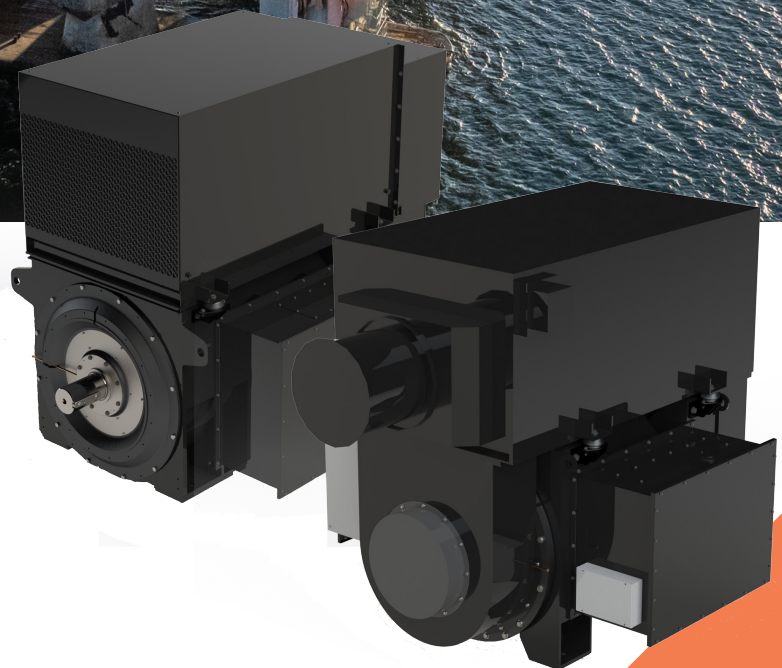


IP55 IC611/IC616 4A CA MV/HV
AIR-TO-AIR HEAT EXCHANGER
COOLING SYSTEM





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Mecc Alte has been awarded with the ADNOC qualification and has finalised the main data for the first series of MV/HV IP55 alternators, which are available via a project basis.

LV alternators are available on request.

Please contact your local representative or Mecc Alte Power Products directly for more information.

FEATURES AND BENEFITS

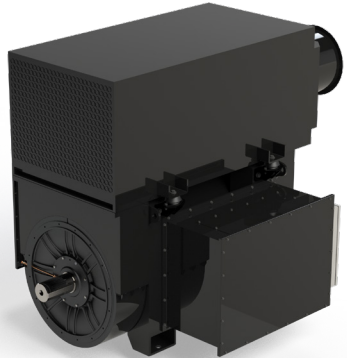
- Suitable for Oil and Gas application
- Separate terminal boxes – one for neutral point and one for line side.
- Use in compact engine rooms ducting in the secondary cooling air.
- Ideal where operating environment presents a risk to internal components.
- High life expectancy with isolated main windings.
- Ideal for marine shaft drive where protection from main engine rooms water based firefighting system.

MODEL	ECO43 CACA		ECO46 CACA		ECO47 CACA	
	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
PITCH 2/3						
T63M5S3	3000	3600	3000	3600	3000	3600
T64M5S3	3300	3960	3300	3960	3300	3960
	3500	4160	3500	4160	3500	4160
T66M5S3	6000	7200	6000	7200	6000	7200
T67M5S3	6300	7560	6300	7560	6300	7560
	6600	7920	6600	7920	6600	7920
T62H5S3		11400		11400		11400
T60H5S3	10000	12000	10000	12000	10000	12000
	10500	12470	10500	12470	10500	12470
	11000	13200	11000	13200	11000	13200
T61H5S3	11500	13800	11500	13800	11500	13800
	12000		12000		12000	
PITCH 5/6						
T63M5S6	3000	3600	3000	3600	3000	3600
T64M5S6	3300	3960	3300	3960	3300	3960
	3500	4160	3500	4160	3500	4160
T66M5S6	6000	7200	6000	7200	6000	7200
T67M5S6	6300	7560	6300	7560	6300	7560
	6600	7920	6600	7920	6600	7920
T62H5S6		11400		11400		11400
T60H5S6	10000	12000	10000	12000	10000	12000
	10500	12470	10500	12470	10500	12470
	11000	13200	11000	13200	11000	13200
T61H5S6	11500	13800	11500	13800	11500	13800
	12000		12000		12000	

