82.7	82.9	80.9	0.80	0.73	0.60	7.5	3.5	3.8	66	0.001	12
1.5	2	90S	2900	3.08	2.92	84.2	84.6	83.5	0.88	0.85	0.79	8.6	2.2	2.9	67	0.002	17
2.2	3	90L	2900	4.37	4.15	85.9	86.6	85.1	0.89	0.87	0.81	8.3	2.4	2.9	67	0.003	19
3	4	100L	2910	5.88	5.59	87.1	87.3	85.9	0.89	0.87	0.81	10.0	2.8	3.4	68	0.005	26
4	5.5	112M	2910	7.84	7.45	88.1	88.4	87.6	0.88	0.86	0.80	9.0	2.3	3.1	68	0.013	29
5.5	7.5	132S1	2925	10.5	10.0	89.2	89.7	88.7	0.89	0.86	0.81	8.6	2.1	3.3	69	0.024	42
7.5	10	132S2	2925	14.1	13.4	90.1	90.6	89.7	0.90	0.88	0.82	9.5	2.4	3.4	69	0.025	48
11	15	160M1	2950	20.8	19.3	91.2	91.3	90.3	0.89	0.86	0.80	8.7	2.4	3.3	70	0.056	97*
15	20	160M2	2950	27.9	26.5	91.9	91.8	90.8	0.89	0.87	0.82	8.8	2.6	3.3	70	0.064	107*
18.5	25	160L	2950	34.2	32.5	92.4	92.5	91.6	0.89	0.87	0.82	8.9	2.8	3.4	72	0.073	124*
22	30	180M	2955	40.1	38.1	92.7	92.6	91.5	0.90	0.88	0.84	9.4	2.6	3.9	72	0.105	145*
<b>1500r/m (4 Pole) 50Hz</b>																	
0.75	1.0	80M2	1425	1.89	1.80	82.5	82.6	80.0	0.73	0.65	0.52	7.3	3.3	3.5	64	0.005	16
1.10	1.5	90S	1440	2.55	2.42	84.1	84.4	82.9	0.78	0.72	0.62	7.0	2.2	2.7	64	0.006	17
1.50	2.0	90L	1440	3.38	3.21	85.3	85.5	83.8	0.79	0.73	0.63	7.5	2.4	2.7	65	0.007	19
2.20	3.0	100L1	1445	4.76	4.52	86.7	87.1	86.1	0.81	0.76	0.66	9.0	2.6	2.9	66	0.008	28
3.00	4.0	100L2	1445	6.42	6.10	87.7	88.2	87.1	0.81	0.76	0.66	9.2	2.7	2.9	66	0.009	34
4.00	5.5	112M	1450	8.47	8.05	88.6	89.3	88.1	0.81	0.77	0.67	8.3	2.8	2.8	67	0.018	36
5.50	7.5	132S	1460	11.5	10.9	89.6	89.7	88.3	0.81	0.76	0.66	9.0	2.6	3.0	68	0.037	54
7.50	10.0	132M	1460	15.4	14.6	90.4	90.5	89.3	0.82	0.77	0.68	8.9	2.8	3.0	68	0.045	63
11.00	15.0	160M	1470	21.5	20.4	91.4	91.5	90.5	0.85	0.81	0.73	8.6	2.6	3.1	68	0.105	100*
15.00	20.0	160L	1470	29.1	27.3	92.1	92.2	91.5	0.86	0.82	0.73	9.0	3.0	3.3	68	0.115	117*
18.50	25.0	180M	1475	35.7	33.5	92.6	92.7	91.5	0.86	0.82	0.73	9.0	2.5	3.0	73	0.166	152*
22.00	30.0	180L	1475	42.3	39.7	93.0	93.1	91.7	0.86	0.82	0.73	9.2	2.8	3.2	73	0.188	171*
<b>1000r/m (6 Pole) 50Hz</b>																	
0.75	1	90S	950	2.09	1.99	78.9	78.8	75.9	0.96	0.61	0.49	4.5	1.6	2.4	52	0.005	16
1.1	1.5	90L	950	2.95	2.80	81.0	81.4	79.4	0.70	0.64	0.50	5.0	1.6	2.4	52	0.006	20
1.5	2	100L	955	3.93	3.75	82.5	82.3	79.9	0.70	0.64	0.53	6.0	1.5	2.2	54	0.008	29
2.2	3	112M	960	5.43	5.16	84.3	85.1	83.6	0.73	0.67	0.55	9.2	2.2	2.5	54	0.015	31
3	4	132S	970	7.20	6.84	85.6	85.8	84.4	0.74	0.68	0.57	6.8	2.0	2.5	56	0.035	47
4	5.5	132M1	970	9.21	8.75	86.8	86.9	85.4	0.76	0.70	0.59	6.8	2.1	2.5	56	0.05	57
5.5	7.5	132M2	970	12.5	11.9	88.0	88.1	86.8	0.76	0.71	0.60	7.2	2.2	2.4	57	0.06	63
7.5	10	160M	975	16.8	15.4	89.1	89.3	88.2	0.79	0.72	0.60	7.5	2.4	2.4	59	0.13	97*
11	15	160L	975	24.4	22.3	90.3	90.6	89.4	0.79	0.72	0.60	7.8	2.9	2.7	59	0.24	117*
15	20	180L	980	31.6	30.1	91.2	91.1	89.7	0.79	0.73	0.61	8.7	2.9	3.3	60	0.35	152*

\*\* means the maximum weight of motor.

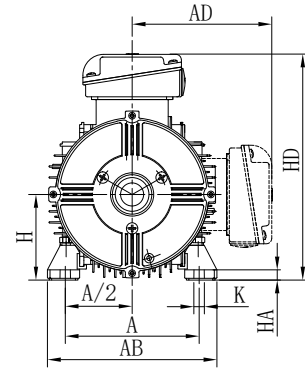
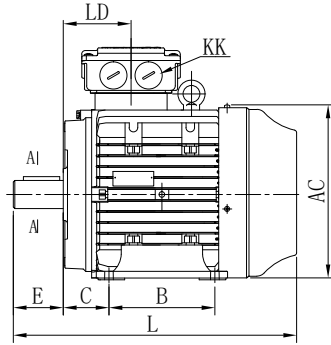
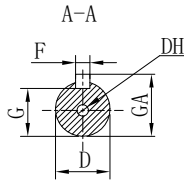
Data at 400V 50 Hz

At 230V 50 Hz the current  $\sqrt{3}$  x current at 400V and at 690V the current is current at 400V /  $\sqrt{3}$ . All other data are identical.

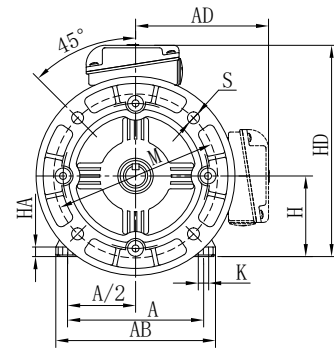
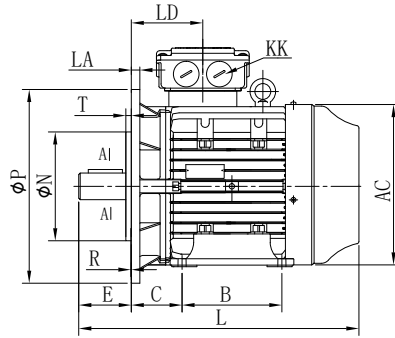
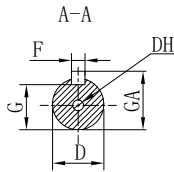
B3, B35, B5 Mounting and overall dimensions

ALUMINIUM MOTORS

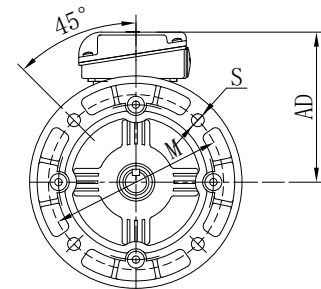
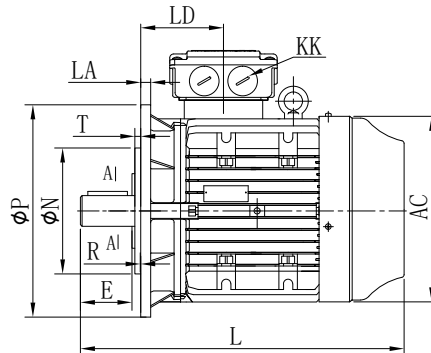
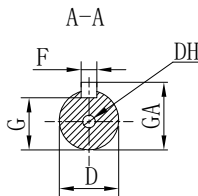
B3



