

# ***AHT ELECTRIC MOTOR CATALOGUE***

***IE4***

***– feel the difference***



ANDERS HØYER TRANSMISSIONS A/S



# *AHT, motors for all industries*



# ***AHT ALUMINIUM ELECTRIC MOTORS***

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

***IE4***



# AHT ALUMINIUM ELECTRIC MOTORS

*Three phase super premium efficiency asynchronous aluminium motors*



AHT Aluminium motors are manufactured according to the super 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.

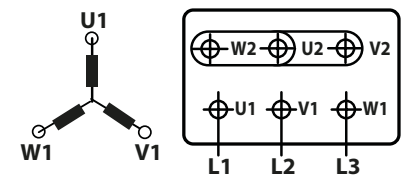
## AHT standard motor specification

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

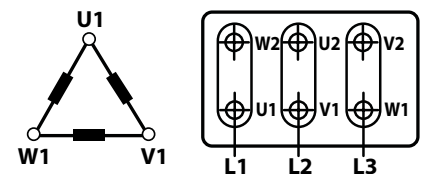
Important notice:  
AHT reserves the right to implement changes without further notice.  
Data in the catalog are not binding.  
Motors are multistamped with 60Hs data.

## Connecting Diagrams

### Y-Connecting



### D-Connecting



## Technical Specifications

## ALUMINIUM MOTORS

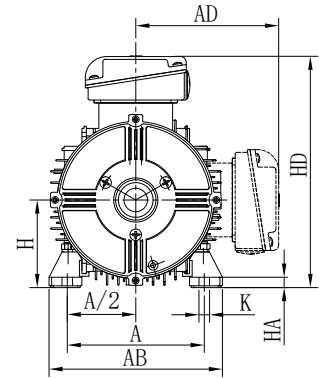
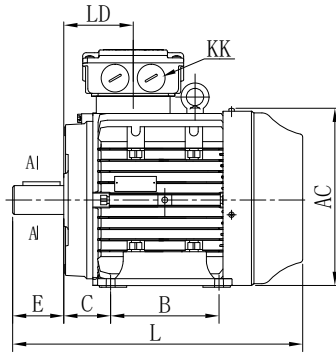
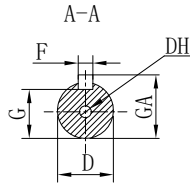
Rated Output		IEC Frame	Rated Speed r/m	Full Load Current I <sub>n</sub> (A)	Efficiency η%			Power Factor cosφ			Locked Rotor Current I <sub>L</sub> /I <sub>n</sub>	Locked Rotor Torque T <sub>L</sub> /T <sub>n</sub>	Break-down Torque T <sub>B</sub> /T <sub>n</sub>	Sound LP dB(A)	Moment of Inertia J(kgm <sup>2</sup> )	Weight kg
					Full Load %											
kW	HP			400V	100	75	50	100	75	50						
<b>3000r/m (2 Pole) 50Hz</b>																
0.75	1	80M1	2870	1.66	83.5	84.6	83.1	0.78	0.70	0.57	7.3	4.6	3.9	62	0.001	11
1.1	1.5	80M2	2875	2.48	85.2	85.3	83.7	0.75	0.67	0.53	8.3	4.8	4.2	62	0.001	12.5
1.5	2	90S	2905	2.84	86.5	87.3	87.3	0.88	0.83	0.73	8.8	3.1	3.7	67	0.002	16.5
2.2	3	90L	2895	4.10	88.0	89.1	88.9	0.88	0.83	0.72	9.5	3.3	3.7	67	0.003	21
3	4	100L	2910	5.59	89.1	88.9	87.5	0.87	0.82	0.72	11.4	5.1	4.6	74	0.005	31
4	5.5	112M	2915	7.37	90.0	89.9	88.0	0.87	0.83	0.74	9.2	3.0	3.6	77	0.014	31
5.5	7.5	132S1	2930	9.81	90.9	90.7	89.9	0.89	0.85	0.76	9.6	3.2	3.8	79	0.028	47
7.5	10	132S2	2930	13.26	91.7	91.2	90.5	0.89	0.86	0.77	10.1	3.2	3.9	79	0.028	55
11	15	160M1	2945	19.48	92.6	92.5	91.0	0.88	0.86	0.80	7.8	2.2	3.7	69	0.066	98
15	20	160M2	2945	26.37	93.3	93.1	92.0	0.88	0.86	0.80	8.2	2.2	3.8	69	0.068	108
18.5	25	160L	2945	32.02	93.7	93.5	92.0	0.89	0.87	0.81	8.2	2.2	3.8	60	0.076	130
22	30	180M/L	2955	38.39	94.0	93.8	92.5	0.88	0.86	0.80	8.0	2.5	3.2	70	0.173	150
<b>1500r/m (4 Pole) 50Hz</b>																
0.75	1	80M2	1445	1.82	85.2	85.3	83.7	0.70	0.61	0.47	7.9	5.0	4.3	56	0.005	17
1.1	1.5	90S	1445	2.40	87.2	87.5	85.3	0.76	0.68	0.55	7.6	3.8	3.8	59	0.007	19
1.5	2	90L	1445	3.23	88.2	88.5	86.5	0.76	0.68	0.54	7.7	3.0	3.5	59	0.008	21
2.2	3	100L1	1455	4.61	89.5	88.2	86.6	0.77	0.69	0.55	9.8	4.1	4.1	64	0.009	32
3	4	100L2	1455	6.22	90.4	89.6	88.3	0.77	0.69	0.55	10.5	4.1	4.4	64	0.010	35
4	5.5	112M	1445	8.13	91.1	90.4	90.0	0.78	0.71	0.59	8.5	3.7	3.6	65	0.019	36
5.5	7.5	132S	1465	10.80	91.9	91.2	90.0	0.80	0.73	0.60	9.3	3.2	3.3	71	0.042	61
7.5	10	132M	1465	14.80	92.6	92.0	91.0	0.79	0.73	0.60	10.5	3.6	4.0	71	0.051	74
11	15	160M	1475	20.50	93.3	93.1	92.2	0.83	0.77	0.67	8.8	3.3	3.4	60	0.068	106
15	20	160L	1475	27.78	93.9	93.8	92.9	0.83	0.79	0.70	9.0	3.6	3.8	60	0.076	124
18.5	25	180M/L	1475	34.15	94.2	94.0	93.0	0.83	0.76	0.68	7.9	2.3	3.8	65	0.159	162
22	30	180L	1475	40.49	94.5	94.3	93.3	0.83	0.76	0.68	8.5	2.3	3.7	65	0.193	186
<b>1000r/m (6 Pole) 50Hz</b>																
0.75	1	90S	955	1.87	82.7	82.1	78.3	0.70	0.62	0.50	4.2	2.0	2.5	57	0.005	18.5
1.1	1.5	90L	955	2.65	84.5	84.1	77.6	0.71	0.63	0.51	4.1	2.0	2.5	57	0.007	21
1.5	2	100L	960	3.60	85.9	85.8	83.0	0.70	0.65	0.55	4.7	2.0	2.6	61	0.008	27
2.2	3	112M	960	4.78	87.4	87.4	85.0	0.76	0.68	0.60	5.0	2.0	2.3	65	0.016	34
3	4	132S	975	6.52	88.6	88.6	87.1	0.75	0.68	0.58	7.1	2.5	2.5	69	0.038	51
4	5.5	132M1	975	8.60	89.5	89.3	88.0	0.75	0.70	0.58	7.5	2.8	3.1	69	0.06	63
5.5	7.5	132M2	975	11.54	90.5	90.6	89.9	0.76	0.72	0.60	7.5	3.0	3.1	69	0.065	71
7.5	10	160M	970	15.81	91.3	91.0	90.2	0.75	0.69	0.60	7.0	2.5	2.8	56	0.12	138
11	15	160L	975	22.94	92.3	92.2	91.1	0.75	0.67	0.59	7.0	3.0	3.1	56	0.16	162
15	20	180L	980	29.88	92.9	92.7	90.7	0.78	0.70	0.61	8.5	3.0	3.4	59	0.37	239

