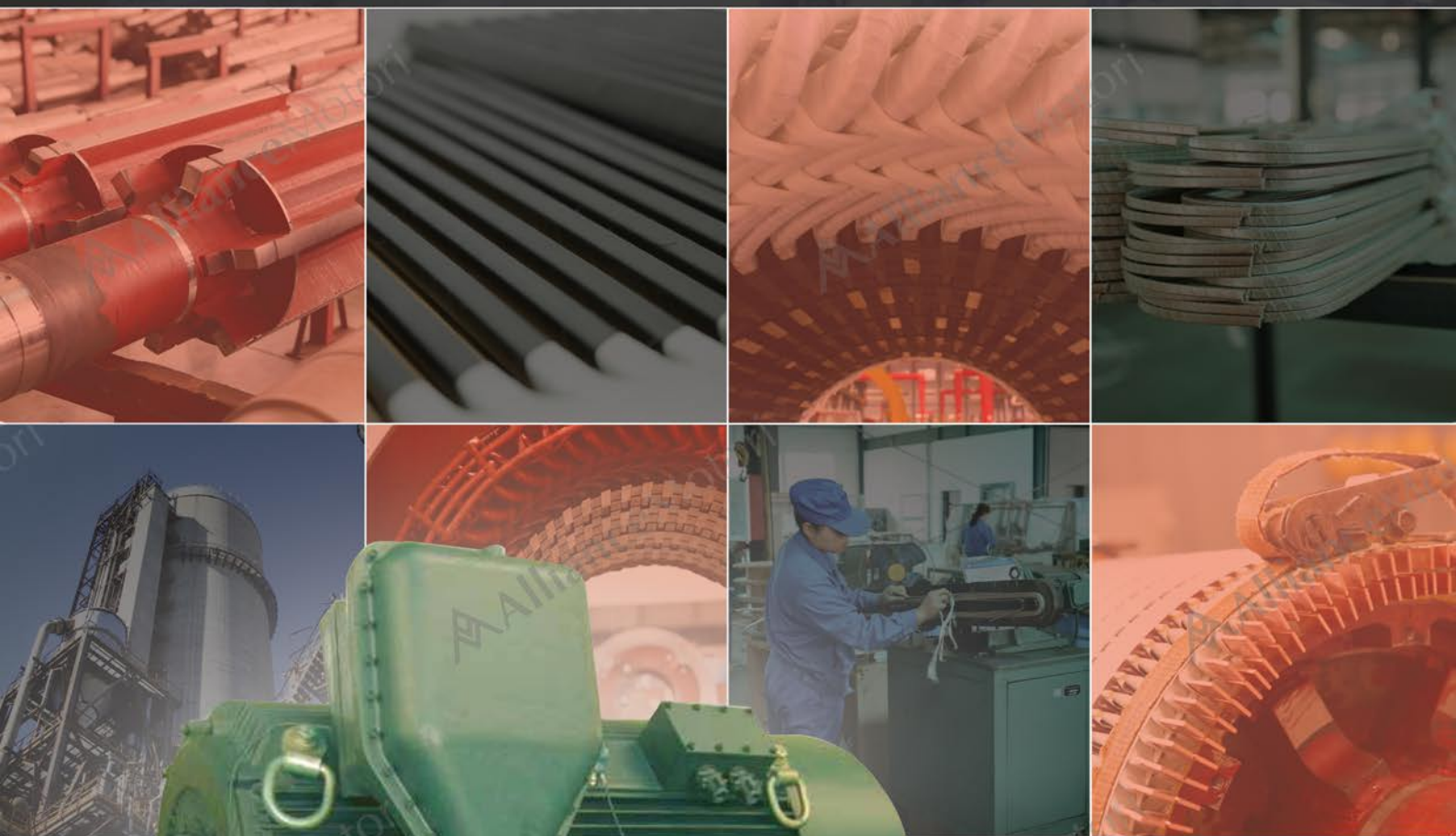


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# HEAVY INDUSTRY ELECTRIC MOTOR



**HIGH VOLTAGE  
A-Y2H SERIES**



Alliance

# A-Y2H Series - High Voltage



## PRODUCT INFORMATION

A-Y2H Series High Voltage Motor is totally enclosed squirrel-cage three phase asynchronous induction motor. The motor has protection class IP54, cooling method IC411, insulation class F, and mounting arrangement IMB3. The rated voltage is 6kV or 10kV.

