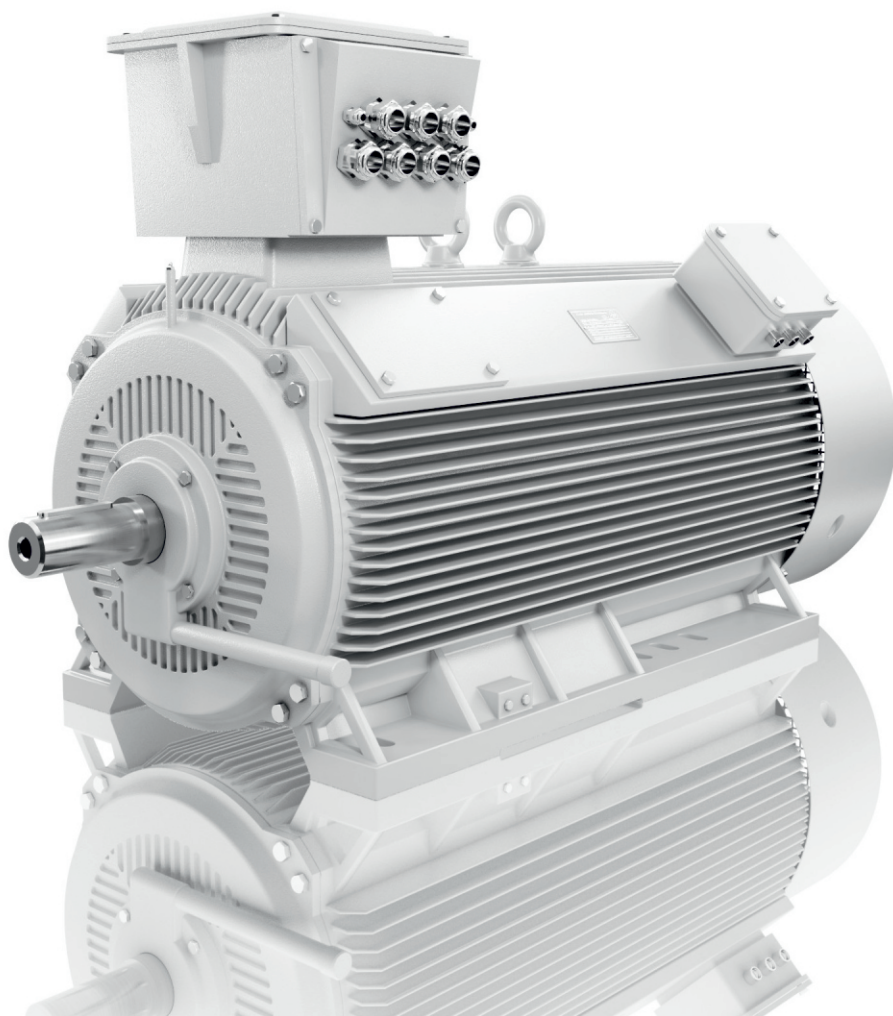




Kinetics LV

Low voltage big power squirrel cage induction motors

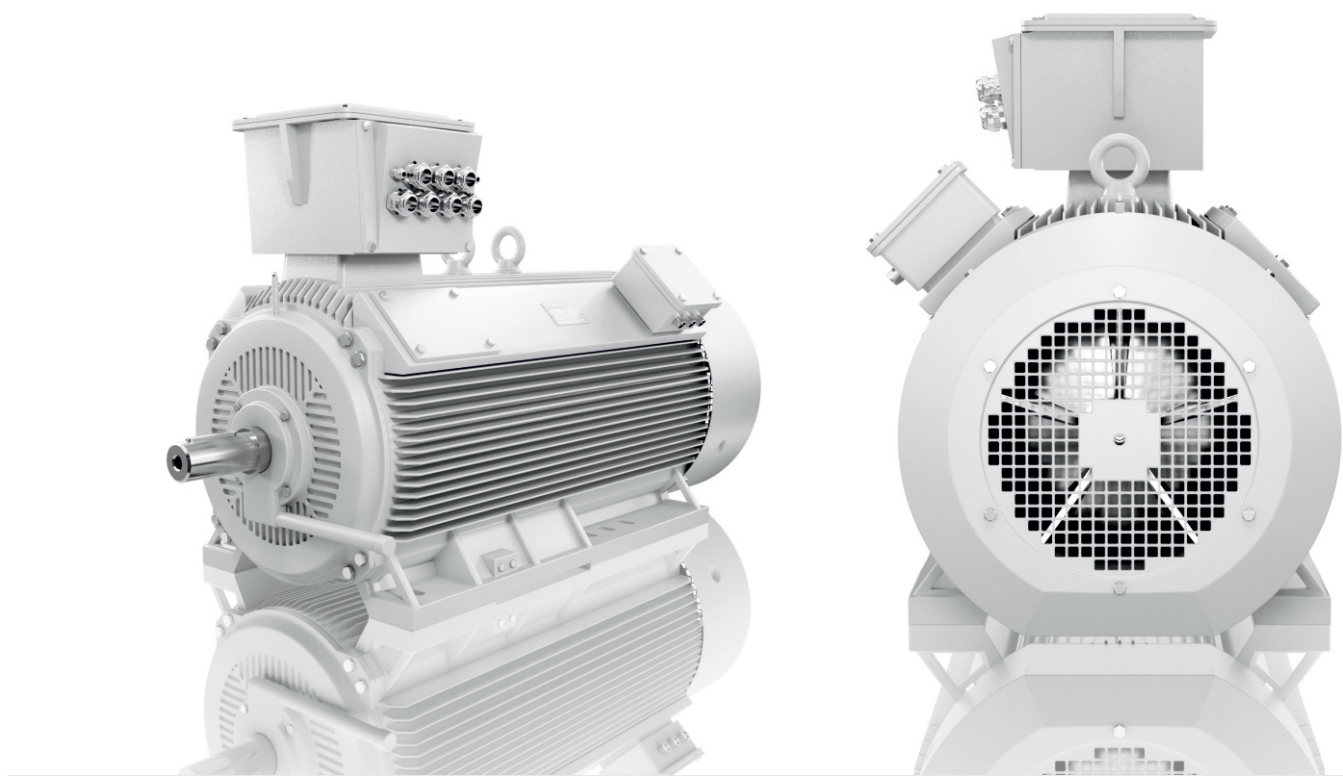
Series: H17RL

Technical catalog



SOLUTIONS FOR INDUSTRY

H17RL Series Low-voltage Big power Induction Motor

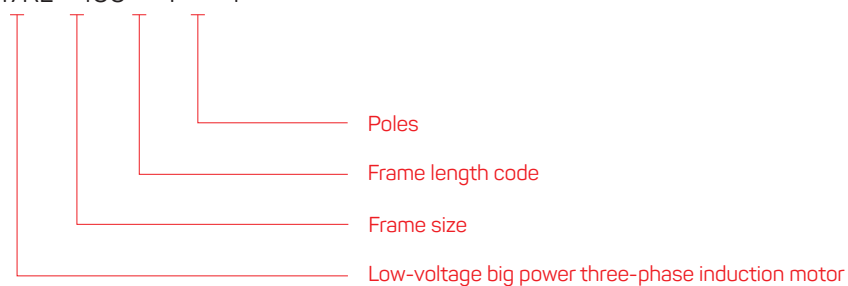


Brief Introduction

H17RL series low-voltage big power (frame size 355-560) is new developed electric motor, after study the advantage of brand foreign motor technology, try to make medium voltage high power motor into low voltage as same power motor. Adopt Class F insulation on such motor series, the motor with lower noise, better performance, more stable, lower vibration features. The standard cooling method is Ic411, the mounting type are IMB3, IMB35, V1

Now H17RL series motors are widely used in mining, fan, blower, machinery, compressor, chemical, coal mining machines, construction machines fields.