Data at 400V 50 Hz

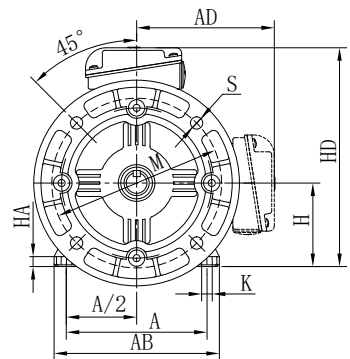
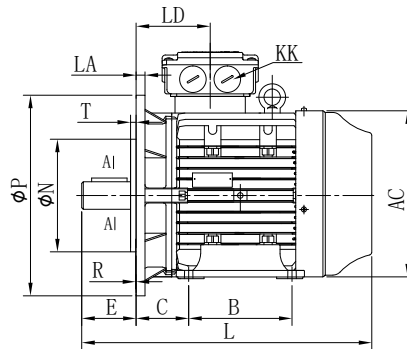
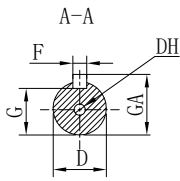
At 230V 50 Hz the current  $\sqrt{3}$  x current at 400V and at 690V the current is current at 400V /  $\sqrt{3}$ .

All other data are identical

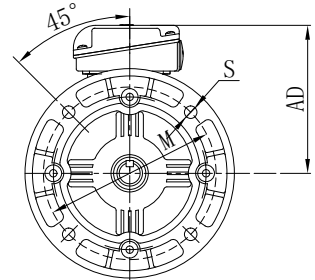
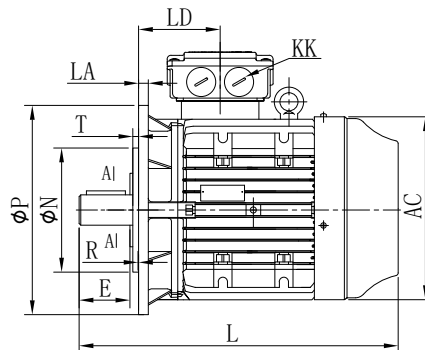
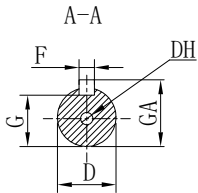
B3



