MarelliMotori
Inspired solutions

Hydropower
Selection guide

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Vision

To become the global market leader of electric rotating machines in all our core markets.

Mission

Our mission is to aid the sustainable growth of our customers' businesses.
We will provide innovative solutions inspired by relentless efforts to understand our customers' needs and their specific applications.
We will leverage our extensive technical knowledge, product performance and service to increase the competitiveness, efficiency and productivity of our partners worldwide.

Synchronous generator applications

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- ODP synchronous generators low voltage: MJT 07
- ODP synchronous generators medium voltage: MJHT 12
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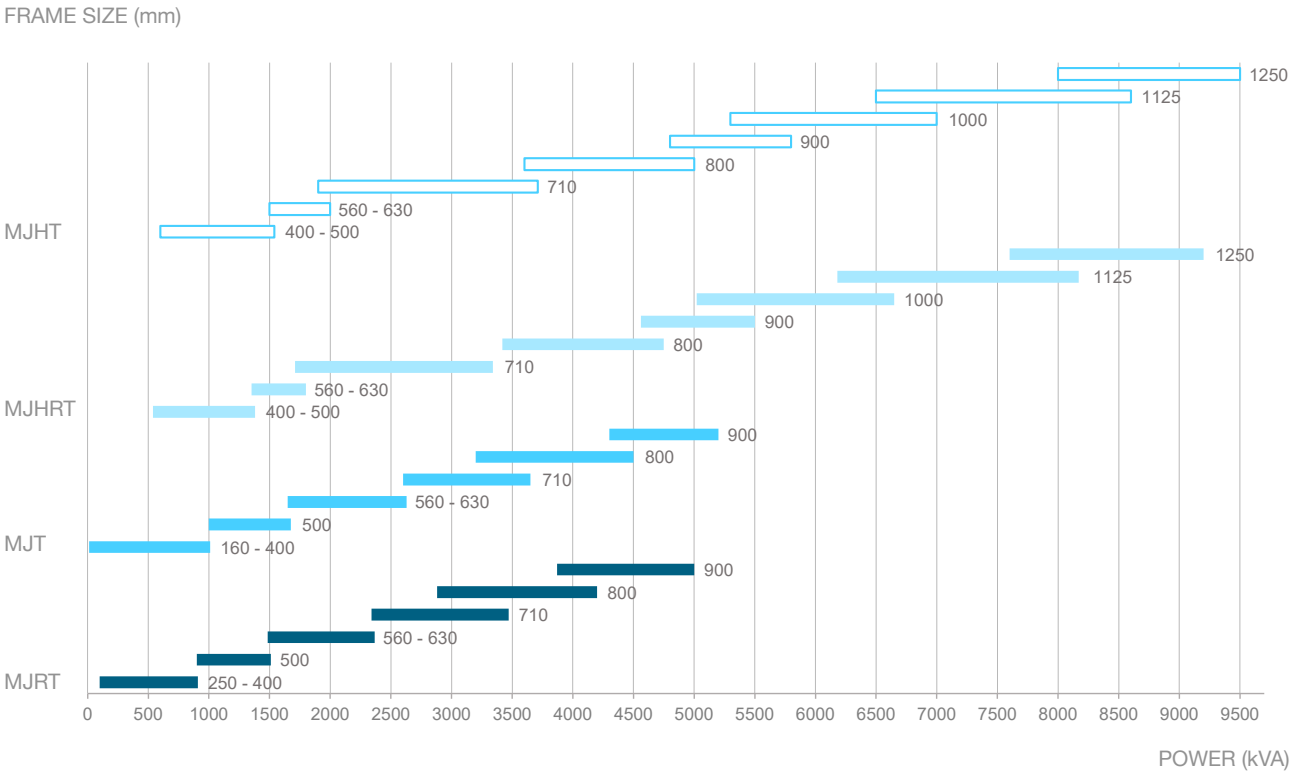
Product map

Product	Pelton turbines	Francis turbines	Kaplan turbines	Turgo turbines	Cross-Flow turbines
TEWAC **MJRT**	●	●	●	●	●
ODP **MJT**	●	●	●	●	●
TEWAC **MJHRT**	●	●	●	●	●
ODP **MJHT**	●	●	●	●	●

Synchronous generator range

Key	Model
● TEWAC - Totally Enclosed Water to Air Cooled	**MJRT**
● ODP - Open Drip Proof	**MJT**
● TEWAC - Totally Enclosed Water to Air Cooled	**MJHRT**
○ ODP - Open Drip Proof	**MJHT**



Technical information

Environmental conditions

The rated outputs refer to an installation height up to 1.000 m a.s.l. and to a maximum ambient temperature of 40°C. For higher altitudes and different temperature values the rated outputs must be re-calculated using the factors listed in the folloeing table.

Altitude m asl	Ambient temperature °C			
	30	40	45	50
1000	1,04	1,00	0,98	0,95
1500	1,03	0,97	0,95	0,92
2000	0,99	0,93	0,91	0,88
2500	0,95	0,90	0,88	0,86
3000	0,91	0,86	0,84	0,82

Power factor

The nominal power factor is 0,8 lagging. For different power factor values the following derating factors must be applied.

Power factor	1,0	+0,8	+0,7	+0,6	+0,5	+0,3	0
Kφ	1,0	1,0	0,93	0,88	0,84	0,82	0,80

For negative power factors please contact Marelli Motori.

Degree of protection

Standards generators are air-cooled with IP 23 degree of protection (IC 01 cooling type). To obtain a higher index of protection (IP 55) generators generators can be supplied with an air to water heat exchanger installed on the body of the machinery (IC 81 W cooling type).
In this case power values has to be derated by 0,9.

Special configurations

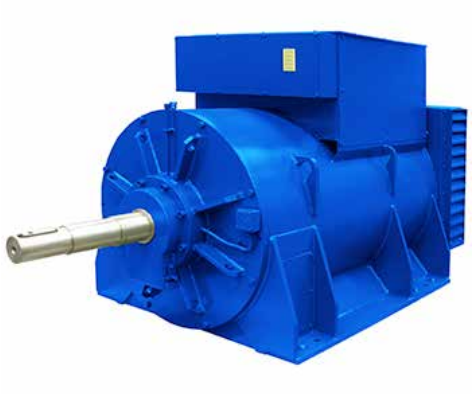
The following derating factors must be applied to the corresponding configurations.

Special configuration	Air to water heat exchanger	Outlet air duct*	Inlet + outlet air duct*
K factor	0,90	0,95	0,90

*Counter pressure value will be communicated during generator design.

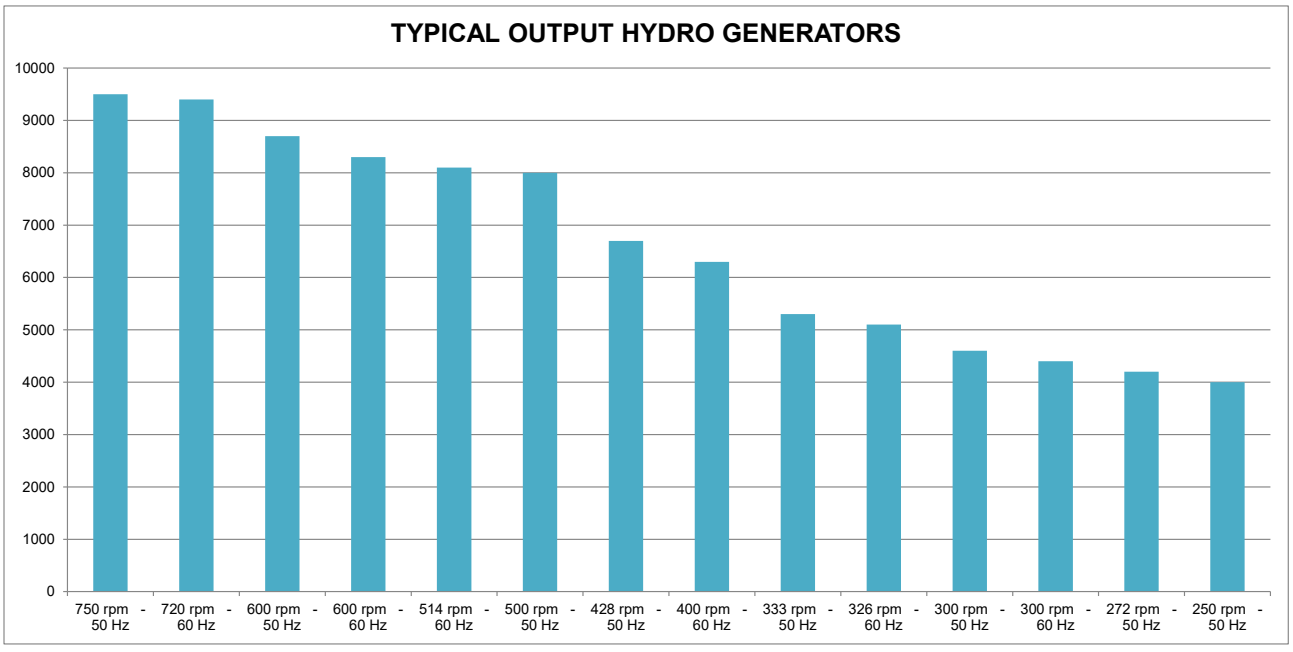
ODP Synchronous generators - Low voltage

MJT



MODEL	MJT
POWER	Up to 5.200 kVA
VOLTAGES	Up to 1.000 V
FRAME	160 ÷ 1250
POLE	From 4 to 20 poles (over contact MM)
COOLING	IC 01
IP	IP 23. Available up to IP 44 with filters.

TYPE	POLES	VOLTAGE	FREQUENCY	RPM	PAGE
MJT	4 POLES	400 V	50 Hz	1500 min^{-1}	pg 8
MJT	6 POLES	400 V	50 Hz	1000 min^{-1}	pg 9
MJT	8 POLES	400 V	50 Hz	750 min^{-1}	pg 9
MJT	10 POLES	400 V	50 Hz	600 min^{-1}	pg 10
MJT	12 POLES	400 V	50 Hz	500 min^{-1}	pg 10
MJT	14 POLES	400 V	50 Hz	428 min^{-1}	pg 10
MJT	16 POLES	400 V	50 Hz	375 min^{-1}	pg 10
MJT	18 POLES	400 V	50 Hz	333 min^{-1}	pg 11
MJT	20 POLES	690 V	50 Hz	300 min^{-1}	pg 11
MJT	22 POLES	690 V	50 Hz	272 min^{-1}	pg 11
MJT	24 POLES	690 V	50 Hz	250 min^{-1}	pg 11
MJT	4 POLES	480 V	60 Hz	1800 min^{-1}	pg 8
MJT	6 POLES	480 V	60 Hz	1200 min^{-1}	pg 9
MJT	8 POLES	480 V	60 Hz	900 min^{-1}	pg 9
MJT	10 POLES	480 V	60 Hz	720 min^{-1}	pg 10
MJT	12 POLES	480 V	60 Hz	600 min^{-1}	pg 10
MJT	14 POLES	480 V	60 Hz	514 min^{-1}	pg 10
MJT	16 POLES	480 V	60 Hz	450 min^{-1}	pg 10
MJT	18 POLES	480 V	60 Hz	400 min^{-1}	pg 11
MJT	20 POLES	690 V	60 Hz	360 min^{-1}	pg 11
MJT	22 POLES	690 V	60 Hz	326 min^{-1}	pg 11
MJT	24 POLES	690 V	60 Hz	300 min^{-1}	pg 11