H17RL - 400 1 - 4



H17RL Performance Data 50Hz

Type	Rated Output	Efficiency $\eta\%$	Power Factor $\cos\phi$	Rated Current		Rated Speed (rpm)	Is/In	Ts/Tn	Tmax/TN	kg
	KW			380V 660V						
H17RL-3551-2	355	95.0	0.90	628	361	2975	7	1.6	2.0	2050
H17RL-3552-2	400	95.0	0.90	707	407	2975	7	1.6	2.0	2180
H17RL-3553-2	450	95.8	0.90	793	457	2975	7	1.6	2.0	2340
H17RL-3554-2	500	95.8	0.90	881	507	2975	7	1.6	2.0	2520
H17RL-3551-4	355	95.5	0.88	642	370	1485	7	1.6	2.0	2150
H17RL-3552-4	400	95.5	0.88	723	416	1485	7	1.6	2.0	2300
H17RL-3553-4	450	95.8	0.88	811	467	1485	7	1.6	2.0	2460
H17RL-3554-4	500	95.8	0.88	901	519	1485	7.8	1.6	2.0	2720
H17RL-3551-6	280	95.1	0.83	539	310	990	6.8	1.6	2.0	2150
H17RL-3552-6	315	95.2	0.83	606	349	990	6.5	1.6	2.0	2310
H17RL-3553-6	355	95.3	0.83	682	393	990	6.5	1.6	2.0	2490
H17RL-3554-6	400	95.3	0.83	768	442	990	6.5	1.6	2.0	2600
H17RL-3551-8	220	94.6	0.77	459	264	740	6.5	1.6	2.0	2230
H17RL-3552-8	250	94.8	0.77	520	300	740	6.5	1.6	2.0	2410
H17RL-3553-8	280	94.8	0.77	583	336	740	6.5	1.8	2.0	2600
H17RL-3554-8	315	94.8	0.77	656	377	740	6.5	1.8	2.0	2700
H17RL-3551-10	185	93.8	0.74	405	233	590	6.0	1.2	1.8	2150
H17RL-3552-10	200	94.0	0.74	437	252	590	6.0	1.2	1.8	2230
H17RL-3553-10	220	94.5	0.74	478	275	590	6.0	1.2	1.8	2410
H17RL-3554-10	250	94.5	0.74	543	313	590	6.0	1.2	1.8	2510
H17RL-3551-12	132	93.0	0.70	318	183	490	5.0	1.2	1.8	2145
H17RL-3552-12	160	93.0	0.70	373	215	490	5.0	1.0	1.8	2210
H17RL-3553-12	185	93.0	0.70	432	249	490	5.0	1.0	1.8	2290
H17RL-4001-2	560	95.5	0.90	990	570	2980	7.5	1.2	2.5	3200
H17RL-4002-2	630	95.6	0.90	1110	640	2980	7.5	1.2	2.5	3490
H17RL-4003-2	710	95.6	0.90	-	722	2980	7.5	1.2	2.5	3680
H17RL-4001-4	560	96.0	0.89	996	573	1485	7.0	1.3	2.5	3360
H17RL-4002-4	630	96.0	0.89	1120	645	1485	7.0	1.3	2.5	3430
H17RL-4001-6	400	95.6	0.83	766	441	990	6.8	1.3	2.5	3550
H17RL-4002-6	450	95.7	0.83	861	496	990	6.8	1.3	2.5	3660
H17RL-4003-6	500	95.7	0.83	956	551	990	6.8	1.3	2.5	3750
H17RL-4004-6	560	95.7	0.83	1071	617	990	6.8	1.3	2.5	3840
H17RL-4001-8	315	95.0	0.80	630	363	740	6.0	1.2	2.3	3290

H17RL Performance Data 50Hz