B35

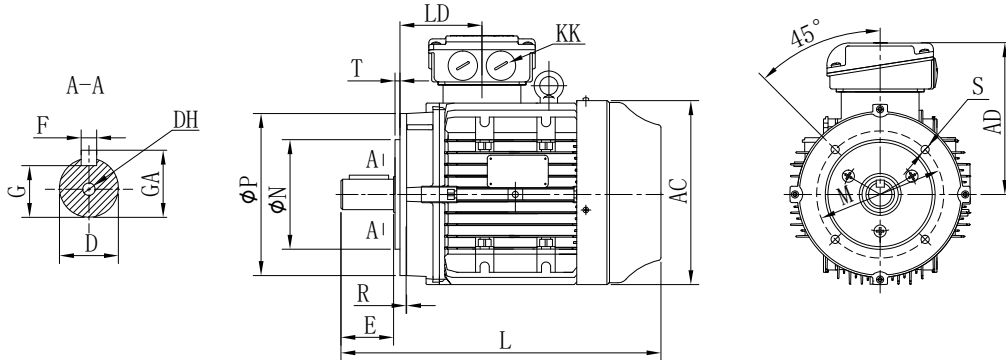


B5

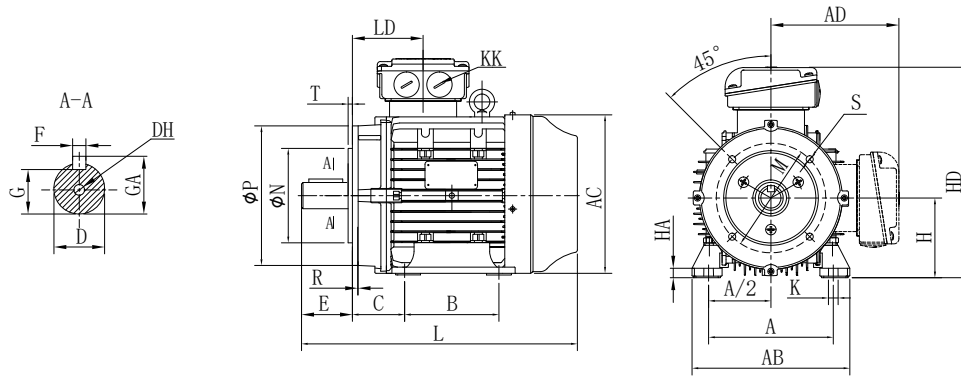


Frame Size	Mounting and Overall Dimensions (mm)																										
	A	A/2	B	C	D	DH	E	F	G	H	K	KK	M	N	P	R	S	T	AB	AC	AD	HD	GA	LA	LD	HA	L
80M-2	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20×1.5	165	130	200	0±1.5	4-Φ12	3.5	154	157	124	204	21.5	9.5	75	10	295
80M2-4	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20×1.5	165	130	200	0±1.5	4-Φ12	3.5	154	157	124	204	21.5	9.5	75	10	330
90S	140	70	100	56	24	M8×20	50	8	20.0	90	4-Φ10	M25×1.5	165	130	200	0±1.5	4-Φ12	3.5	180	175	143	233	27	10	87	10	324
90L	140	70	125	56	24	M8×20	50	8	20.0	90	4-Φ10	M25×1.5	165	130	200	0±1.5	4-Φ12	3.5	180	175	143	233	27	10	87	12	349
100L1-4 100L 2, 6	160	80	140	63	28	M10×22	60	8	24.0	100	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4.0	200	199	159	259	31	12	78	12	373
100L2-4	160	80	140	63	28	M10×22	60	8	24.0	100	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4.0	200	199	159	259	31	12	78	12	418
112M	190	95	140	70	28	M10×22	60	8	24.0	112	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4.0	230	222	169	281	31	12	85	12	380
132S	216	108	140	89	38	M12×28	80	10	33.0	132	4-Φ12	M32×1.5	265	230	300	0±2	4-Φ14.5	4.0	264	260	193	325	41	14	129	15	475
132M	216	108	178	89	38	M12×28	80	10	33.0	132	4-Φ12	M32×1.5	265	230	300	0±2	4-Φ14.5	4.0	264	260	193	325	41	14	129	15	513
160M	254	127	210	108	42	M16×36	110	12	37.0	160	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	314	314	237	397	45	15	154	22	612
160L	254	127	254	108	42	M16×36	110	12	37.0	160	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	314	314	237	397	45	15	154	22	656
180M	279	139.5	241	121	48	M16×36	110	14	42.5	180	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	317	355	255	435	51.5	15	159	25	685
180L	279	139.5	279	121	48	M16×36	110	14	42.5	180	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	347	355	255	435	51.5	15	159	25	723

