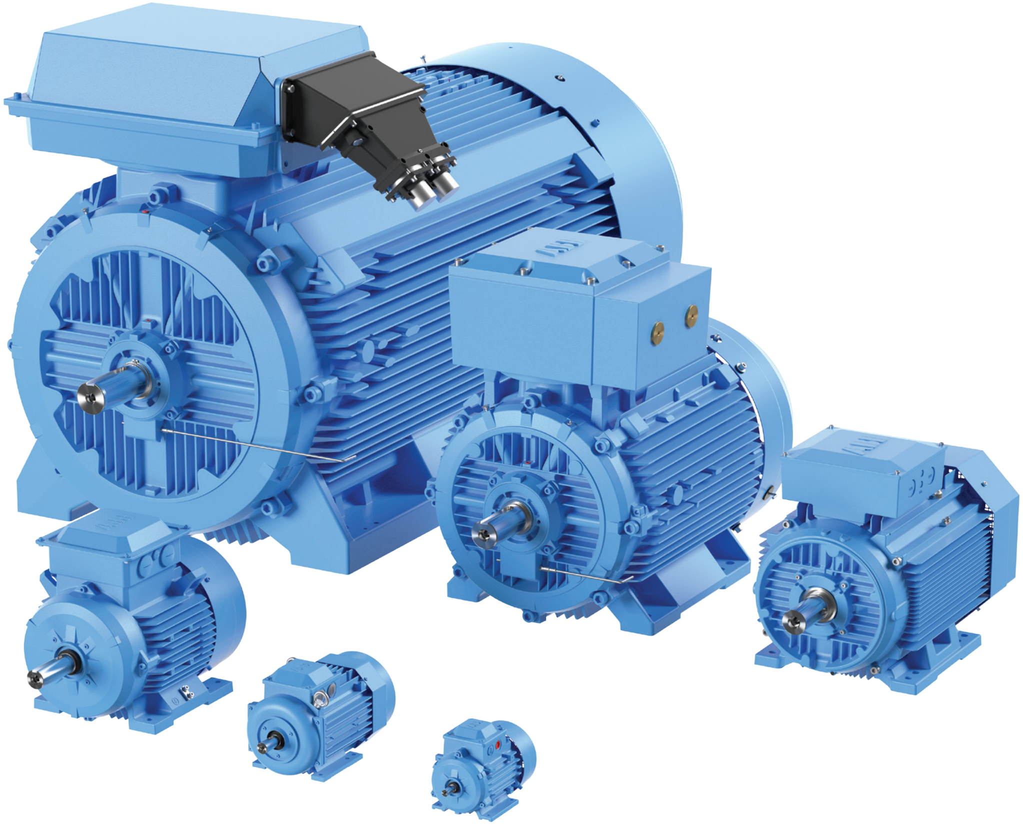
프리미엄 효율 (IE3)

ABB 저압 유도 전동기

0.75kW~375kW (80~355 프레임)



저압 유도 전동기

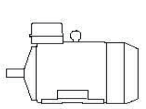
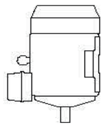
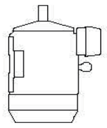
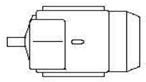
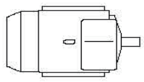
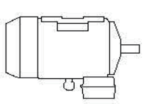
ABB는 오랜 경험과
폭 넓은 제품 포트폴리오,
신뢰할 수 있는 서비스를 바탕으로
장비의 에너지 효율을 높이는 것은 물론
생산성 향상에 도움을 드릴 수 있습니다.

목 차

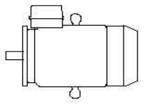
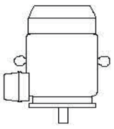
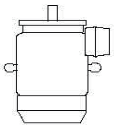
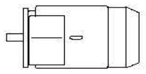
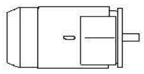
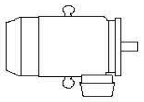
004	설치 방법
005	일반 정보 : 보호 등급
006	주문 정보
007	명판
008	기술 데이터
011	터미널 박스
014	추가 옵션 - 타력 냉각팬 모터
015	모터 주요 구성품 및 재질
018	모터 도면
026	모터 구조

설치 방법

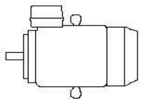
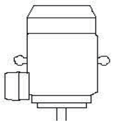
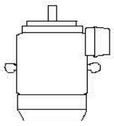
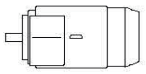
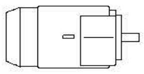
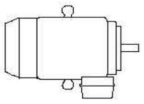
방식형 모터 code I / code II

					
IM B3 (ABB 표준)	IM V5	IM V6	IM B6	IM B7	IM B8
IM 1001	IM 1011	IM 1031	IM 1051	IM 1061	IM 1071

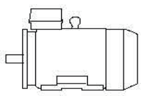
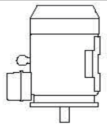
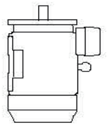
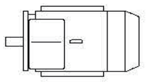
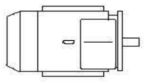
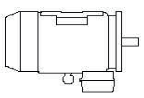
플랜지형 모터, 대형 플랜지 code I / code II

					
IM B5	IM V1	IM V3	*)	*)	*)
IM 3001	IM 3011	IM 3031	IM 3051	IM 3061	IM 3071

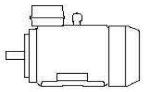
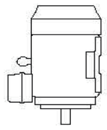
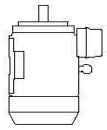
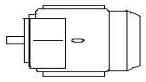
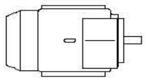
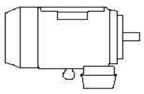
플랜지형 모터, 소형 플랜지 code I / code II

					
IM B14	IM V18	IM V19	*)	*)	*)
IM 3601	IM 3611	IM 3631	IM 3651	IM 3661	IM 3671

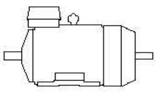
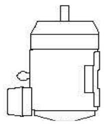
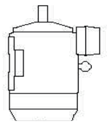
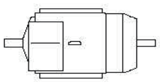
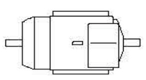
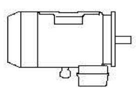
방식형과 플랜지형 모터, 대형 플랜지 code I / code II

					
IM B35	IM V15	IM V35	*)	*)	*)
IM 2001	IM 2011	IM 2031	IM 2051	IM 2061	IM 2071

방식형과 플랜지형 모터, 소형 플랜지 code I / code II

					
IM B34	IM V17				
IM 2101	IM 2111	IM 2131	IM 2151	IM 2161	IM 2171

방식형 모터 (축 연장가능) code I / code II

					
IM 1002	IM 1012	IM 1032	IM 1052	IM 1062	IM 1072

*) IEC 60034-7 포함되지 않음.
주의 : 샤프트가 위로 향하는 수직형모터의 경우, 물의 유입을 막기위한 적절한 보호조치가 필요합니다.

일반 정보

보호 등급 : IP 코드 / IK 코드

모터의 보호 등급 분류 기준은 아래 규정을 따릅니다.
- IP 코드 : IEC 60034-5 또는 EN 60529
- IK 코드 : EN 50102

IK 코드
외부 기계적인 영향에 대한 보호 정도 분류

유입보호	인체 및 고형 이물질에 대한 보호 정도	수분 유입에 대한 보호 정도
IP	5	5
	1	2

IK	08
	1

Position 1

2 :	12mm이상의 단단한 물체에 대하여 보호되어지는 모터
4 :	1mm이상의 단단한 물체에 대하여 보호되어지는 모터
5 :	먼지보호 모터 (ABB 표준)
6 :	방진 모터

Position 2

3 :	60도 까지의 분무 액체로부터 보호되어지는 모터
4 :	모든 방향의 분무 액체로부터 보호되어지는 모터
5 :	모든 방향, 낮은 압력의 분무 액체로부터 보호되어지는 모터
6 :	모든 방향, 높은 압력의 분무 액체로부터 보호되어지는 모터

Position 1

IK 코드와 충격에너지의 관계

IK 코드	충격에너지 / Joule
0 :	EN 50102에 따라 보호되지 않음
01 :	0.15
02 :	0.2
03 :	0.35
04 :	0.5
05 :	0.7
06 :	1
07 :	2
08 :	5 (ABB 표준)
09 :	10
10:	20

주문 정보

제품 코드 설명

모터 종류	모터 사이즈	제품 코드			취부방식, 전압 및 주파수, 세대코드	옵션 코드
M3BP	160MLC	3GBP	161	033	- ADG	033, etc.
		1 2 3 4	5 6 7	8 9 10	11 12 13 14	

주문 시 다음 예시에 표시된 모터 타입과 사이즈, 제품 코드를 참조하시기 바랍니다.

예시	
모터타입	M3BP 160 MLC
극수 / pole	2
취부방식 (IM 코드)	IM B3 (IM1001)
정격출력	18.5 kW
제품코드	3GBP161033-ADG
옵션코드	

Positions 1 to 4

3GBP: 전폐형 주철 프레임 농형 유도 전동기

Positions 5 and 6

IEC 크기	
07:	71
08:	80
09:	90
10:	100
12:	112
13:	132
16:	160
18:	180
20:	200
22:	225
25:	250
28:	280
31:	315
35:	355
40:	400
45:	450

Position 7

속력	극수
1:	2극 (poles)
2:	4극 (poles)
3:	6극 (poles)
4:	8극 (poles)
5:	10극 (poles)
6:	12극 (poles)
7:	> 12극 (poles)
8:	정 토크 부하 타냉식 2 단속 모터
9:	멀티 스피드 모터, 2 단속 모터

Positions 8 to 10

일련번호 (S/N)

Position 11

-(dash)

Position 12 (터미널 박스 상부에 위치)

취부방식	
A:	방식형, 상부 터미널 박스
R:	방식형, 부하측으로부터 보여지는 단자함 RHS
L:	방식형, 부하측으로부터 보여지는 단자함 LHS
B:	플랜지형, 대형플랜지
C:	플랜지형, 소형플랜지 (크기 71에서 112)
H:	방식형과 플랜지형, 상부지지 단자함
J:	방식형과 플랜지형, 플랜지 홀에 나사산 없음
S:	방식형과 플랜지형, 부하측으로부터 보여지는 단자함 RHS
T:	방식형과 플랜지형, 부하측으로부터 보여지는 단자함 LHS
V:	플랜지형, 스페셜 플랜지
F:	방식형과 플랜지형, 스페셜 플랜지

Position 13 (터미널 박스 상부에 위치)

전압과 주파수	
단속 모터	
B:	380 VΔ 50 Hz
D:	400 VΔ, 415 VΔ, 690 VY 50 Hz, 380 VΔ 400 VΔ 415 VΔ 440 VΔ 460 VΔ 60 Hz
E:	500 VΔ 50 Hz
F:	500 VY 50 Hz
S:	230 VΔ, 400 VY, 415 VY 50 Hz
T:	660 VΔ 50 Hz
U:	690 VΔ 50 Hz
X:	이외의 정격 전압(최대 690V), 결선, 주파수
2단변속 모터	
A:	220 V 50 Hz
B:	380 V 50 Hz
D:	400 V 50 Hz
E:	500 V 50 Hz
S:	230 V 50 Hz
X:	이외의 정격 전압(최대 690V), 결선, 주파수

*전압코드 'x'에는 스페셜 디자인 옵션코드 '209 전압 & 주파수' 정보가 반드시 전달 및 주문되어야 합니다.

Position 14

제너레이션 코드

A, B, C, G, K

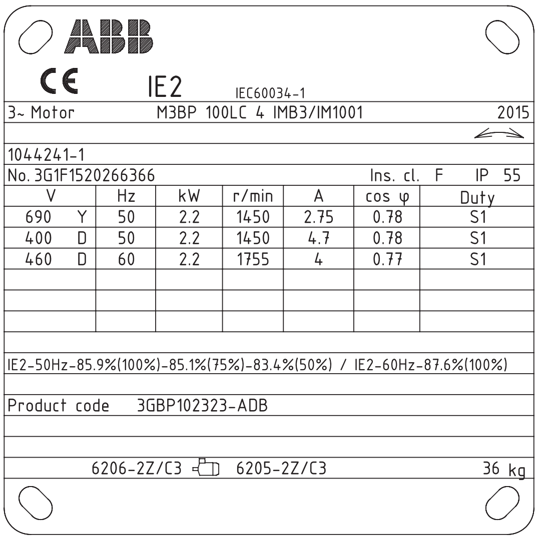
효율 값은 IEC 60034-2-1; 2014에 따름.

더 자세한 내용은 ABB 웹페이지 'www.abb.com/motors & generators" 를 참조하시고 문의사항은 ABB에 연락주시기 바랍니다.