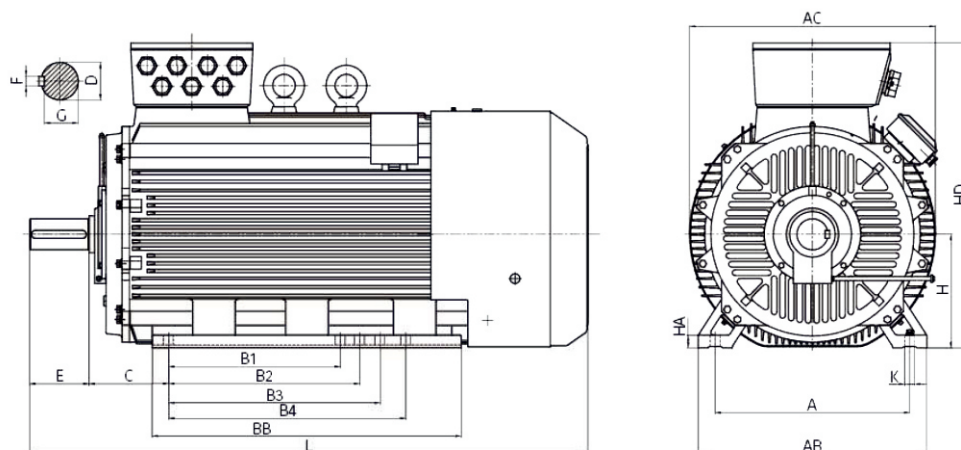
Type	Rated Output	Efficiency $\eta\%$	Power Factor	Rated Current		Rated Speed (rpm)	Is/In	Ts/Tn	Tmax/TN	kg
	KW			380V 660V						
H17RL-4002-8	355	95.0	0.80	710	409	740	6.0	1.2	2.3	3350
H17RL-4003-8	400	95.0	0.80	800	460	740	6.0	1.2	2.3	3430
H17RL-4004-8	450	95.0	0.80	900	518	740	6.0	1.2	2.3	3530
H17RL-4001-10	250	95.0	0.80	500	288	590	6.0	1.0	2.3	3100
H17RL-4002-10	280	95.1	0.80	559	322	590	6.0	1.0	2.3	3220
H17RL-4003-10	315	95.1	0.80	629	362	590	6.0	1.0	2.3	3310
H17RL-4004-10	355	95.1	0.80	709	408	590	6.0	1.0	2.3	3420
H17RL-4001-12	200	94.0	0.74	437	252	490	5.5	1.0	1.8	3220
H17RL-4002-12	220	94.0	0.74	481	277	490	5.5	1.0	1.8	3380
H17RL-4501-2	710	95.2	0.90	-	725	2985	7.5	0.8	1.8	4800
H17RL-4502-2	800	95.6	0.90	-	813	2985	7.5	0.8	1.8	5000
H17RL-4503-2	900	96.0	0.90	-	911	2985	7.5	0.8	1.8	5200
H17RL-4501-4	710	95.2	0.87	-	750	1490	7.5	1.1	1.8	5000
H17RL-4502-4	800	95.6	0.87	-	841	1490	7.5	1.1	1.8	5200
H17RL-4503-4	900	96.0	0.87	-	943	1490	7.5	1.0	1.8	5500
H17RL-4504-4	1000	96.0	0.87	-	1047	1490	7.5	1.0	1.8	6750
H17RL-4501-6	560	94.4	0.83	1086	625	990	7.0	1.1	1.8	4200
H17RL-4502-6	630	94.8	0.83	1216	700	990	7.0	1.1	1.8	4800
H17RL-4503-6	710	95.2	0.83	-	786	990	7.0	1.1	1.8	5200
H17RL-4504-6	800	95.2	0.83	-	886	990	7.0	1.1	1.8	6400
H17RL-4501-8	450	94.0	0.76	957	551	740	7.0	1.1	1.8	4700
H17RL-4502-8	500	94.0	0.76	1063	612	740	7.0	1.1	1.8	4800
H17RL-4503-8	560	94.5	0.76	1184	682	740	7.0	1.1	1.8	5300
H17RL-4501-10	315	93.4	0.75	683	393	590	6.5	0.9	1.8	4000
H17RL-4502-10	355	93.8	0.75	767	441	590	6.5	0.9	1.8	5100
H17RL-4503-10	400	94.2	0.75	860	495	590	6.5	0.9	1.8	5400
H17RL-4504-10	450	94.2	0.75	968	557	590	6.5	0.9	1.8	5700
H17RL-4501-12	220	93.2	0.73	489	282	490	6.0	0.8	1.8	5000
H17RL-4502-12	250	93.6	0.73	556	320	490	6.0	0.8	1.8	5400
H17RL-4503-12	280	94.0	0.73	620	357	490	6.0	0.8	1.8	5800
H17RL-4504-12	315	94.0	0.73	697	402	490	6.0	0.8	1.8	6200
H17RL-5001-4	1000	95.5	0.88	-	1041	1490	7.5	0.7	2.0	6800
H17RL-5002-4	1120	95.6	0.88	-	1165	1490	7.5	0.7	2.0	7250
H17RL-5003-4	1250	95.6	0.88	-	1300	1490	7.5	0.7	2.0	7500