Type	Continuous duty rating kVA @ Temp. rise over 40 °C ambient temp.				Moment of Inertia	Weight	Max overspeed	Mounting
	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B				
	50 Hz		60 Hz		Kgm^2	Kg	min^{-1}	
4 POLES	400 V - 1500 min^{-1}		480 V - 1800 min^{-1}					
MJT 160 XA 4	12	10	14	12	0,10	109	2700	H
MJT 160 SA 4	14	12	17	15	0,11	129	2700	H
MJT 160 SB 4	16	14	20	17	0,12	140	2700	H
MJT 160 SC 4	19	17	23	20	0,14	150	2700	H
MJT 160 MA 4	23	20	28	24	0,16	178	2700	H
MJT 160 MB 4	26	23	32	28	0,17	188	2700	H
MJT 200 SA 4	35	30	42	36	0,28	219	2700	H
MJT 200 SB 4	41	36	49	43	0,30	225	2700	H
MJT 200 MA 4	51	45	61	54	0,36	264	2700	H
MJT 200 MB 4	62	54	74	65	0,43	305	2700	H
MJT 225 SA 4	70	61	84	73	0,63	345	2700	H
MJT 225 SB 4	76	66	91	79	0,70	350	2700	H
MJT 225 MA 4	87	76	104	91	0,79	390	2700	H
MJT 250 MA 4	136	119	163	143	1,41	530	2700	H
MJT 250 MB 4	153	133	183	160	1,66	590	2700	H
MJT 315 SA 4	247	216	297	259	3,66	830	2700	H
MJT 315 SB 4	289	252	346	302	4,25	920	2700	H
MJT 315 MA 4	338	295	406	354	4,80	1060	2700	H
MJT 315 MB 4	371	324	445	389	5,68	1.200	2700	H
MJT 355 SA 4	421	367	505	441	7,97	1.250	2700	H
MJT 355 SB 4	470	410	564	492	9,29	1.550	2700	H
MJT 355 MA 4	561	490	673	588	11,69	1.800	2700	H
MJT 355 MB 4	660	576	792	691	13,12	2.050	2700	H
MJT 400 SA 4	520	455	625	545	10,2	1.750	3000 / 2700	H/V
MJT 400 SB 4	615	540	740	645	11,1	1.850	3000 / 2700	H/V
MJT 400 MA 4	680	595	860	750	14,6	2.050	3000 / 2700	H/V
MJT 400 MB 4	815	710	1.030	900	17,0	2.300	3000 / 2700	H/V
MJT 400 LA 4 *	895	780	1.105	965	19,3	2.550	2.700	H
MJT 400 LB 4*	1.010	885	1.265	1.105	22,5	2.800	2.700	H
MJT 500 SA 4	1.245	1.085	1.515	1.325	37,5	3.100	2.700	H/V
MJT 500 SC 4	1.460	1.275	1.750	1.530	46,7	3.700	2.700	H/V
MJT 500 MB 4*	1.675	1.460	2.005	1.750	52,5	4.400	2.700	H
MJT 560 MA 4*	2.145	1.870	2.465	2.150	83	5.000	2.700	H

* Only Flexible Coupling

Type	Continuous duty rating				Moment of Inertia	Weight	Max overspeed	Mounting
	kVA @ Temp. rise over 40 °C ambient temp.							
	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B				
	50 Hz		60 Hz		Kgm^2	Kg	min^{-1}	
6 POLES	400 V - 1000 min^{-1}		480 V - 1200 min^{-1}					
MJT 400 SA 6	350	305	415	360	11,8	1.450	2.400	H/V
MJT 400 SB 6	400	350	480	420	14,1	1.600	2.400	H/V
MJT 400 MA 6	530	460	630	550	17,9	2.000	2.400	H/V
MJT 400 MB 6	600	520	715	620	19,4	2.260	2.400	H/V
MJT 400 LA 6	660	575	825	690	20,9	2.530	2.200	H
MJT 400 LB 6	815	710	975	850	24,2	2.750	2.200	H
MJT 500 SA 6	970	850	1.160	1.050	50,5	3.200	2.400	H/V
MJT 500 SC 6	1.140	1.000	1.370	1.200	64,7	3.800	2.400	H/V
MJT 500 MB6	1.320	1.150	1.580	1.380	70,0	4.100	2.200	H/V
MJT 500 MC 6	1.450	1.265	1.740	1.520	74	4.500.	2.200	H/V
MJT 500 LA 6	1.540	1.345	1.930	1.685	88,9	5.100	2.200	H
MJT 630 SA 6	1.660	1.450	1.990	1.740	120	7.400	2.200	H/V
MJT 630 SC 6	2.000	1.750	2.400	2.100	145	8.000	2.200	H/V
MJT 630 MB 6	2.400	2.100	2.880	2.520	183	8.500	2.200	H/V
MJT 630 LA 6	2.630	2.300	3.160	2.760	200	9.500	2.200	H
MJT 630 LB 6*	2.800	2.470	3.200	2.800	200	10.500	2.000	H
MJT 710 SA 6*	2.680	2.350	3.200	2.800	300	9.800	2.100	H/V
MJT 710 MA 6**	3.090	2.700	3.700	3.200	350	11.000	2.100	H/V
MJT 710 MB 6**	3.650	3.200	4.350	3.800	385	12.000	2.100	H/V
8 POLES	400 V - 750 min^{-1}		480 V - 900 min^{-1}					
MJT 400 SA 8	230	200	275	240	13,5	1.450	2.000	H/V
MJT 400 SB 8	285	250	340	300	16,2	1.600	2.000	H/V
MJT 400 MA 8	375	330	450	395	20,6	2.000	2.000	H/V
MJT 400 MB 8	430	375	515	450	22,4	2.260	2.000	H/V
MJT 400 LA 8	515	450	615	540	24,1	2.530	2.000	H
MJT 400 LB 8	620	545	740	650	25,4	2.750	2.000	H
MJT 500 SA 8	745	650	890	780	55,1	3.200	2.000	H/V
MJT 500 SC 8	915	800	1.100	960	74,2	3.800	2.000	H/V
MJT 500 MB 8	1.045	910	1.250	1.090	77,7	4.100	2.000	H/V
MJT 500 MC 8	1.150	1.000	1.380	1.200	91	4.700	2.000	H/V
MJT 500 LA 8	1.235	1.080	1.480	1.295	95,0	5.100	2.000	H
MJT 560 SC 8	1.375	1.200	1.650	1.440	122	5.000	2.000	H/V
MJT 560 MB 8	1.600	1.400	1.920	1.680	146	5.700	2.000	H/V
MJT 630 SC 8	1.660	1.450	1.990	1.740	177	6.500	1.900	H/V
MJT 630 MA 8*	1.890	1.650	2.260	1.980	204	8.000	1.900	H/V
MJT 630 LA 8*	2.020	1.760	2.420	2.100	245	9.500	1.900	H
MJT 710 SA 8	2.280	2.000	2.750	2.400	310	10.300	1.800	H/V
MJT 710 SC 8	2.630	2.300	3.150	2.750	380	11.500	1.800	H/V
MJT 710 MA 8**	2.850	2.500	3.400	3.000	400	12.500	1.800	H/V
MJT 710 LA 8**	3.400	3.000	4.100	3.600	460	13.500	1.800	H/V

For different configurations / speed not included above, please contact Marelli Motori.
*: 690V recommended
** Only 690 V
The rated outputs refer to the following conditions: balanced and non deforming load, altitude below 1.000 m asl, power factor from 0,8 to 1.
For values of overspeed greater than as listed, please contact Marelli Motori.

Type	Continuous duty rating kVA @ Temp. rise over 40 °C ambient temp.				Moment of Inertia	Weight	Max overspeed	Mounting
	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B				
	50 Hz		60 Hz		Kgm^2	Kg	min^{-1}	
10 POLES	**400 V - 600 min^{-1}**		**480 V - 720 min^{-1}**					
MJT 500 XSA 10	340	300	410	360	55,0	3.200	1.500	H/V
MJT 500 SA 10	600	525	720	630	63,8	3.400	1.500	H/V
MJT 500 SC 10	760	670	920	800	81,6	3.800	1.500	H/V
MJT 500 MA 10	780	680	940	820	85,7	4.100	1.500	H/V
MJT 500 LA 10	865	755	1.085	945	106,7	5.100	1.500	H
MJT 630 SA 10	1.100	960	1.320	1.150	155	6.500	1.320	H/V
MJT 630 SC 10	1.300	1.140	1.560	1.360	190	8.000	1.320	H/V
MJT 630 MB 10	1.480	1.300	1.780	1.550	230	8.500	1.320	H/V
MJT 710 SA 10*	1.800	1.600	2.240	1.960	360	10.500	1.320	H/V
MJT 710 SC 10*	2.400	2.100	2.240	1.960	410	11.500	1.320	H/V
MJT 710 MB 10*	2.800	2.450	2.720	2.370	470	12.500	1.320	H/V
MJT 710 LB 10*	2.980	2.600	2.890	2.520	530	15.000	1.320	H/V
Higher output @690 V available on request at 800-900 frame size.								
12 POLES	**400 V - 500 min^{-1}**		**480 V - 600 min^{-1}**					
MJT 630 SB 12	700	610	830	730	180	6.000	1.100	H/V
MJT 630 SC 12	850	740	1.010	880	206	6.500	1.100	H/V
MJT 630 MA 12	950	830	1.090	950	238	8.000	1.100	H/V
MJT 630 MB 12	1.200	1.050	1.380	1.200	260	8.500	1.100	H/V
MJT 630 LA 12	1.400	1.220	1.680	1.410	285	9.500	1.100	H/V
MJT 710 SC 12*	1.800	1.550	2.130	1.860	380	11.500	1.100	H/V
MJT 710 MB 12*	2.050	1.790	2.460	2.140	480	12.500	1.100	H/V
MJT 710 LA 12*	2.400	2.090	2.760	2.410	530	14.500	1.100	H/V
MJT 800 MB 12**	3.000	2.600	-	-	870	20.000	1.100	H/V
14 POLES	**400 V - 428 min^{-1}**		**480 V - 514 min^{-1}**					
MJT 710 SA 14*	800	700	1.050	920	315	10.500	950	H/V
MJT 710 SC 14*	1.000	870	1.450	1.260	380	11.500	950	H/V
MJT 710 MA 14*	1.400	1.230	1.730	1.510	440	12.300	950	H/V
MJT 710 LA 14*	1.520	1.330	2.130	1.860	490	14.500	950	H/V
MJT 710 LB 14*	1.780	1.550	2.410	2.100	530	15.500	950	H/V
MJT 800 MB 14	2.300	2.000	-	-	on req.	20.000	950	H/V
16 POLES	**400 V - 375 min^{-1}**		**480 V - 450 min^{-1}**					
MJT 710 SA 16	680	600	825	720	290	10.500	825	H/V
MJT 710 SC 16	915	800	1.100	960	370	11.500	825	H/V
MJT 710 MA 16	1.070	940	1.290	1.120	405	12.300	825	H/V
MJT 710 MB 16*	1.260	1.100	1.510	1.320	475	13.000	825	H/V
MJT 710 LB 16*	1.480	1.300	1.780	1.550	500	15.500	825	H/V
MJT 800 MB 16**	2.000	1.700	-	-	on req.	20.000	825	H/V

For other power/sizes not included above, please contact Marelli Motori
*: 690V recommended
** Only 690 V

