PRODUCT NOTE

Expanding IE6 SynRM Portfolio

Efficient, sustainable and highly reliable motors

ABB's safe-area SynRM motor range has received two major upgrades. Motors from 110kW upwards have been upgraded to meet IE6 efficiency level and power range of 3000-3600 r/min SynRM motors is extended up to 450kW. The new IE6 Hyper-Efficiency SynRM motors use an advanced magnet-free design with no rare earth materials, delivering anticipated IE6 efficiency while cutting operational risk and environmental impact.

IE6 hyper-efficiency
ABB's IE6 Hyper-Efficiency Synchronous Reluctance (SynRM) motors set a new benchmark for industrial sustainability and performance. They deliver consistently high efficiency in demanding applications, helping reduce energy use and CO_2 emissions while supporting maximum productivity and long-term reliability.

IE6 Hyper-Efficiency is an anticipated efficiency class which ABB – along with many other industry bodies - defines as having 20 percent lower losses than comparable IE5 products.

Power extension of 3000-3600 r/min motors
SynRM motor range now covers 3000-3600 r/min applications up to 450kW in shaft heights 280 and 315. In addition, there are two versions available: Cenelec and Compact. The Cenelec versions are within the same sizes as traditional 2-pole induction motors making it easy to utilize benefits of SynRM technology without mechanical modifications to machinery. Compact versions offer attractive possibility to reduce motor size and weight making it ideal for OEMs to optimize their machine designs.

Reliable performance with unique rotor design
The motors' unique rotor design minimizes energy losses and maintains high efficiency even at partial loads and lower speeds. With no magnets or windings, the rotor generates virtually no power losses, reducing heat, improving efficiency, and extending motor lifetime.

Highest efficiency level help to reach sustainability targets
All ABB SynRM motors are part of the ABB EcoSolutions™ portfolio and come with Environmental Product Declarations (ISO 14025), ensuring full transparency on environmental impact throughout the product lifecycle.

Motor scope

IE5 and IE6 SynRM Motors for safe areas	
Shaft Heights	90-315
Output and generation	IE5: 0.75 kW to 90 kW, Generation C[1] IE6: 110kW to 450 kW, Generation D[2]
Motor type	M3BL
Supply	VSD
Design	Cenelec and Compact

1) See SynRM catalog, available in abb.com

2) See data tables on pages 3-5

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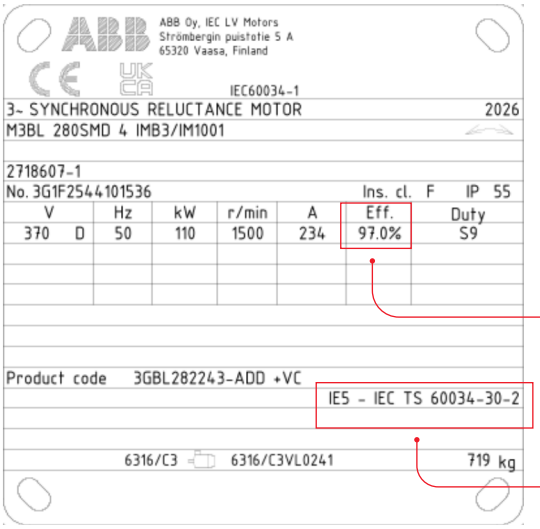
Higher efficiency performance within the same IE class