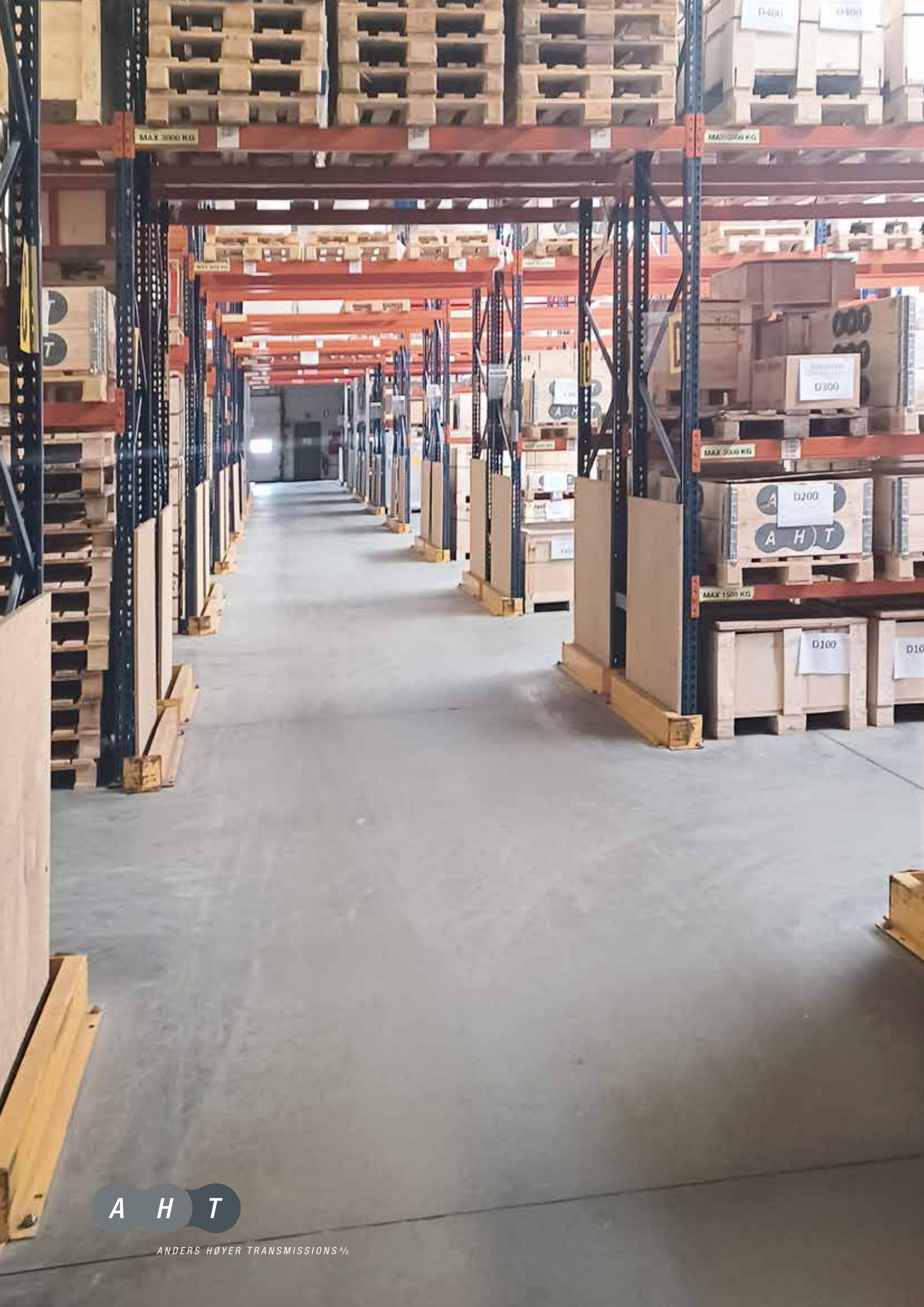
B14



B34



Frame Size	Mounting and Overall Dimensions (mm)																									
	A	A/2	B	C	D	DH	E	F	G	H	K	KK	M	N	P	R	S	T	AB	AC	AD	HD	GA	LD	HA	L
80M-2	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20×1.5	100	80	120	0±1.5	4-M6	3	154	157	124	204	21.5	75	10	295
80M2-4	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20×1.5	100	80	120	0±1.5	4-M6	3	154	157	124	204	21.5	75	10	330
90S	140	70	100	56	24	M8×20	50	8	20	90	4-Φ10	M25×1.5	115	95	140	0±1.5	4-M8	3	180	175	143	233	27	87	10	324
90L	140	70	125	56	24	M8×20	50	8	20	90	4-Φ10	M25×1.5	115	95	140	0±1.5	4-M8	3	180	175	143	233	27	87	10	349
100L1-4 100L 2, 6	160	80	140	63	28	M10×22	60	8	24	100	4-Φ12	M25×1.5	130	110	160	0±2	4-M8	3.5	200	199	159	259	31	78	12	373
100L2-4	160	80	140	63	28	M10×22	60	8	24	100	4-Φ12	M25×1.5	130	110	160	0±2	4-M8	3.5	200	199	159	259	31	78	12	418
112M	190	95	140	70	28	M10×22	60	8	24	112	4-Φ12	M25×1.5	130	110	160	0±2	4-M8	3.5	200	222	169	281	31	85	12	380
132S	216	108	140	89	38	M12×28	80	10	33	132	4-Φ12	M32×1.5	165	130	200	0±2	4-M10	3.5	264	260	193	325	41	129	15	475
132M	216	108	178	89	38	M12×28	80	10	33	132	4-Φ12	M32×1.5	165	130	200	0±2	4-M10	3.5	264	260	193	325	41	129	15	513



MAX 3000 KG

MAX 2266 KG

MAX 3000 KG

MAX 3000 KG

MAX 1500 KG

D400 D400

D300

A D200  
A H T

D100

D100

A H T

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**Ambient Temperature**

Ambient temperature °C	30	35	40	45	50	55	60
Power output (kW)	1,05	1,02	1	0,97	0,93	0,87	0,82

**Altitude**

Meters above sea level	1000 m	1500 m	2000 m	2500 m	3000 m	3500 m	4000 m
Power output (kW)	1	0,98	0,95	0,91	0,87	0,83	0,78

**Bearings Aluminum Motors**

Frame size	Driving end		Non-driving end	
	2 Pole	4, 6, 8 Pole	2 Pole	4, 6, 8 Pole
80	6204-2Z/C3	6204-2Z/C3	6203-2Z/C3	6203-2Z/C3
90	6205-2Z/C3	6205-2Z/C3	6204-2Z/C3	6204-2Z/C3
100	6306-2Z/C3	6306-2Z/C3	6205-2Z/C3	6205-2Z/C3
112	6306-2Z/C3	6306-2Z/C3	6205-2Z/C3	6205-2Z/C3
132	6208-2Z/C3	6208-2Z/C3	6206-2Z/C3	6206-2Z/C3
160	6209-2Z/C3	6209-2Z/C3	6209-2Z-C3	6209-2Z-C3
180	6211/C3	6311/C3	6211/C3	6211/C3

**Mounting Arrangements**

Types	Basic Type of Construction	Derived Types of Construction					
SWEA 80-180	IM B3 IM 1001	IM V5 IM 1011	IM V6 IM 1031	IM B6 IM 1051	IM B7 IM 1061	IM B8 IM 1071	
SWEA 80-180	IM B35 IM 2001	IM V15 IM 2011	IM V36 IM 2031	*	*	*	
SWEA 80-180	IM B34 IM 2101	*	*	*	*	*	
SWEA 80-180	IM B5 IM 3001	IM V1 IM 3011	IM V3 IM 3031				
SWEA 80-180	IM B14 IM 3601	IM V18 IM 3611	IM V19 IM 3631				

Basic types of construction may be used in all derived types of construction.

1) "\*" means not-defined mounting by IEC 60034-7. 2) for the types of construction IM V6, IM B6, IM B8 inquiry is necessary.

**Blind plugs**

Motor frame size	Main connection	AUX connection
63	2xM18x1,5	None
71	2xM18x1,5	None
80	2xM20x1,5	1xM16x1,5
90	2xM25x1,5	1xM20x1,5
100	2xM25x1,5	1xM20x1,5
112	2xM32x1,5	1xM20x1,5
132	2xM32x1,5	1xM20x1,5
160	2xM40x1,5	2xM20x1,5
180	2xM40x1,5	2xM20x1,5
200	2xM50x1,5	2xM20x1,5
225	2xM50x1,5	2xM20x1,5
250	2xM63x1,5	2xM20x1,5
280	2xM63x1,5	2xM20x1,5
315	2xM63x1,5	2xM20x1,5
355	2xM72x1,5	2xM20x1,5

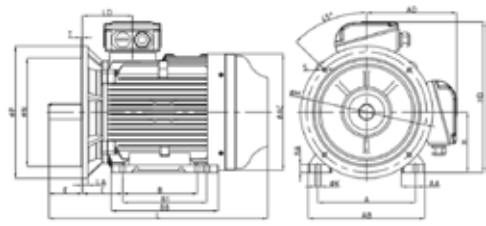
**AHT**  
 provides full  
 documentation  
 package



**DATA SHEET**  
 AHTM3A 160M B35  
 Item No. M341601300



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Mounting and overall Dimension (mm)																				
AD	B	C	H	HA	HD	K	L	LA	D	E	F	G	GA	M	N	P	S	T	Mounting designation	
314	237	210	100	160	22	397	14.5	612	15	42	110	12	37	45	300	250	350	18.5	S	B35

Data by 400/500V at Frequency (Hz): 50																
P2 (kW)	Product Number and type designation B35			Full load current I <sub>n</sub> (A) by		Power factor		IE Efficiency		Speed		Insulation level		Noise level dB(A)		
	IPN	AHT type	Vol/D	Vol/Y	%	%	Classification	RFM (min-1)	LRG	LRT	BT	Lpe				
B35	IPN	AHT type	380	400	500	80/75	100	80	75	100	IE	100	BTIN	MST/MN	MG/PMN	dB(A)
B35	IPN	AHT type	22	20	12.0	73/81	85	91	92	91	3	1470	8.8	2.5	3.1	58