B35

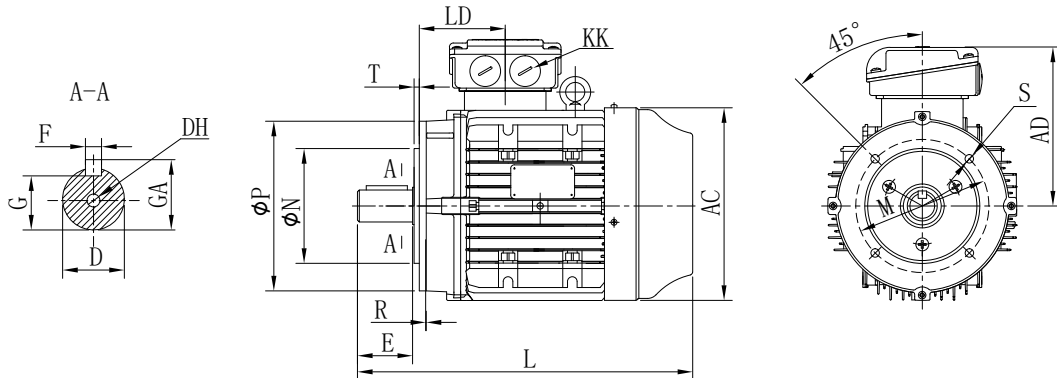


B5

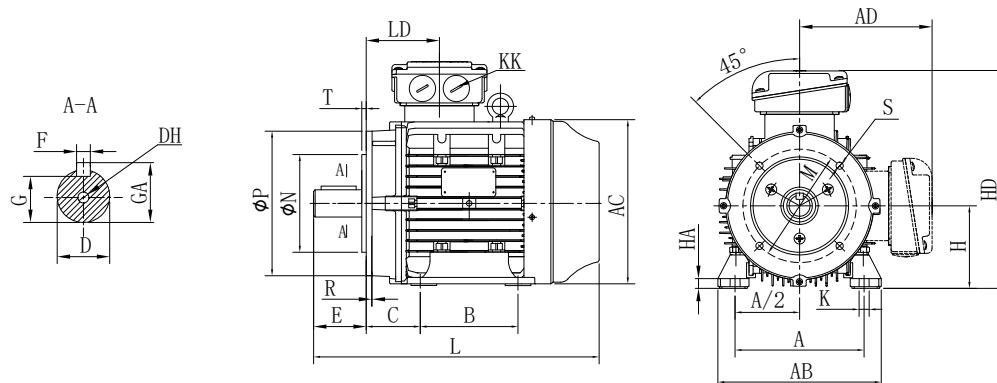


Frame Size	Mounting and Overall Dimensions (mm)																										
	A	A/2	B	C	D	DH	E	F	G	H	K	KK	M	N	P	R	S	T	AB	AC	AD	HD	GA	LA	LD	HA	L
80M-2	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20×1.5	165	130	200	0±1.5	4-Φ12	3.5	154	157	124	204	21.5	9.5	75	10	296
80M2-4	125	62.5	100	50	19	M6×16	40	6	15.5	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	331
90S	140	70	100	56	24	M8×20	50	8	20	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	90	4-Φ10	M25×1.5	165	130	200	0±1.5	4-Φ12	3.5	180	175	143	233	27	10	87	10	349
100L1-4 100L-2.6	160	80	140	63	28	M10×22	60	8	24	100	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4	200	199	159	259	31	12	78	12	374
100L2-4	160	80	140	63	28	M10×22	60	8	24	100	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4	200	199	159	259	31	12	78	12	418
112M	190	95	140	70	28	M10×22	60	8	24	112	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4	230	222	169	281	31	12	85	12	381
132S	216	108	140	89	38	M12×28	80	10	33	132	4-Φ12	M32×1.5	265	230	300	0±2	4-Φ14.5	4	264	260	193	325	41	14	129	15	475
132M	216	108	178	89	38	M12×28	80	10	33	132	4-Φ12	M32×1.5	265	230	300	0±2	4-Φ14.5	4	264	260	193	325	41	14	129	15	513
160M	254	127	210	108	42	M16×36	110	12	37	160	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5	314	314	237	397	45	15	154	22	612
160L	254	127	254	108	42	M16×36	110	12	37	160	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5	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	347	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	347	355	255	435	51.5	15	159	25	723

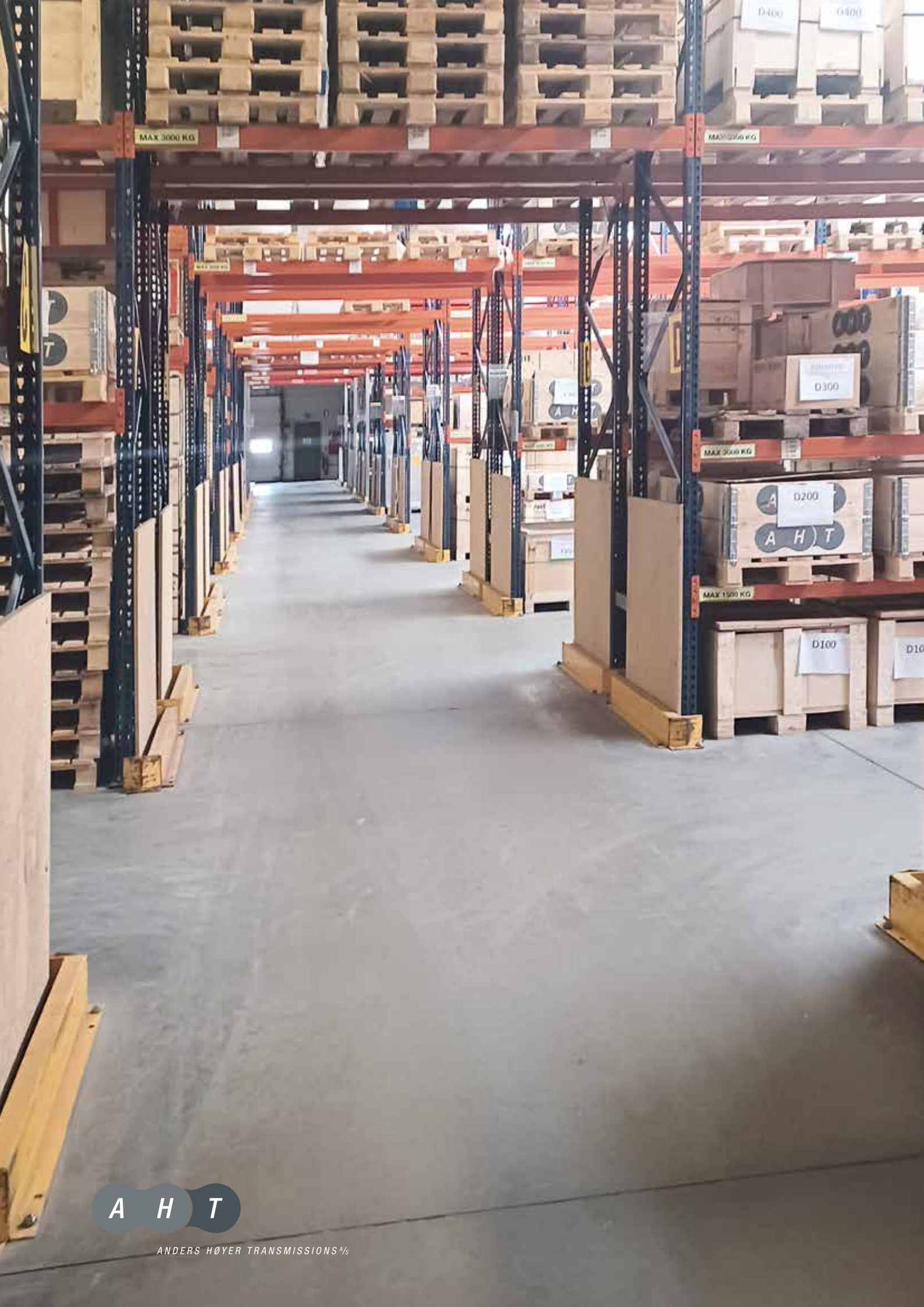
B14



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	M20x1.5	100	80	120	0±1.5	4-M6	3	154	157	124	204	21.5	75	10	296
80M2-4	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20x1.5	100	80	120	0±1.5	4-M6	3	154	157	124	204	21.5	75	10	331
90S	140	70	100	56	24	M8×20	50	8	20	90	4-Φ10	M25x1.5	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	M25x1.5	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	M25x1.5	130	110	160	0±2	4-M8	3.5	200	199	159	259	31	78	12	374
100L2-4	160	80	140	63	28	M10×22	60	8	24	100	4-Φ12	M25x1.5	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	M25x1.5	130	110	160	0±2	4-M8	3.5	230	222	169	281	31	85	12	381
132S	216	108	140	89	38	M12×28	80	10	33	132	4-Φ12	M32x1.5	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	M32x1.5	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

D100

D100

D300

D200

AHT

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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	* IM 2051	* IM 2061	* IM 2071
SWEA 80-180	IM B34 IM 2101	* IM 2111	* IM 2131	* IM 2151	* IM 2161	* IM 2171
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