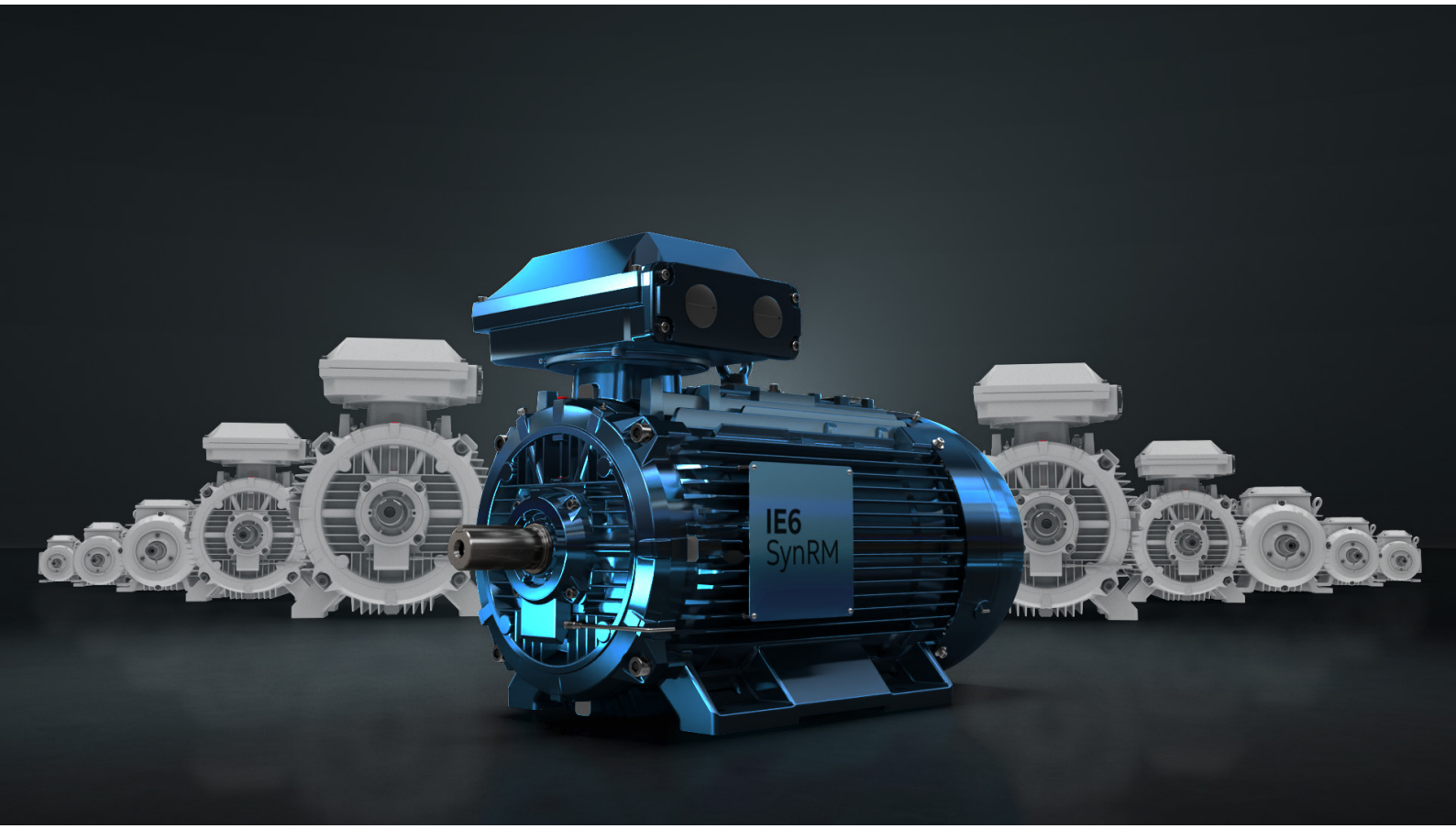
Motor IE class
Motor IE class is based on the current standard version for variable-speed AC motor efficiency classes (IEC TS 60034-30-2:2016). Currently the highest defined IE class is IE5, which means these new IE6 motors are labelled IE5 even if minimum efficiency level of IE5 class is exceeded considerably.

Energy savings calculation
Efficiency percentage value is the most important factor when doing calculations for energy- or CO2 savings and when defining payback time compared to alternative motor solutions. Efficiency percentage value is well above IE5 minimum level, which means that benefits of these IE6 motors can be quantified already now even if IE class rating remains as IE5.