H17RL Performance Data 50Hz

Type	Rated Output	Efficiency $\eta\%$	Power Factor	Rated Current		Rated Speed (rpm)	Is/In	Ts/Tn	Tmax/TN	kg
	KW			380V 660V						
H17RL-5001-6	800	95.6	0.84	-	871	990	7.0	0.8	1.8	6350
H17RL-5002-6	900	95.6	0.84	-	980	990	7.5	0.8	1.8	6750
H17RL-5003-6	100	95.6	0.84	-	1089	990	7.5	0.8	2.2	7150
H17RL-5001-8	630	95.4	0.81	-	713	740	7.0	0.8	2.2	6750
H17RL-5002-8	710	95.5	0.81	-	804	740	7.0	0.8	2.2	7000
H17RL-5003-8	800	95.4	0.81	-	905	740	7.0	0.8	2.2	7250
H17RL-5001-10	450	95.4	0.80	-	516	590	7.0	1.0	2.2	6450
H17RL-5002-10	500	95.4	0.80	-	573	590	7.0	1.0	2.2	6650
H17RL-5003-10	560	95.4	0.80	-	642	590	7.0	1.0	2.2	6850
H17RL-5004-10	630	95.4	0.80	-	722	590	7.0	1.0	2.2	7000
H17RL-5001-12	315	95.0	0.76	663	382	490	6.0	0.8	1.8	6000
H17RL-5002-12	355	95.1	0.76	746	430	490	6.0	0.8	1.8	6500
H17RL-5003-12	400	95.2	0.76	840	484	490	6.0	0.8	1.8	6750
H17RL-5004-12	450	95.2	0.76	945	544	490	6.0	0.8	1.8	6950
H17RL-5601-4	1120	95.3	0.88	-	1168	1490	6.5	0.9	2.0	7250
H17RL-5602-4	1250	95.3	0.88	-	1304	1490	6.5	0.9	2.0	6950
H17RL-5603-4	1400	95.6	0.88	-	1456	1490	6.5	0.9	2.0	8570
H17RL-5604-4	1500	95.6	0.88	-	1560	1490	6.5	0.9	2.0	8700
H17RL-5601-6	1000	95.4	0.85	-	1079	995	6.5	0.8	2.0	7500
H17RL-5602-6	1120	95.5	0.85	-	1207	995	6.5	0.8	1.8	7900
H17RL-5603-6	1250	95.7	0.85	-	1344	995	7.0	0.8	1.8	8200
H17RL-5604-6	1400	95.7	0.85	-	1506	995	7.0	0.8	1.8	8500
H17RL-5601-8	900	95.4	0.80	-	1030	740	5.6	0.9	1.8	8000
H17RL-5602-8	1000	95.7	0.80	-	1143	740	5.6	0.9	1.8	8500
H17RL-5603-8	1120	96.0	0.80	-	1276	740	5.6	0.9	1.8	9000
H17RL-5601-10	630	95.4	0.80	-	722	595	5.6	0.8	1.8	6600
H17RL-5602-10	710	96.0	0.80	-	809	595	5.6	0.8	1.8	6880
H17RL-5603-10	800	96.2	0.80	-	909	595	5.6	0.8	1.8	7080
H17RL-5604-10	900	96.2	0.80	-	1025	595	5.6	0.8	1.8	7280
H17RL-5601-12	450	95.0	0.77	935	538	495	6.5	0.8	1.8	6400
H17RL-5602-12	500	95.0	0.77	1039	598	495	6.5	0.8	1.8	6900
H17RL-5603-12	560	95.2	0.77	1161	668	495	6.5	0.8	1.8	7100
H17RL-5604-12	630	95.3	0.77	1304	751	495	6.5	0.8	1.8	7500