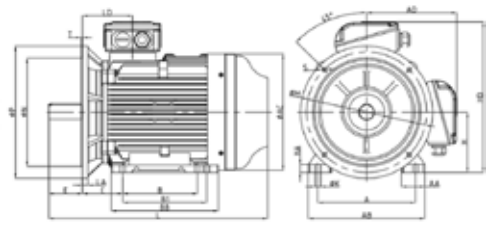
**AHT**  
 provides full  
 documentation  
 package



**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)	LRC	LRT	BT	Lpe				
B35	IPN	AHT type	380	400	690	80/75	100	80	75	100	IE	100	BTIN	MST/MN	MG/PMN	dB(A)
B35	IPN	AHTM3A 160M B35	22	20	12.0	73/81	85	91	92	91	3	1470	8.8	2.5	3.1	58

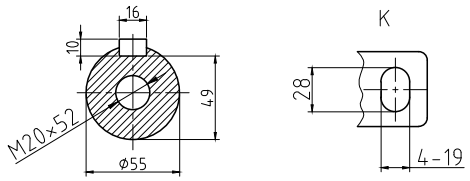
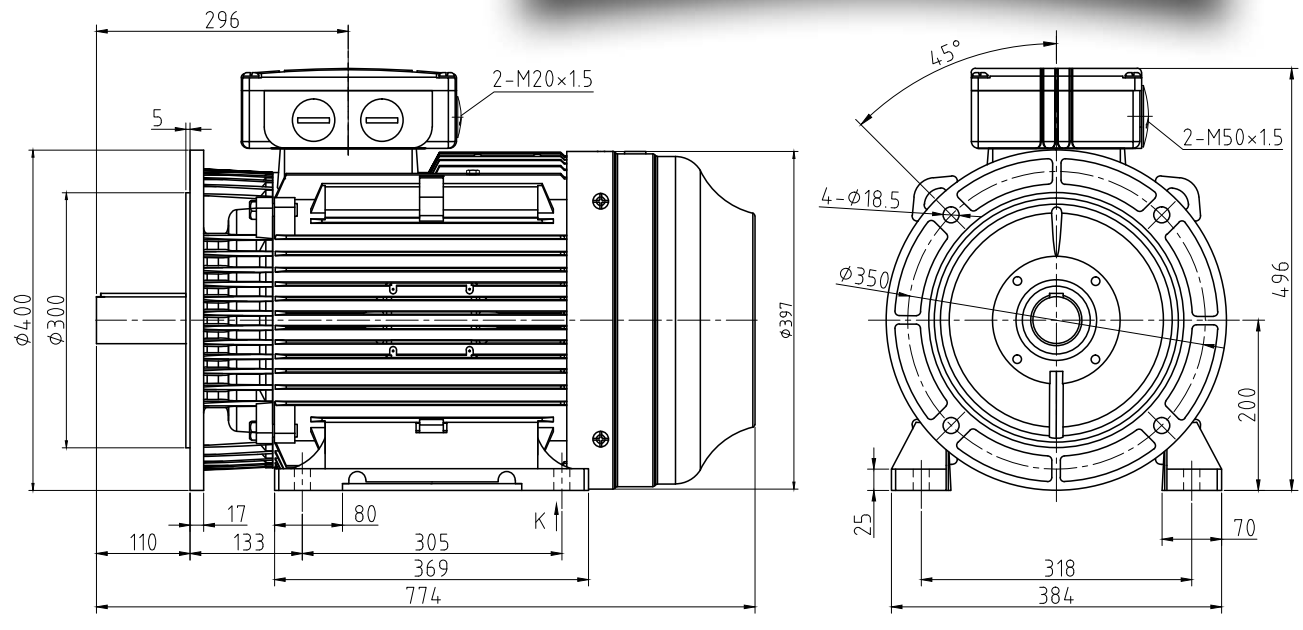
  

Poles	Temperature		Insulation Class	Moment of inertia J (kgm <sup>2</sup> )	Bearing		Vibration grade	Direction of rotation	Built-in motor protection	Opening temperature °C
	T <sub>amb max</sub> °C	T <sub>amb min</sub> °C			Drive and Non-D	and				
35	40	-15	F	0.1650	6205/C3	6205/C3	A	Clk	PTC	155

Motor Frame	Flange	Weight	Casting	Mounting Version	Duty Type	IEC Motor Dimension	Cable Entry
Aluminium Cast Iron	Aluminium Cast Iron	kg	IC	IEC NEMA		L0	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	
M342001300	AHTM3C 200L 4Pol B35	

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

***Three phase super premium  
efficiency asynchronous  
cast iron motors***

***IE4***

# AHT CAST IRON ELECTRIC MOTORS

*Three phase super premium efficiency asynchronous cast iron motors*



AHT Cast Iron electric motors are manufactured according to the super premium efficiency motors 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.

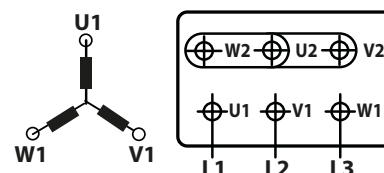
## AHT standard motor specification

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:	230/400V $\Delta$ Y up to 3kW / 400/690V $\Delta$ Y 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

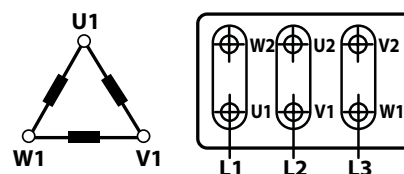
Important notice:  
AHT reserves the right to implement changes without further notice.  
Data in the catalog are not binding.  
Motors are multistamped with 60Hs data