Efficiency level

Labelled Efficiency class



Technical data

Synchronous reluctance motors, network voltage 400V

Output kW	Type designation	Product code	Speed (r/min)	Motor efficiency with VSD supply TN = 100%. nN = 100%	Max speed. n_{max} r/m	Cur-rent. IN A	Torque T_N Nm	Torque T_{OL}/T_N Nm	Rotor inertia (J = 1/4GD2) (M) (kgm2)	Weight kg	Tem-pera-ture rise class	Typical induction motor efficiency with VSD supply* IE3	Typical induction motor efficiency with VSD supply* IE4	IE5 limit values acc. to IEC TS60034-30-2	Antic-ipated IE6 limit values
3000 r/min (100 Hz)					**Motor Voltage 370 V**										
75	M3BL 280SMA 4	3GBL282217-C	3000	96.0	4000	168	239	1.4	0.76	600	B	94.0	95.0	96.0	96.8
90	M3BL 280SMB 4	3GBL282227-C	3000	96.1	4000	200	287	1.5	0.76	600	B	94.3	95.2	96.1	96.9
110	M3BL 280SMC 4	3GBL282237-D	3000	96.8	4000	251	350	1.6	1.11	697	B	94.1	95.0	96.0	96.8
132	M3BL 280SMD 4	3GBL282247-D	3000	96.9	4000	298	420	1.8	1.11	699	B	94.3	95.3	96.2	96.9
160	M3BL 280MLA 4	3GBL282417-D	3000	97.0	4000	365	509	1.2	1.36	824	B	94.6	95.4	96.3	97.0
200	M3BL 280MLB 4	3GBL282427-D	3000	97.1	4000	449	637	1.3	1.36	824	B	94.8	95.7	96.5	97.1
250	M3BL 280MLC 4	3GBL282437-D	3000	97.1	4000	561	796	1.3	1.57	877	B	94.8	95.7	96.5	97.1
280	M3BL 280MLD 4	3GBL282447-D	3000	97.1	4000	626	892	1.9	1.58	877	F	94.8	95.7	96.5	97.1
110	M3BL 315SMA 4	3GBL312217-D	3000	96.8	4000	251	350	1.3	1.38	873	B	94.1	95.0	96.0	96.8
132	M3BL 315SMB 4	3GBL312227-D	3000	96.9	4000	298	420	1.4	1.38	873	B	94.3	95.3	96.2	96.9
160	M3BL 315SMC 4	3GBL312237-D	3000	97.0	4000	355	509	1.2	1.59	921	B	94.6	95.4	96.3	97.0
200	M3BL 315MLA 4	3GBL312417-D	3000	97.1	4000	439	637	1.5	1.91	1074	B	94.8	95.7	96.5	97.1
250	M3BL 315MLB 4	3GBL312427-D	3000	97.1	4000	547	796	1.5	2.12	1130	B	94.8	95.7	96.5	97.1
315	M3BL 315MLC 4	3GBL312437-D	3000	97.1	4000	689	1002	1.7	2.33	1179	B	94.8	95.7	96.5	97.1
355	M3BL 315LKA 4	3GBL312817-D	3000	97.1	4000	806	1131	2.1	2.65	1350	B	94.8	95.7	96.5	97.1
400	M3BL 315LKB 4	3GBL312827-D	3000	97.1	4000	890	1274	1.9	2.65	1350	F	94.8	95.7	96.5	97.1
450	M3BL 315LKC 4	3GBL312837-D	3000	97.1	4000	988	1433	1.7	2.65	1350	H	94.8	95.7	96.5	97.1
1500 r/min (50 Hz)					**Motor Voltage 370 V**										
110	M3BL 280SMD 4	3GBL282243-D	1500	97.0	2600	234	701	2.0	1.15	719	B	94.3	95.4	96.3	97.0
110	M3BL 315SMC 4	3GBL312233-D	1500	97.0	2200	228	701	2.0	1.81	965	B	94.3	95.4	96.3	97.0
132	M3BL 315SMD 4	3GBL312243-D	1500	97.1	2200	275	841	1.9	1.86	1001	B	94.6	95.5	96.4	97.1
160	M3BL 315MLA 4	3GBL312413-D	1500	97.3	2200	330	1019	1.7	2.06	1091	B	94.8	95.8	96.5	97.3
200	M3BL 315MLB 4	3GBL312423-D	1500	97.4	2200	419	1274	1.9	2.27	1139	B	95.0	95.9	96.8	97.4
250	M3BL 315LKB 4	3GBL312823-D	1500	97.4	2000	525	1593	2.0	2.93	1461	B	95.0	95.9	96.8	97.4
315	M3BL 315LKC 4	3GBL312833-D	1500	97.4	2000	682	2007	2.0	3.22	1533	B	95.0	95.9	96.8	97.4
1000 r/min (33,3 Hz)					**Motor Voltage 370 V**										
110	M3BL 315MLA 4	3GBL312412-D	1000	96.6	2200	233	1051	2.0	2.06	1091	B	93.9	94.8	95.8	96.6
132	M3BL 315LKA 4	3GBL312812-D	1000	96.8	2000	281	1263	2.0	2.57	1376	B	94.3	95.0	96.0	96.8
160	M3BL 315LKB 4	3GBL312822-D	1000	96.9	2000	332	1530	1.8	2.93	1460	B	94.6	95.3	96.2	96.9
200	M3BL 315LKC 4	3GBL312832-D	1000	97.0	2000	426	1911	2.0	3.24	1533	B	94.8	95.4	96.3	97.0