This series motor is designed with cast iron frame, which has small size and compact structure. The motors have good features of high efficiency, low noise, low vibration, reliable performance, easy installation and maintenance. It is widely applied to drive various machineries, such as compressor, ventilator, pump and crusher. This motor can also be used as prime mover in petrochemical, medicine, mining fields and even in harsh environmental conditions.

*Note. Data May Change Without Notice*

## SPECIFICATION

### 6 KV

Frame Size | H355-560mm (6 kV)  
Rated Power | 160 kW - 1600 kW  
Voltage and Frequency | 6 kV / 50 Hz

### 10 KV

Frame Size | H450-560mm (6 kV)  
Rated Power | 220 kW - 1400 kW  
Voltage and Frequency | 10 kV / 50 Hz

Degrees of Protections | IP54  
Degrees of Insulation / Temperature Rise | F  
Installation Methods | B3  
Ambient Temperature | -15°C ~+ 40°C  
Cooling Method | IC411

# A-Y2H Series - High Voltage

2-Pole, 3000 r/min Synchronous Speed

6 kV

Motor Type	Rated Power kW	Rated Current A	Rated Speed r/min	Rated Eff. $\eta$ %	Power Factor $\cos \phi$	Ist In	Tst Tn	Tmax Tn	mm/s	LW dB(A)	G.m <sup>2</sup>	Kg
A-Y2H-3551-2	185	22.6	2985	93.9	0.84	0.7	7.0	2	2.8	109	8	2035
A-Y2H-3552-2	200	24.4	2985	94.0	0.84	0.7	7.0	2	2.8	109	8.5	2075
A-Y2H-3553-2	220	26.8	2985	94.2	0.84	0.7	7.0	2	2.8	109	9.5	2160
A-Y2H-3554-2	250	30.3	2985	94.4	0.84	0.7	7.0	2	2.8	111	10	2215
A-Y2H-3555-2	280	33.1	2985	94.6	0.86	0.7	7.0	2	2.8	111	11	2280
A-Y2H-4001-2	315	37.2	2985	94.8	0.86	0.7	7.0	2	2.8	111	17	2630
A-Y2H-4002-2	355	41.9	2985	94.9	0.86	0.7	7.0	2	2.8	111	18	2700
A-Y2H-4003-2	400	47.1	2985	95.1	0.86	0.7	7.0	2	2.8	111	19.5	2830
A-Y2H-4004-2	450	52.9	2985	95.2	0.86	0.7	7.0	2	2.8	111	21	2920
A-Y2H-4501-2	500	58.0	2985	95.3	0.87	0.7	7.0	2	2.8	111	22	3200
A-Y2H-4502-2	560	64.9	2985	95.4	0.87	0.7	7.0	2	2.8	112	24	3300
A-Y2H-4503-2	630	73.0	2985	95.5	0.87	0.7	7.0	2	2.8	112	27	3500
A-Y2H-4504-2	710	82.1	2985	95.7	0.87	0.7	7.0	2	2.8	112	30	3600
A-Y2H-5001-2	800	91.5	2985	95.6	0.88	0.7	7.0	2	2.8	112	61	5360
A-Y2H-5002-2	900	103	2985	95.7	0.88	0.7	7.0	2	2.8	112	65	5500
A-Y2H-5003-2	1000	114	2985	95.9	0.88	0.7	7.0	2	2.8	112	69	5640
A-Y2H-5004-2	1120	128	2985	96.0	0.88	0.7	7.0	2	2.8	113	75	5900
A-Y2H-5601-2	1250	141	2985	96.1	0.88	0.7	7.0	2	2.8	113	111	5800
A-Y2H-5602-2	1400	157	2985	96.3	0.88	0.7	7.0	2	2.8	113	119	5860
A-Y2H-5603-2	1600	179	2985	96.5	0.88	0.7	7.0	2	2.8	113	127	5930