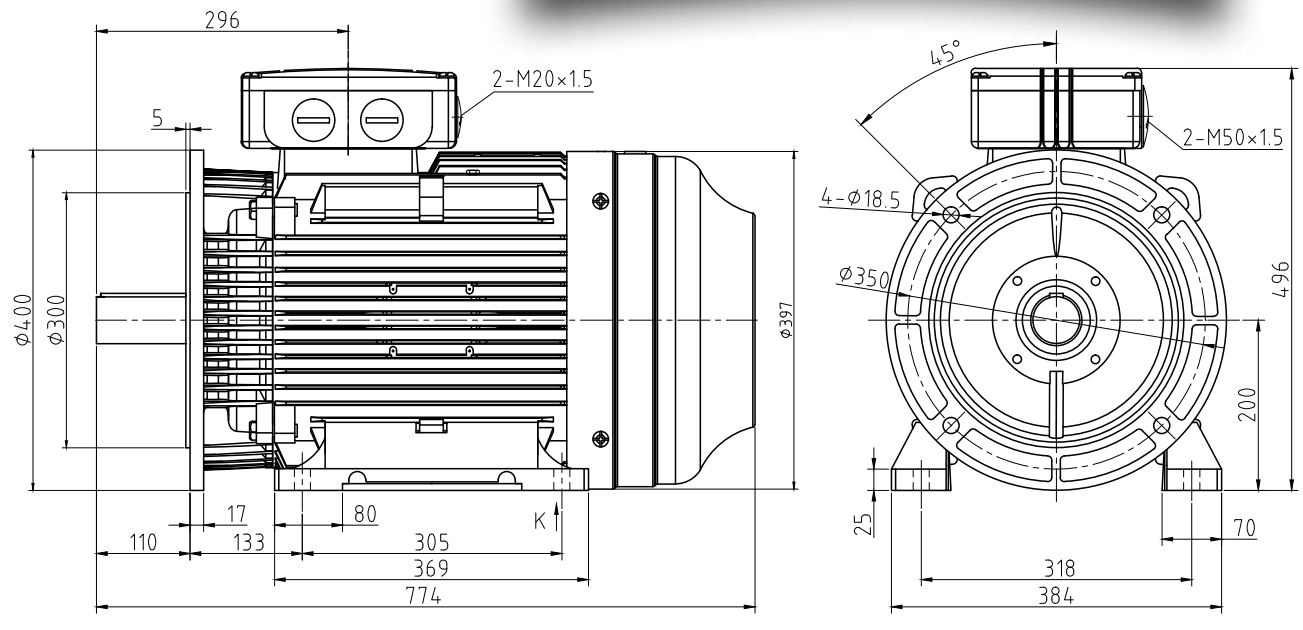
  

Poles	Temperature		Insulation Class	Moment of inertia J (kgm <sup>2</sup> )	Bearing		Vibration grade	Direction of rotation	Built-in motor protection	Opening temperature °C
	T <sub>amb max</sub> °C	T <sub>amb min</sub> °C			Drive and Non-Drive	Beating type				
35	40	-15	F	0.1650	G209/C3	G209/C3	A	Clk	PTC	155

Motor Frame	Flange	Weight	Casting	Mounting Version	Duty Type	IEC Motor Dimension	Cable Entry
Aluminium Cast Iron	Aluminium Cast Iron	kg	IC	IEC NEMA		LD	Power Supply + Protection
Aluminium Cast Iron		100	811	IEC	S1	184	50 Size + No Size

Anders Høyer Transmissions A/S  
 Tlf.: +45 44444470 - www.aht-as.dk - aht@aht-as.dk



ITEM	TYPE	 ANDERS HØYER TRANSMISSIONS A/S
M342001300	AHTM3C 200L 4Pol B35	

# ***AHT CAST IRON ELECTRIC MOTORS***

***Three phase premium efficiency  
asynchronous cast Iron motors***

***IE3***

# AHT CAST IRON ELECTRIC MOTORS

*Three phase premium efficiency asynchronous cast iron motors*



AHT Cast Iron electric motors are manufactured according to the premium efficiency demands and fulfilling the EC Directive 2009/125, and the low voltage EC Directive 2014/35/EU.

The AHT Cast Iron motors are manufactured according to the international standard IEC 60034-30.

Our motors are widely applied in various industries and machinery such as: pumps, fans, HPU, water & waste water treatment, road machinery, petroleum, chemical & metallurgy, cement industry, pulp and paper industry, general wood industry.

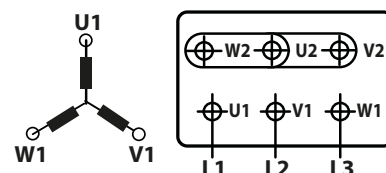
## AHT standard motor specification

Aluminium housing:	Frame size 63-160
Cast Iron housing:	Frame size 180 - 355
Removable feet	Frame size 63-250
Terminal box pos	On top
Protection Class:	IP55
Cooling:	IC411 (TEFC)
Fixed bearing:	Drive End
Voltage:	230/400VΔY up to 3kW / 400/690VΔY from 4kW
Frequency:	50Hz
Ambient temperature:	-20° to +40°
Altitude:	< 1000 meters above sea level
Duty:	S1-100%
Vibration level:	Grade-A
Insulation class:	F
Temperature rise:	B
Winding protection:	3 x PTC 155°C
Color:	RAL 7030
Bearing type:	frame size 63-160 = C&U / frame size 180-355 SKF/FAG
Bearings:	life time greased up to frame size 160

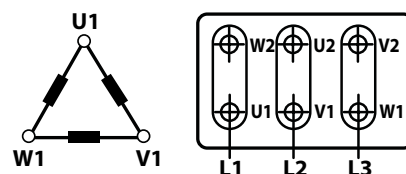
Important notice:  
AHT reserves the right to implement changes without further notice.  
Data in the catalog are not binding.  
Motors are multistamped with 60Hs data

## Connecting Diagrams

### Y-Connecting



### D-Connecting



## CAST IRON MOTORS

Rated Output		IEC Frame	Rated Speed r/m	Full Load Current I <sub>n</sub> (A)		Efficiency η%			Power Factor cosφ			Locked Rotor Current I <sub>L</sub> /I <sub>n</sub>	Locked Rotor Torque T <sub>L</sub> /T <sub>n</sub>	Break-down Torque T <sub>b</sub> /T <sub>n</sub>	Sound LP dB(A)	Moment of Inertia J(kgm <sup>2</sup> )	Weight kg
						Full Load %											
kW	HP			380V	400V	100	75	50	100	75	50						
<b>3000r/m (2 Pole) 50Hz</b>																	
11	15	160M	2935	20.6	19.6	91.2	91.2	90.2	0.89	0.86	0.79	8.0	2.5	3.0	68	0.054	120
15	20	160M	2935	27.9	26.5	91.9	92.1	91.3	0.89	0.86	0.79	8.0	2.5	3.0	68	0.066	130
18.5	25	160L	2940	34.2	32.5	92.4	92.5	91.8	0.89	0.87	0.81	8.0	2.5	3.0	68	0.083	150
22	30	180M	2950	40.1	38.1	92.7	92.8	92.0	0.90	0.87	0.80	8.2	2.6	3.2	70	0.108	185
30	40	200L	2950	54.3	51.6	93.3	93.3	92.5	0.90	0.87	0.80	7.6	2.3	3.4	73	0.178	245
37	50	200L	2950	66.7	63.3	93.7	93.8	93.1	0.90	0.88	0.81	8.5	2.5	3.0	73	0.22	275
45	60	225M	2965	79.9	75.9	94.0	94.0	93.3	0.91	0.89	0.83	8.5	2.8	3.3	75	0.328	345
55	75	250S/M	2970	99.6	94.6	94.3	93.9	92.6	0.89	0.86	0.79	8.0	2.6	3.2	78	0.451	450
75	100	280S	2975	134	127	94.7	94.6	93.7	0.90	0.88	0.83	7.5	2.2	2.8	79	0.777	540
90	125	280M	2980	160	152	95.0	94.9	94.1	0.90	0.89	0.84	7.5	2.2	2.8	79	0.874	575
110	150	315S	2975	195	185	95.2	94.7	93.3	0.90	0.88	0.82	7.5	2.2	3.2	80	1.861	1010
132	175	315M	2975	234	222	95.4	95.0	93.7	0.90	0.88	0.83	7.5	2.2	3.3	80	2.109	1070
160	215	315M/L	2980	283	268	95.6	95.2	94.1	0.90	0.88	0.83	8.0	2.5	3.2	82	2.419	1210
200	270	315M/L	2980	352	335	95.8	95.4	94.3	0.90	0.88	0.83	8.0	2.5	3.3	82	2.667	1285
250	335	355M/L	2985	436	414	95.8	95.4	94.3	0.91	0.91	0.88	7.5	1.9	2.6	83	4.028	1798
280	375	355M/L	2985	488	464	95.8	95.4	94.2	0.91	0.91	0.87	7.5	1.8	2.6	83	4.01	1885
315	420	355M/L	2985	549	522	95.8	95.5	94.4	0.91	0.91	0.88	7.5	1.8	2.5	83	4.728	1960
<b>1500r/m (4 Pole) 50Hz</b>																	
11	15	160M	1460	21.5	20.4	91.4	91.7	91.1	0.85	0.80	0.69	7.5	2.5	2.7	60	0.105	124
15	20	160L	1460	28.8	27.3	92.1	92.4	91.9	0.86	0.82	0.73	7.8	2.5	2.8	60	0.112	145
18.5	25	180M	1470	35.3	33.5	92.6	93.0	92.6	0.86	0.82	0.73	8.0	2.5	3.0	65	0.166	195
22	30	180L	1470	41.8	39.7	93.0	93.3	92.9	0.86	0.80	0.69	8.3	2.5	3.2	65	0.187	215
30	40	200L	1470	56.0	53.2	93.6	93.8	93.4	0.87	0.87	0.74	8.0	2.4	3.1	68	0.302	265
37	50	225S	1480	68.8	65.4	93.9	94.1	93.6	0.87	0.84	0.76	7.5	2.3	2.9	68	0.538	320
45	60	225M	1480	84.4	80.2	94.2	94.3	93.8	0.86	0.83	0.75	7.8	2.6	3.0	68	0.635	350
55	75	250S/M	1480	102	96.5	94.6	94.7	94.1	0.87	0.84	0.76	7.5	2.3	2.6	69	0.785	457
75	100	280S	1485	139	133	95.0	95.0	94.2	0.86	0.83	0.77	7.2	2.2	2.5	70	1.552	590
90	125	280M	1485	165	157	95.2	95.2	94.6	0.87	0.85	0.78	7.2	2.2	2.5	70	1.865	654
110	150	315S	1485	199	189	95.4	94.9	93.6	0.88	0.86	0.79	7.2	2.3	2.9	74	3.48	1060
132	175	315M	1485	238	226	95.6	95.2	94.1	0.88	0.87	0.83	7.2	2.2	2.8	74	3.678	1120
160	215	315M/L	1485	285	271	95.8	95.6	94.8	0.89	0.87	0.81	7.2	2.2	2.8	74	4.472	1200
200	270	315M/L	1485	356	338	96.0	95.8	94.9	0.89	0.87	0.82	7.0	2.1	2.6	76	4.856	1295
250	335	355M/L	1490	445	422	96.0	95.7	94.7	0.89	0.88	0.84	7.0	2.1	2.3	79	7.364	1820
280	375	355M/L	1490	498	473	96.0	95.7	94.9	0.89	0.89	0.86	6.9	2.1	2.3	80	8.014	1870
315	420	355M/L	1490	560	532	96.0	95.7	94.9	0.89	0.89	0.86	6.9	2.1	2.4	80	9.1	2000