*Additional Motor losses acc. to IEC TS60034-30-2

Technical data

Synchronous reluctance motors, network voltage 500V

Output kW	Type designation	Product code	Speed (r/min)	Motor efficiency with VSD supply TN = 100%. nN = 100%	Max speed. n_{max} r/m	Cur-rent. IN A	Torque T_N Nm	Torque T_{OL}/T_N Nm	Rotor inertia (J = 1/4GD2) (M) (kgm2)	Weight kg	Tem-pera-ture rise class	Typical induction motor efficiency with VSD supply* IE3	Typical induction motor efficiency with VSD supply* IE4	IE5 limit values acc. to IEC TS60034-30-2	Antic-ipated IE6 limit values
3000 r/min (100 Hz)					**Motor Voltage 470 V**										
75	M3BL 280SMA 4	3GBL282217-C	3000	96.0	4000	132	239	1.4	0.76	600	B	94.0	95.0	96.0	96.8
90	M3BL 280SMB 4	3GBL282227-C	3000	96.1	4000	158	287	1.5	0.76	600	B	94.3	95.2	96.1	96.9
110	M3BL 280SMC 4	3GBL282237-D	3000	96.8	4000	197	350	1.6	1.11	697	B	94.1	95.0	96.0	96.8
132	M3BL 280SMD 4	3GBL282247-D	3000	96.9	4000	236	420	1.6	1.11	699	B	94.3	95.3	96.2	96.9
160	M3BL 280MLA 4	3GBL282417-D	3000	97.0	4000	286	510	1.3	1.36	824	B	94.6	95.4	96.3	97.0
200	M3BL 280MLB 4	3GBL282427-D	3000	97.1	4000	354	637	1.3	1.36	824	B	94.8	95.7	96.5	97.1
250	M3BL 280MLC 4	3GBL282437-D	3000	97.1	4000	442	796	1.6	1.57	877	B	94.8	95.7	96.5	97.1
280	M3BL 280MLD 4	3GBL282447-D	3000	97.1	4000	482	892	1.4	1.58	877	F	94.8	95.7	96.5	97.1
110	M3BL 315SMA 4	3GBL312217-D	3000	96.8	4000	197	350	1.3	1.38	873	B	94.8	95.0	96.0	96.8
132	M3BL 315SMB 4	3GBL312227-D	3000	96.9	4000	235	420	1.3	1.38	873	B	94.8	95.3	96.2	96.9
160	M3BL 315SMC 4	3GBL312237-D	3000	97.0	4000	278	510	1.4	1.59	921	B	94.8	95.4	96.3	97.0
200	M3BL 315MLA 4	3GBL312417-D	3000	97.1	4000	345	637	1.4	1.91	1074	B	94.8	95.7	96.5	97.1
250	M3BL 315MLB 4	3GBL312427-D	3000	97.1	4000	432	796	1.3	2.12	1130	B	94.8	95.7	96.5	97.1
315	M3BL 315MLC 4	3GBL312437-D	3000	97.1	4000	552	1003	1.9	2.33	1179	B	94.8	95.7	96.5	97.1
355	M3BL 315LKA 4	3GBL312817-D	3000	97.1	4000	641	1130	2.2	2.65	1350	B	94.8	95.7	96.5	97.1
400	M3BL 315LKB 4	3GBL312827-D	3000	97.1	4000	706	1274	1.9	2.65	1350	F	94.8	95.7	96.5	97.1
450	M3BL 315LKC 4	3GBL312837-D	3000	97.1	4000	781	1431	1.7	2.65	1350	F	94.8	95.7	96.5	97.1
1500 r/min (50 Hz)					**Motor Voltage 470 V**										
110	M3BL 280SMD 4	3GBL282243-D	1500	97.0	2600	182	700	2.0	1.15	719	B	94.3	95.4	96.3	97.0
110	M3BL 315SMC 4	3GBL312233-D	1500	97.0	2200	179	701	2.0	1.81	965	B	94.3	95.4	96.3	97.0
132	M3BL 315SMD 4	3GBL312243-D	1500	97.1	2200	218	841	1.9	1.86	1001	B	94.6	95.5	96.4	97.1
160	M3BL 315MLA 4	3GBL312413-D	1500	97.3	2200	259	1019	1.7	2.06	1091	B	94.8	95.8	96.5	97.3
200	M3BL 315MLB 4	3GBL312423-D	1500	97.4	2200	325	1274	1.9	2.27	1139	B	95.0	95.9	96.8	97.4
250	M3BL 315LKB 4	3GBL312823-D	1500	97.4	2000	411	1593	2.0	2.93	1461	B	95.0	95.9	96.8	97.4
315	M3BL 315LKC 4	3GBL312833-D	1500	97.4	2000	524	2006	2.0	3.22	1533	B	95.0	95.9	96.8	97.4
1000 r/min (33,3 Hz)					**Motor Voltage 470 V**										
110	M3BL 315MLA 4	3GBL312412-D	1000	96.6	2200	183	1052	2.0	2.06	1091	B	93.9	94.8	95.8	96.6
132	M3BL 315LKA 4	3GBL312812-D	1000	96.8	2000	223	1262	2.0	2.57	1376	B	94.3	95.0	96.0	96.8
160	M3BL 315LKB 4	3GBL312822-D	1000	96.9	2000	261	1529	1.8	2.93	1460	B	94.6	95.3	96.2	96.9
200	M3BL 315LKC 4	3GBL312832-D	1000	97.0	2000	328	1913	2.0	3.24	1533	B	94.8	95.4	96.3	97.0