## 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
kW	HP				Full Load %											
					400V	100	75	50	100	75						
<b>3000r/m (2 Pole) 50Hz</b>																
11	15	160M	2945	19.50	92.6	92.5	91.0	0.88	0.83	0.72	7.8	2.2	3.7	69	0.066	132
15	20	160M	2945	26.40	93.3	93.1	92.0	0.88	0.83	0.72	8.2	2.2	3.8	69	0.068	150
18.5	20	160L	2945	32.00	93.7	93.5	92.0	0.89	0.84	0.72	8.1	2.2	3.8	69	0.076	175
22	30	180M/L	2955	38.40	94.0	93.8	92.5	0.88	0.83	0.72	8.0	2.5	3.2	70	0.173	220
30	40	200L1	2970	51.49	94.5	94.1	92.8	0.89	0.84	0.74	8.0	2.6	3.2	73	0.193	258
37	50	200L2	2980	63.30	94.8	94.6	93.0	0.89	0.84	0.74	7.8	2.8	3.5	73	0.203	278
45	60	225M	2980	75.97	95.0	94.8	93.0	0.90	0.86	0.74	8.9	2.5	3.5	75	0.411	358
55	75	250S/M	2980	93.60	95.3	95.1	94.1	0.89	0.85	0.73	8.2	2.3	3.5	78	0.435	452
75	100	280S	2980	127.23	95.6	95.2	94.3	0.89	0.86	0.75	7.8	2.3	3.2	79	0.743	544
90	125	280M	2980	150.67	95.8	95.5	94.8	0.90	0.86	0.76	7.6	2.5	3.2	79	0.823	620
110	150	315S	2980	183.77	96.0	95.8	95.0	0.90	0.85	0.76	7.6	2.3	3.6	80	1.64	1078
132	175	315M	2980	220.06	96.2	96.0	95.0	0.90	0.87	0.76	7.7	2.3	3.5	80	1.78	1138
160	215	315M/L	2980	266.47	96.3	96.1	95.1	0.90	0.87	0.76	7.6	2.4	3.5	82	1.97	1278
200	270	315M/L	2980	332.39	96.5	96.3	95.4	0.90	0.87	0.76	8.1	2.3	3.3	83	1.97	1419
250	335	355M/L	2980	415.49	96.5	96.2	95.3	0.90	0.87	0.76	8.2	2.3	3.5	83	3.9	1914
315	420	355M/L	2980	523.52	96.5	96.2	95.3	0.90	0.87	0.77	8.9	2.8	3.8	83	4.01	2132
<b>1500r/m (4 Pole) 50Hz</b>																
11	15	160M	1475	20.5	93.3	93.1	92.2	0.83	0.77	0.67	8.8	3.3	3.4	60	0.108	147
15	20	160L	1475	27.8	93.9	93.8	92.9	0.83	0.79	0.70	9.0	3.6	3.8	60	0.109	171
18.5	25	180M/L	1475	34.2	94.2	94.0	93.0	0.83	0.76	0.68	7.9	2.3	3.8	65	0.159	137
22	30	180L	1475	40.5	94.5	94.3	93.3	0.83	0.76	0.68	8.5	2.3	3.7	65	0.193	153
30	40	200L1	1480	54.32	94.9	94.7	93.7	0.84	0.78	0.69	7.3	1.9	2.7	68	0.311	270
37	50	225S	1480	66.00	95.2	95.0	94.0	0.85	0.79	0.70	7.8	2.4	3.2	68	0.612	344
45	60	225M	1480	80.10	95.4	95.1	94.1	0.85	0.79	0.70	8.3	2.7	3.2	69	0.679	382
55	75	250S/M	1485	97.59	95.7	95.6	94.8	0.85	0.79	0.70	8.3	2.4	3.0	69	0.841	472
75	100	280S	1485	131.12	96.0	95.8	95.2	0.86	0.79	0.70	7.9	2.1	2.9	70	1.53	614
90	125	280M	1485	159.19	96.1	96.0	95.0	0.86	0.79	0.70	7.8	2.2	3.0	70	1.77	688
110	150	315S	1490	185.45	96.2	96.1	95.1	0.89	0.81	0.71	7.3	2.1	3.1	74	4.01	1000
132	175	315M	1490	222.07	96.4	96.2	95.3	0.89	0.81	0.69	7.7	2.0	3.0	74	3.74	1068
160	215	315M/L	1490	268.62	96.6	96.4	95.5	0.89	0.81	0.69	7.7	2.3	3.2	74	7.56	1116
200	270	315M/L	1490	335.43	96.7	96.5	95.6	0.89	0.82	0.69	7.9	2.1	3.0	74	5.16	1258
250	335	355M/L	1490	419.29	96.7	96.5	95.5	0.89	0.86	0.73	8.0	2.1	2.8	80	8.06	2025
315	420	355M/L	1490	528.31	96.7	96.5	95.5	0.89	0.88	0.73	8.0	2.4	3.0	83	8.76	2420