H17RL Outline Drawing Dimension B3

B3

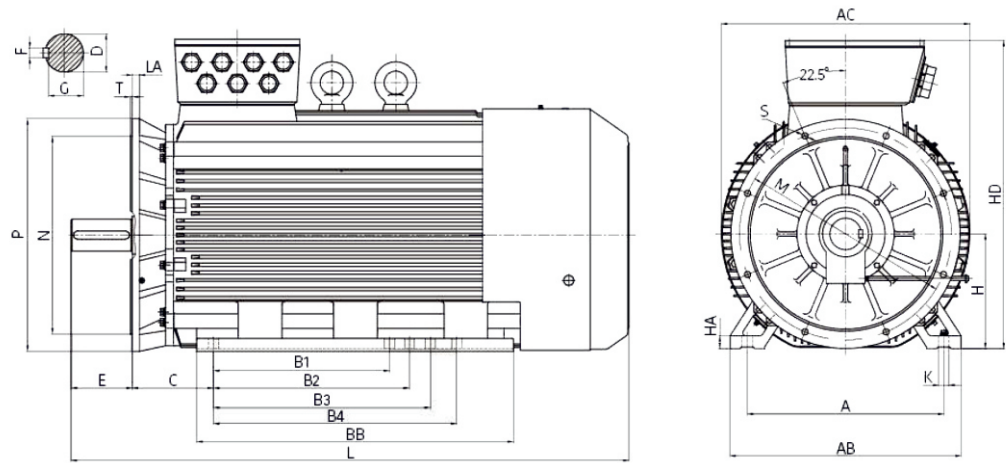


Type	Pole	A	B1	B2	B3	B4	C	D	E	F	G
355	2	630	630	710	-	-	254	75	140	20	67.5
355	4-12	630	630	710	-	-	254	100	210	28	90
400	2	686	630	710	-	-	280	80	170	22	71
400	4-12	686	630	710	-	-	280	110	210	28	100
450	2	800	900	1000	1120	1250	280	95	170	25	86
450	4-12	800	900	1000	1120	1250	280	120	210	32	109
500	4-12	900	1250	-	-	-	315	140	250	36	128
560	4-12	1000	1400	-	-	-	355	160	300	40	147

Type	Pole	H	K	AB	AC	BB	HA	HD	L
355	2	355	28	760	790	1140	52	1020	1950
355	4-12	355	28	760	790	1140	52	1020	2040
400	2	400	35	870	860	1130	45	1100	2160
400	4-12	400	35	870	860	1130	45	1100	2200
450	2	450	35	990	1035	1495	52	1400	2360
450	4-12	450	35	990	1035	1495	52	1400	2400
500	4-12	500	42	1080	1095	1600	65	1450	2550
560	4-12	560	42	1170	1170	1680	75	1450	2650