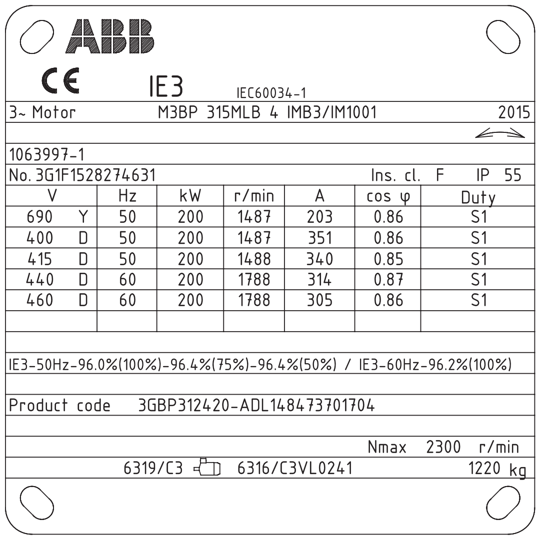
명판 (Rating Plates)

모터의 기본 명판은 정격 속도에서의 결선 방법에 따른 성능값을 나타냅니다. 명판은 또한 효율 등급 (IE2, IE3 또는 IE4), 생산년도, 그리고 100%, 75%, 50% 부하값에서의 최저 정격효율을 보여줍니다.

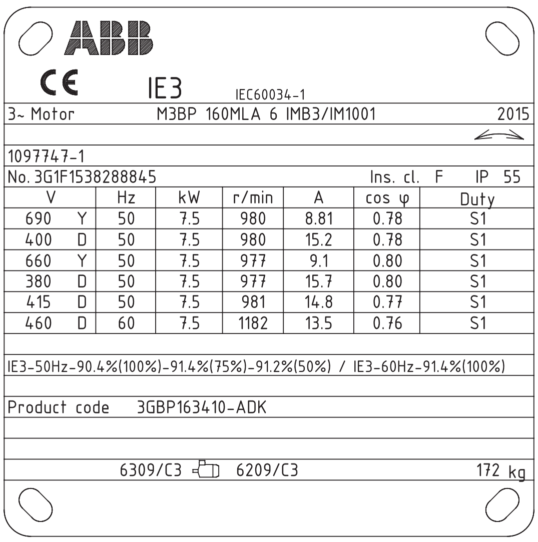
아래의 명판 샘플은 일반적인 데이터열을 나타내며, 명판의 실제 내용은 주문된 모터의 사양에 따라 달라질 수 있습니다.



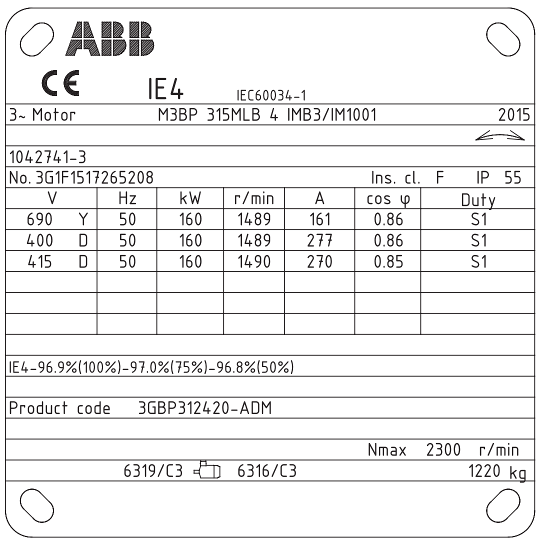
명판예시, 100 사이즈 모터, IE2



명판예시, 315 사이즈 모터, L 세대, IE3



명판예시, 160 사이즈 모터, K 세대, IE3



명판예시, 315 사이즈 모터, IE4

기술 데이터
IE3 주철 모터, 3600 rpm (2극)

IP55 - IC411 - 절연 F종, 온도상승 B종
IEC 60034-30-1; 2014에 따른 IE3 효율 등급

출력 kW	전극 Poles	모터 유형 Motor type	제품 코드 Product code	속도 rpm	부하 IE3 KR MEPS (%)	전류 Current (A)@380V	소음레벨 Noise (dB)	중량 Weight (kg)
2 poles								
0.75	2	M3BP 80 MD	3GBP 081 340-ADK	3452	77	1.82	61	18
1.5	2	M3BP 90 LB	3GBP 091 520-ADK	3463	85.5	3	65	31
2.2	2	M3BP 90 LC	3GBP 091 530-ADK	3452	86.5	4.4	65	35
3.7	2	M3BP 112 MG	3GBP 111 370-ADK	3434	88.5	7.8	71	56
5.5	2	M3BP 132 SMF	3GBP 131 260-ADK	3460	89.5	10.4	74	77
7.5	2	M3BP 132 SMG	3GBP 131 270-ADK	3474	90.2	14	77	73
11	2	M3BP 160 MLA	3GBP 161 410-ADK	3518	91	20	75	141
15	2	M3BP 160 MLB	3GBP 161 420-ADK	3524	91	27.5	75	170
18.5	2	M3BP 160 MLC	3GBP 161 430-ADK	3526	91.7	34	75	183
22	2	M3BP 180 MLA	3GBP 181 410-ADK	3535	91.7	40.4	77	234
30	2	M3BP 200 MLA	3GBP 201 410-ADK	3538	92.4	55.4	76	289
37	2	M3BP 200 MLB	3GBP 201 420-ADK	3543	93	67.6	76	314
45	2	M3BP 225 SMA	3GBP 221 210-ADK	3555	93.6	82.9	79	409
55	2	M3BP 250 SMA	3GBP 251 210-ADK	3550	93.6	101	81	452
75	2	M3BP 280 SMB	3GBP 281 220-ADK	3566	94.1	137	80	665
90	2	M3BP 280 SMC	3GBP 281 230-ADK	3574	95	159	80	725
110	2	M3BP 315 SMB	3GBP 311 220-ADK	3574	95	196	80	940
132	2	M3BP 315 SMC	3GBP 311 230-ADK	3580	95.4	231	80	1025
160	2	M3BP 315 MLA	3GBP 311 410-ADK	3576	95.4	287	81	1190
200	2	M3BP 355 SMA	3GBP 351 210-ADK	3578	95.8	352	86	1600
225	2	M3BP 355SMA 2	3GBP351210-AXK	3581	95.8	398	86	1600
260	2	M3BP 355SMB 2	3GBP351220-ADK	3579	95.8	458	86	1680
300	2	M3BP 355SMB 2	3GBP351220-ADK	3575	95.8	526	86	1680
335	2	M3BP 355MLA 2	3GBP351410-ADK	3578	95.8	595	86	2000
375	2	M3BP 355MLA 2	3GBP351410-ADK	3578	95.8	667	86	2000

기술 데이터
IE3 주철 모터, 1800 rpm (4극)

IP55 - IC411 - 절연 F종, 온도상승 B종
IEC 60034-30-1; 2014에 따른 IE3 효율 등급

출력 kW	전극 Poles	모터 유형 Motor type	제품 코드 Product code	속도 rpm	부하 IE3 KR MEPS (%)	전류 Current (A)@380V	소음레벨 Noise (dB)	중량 Weight (kg)
4 poles								
0.75	4	M3BP 80 MLG	3GBP 082 470-ADK	1716	83.5	1.6	57	22
1.5	4	M3BP 90 LD	3GBP 092 540-ADK	1716	86.5	3.2	57	34
2.2	4	M3BP 100 LKA	3GBP 102 810-ADK	1737	89.5	4.3	57	49
3.7	4	M3BP 112 MG	3GBP 112 370-ADK	1735	89.5	8.7	62	52
5.5	4	M3BP 132 SMF	3GBP 132 260-ADK	1750	91.7	11.6	69	81
7.5	4	M3BP 132 SMG	3GBP 132 270-ADK	1743	91.7	14.9	69	81
11	4	M3BP 160 MLA	3GBP 162 410-ADK	1766	92.4	21.3	68	173
15	4	M3BP 160 MLB	3GBP 162 420-ADK	1767	93	28.7	68	187
18.5	4	M3BP 180 MLA	3GBP 182 410-ADK	1770	93.6	36.1	68	235
22	4	M3BP 180 MLB	3GBP 182 420-ADK	1771	93.6	42.6	68	235
30	4	M3BP 200 MLA	3GBP 202 410-ADK	1776	94.1	56.2	69	319
37	4	M3BP 225 SMA	3GBP 222 210-ADK	1772	94.5	69.6	72	398
45	4	M3BP 225 SMB	3GBP 222 220-ADK	1773	95	83.2	72	398
55	4	M3BP 250 SMA	3GBP 252 210-ADK	1779	95.4	101	72	476
75	4	M3BP 280 SMB	3GBP 282 220-ADK	1777	95.4	139	75	665
90	4	M3BP 280 SMC	3GBP 282 230-ADK	1778	95.4	165	75	725
110	4	M3BP 315 SMC	3GBP 312 230-ADK	1786	95.8	198	75	1000
132	4	M3BP 315 SMD	3GBP 312 240-ADK	1786	95.8	238	75	1065
160	4	M3BP 315 MLB	3GBP 312 420-ADK	1785	96.2	285	75	1220
200	4	M3BP 355 SMA	3GBP 352 210-ADK	1787	96.2	363	77	1610
225	4	M3BP 355SMA 4	3GBP352210-ADK	1792	96.2	413	81	1610
260	4	M3BP 355SMA 4	3GBP352210-ADK	1785	96.2	471	81	1610
300	4	M3BP 355SMC 4	3GBP352230-ADK	1792	96.2	553	81	1820
335	4	M3BP 355SMC 4	3GBP352230-ADK	1791	96.2	610	81	1820
375	4	M3BP 355MLA 4	3GBP352410-ADK	1788	96.2	667	81	2140

기술 데이터
IE3 주철 모터, 1200 rpm (6극)

IP55 - IC411 - 절연 F종, 온도상승 B종
IEC 60034-30-1; 2014에 따른 IE3 효율 등급

출력 kW	전극 Poles	모터 유형 Motor type	제품 코드 Product code	속도 rpm	부하 IE3 KR MEPS (%)	전류 Current (A)@380V	소음레벨 Noise (dB)	중량 Weight (kg)
6 poles								
0.75	6	M3BP 90 LG	3GBP 093 570-A K	1112	82.5	1.75	47	34
1.5	6	M3BP 112 MH	3GBP 113 380-A K	1164	88.5	3.6	69	53
2.2	6	M3BP 132 SMC	3GBP 133 230-A K	1171	89.5	4.9	60	81
5.5	6	M3BP 132 SMH	3GBP 133 280-A K	1156	91	11.4	60	79
3.7	6	M3BP 132 SMG	3GBP 133 270-A K	1165	89.5	9.1	60	82
7.5	6	M3BP 160 MLA	3GBP 163 410-A K	1171	91	15.4	63	172
11	6	M3BP 160 MLB	3GBP 163 420-A K	1171	91.7	22.9	63	185
15	6	M3BP 180 MLA	3GBP 183 410-A K	1172	91.7	31.8	63	234
18.5	6	M3BP 200 MLA	3GBP 203 410-A K	1187	93	36.7	67	291
22	6	M3BP 200 MLB	3GBP 203 420-A K	1186	93	42.4	67	318
30	6	M3BP 225 SMA	3GBP 223 210-A K	1185	94.1	57.3	67	392
37	6	M3BP 250 SMA	3GBP 253 210-A K	1188	94.1	70.6	67	467
45	6	M3BP 280 SMB	3GBP 283 220-A K	1188	94.5	83	68	680
55	6	M3BP 280 SMC	3GBP 283 230-A K	1186	94.5	102	68	725
75	6	M3BP 315 SMC	3GBP 313 230-A K	1192	95	141	70	1000
90	6	M3BP 315 SMD	3GBP 313 240-A K	1191	95	170	70	1040
110	6	M3BP 315 MLB	3GBP 313 420-A K	1191	95.8	206	71	1200
132	6	M3BP 315 LKA	3GBP 313 810-A K	1190	95.8	250	71	1410
160	6	M3BP 355 SMB	3GBP 353 220-A K	1193	95.8	304	76	1680
200	6	M3BP 355 SMC	3GBP 353 230-A K	1193	95.8	373	76	1820
225	6	M3BP 355 SMC 6	3GBP 353 230 -ADK	1194	95,8	428	76	1820
260	6	M3BP 355 MLB 6	3GBP 353 420-ADK	1195	95.8	499	76	2180
300	6	M3BP 355 MLB 6	3GBP 353 420-ADK	1193	95.8	566	76	2180
335	6	M3BP 355 MLB 6	3GBP 353 420-ADK	1195	95.8	633	77	2180
375	6	M3BP 355 LKA 6	3GBP 353 810-ADK	1194	95.8	712	79	2500

옵션 코드

Variant codes specify additional options and features to the standard motor. The desired features are listed as three-digit variant codes in the motor order. Note also that there are variants that cannot be used together.