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

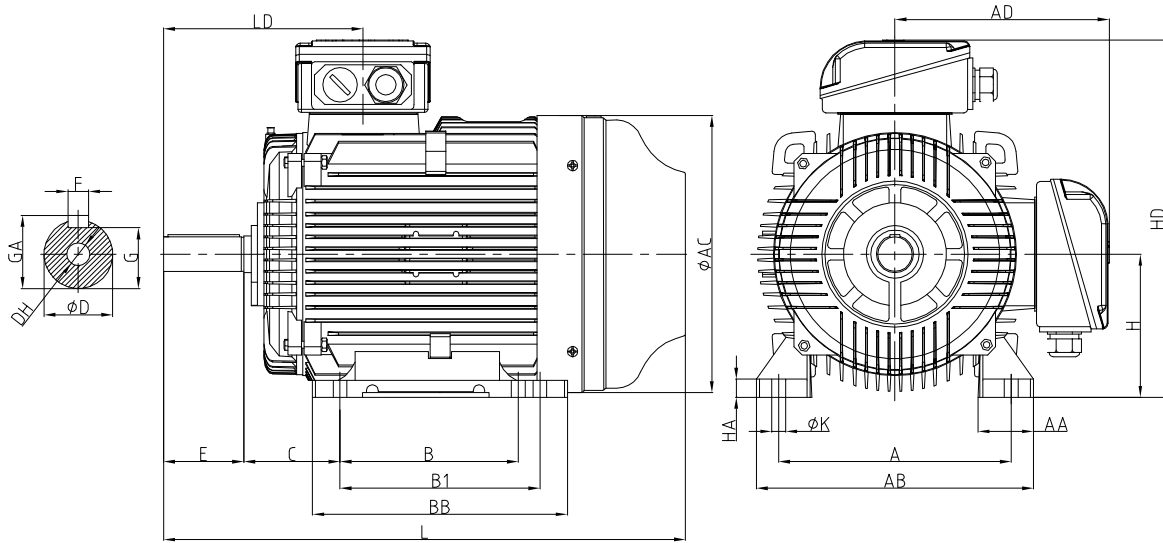
## CAST IRON MOTORS

Rated Output		IEC Frame	Rated Speed r/m	Full Load Current $I_n$ (A)	Efficiency $\eta\%$			Power Factor $\cos\varphi$			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			400V	100	75	50	100	75	50						
<b>1000r/m (6 Pole) 50Hz</b>																
7.5	10	160M	970	15.8	91.3	91.0	90.2	0.75	0.69	0.60	7.0	2.5	2.8	56	0.1	138
11	15	160L	975	22.9	92.3	92.2	91.1	0.75	0.67	0.59	7.0	3.0	3.1	56	0.16	162
15	20	180L	980	29.9	92.9	92.7	90.7	0.78	0.70	0.61	8.5	3.0	3.4	59	0.37	239
18.5	25	200L1	980	35.74	93.4	93.0	92.1	0.80	0.73	0.64	7.4	2.8	2.9	68	0.38	262
22	30	200L2	980	41.33	93.7	93.4	92.9	0.82	0.73	0.63	7.0	2.5	2.6	59	0.44	286
30	40	225M	985	54.72	94.2	93.9	93.3	0.84	0.76	0.63	7.0	2.2	2.3	59	0.73	362
37	50	250S/M	980	67.28	94.5	94.0	93.5	0.84	0.76	0.66	8.0	2.8	3.4	59	0.11	474
45	60	280S	980	81.57	94.8	94.8	93.4	0.84	0.78	0.68	8.0	2.8	3.3	60	1.75	572
55	75	280M	980	99.38	95.1	94.9	93.6	0.84	0.79	0.71	8.0	2.8	3.2	60	1.99	644
75	100	315S	980	136.72	95.4	95.3	94.3	0.83	0.78	0.73	7.0	2.0	2.6	68	3.68	880
90	125	315M	990	161.77	95.6	95.6	94.7	0.84	0.80	0.72	7.0	2.0	2.6	69	4.95	992
110	150	315M/L	990	199.68	95.8	95.4	94.5	0.83	0.80	0.74	7.0	2.0	2.6	70	5.76	1420
132	175	315M/L	990	239.12	96.0	95.6	94.8	0.83	0.81	0.75	7.0	2.0	2.6	70	5.79	1420
160	215	355M/L	990	279.15	96.2	96.0	94.9	0.86	0.83	0.78	7.0	2.3	2.5	70	9.96	1980
200	270	355M/L	995	352.68	96.3	96.3	96.0	0.85	0.82	0.80	7.3	2.0	2.4	70	11.5	2033
250	335	355M/L	995	439.93	96.5	96.6	96.2	0.85	0.83	0.81	7.0	2.0	2.4	75	12.6	2234