Type	Continuous duty rating				Moment of Inertia	Weight	Max overspeed	Mounting
	kVA @ Temp. rise over 40 °C ambient temp.							
	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B				
	50 Hz		60 Hz		Kgm^2	Kg	min^{-1}	
18 POLES	**400 V - 333 min^{-1}**		**480 V - 400 min^{-1}**					
MJT 710 SA 18	600	530	730	630	420	10.500	740	H/V
MJT 710 SC 18	860	750	1.030	900	500	11.500	740	H/V
MJT 710 MA 18	1.040	900	1.235	1.080	550	12.300	740	H/V
MJT 710 LA 18	1.200	1.050	1.445	1.260	600	13.000	740	H/V
MJT 710 LB 18	1.375	1.200	1.650	1.440	640	15.500	740	H/V
MJT 800 M 18**	1.700	1.500	2.000	1.800	on req.	20.000	on req.	on req.
20 POLES	**690 V - 300 min^{-1}**		**690 V - 360 min^{-1}**					
MJT 710 S 20**	800	700	960	840	450	10.500	720	H/V
MJT 710 M 20**	980	900	1.170	1.080	550	13.500	720	H/V
MJT 800 M 20**	1.375	1.200	1.650	1.440	on req.	20.000	720	H/V
MJT 900 M 20**	1.770	1.550	2.120	1.850	on req.	27.000	720	H/V
22 POLES	**690 V - 272 min^{-1}**		**690 V - 326 min^{-1}**					
MJT 710 S 22**	570	500	680	600	480	10500	975	H/V
MJT 710 M 22**	1.080	950	1.300	1.140	570	13500	800	H/V
MJT 800 M 22	1.375	1.200	1.650	1.440	on req.	20000	750	H/V
MJT 900 M 22	1.770	1.550	2.120	1.850	on req.	27.000	750	H/V
24 POLES	**690 V - 250 min^{-1}**		**690 V - 300 min^{-1}**					
MJT 800 24**	910	800	1.100	960	on req.	20.000	600	H/V
MJT 900 24**	1.370	1.200	1.630	1.400	on req.	27.000	600	H/V

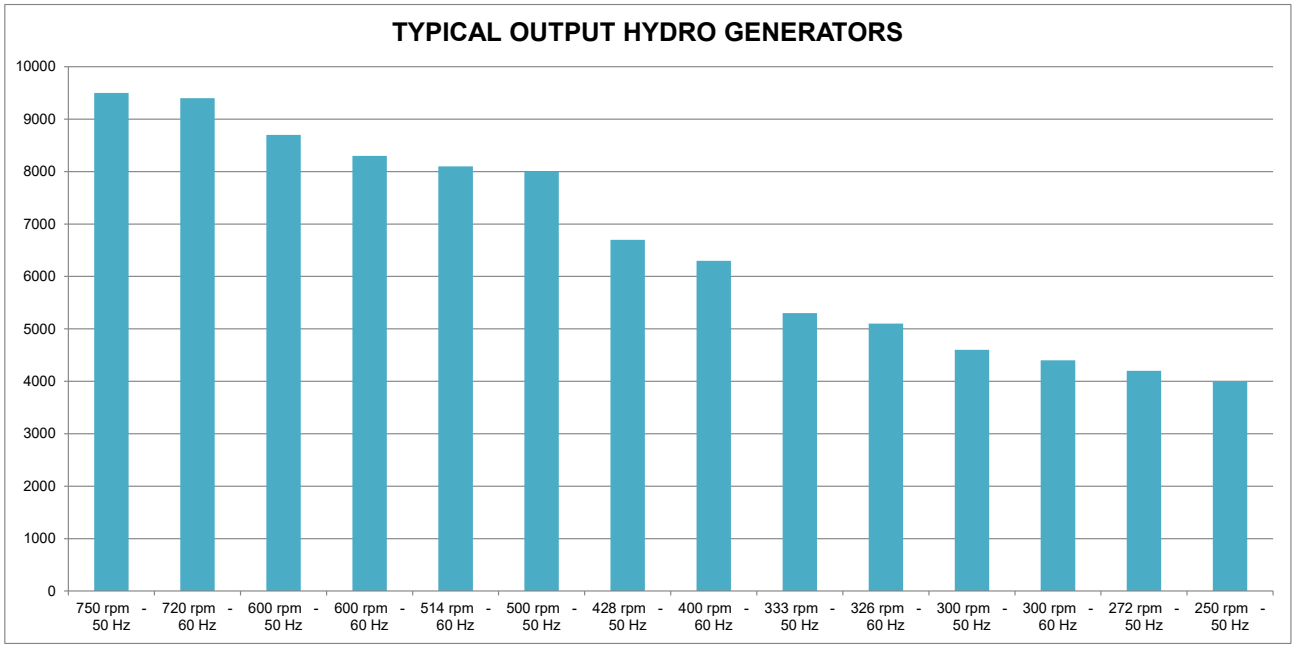
For different configurations / speed not included above, please contact Marelli Motori.
*: 690V recommended
** Only 690 V
The rated outputs refer to the following conditions: balanced and non deforming load, altitude below 1.000 m asl, power factor from 0,8 to 1.
For values of overspeed greater than as listed, please contact Marelli Motori.

ODP Synchronous generators - Medium voltage

MJHT

Model	MJHT
Power	Up to 9.500 kVA
Voltages	Up to 15.000 V
Frame	400 ÷ 1.250
Pole	From 4 to 20 poles (over contact MM)
Cooling	IC 01
IP	IP 23. Available up to IP 44 with filters.

TYPE	POLES	VOLTAGE	FREQUENCY	POLES	PAGE
MJHT	4 POLES	3000 V / 6000 V	50 Hz	1500 min^{-1}	pg 13
MJHT	6 POLES	3000 V / 6000 V	50 Hz	1000 min^{-1}	pg 13
MJHT	8 POLES	3000 V / 6000 V	50 Hz	750 min^{-1}	pg 14
MJHT	10 POLES	3000 V / 6000 V	50 Hz	600 min^{-1}	pg 14
MJHT	12 POLES	3000 V / 6000 V	50 Hz	500 min^{-1}	pg 15
MJHT	14 POLES	3000 V / 6000 V	50 Hz	428 min^{-1}	pg 15
MJHT	16 POLES	3000 V / 6000 V	50 Hz	375 min^{-1}	pg 15
MJHT	18 POLES	3000 V / 6000 V	50 Hz	333 min^{-1}	pg 15
MJHT	4 POLES	3000 V / 6000 V	60 Hz	1800 min^{-1}	pg 13
MJHT	6 POLES	3000 V / 6000 V	60 Hz	1200 min^{-1}	pg 13
MJHT	8 POLES	3000 V / 6000 V	60 Hz	900 min^{-1}	pg 14
MJHT	10 POLES	3000 V / 6000 V	60 Hz	720 min^{-1}	pg 14
MJHT	12 POLES	3000 V / 6000 V	60 Hz	600 min^{-1}	pg 15
MJHT	14 POLES	3000 V / 6000 V	60 Hz	514 min^{-1}	pg 15
MJHT	16 POLES	3000 V / 6000 V	60 Hz	450 min^{-1}	pg 15
MJHT	18 POLES	3000 V / 6000 V	60 Hz	400 min^{-1}	pg 15



Type	Continuous duty rating				Continuous duty rating				Moment of Inertia	Weight	Max overspeed	Mounting
	kVA @ Temp. rise over 40 °C ambient temp.				kVA @ Temp. rise over 40 °C ambient temp.							
	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	Kgm²	Kg	min⁻¹	
	50 Hz				60 Hz							
4 POLES	3000 V - 1500 min⁻¹		6000 V - 1500 min⁻¹		3000 V - 1800 min⁻¹		6000 V - 1800 min⁻¹					
MJHT 400 SA 4	375	335	-	-	431	385	-	-	10,2	1.850	3.000	H/V
MJHT 400 MA 4	540	480	500	440	621	552	575	506	14,6	2.100	3.000	H/V
MJHT 400 LA 4	750	665	665	590	863	765	765	679	19,3	2.600	2.700	H
MJHT 400 LB 4	920	810	835	740	1.058	932	960	851	22,5	2.850	2.700	H
MJHT 500 SA 4	1.040	925	920	810	1.196	1.064	1.058	932	37,5	3.200	2.700	H/V
MJHT 500 MA 4	1.290	1.145	1.105	975	1.484	1.317	1.271	1.121	46,7	3.900	2.700	H
MJHT 500MB 4	1.540	1.365	1.290	1.145	1.771	1.570	1.484	1.317	52,5	4.500	2.700	H
MJHT 560 MA 4	1.980	1.730	1.800	1.570	2.277	1.990	2.070	1.806	83	5100	2.700	H
6 POLES	3000 V - 1000 min⁻¹		6000 V- 1000 min⁻¹		3000 V - 1200 min⁻¹		6000 V - 1200 min⁻¹					
MJHT 400 MA 6	385	340	-	-	443	391	-	-	17,9	2.100	2.200	H/V
MJHT 400 LA 6	560	495	490	435	644	569	564	500	20,9	2.650	2.200	H
MJHT 400 LB 6	600	530	525	465	690	610	604	535	24,2	2.850	2.200	H
MJHT 500 SA 6	685	605	590	520	788	696	679	598	50,5	3.300	2.400	H/V
MJHT 500 MA 6	840	745	735	650	966	857	845	748	70,0	4.200	2.200	H/V
MJHT 500 MB 6	1.000	885	875	775	1.150	1.018	1.006	891	73,6	4.500	2.200	H/V
MJHT 500 LA 6	1.125	995	1.000	885	1.294	1.144	1.150	1.018	88,9	5.200	2.200	H
MJHT 630 SA 6	1.590	1.390	1.490	1.300	1.830	1.600	1.715	1.495	94	6.000	2.200	H/V
MJHT 630 MA 6	1.750	1.530	1.650	1.440	2.015	1.760	1.900	1.660	145	6.700	2.200	H/V
MJHT 630 MB 6	1.900	1.660	1.800	1.570	2.185	1.910	2.070	1.810	167	8.100	2.200	H/V
MJHT 630 LA 6	2.000	1.750	1.820	1.590	2.300	2.013	2.093	1.829	190	9.000	2.200	H
MJHT 710 SA 6	2.180	1.910	1.990	1.730	2.507	2.197	2.289	1.990	on req.	9.800	2.100	H/V
MJHT 710 MA 6	2.930	2.560	2.660	2.320	3.370	2.944	3.059	2.668	on req.	11.000	2.100	H/V
MJHT 710 LA 6	3.220	2.810	2.920	2.550	3.703	3.232	3.358	2.933	on req.	on req.	2.100	H
MJHT 710 LB 6	3.710	3.240	3.370	2.950	4.267	3.726	3.876	3.393	on req.	on req.	2.100	H
MJHT 800 MA 6	on request											H/V
MJHT 900 M 6	on request											H/V

For different configurations / speed not included above, please contact Marelli Motori.
The rated outputs refer to the following conditions: balanced and non deforming load, altitude below 1.000 m a.s.l., power factor from 0,8 to 1.
For values of overspeed greater than as listed, please contact Marelli Motori