Most of the variant codes apply to IE2, IE3, and IE4 motors. However, confirm the availability of variants for IE3 and IE4 motors with your ABB sales office before making an order.

		Frame size															
Code/Variants		**71**	**80**	**90**	**100**	**112**	**132**	**160**	**180**	**200**	**225**	**250**	**280**	**315**	**355**	**400**	**450**
Administration																	
529	Customer witnessed visual inspection of complete order line.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
530	Two-year extension on standard warranty	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
531	Sea freight packing	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
533	Wooden sea freight packing	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
590	Mounting of customer supplied part other than coupling.	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
683	Prepared for ABB Ability Smart Sensor	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
684	ABB Ability Smart sensor mounted	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Balancing																	
417	Vibration acc. to Grade B (IEC 60034-14).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
423	Balanced without key.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
424	Full-key balancing	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Bearings and Lubrication																	
036	Transport lock for bearings.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
037	Roller bearing at D-end.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
039	Cold-resistant grease	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
040	Heat-resistant grease	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
041	Bearings regreasable via grease nipples.	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○
043	SPM compatible nipples for vibration measurement	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○
057	2RS bearings at both ends.	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
058	Angular contact bearing at D-end, shaft force away from bearing.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
059	Angular contact bearing at N-end, shaft force towards bearing.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
060	Angular contact bearing at D-end, shaft force towards bearing.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
061	Angular contact bearing at N-end, shaft force away from bearing.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
107	Pt100 2-wire in bearings.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
128	Double PT100, 2-wire in bearings	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
129	Double PT100, 3-wire in bearings	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
130	Pt100 3-wire in bearings.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
188	63-series bearing in D-end	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○
194	2Z bearings greased for life at both ends.	○	○	○	○	○	○	●	●	●	●	●	-	-	-	-	-
420	Bearing mounted PTC thermistors.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
433	Outlet grease collector	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
506	Nipples for vibration measurement : SKF Marlin Quick Connect stud CMSS-2600-3	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
593	Bearings grease suitable for food and beverage industry.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
654	Provision for vibration sensors (M8x1)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
795	Lubrication information plate	-	-	-	-	-	-	●	●	●	●	●	○	○	○	○	○
796	Grease nipples JIS B 1575 PT 1/8 Type A	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
797	Stainless steel SPM nipples	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
798	Stainless steel grease nipples	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
799	Grease nipples flat type DIN 3404, thread M10x1	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
800	Grease nipples JIS B 1575 PT 1/8" pin type	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Brakes																	
517	KFB holding brake	-	-	-	-	-	-	-	-	-	-	-	●	●	●	-	-
518	SFB-SH holding brake	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
Branch standard designs																	
142	Manilla connection.	-	-	●	●	●	●	●	●	●	●	●	●	●	-	-	-

○ = Included as standard │ ● = Available as option │ - = Not applicable

		Frame size															
Code/Variants		**71**	**80**	**90**	**100**	**112**	**132**	**160**	**180**	**200**	**225**	**250**	**280**	**315**	**355**	**400**	**450**
172	Smoke venting specification, 300 ºC, 1 hour, DOL use, class F300 according to EN 12101-3	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
173	Smoke venting specification, 200 ºC, 2 hours, DOL use, class F200 according to EN 12101-3	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
174	Smoke venting specification, 400 ºC, 2 hours, DOL use, class F400 according to EN 12101-3	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
177	Design for high ambient applications	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-
178	Stainless steel / acid proof bolts.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
204	Jacking bolts for foot mounted motors.	-	-	-	-	-	-	●	●	●	●	●	●	●	○	○	○
209	Non-standard voltage or frequency, (special winding).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
386	Smoke venting specification, 200 ºC, 2 hours, VSD use, Class F200 according to EN 12101-3.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
387	Smoke venting specification, 300 ºC, 1 hour, VSD use, Class F300 according to EN 12101-3	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
389	Smoke Venting specification, 400 ºC, 2 hours, VSD use, Class F400 according to EN 12101-3	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
392	Smoke Venting specification, 250 ºC, 2 hours, DOL use, Class T250	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
393	Smoke venting specification, 250 ºC, 2 hours, VSD use, Class T250	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
396	Motor designed for minimum ambient temperature -20 °C to -40 °C, with space heaters (code 450/451 must be added)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
397	Motor designed for minimum ambient temperature -40 °C to -55 °C, with space heaters (code 450/451 must be added)	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
398	Motor designed for minimum ambient temperature -20 °C to -40 °C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
399	Motor designed for minimum ambient temperature -40 °C to -55 °C	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
425	Corrosion protected stator and rotor core.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
524	Special run-out tolerances on flange and shaft for close coupled pump applications.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	-	-
625	Design for mining applications.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
786	Special design shaft upwards (V3, V36, V6) for outdoor mounting.	-	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
877	Design for high ambient applications, motor without fan and fan cover	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-
Cooling system																	
044	Unidirectional fan for reduced noise level. Rotation clockwise seen from D-end. Available only for 2-pole motors.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
045	Unidirectional fan for reduced noise level. Rotation counter clockwise seen from D-end. Available only for 2-pole motors.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
068	Light alloy metal fan	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
075	Cooling method IC418 (without fan).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
183	Separate motor cooling (fan axial, N-end).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
206	Steel fan	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
422	Separate motor cooling (on top) with integrated fan motor	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
514	Separate motor cooling (fan on top)	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
791	Stainless steel fan cover	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●
Coupling																	
035	Assembly of customer supplied coupling-half.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
Documentation																	
141	Binding 2D main dimension drawing.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
370	Motor model drawing in 3D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
374	Binding 2D motor detailed drawing	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
536	Photos of manufactured motors	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
537	Advanced data sheet	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
722	Rotor dimension drawing (incl. torsional stiffness).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
777	Premium documentation package	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Drain holes																	
065	Plugged existing drain holes.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
448	Draining holes with metal plugs.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
Earthing Bolt																	
067	External earthing bolt.	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○
525	External earthing bolts on motor feet	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hazardous Environments																	
456	Ex ec IIC T3 Gc acc. IEC/EN 60079-7 with certificates.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	-	-
Heating elements																	
450	Heating element, 100-120 V	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
451	Heating element, 200 - 240 V	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

○ = Included as standard │ ● = Available as option │ - = Not applicable

Code/Variants		Frame size 71	80	90	100	112	132	160	180	200	225	250	280	315	355	400	450
Insulation system																	
014	Winding insulation class H.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
405	Special winding insulation for frequency converter supply.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
406	Winding insulation for supply > 690 <= 1000 volts	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●
Marine																	
024	Fulfilling Bureau Veritas (BV) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
025	Fulfilling Det Norske Veritas (DNV) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
026	Fulfilling Lloyds Register of Shipping (LR) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
027	Fulfilling American Bureau of Shipping (ABS) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
049	Fulfilling Germanischer Lloyd (GL) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
050	Fulfilling Registro Italiano Navale (RINA) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
051	Fulfilling Russian Maritime Register of Shipping (RS) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
096	Fulfilling Lloyds Register of Shipping (LR) requirements, without certificate (non-essential duty only)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
186	Fulfilling Det Norske Veritas (DNV) requirements, without certificate	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
481	Fulfilling Nippon Kaiji Kyokai (NK) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
483	Fulfilling China Classification Societies (CCS) requirements (Beijing), with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
484	Fulfilling Korea Register of Shipping (KR) requirements, with certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
491	Fulfilling Nippon Kaiji Kyokai (NK) requirements, without certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
492	Fulfilling Registro Italiano Navale (RINA) requirements, without certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
493	Fulfilling China Classification Societies (CCS) requirements (Beijing), without certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
494	Fulfilling Korea Register of Shipping (KR) requirements, without certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
496	Fulfilling Bureau Veritas (BV) requirements, without certificate(non-essential duty only)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
497	Fulfilling Russian Maritime Register of Shipping (RS) requirements, without certificate.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-
675	Fulfilling American Bureau of Shipping (ABS) requirements, without certificate (non-essential duty only)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
676	Fulfilling Germanischer Lloyd (GL) requirements, without certificate (non-essential duty only)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Mounting arrangements																	
008	IM 2101 foot/flange mounted, IEC flange, from IM 1001 (B34 from B3).	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-
009	IM 2001 foot/flange mounted, IEC flange, from IM 1001 (B35 from B3).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
047	IM 3601 flange mounted, IEC flange, from IM 3001 (B14 from B5).	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-
064	NEMA D-flange	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-
066	Modified for specified mounting position differing from IM B3 (1001), IM B5 (3001), B14 (3601), IM B35 (2001), IM B34 (2101)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
305	Additional lifting lugs.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
320	IM2001 foot/flat bottom flange mounted, from IM1001 (B35 flat bottom flange from B3)	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-
Noise reduction																	
055	Noise reduction cover for foot mounted motor	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
Painting																	
105	Paint thickness report.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
114	Special paint color, standard grade	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
115	Painting system C4M acc. to ISO 12944-2: 1998.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
168	Primer paint only.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
303	Painted insulation layer on inside of the terminal boxes.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
710	Thermally sprayed zink metallizing with acrylic top coat	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
711	Painting system C5-M very high, acc. to ISO 12944-5:2007	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
712	Painting system C5-M according to Petrobras specification.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
713	Painting system according Total Egina specification.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
754	Painting system C5M acc. to ISO 12944-2:1998	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
755	Norsok M-501 revision 6, Coating system no. 1	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Protection																	

○ = Included as standard | ● = Available as option | - = Not applicable

Code/Variants		71	80	90	100	112	132	160	180	200	225	250	280	315	355	400	450
		Frame size															
005	Protective roof	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
072	Radial seal at D-end. Not possible for 2-pole , 280 and 315 frames	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-
073	Sealed against oil at D-end.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
158	Degree of protection IP65.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
211	Weather protected, IP xx W	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
250	Degree of protection IP66	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
401	Protective roof, horizontal motor.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
403	Degree of protection IP56.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
404	Degree of protection IP56, without fan and fan cover.	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
434	Degree of protection IP56, open deck.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
520	Motor protection cover made of glass fiber. Vertical motor, shaft down.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-
783	Labyrinth sealing at D-end.	-	-	-	-	-	-	●	●	●	●	●	●	●	○	○	○
784	Gamma-seal at D-end.	●	●	●	●	●	●	○	○	-	○	○	-	-	-	-	-
Rating & instruction plates																	
002	Restamping voltage, frequency and output, continuous duty.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
004	Additional text on std rating plate (max 12 digits on free text line).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
095	Restamping output (maintained voltage, frequency), intermittent duty.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
098	Stainless rating plate.	●	●	●	●	●	●	○	○	○	○	○	○	○	○	-	-
126	Tag plate	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
135	Mounting of additional identification plate, stainless.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
138	Mounting of additional identification plate, aluminium.	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-
139	Additional identification plate delivered loose.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
159	Additional plate with text “Made in ....”	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
160	Additional rating plate affixed.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
161	Additional rating plate delivered loose.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
163	Frequency converter rating plate. Rating data according to quotation.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
181	Rating plate with ABB standard loadability values for VSD operation. Other auxiliaries for VSD operation to be selected as necessary.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
332	Baldor Catalogue #	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-
333	Not for use in the USA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-
360	Cargotec rating plate	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
528	Rating plate sticker	●	●	●	●	●	●	-	-	-	-	-	●	●	●	●	●
818	Restamping as generator	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Shaft & rotor																	
069	Two shaft extensions according to catalog drawings.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
070	Special shaft extension at D-End, standard shaft material	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
131	Motor delivered with half key (key not exceeding shaft diameter)	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
155	Cylindrical shaft extension, D-end, without key-way.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
164	Shaft extension with closed keyway	○	○	○	○	○	○	○	○	○	○	○	●	●	●	●	-
165	Shaft extension with open keyway	-	-	-	-	-	-	●	●	●	●	●	○	○	○	○	○
410	Shaft material stainless steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
591	Special shaft extension according to customer specification.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
600	Special shaft extension at N-end, standard shaft material.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
630	Shaft material certificate 3.1/3.2 according to EN10204:2004	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Standards and Regulations																	
208	Fulfilling Underwriters Laboratories (UL), listed requirements	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
252	Shell DEP 33.66.05.31-GEN. February 2012, with standard winding >55 kW.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	-	-
331	IE1 motor not for sale for use in EU	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
421	VIK design (Verband der Industriellen Energie- und Kraftwirtschaft e.V.).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
540	China energy label	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-
543	Australian MEPS	-	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-
548	Certificate of conformity according TR-CU 004/2011 for customs union RU, KZ, BY, AM, KG.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
822	WIMES 3.03i6 Compliant Design for DOL operation	●	●	●	●	●	●	-	-	-	-	-	-	-	●	●	●
823	WIMES 3.03i6 Compliant Design for VSD operation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stator winding temperature sensors																	
120	KTY 84-130 (1 per phase) in stator winding.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●