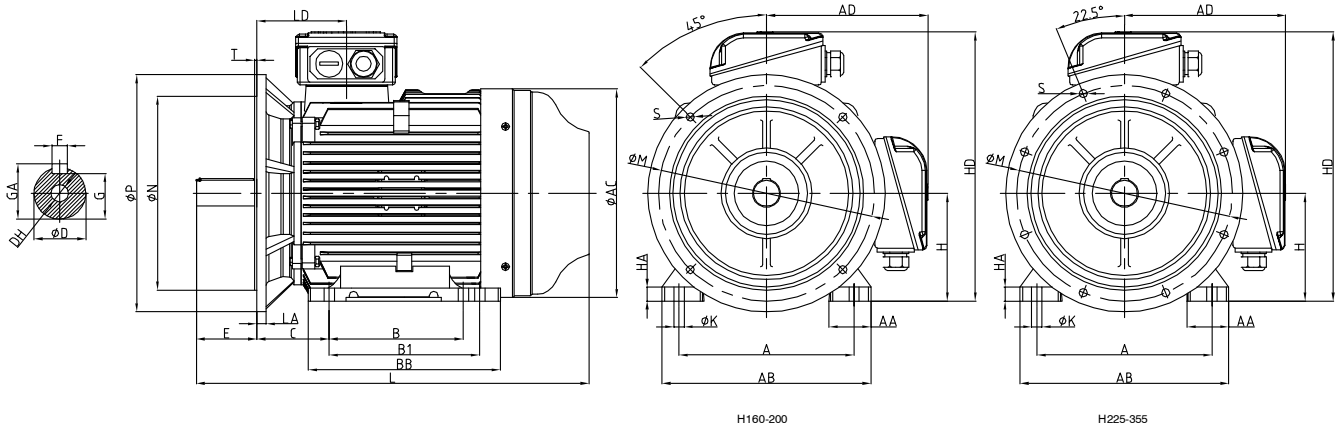
Data at 400V 50 Hz

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

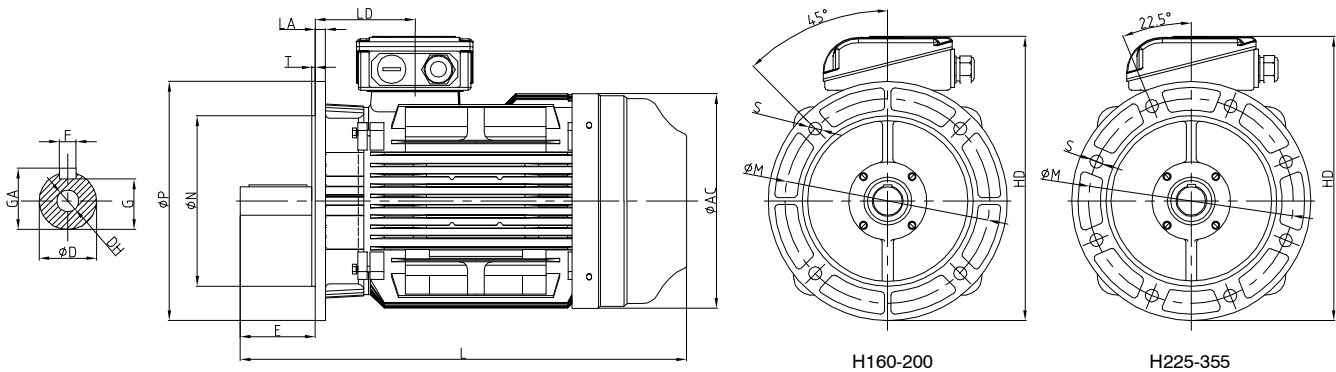


Frame Size	Poles	Mounting and Overall Dimensions (mm)																				
		A	B	BI	C	D	E	F	G	H	K	DH	GA	AA	AB	AC	AD	HA	HD	BB	LD	L
160M	2~8	254	210	/	108	42	110	12	37.0	160	15	M16×36	45.0	64	315	314	241	20	401	260	256	630
160L	2	254	254	/	108	42	110	12	37.0	160	15	M16×36	45.0	64	315	314	241	20	401	304	256	674
160L	4~8	254	254	/	108	42	110	12	37.0	160	15	M16×36	45.0	64	315	314	241	20	401	304	256	674
180M/L	2~4	279	241	279	121	48	110	14	42.5	180	15	M16×36	51.5	68	351	355	262	22	442	349	271	722
180L/M	4~8	279	241	279	121	48	110	14	42.5	180	15	M16×36	51.5	68	351	355	262	22	442	349	271	752
200L	2	279	305	/	133	55	110	16	49.0	200	19	M20×42	59.0	70	388	397	344	25	544	369	296	804
200L	4~8	279	305	/	133	55	110	16	49.0	200	19	M20×42	59.0	70	388	397	344	25	544	369	296	804
225S	4~8	318	286	/	149	60	140	18	53.0	225	19	M20×42	64.0	79	430	445	368	29	593	361	329	852
225M	2	356	311	/	149	55	110	16	49.0	225	19	M20×42	59.0	79	430	445	368	29	593	386	299	846
	4~8	356	311	/	149	60	140	18	53.0	225	19	M20×42	64.0	79	430	445	368	29	593	386	329	877
250S/M	2	406	311	349	168	60	140	18	53.0	250	24	M20×42	64.0	97	484	484	374	32	624	445	348	911
	4~8	406	311	349	168	65	140	18	58.0	250	24	M20×42	69.0	97	484	484	374	32	624	445	348	911
280S	2	457	368	/	190	65	140	18	58.0	280	24	M20×42	69.0	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	58.0	280	24	M20×42	69.0	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	58.0	315	28	M20×46	69.0	120	628	620	493	45	808	570	397	1201
	4~8	508	406	/	216	80	170	22	71.0	315	28	M20×46	85.0	120	628	620	493	45	808	570	427	1231
315M/L	2	508	457	508	216	65	140	18	58.0	315	28	M20×46	69.0	120	628	620	493	45	808	680	397	1311
	4~8	508	457	508	216	80	170	22	71.0	315	28	M20×46	85.0	120	628	620	493	45	808	680	427	1341
355M/L	2	610	560	254	254	75	140	20	67.5	355	28	M20×46	79.5	120	726	698	593	45	948	750	425	1501
	4~8	610	560	254	254	95	170	25	86.0	355	28	M24×56	100.0	116	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	AD	HA	HD	BB	LD	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	241	20	401	260	256	630
160L	2	254	254	/	108	42	110	12	37	160	15	300	250	350	4-Φ19	5	M16×36	45	64	315	314	241	20	401	304	256	674
160L	4~8	254	254	/	108	42	110	12	37	160	15	300	250	350	4-Φ19	5	M16×36	45	64	315	314	241	20	401	304	256	674
180M/L	2~4	279	241	279	121	48	110	14	42.5	180	15	300	250	350	4-Φ19	5	M16×36	51.5	68	351	355	262	22	442	349	271	722
180L/M	4~8	279	241	279	121	48	110	14	42.5	180	15	300	250	350	4-Φ19	5	M16×36	51.5	68	351	355	262	22	442	349	271	752
200L	2	318	305	/	133	55	110	16	49	200	19	350	300	400	4-Φ19	5	M20×42	59	70	388	397	344	25	544	369	296	804
200L	4~8	318	305	/	133	55	110	16	49	200	19	350	300	400	4-Φ19	5	M20×42	59	70	388	397	344	25	544	369	296	804
225S	4~8	356	286	/	149	60	140	18	53	225	19	400	350	450	8-Φ19	5	M20×42	64	79	430	445	368	29	593	361	329	852
225M	2	356	311	/	149	55	110	16	49	225	19	400	350	450	8-Φ19	5	M20×42	59	79	430	445	368	29	593	386	299	846
	4~8	356	311	/	149	60	140	18	53	225	19	400	350	450	8-Φ19	5	M20×42	59	79	430	445	368	29	593	386	329	877
250S/M	2	406	311	349	168	60	140	18	53	250	24	500	450	550	8-Φ9	5	M20×42	64	97	484	484	374	32	624	445	348	911
	4~8	406	311	349	168	65	140	18	58	250	24	500	450	550	8-Φ19	5	M20×42	64	97	484	484	374	32	624	445	348	911
280S	2	457	368	/	190	65	140	18	58	280	24	500	450	550	8-Φ19	5	M20×42	69	85	542	546	403	35	683	485	357	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	403	35	683	485	357	965
280M	2	457	419	/	190	65	140	18	58	280	24	500	450	550	8-Φ9	5	M20×42	69	85	542	546	403	35	683	536	357	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	403	35	683	536	357	1016
315S	2	508	406	/	216	65	140	18	58	315	28	600	550	660	8-Φ24	6	M20×46	69	120	628	620	493	45	808	570	397	1201
	4~8	508	406	/	216	80	170	22	71	315	28	600	550	660	8-Φ24	6	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	600	550	660	8-Φ24	6	M20×46	69	120	628	620	493	45	808	680	397	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	493	45	808	680	425	1341
355M/L	2	610	500	254	254	75	140	20	67.5	355	28	740	680	800	8-Φ24	6	M20×46	79.5	120	726	698	593	52	948	750	425	1501
	4~8	610	560	254	254	95	170	25	86	355	28	740	680	800	8-Φ24	6	M20×46	100	116	726	698	593	52	948	750	455	1531