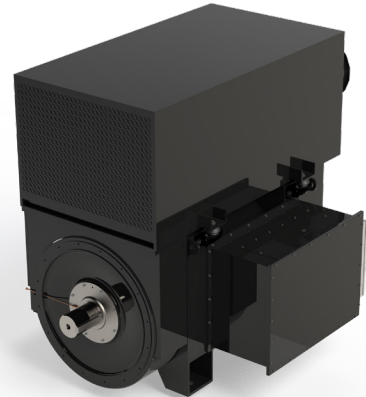
TECHNICAL INFORMATION

- Options are available to satisfy detailed customer requirements, up to achieving a ‘Totally Enclosed’ alternator with up to IP55 rated enclosures. These require heat exchangers to cool the captive air circuit by another medium in an external circuit. The heat exchangers are mounted onto the alternator to allow the internal region encasing the electrical wound assemblies to be sealed off from local environmental.
- Reasons for this range from, protecting internal components from an aggressive external environment – ie corrosive and/ or saline related air borne. Another possible reason is that the installed area does not have sufficient volume of cooling air and the secondary cooling medium is ‘imported’ (ducted) into the alternator.
- The heat exchangers can be based on water cooling identified by the term Cooling Air Cooling Water (CACW), or air cooling identified by Cooling Air Cooling Air (CACA), or IC616/ IC611. Defined as per IEC 60034-6:
 - with IC611, the primary fluid (air) is driven by an internal fan mounted at NDE side shaft
 - with IC616, the air is driven by an additional forced ventilationin both cases the internal air is moved by a fan mounted at the DE side shaft.
- Class H power – 0.5MVA and 3MVA (full Class H rise and 40°C ambient).
- Protection on internal circuit to IP55.
- Separate terminal box away from the main body and cooling system.

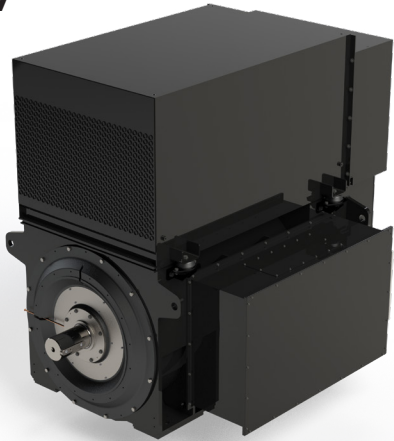
ECO43



ECO46



ECO47



ECO43 MV/HV /4 - 50Hz

MODEL	150/40		125/40		130/40		105/40		80/40	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
3.0-3.5kV pitch2/3										
2L	506	405	490	392	498	398	440	352	392	314
1VL	584	467	565	452	576	461	508	406	452	362
2VL	652	522	630	504	642	514	566	453	504	403
1XL	724	579	700	560	714	571	630	504	560	448
2XL	848	678	820	656	836	669	738	590	656	525
3.0-3.5kV pitch5/6										
2L	564	451	545	436	554	443	490	392	436	349
1VL	652	522	630	504	642	514	566	453	504	403
2VL	724	579	700	560	714	571	630	504	560	448
1XL	796	637	770	616	784	627	692	554	616	493
2XL	940	752	910	728	928	742	818	654	728	582
6.0-6.6kV pitch2/3										
2L	506	405	490	392	498	398	440	352	392	314
1VL	584	467	565	452	576	461	508	406	452	362
2VL	652	522	630	504	642	514	566	453	504	403
1XL	724	579	700	560	714	571	630	504	560	448
2XL	848	678	820	656	836	669	738	590	656	525
6.0-6.6kV pitch5/6										
2L	564	451	545	436	554	443	490	392	436	349
1VL	652	522	630	504	642	514	566	453	504	403
2VL	724	579	700	560	714	571	630	504	560	448
1XL	796	637	770	616	784	627	692	554	616	493
2XL	940	752	910	728	928	742	818	654	728	582
9.5-12kV pitch2/3										
2L	506	405	490	392	498	398	440	352	392	314
1VL	584	467	565	452	576	461	508	406	452	362
2VL	652	522	630	504	642	514	566	453	504	403
1XL	724	579	700	560	714	571	630	504	560	448
2XL	848	678	820	656	836	669	738	590	656	525
9.5-12kV pitch5/6										
2L	564	451	545	436	554	443	490	392	436	349
1VL	652	522	630	504	642	514	566	453	504	403
2VL	724	579	700	560	714	571	630	504	560	448
1XL	796	637	770	616	784	627	692	554	616	493
2XL	940	752	910	728	928	742	818	654	728	582