Data at 400V 50 Hz

At 230V 50 Hz the current  $\sqrt{3}$  x current at 400V and at 690V the current is current at 400V /  $\sqrt{3}$ .

All other data are identical

## CAST IRON MOTORS

Rated Output		IEC Frame	Rated Speed r/m	Full Load Current I <sub>n</sub> (A)		Efficiency η%			Power Factor cosφ			Locked Rotor Current I <sub>L</sub> /I <sub>n</sub>	Locked Rotor Torque T <sub>L</sub> /T <sub>n</sub>	Break-down Torque T <sub>D</sub> /T <sub>n</sub>	Sound LP dB(A)	Moment of Inertia J(kgm <sup>2</sup> )	Weight kg
						Full Load %											
kW	HP			380V	400V	100	75	50	100	75	50						
<b>1000r/m (6 Pole) 50Hz</b>																	
7.5	10	160M	970	16.6	15.8	89.1	89.5	88.6	0.77	0.70	0.57	7.0	2.5	2.7	56	0.121	115
11	15	160L	970	24.0	22.8	90.3	90.4	89.2	0.77	0.69	0.55	7.0	2.5	2.8	56	0.145	136
15	20	180L	975	31.6	30.1	91.2	91.3	90.1	0.79	0.72	0.60	7.5	2.4	3.0	56	0.229	197
18.5	25	200L	980	38.8	36.9	91.7	91.9	91.0	0.79	0.73	0.60	7.5	2.5	2.9	59	0.342	226
22	30	200L	980	45.3	43.1	92.2	92.3	91.4	0.80	0.72	0.59	7.4	2.5	3.0	59	0.386	246
30	40	225M	980	58.4	55.5	92.9	93.2	92.7	0.84	0.81	0.76	7.0	2.0	2.3	61	0.625	314
37	50	250S/M	980	71.7	68.1	93.3	93.3	92.5	0.84	0.80	0.71	7.3	2.2	2.5	61	0.985	440
45	60	280S	985	85.8	81.6	93.7	93.8	93.1	0.85	0.82	0.74	7.3	2.3	2.7	66	1.733	520
55	75	280M	985	104	99.3	94.1	94.1	93.4	0.85	0.82	0.74	7.5	2.3	2.8	66	1.965	565
75	100	315S	985	143	136	94.6	94.4	93.5	0.84	0.80	0.70	6.7	2.0	2.2	70	3.723	970
90	125	315M	985	172	163	94.9	94.7	93.8	0.84	0.80	0.71	6.7	2.0	2.2	70	4.526	1065
110	150	315M/L	985	207	196	95.1	95.0	94.3	0.85	0.82	0.73	6.8	2.0	2.2	70	5.157	1135
132	175	315M/L	985	250	238	95.4	95.2	94.2	0.84	0.81	0.72	6.8	2.0	2.2	70	5.685	1200
160	215	355M/L	990	299	284	95.6	95.4	94.6	0.85	0.82	0.76	6.8	1.9	2.0	75	9.57	1755
200	270	355M/L	990	373	355	95.8	95.5	94.5	0.85	0.82	0.76	6.8	1.9	2.0	75	11.1	1890
250	335	355M/L	990	466	443	95.8	95.6	94.8	0.85	0.82	0.79	6.8	1.9	2.0	75	11.8	2120
280	375	355M/L	990	522	496	95.8	95.6	94.8	0.85	0.83	0.78	6.8	1.9	2.0	75	12.9	2080
<b>750r/m (8 Pole) 50Hz</b>																	
4	5.5	160M	725	9.86	9.37	85.6	85.2	83.1	0.72	0.66	0.56	6.0	2.1	2.2	53	0.089	103
5.5	7.5	160M	730	13.2	12.5	87.0	87.1	85.2	0.73	0.67	0.56	6.0	2.1	2.2	53	0.099	114
7.5	10	160L	730	17.7	16.8	88.2	88.1	86.3	0.73	0.67	0.56	6.0	2.0	2.2	53	0.102	136
11	15	180L	730	25.6	24.3	89.6	89.3	87.8	0.73	0.68	0.56	6.6	2.0	2.3	53	0.228	193
15	20	200L	735	34.0	32.3	90.6	90.3	89.1	0.74	0.68	0.57	6.6	2.0	2.3	55	0.395	246
18.5	25	225S	735	41.1	39.0	91.2	91.3	89.7	0.75	0.69	0.58	6.6	1.9	2.0	55	0.603	288
22	30	225M	735	48.6	46.2	91.7	91.8	89.8	0.75	0.69	0.58	6.6	1.9	2.0	55	0.698	310
30	40	250S/M	735	64.0	60.8	92.5	92.6	91.1	0.77	0.71	0.60	6.6	1.9	2.0	58	0.983	395
37	50	280S	735	77.5	73.6	93.0	92.8	91.2	0.78	0.72	0.63	6.6	1.9	2.2	58	1.857	515
45	60	280M	735	93.9	89.2	93.4	93.1	91.7	0.78	0.73	0.63	6.6	1.9	2.2	58	1.998	570
55	75	315S	740	112	106	93.8	93.4	92.2	0.80	0.75	0.65	6.6	1.8	2.0	63	4.959	965
75	100	315M	740	151	143	94.3	93.8	92.6	0.80	0.75	0.65	6.6	1.8	2.0	63	5.825	1030
90	125	315M/L	740	179	170	94.6	94.1	92.8	0.81	0.75	0.65	6.6	1.8	2.0	63	6.753	1120
110	150	315M/L	740	218	207	94.9	94.4	93.1	0.81	0.75	0.65	6.4	1.8	2.0	63	7.352	1205
132	175	355M/L	745	257	244	95.1	94.7	93.2	0.82	0.78	0.68	6.4	1.8	2.0	70	12.94	1865
160	215	355M/L	745	311	295	95.4	95.0	93.5	0.82	0.78	0.68	6.4	1.8	2.0	70	13.32	1965
200	270	355M/L	745	387	368	95.6	95.3	93.6	0.82	0.78	0.68	6.4	1.8	2.0	70	14.9	2130