*Additional Motor losses acc. to IEC TS60034-30-2

Technical data

Synchronous reluctance motors, network voltage 690V

Output kW	Type designation	Product code	Speed (r/min)	Motor efficiency with VSD supply TN = 100%. nN = 100%	Max speed. n_{max} r/m	Cur-rent. IN A	Torque T_N Nm	Torque T_{OL}/T_N Nm	Rotor inertia (J = 1/4GD2) (M) (kgm2)	Weight kg	Tem-pera-ture rise class	Typical induction motor efficiency with VSD supply* IE3	Typical induction motor efficiency with VSD supply* IE4	IE5 limit values acc. to IEC TS60034-30-2	Antic-ipated IE6 limit values
3000 r/min (100 Hz)					**Motor Voltage 650 V**										
75	M3BL 280SMA 4	3GBL282217-C	3000	96.0	4000	96	239	1.5	0.76	600	B	94.0	95.0	96.0	96.8
90	M3BL 280SMB 4	3GBL282227-C	3000	96.1	4000	114	287	1.5	0.76	600	B	94.3	95.2	96.1	96.9
110	M3BL 280SMC 4	3GBL282237-D	3000	96.8	4000	142	350	1.4	1.11	697	B	94.1	95.0	96.0	96.8
132	M3BL 280SMD 4	3GBL282247-D	3000	96.9	4000	170	421	1.5	1.11	699	B	94.3	95.3	96.2	96.9
160	M3BL 280MLA 4	3GBL282417-D	3000	97.0	4000	207	510	1.3	1.36	824	B	94.6	95.4	96.3	97.0
200	M3BL 280MLB 4	3GBL282427-D	3000	97.1	4000	255	636	1.4	1.36	824	B	94.8	95.7	96.5	97.1
250	M3BL 280MLC 4	3GBL282437-D	3000	97.1	4000	318	796	1.3	1.57	877	B	94.8	95.7	96.5	97.1
280	M3BL 280MLD 4	3GBL282447-D	3000	97.1	4000	358	892	1.9	1.58	877	F	94.8	95.7	96.5	97.1
110	M3BL 315SMA 4	3GBL312217-D	3000	96.8	4000	142	350	1.4	1,38	873	B	94.8	95.0	96.0	96.8
132	M3BL 315SMB 4	3GBL312227-D	3000	96.9	4000	170	420	1.5	1.38	873	B	94.8	95.3	96.2	96.9
160	M3BL 315SMC 4	3GBL312237-D	3000	97.0	4000	202	510	1.3	1.59	921	B	94.8	95.4	96.3	97.0
200	M3BL 315MLA 4	3GBL312417-D	3000	97.1	4000	250	637	1.5	1.91	1074	B	94.8	95.7	96.5	97.1