Type	Continuous duty rating kVA @ Temp. rise over 40 °C ambient temp.				Continuous duty rating kVA @ Temp. rise over 40 °C ambient temp.				Moment of Inertia	Weight	Max overspeed	Mounting
	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	Kgm^2	Kg	min^{-1}	
	50 Hz				60 Hz							
8 POLES	3000 V - 750 min^{-1}		6000 V - 750 min^{-1}		3000 V - 900 min^{-1}		6000 V - 900 min^{-1}					
MJHT 400 MA 8	245	220	-	-	282	253	-	-	20,6	2.100	2.000	H/V
MJHT 400 LA 8	425	375	365	325	489	431	420	374	24,1	2.630	2.000	H
MJHT 400 LB 8	485	430	420	370	558	495	483	426	25,4	2.850	2.000	H
MJHT 500 SA 8	620	545	530	475	713	627	610	546	55,1	3.300	2.000	H/V
MJHT 500 MA 8	745	665	650	575	857	765	748	661	77,7	4.200	2.000	H/V
MJHT 500 MB 8	880	780	765	675	1.012	897	880	776	82,2	4.500	2.000	H/V
MJHT 500 LA 8	1.010	895	880	780	1.162	1.029	1.012	897	95,0	5.200	2.000	H/V
MJHT 560 MA 8	1.330	1.160	1.235	1.080	1.530	1.334	1.420	1.242	122,0	5.100	2.000	H
MJHT 560 LA 8	1.475	1.285	1.370	1.195	1.696	1.478	1.576	1.374	146,0	5.800	2.000	H
MJHT 630 SA 8	1.260	1.100	1.150	1.000	1.449	1.265	1.323	1.150	114	6.000	1.900	H/V
MJHT 630 MA 8	1.540	1.350	1.430	1.250	1.771	1.553	1.645	1.438	177	6.700	1.900	H/V
MJHT 630 MB 8	1.715	1.500	1.600	1.400	1.972	1.725	1.840	1.610	204	8.100	1.900	H/V
MJHT 630 LA 8	1.890	1.650	1.830	1.600	2.174	1.898	2.105	1.840	231	9.000	1.900	H
MJHT 710 SA 8	2.400	2.100	2.280	2.000	2.760	2.415	2.622	2.300	on req.	10.300	1.800	H/V
MJHT 710 SC 8	2.750	2.400	2.630	2.300	3.163	2.760	3.025	2.645	on req.	11.500	on req.	H/V
MJHT 710 MA 8	3.200	2.800	3.080	2.700	3.680	3.220	3.542	3.105	on req.	12.500	1.800	H/V
MJHT 710 MB 8	3.400	3.000	3.300	2.900	3.910	3.450	3.795	3.335	on req.	on req.	1.800	H/V
MJHT 710 LB 8	3.700	3.300	3.600	3.150	4.255	3.795	4.140	3.623	on req.	on req.	1.800	H
MJHT 800 MA 8	3.960	3.450	3.840	3.350	4.554	3.968	4.416	3.853	on req.	on req.	on req.	H/V
MJHT 800 MB 8	4.070	3.550	4.470	3.900	4.681	4.083	5.141	4.485	on req.	on req.	on req.	H/V
MJHT 800 LA 8	5.000	4.400	5.000	4.400	5.750	5.060	5.750	5.060	on req.	13.500	on req.	V
MJHT 900 M 8	5.500	4.800	5.500	4.800	6.325	5.520	6.325	5.520	on req.	on req.	on req.	H/V
10 POLES	3000 V - 600 min^{-1}		6000 V - 600 min^{-1}		3000 V - 720 min^{-1}		6000 V - 720 min^{-1}					
MJHT 500 SA10	465	410	400	360	535	472	460	414	63,8	3.300	1.500	H/V
MJHT 500 MA 10	565	500	490	435	650	575	564	500	85,7	4.200	1.500	H/V
MJHT 500 MB 10	665	590	580	515	765	679	667	592	89,7	4.700	1.500	H/V
MJHT 500 LA 10	740	660	645	570	851	759	742	656	106,7	5.200	1.500	H
MJHT 630 SA 10	1.085	950	1.030	900	1.248	1.093	1.185	1.035	120	6.000	1.320	H/V
MJHT 630 MA 10	1.375	1.200	1.260	1.100	1.581	1.380	1.449	1.265	188	6.700	1.320	H/V
MJHT 630 MB 10	1.480	1.300	1.375	1.200	1.702	1.495	1.581	1.380	217	8.100	1.320	H/V
MJHT 630 LA 10	1.545	1.350	1.480	1.300	1.777	1.553	1.702	1.495	245	9.000	1.320	H
MJHT 710 SA 10	1.940	1.700	1.830	1.600	2.231	1.955	2.105	1.840	on req.	10.500	1.320	H/V
MJHT 710 MA 10	2.400	2.100	2.290	2.000	2.760	2.415	2.634	2.300	on req.	on req.	1.320	H/V
MJHT 710 MB 10	2.860	2.500	2.750	2.400	3.289	2.875	3.163	2.760	on req.	on req.	1.320	H/V
MJHT 710 LB 10	3.090	2.700	2.975	2.600	3.554	3.105	3.421	2.990	on req.	on req.	1.320	H/V
MJHT 800 MA 10	3.780	3.300	3.780	3.300	4.347	3.795	4.347	3.795	on req.	on req.	1.320	H/V
MJHT 800 MB 10	4.240	3.700	4.240	3.700	4.876	4.255	4.876	4.255	on req.	12.500	1.320	H/V
MJHT 800 L 10	4.460	3.900	4.460	3.900	5.129	4.485	5.129	4.485	on req.	15.000	1.320	H
MJHT 900 M 10	4.900	4.300	4.900	4.300	5.635	4.945	5.635	4.945	on req.	on req.	1.320	H/V

For different configurations / speed not included above, please contact Marelli Motori.
The rated outputs refer to the following conditions: balanced and non deforming load, altitude below 1.000 m a.s.l., power factor from 0,8 to 1.
For values of overspeed greater than as listed, please contact Marelli Motori

Type	Continuous duty rating kVA @ Temp. rise over 40 °C ambient temp.				Continuous duty rating kVA @ Temp. rise over 40 °C ambient temp.				Moment of Inertia	Weight	Max overspeed	Mounting
	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	105 ΔT Cl. F	80 ΔT Cl. B	Kgm^2	Kg	min^{-1}	
	50 Hz				60 Hz							
12 POLES	3000 V - 500 min^{-1}		6000 V - 500 min^{-1}		3000 V - 600 min^{-1}		6000 V - 600 min^{-1}					
MJHT 630 SA12	710	620	650	570	817	713	748	656	133	6.000	1.100	H/V
MJHT 630 MA 12	915	800	860	750	1.052	920	989	863	206	6.700	1.100	H/V
MJHT 630 MB 12	1.080	950	1.030	900	1.242	1.093	1.185	1.035	238	8.100	1.100	H/V
MJHT 630 LA 12	1.200	1.050	1.150	1.000	1.380	1.208	1.323	1.150	269	9.000	1.100	H/V
MJHT 710 SA 12	1.315	1.150	1.200	1.050	1.512	1.323	1.380	1.208	on req.	on req.	1.100	H/V
MJHT 710 SC 12	1.600	1.400	1.490	1.300	1.840	1.610	1.714	1.495	on req.	11.500	1.100	H/V
MJHT 710 MB 12	1.945	1.700	1.830	1.600	2.237	1.955	2.105	1.840	on req.	12.500	1.100	H/V
MJHT 710 LA 12	2.290	2.000	2.170	1.900	2.634	2.300	2.496	2.185	on req.	14.500	1.100	H/V
MJHT 800 MA 12	2.980	2.500	2.860	2.400	3.427	2.875	3.289	2.760	on req.	20.000	1.100	H/V
MJHT 800 MB 12	3.200	2.700	3.090	2.600	3.680	3.105	3.554	2.990	on req.	on req.	1.100	H/V
MJHT 800 L 12	3.430	2.900	3.320	2.800	3.945	3.335	3.818	3.220	on req.	on req.	1.100	H
MJHT 900 M 12	3.650	3.200	3.650	3.200	4.198	3.680	4.198	3.680	on req.	on req.	1.100	H/V
MJHT 900 LA 12	4.100	3.600	4.100	3.600	4.715	4.140	4.715	4.140	on req.	on req.	1.100	H/V
MJHT 900 LB 12	4.350	3.800	4.350	3.800	5.003	4.370	5.003	4.370	on req.	on req.	1.100	H
14 POLES	3000 V - 428 min^{-1}		6000 V - 428 min^{-1}		3000 V - 514 min^{-1}		6000 V - 514 min^{-1}					
MJHT 710 SA 14	910	790	830	730	1.047	909	955	840	on req.	10.500	950	H/V
MJHT 710 SC 14	1.190	1.040	1.090	950	1.369	1.196	1.254	1.093	on req.	11.500	950	H/V
MJHT 710 MA 14	1.400	1.220	1.290	1.130	1.610	1.403	1.484	1.300	on req.	12.300	950	H/V
MJHT 710 LA 14	1.800	1.570	1.650	1.440	2.070	1.806	1.898	1.656	on req.	14.500	950	H
MJHT 710 LB 14	1.960	1.710	1.830	1.600	2.254	1.967	2.105	1.840	on req.	15.500	950	H
MJHT 800 M 14	2.600	2.300	2.850	2.500	2.254	1.967	2.105	1.840	on req.	20.000	950	H/V
MJHT 800 LB 14	2.970	2.600	3.250	2.800	2.254	1.967	2.105	1.840	on req.	on req.	950	H
MJHT 900 M 14	3.780	3.300	4.100	3.600	4.347	3.795	4.347	3.795	on req.	on req.	950	H/V
MJHT 900 L 14	4.300	3.800	4.700	4.150	4.474	3.910	4.474	3.910	on req.	on req.	950	H
16 POLES	3000 V - 375 min^{-1}		6000 V - 375 min^{-1}		3000 V - 450 min^{-1}		6000 V - 450 min^{-1}					
MJHT 710 SA 16	810	710	750	650	932	817	863	748	on req.	10.500	825	H/V
MJHT 710 SC 16	1.070	930	980	860	1.231	1.070	1.127	989	on req.	11.500	825	H/V
MJHT 710 MA 16	1.260	1.100	1.150	1.010	1.449	1.265	1.323	1.162	on req.	12.300	825	H/V
MJHT 710 LA 16	1.610	1.410	1.480	1.290	1.852	1.622	1.702	1.484	on req.	on req.	825	H/V
MJHT 710 LB 16	1.760	1.540	1.610	1.410	2.024	1.771	1.852	1.622	on req.	15.500	825	H
18 POLES	3000 V - 333 min^{-1}		6000 V - 333 min^{-1}		3000 V - 400 min^{-1}		6000 V - 400 min^{-1}					
MJHT 710 SA 18	730	640	670	580	840	736	771	667	on req.	10.500	740	H/V
MJHT 710 MA 18	960	840	880	770	1.104	966	1.012	886	on req.	12.300	740	H/V
MJHT 710 MB 18	1.130	990	1.040	900	1.300	1.139	1.196	1.035	on req.	on req.	740	H/V
MJHT 710 LA 18	1.450	1.260	1.330	1.160	1.668	1.449	1.530	1.334	on req.	13.000	740	H/V
MJHT 710 LB 18	1.600	1.400	1.600	1.400	1.840	1.610	1.840	1.610	on req.	15.500	740	H/V

For different speed not included above please contact Marelli motori. (Available 20, 22, 24, 26, 28, 30, 32 poles)

For different configurations / speed not included above, please contact Marelli Motori.
The rated outputs refer to the following conditions: balanced and non deforming load, altitude below 1.000 m a.s.l., power factor from 0,8 to 1.
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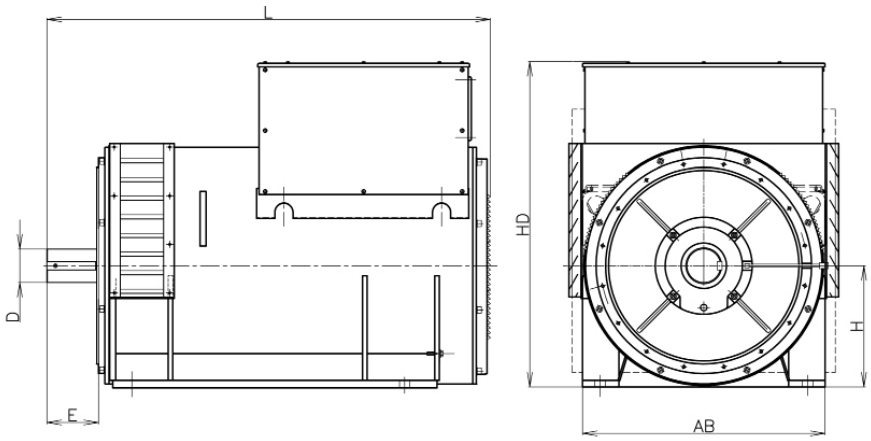
ODP Synchronous generators - Overall dimensions