4 Pole, 1500 r/min Synchronous Speed

6 kV

Motor Type	Rated Power kW	Rated Current A	Rated Speed r/min	Rated Eff. $\eta$ %	Power Factor $\cos \phi$	Ist In	Tst Tn	Tmax Tn	mm/s	LW dB(A)	G.m <sup>2</sup>	Kg
A-Y2H-3551-4	185	22.6	1488	93.7	0.84	0.8	6.5	2	2.8	106	19	2120
A-Y2H-3552-4	200	24.4	1488	93.9	0.84	0.8	6.5	2	2.8	106	21.5	2220
A-Y2H-3553-4	220	26.8	1488	94.1	0.84	0.8	6.5	2	2.8	106	23	2290
A-Y2H-3554-4	250	30.4	1488	94.3	0.84	0.8	6.5	2	2.8	108	24.5	2340
A-Y2H-3555-4	280	33.9	1488	94.5	0.84	0.8	6.5	2	2.8	108	25.5	2400
A-Y2H-4001-4	315	37.7	1488	94.6	0.85	0.8	6.5	2	2.8	108	32	2970
A-Y2H-4002-4	355	42.4	1488	94.8	0.85	0.8	6.5	2	2.8	108	34	3080
A-Y2H-4003-4	400	47.7	1488	95.0	0.85	0.8	6.5	2	2.8	108	37	3170
A-Y2H-4004-4	450	53.5	1488	95.2	0.85	0.8	6.5	2	2.8	108	39	3250
A-Y2H-4501-4	500	58.7	1488	95.3	0.86	0.8	6.5	2	2.8	108	52	3500
A-Y2H-4502-4	560	65.7	1488	95.4	0.86	0.8	6.5	2	2.8	111	58	3700
A-Y2H-4503-4	630	73.8	1488	95.5	0.86	0.8	6.5	2	2.8	111	65	3950
A-Y2H-4504-4	710	83.1	1488	95.6	0.86	0.8	6.5	2	2.8	111	73	4200
A-Y2H-5001-4	800	93.5	1488	95.7	0.86	0.8	6.5	2	2.8	111	130	5350
A-Y2H-5002-4	900	105	1488	95.8	0.86	0.8	6.5	2	2.8	111	141	5540
A-Y2H-5003-4	1000	117	1488	95.9	0.86	0.8	6.5	2	2.8	111	148	5700
A-Y2H-5004-4	1120	131	1488	96.0	0.86	0.8	6.5	2	2.8	113	156	5800
A-Y2H-5601-4	1250	144	1488	96.1	0.87	0.7	6.5	2	2.8	113	252	5900
A-Y2H-5602-4	1400	161	1488	96.2	0.87	0.7	6.5	2	2.8	113	272	5950
A-Y2H-5603-4	1600	184	1488	96.4	0.87	0.7	6.5	2	2.8	113	305	6020