250	M3BL 315MLB 4	3GBL312427-D	3000	97.1	4000	311	796	1.5	2.12	1130	B	94.8	95.7	96.5	97.1
315	M3BL 315MLC 4	3GBL312437-D	3000	97.1	4000	393	1003	1.7	2.33	1179	B	94.8	95.7	96.5	97.1
355	M3BL 315LKA 4	3GBL312817-D	3000	97.1	4000	463	1131	2.2	2.65	1350	B	94.8	95.7	96.5	97.1
400	M3BL 315LKB 4	3GBL312827-D	3000	97.1	4000	510	1274	1.9	2.65	1350	F	94.8	95.7	96.5	97.1
450	M3BL 315LKC 4	3GBL312837-D	3000	97.1	4000	564	1431	1.7	2.65	1350	H	94.8	95.7	96.5	97.1
1500 r/min (50 Hz)					**Motor Voltage 650 V**										
110	M3BL 280SMD 4	3GBL282243-D	1500	97.0	2600	134	701	2.0	1.15	719	B	94.3	95.4	96.3	97.0
110	M3BL 315SMC 4	3GBL312233-D	1500	97.0	2200	130	700	2.0	1.81	965	B	94.3	95.4	96.3	97.0
132	M3BL 315SMD 4	3GBL312243-D	1500	97.1	2200	157	841	1.9	1.86	1001	B	94.6	95.5	96.4	97.1
160	M3BL 315MLA 4	3GBL312413-D	1500	97.3	2200	188	1018	1.7	2.06	1091	B	94.8	95.8	96.5	97.3
200	M3BL 315MLB 4	3GBL312423-D	1500	97.4	2200	240	1274	1.9	2.27	1139	B	95.0	95.9	96.8	97.4
250	M3BL 315LKB 4	3GBL312823-D	1500	97.4	2000	301	1593	2.0	2.93	1461	B	95.0	95.9	96.8	97.4
315	M3BL 315LKC 4	3GBL312833-D	1500	97.4	2000	390	2004	2.0	3.22	1533	B	95.0	95.9	96.8	97.4
1000 r/min (33,3 Hz)					**Motor Voltage 650 V**										
110	M3BL 315MLA 4	3GBL312412-D	1000	96.6	2200	133	1051	2.0	2.06	1091	B	93.9	94.8	95.8	96.6
132	M3BL 315LKA 4	3GBL312812-D	1000	96.8	2000	161	1262	2.0	2.57	1376	B	94.3	95.0	96.0	96.8
160	M3BL 315LKB 4	3GBL312822-D	1000	96.9	2000	189	1528	1.8	2.93	1460	B	94.6	95.3	96.2	96.9
200	M3BL 315LKC 4	3GBL312832-D	1000	97.0	2000	245	1913	2.0	3.24	1533	B	94.8	95.4	96.3	97.0

*Additional Motor losses acc. to IEC TS60034-30-2

Technical data

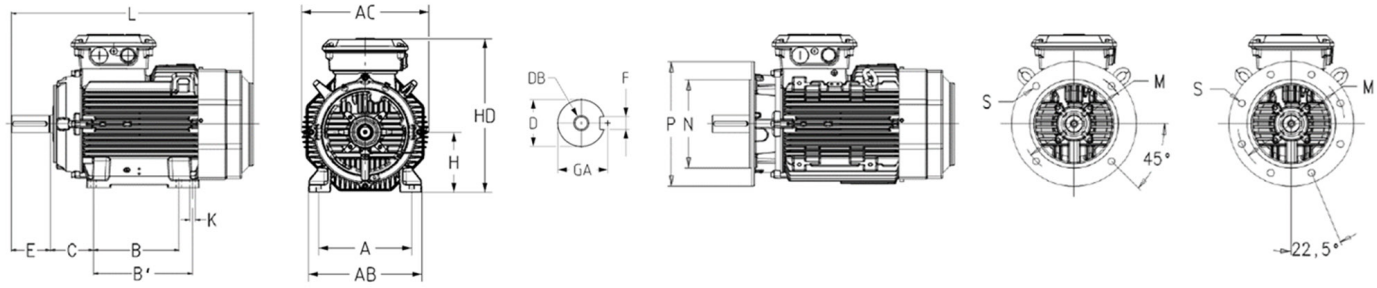
Synchronous reluctance motors, network voltage 460V