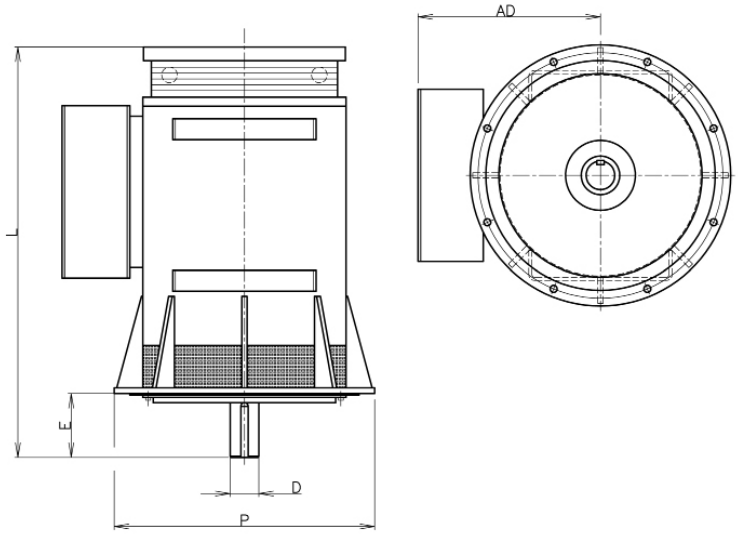
Mounting: IM B3 - Air cooled (IC01)

Dimension (mm)	400			450		500			560		630			710		
	S	M	L	M	L	S	M	L	M	L	S	M	L	S	M	L
H	400	400	400	450	450	500	500	500	560	560	630	630	630	710	710	710
HD	1100	1100	1100	1190	1190	1370	1370	1370	1430	1430	1580	1580	1580	1880	1880	1880
AB	800	800	800	900	900	1000	1000	1000	1100	1100	1280	1280	1280	1500	1500	1500
L	1360	1560	1760	1807	1987	1920	2170	2270	2305	2405	2150	2350	2450	2450	2650	2650
D	110	110	110	125	125	130	130	130	150	150	160	160	160	180	180	180
E	170	170	170	210	210	210	210	210	230	230	250	250	250	300	300	300



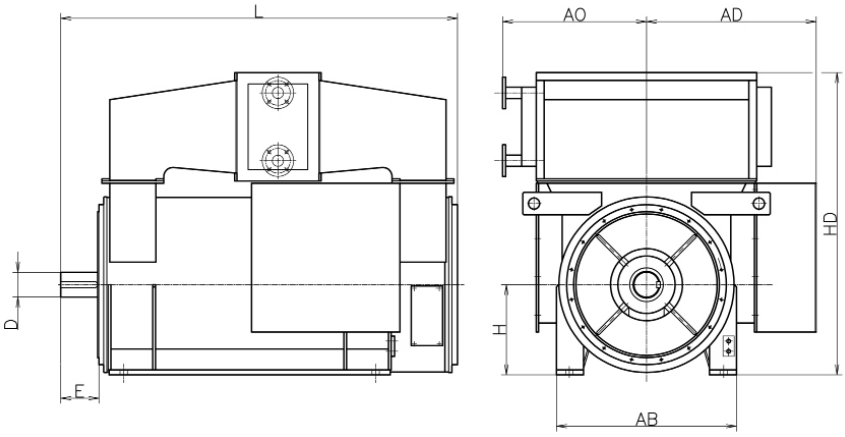
Mounting: IM V10 - Air cooled (IC01)

Dimension (mm)	400			450		500			560		630			710		
	S	M	L	M	L	S	M	L	M	L	S	M	L	S	M	L
P	1000	1000	1000	1150	1150	1250	1250	1250	1400	1400	1600	1600	1600	1800	1800	1800
AD	700	700	700	700	740	740	740	780	700	700	1125	1125	1125	1150	1150	1150
L	1540	1740	1940	2030	2210	2250	2500	2600	2340	2440	2430	2630	2730	2470	2670	2770
D	110	110	110	125	125	130	130	130	150	150	160	160	160	180	180	180
E	170	170	170	210	210	210	210	210	230	230	210	210	210	300	300	300



Mounting: IM B3 - Air-to-water heat exchanger (IC81W)

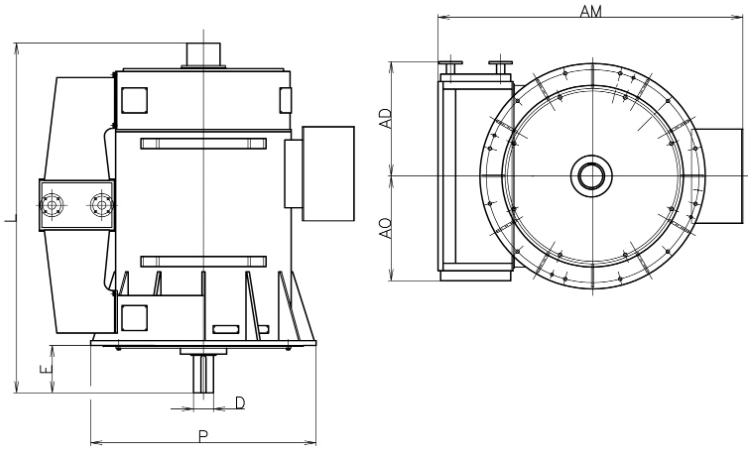
Dimension (mm)	400			500			560		630			710		
	S	M	L	S	M	L	M	L	S	M	L	S	M	L
H	400	400	400	500	500	500	560	560	630	630	630	710	710	710
HD	1340	1340	1340	1610	1610	1610	1750	1750	1880	1880	1880	2060	2060	2060
AB	800	800	800	1000	1000	1000	1100	1100	1280	1280	1280	1500	1500	1500
L	1345	1545	1745	1830	2080	2180	2180	2280	2150	2350	2450	2440	2640	2740
AO	640	640	640	685	685	685	685	685	825	825	825	915	915	915
AD	750	750	750	800	800	800	800	800	850	850	850	900	900	900
D	110	110	110	130	130	130	150	150	160	160	160	180	180	180
E	170	170	170	210	210	210	230	230	210	210	210	300	300	300



Mounting: IM V10 - Air-to-water heat exchanger (IC81W)

Dimension (mm)	400			500			560		630			710		
	S	M	L	S	M	L	M	L	S	M	L	S	M	L
P	1000	1000	1000	1250	1250	1250	1400	1400	1600	1600	1600	1800	1800	1800
AM	1650	1650	1650	1800	1800	1800	1950	1950	2100	2100	2100	2435	2435	2465
L	1540	1740	1940	2250	2500	2600	2340	2440	2470	2670	2770	2470	2670	2770
AO	640	640	640	685	685	685	685	685	825	825	825	915	915	915
AD	555	555	555	605	605	605	605	605	745	745	745	835	835	835
D	110	110	110	130	130	130	150	150	160	160	160	180	180	180
E	170	170	170	210	210	210	230	230	210	210	210	300	300	300

Dimensions for 450 frame size on demand



Asynchronous generator applications

Product map 19

Asynchronous generator range 19

ODP generators: C3G - C4G 20

ODP generators: overall dimensions 24

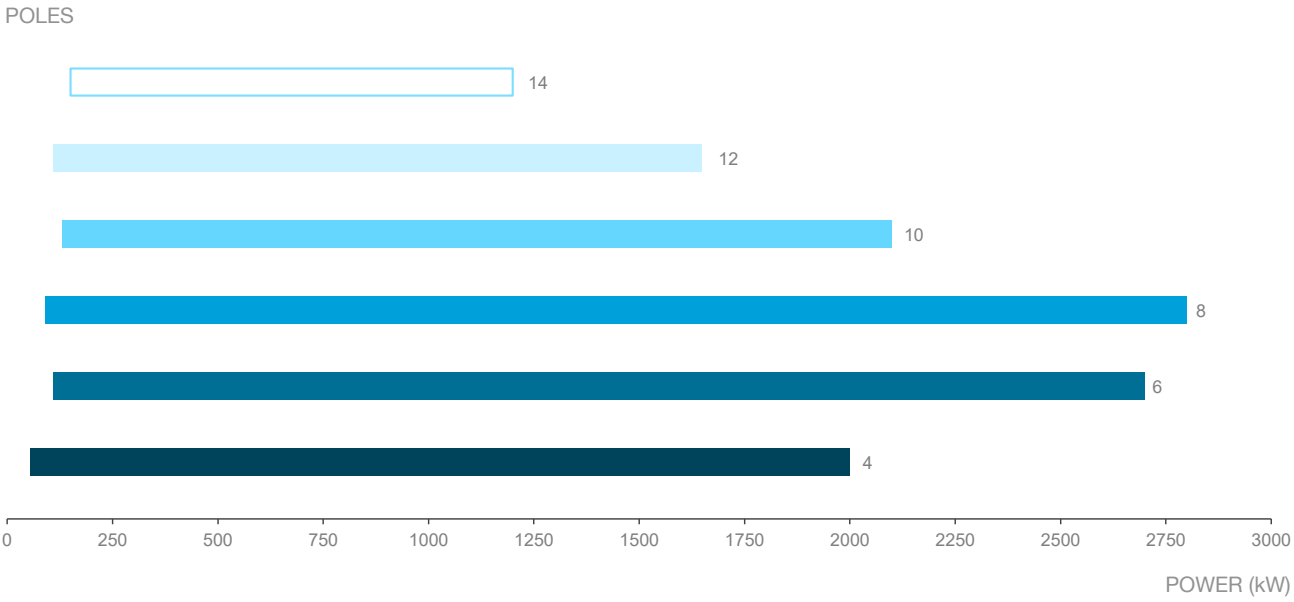
Product map

Product	Pelton turbines	Francis turbines	Kaplan turbines	Turgo turbines	Cross-Flow turbines
ODP **C3G-C4G**	●	●	●	●	●

Asynchronous generator range

Key

- C3G - C4G 14 POLES
- C3G - C4G 12 POLES
- C3G - C4G 10 POLES
- C3G - C4G 6 POLES
- C3G - C4G 4 POLES



ODP Asynchronous generators

Model	C3G - C4G
Power	Up to 3.400 kW
Voltages	Up to 6.600 V
Frame	315 ÷ 710
Pole	From 4 to 16 poles (over contact MM)
Cooling	IC 01
IP	IP 23. Available up to IP 56.