# A-Y2H Series - High Voltage

## 6 Pole, 1000 r/min Synchronous Speed

6 kV

Motor Type	Rated Power	Rated Current	Rated Speed	Rated Eff.	Power Factor	Ist In	Tst Tn	Tmax Tn	mm/s	LW dB(A)	G.m <sup>2</sup>	Kg
	kW	A	r/min	η %	cos φ							
A-Y2H-3553-6	160	20.6	987	96.4	0.80	0.8	6.0	2	2.8	102	26	2255
A-Y2H-3554-6	185	23.8	987	98.5	0.80	0.8	6.0	2	2.8	102	28	2345
A-Y2H-3555-6	200	25.7	987	93.6	0.80	0.8	6.0	2	2.8	102	31	2440
A-Y2H-4001-6	220	27.5	987	93.8	0.82	0.8	6.0	2	2.8	102	47	3010
A-Y2H-4002-6	250	31.2	987	93.9	0.82	0.8	6.0	2	2.8	105	50	3110
A-Y2H-4003-6	280	34.9	987	94.1	0.82	0.8	6.0	2	2.8	105	53	3200
A-Y2H-4004-6	315	39.2	987	94.3	0.82	0.8	6.0	2	2.8	105	57	3250
A-Y2H-4501-6	355	43.6	987	94.5	0.83	0.8	6.0	2	2.8	105	64	3600
A-Y2H-4502-6	400	49.0	987	94.6	0.83	0.8	6.0	2	2.8	105	73	3800
A-Y2H-4503-6	450	55.1	987	94.7	0.83	0.8	6.0	2	2.8	105	81	4000
A-Y2H-4504-6	500	61.1	987	94.9	0.83	0.8	6.0	2	2.8	105	90	4200
A-Y2H-5001-6	560	68.3	987	95.1	0.83	0.8	6.0	2	2.8	108	177	5370
A-Y2H-5002-6	630	76.7	987	95.2	0.83	0.8	6.0	2	2.8	108	184	5500
A-Y2H-5003-6	710	86.4	987	95.3	0.83	0.8	6.0	2	2.8	108	191	5630
A-Y2H-5004-6	800	97.2	987	95.4	0.83	0.8	6.0	2	2.8	108	202	5830
A-Y2H-5601-6	900	108	987	95.6	0.84	0.7	6.0	2	2.8	108	388	5930
A-Y2H-5602-6	1000	120	987	95.7	0.84	0.7	6.0	2	2.8	108	402	6020
A-Y2H-5603-6	1120	134	987	95.8	0.84	0.7	6.0	2	2.8	110	423	6100
A-Y2H-5604-6	1250	149	987	95.9	0.84	0.7	6.0	2	2.8	110	450	6150

## 8 Pole, 750 r/min Synchronous Speed

6 kV

A-Y2H-4001-8	160	21.7	742	93.2	0.76	0.8	5.5	2	2.8	99	50	3020
A-Y2H-4002-8	185	25.1	742	93.3	0.76	0.8	5.5	2	2.8	99	52	3090
A-Y2H-4003-8	200	26.7	742	93.5	0.77	0.8	5.5	2	2.8	99	56	3150
A-Y2H-4004-8	220	29.3	742	93.7	0.77	0.8	5.5	2	2.8	99	61	3260
A-Y2H-4501-8	250	32.8	742	93.9	0.78	0.8	5.5	2	2.8	102	65	3600
A-Y2H-4502-8	280	36.7	742	94.1	0.78	0.8	5.5	2	2.8	102	73	3800
A-Y2H-4503-8	315	41.3	742	94.2	0.78	0.8	5.5	2	2.8	102	82	4000
A-Y2H-4504-8	355	46.4	742	94.4	0.78	0.8	5.5	2	2.8	102	91	4200
A-Y2H-5001-8	400	51.6	742	94.5	0.80	0.8	5.5	2	2.8	102	177	5380
A-Y2H-5002-8	450	57.9	742	94.6	0.80	0.8	5.5	2	2.8	102	184	5510
A-Y2H-5003-8	500	63.4	742	94.8	0.80	0.8	5.5	2	2.8	102	191	5640
A-Y2H-5004-8	560	71.0	742	94.9	0.80	0.8	5.5	2	2.8	105	202	5850
A-Y2H-5601-8	630	78.7	742	95.1	0.81	0.7	5.5	2	2.8	105	480	6200
A-Y2H-5602-8	710	88.5	742	95.3	0.81	0.7	5.5	2	2.8	105	510	6240
A-Y2H-5603-8	800	99.6	742	95.4	0.81	0.7	5.5	2	2.8	105	535	6320
A-Y2H-5604-8	900	112	742	95.6	0.81	0.7	5.5	2	2.8	105	560	6400