Output kW	Type designation	Product code	Speed (r/min)	Motor efficiency with VSD supply TN = 100%. nN = 100%	Max speed. n_{max} r/m	Cur-rent. IN A	Torque T_N Nm	Torque T_{OL}/T_N Nm	Rotor inertia (J = 1/4GD2) (M) (kgm2)	Weight kg	Tem-pera-ture rise class	Typical induction motor efficiency with VSD supply* IE3	Typical induction motor efficiency with VSD supply* IE4	IE5 limit values acc. to IEC TS60034-30-2	Antic-ipated IE6 limit values
3600 r/min (120 Hz)					**Motor Voltage 430 V**										
75	M3BL 280SMA 4	3GBL282217-C	3600	96.0	4000	166	239	1.2	0.76	600	B	94.0	95.0	96.0	96.8
90	M3BL 280SMB 4	3GBL282227-C	3600	96.1	4000	174	239	1.3	0.76	600	B	94.3	95.2	96.1	96.9
110	M3BL 280SMC 4	3GBL282237-D	3600	96.8	4000	217	292	1.3	1.11	697	B	94.1	95.0	96.0	96.8
132	M3BL 280SMD 4	3GBL282247-D	3600	96.9	4000	258	350	1.4	1.11	699	B	94.3	95.3	96.2	96.9
160	M3BL 280MLA 4	3GBL282417-D	3600	97.0	4000	309	424	1.2	1.36	824	B	94.6	95.5	96.3	97.0
200	M3BL 280MLB 4	3GBL282427-D	3600	97.1	4000	383	531	1.3	1.36	824	B	94.8	95.7	96.5	97.1
250	M3BL 280MLC 4	3GBL282437-D	3600	97.1	4000	476	663	1.2	1.57	877	B	94.8	95.7	96.5	97.1
280	M3BL 280MLD 4	3GBL282447-D	3600	97.1	4000	539	743	1.7	1.58	877	B	94.8	95.7	96.5	97.1
110	M3BL 315SMA 4	3GBL312217-D	3600	96.8	4000	218	292	1.3	1.38	873	B	94.1	95.0	96.0	96.8
132	M3BL 315SMB 4	3GBL312227-D	3600	96.9	4000	260	350	1.3	1.38	873	B	94.3	95.3	96.2	96.9
160	M3BL 315SMC 4	3GBL312237-D	3600	97.0	4000	301	424	1.2	1.59	921	B	94.6	95.4	96.3	97.0
200	M3BL 315MLA 4	3GBL312417-D	3600	97.1	4000	376	531	1.4	1.91	1074	B	94.8	95.7	96.5	97.1
250	M3BL 315MLB 4	3GBL312427-D	3600	97.1	4000	468	663	1.4	2.12	1130	B	94.8	95.7	96.5	97.1
315	M3BL 315MLC 4	3GBL312437-D	3600	97.1	4000	592	836	1.6	2.33	1179	B	94.8	95.7	96.5	97.1
355	M3BL 315LKA 4	3GBL312817-D	3600	97.1	4000	702	942	2.1	2.65	1350	F	94.8	95.7	96.5	97.1
400	M3BL 315LKB 4	3GBL312827-D	3600	97.1	4000	769	1061	1.8	2.65	1350	F	94.8	95.7	96.5	97.1
400	M3BL 315LKC 4	3GBL312837-D	3600	97.1	4000	779	1062	2.0	2.65	1350	F	94.8	95.7	96.5	97.1
1800 r/min (60 Hz)					**Motor Voltage 430 V**										
110	M3BL 280SMD 4	3GBL282243-D	1800	97.0	2600	203	584	2.4	1.15	719	B	94.3	95.4	96.3	97.0
110	M3BL 315SMC 4	3GBL312233-D	1800	97.0	2200	197	584	1.9	1.81	965	B	94.3	95.4	96.3	97.0
132	M3BL 315SMD 4	3GBL312243-D	1800	97.1	2200	238	701	2.2	1.86	1001	B	94.6	95.5	96.4	97.1
160	M3BL 315MLA 4	3GBL312413-D	1800	97.3	2200	283	849	1.9	2.06	1091	B	94.8	95.8	96.5	97.3
200	M3BL 315MLB 4	3GBL312423-D	1800	97.4	2200	361	1061	2.2	2.27	1139	B	95.0	95.9	96.8	97.4
250	M3BL 315LKB 4	3GBL312823-D	1800	97.4	2000	453	1326	2.3	2.93	1461	B	95.0	95.9	96.8	97.4
315	M3BL 315LKC 4	3GBL312833-D	1800	97.4	2000	589	1671	2.2	3.22	1533	B	95.0	95.9	96.8	97.4
1200 r/min (40 Hz)					**Motor Voltage 430 V**										
110	M3BL 315MLA 4	3GBL312412-D	1200	96.6	2200	201	875	2.3	2.06	1091	B	93.9	94.8	95.8	96.6
132	M3BL 315LKA 4	3GBL312812-D	1200	96.8	2000	244	1050	2.5	2.57	1376	B	94.3	95.0	96.0	96.8
160	M3BL 315LKB 4	3GBL312822-D	1200	96.9	2000	285	1273	2.1	2.93	1460	B	94.6	95.3	96.2	96.9
200	M3BL 315LKC 4	3GBL312832-D	1200	97.0	2000	368	1592	2.3	3.24	1533	B	94.8	95.4	96.3	97.0