H17RL Outline Drawing Dimension B35

B35

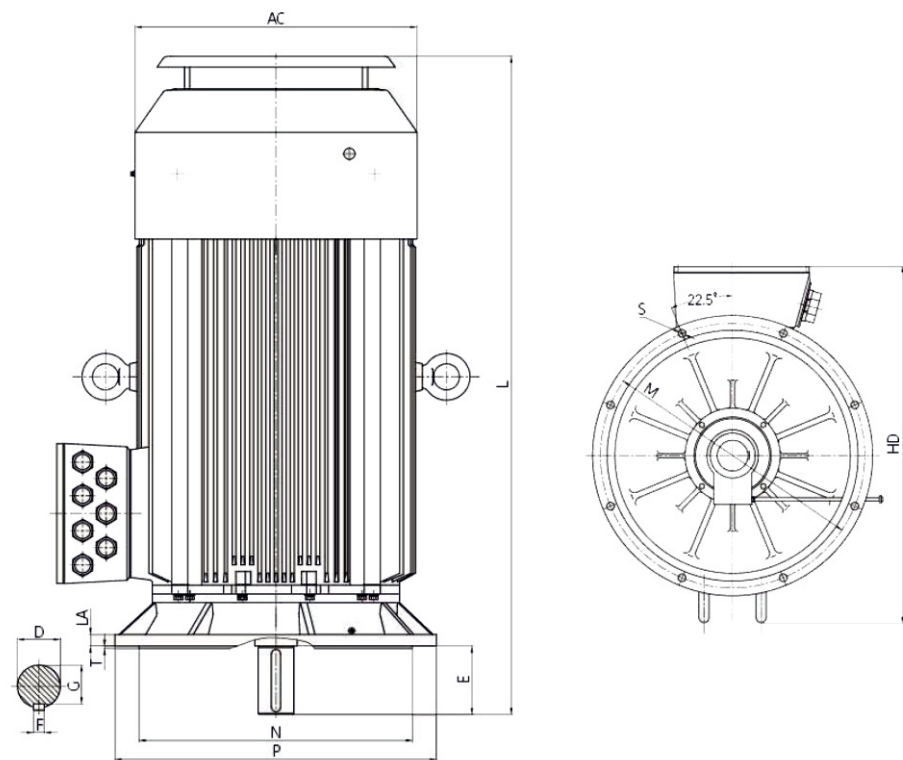


Type	Pole	A	B1	B2	B3	B4	C	D	E	F	G	H	K
355	2	630	630	710	-	-	254	75	140	20	67.5	355	28
355	4-12	630	630	710	-	-	254	100	210	28	90	355	28
400	2	686	630	710	-	-	280	80	170	22	71	400	35
400	4-12	686	630	710	-	-	280	110	210	28	100	400	35
450	2	800	900	1000	1120	1250	280	95	170	25	86	450	35
450	4-12	800	900	1000	1120	1250	280	120	210	32	109	450	35
500	4-12	900	1250	-	-	-	315	140	250	36	128	500	42
560	4-12	1000	1400	-	-	-	355	160	300	40	147	560	42

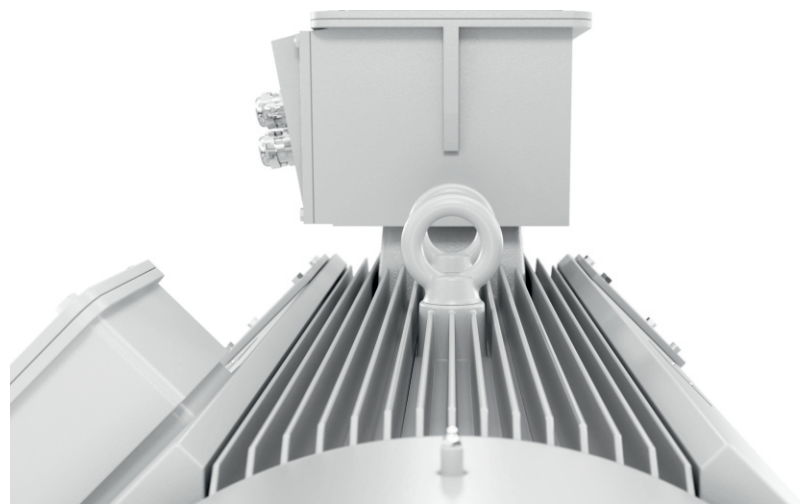
Type	Pole	M	N	P	S	T	LA	AB	AC	BB	HA	HD	L
355	2	740	680	800	8- 24	6	30	760	790	1140	52	1020	1950
355	4-12	740	680	800	8- 24	6	30	760	790	1140	52	1020	2040
400	2	940	880	1000	8- 28	6	30	870	860	1130	45	1100	2160
400	4-12	940	880	1000	8- 28	6	30	870	860	1130	45	1100	2200
450	2	940	880	1000	8- 28	6	30	990	1035	1495	52	1400	2360
450	4-12	940	880	1000	8- 28	6	30	990	1035	1495	52	1400	2400
500	4-12	1080	1000	1150	8- 28	6	30	1080	1095	1600	65	1450	2550
560	4-12	1180	1120	1250	8- 28	6	30	1170	1170	1680	75	1450	2650