# A-Y2H Series - High Voltage

## 2-Pole, 3000 r/min Synchronous Speed

10 kV

Motor Type	Rated Power	Rated Current	Rated Speed	Rated Eff.	Power Factor	Ist In	Tst Tn	Tmax Tn	mm/s	LW dB(A)	G.m <sup>2</sup>	Kg
	kW	A	r/min	η %	cos φ							
A-Y2H-4501-2	220	16.3	2985	92.8	0.84	0.7	7.0	2	2.8	111	17.0	2730
A-Y2H-4502-2	250	18.5	2985	93.0	0.84	0.7	7.0	2	2.8	111	18.0	2800
A-Y2H-4503-2	280	20.2	2985	93.1	0.86	0.7	7.0	2	2.8	111	19.5	2930
A-Y2H-4504-2	315	22.7	2985	93.3	0.86	0.7	7.0	2	2.8	111	21.0	3120
A-Y2H-4505-2	355	25.5	2985	93.5	0.86	0.7	7.0	2	2.8	111	22.0	3200
A-Y2H-4506-2	400	28.6	2985	93.8	0.86	0.7	7.0	2	2.8	111	24.0	3300
A-Y2H-4507-2	450	32.2	2985	93.9	0.86	0.7	7.0	2	2.8	111	27.0	3500
A-Y2H-4508-2	500	35.3	2985	94.0	0.87	0.7	7.0	2	2.8	111	30.0	3600
A-Y2H-5001-2	560	39.5	2985	94.2	0.87	0.7	7.0	2	2.8	112	48.0	5050
A-Y2H-5002-2	630	44.3	2985	94.4	0.87	0.7	7.0	2	2.8	112	54.0	5200
A-Y2H-5003-2	710	49.8	2985	94.6	0.87	0.7	7.0	2	2.8	112	61.0	5360
A-Y2H-5004-2	800	55.4	2985	94.8	0.88	0.7	7.0	2	2.8	112	65.0	5500
A-Y2H-5005-2	900	62.2	2985	95.0	0.88	0.7	7.0	2	2.8	112	69.0	5640
A-Y2H-5601-2	1000	69.0	2985	95.1	0.88	0.7	7.0	2	2.8	112	75.0	5700
A-Y2H-5602-2	1120	76.2	2985	95.3	0.89	0.7	7.0	2	2.8	112	111	5800
A-Y2H-5603-2	1250	84.9	2985	95.5	0.89	0.7	7.0	2	2.8	112	119	5860
A-Y2H-5604-2	1400	94.9	2985	96.7	0.89	0.7	7.0	2	2.8	112	127	5930

## 4 Pole, 1500 r/min Synchronous Speed

10 kV

Motor Type	Rated Power	Rated Current	Rated Speed	Rated Eff.	Power Factor	Ist In	Tst Tn	Tmax Tn	mm/s	LW dB(A)	G.m <sup>2</sup>	Kg
	kW	A	r/min	η %	cos φ							
A-Y2H-4501-4	220	16.3	1488	92.7	0.84	0.8	6.5	2	2.8	108	21.0	2810
A-Y2H-4502-4	250	18.5	1488	92.9	0.84	0.8	6.5	2	2.8	108	34.0	3000
A-Y2H-4503-4	280	20.7	1488	93.0	0.84	0.8	6.5	2	2.8	108	38.0	3160
A-Y2H-4504-4	315	22.9	1488	93.3	0.85	0.8	6.5	2	2.8	108	43.0	3350
A-Y2H-4505-4	355	25.8	1488	93.4	0.85	0.8	6.5	2	2.8	108	52.0	3500
A-Y2H-4506-4	400	29.0	1488	93.6	0.85	0.8	6.5	2	2.8	108	58.0	3700
A-Y2H-4507-4	450	32.6	1488	93.8	0.85	0.8	6.5	2	2.8	108	65.0	3950
A-Y2H-4508-4	500	35.7	1488	94.0	0.86	0.8	6.5	2	2.8	108	73.0	4200
A-Y2H-5001-4	560	40.0	1488	94.1	0.86	0.8	6.5	2	2.8	111	122	5130
A-Y2H-5002-4	630	44.9	1488	94.3	0.86	0.8	6.5	2	2.8	111	130	5350
A-Y2H-5003-4	710	50.4	1488	94.5	0.86	0.8	6.5	2	2.8	111	141	5540
A-Y2H-5004-4	800	56.0	1488	94.8	0.87	0.8	6.5	2	2.8	111	148	5700
A-Y2H-5005-4	900	62.9	1488	95.0	0.87	0.8	6.5	2	2.8	111	156	5800
A-Y2H-5601-4	1000	69.8	1488	95.1	0.87	0.8	6.5	2	2.8	111	230	5850
A-Y2H-5602-4	1120	77.2	1488	95.2	0.88	0.8	6.5	2	2.8	111	252	5900
A-Y2H-5603-4	1250	86.0	1488	95.4	0.88	0.8	6.5	2	2.8	113	272	5950
A-Y2H-5604-4	1400	96.1	1488	95.6	0.88	0.8	6.5	2	2.8	113	305	6020

