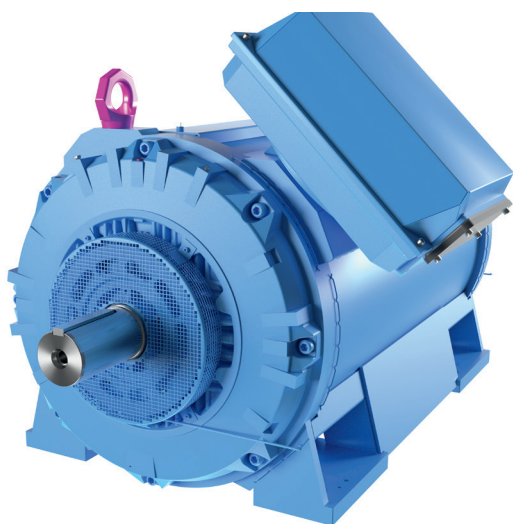


PRODUCT NOTE

New water-cooled motor in frame size 500

For offshore and onshore applications



ABB's new frame size 500 low-voltage motor is an ideal choice for applications where reliable and powerful operation is required. The new motor is robust, compact, economical and simple in design.

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01 Water-cooled motor in frame size 500 is an ideal choice for marine, mining, minerals and water & wastewater applications.

The new water-cooled M3LP motor is rated from 800 kW up to 2000 kW with voltage 690 V, 50/60 Hz and it is available in 4, 6 and 8 pole versions with maximum speed of 1800 rpm.

Available mounting configurations are foot mounting B3, flange mounting V1 and foot/flange mounting B35.

Platform

The new water-cooled M3LP 500 motor is based on ABB's well-proven induction platform with low-voltage motor technology. It shares the same mechanical design as ABB's other water-cooled motors.

The new motor was designed with special consideration to the needs of the marine industry. It adds a crucial component in ABB's motor range, allowing customers in the marine industry to turn to ABB for total electric solutions for top-of-line vessels.

Compactness, high power density and harsh environments are the key requirements for marine industry but also crucial for other industries and applications, such as mining, minerals, water and wastewater and manufacturing.

Main features

The new motor meets today's multi industry requirements answering to demands for space and high power:

- Compact size and high output/power ratio
- Low noise level – water cooling with no external-fan
- Extension to water cooled motor range
- Cost-effective solution based on low voltage-technology

Technical data

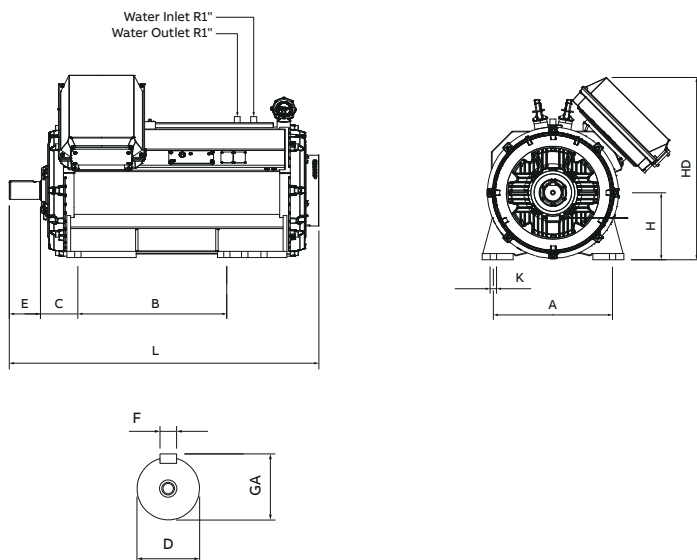
Water-cooled low voltage motor M3LP 500

Output kW		Motor type	Product code	Speed r/min		Efficiency IEC 60034-2 - 1; 2014				Current		Torque			Moment of inertia J = 1/4 GD2 kgm2	Weight kg
50 Hz	60 Hz			50 Hz	60 Hz	Full load 100 %	3/4 load 75 %	1/2 load 50 %	Power factor cos φ	I _N A	I _s I _N	T _N N _m	T _i T _N	T _b T _N		
4 poles				690 V				High-output design								
1400	1600	M3LP 500LA	3GLP502510--K	1492	1792	97,5	97,6	97,5	0,87	1380	6,7	8960	0,6	2,8	35	5350
1600	1800	M3LP 500LB	3GLP502520--K	1492	1792	97,7	97,8	97,7	0,87	1575	7,2	10240	0,7	3,1	39,5	5650
1800	2000	M3LP 500LC	3GLP502530--K	1493	1792	97,5	97,6	97,5	0,87	1775	7,9	11513	0,8	3,3	43	5950
6 poles				690 V				High-output design								
1200	1400	M3LP 500LA	3GLP503510--K	994	1193	97,3	97,5	97,4	0,84	1230	6,5	11528	0,8	2,6	51	5200
1350	1600	M3LP 500LB	3GLP503520--K	994	1194	97,4	97,6	97,5	0,85	1365	6,5	12969	0,8	2,6	60	5650
1600	1800	M3LP 500LC	3GLP503530--K	994	1194	97,5	97,7	97,6	0,84	1635	7,1	15371	0,9	2,8	67	6000
8 poles				690 V				High-output design								
800	930	M3LP 500LA	3GLP504510--K	745	894	96,7	97,0	96,9	0,81	855	6,0	10254	0,9	2,4	51	5200
900	1050	M3LP 500LB	3GLP504520--K	744	894	96,7	97,0	97,0	0,82	950	5,9	11552	0,9	2,3	60	5650
1000	1200	M3LP 500LC	3GLP504530--K	745	894	96,8	97,1	97,0	0,81	1067	6,2	12818	1,0	2,5	67	6000

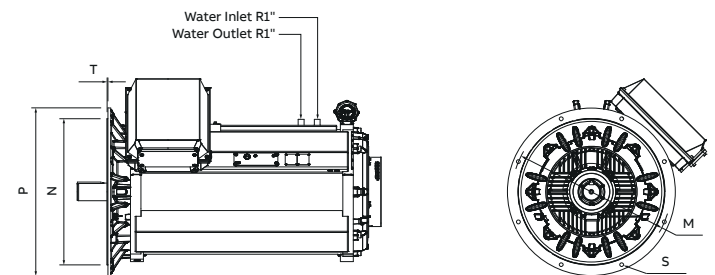
Temperature rise class B

Dimensions

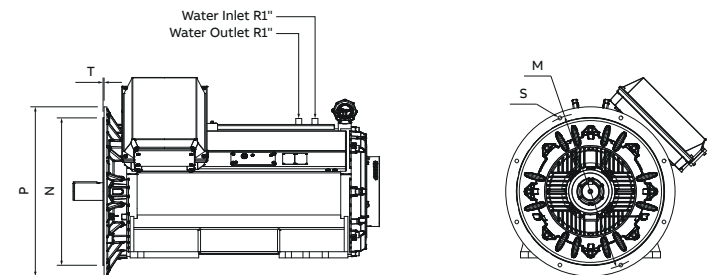
Foot-mounted motors, IM B3



Flange-mounted motors, IM V1



Foot- and flange-mounted motors, IM B35



Motor size	Poles	M B3 (IM 1001, IM 1002)								IM V1 (IM 3011)							
		D	GA	F	E	L	A	B	C	HD	K	H	M	N	P	S	T
500	4-8	140	148	36	250	2241	900	1250	280	1312	42	500	1180	1120	1250	28	6

Motor size	Poles	IM B35 (IM 2001)				
		M	N	P	S	T
500	4-8	1180	1120	1250	28	6