○ = Included as standard │ ● = Available as option │ - = Not applicable

Code/Variants		71	80	90	100	112	132	160	180	200	225	250	280	315	355	400	450
		Frame size															
121	Bimetal detectors, break type (NCC), (3 in series), 130 ºC, in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
122	Bimetal detectors, break type (NCC), (3 in series), 150 ºC, in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
123	Bimetal detectors, break type (NCC), (3 in series), 170 ºC, in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
124	Bimetal detectors, break type (NCC), (3 in series), 140 ºC, in stator winding	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
125	Bimetal detectors, break type (NCC), (2x3 in series), 150 ºC, in stator winding	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
127	Bimetal detectors, break type (NCC), (3 in series, 130 ºC & 3 in series, 150 ºC), in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
435	PTC - thermistors (3 in series), 130 ºC, in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
437	PTC - thermistors (3 in series), 170 ºC, in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
438	PTC - thermistors (3 in series), 190 ºC, in stator winding	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
439	PTC - thermistors (2x3 in series), 150 ºC, in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
441	PTC - thermistors (3 in series, 130 ºC & 3 in series, 150 ºC), in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
442	PTC - thermistors (3 in series, 150 ºC & 3 in series, 170 ºC), in stator winding	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
445	Pt100 2-wire in stator winding, 1 per phase	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
446	Pt100 2-wire in stator winding, 2 per phase	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
502	Pt100 3-wire in stator winding, 1 per phase	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
503	Pt100 3-wire in stator winding, 2 per phase	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
511	PTC thermistors (2 x 3 in series), 130 ºC, in stator winding	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
515	Pt100 3-wire in stator winding, 3 per phase	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
Terminal box																	
015	Motor supplied in D connection.	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
017	Motor supplied in Y connection.	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
019	Larger than standard terminal box.	●	●	●	●	●	●	-	-	-	-	-	●	●	●	●	-
020	Detached terminal box.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
021	Terminal box LHS (seen from D-end).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
022	Cable entry LHS (seen from D-end).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
157	Terminal box degree of protection IP65.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	-
180	Terminal box RHS (seen from D-end).	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
230	Standard metal cable gland.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-
277	Cable sealing end unit, size small for C-opening	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-
278	Cable sealing end unit, size medium for D-opening	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●
279	Cable sealing end unit, size large for D-opening	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●
292	Adapter C-C	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-
293	Adapter D-D	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-
294	Adapter E-D	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●
295	Adapter E-2D	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	○
296	Adapter E-3D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●
351	Terminal block turned according to cable entry	-	-	-	-	-	-	-	-	-	-	-	●	●	-	●	●
375	Standard plastic cable gland	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
376	Two standard plastic cable glands	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-
380	Separate terminal box for temperature detectors, std. material	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
400	4 x 90 degr turnable terminal box.	●	●	●	●	●	●	○	○	○	○	○	○	○	○	-	-
413	Extended cable connection, no terminal box.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
418	Separate terminal box for auxiliaries, standard material.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
444	Adapter E-2E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●
447	Top mounted separate terminal box for monitoring equipment.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
466	Terminal box at N-end.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
467	Lower than standard terminal box and rubber extended cable. Cable length 2 m	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-
468	Cable entry from D-end.	●	●	●	●	●	●	●	-	-	-	●	●	●	●	●	-
469	Cable entry from N-end.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
526	Existing cable entries plugged	○	○	○	○	○	○	○	○	○	○	○	○	●	●	-	-
553	Terminal box degree of protection IP66.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
554	Cast iron flange for cable glands drilled and tapped according to order.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
557	Nickel plated cable glands mounted according to order.	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
565	Adapter for terminal box on the side (RHS)	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	-

○ = Included as standard │ ● = Available as option │ - = Not applicable

		Frame size															
Code/Variants		**71**	**80**	**90**	**100**	**112**	**132**	**160**	**180**	**200**	**225**	**250**	**280**	**315**	**355**	**400**	**450**
566	Adapter for terminal box on the side (LHS)	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	-
567	Separate terminal box material: cast Iron	-	-	-	-	-	-	○	○	○	○	○	●	●	●	●	●
568	Separate terminal box for heating elements, std. material	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
569	Separate terminal box for brakes	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
624	Prepared for inch cable glands according to BSPP standard.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
727	Stainless steel flange for cable glands drilled and tapped according to order.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
730	Prepared for NPT cable glands.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
731	Two standard metal cable glands.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
740	Prepared for PG cable glands.	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-
742	Protective cover for accessory terminal block in main terminal box.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
743	Non-drilled cast iron flange for cable glands	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
744	Stainless steel non-drilled flange for cable glands.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
745	Painted steel flange equipped with nickel plated brass cable glands	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
746	Stainless steel cable flange equipped with standard nickel plated brass cable glands	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Testing																	
145	Type test report from a catalogue motor, 400V 50Hz.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
146	Type test with report for one motor from specific delivery batch.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
148	Routine test report.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
149	Test according to separate test specification.	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-
150	Customer witnessed testing. Specify test procedure with other codes.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
222	Torque/speed test, type test and multi-point load test with report for one motor from specific delivery batch.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
560	Shaft voltage test, for one motor from specific delivery batch.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
561	Overspeed test,for one motor from specific delivery batch	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
562	Overvoltage test, for one motor from specific delivery batch.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
760	Vibration level test	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
761	Vibration spectrum test for one motor from specific delivery batch.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
762	Noise level test for one motor from specific delivery batch.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
763	Noise spectrum test for one motor from specific delivery batch.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
764	Test for one motor from specific delivery batch with ABB frequency converter available at ABB test field. ABB standard test procedure.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
Variable speed drives																	
429	Separate motor cooling (fan top, N-end) and 1024 pulse tacho (Leine & Linde 861) mounted.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
470	Prepared for hollow shaft pulse tacho (L&L equivalent).	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
472	1024 pulse tacho (L&L 861007455-1024).	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●
473	2048 pulse tacho (L&L 861007455-2048).	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●
474	Separate motor cooling (axial fan, N-end) and prepared for hollow shaft tacho (L&L equivalent)	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
476	Separate motor cooling (axial fan, N-end) and 1024 pulse tacho (L&L 861007455-1024)	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
477	Separate motor cooling (axial fan, N-end) and 2048 pulse tacho (L&L 861007455-2048)	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
478	Separate motor cooling (fan on top, N-end) and prepared for hollow shaft tacho (L&L equivalent)	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
479	Mounting of other type of pulse tacho with shaft extension, tacho not included.	-	-	-	-	-	-	●	-	-	-	●	●	●	●	●	●
486	Separate motor cooling (fan top, N-end) and prepared for DC-tacho.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
510	Separate motor cooling (fan top, N-end) and 2048 pulse tacho (Leine & Linde 861) mounted.	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
570	Prepared for hollow shaft pulse tacho (L&L 503).	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-
572	1024 pulse tacho (L&L 503).	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-
573	2048 pulse tacho (L&L 503).	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-
582	1024 pulse tacho, GHK912-GBR-1024, BEI IDEACOD	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
583	2048 pulse tacho, GHK912-GBR-2048, BEI IDEACOD	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●
588	Shaft grounding device	-	-	-	-	-	●	●	●	●	●	●	-	-	-	●	●
658	Special tacho mounted, price category 1	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
659	Special tacho mounted, price category 2	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
660	Special tacho mounted, price category 3	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
680	2048 pulse tacho, Ex d, tD, L&L 841910001	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-
701	Insulated bearing at N-end.	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●
702	Insulated bearings at both ends	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-

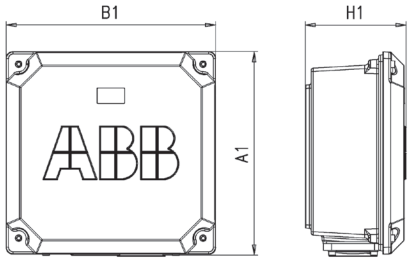
○ = Included as standard │ ● = Available as option │ - = Not applicable

Code/Variants		Frame size 71	80	90	100	112	132	160	180	200	225	250	280	315	355	400	450
704	EMC cable entry.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Y/D starting																	
117	Terminals for Y/D start at both speeds (two speed windings).	-	-	-	-	-	-	●	●	●	●	●	●	●	-	-	-
118	Terminals for Y/D start at high speed (two speed windings).	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-
119	Terminals for Y/D start at low speed (two speed windings).	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-

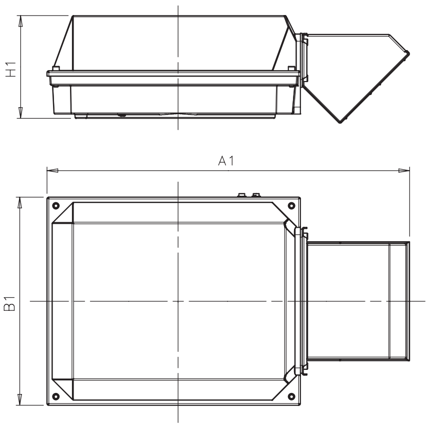
○ = Included as standard │ ● = Available as option │ - = Not applicable

터미널 박스
터미널 박스 도면

모터 프레임 71-132 용 터미널 박스는 모터 프레임과 통합형이며 터미널 박스용 규격 치수는 ABB 홈페이지에 있는 모터 도면에서 찾아보실 수 있습니다.

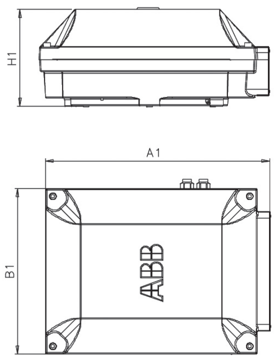


터미널박스 63과 160 타입



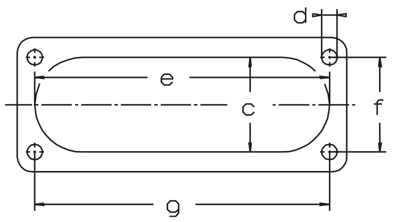
터미널박스 1200 타입 + 어댑터

현재용량에 허용되는 터미널 박스 종류	A1	B1	H1	글랜드 명판 입구
63	248	248	109	B
160	291	302	154	C
210	416	306	177	C
370	451	347	200	D
750 with E-D adapter	686	413	219	D
750 without E-D adapter	523	413	219	E
1200 with E-2D adapter	1000	578	285	2XD
1200 without E-2D adapter	697	578	285	E
1200 with E-2E adapter	1195	578	285	2XE
1200 with E-3D adapter	1250	578	285	3XD

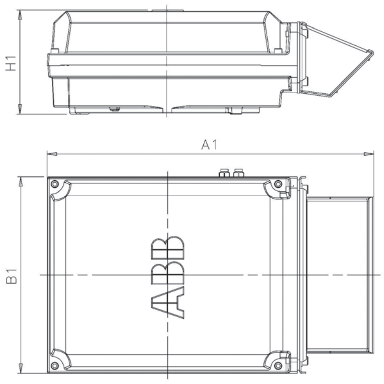


터미널박스 210과 370 타입

터미널박스 입구 도면
160 프레임 이상의 모터에 해당



플랜지 입구	c mm	e mm	f mm	g mm	d 스레드종류
B	31	120	30	120	M6
C *)	71	194	62	193	M6
C **)	67	193	62	193	M8
D	100	300	80	292	M10
E	115	370	100	360	M12



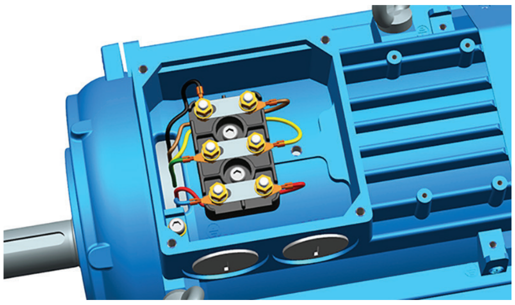
터미널박스 50타입 + 어댑터

터미널 박스
터미널 박스와 단자대

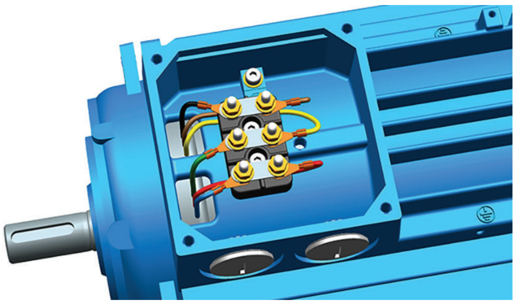
아래 그림은 모터 사이즈별 터미널 박스와 단자대 표준을 보여줍니다.