Model	Output	Output	Speed	Current In	Torque Tn	Efficiency (%) η			Power factor cosφ			Inertia J	Weight IM B3	Max overspeed
	kW	kW	min^{-1}	A	Nm	4/4	3/4	2/4	4/4	3/4	2/4	Kgm^2	kg	min^{-1}
4 POLES	400 V 50 Hz 1500 min^{-1}	480 V 60 Hz 1800 min^{-1}												
C3G 250 S4	55	66	1535	92	342	92,0%	92,0%	90,5%	0,86	0,84	0,79	0,5	275	3000
C3G 250 M4	75	90	1520	126	471	92,5%	92,3%	91,0%	0,86	0,83	0,75	0,8	350	3000
C3G 280 S4	90	108	1520	148	565	93,0%	93,0%	92,0%	0,88	0,86	0,79	0,9	405	3000
C3G 280 M4	110	132	1520	180	691	93,0%	93,0%	92,0%	0,88	0,86	0,79	1,1	445	3000
C3G 315 S4	132	160	1520	214	829	93,9%	94,3%	94,1%	0,89	0,88	0,84	1,7	570	2750
C3G 315 MA4	160	192	1520	262	1005	94,2%	94,5%	94,1%	0,88	0,87	0,81	2,1	705	2750
C3G 315 MB4	200	240	1517	328	1259	94,5%	94,9%	94,6%	0,88	0,87	0,83	2,5	750	2750
C3G 315 MD4	250	300	1517	401	1574	95,0%	95,3%	95,0%	0,90	0,88	0,83	3,1	850	2750
C3G 315 ME4	315	378	1517	505	1983	95,1%	95,2%	95,0%	0,90	0,88	0,83	3,3	930	2750
C3G 355 LA4	315	378	1509	511	1994	95,4%	95,3%	94,5%	0,89	0,87	0,82	6,6	1150	2750
C3G 355 LB4	400	480	1510	642	2530	95,9%	95,8%	94,8%	0,90	0,89	0,85	8,0	1260	2750
C3G 355 LC4	450	540	1508	730	2850	96,1%	96,0%	95,3%	0,89	0,87	0,86	10,3	1450	2750
C3G 355 LD4	550	660	1508	892	3483	96,2%	96,0%	95,4%	0,89	0,87	0,81	12,0	1670	2750
C4G 400 LA4	700	840	1507	1135	4436	96,9%	96,9%	96,4%	0,89	0,85	0,70	12,2	2333	2750
C4G 400 LB4	800	960	1507	1297	5070	97,0%	97,0%	96,5%	0,89	0,84	0,66	13,7	2490	2750
C4G 400 LC4	900	1080	1506	1443	5707	97,1%	97,0%	96,5%	0,90	0,88	0,83	15,7	2690	2750
C4G 450 LA4	1100	1320	1507	1784	6971	97,0%	96,8%	96,2%	0,89	0,88	0,83	28,9	3670	2500
C4G 450 LB4	1250	1500	1507	2005	7921	97,1%	97,0%	96,4%	0,90	0,89	0,85	33,3	3890	2500
C4G 450 LC4	1400	1680	1506	2270	8878	97,1%	97,0%	96,1%	0,89	0,87	0,81	37,6	4270	2500
C4G 500 LA4	1600	1920	1505	2654	10153	97,1%	96,8%	96,0%	0,87	0,85	0,80	53,0	5350	2500
C4G 500 LB4	1800	2160	1505	2919	11422	97,4%	97,3%	96,7%	0,89	0,89	0,86	59,9	5730	2500
C4G 500 LC4	2000	2400	1505	3318	12691	97,3%	97,0%	96,3%	0,87	0,87	0,81	68,8	6000	2500

Model	Output	Output	Speed	Current In	Torque Tn	Efficiency (%) η			Power factor cosφ			Inertia J	Weight IM B3	Max overspeed
	kW	kW	min^{-1}	A	Nm	4/4	3/4	2/4	4/4	3/4	2/4	Kgm^2	kg	min^{-1}
6 POLES	400 V 50 Hz 1000 min^{-1}	480 V 60 Hz 1200 min^{-1}												
C3G 315 MA6	110	132	1010	187	1040	93,3%	93,5%	93,0%	0,85	0,85	0,81	2,9	750	2550
C3G 315 MB6	132	160	1013	224	1244	93,5%	93,8%	93,2%	0,85	0,85	0,81	4,1	850	2550
C3G 315 MC6	160	192	1013	272	1508	93,7%	94,0%	93,4%	0,85	0,84	0,80	5,1	920	2550
C3G 355 LA6	225	270	1007	382	2134	95,2%	95,1%	94,3%	0,85	0,82	0,74	8,2	1160	2550
C3G 355 LB6	270	324	1007	458	2561	95,5%	95,4%	94,6%	0,85	0,82	0,74	10,6	1340	2550
C3G 355 LC6	315	378	1007	529	2987	95,7%	95,6%	94,9%	0,86	0,83	0,75	12,3	1460	2550
C3G 355 LD6	375	450	1006	637	3560	95,7%	95,5%	94,8%	0,85	0,82	0,73	13,7	1800	2550
C4G 400 LA6	540	648	1010	906	5106	96,0%	96,2%	96,0%	0,86	0,86	0,82	19,0	2278	2550
C4G 400 LB6	610	732	1010	1024	5768	96,2%	96,4%	96,1%	0,86	0,86	0,82	22,0	2420	2550
C4G 400 LC6	670	804	1010	1112	6335	96,3%	96,4%	96,1%	0,87	0,86	0,81	24,0	2565	2550
C4G 400 LD6	720	864	1009	1195	6815	96,4%	96,5%	96,2%	0,87	0,86	0,82	26,0	2730	2550
C4G 450 LA6	800	960	1006	1343	7594	96,6%	96,5%	96,0%	0,86	0,85	0,80	38,0	3570	2000
C4G 450 LB6	900	1080	1006	1511	8544	96,7%	96,6%	96,1%	0,86	0,85	0,80	44,0	3845	2000
C4G 450 LC6	1000	1200	1006	1678	9493	96,8%	96,7%	96,2%	0,86	0,85	0,80	49,0	4130	2000
C4G 500 LA6	1200	1440	1005	2014	11403	97,0%	96,8%	96,3%	0,86	0,85	0,80	66,0	5040	1800
C4G 500 LB6	1400	1680	1005	2323	13303	97,1%	97,0%	96,4%	0,87	0,86	0,80	77,0	5525	1800
C4G 500 LC6	1600	1920	1005	2654	15204	97,1%	97,0%	96,5%	0,87	0,86	0,80	89,0	6015	1800
C4G 630 LA6	2000	2400	1005	3244	19005	97,2%	97,1%	96,6%	0,89	0,88	0,86	154	7467	1800
C4G 630 LB6	2300	2760	1004	3730	21877	97,3%	97,2%	96,6%	0,89	0,88	0,86	179	8270	1800
C4G 630 LC6	2700	3240	1004	4330	25682	97,4%	97,3%	968,0%	0,90	0,89	0,87	207	8980	1800
Model	**kW**	**kW**	**min^{-1}**	**A**	**Nm**	**4/4**	**3/4**	**2/4**	**4/4**	**3/4**	**2/4**	**Kgm^2**	**kg**	**min^{-1}**
8 POLES	400 V 50 Hz 750 min^{-1}	480 V 60 Hz 900 min^{-1}												
C3G 315 MA8	90	108	765	162	1124	93,5%	93,6%	93,0%	0,80	0,75	0,66	3,0	780	1950
C3G 315 MB8	110	132	765	196	1373	93,7%	93,9%	93,1%	0,81	0,76	0,67	3,7	800	1950
C3G 315 MC8	132	160	764	230	1650	93,9%	94,0%	93,1%	0,83	0,78	0,69	4,4	830	1950
C3G 355 LA8	160	192	757	282	2018	94,2%	94,1%	93,2%	0,82	0,77	0,68	9,6	1160	1950
C3G 355 LB8	200	240	756	352	2526	94,7%	94,5%	93,6%	0,82	0,77	0,67	12,3	1340	1950
C3G 355 LC8	250	300	756	440	3158	94,9%	94,8%	93,9%	0,82	0,78	0,68	14,2	1460	1950
C3G 355 LD8	280	336	756	493	3537	95,0%	94,8%	94,0%	0,82	0,78	0,68	15,9	1570	1950
C3G 400 LA8	315	378	757	541	3974	94,3%	94,1%	92,9%	0,84	0,82	0,76	20,5	1900	1950
C3G 400 LB8	375	450	757	637	4731	94,6%	94,4%	93,4%	0,85	0,83	0,77	24,5	2100	1950
C3G 400 LC8	450	540	758	764	5670	94,8%	94,7%	93,9%	0,85	0,84	0,78	27,5	2300	1950
C3G 400 LD8	500	600	758	839	6299	94,9%	94,9%	94,3%	0,86	0,85	0,79	30,6	2450	1950
C4G 450 LA8	580	696	756	985	7327	96,0%	95,9%	95,2%	0,85	0,83	0,77	44,0	3340	1500
C4G 450 LB8	650	780	756	1104	8211	96,1%	96,0%	95,3%	0,85	0,83	0,77	50,0	3580	1500
C4G 450 LC8	730	876	756	1240	9222	96,2%	96,1%	95,5%	0,85	0,84	0,77	57,0	3810	1500
C4G 500 LA8	850	1020	755	1461	10752	96,4%	96,3%	95,6%	0,84	0,82	0,77	90,0	5150	1400
C4G 500 LB8	1000	1200	755	1718	12649	96,8%	96,6%	96,0%	0,84	0,82	0,76	105	5710	1400
C4G 500 LC8	1150	1380	754	1976	14566	96,9%	96,8%	96,2%	0,84	0,82	0,76	105	6045	1400
C4G 630 LA8	1350	1620	754	2240	17099	96,9%	96,8%	96,2%	0,87	0,86	0,82	202	7360	1300
C4G 630 LB8	1500	1800	754	2489	18999	97,0%	96,8%	96,1%	0,87	0,86	0,80	234	8080	1300
C4G 630 LC8	1800	2160	753	2986	22829	97,1%	97,0%	96,4%	0,87	0,86	0,81	271	8910	1300
C4G 710 LA8	2000	2400	752	3357	25399	97,5%	97,3%	97,6%	0,86	0,83	0,76	455	11070	-
C4G 710 LB8	2400	2880	752	3982	30479	97,7%	97,5%	97,0%	0,87	0,85	0,78	535	12320	-
C4G 710 LC8	2800	3360	752	4645	35559	97,7%	97,6%	97,1%	0,87	0,85	0,79	632	13660	-