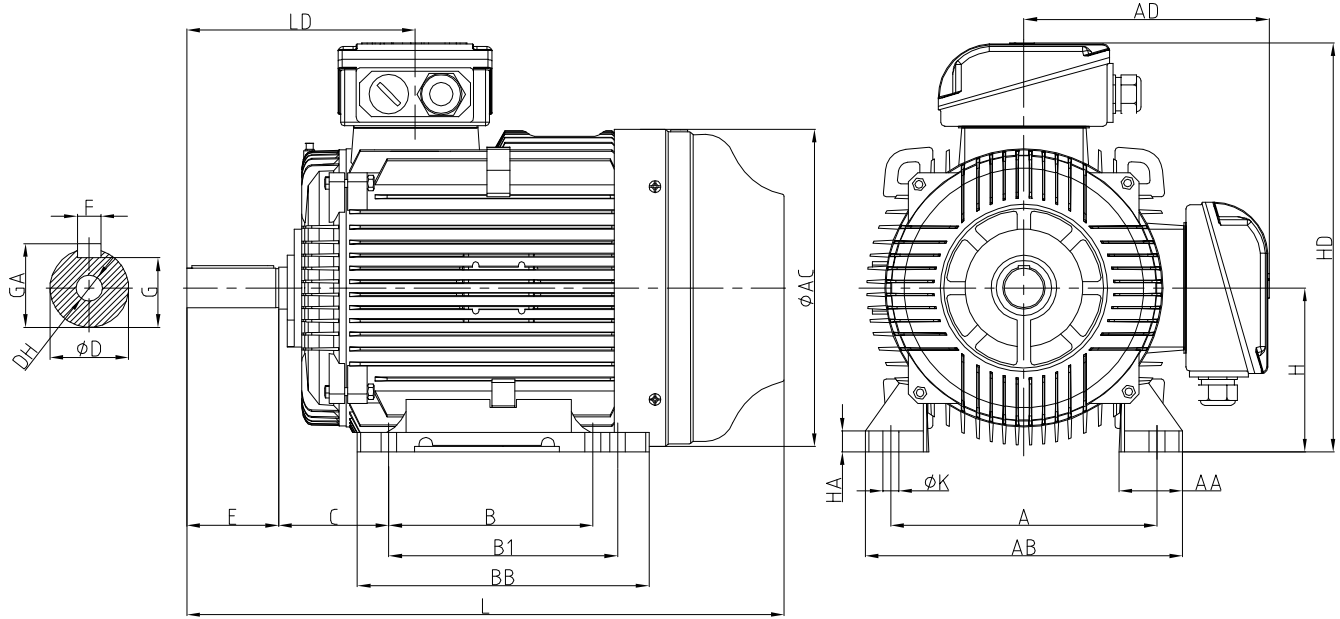
Data at 400V 50 Hz

At 230V 50 Hz the current  $\sqrt{3}$  x current at 400V and at 690V the current is current at 400V /  $\sqrt{3}$ .