71 - 132 프레임 모터

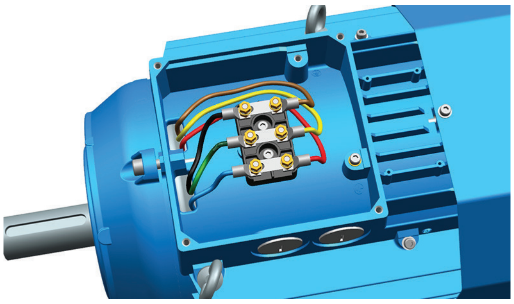
71 - 132 프레임 모터용 통합 단자함
플러그로 막힌 케이블 인입구



90-100 프레임 IE 3 모터용 단자대

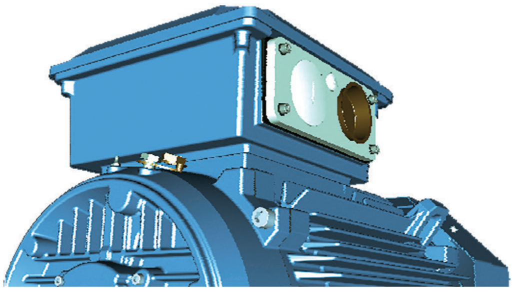


71-80 프레임 IE 3 모터용 단자대

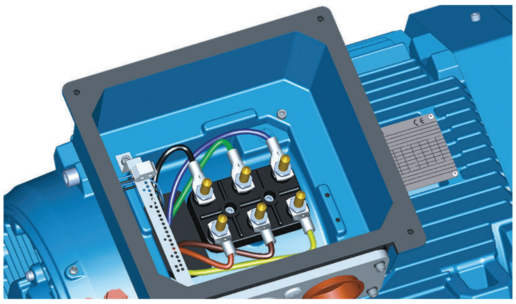


112-132 프레임 IE 3 모터용 단자대

160 - 250 사이즈 모터

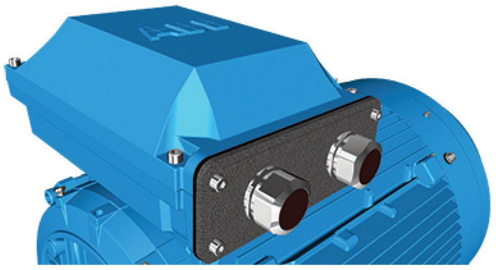


160-250 프레임 모터용 단자함
플러그로 막힌 케이블 인입구의 플랜지

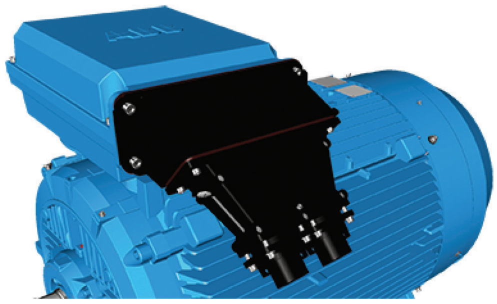


160-250 프레임 모터용 단자대

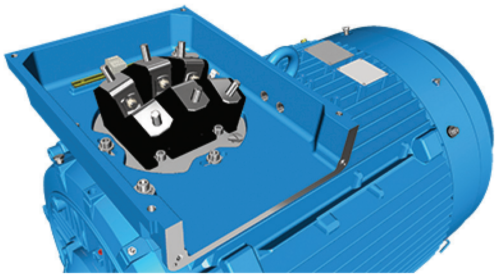
280 - 315 사이즈 모터



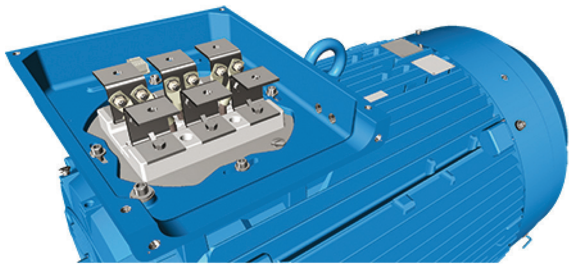
280 - 315 사이즈 전동기용 터미널박스 (LkC 제외)
플러그로 막힌 케이블 입구의 플랜지



315 LKC 프레임 전동기와 355 프레임 모터용 단자대
어댑터와 끝단 쪽 케이블 실링



280-315 프레임 전동기용 단자대 (LKC 제외)

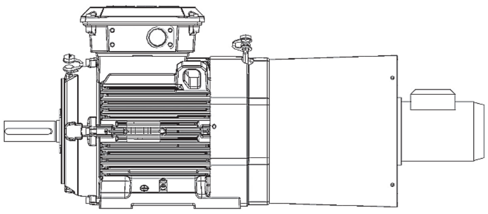


315 LKC 프레임 전동기와 355 프레임 전동기용 단자대

추가 옵션 - 타력식 냉각팬 모터

반 부하측 냉각팬 모터

축 방향 냉각용 팬 모터는 모터 전 용량에 적용 가능하며
옵션코드 183으로 주문이 가능합니다.



71-132 사이즈 모터용 반 부하측 냉각팬 모터

메인 모터	팬모터 종류	전압폭 50Hz	전압폭 60Hz	전력 kW	전류 A
M3BP 71	Wistro 132	380 - 500	380 - 575	29	0,06
		220 - 290	220 - 332	28	0,1
M3BP 80	Wistro 156	380 - 500	380 - 575	34	0,06
		220 - 290	220 - 332	34	0,1
M3BP 90	Wistro 169	380 - 500	380 - 575	75	0,19
		220 - 290	220 - 332	78	0,33
M3BP 100	Wistro 187	380 - 500	380 - 575	94	0,17
		220 - 290	220 - 332	87	0,31
M3BP 112	Wistro 210	380 - 500	380 - 575	99	0,17
		220 - 290	220 - 332	103	0,31
M3BP 132	Wistro 250	380 - 500	380 - 575	148	0,25
		220 - 290	220 - 332	146	0,45

160-450 사이즈 모터용 반 부하측 냉각팬 모터

메인 모터	팬모터 종류	전압 V	전력 kW	전류 A
M3BP 160 - 250	M3BP 71MA 4 B14	400	0.25	0.64
M3BP 280 - 315 ML	M3BP 80MD 4 B14	400	0.75	1.83
M3BP 315 LK - 355 SM	M3BP 90SLD 4 B14	400	1.5	3.0
M3BP 355 ML - 450 L	M3BP 100LD 4 B14	400	3.0	6.3

160-450 사이즈 스페셜 모터용 반 부하측 냉각팬 모터

메인 모터	팬모터 종류	전압 V	전력 kW	전류 A
M3BP 160 - 250	M3BP 71MA 4 B14	400	0.25	0.64
M3BP 280 - 315 ML	M3BP 80MLE 4 B14	400	0.75	1.7
M3BP 315 LK - 355 SM	M3BP 90LB 4 B14	400	1.5	3.3
M3BP 355 ML, LK	M3BP 100MLB 4 B14	400	3.0	6.1

반 부하측 상부 팬

280 사이즈 모터와 그 이상의 경우에는 Non-axial 팬으로
Ziehl-Abegg 팬이 결합됩니다. 냉각 옵션은 400V, 50Hz
네트워크에 적합하며 옵션코드 422로 주문이 가능합니다.

MV at 60Hzain Motor	팬모터 종류	전압 V	Freq. Hz	전력 kW	전류 A
M3BP 280	Ziehl-Abegg RH35	400 VY	50	0.35	0.83
		460 VY	60	0.5	0.9
M3BP 315	Ziehl-Abegg RH40	400 VY	50	0.50	1.0
		460 VY	60	0.8	1.4
M3BP 355	Ziehl-Abegg RH45	400 VY	50	0.90	1.8
		460 VY	60	1.4	2.2
M3BP 400	Ziehl-Abegg RH50	400 VY	50	1.55	3.3
		460 VY	60	2.5	4.3
M3BP 450	Ziehl-Abegg RH56	400 VY	50	2.30	4.5
		460 VY	60	2.5	4.3

스페셜 모터의 반 부하측 상부 팬

스페셜 ABB 팬 모터 타입은 280 사이즈 이상의 경우 가능합니다.
IP65가 요구되거나 입력 전압이 360-420 V
이외인 경우에 이용됩니다.

팬에 사용되는 임펠러는 Ziehl-Abegg 임펠러이며,
냉각 유형은 옵션코드 514로 주문이 가능합니다.

280-450 사이즈 스페셜 모터용 반 부하측 상부 팬

메인 모터	팬모터 종류	전압 V	전력 kW	전류 A
M3BP 280 - 315	M3BP 80 MD 4 B34	400	0.75	1.83
M3BP 355	M3BP 90 SLD 4 B34	400	1.5	3.0
M3BP 400	M3BP 100 LD 4 B34	400	3.0	6.3
M3BP 450	M3BP 112 MB 4 B34	400	4.0	8.2

모터 주요 구성품 및 재질
IEC 주철모터, 사이즈 71 - 132

아래 표는 IEC 주철 모터의 표준 설계입니다.

모터 사이즈		80	90	100	112	132
외형	재질	주철				
	페인트 색상	Munsell Blue 8B 4.5/3.25				
	부식 등급	C3 (M)				
발	재질	주철				
베어링	부하측 (D-end)	6204-2Z/C3	6205-2Z/C3	6206-2Z/C3	6206-2Z/C	6208-2Z/C3
	반 부하측 (N-end)	6203-2Z/C3	6204-2Z/C3	6205-2Z/C3	6205-2Z/C3 *)	6208-2Z/C3
축 방향으로 고정된 베어링		부하측에서 고정				
베어링 실	부하측 (D-end)	V-ring				
	반 부하측 (N-end)	V-ring				
윤활		영구 윤활식 차폐 베어링				
베어링의 상태 점검용 니플		미포함				
명판	재질	스테인레스				
단자함	프레임과 덮개	주철				
	부식 등급	C3 (M)				
	덮개 나사	아연으로 전기도금된 철				
연결	나사산이 있는 개구부	2xM25	2xM32			
	단자	연결용 6개 터미널과 케이블 러그 (미포함)				
	케이블 글랜드	케이블 플랜지 (포함), 글랜드 (옵션)				
팬	재질	유리섬유로 강화된 폴리프로필렌				
팬 덮개	재질	철				
	페인트 색상	Munsell Blue 8B 4.5/3.25				
	부식 등급	C3 (M)				
권선	재질	구리				
	절연	절연 F종, 별도로 명시되어 있지 않다면 온도 상승 B종				
	온도센서	3PTC 서미스터 150도				
로터	재질	압력 다이 캐스트로 제작된 알루미늄				
밸런싱 방법		표준 하프 키 운영				
키홈		닫힌 키홈				
배수구멍		닫을 수 있는 플라스틱 플러그와 배수구멍, 납품 시 개방				
보호등급 IP		IP 55				
냉각방법		IC 411				