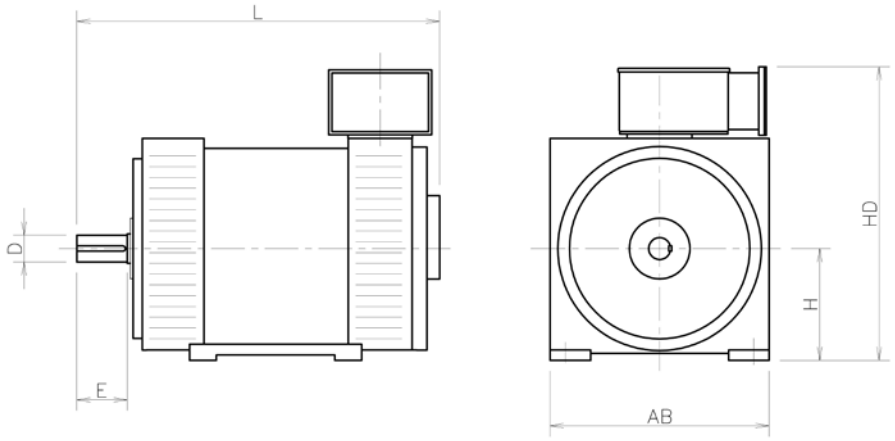
Model	Output	Output	Speed	Current In	Torque Tn	Efficiency (%) η			Power factor cosφ			Inertia J	Weight IM B3	Max overspeed
	kW	kW	min^{-1}	A	Nm	4/4	3/4	2/4	4/4	3/4	2/4	Kgm^2	kg	min^{-1}
10 POLES	400 V 50 Hz 600 min^{-1}	480 V 60 Hz 720 min^{-1}												
C3G 355 LA 10	132	160	610	235	2067	93,6%	93,9%	93,6%	0,81	0,79	0,71	9,6	1160	1525
C3G 355 LB 10	160	192	609	275	2509	94,2%	94,3%	93,7%	0,84	0,77	0,68	12,3	1340	1525
C3G 355 LC 10	180	216	609	317	2823	94,3%	94,5%	94,0%	0,82	0,78	0,69	14,2	1460	1525
C3G 355 LD 10	200	240	609	352	3136	94,5%	94,6%	94,1%	0,82	0,78	0,69	16,0	1570	1525
C3G 400 LA 10	240	288	607	438	3776	94,3%	94,3%	93,5%	0,79	0,75	0,67	20,5	1900	1525
C3G 400 LB 10	280	336	607	512	4405	94,4%	94,5%	93,7%	0,79	0,76	0,67	24,5	2110	1525
C3G 400 LC 10	315	378	606	576	4964	94,8%	94,7%	93,9%	0,79	0,75	0,66	27,5	2280	1525
C3G 400 LD10	350	420	606	639	5516	94,9%	94,8%	94,0%	0,79	0,75	0,66	30,6	2450	1525
C4G 450 LA10	450	540	606	783	7092	95,5%	95,5%	94,9%	0,83	0,82	0,75	51,0	3370	1500
C4G 450 LB10	500	600	605	880	7893	95,7%	95,6%	94,9%	0,82	0,80	0,72	58,0	3510	1500
C4G 450 LC10	570	684	605	1003	8998	95,8%	95,7%	94,8%	0,82	0,80	0,72	65,0	3760	1500
C4G 500 LA10	650	780	604	1158	10277	95,8%	95,5%	94,5%	0,81	0,78	0,69	97,0	4920	1300
C4G 500 LB10	750	900	604	1320	11858	96,0%	95,7%	94,8%	0,82	0,79	0,70	113	5400	1300
C4G 500 LC10	880	1056	604	1530	13914	96,2%	96,0%	95,3%	0,83	0,80	0,73	130	5915	1300
C4G 630 LA10	1050	1260	604	1804	16602	96,5%	96,3%	95,6%	0,84	0,82	0,75	213	7230	1100
C4G 630 LB10	1200	1440	604	2038	18974	96,6%	96,5%	96,0%	0,85	0,83	0,77	246	7880	1100
C4G 630 LC10	1400	1680	604	2377	22136	96,7%	96,6%	96,1%	0,85	0,83	0,77	285	8680	1100
C4G 710 LA10	1500	1800	603	2547	23756	97,2%	97,1%	96,7%	0,85	0,84	0,78	485	10940	-
C4G 710 LB10	1800	2160	603	3021	28507	97,3%	97,3%	96,9%	0,86	0,85	0,80	570	12150	-
C4G 710 LC10	2100	2520	603	3484	33259	97,4%	97,4%	97,0%	0,87	0,85	0,80	673	13520	-
Model	**kW**	**kW**	**min^{-1}**	**A**	**Nm**	**4/4**	**3/4**	**2/4**	**4/4**	**3/4**	**2/4**	**Kgm^2**	**kg**	**min^{-1}**
12 POLES	400 V 50 Hz 500 min^{-1}	480 V 60 Hz 600 min^{-1}												
C3G 355 LA12	110	132	508	224	2068	92,6%	92,7%	92,0%	0,71	0,67	0,56	9,6	1160	1300
C3G 355 LB12	132	160	507	268	2486	93,2%	93,1%	92,2%	0,71	0,65	0,54	12,3	1340	1300
C3G 355 LC12	160	192	507	325	3014	93,2%	93,3%	92,4%	0,71	0,66	0,54	14,2	1460	1300
C3G 355 LD12	180	216	508	356	3384	93,5%	93,6%	92,9%	0,73	0,68	0,57	16,0	1570	1300
C3G 400 LA12	200	240	507	390	3767	93,4%	93,6%	92,9%	0,74	0,71	0,61	20,5	1900	1300
C3G 400 LB12	225	270	507	439	4238	93,8%	93,9%	93,1%	0,74	0,70	0,60	24,5	2110	1300
C3G 400 LC12	250	300	507	488	4709	94,0%	94,1%	93,4%	0,74	0,71	0,61	27,5	2280	1300
C3G 400 LD12	280	336	507	546	5274	94,1%	94,2%	93,5%	0,74	0,71	0,61	30,6	2450	1300
C4G 450 LA12	340	408	505	613	6430	94,9%	94,7%	93,8%	0,80	0,76	0,67	58,0	3230	1300
C4G 450 LB12	380	456	505	686	7186	95,1%	95,0%	94,2%	0,80	0,77	0,70	66,0	3470	1300
C4G 450 LC12	430	516	505	776	8132	95,1%	94,9%	94,0%	0,80	0,78	0,70	75,0	3690	1300
C4G 500 LA12	480	576	504	855	9095	95,4%	95,2%	94,4%	0,81	0,78	0,70	103	4925	1200
C4G 500 LB12	580	696	504	1034	10990	95,6%	95,4%	94,6%	0,81	0,78	0,70	120	5390	1200
C4G 500 LC12	650	780	504	1158	12316	95,7%	95,6%	94,8%	0,81	0,78	0,70	138	5900	1200
C4G 630 LA12	750	900	504	1320	14211	96,0%	95,8%	95,0%	0,82	0,80	0,72	224	7200	1100
C4G 630 LB12	850	1020	504	1496	16106	96,1%	95,9%	95,1%	0,82	0,80	0,72	259	7890	1100
C4G 630 LC12	1000	1200	503	1760	18986	96,3%	96,0%	95,5%	0,82	0,80	0,71	300	8700	1100
C4G 710 LA12	1150	1380	503	1930	21834	96,4%	96,2%	95,5%	0,86	0,84	0,78	527	10870	-
C4G 710 LB12	1350	1620	503	2240	25631	96,8%	96,9%	96,5%	0,87	0,87	0,81	620	12070	-
C4G 710 LC12	1650	1980	503	2706	31327	96,9%	97,0%	96,7%	0,88	0,87	0,83	732	13440	-

Model	Output	Output	Speed	Current In	Torque Tn	Efficiency (%) η			Power factor cosφ			Inertia J	Weight IM B3	Max overspeed
	kW	kW	min^{-1}	A	Nm	4/4	3/4	2/4	4/4	3/4	2/4	Kgm^2	kg	min^{-1}
14 POLES	400 V 50 Hz 428 min^{-1}	480 V 60 Hz 514 min^{-1}												
C3G 400 LA14	150	180	436	289	3286	93,8%	94,2%	94,1%	0,75	0,73	0,62	28,0	1950	1100
C3G 400 LB14	180	216	435	346	3952	94,0%	94,3%	94,1%	0,75	0,75	0,62	35,0	2120	1100
C3G 400 LC14	200	240	435	385	4391	94,3%	94,5%	94,2%	0,75	0,73	0,62	40,0	2300	1100
C3G 400 LD14	230	276	435	443	5049	94,5%	94,7%	94,3%	0,75	0,73	0,62	45,0	2550	1100
C4G 450 LA14	260	312	434	487	5721	94,5%	94,4%	93,4%	0,77	0,72	0,61	58,0	3286	1100
C4G 450 LB14	300	360	434	555	6601	94,7%	94,6%	93,8%	0,78	0,73	0,63	66,0	3540	1100
C4G 450 LC14	330	396	434	619	7262	94,8%	94,7%	93,7%	0,77	0,72	0,61	75,0	3800	1100
C4G 500 LA14	380	456	433	731	8381	94,5%	94,1%	92,8%	0,75	0,71	0,60	103	4870	1000
C4G 500 LB14	440	528	433	836	9704	94,7%	94,3%	93,1%	0,76	0,71	0,60	120	5345	1000
C4G 500 LC14	500	600	432	962	11053	94,7%	94,2%	92,8%	0,75	0,70	0,58	138	5860	1000
C4G 630 LA14	580	696	432	1073	12822	95,2%	94,8%	93,5%	0,78	0,74	0,63	224	7170	900
C4G 630 LB14	680	816	432	1242	15032	95,4%	95,1%	94,0%	0,79	0,75	0,65	259	7850	900
C4G 630 LC14	780	936	432	1501	17243	95,6%	95,2%	94,1%	0,75	0,75	0,65	300	8650	900
C4G 710 LA14	900	1080	431	1624	19942	96,3%	96,0%	95,0%	0,80	0,76	0,65	527	10680	-
C4G 710 LB14	1050	1260	431	1894	23266	96,4%	96,1%	95,1%	0,80	0,76	0,65	620	11920	-
C4G 710 LC14	1200	1440	431	2138	26589	96,6%	96,4%	95,6%	0,81	0,78	0,68	734	13300	-
Model	**kW**	**kW**	**min^{-1}**	**A**	**Nm**	**4/4**	**3/4**	**2/4**	**4/4**	**3/4**	**2/4**	**Kgm^2**	**kg**	**min^{-1}**
16 POLES	400 V 50 Hz 375 min^{-1}	480 V 60 Hz 450 min^{-1}												
C4G 450 LA16	200	240	381	390	5013	93,0%	92,6%	91,1%	0,74	0,70	0,58	69,0	3270	1100
C4G 450 LB16	225	270	381	439	5640	93,3%	92,9%	91,4%	0,74	0,70	0,59	74,0	3540	
C4G 450 LC16	250	300	380	488	6283	93,3%	92,8%	91,2%	0,74	0,68	0,57	90,0	3770	
C4G 500 LA16	300	360	380	577	7539	93,4%	93,1%	91,7%	0,75	0,70	0,60	114	4800	1000
C4G 500 LB16	350	420	380	674	8796	93,7%	93,3%	92,0%	0,75	0,70	0,60	133	4970	
C4G 500 LC16	400	480	380	770	10053	94,0%	93,7%	92,4%	0,75	0,71	0,60	153	5800	
C4G 630 LA16	450	540	378	855	11369	94,3%	92,8%	92,3%	0,76	0,71	0,61	247	7160	900
C4G 630 LB16	520	624	378	988	13138	94,5%	94,0%	92,6%	0,76	0,71	0,60	286	7840	
C4G 630 LC16	600	720	378	1155	15159	94,6%	94,1%	92,6%	0,75	0,70	0,59	332	8640	
C4G 710 LA16	700	840	377	1263	17732	95,4%	95,0%	93,8%	0,80	0,77	0,67	527	10680	-
C4G 710 LB16	810	972	377	1443	20519	95,6%	95,3%	94,3%	0,81	0,79	0,70	620	11910	
C4G 710 LC16	950	1140	377	1714	24065	95,7%	95,3%	94,1%	0,80	0,77	0,67	731	13270	

ODP Asynchronous generators - Overall dimensions

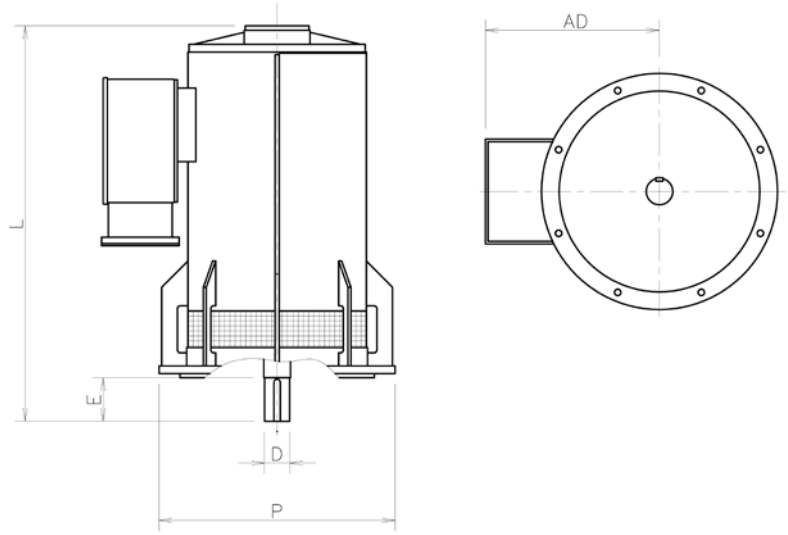
Air cooled (IC01) - Horizontal mounting

Dimension mm	250		280		315	355	400	450	500	630
	S	M	S	M						
H	250	250	280	280	315	355	400	450	500	630
HD	573	629	701	701	888	1000	1206	1320	1402	1656
AB	460	480	520	520	600	800	890	900	1040	1300
L	808	789	901	901	1125	1525	1790	2160	2145	2200
D	75	75	80	80	90	100	110	120	130	160
E	140	140	170	170	170	210	210	210	250	300