H17RL Outline Drawing Dimension V1

V1

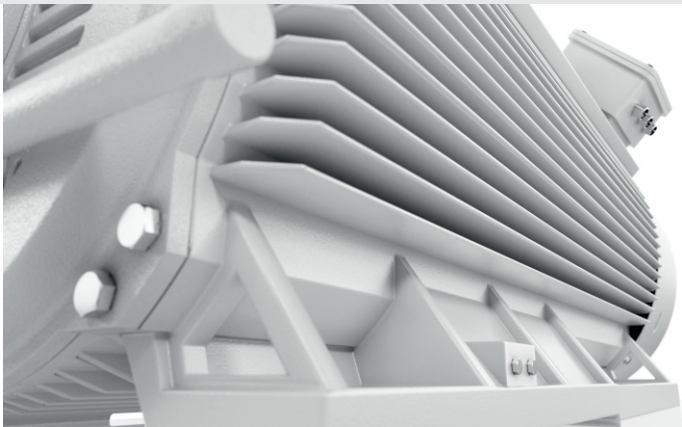


Type	Pole	D	E	F	G	M	N	P	S	T	LA	AC	HD	L
355	4~12	100	210	28	90	740	680	800	8- 24	6	30	790	1020	2140
400	4~12	110	210	28	100	940	880	1000	8- 28	6	30	860	1100	2345
450	4~12	120	210	32	109	940	880	1000	8- 28	6	30	1035	1400	2500
500	4~12	140	250	36	128	1080	1000	1150	8- 28	6	30	1095	1450	2650
560	4~12	160	300	40	147	1180	1120	1250	8- 28	6	30	1170	1450	2750



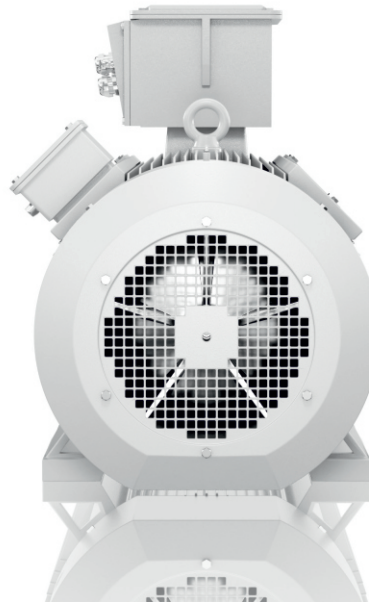
Bearing Selection

Frame	Drive End		Non Drive End	
	2 Poles	4 Poles and Above	2 Poles	4 Poles and Above
80		6204-2Z/Z2		6204-2Z/Z2
90		6205-2Z/Z2		6205-2Z/Z2
100		6206-2Z/Z2		6206-2Z/Z2
112		6206-2Z/Z2		6206-2Z/Z2
132		6208-2Z/Z2		6208-2Z/Z2
160		6309/C3		6309/C3
180		6311/C3		6311/C3
200		6312/C3		6312/C3
225	6312/C3	6313/C3		6312/C3
250				6313/Z1
280	6314/C3	6317/C3		6314/C3
315	6317/C3	6319/C3	6317/C3	6319/C3
355	6319/C3	6322/C3	6319/C3	6322/C3
400	6317/C3	6326/C3(NU326)	6317/C3	6326/C3
450	6220/C3	6328/C3(NU328)	6220/C3	6328/C3
500	-	6330/C3(NU330)	-	6330/C3
560	-	6334/C3(NU334)	-	6334/C3



V1

Frame	Drive End		Non Drive End	
	2 Poles	4 Poles and Above	2 Poles	4 Poles and Above
355	-	6322/C3(NU322)	-	7322/C3
400	-	6326/C3(NU326)	-	7326/C3
450	-	6328/C3(NU328)	-	7328/C3
500	-	6330/C3(NU330)	-	7330/C3
560	-	6334/C3(NU334)	-	7334/C3



Motor Terminal Box with Vable Gland

Frame	Cable Gland (Qty - Size)
80-90	1-M20×1.5
100-112	2-M20×1.5
132	2-M25×1.5
160-180	2-M40×1.5
220-225	2-M50×1.5
250-315	2-M63×1.5
355	2-M63×1.5
400	7-M63×1.5
450	7-M63×1.5
500	7-M63×1.5
560	7-M63×1.5

Vibration Class	shaft	80≤H≤132			132<H≤280			H>280		
	IMB	Displacement (um)	Speed (m/s ²)	Accelerated Speed (m/s ²)	Displacement (um)	Speed (m/s ²)	Accelerated Speed (m/s ²)	Displacement (um)	Speed (m/s ²)	Accelerated Speed (m/s ²)
A	Hanging	25	1.6	2.5	3.5	2.2	3.5	45	2.8	4.4
	Rigid Mounting	21	1.3	2.0	2.9	1.8	2.8	37	2.3	3.6
B	Hanging	11	0.7	1.1	1.8	1.1	1.7	29	1.8	2.8
	Rigid Mounting	-	-	-	1.4	0.9	1.4	24	1.5	2.4

1. Class "A" applicable for H17RL series motors.
2. Class "B" applicable for have special requirements for vibration of motor.
3. Displacement and speed, conector frequency of accelerated speed were 10 Hz and 25 Hz.