*) 6206-2Z/C3 in IE3

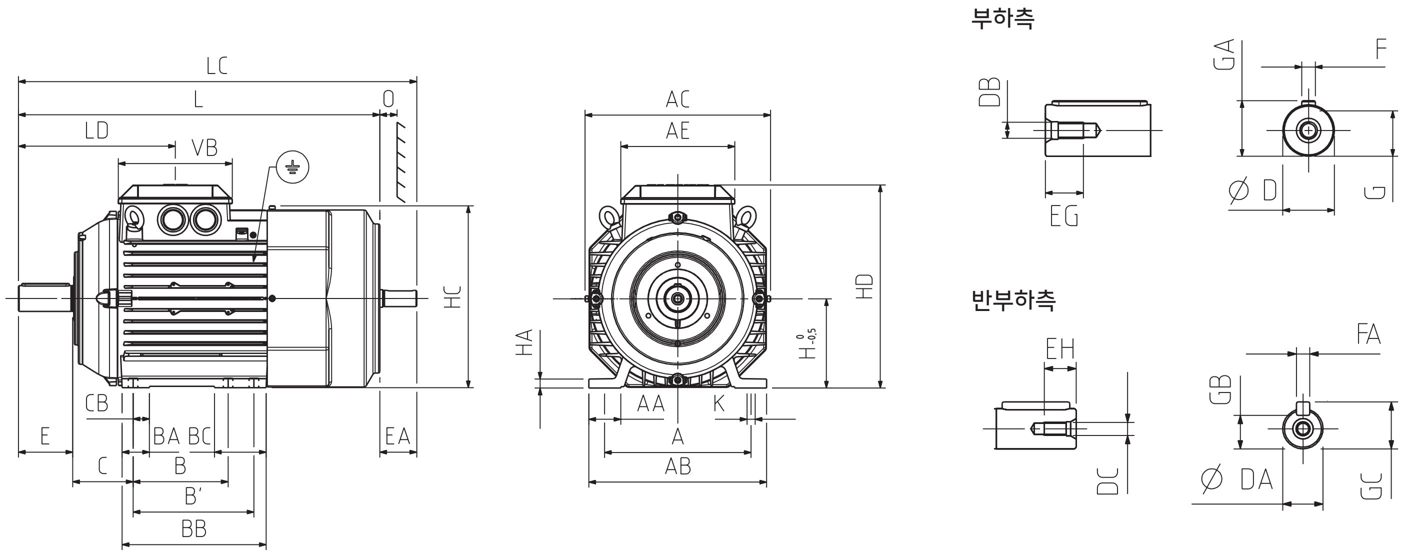
모터 주요 구성품 및 재질
IEC 주철모터, 사이즈 160-250

모터 사이즈		160	180	200	225	250
외형	재질	주철				
	페인트 색상	Munsell Blue 8B 4.5/3.25				
	부식 등급	C3 (M)				
발	재질	주철				
베어링	부하측 (D-end)	6309/C3	6310/C3	6312/C3	6313/C3	6315/C3
	반 부하측 (N-end)	6209/C3	6209/C3	6210/C3	6212/C3	6213/C3
축 방향으로 고정된 베어링		부하측에서 고정				
베어링 실	부하측 (D-end)	감마링				
	반 부하측 (N-end)	감마링				
윤활		베어링, 니플 M6x2				
베어링의 상태 점검용 니플		구리스 재충전식				
명판	재질	스테인레스				
단자함	프레임과 덮개	주철				
	부식 등급	C3 (M)				
	덮개 나사	아연으로 전기도금된 철				
연결	케이블 인입구	2xM40, 2xM20		2xM63, 2xM20		
	단자	연결용 6개 터미널과 케이블 러그(미포함)				
	케이블 글랜드	케이블 플랜지(포함), 글랜드(옵션)				
팬	재질	유리섬유로 강화된 폴리프로필렌				
팬 덮개	재질	철				
	페인트 색상	Munsell Blue 8B 4.5/3.25				
	부식 등급	C3 (M)				
권선	재질	구리				
	절연	절연 F종. 별도로 명시되있지 않다면 온도상승 B종				
	온도센서	3 PTC 서미스터 150도				
로터	재질	압력 다이 캐스트로 만들어진 알루미늄				
밸런싱 방법		표준 하프 키 밸런싱				
키홈		닫힌 키홈				
배수구멍		닫을 수 있는 플라스틱 플러그와 배수구멍, 납품 시 개방				
보호등급 IP		IP 55				
냉각방법		IC 411				

모터 주요 구성품 및 재질 IEC 주철모터, 사이즈 280-355

모터 사이즈		280	315	355
외형	재질	주철		
	페인트 색상	Munsell Blue 8B 4.5/3.25		
	부식 등급	C3 (M)		
발	재질	주철		
베어링	D-end 2극 (pole)	6316/C3	6316/C3	6316M/C3
	(부하측) 4~12극	6316/C3	6319/C3	6322/C3
	N-end 2극 (pole)	6316/C3	6316/C3	6316M/C3
	(반부하측) 4~12극	6316/C3	6316/C3	6316/C3
축 방향으로 고정된 베어링		부하측에서 고정		
베어링 실	부하측 (D-end)	V-ring 또는 래비린쓰씰		
	반 부하측 (N-end)	V-ring 또는 래비린쓰씰		
윤활		베어링, 니플 M10x1		
베어링의 상태 점검용 니플		포함 구리스 재충전식		
명판	재질	스테인레스 철		
단자함	프레임과 덮개	주철		
	부식 등급	C3 (M)		
	덮개 나사	아연으로 전기도금된 철		
연결	케이블 도입구 2-4극	2xM63 + 2xM20	2xM63 + 2xM48-60+2xM20	2xM48-60, 60-80, 2xM20
	6극			2xM48-60, 60-80, 2xM20
	단자	연결용 6개 터미널과 케이블 러그(미포함)		
	케이블 글랜드	케이블 플랜지(포함), 글랜드(옵션)		
팬	재질	유리섬유로 강화된 폴리프로필렌		
팬 덮개	재질	철		
	페인트 색상	Munsell Blue 8B 4.5/3.25		
	부식 등급	C3 (M)		
권선	재질	구리		
	절연	절연 F종. 별도로 명시되있지 않다면 온도상승 B종		
	온도센서	3 PTC 서미스터 150도		
로터	재질	압력 다이 캐스트로 만들어진 알루미늄		
밸런싱 방법		표준 하프 키 밸런싱		
키홈		닫힌 키홈		
배수구멍		닫을 수 있는 플라스틱 플러그와 배수구멍, 납품 시 개방		
보호등급 IP		IP 55		
냉각방법		IC 411		

모터 도면
방식형 주철 모터, 71-132 프레임



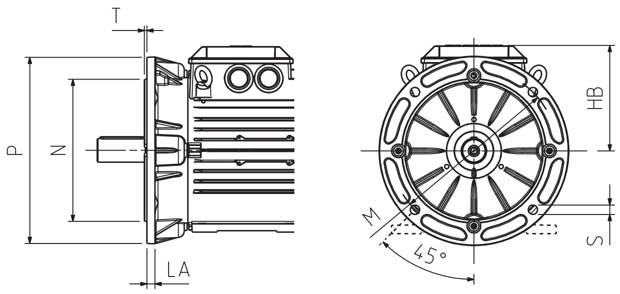
설치 옵션 IM B3 (IM 1001), IM B6 (IM 1051), IM B7 (IM 1061), IM B8 (IM 1071), IM V5 (IM 1011), IM V6 (IM 1031)

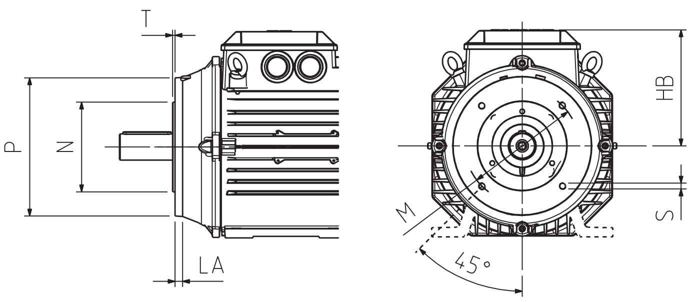
프레임	A	AA	AB	AC	AE	B	B'	BA	BB	BC	C	CB	D-Tol.	DA	DB	DC	E
80 M_	125	28	154	157	105	100	-	28	124	28	50	12	19-j6	14	M6	M5	40
80 ML_	125	28	154	157	105	100	112	28	136	40	50	12	19-j6	14	M6	M5	40
90 SL_	140	30	170	177	118	100	125	28	150	54	56	12	24-j6	14	M8	M5	50
90 L_	140	30	170	177	118	100	125	28	150	54	56	16	24-j6	14	M8	M5	50
100 L_	160	38	200	197	118	140	-	34	172	34	63	16	28-j6	19	M10	M6	60
100 ML_	160	38	200	197	118	140	-	34	172	34	63	16	28-j6	19	M10	M6	60
100 LK_	160	38	200	197	118	140	160	34	192	54	63	16	28-j6	19	M10	M6	60
112	190	41	230	239	168	140	-	34	170	34	70	14	28-j6	19	M10	M6	60
132	216	47	262	273	168	140	178	40	212	76	89	16	38-j6	24	M12	M8	80

프레임	EA	EG	EH	F	FA	G	GA	GB	GC	H	HA	HC	HD	K	L	LD	O	VB
80 M_	30	16	12.5	6	5	15.5	21.5	11	16	80	10	157	194	10	331	126	20	105
80 ML_	30	16	12.5	6	5	15.5	27	11	16	80	10	157	194	10	363	126	20	105
90 SL_	30	19	12.5	8	5	20	27	11	16	90	10	178	218	10	356	151	20	118
90 L_	30	19	12.5	8	5	20	31	11	16	90	10	178	218	10	390	151	20	118
100 L_	40	22	16	8	6	24	31	15.5	21.5	100	12	198	247	12	381	164	25	118
100 ML_	40	22	16	8	6	24	31	15.5	21.5	100	12	198	247	12	403	164	25	118
100 LK_	40	22	16	8	6	24	31	15.5	21.5	100	12	198	247	12	435	164	25	118
112	40	22	16	8	6	24	31	16	22	112	12	223	258	12	442	200	25	168
132	50	28	19	10	8	33	41	20	27	132	13	268	300	12	532	231	30	168

편차	
A, B	± 0.8
D, DA	ISO j6
F, FA	ISO h9
H	+0 -0.5
N	ISO j6
C, CA	± 0.8

모터 도면
플랜지형 주철 모터, 71-132 프레임





설치 옵션 IM B5 (IM 3001), V1 (IM 3011), V3 (IM 3031), IM B35 (IM 2001), IM V15 (IM 2011), IM V36 (IM 2031)

대형 플랜지 (Large flange)

프레임	HB	LA	M	N	P	S	T
80	114	10	165	130	200	12	3.5
90	128	10	165	130	200	12	3.5
100	147	11	215	180	250	15	4
IE2 112	148	11	215	180	250	15	4
IE3 112	146	11	215	180	250	15	4
132	168	12.5	265	230	300	15	4

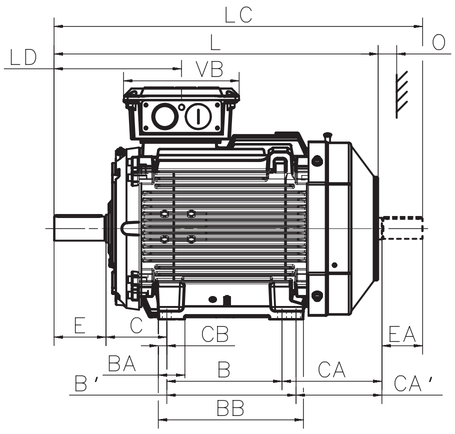
설치 옵션 IM B14 (IM 3601), V18 (IM 3611), V19 (IM 3631), IM B34 (IM 2101), V17 (IM 2111)

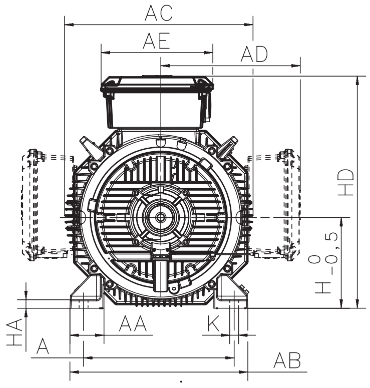
소형 플랜지 (Small flange)

프레임	HB	LA	M	N	P	S	T
80	114	8	100	80	120	M6	3
90	128	10	115	95	140	M8	3
100	147	10	130	110	160	M8	3.5
IE2 112	148	10	130	110	160	M8	3.5
IE3 112	146	14	130	110	160	M8	3.5
132	148	12	165	130	200	M10	3.5

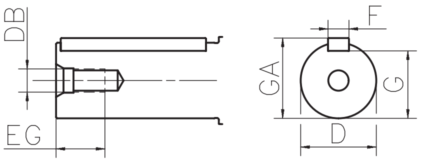
편차	
A, B	± 0.8
D, DA	ISO j6
F, FA	ISO h9
H	+0 -0.5
N	ISO j6
C, CA	± 0.8

모터 도면
방식형 주철 모터, 160-250 프레임

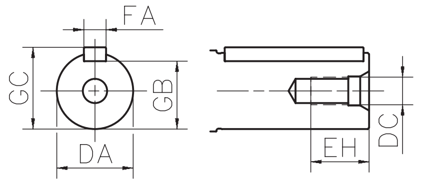




부하측



반부하측



설치 옵션 IM B3 (IM 1001), IM B6 (IM 1051), IM B7 (IM 1061), IM B8 (IM 1071), IM V5 (IM 1011), IM V6 (IM 1031)

프레임	극	A	AA	AB	AC	AD	AE	B	B'	BA	BB	C	CA	CA'	CB	D	DA	DB	DC	E
160 1)	2-6	254	67	310	338	261	257	210	254	69	294	108	164	126	20	42	32	M16	M12	110
160 2)	2-6	254	67	310	338	261	257	210	254	69	294	108	262	224	20	42	32	M16	M12	110
180	2-6	279	67	340	381	281	257	241	279	68	317	121	263	225	19	48	32	M16	M12	110
200	2-6	318	69	378	413	328	300	267	305	80	345	133	314	276	20	55	45	M20	M16	110
225	2	356	84	435	460	348	300	286	311	69	351	149	314	289	20	55	55	M20	M20	110
225	4-6	356	84	435	460	348	300	286	311	69	351	149	314	289	20	60	55	M20	M20	140
250	2	406	92	480	508	376	300	311	349	69	392	168	281	243	23	60	55	M20	M20	140
250	4-6	406	92	480	508	376	300	311	349	69	392	168	281	243	23	65	55	M20	M20	140