# A-Y2H Series - High Voltage

## 6-Pole, 1000 r/min Synchronous Speed

10 kV

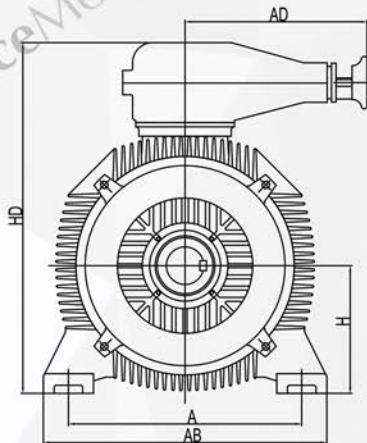
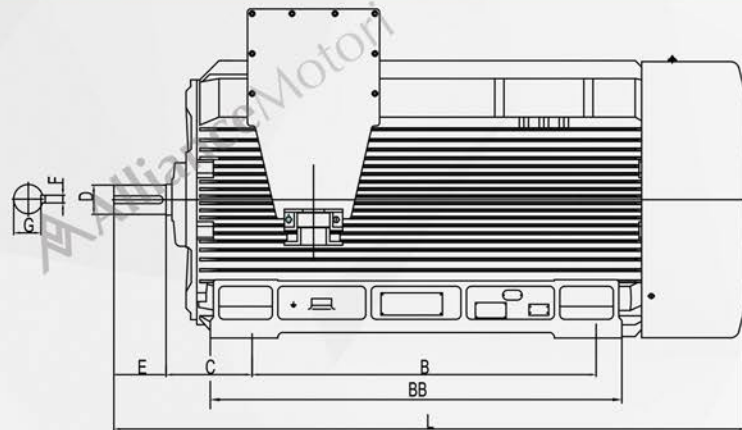
Motor Type	Rated Power	Rated Current	Rated Speed	Rated Eff.	Power Factor	Ist In	Tst Tn	Tmax Tn	mm/s	LW dB(A)	G.m <sup>2</sup>	Kg
	kW	A	r/min	η %	cos φ							
A-Y2H-4504-6	220	16.7	987	92.5	0.82	0.8	6.0	2	2.8	105	56.0	3400
A-Y2H-4505-6	250	19.0	987	92.7	0.82	0.8	6.0	2	2.8	105	64.0	3600
A-Y2H-4506-6	280	21.2	987	92.9	0.82	0.8	6.0	2	2.8	105	73.0	3800
A-Y2H-4507-6	315	23.8	987	93.1	0.82	0.8	6.0	2	2.8	105	81.0	4000
A-Y2H-4508-6	355	26.8	987	93.3	0.82	0.8	6.0	2	2.8	105	90.0	4200
A-Y2H-5001-6	400	30.1	987	93.5	0.82	0.8	6.0	2	2.8	105	170	5250
A-Y2H-5002-6	450	33.4	987	93.7	0.83	0.8	6.0	2	2.8	105	177	5370
A-Y2H-5003-6	500	37.0	987	93.9	0.83	0.8	6.0	2	2.8	105	184	5500
A-Y2H-5004-6	560	41.4	987	94.1	0.83	0.8	6.0	2	2.8	108	191	5630
A-Y2H-5005-6	630	46.5	987	94.3	0.83	0.8	6.0	2	2.8	108	202	5830
A-Y2H-5601-6	710	52.3	987	94.5	0.83	0.8	6.0	2	2.8	108	370	5840
A-Y2H-5602-6	800	58.8	987	94.7	0.83	0.8	6.0	2	2.8	108	388	5930
A-Y2H-5603-6	900	65.2	987	94.9	0.84	0.7	6.0	2	2.8	108	402	6020
A-Y2H-5604-6	1000	72.3	987	95.1	0.84	0.7	6.0	2	2.8	108	423	6100
A-Y2H-5605-6	1120	80.8	987	95.3	0.84	0.7	6.0	2	2.8	108	450	6150