*Additional Motor losses acc. to IEC TS60034-30-2

Dimensions

SynRM safe area motors



		IM 1001, IM B3 and IM 3001, IM B5						IM 1001, IM B3										IM 3001, IM B5			
Motor size	**Speed r/min**	**D**	**DB**	**GA**	**F**	**E**	**L max**	**A**	**AB**	**AC**	**B**	**B'**	**C**	**HD 1)**	**HD 2)**	**HD 3)**	**K**	**M**	**N**	**P**	**S**
280 SMD	1500	75	M20	79,5	20	140	1088	457	530	577	368	419	190	762	-	-	24	500	450	550	18
280 SM_	3000	65	M20	69	18	140	1088	457	530	577	368	419	190	762	-	-	24	500	450	550	18
280 SMD	3000	65	M20	69	18	140	1088	457	530	577	368	419	190	-	785	-	24	500	450	550	18
280 ML_	3000	65	M20	69	18	140	1190	457	530	577	419	457	190	-	785	-	24	500	450	550	18
315 SM_	1500	80	M20	85	22	170	1202	508	590	654	406	457	216	-	852	-	28	600	550	660	23
315 SM_	3000	65	M20	69	18	140	1172	508	590	654	406	457	216	-	852	-	28	600	550	660	23
315 ML_	1000 - 1500	90	M24	95	25	170	1313	508	590	654	457	508	216	-	852	-	28	600	550	660	23
315 MLA	3000	65	M20	69	18	140	1283	508	590	654	457	508	216	-	852	-	28	600	550	660	23
315 MLB, MLC	3000	65	M20	69	18	140	1283	508	590	654	457	508	216	-	-	880	28	600	550	660	23
315 LK_	1000	90	M24	95	25	170	1519	508	590	660	508	560	216	-	852	-	28	600	550	660	23
315 LK_	1500	90	M24	95	25	170	1519	508	590	660	508	560	216	-	-	880	28	600	550	660	23
315 LK_	3000	65	M20	69	18	140	1489	508	590	660	508	560	216	-	-	880	28	600	550	660	23

1) Terminal box 210
2) Terminal box 370
3) Terminal box 750

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

The tables give the main dimensions in mm.
For detailed drawings please see our web-pages 'new.abb.com/motors-generators/iec-low-voltage-motors' or contact ABB.

new.abb.com/motors-generators / iec-low-voltage-motors

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