프레임	극	EA	EG	EH	F	FA	G	GA	GB	GC	H	HA	HD	K	L	LC	LD	O	VB
160 1)	2-8	80	36	28	12	10	37	45	27	35	160	23	421	14.5	584	671.5	287.5	45	257
160 2)	2-8	80	36	28	12	10	37	45	27	35	160	23	421	14.5	681	768.5	287.5	45	257
180	2-8	80	36	28	14	10	42.5	51.5	27	35	180	23	461	14.5	726	815	300.5	50	257
200	2-8	110	42	36	16	14	49	59	39.5	48.5	200	23	528	18.5	821	934	320.5	70	311
225	2	110	42	42	16	16	49	59	49	59	225	23	573	18.5	849	971	313.5	80	311
225	4-8	110	42	42	18	16	53	64	49	59	225	23	573	18.5	879	1001	343.5	80	311
250	2	110	42	42	18	16	53	64	49	59	250	23	626	24.0	884	1010	343.5	90	311
250	4-8	110	42	42	18	16	58	69	49	59	250	23	626	24.0	884	1010	343.5	90	311

편차	
A, B	ISO js14
C, CA	± 0.8
D, DA	ISO k6 < Ø 50 mm
	ISO m6 > Ø 50 mm
F, FA	ISO h9
H	+0 -0.5

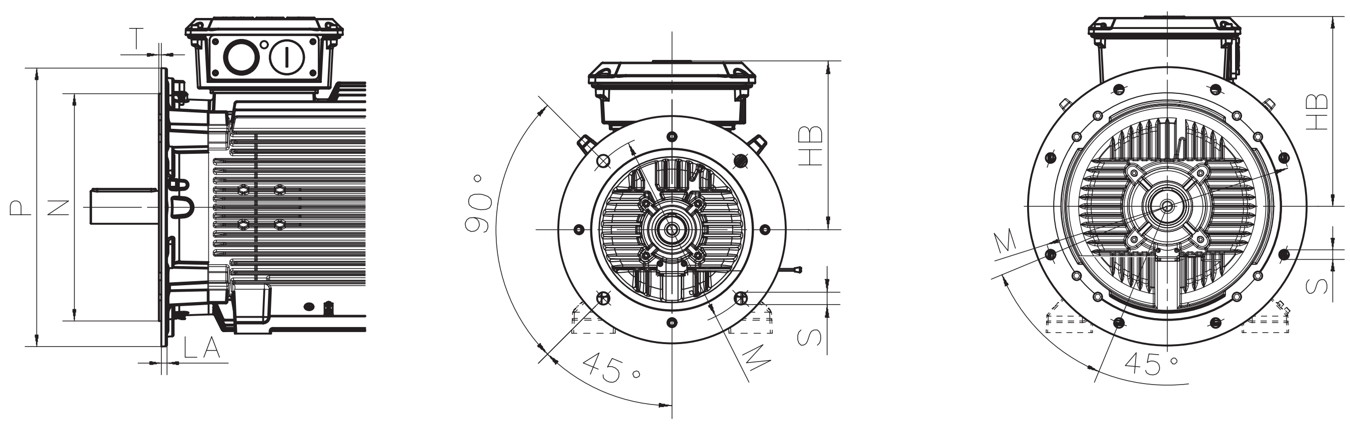
비고

M3BP IE2:
1) MLA, MLB 2 and 8, MLC 2
2) MLB 4-6, MLC 4-8, MLD, MLE

M3BP IE3:
1) MLA 2 only
2) All others

모터 도면
플랜지형 주철 모터, 160-250 프레임

160 to 200 | 225 to 250



설치 옵션 IM B5 (IM 3001), V1 (IM 3011), V3 (IM 3031), IM B35 (IM 2001), IM V15 (IM 2011), IM V36 (IM 2031)

프레임	Poles	HB	LA	M	N	P	S	T
160 [1]	2-6	261	20	300	250	350	19	5
160 [2]	2-6	261	20	300	250	350	19	5
180	2-6	281	15	300	250	350	19	5
200	2-6	328	20	350	300	400	19	5
225	2	348	20	400	350	450	19	5
225	4-6	325	20	400	350	450	19	5
250	2	376	24	500	450	550	19	5
250	4-6	376	24	500	450	550	19	5

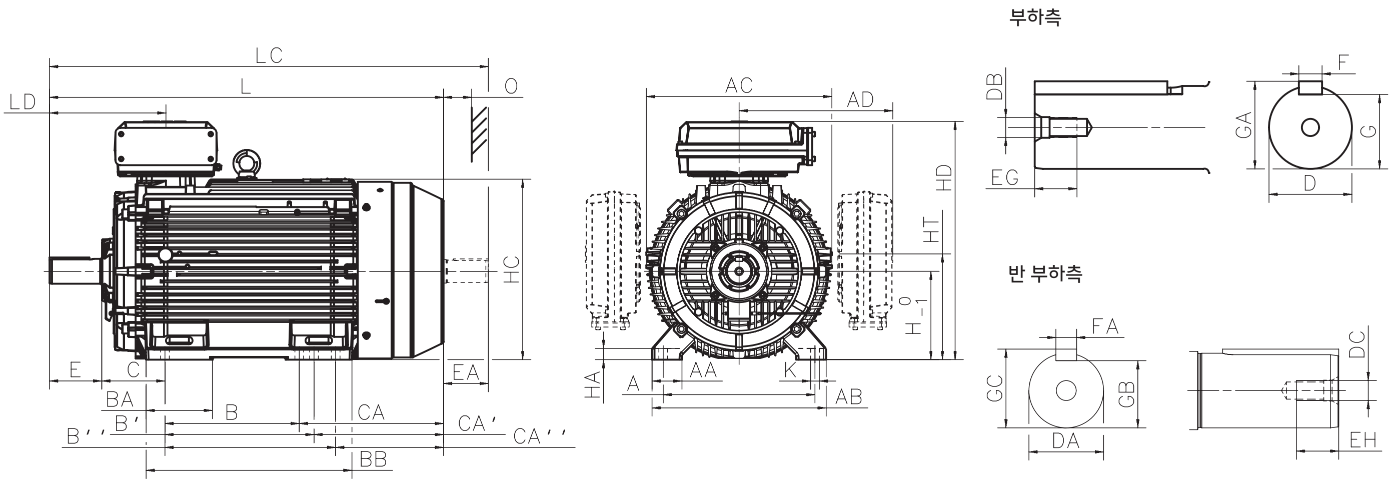
편차	
A, B	ISO js14
C, CA	± 0.8
D, DA	ISO k6 < Ø 50 mm
	ISO m6 > Ø 50 mm
F, FA	ISO h9
H	+0 -0.5
N	ISO j6

비고

M3BP IE2:
[1] MLA, MLB 2 and 8, MLC 2
[2] MLB 4-6, MLC 4-8, MLD, MLE

M3BP IE3:
[1] MLA 2 only
[2] All others

모터 도면
방식형 주철 모터, 280-315 프레임



설치 옵션 IM B3 (IM 1001), IM B6 (IM 1051), IM B7 (IM 1061), IM B8 (IM 1071), IM V5 (IM 1011), IM V6 (IM 1031)

프레임	극	A	AA	AB	AC	AD [1]	AD [2]	B	B'	B"	BA	BB	C	CA	CA'	CA"	D	DA	DB	DC	E
280 SM_	2	457	84	530	577	481	-	368	419	-	147	506	190	400	349	-	65	60	M20	M20	140
	4-12	457	84	530	577	481	-	368	419	-	147	506	190	400	349	-	75	65	M20	M20	140
280 ML_	2	457	84	530	577	-	504	419	457	-	193	608	190	400	349	-	65	60	M20	M20	140
	4-12	457	84	530	577	481	504	419	457	-	193	608	190	400	349	-	75	65	M20	M20	140
315 SM_	2	508	100	590	654	545	-	406	457	-	180	558	216	420	369	-	65	60	M20	M20	140
	4-12	508	100	590	654	545	-	406	457	-	180	558	216	420	369	-	80	75	M20	M20	170
315 ML_	2	508	100	590	654	545	-	457	508	-	212	669	216	480	429	-	65	60	M20	M20	140
	4-12	508	100	590	654	545	-	457	508	-	212	669	216	480	429	-	90	75	M24	M20	170
315 LK_	2	508	100	590	654	562	576	508	560	710	336	851	216	635	583	433	65	60	M20	M20	140
	4-12	508	100	590	654	562	576	508	560	710	336	851	216	635	583	433	90	75	M24	M20	170

프레임	극	EA	EG	EH	F	FA	G	GA	GB	GC	H	HA	HC	HD [1] top-m.	HD [2] top-m.	HT	K	L	LC	LD top-m.	LD side-m.	O
280 SM_	2	140	40	40	18	18	58	69	53	64	280	31	564	762	-	337.5	24	1088	1238	336	539	100
	4-12	140	40	40	20	18	67.5	79.5	58	69	280	31	564	762	-	337.5	24	1088	1238	336	539	100
280 ML_	2	140	40	40	18	18	58	69	53	64	280	31	564	-	785	337.5	24	1189	1340	336	590	100
	4-12	140	40	40	20	18	67.5	79.5	58	69	280	31	564	762	785	337.5	24	1189	1340	336	590	100
315 SM_	2	140	40	40	18	18	58	69	53	64	315	40	638	852	-	375	28	1174	1322	356	585	115
	4-12	140	40	40	22	20	71	85	67.5	79.5	315	40	638	852	-	375	28	1204	1352	386	615	115
315 ML_	2	140	40	40	18	18	58	69	53	64	315	40	638	852	-	375	28	1285	1433	356	640	115
	4-12	140	48	40	25	20	81	95	67.5	79.5	315	40	638	852	-	375	28	1315	1463	386	670	115
315 LK_	2	140	40	40	18	18	58	69	53	64	315	40	638	852	880	359	28	1491	1639	356	721	115
	4-12	140	48	40	25	20	81	95	67.5	79.5	315	40	638	852	880	359	28	1521	1669	386	751	115

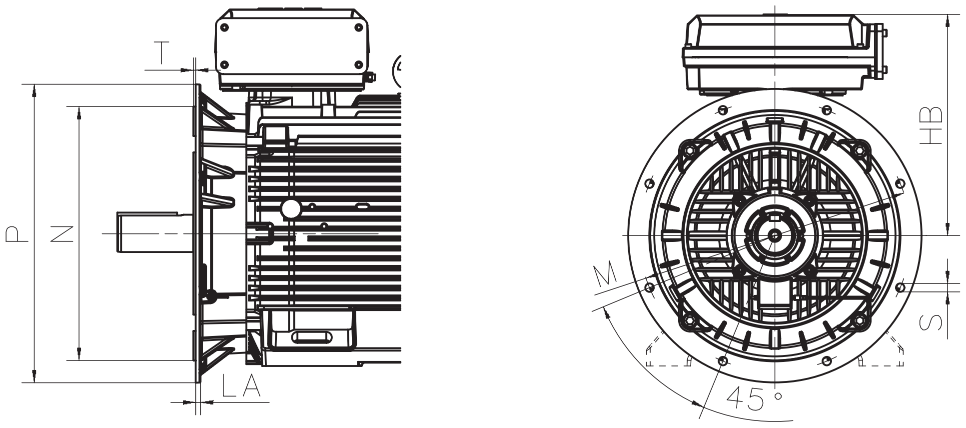
편차	
A, B	± 0.8
C, CA	± 0.8
D	ISO k6 < Ø 50 mm
	ISO m6 > Ø 50 mm
F	ISO h9
H	+ 0 -0.5
N	ISO j6

비고

[1] Terminal box 370

[2] Terminal box 750

모터 도면
플랜지형 주철 모터, 280-315 프레임



설치 옵션 IM B5 (IM 3001)V1, (IM 3011), V3 (IM 3031), IM B35 (IM 2001), IM V15 (IM 2011), IM V36 (IM 2031)