## 8 Pole, 750 r/min Synchronous Speed

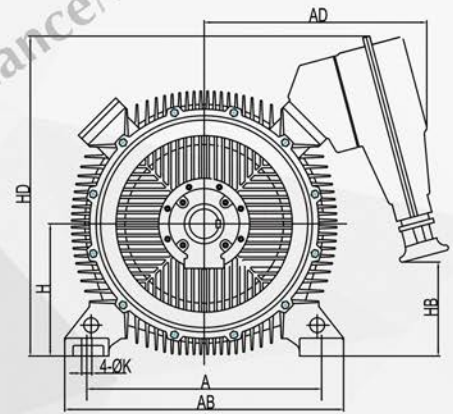
10 kV

Motor Type	Rated Power	Rated Current	Rated Speed	Rated Eff.	Power Factor	Ist In	Tst Tn	Tmax Tn	mm/s	LW dB(A)	G.m <sup>2</sup>	Kg
	kW	A	r/min	η %	cos φ							
A-Y2H-4506-8	220	18.3	742	92.4	0.75	0.8	5.5	2	2.8	102	73.0	3800
A-Y2H-4507-8	250	20.8	742	92.6	0.75	0.8	5.5	2	2.8	102	82.0	4000
A-Y2H-4508-8	280	22.6	742	92.8	0.77	0.8	5.5	2	2.8	102	91.0	4200
A-Y2H-5002-8	315	25.4	742	93.0	0.77	0.8	5.5	2	2.8	102	170	5250
A-Y2H-5003-8	355	28.6	742	93.2	0.77	0.8	5.5	2	2.8	102	177	5380
A-Y2H-5004-8	400	31.3	742	93.4	0.79	0.8	5.5	2	2.8	102	184	5510
A-Y2H-5005-8	450	35.2	742	93.5	0.79	0.8	5.5	2	2.8	102	191	5640
A-Y2H-5601-8	500	39.0	742	93.7	0.79	0.8	5.5	2	2.8	105	450	6100
A-Y2H-5602-8	560	43.6	742	93.9	0.79	0.8	5.5	2	2.8	105	480	6200
A-Y2H-5603-8	630	48.3	742	94.1	0.8	0.7	5.5	2	2.8	105	510	6240
A-Y2H-5604-8	710	54.3	742	94.3	0.8	0.7	5.5	2	2.8	105	535	6320
A-Y2H-5605-8	800	61.1	742	94.5	0.8	0.7	5.5	2	2.8	105	560	6400