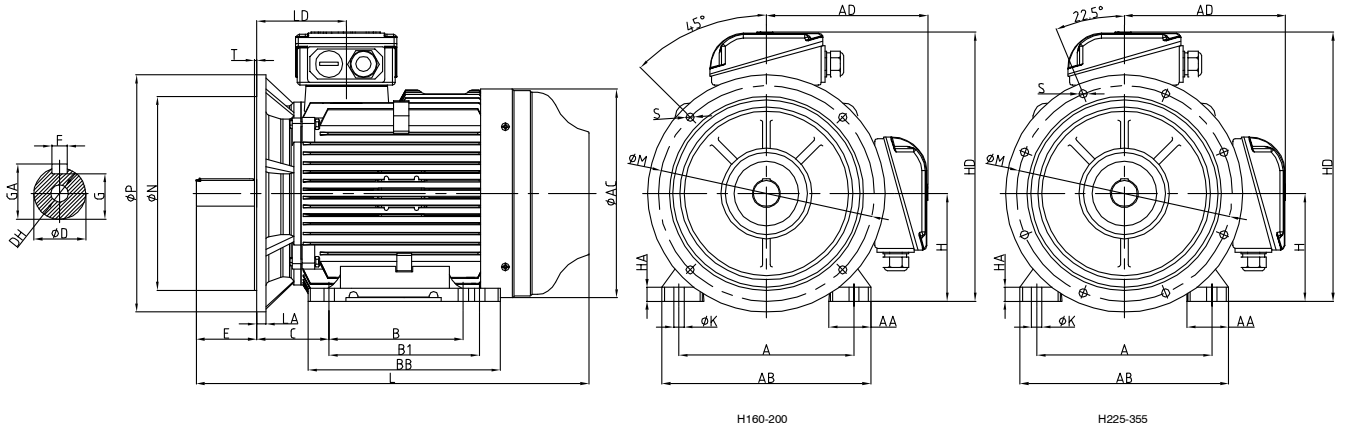
All other data are identical

B3, Mounting and overall dimensions

CAST IRON MOTORS

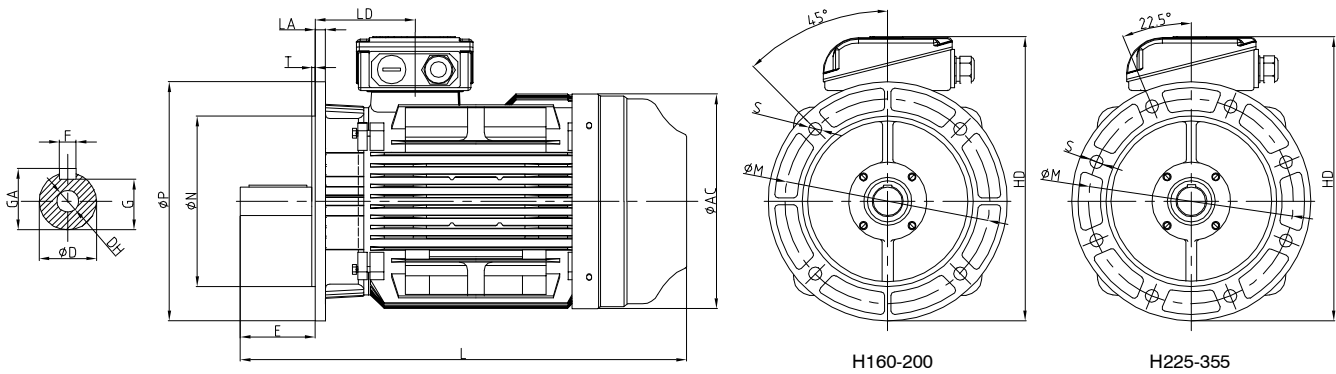


Frame Size	Poles	Mounting and Overall Dimensions (mm)																				
		A	B	B1	C	D	E	F	G	H	K	DH	GA	AA	AB	AC	AD	HA	HD	BB	LD	L
160M	2~8	254	210	/	108	42	110	12	37	160	15	M16×36	45	64	315	314	241	20	401	260	256	610
160L	2~8	254	254	/	108	42	110	12	37	160	15	M16×36	45	64	315	314	241	20	401	304	256	654
180M	2.4	279	241	/	121	48	110	14	42.5	180	15	M16×36	51.5	68	351	355	262	22	442	311	271	684
180L	4.6.8	279	279	/	121	48	110	14	42.5	180	15	M16×36	51.5	68	351	355	262	22	442	349	271	722
200L	2~8	318	305	/	133	55	110	16	49	200	19	M20×42	59	75	388	397	344	25	544	369	296	774
225S	4.8	356	286	/	149	60	140	18	53	225	19	M20×42	64	75	430	445	368	29	593	361	329	822
225M	2	356	311	/	149	55	110	16	49	225	19	M20×42	59	75	430	445	368	29	593	386	299	816
	4~8	356	311	/	149	60	140	18	53	225	19	M20×42	64	75	430	445	368	29	593	386	329	847
250M/S	2	406	311	349	168	60	140	18	53	250	24	M20×42	64	80	484	484	374	32	624	445	348	911
	4~8	406	311	349	168	65	140	18	58	250	24	M20×42	69	80	484	484	374	32	624	445	348	911
280S	2	457	368	/	190	65	140	18	58	280	24	M20×42	69	85	542	546	403	35	683	485	357	965
	4~8	457	368	/	190	75	140	20	67.5	280	24	M20×42	79.5	85	542	546	403	35	683	485	357	965
280M	2	457	419	/	190	65	140	18	58	280	24	M20×42	69	85	542	546	403	35	683	536	357	1016
	4~8	457	419	/	190	75	140	20	67.5	280	24	M20×42	79.5	85	542	546	403	35	683	536	357	1016
315S	2	508	406	/	216	65	140	18	58	315	28	M20×46	69	120	628	620	493	45	808	570	397	1201
	4~8	508	406	/	216	80	170	22	71	315	28	M20×46	85	120	628	620	493	45	808	570	427	1231
315M/L	2	508	457	508	216	65	140	18	58	315	28	M20×46	69	120	628	620	493	45	808	680	397	1311
	4~8	508	457	508	216	80	170	22	71	315	28	M20×46	85	120	628	620	493	45	808	680	427	1341
355M	2	610	560	630	254	75	140	20	67.5	355	28	M20×46	79.5	120	726	698	593	52	948	750	425	1501
	4~8	610	560	630	254	95	170	25	86	355	28	M24×56	100	120	726	698	593	52	948	750	455	1531



Frame Size	Poles	Mounting and Overall Dimensions (mm)																									
		A	B	B1	C	D	E	F	G	H	K	M	N	P	S	T	DH	GA	AA	AB	AC	HA	HD	BB	LD	LA	L
160M	2~8	254	210	/	108	42	110	12	37	160	15	300	250	350	4-Φ19	5	M16×36	45	64	315	314	20	401	260	256	15	610
160L	2~8	254	254	/	108	42	110	12	37	160	15	300	250	350	4-Φ19	5	M16×36	45	64	315	314	20	401	304	256	15	654
180M	2.4	279	241	/	121	48	110	14	42.5	180	15	300	250	350	4-Φ19	5	M16×36	51.5	68	351	355	22	442	311	271	15	684
180L	4.6.8	279	279	/	121	48	110	14	42.5	180	15	300	250	350	4-Φ19	5	M16×36	51.5	68	351	355	22	442	349	271	15	722
200L	2~8	318	305	/	133	55	110	16	49	200	19	350	300	400	4-Φ19	5	M20×42	59	70	388	397	25	544	369	296	17	774
225S	4.8	356	286	/	149	60	140	18	53	225	19	400	350	450	8-Φ19	5	M20×42	64	79	430	445	29	593	361	329	20	822
225M	2	356	311	/	149	55	110	16	49	225	19	400	350	450	8-Φ19	5	M20×42	59	79	430	445	29	593	386	299	20	816
	4~8	356	311	/	149	60	140	18	53	225	19	400	350	450	8-Φ19	5	M20×42	64	79	430	445	29	593	386	329	20	847
250S/M	2	406	311	349	168	60	140	18	53	250	24	500	450	550	8-Φ19	5	M20×42	64	97	484	484	32	624	445	348	22	911
	4~8	406	311	349	168	65	140	18	58	250	24	500	450	550	8-Φ19	5	M20×42	69	97	484	484	32	624	445	348	22	911
280S	2	457	368	/	190	65	140	18	58	280	24	500	450	550	8-Φ19	5	M20×42	69	85	542	546	35	683	485	357	22	965
	4~8	457	368	/	190	75	140	20	67.5	280	24	500	450	550	8-Φ19	5	M20×42	79.5	85	542	546	35	683	485	357	22	965
280M	2	457	419	/	190	65	140	18	58	280	24	500	450	550	8-Φ19	5	M20×42	69	85	542	546	35	683	536	357	22	1016
	4~8	457	419	/	190	75	140	20	67.5	280	24	500	450	550	8-Φ19	5	M20×42	79.5	85	542	546	35	683	536	357	22	1016
315S	2	508	406	/	216	65	140	18	58	315	28	600	550	660	8-Φ24	6	M20×46	69	120	628	620	45	808	570	397	22	1201
	4~8	508	406	/	216	80	170	22	71	315	28	600	550	660	8-Φ24	6	M20×46	85	120	628	620	45	808	570	427	22	1231
315M/L	2	508	457	508	216	65	140	18	58	315	28	600	550	660	8-Φ24	6	M20×46	69	120	628	620	45	808	680	397	22	1311
	4~8	508	457	508	216	80	170	22	71	315	28	600	550	660	8-Φ24	6	M20×46	85	120	628	620	45	808	680	427	22	1341
355M	2	610	560	630	254	75	140	20	67.5	355	28	740	680	800	8-Φ24	6	M20×46	79.5	116	726	698	52	948	750	425	25	1501
	4~8	610	560	630	254	95	170	25	86	355	28	740	680	800	8-Φ24	6	M24×56	100	116	726	698	52	948	750	455	25	1531