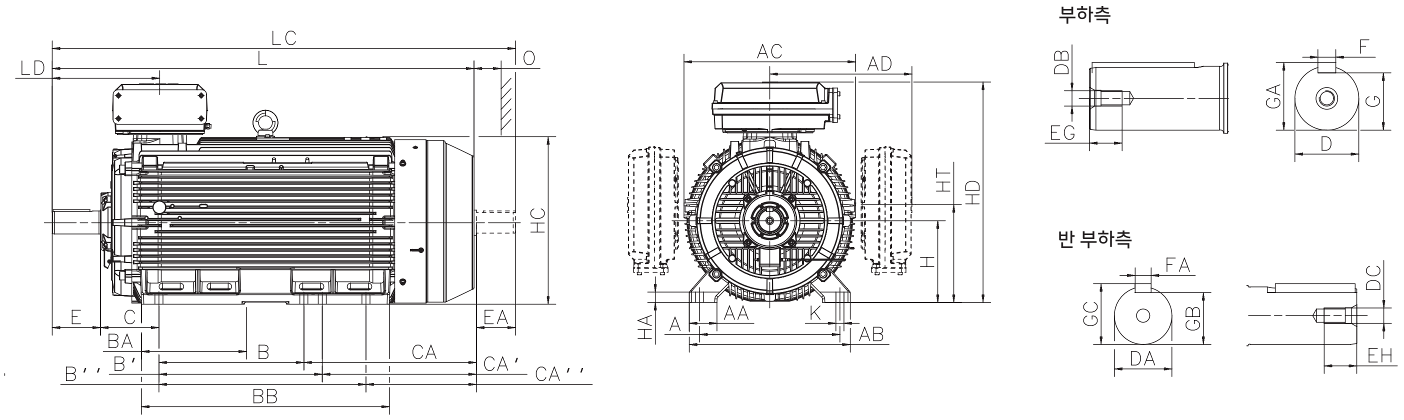
프레임	극	HB [1]	HB [2]	LA	M	N	P	S	T
280 SM_	2	482	-	23	500	450	550	18	5
	4-12	482	-	23	500	450	550	18	5
280 ML_	2	-	505	23	500	450	550	18	5
	4-12	482	505	23	500	450	550	15	5
315 SM_	2	537	-	25	600	550	660	23	6
	4-12	537	-	25	600	550	660	23	6
315 ML_	2	537	-	25	600	550	660	23	6
	4-12	537	-	25	600	550	660	23	6
315 LK_	2	537	565	25	600	550	660	23	6
	4-12	537	565	25	600	550	660	23	6

편차	
A, B	± 0.8
D	ISO j6
F	ISO h9
H	+0 - 0.1
N	ISO j6 (280 SM_)
	ISO js6 (315_)
C	± 0.8

비고

[1] Terminal box 370
[2] Terminal box 750

모터 도면
방식형 주철 모터, 355 프레임



설치 옵션 IM B3 (IM 1001), IM B6 (IM 1051), IM B7 (IM 1061), IM B8 (IM 1071), IM V5 (IM 1011), IM V6 (IM 1031)

프레임	극	A	AA	AB	AC	AD 1)	AD 2)	B	B'	B"	BA	BB	C	CA	CA'	CA"	D	DA	DB	DC	E	EA	EG	EH
355 SM_	2	610	120	700	746	604	618	500	560	-	221	722	254	525	465	-	70	70	M20	M20	140	140	42	40
	4-12	610	120	700	746	604	618	500	560	-	221	722	254	525	465	-	100	90	M24	M24	210	170	51	48
355 ML_	2	610	120	700	746	604	618	560	630	-	267	827	254	500	570	-	70	70	M20	M20	140	140	42	40
	4-12	610	120	700	746	604	618	560	630	-	267	827	254	500	570	-	100	90	M24	M24	210	170	51	48
355 LK_	2	610	120	700	746	604	618	630	710	900	447	1077	254	750	670	480	70	70	M20	M20	140	140	42	40
	4-12	610	120	700	746	604	618	630	710	900	447	1077	254	750	670	480	100	90	M24	M24	210	170	51	48

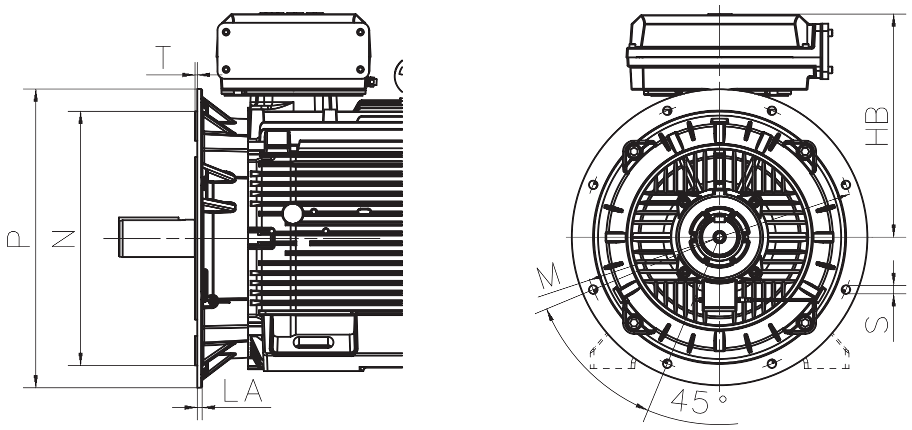
프레임	극	F	FA	G	GA	GB	GC	H	HA	HC	HD 1) top-	HD 2) top-	HD 3) top-	HD 4) side-m.	HT	K	L	LC	LD 1) top-	LD 2) top-	LD 3) top-	LD side-m.	O
355 SM_	2	20	20	62.5	74.5	62.5	74.5	355	45	725	944	958	-	843	425	35	1409	1559	397	397	-	679	130
	4-12	28	25	90	106	81	95	355	45	725	944	958	-	843	425	35	1479	1659	467	467	-	750	130
355 ML_	2	20	20	62.5	74.5	62.5	74.5	355	45	725	944	958	-	843	425	35	1514	1664	397	397	-	732	130
	4-12	28	25	90	106	81	95	355	45	725	944	958	-	843	425	35	1584	1764	467	467	-	802	130
355 LK_	2	20	20	62.5	74.5	62.5	74.5	355	45	725	944	958	-	843	425	35	1764	1914	397	397	-	857	130
	4-12	28	25	90	106	81	95	355	45	725	944	958	-	843	425	35	1834	2014	467	467	-	927	130

편차	
A, B	± 0.8
D, DA	ISO m6
F, FA	ISO h9
H	+0 -0.1
N	ISO j6
C, CA	± 0.8

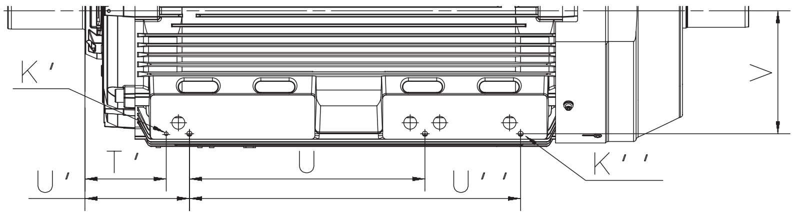
비고

1) Terminal box 370
2) Terminal box 750
3) Terminal box 1200
4) Lifting lugs included

모터 도면
플랜지형 주철 모터, 355 프레임



Bottom view



설치 옵션 IM B5 (IM 3001), V1 (IM 3011), V3 (IM 3031), IM B35 (IM 2001), IM V15 (IM 2011), IM V36 (IM 2031)

플랜지

프레임	극	HB[1]	HB[2]	HB[3]	LA	M	N	P	S	T
355 SM_	2	589	603	-	25	740	680	800	23	6
	4-12	589	603	-	25	740	680	800	23	6
355 ML_	2	589	603	-	25	740	680	800	23	6
	4-12	589	603	-	25	740	680	800	23	6
355 LK_	2	589	603	-	25	740	680	800	23	6
	4-12	589	603	-	25	740	680	800	23	6

하부

프레임	극	K'	K"	T'	U	U'	U"	V
355 SM_	2	10	M16	120	280	560	-	670
	4-12	10	M16	120	282	560	-	670
355 ML_	2	10	M16	120	282	630	-	670
	4-12	10	M16	120	282	630	-	670
355 LK_	2	10	M16	120	282	630	890	670
	4-12	10	M16	120	282	630	890	670

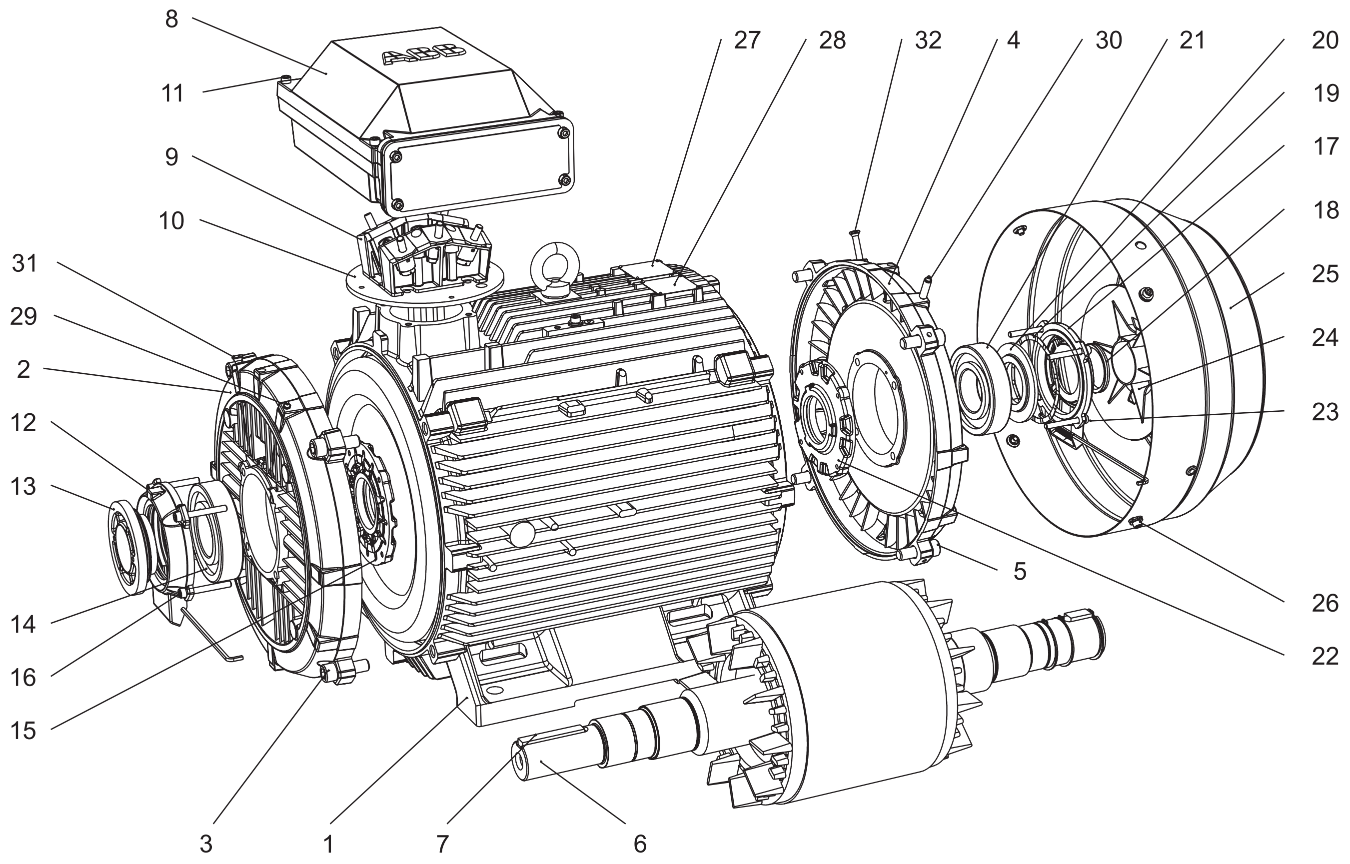
편차	
A, B	± 0.8
D, DA	ISO m6
F, FA	ISO h9
H	+0 -1.0
N	ISO js6
C, CA	± 0.8

비고

[1] Terminal box 370
[2] Terminal box 750
[3] Terminal box 1200

모터 구조

315 프레임 모터 분해조립도



1 고정자프레임
2 부하측 종단차폐체
3 부하측 종단차폐체용 스크류
4 반부하측 종단차폐체
5 반부하측 종단차폐체용 스크류
6 섀프트와 회전자
7 부하측 키
8 단자함
9 단자반
10 중간플랜지
11 터미널 박스 커버용 스크류

12 부하측 외부베어링커버
13 부하측 래비린드씰과 밸브디스크
(2 pole모터 기본 4-6 pole 모터는 V-ring)
14 부하측 베어링
15 부하측 내부 베어링커버
16 베어링 커버용 스크류
17 반부하측 외부 베어링커버
18 반부하측 실
19 웨이브스프링
20 반부하측 밸브디스크
21 반부하측 베어링

22 반부하측 내부 베어링커버
23 베어링커버용 스크류
24 팬
25 팬커버
26 팬커버용 스크류
27 명판
28 윤활판
29 부하측 그리즈 니플
30 반부하측 그리즈니플
31 부하측 SPM 니플
32 반부하측 SPM 니플

—

더 자세한 정보는 ABB 담당자에게 문의하시거나
아래 사이트에서 찾아보실 수 있습니다.

www.abb.com/motors&generators

3AUA0000230887 REV C KR 6.26.2019