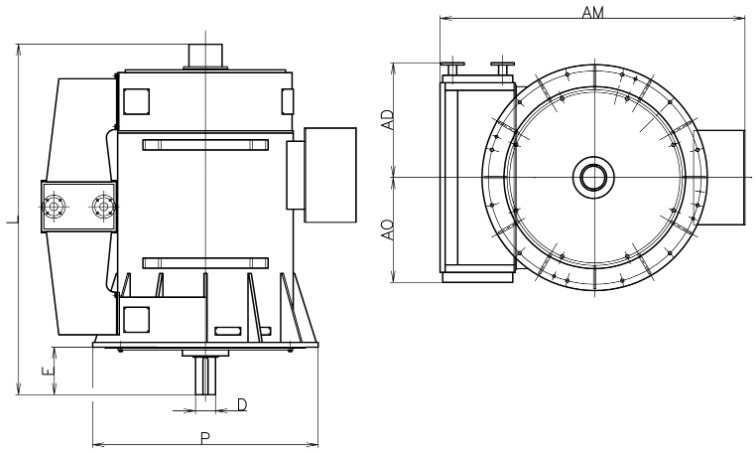
Air cooled (IC01) - Veritical mounting

Dimension mm	250		280		315	355	400	450	500	630
	S	M	S	M						
P	660	660	660	660	800	800	1000	1150	1150	1600
AD	858	858	969	969	550	685	750	835	830	1080
L	323	379	421	421	1115	1590	1840	2300	2095	2500
D	75	75	80	80	90	100	110	120	130	160
E	140	140	170	170	170	210	210	210	250	300



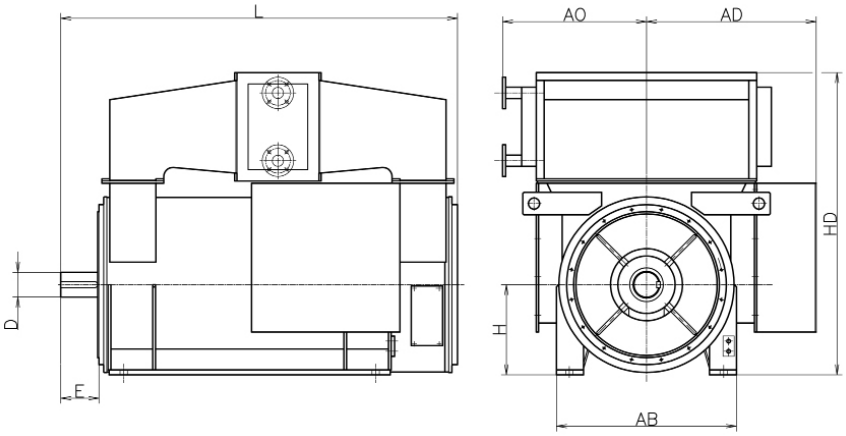
Air-to-water heat exchanger (IC81W) - Horizontalal mounting

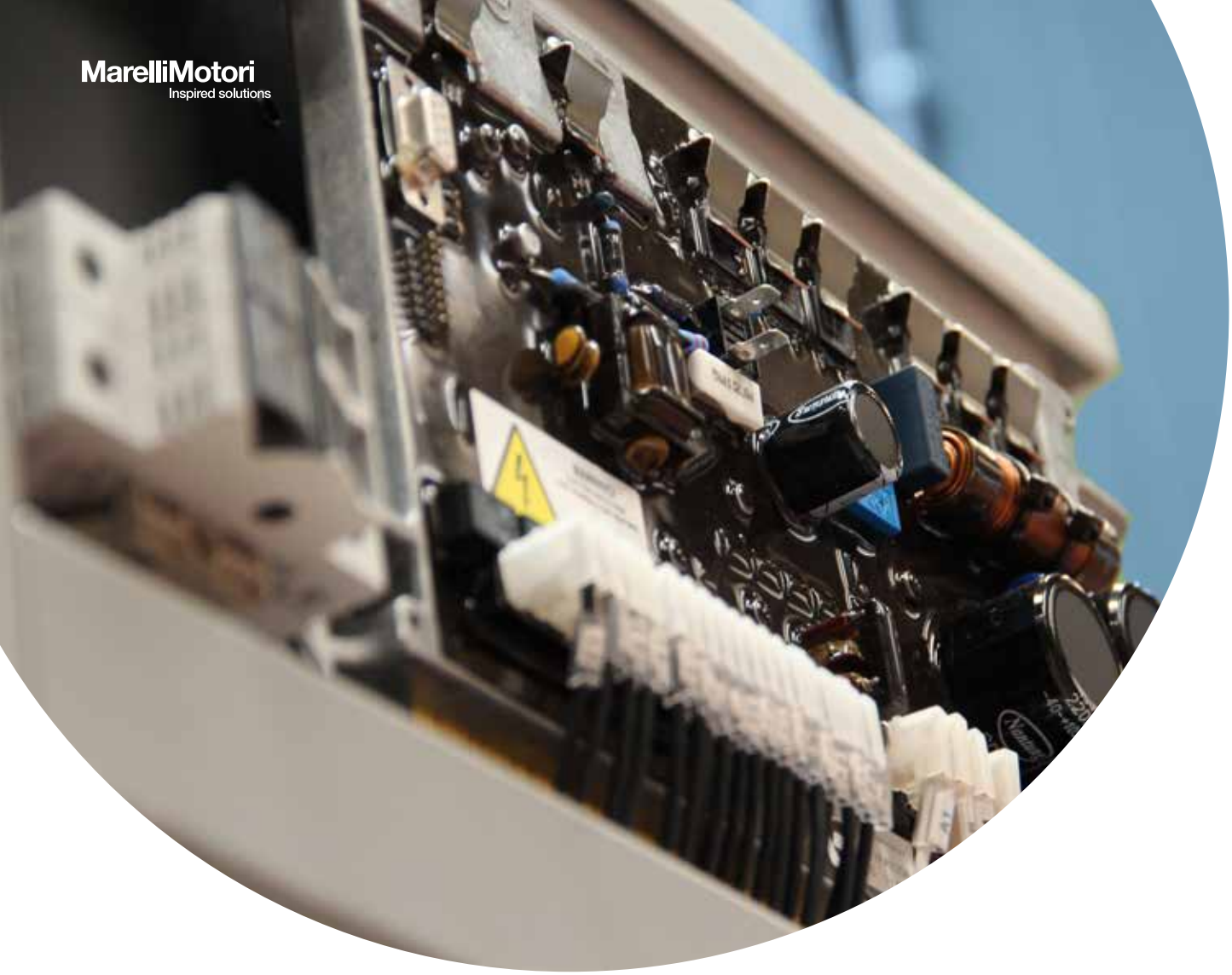
Dimension mm	400	450	500	630
H	400	450	500	630
HD	1430	1320	1630	2120
AB	890	900	1040	1300
L	1672	2160	2100	2220
AO	640	700	825	915
AD	860	835	1030	1300
D	110	120	130	160
E	210	210	250	300



Air-to-water heat exchanger (IC81W) - Vertical mounting

Dimension mm	355	400	450	500	630
P	800	1150	1150	1400	1600
L	1665	1900	2300	2150	2300
AO	460	640	700	825	915
AD	720	860	835	1030	1300
D	100	110	120	130	160
E	210	210	210	250	300





AVRs

Selection table 25

Selection table

	ANALOGUE				DIGITAL			
	MARK V	**MGC I**	**MGC II**	**MARK X**	**MEC 20**	**MEC 100 series**		
	M16FA655A	M40FA610A	M63FA310A	M40FA644A	M31FA600A	M71FA310A	M710FA320A	
Generator frame size	160 ÷ 250	500 ÷ 560	630 ÷ 800	-	315 ÷ 450	-	-	**standard**
	-	-	-	500 ÷ 560	160 ÷ 250	160 ÷ 900		**on request**
AVR supply	Auxiliary winding*, mains			PMG	Auxiliary winding*, mains, PMG			
Voltage sensing	Single phase			Three phase				
Voltage remote control	Arrangement							
Radio interference suppressor	Internal				Internal	Arrangement for external filters		
Over-excitation device	-	Arrangement for VARICOMP						
Parallel operation with the mains	-	Arrangement for external device				Internal		
Parallel operation with similar generators	-	Arrangement						
Standard protections	Over-excitation	-		Over-excitation		Field over-current, field over-voltage, generator over/under voltage, generator over-current, loss of sensing.		
Limiters	Under-frequency					Under-frequency, over/under-excitation		
Functions	-	Auxiliary inputs				PC interface, soft start, auxiliary inputs, contact inputs.	PC interface, soft start, auxiliary inputs, contact inputs, DMS	

* Auxiliary winding on the 160 available on request.

Contacts

Italy HQ
Marelli Motori S.p.A.
Via Sabbionara 1
36071 Arzignano (VI)
Italy
(T) +39 0444 479 711
(F) +39 0444 479 888
info@MarelliMotori.com
sales@MarelliMotori.com

Asia Pacific
Marelli Motori Asia Sdn Bhd
Lot 1-8, Persiaran Jubli Perak,
Seksyen 22, 40300 Shah Alam,
Selangor D.E.
Malaysia
(T) +60 355 171 999
(F) +60 355 171 883
Malaysia@MarelliMotori.com
sales.MY@MarelliMotori.com

Central Europe
Marelli Motori Central Europe GmbH
Heilswannenweg 50
31008 Elze
Germany
(T) +49 5068 462 400
(F) +49 5068 462 409
Germany@MarelliMotori.com
sales.DE@MarelliMotori.com

Middle East
Marelli Motori Middle East
4403-18, 44th Floor, BB2
Mazaya Business Avenue
Jumeirah Lakes Towers
Dubai - UAE
(T) +971 4 426 4263
(F) +971 4 362 4345
UAE@MarelliMotori.com
sales.UAE@MarelliMotori.com

South Africa
Marelli Motori South Africa (Pty) Ltd
Unit 2, corner Director & Megawatt Road
Spartan Ext. 23
Kempton Park 1619 Gauteng
Republic of South Africa
(T) +27 11 392 1920
(F) +27 11 392 1668
SouthAfrica@MarelliMotori.com
sales.ZA@MarelliMotori.com

Spain
08195 Sant Cugat
Barcelona
Spain
(T) +34 664 464 121
Spain@MarelliMotori.com

United Kingdom
Marelli UK
Main Street, The Old Rectory
Glenfield
Leicester LE3 8DG
United Kingdom
(T) +44 116 232 5167
(F) +44 116 232 5193
UK@MarelliMotori.com
sales.UK@MarelliMotori.com

USA
Marelli USA, Inc.
2200 Norcross Parkway, Suite 290
Norcross, GA 30071
USA
(T) +1 859 734 2588
(F) +1 859 734 0629
USA@MarelliMotori.com
sales.USA@MarelliMotori.com