Motor Noise

Height	Poles	No load	Lwa (db)
H	2P	4P	6P
80	67	58	54
90	78	66	63
100	82	70	64
112	83	72	70
132	85	75	73
160	87	77	73
180	88	80	77
200	90	83	80
225	92	84	80
250	92	85	82
280	94	88	85
315	98	94	89
355	100	95	94
400	100	96	95
450	100	98	98
500	-	99	98
560	-	100	98

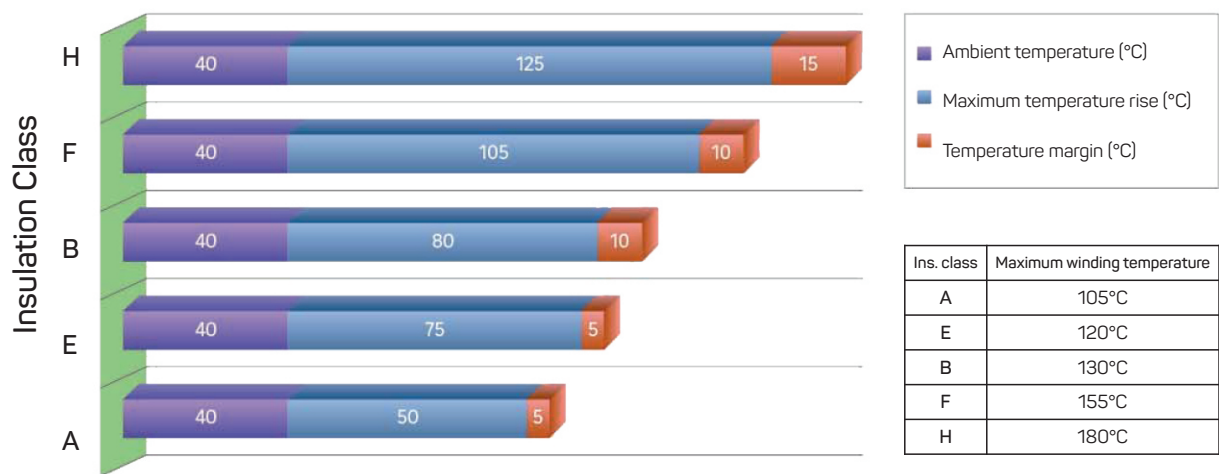


Space Heater Electrical Data

Frame Size	80-90	100-112	132-160	180-200	225-280	315	355	400	450	500	560
Power (W)	20	30	40	50	60	80	100	110	130	160	190
Voltage (V)	220/230										

Appendix

Insulation Class



Color Selection



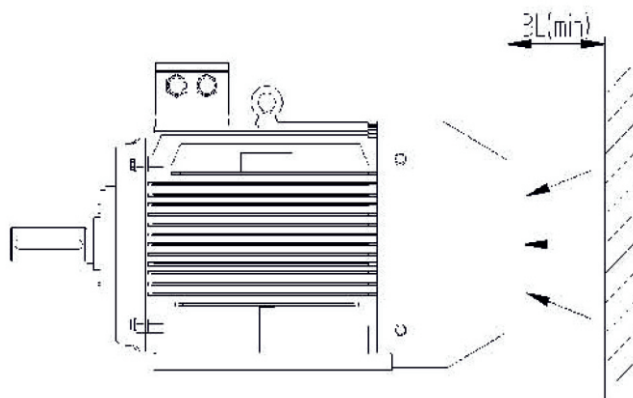
Motor usage power convert, under diferent amb., different altitude

Amb (°C)	usage factor after conversion	altitude (m)	usage factor after conversion
30	1.06	1000	1.00
35	1.03	1500	0.98
40	1.00	2000	0.94
45	0.97	2500	0.91
50	0.93	3000	0.87
55	0.88	3500	0.82
60	0.82	4000	0.77

Eg: For rated power 22kw motor under amb 50°C, altitude 2500m, the actual motor power for using is: $22 \times 0.93 \times 0.91 = 18.6\text{kW}$

Motor installation distance (Wind inlet distance)

To make sure the motor can be cooled completely, the minima BL distance between fan cover edge and wind inlet must be confirmed as follow data sheet.



Frame	BL (mm)
80~100	15
112~132	30
160~180	40
200~280	50
315~355	65