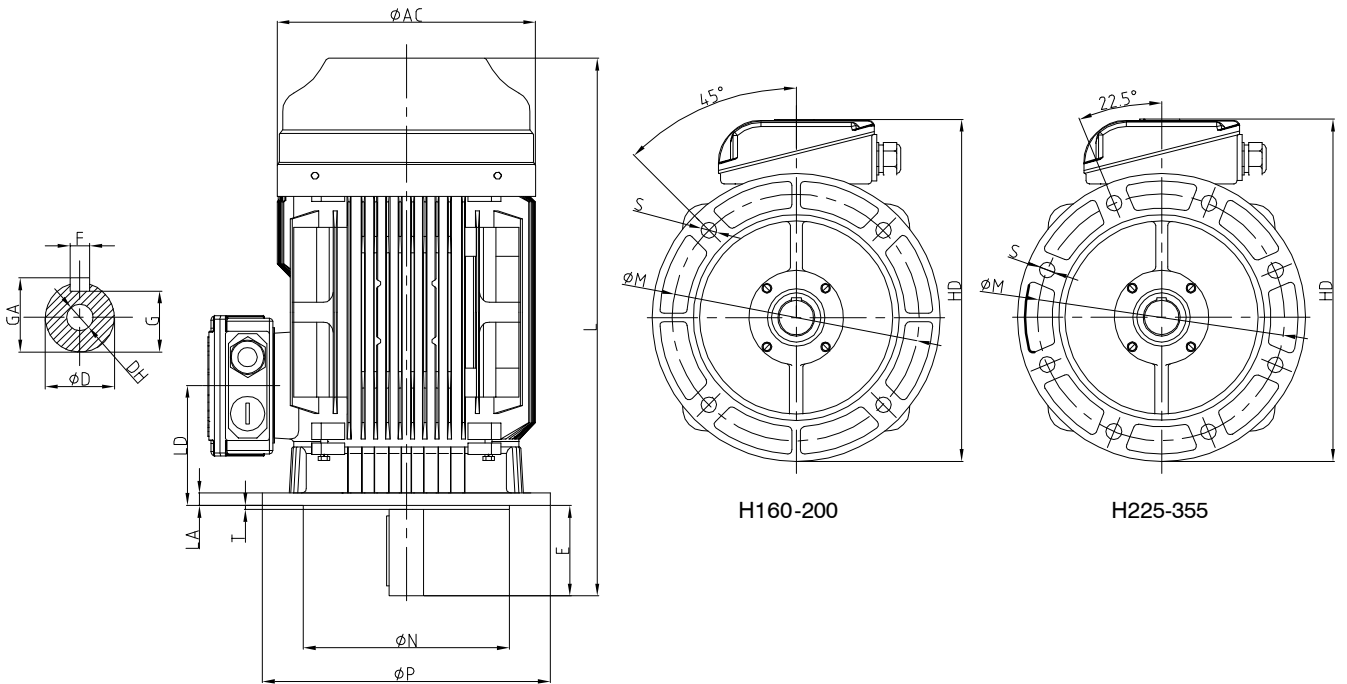




Frame Size	Poles	Mounting and Overall Dimensions (mm)															
		D	E	F	G	M	N	P	S	T	DH	GA	AC	HD	LA	LD	L
160M	2~8	42	110	12	37	300	250	350	4-φ19	5	M16×36	45	314	416	15	146	610
160L	2~8	42	110	12	37	300	250	350	4-φ19	5	M16×36	45	314	416	15	146	654
180M	2.4	48	110	14	42.5	300	250	350	4-φ19	5	M16×36	51.5	355	437	15	161	684
180L	4.6.8	48	110	14	42.5	300	250	350	4-φ19	5	M16×36	51.5	355	437	15	161	722
200L	2~8	55	110	16	49	350	300	400	4-φ19	5	M20×42	59	397	544	17	186	774
225S	4.8	60	140	18	53	400	350	450	8-φ19	5	M20×42	64	445	593	20	189	822
225M	2	55	110	16	49	400	350	450	8-φ19	5	M20×42	59	445	593	20	189	816
	4~8	60	140	18	53	400	350	450	8-φ19	5	M20×42	64	445	593	20	189	847
250S/M	2	60	140	18	53	500	450	550	8-φ19	5	M20×42	64	484	649	22	208	911
	4~8	65	140	18	58	500	450	550	8-φ19	5	M20×42	69	484	649	22	208	911
280S	2	65	140	18	58	500	450	550	8-φ19	5	M20×42	69	546	678	22	217	965
	4~8	75	140	20	67.5	500	450	550	8-φ19	5	M20×42	79.5	546	678	22	217	965
280M	2	65	140	18	58	500	450	550	8-φ19	5	M20×42	69	546	678	22	217	1016
	4~8	75	140	20	67.5	500	450	550	8-φ19	5	M20×42	79.5	546	678	22	217	1016

\* IEC 315 and up, B5 is special design on request.

\* IEC 315 and up, V3 is special design on request.



H160-200

H225-355

Frame Size	Poles	Mounting and Overall Dimensions (mm)															
		D	E	F	G	M	N	P	S	T	DH	GA	AC	HD	LA	LD	L
160M	2~8	42	110	12	37	300	250	350	4-Phi19	5	M16x36	45	314	416	15	146	610
160L	2~8	42	110	12	37	300	250	350	4-Phi19	5	M16x36	45	314	416	15	146	654
180M	2.4	48	110	14	42.5	300	250	350	4-Phi19	5	M16x36	51.5	355	437	15	161	684
180L	4.6.8	48	110	14	42.5	300	250	350	4-Phi19	5	M16x36	51.5	355	437	15	161	722
200L	2~8	55	110	16	49	350	300	400	4-Phi19	5	M20x42	59	397	544	17	186	774
225S	4.8	60	140	18	53	400	350	450	8-Phi19	5	M20x42	64	445	593	20	189	822
225M	2	55	110	16	49	400	350	450	8-Phi19	5	M20x42	59	445	593	20	189	816
	4~8	60	140	18	53	400	350	450	8-Phi19	5	M20x42	64	445	593	20	189	847
250S/M	2	60	140	18	53	500	450	550	8-Phi19	5	M20x42	64	484	649	22	208	911
	4~8	65	140	18	58	500	450	550	8-Phi19	5	M20x42	69	484	649	22	208	911
280S	2	65	140	18	58	500	450	550	8-Phi19	5	M20x42	69	546	678	22	217	965
	4~8	75	140	20	67.5	500	450	550	8-Phi19	5	M20x42	79.5	546	678	22	217	965
280M	2	65	140	18	58	500	450	550	8-Phi19	5	M20x42	69	546	678	22	217	1016
	4~8	75	140	20	67.5	500	450	550	8-Phi19	5	M20x42	79.5	546	678	22	217	1016
315S	2	65	140	18	58	600	550	660	8-Phi24	6	M20x46	69	620	823	22	257	1201
	4~8	80	170	22	71	600	550	660	8-Phi24	6	M20x46	85	620	823	22	257	1231
315M/L	2	65	140	18	58	600	550	660	8-Phi24	6	M20x46	69	620	823	22	257	1311
	4~8	80	170	22	71	600	550	660	8-Phi24	6	M20x46	85	620	823	22	257	1341
355M	2	75	140	20	67.5	740	680	800	8-Phi24	6	M20x46	79.5	698	993	25	285	1501
	4~8	95	170	25	86	740	680	800	8-Phi24	6	M24x56	100	698	993	25	285	1531

**Ambient Temperature**

Ambient temperature °C	30	35	40	45	50	55	60
Power output (kW)	1,05	1,02	1	0,97	0,93	0,87	0,82

**Altitude**

Meters above sea level	1000 m	1500 m	2000 m	2500 m	3000 m	3500 m	4000 m
Power output (kW)	1	0,98	0,95	0,91	0,87	0,83	0,78

**Bearings**

Frame size	Driving end		Non-driving end	
	2 Pole	4, 6, 8 Pole	2 Pole	4, 6, 8 Pole
180	6211/C3	6311/C3	6211/C3	6211/C3
200	6212/C3	6312/C3	6212/C3	6212/C3
225	6213/C3	6313/C3	6213/C3	6213/C3
250	6313/C3	6314/C3	6313/C3	6313/C3
280	6314/C3	6317/C3	6314/C3	6314/C3
315	6317/C3	6319/C3	6317/C3	6319/C3
355	6319/C3	6322/C3	6319/C3	6322/C3

Roller bearing (NU) available on request  
 Angular contact bearings available on request

**Mounting Arrangements**

Types	Basic Type of Construction	Derived Types of Construction				
SWE 160-355	IM B3 IM 1001	IM V5 IM 1011	IM V6 IM 1031	IM B6 IM 1051	IM B7 IM 1061	IM B8 IM 1071
	IM B35 IM 2001	IM V15 IM 2011	IM V36 IM 2031	* IM 2051	* IM 2061	* IM 2071
SWE 160-355	IM B5 IM 3001	IM V1 IM 3011	IM V3 IM 3031			

Basic types of construction may be used in all derived types of construction.

1) “\*” means not-defined mounting by IEC 60034-7. 2) for the types of construction IM V6, IM B6, IM B8 inquiry is necessary.

\* V3 mounting with standard housing only accepted up to frame size 250. Motors frame size 280 and up need special housing and flange.

\* Mounting B5 - special design on request from IEC 315 and up.

**Blind plugs**

Motor frame size	Main connection	AUX connection
63	2xM18x1,5	None
71	2xM18x1,5	None
80	2xM20x1,5	1xM16x1,5
90	2xM25x1,5	1xM20x1,5
100	2xM25x1,5	1xM20x1,5
112	2xM32x1,5	1xM20x1,5
132	2xM32x1,5	1xM20x1,5
160	2xM40x1,5	2xM20x1,5
180	2xM40x1,5	2xM20x1,5
200	2xM50x1,5	2xM20x1,5
225	2xM50x1,5	2xM20x1,5
250	2xM63x1,5	2xM20x1,5
280	2xM63x1,5	2xM20x1,5
315	2xM63x1,5	2xM20x1,5
355	2xM72x1,5	2xM20x1,5



ANDERS HØYER TRANSMISSIONS A/S

## About AHT A/S

Anders Høyer Transmissions (AHT) stands out in the field of electric motors and mechanical transmissions with an unwavering commitment to providing the best customer service.

Driven by a team of experienced employees, AHT not only offers technical expertise but also serves as a reliable sparring partner for our customers.

At our core, we believe that optimal outcomes stem from close collaborations. This principle guides us as we provide flexibility, adaptability, and on-time delivery in our relentless pursuit of delivering optimal solutions.

Founded by Anders Høyer, whose passion and dedication is inherited by his father and grandfather, Lars Høyer and the late Svend Høyer, AHT charts its own course. It is that very same passion and dedication that sets AHT apart, and has established us as a dependable and capable business partner.

By choosing Anders Høyer Transmissions, you get a company with extensive product knowledge, is solution-oriented, and highly engaged with our customers. "We want you to, feel the difference".



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