# A-Y2H Series - High Voltage



H355-400

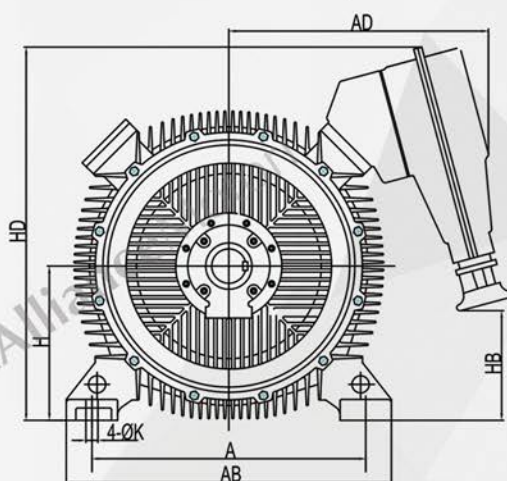
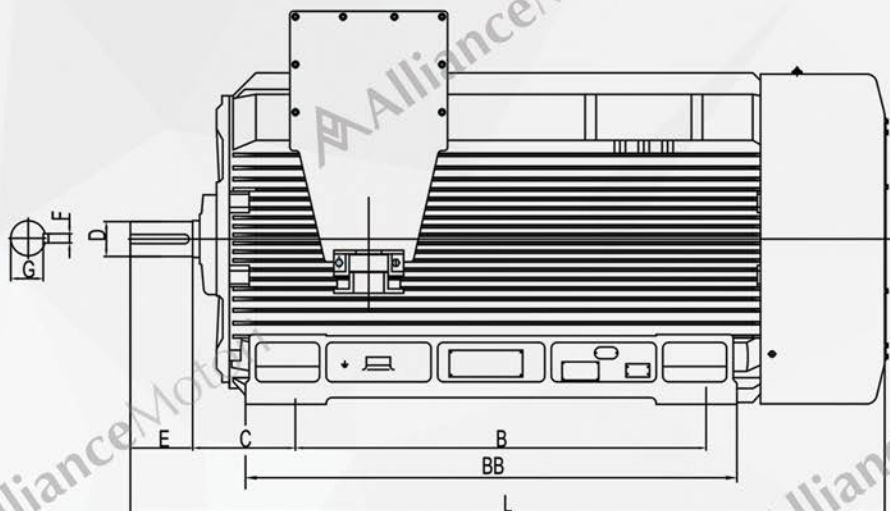


H450-560

6 kV

		A	B	C	D	E	F	G	H	K	AB	AD	BB	HB	HD	L
355	2	630	900	254	75	140	20	67.5	355	28	790	860	1110	210	1250	2000
355	4 6	630	900	254	100	210	28	90	355	28	790	860	1110	210	1250	2000
400	2	710	1000	280	85	170	22	76	400	35	870	860	1200	290	1340	2200
400	4 6 8	710	1000	280	110	210	28	100	400	35	870	860	1200	290	1340	2200
450	2	800	1120	280	95	170	25	86	450	35	950	930	1340	390	1340	2310
450	4	800	1120	280	120	210	32	109	450	35	950	930	1340	390	1340	2310
450	6 8	800	1120	280	130	250	32	119	450	35	950	930	1340	390	1340	2310
500	2	900	1250	315	110	210	28	100	500	42	1080	970	1490	470	1420	2610
500	4	900	1250	315	130	250	32	119	500	42	1080	970	1490	470	1420	2610
500	6 8	900	1250	315	140	250	36	128	500	42	1080	970	1490	470	1420	2610
560	2	1000	1400	355 (530)	130	250	32	119	560	42	1180	1030	1680	590	1480	2900
560	4	1000	1400	355	150	250	36	138	560	42	1180	1030	1680	590	1480	2900
560	6 8	1000	1400	355	160	300	40	147	560	42	1180	1030	1680	590	1480	2900

# A-Y2H Series - High Voltage



H450-560

10 kV

		A	B	C	D	E	F	G	H	K	AB	AD	BB	HB	HD	L
450	2	800	1120	280	95	170	25	86	450	35	950	930	1340	390	1250	2310
450	4	800	1120	280	120	210	32	109	450	35	950	930	1340	390	1250	2310
450	6 8	800	1120	280	130	250	32	119	450	35	950	930	1340	390	1250	2310
500	2	900	1250	315	110	210	28	100	500	42	1080	970	1490	470	1320	2610
500	4	900	1250	315	130	250	32	119	500	42	1080	970	1490	470	1320	2610
500	6 8	900	1250	315	140	250	36	128	500	42	1080	970	1490	470	1320	2610
560	2	1000	1400	355 (530)	130	250	32	119	560	42	1180	1030	1680	590	1450	2900
560	4	1000	1400	355	150	250	36	138	560	42	1180	1030	1680	590	1450	2900
560	6 8	1000	1400	355	160	300	40	147	560	42	1180	1030	1680	590	1450	2900



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