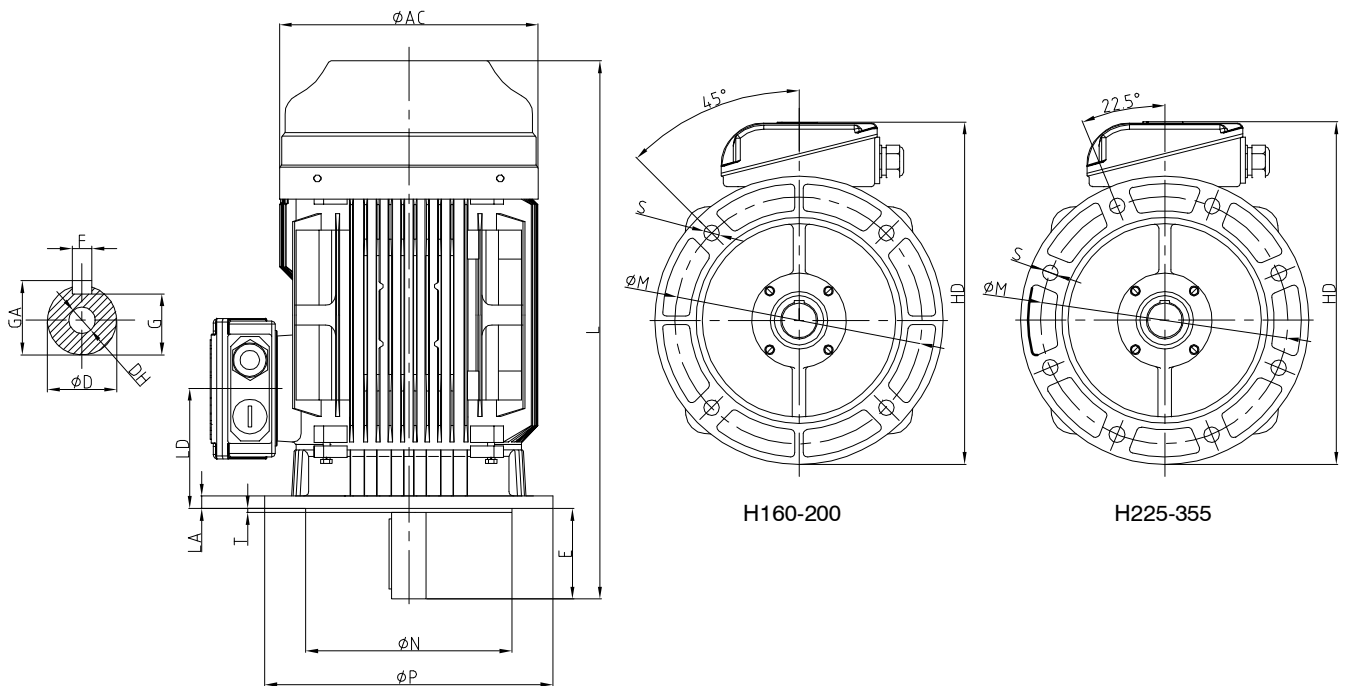


Frame Size	Poles	Mounting and Overall Dimensions (mm)															
		D	E	F	G	M	N	P	S	T	DH	GA	AC	HD	LA	LD	L
160M	2~8	42	110	12	37	300	250	350	4-Φ19	5	M16×36	45	314	401	15	256	630
160L	2	42	110	12	37	300	250	350	4-Φ19	5	M16×36	45	314	401	15	256	674
160L	4~8	42	110	12	37	300	250	350	4-Φ19	5	M16×36	45	314	401	15	271	674
180M	2~4	48	110	14	42.5	300	250	350	4-Φ19	5	M16×36	51.5	355	442	15	271	722
180L	4~8	48	110	14	42.5	300	250	350	4-Φ19	5	M16×36	51.5	355	442	15	296	752
200L	2	55	110	16	49	350	300	400	4-Φ19	5	M20×42	59	397	544	17	296	804
200L	4~8	55	140	16	49	350	300	400	4-Φ19	5	M20×42	59	397	544	17	329	804
225S	4~8	60	110	18	53	400	350	450	8-Φ19	5	M20×42	64	445	593	20	329	852
225M	2	55	140	16	49	400	350	450	8-Φ19	5	M20×42	59	445	593	20	299	846
	4~8	60	140	18	53	400	350	450	8-Φ19	5	M20×42	64	445	593	20	329	877
250S/M	2	60	140	18	53	500	450	550	8-Φ19	5	M20×42	64	484	624	22	348	911
	4~8	65	140	18	58	500	450	550	8-Φ19	5	M20×42	69	484	624	22	348	911
280S	2	65	140	18	58	500	450	550	8-Φ19	5	M20×42	69	546	683	22	357	965
	4~8	75	140	20	67.5	500	450	550	8-Φ19	5	M20×42	79.5	546	683	22	357	965
280M	2	65	140	18	58	500	450	550	8-Φ19	5	M20×42	69	546	683	22	357	1016
	4~8	75	140	20	67.5	500	450	550	8-Φ19	5	M20×42	79.5	546	683	22	357	1016
315S	2	65	140	18	58	600	550	660	8-Φ24	6	M20×46	69	620	808	22	397	1201
	4~8	80	170	22	71	600	550	660	8-Φ24	6	M20×46	85	620	808	22	427	1231
315M/L	2	65	140	18	58	600	550	660	8-Φ24	6	M20×46	69	620	808	22	397	1311
	4~8	80	170	22	71	600	550	660	8-Φ24	6	M20×46	85	620	808	22	427	1341
355M/L	2	75	140	20	67.5	740	680	800	8-Φ24	6	M20×46	79.5	698	948	25	425	1501
	4~8	95	170	25	86	740	680	800	8-Φ24	6	M24×56	100	698	948	25	455	1531

\* IEC 315 and up, B5 is special design on request.  
 \* IEC 315 and up, V3 is special design on request.

## V1 Mounting and overall dimensions

## CAST IRON MOTORS



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-φ19	5	M16×36	45	314	401	15	256	630
160L	2	42	110	12	37	300	250	350	4-φ19	5	M16×36	45	314	401	15	256	674
160L	4~8	42	110	12	37	300	250	350	4-φ19	5	M16×36	45	314	401	15	256	674
180M	2~4	48	110	14	42.5	300	250	350	4-φ19	5	M16×36	51.5	355	442	15	271	722
180L	4~8	48	110	14	42.5	300	250	350	4-φ19	5	M16×36	51.5	355	442	15	271	752
200L	2	55	110	16	49	350	300	400	4-φ19	5	M20×42	59	397	544	17	296	804
200L	4~8	55	110	16	49	350	300	400	4-φ19	5	M20×42	59	397	544	17	296	804
225S	4~8	60	140	18	53	400	350	450	8-φ19	5	M20×42	64	445	593	20	329	852
225M	2	545	110	16	49	400	350	450	8-φ19	5	M20×42	59	445	593	20	299	846
	4~8	60	140	18	53	400	350	450	8-φ19	5	M20×42	64	445	593	20	329	877
250S/M	2	60	140	18	53	500	450	550	8-φ19	5	M20×42	64	484	624	22	348	911
	4~8	65	140	18	58	500	450	550	8-φ19	5	M20×42	69	484	624	22	348	911
280S	2	65	140	18	58	500	450	550	8-φ19	5	M20×42	69	546	683	22	357	965
	4~8	75	140	20	67.5	500	450	550	8-φ19	5	M20×42	79.5	546	683	22	357	965
280M	2	65	140	18	58	500	450	550	8-φ19	5	M20×42	69	546	683	22	357	1016
	4~8	75	140	20	67.5	500	450	550	8-φ19	5	M20×42	79.5	546	683	22	357	1016
315S	2	65	140	18	58	600	550	660	8-φ24	6	M20×46	69	620	808	22	397	1201
	4~8	80	170	22	71	600	550	660	8-φ24	6	M20×46	85	620	808	22	427	1231
315M/L	2	65	140	18	58	600	550	660	8-φ24	6	M20×46	69	620	808	22	397	1311
	4~8	80	170	22	71	600	550	660	8-φ24	6	M20×46	85	620	808	22	427	1341
355M/L	2	75	140	20	67.5	740	680	800	8-φ24	6	M20×46	79.5	698	948	25	425	1501
	4~8	95	170	25	86	740	680	800	8-φ24	6	M20×46	100	698	948	25	455	1351

**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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