ECO43 MV/HV /4 - 60Hz

MODEL	150/40		125/40		130/40		105/40		80/40	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
3.0-3.5kV pitch2/3										
2L	606	485	588	470	596	477	528	422	470	376
1VL	700	560	678	542	690	552	608	486	542	434
2VL	782	626	756	605	770	616	678	542	604	483
1XL	868	694	840	672	856	685	756	605	672	538
2XL	1016	813	984	787	1002	802	884	707	786	629
3.0-3.5kV pitch5/6										
2L	676	541	654	523	664	531	588	470	522	418
1VL	782	626	756	605	770	616	678	542	604	483
2VL	868	694	840	672	856	685	756	605	672	538
1XL	954	763	924	739	940	752	830	664	738	590
2XL	1128	902	1092	874	1112	890	980	784	872	698
6.0-6.6kV pitch2/3										
2L	606	485	588	470	596	477	528	422	470	376
1VL	700	560	678	542	690	552	608	486	542	434
2VL	782	626	756	605	770	616	678	542	604	483
1XL	868	694	840	672	856	685	756	605	672	538
2XL	1016	813	984	787	1002	802	884	707	786	629
6.0-6.6kV pitch5/6										
2L	676	541	654	523	664	531	588	470	522	418
1VL	782	626	756	605	770	616	678	542	604	483
2VL	868	694	840	672	856	685	756	605	672	538
1XL	954	763	924	739	940	752	830	664	738	590
2XL	1128	902	1092	874	1112	890	980	784	872	698
9.5-12kV pitch2/3										
2L	606	485	588	470	596	477	528	422	470	376
1VL	700	560	678	542	690	552	608	486	542	434
2VL	782	626	756	605	770	616	678	542	604	483
1XL	868	694	840	672	856	685	756	605	672	538
2XL	1016	813	984	787	1002	802	884	707	786	629
9.5-12kV pitch5/6										
2L	676	541	654	523	664	531	588	470	522	418
1VL	782	626	756	605	770	616	678	542	604	483
2VL	868	694	840	672	856	685	756	605	672	538
1XL	954	763	924	739	940	752	830	664	738	590
2XL	1128	902	1092	874	1112	890	980	784	872	698

ECO46 MV/HV /4 - 50Hz

MODEL	150/40		125/40		130/40		105/40		80/40	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
3.0-3.5kV pitch2/3										
1L	930	744	900	720	918	734	810	648	720	576
2L	1024	819	990	792	1008	806	890	712	792	634
3L	1122	898	1085	868	1106	885	976	781	868	694
1VL	1308	1046	1265	1012	1290	1032	1138	910	1012	810
2VL	1432	1146	1385	1108	1412	1130	1246	997	1108	886
3VL	1556	1245	1505	1204	1534	1227	1354	1083	1204	963
3.0-3.5kV pitch5/6										
1L	1086	869	1050	840	1070	856	944	755	840	672
2L	1194	955	1155	924	1178	942	1038	830	924	739
3L	1304	1043	1260	1008	1284	1027	1134	907	1008	806
1VL	1520	1216	1470	1176	1498	1198	1322	1058	1176	941
2VL	1666	1333	1610	1288	1642	1314	1448	1158	1288	1030
3VL	1810	1448	1750	1400	1784	1427	1574	1259	1400	1120
6.0-6.6kV pitch2/3										
1L	1086	869	1050	840	1070	856	944	755	840	672
2L	1194	955	1155	924	1178	942	1038	830	924	739
3L	1304	1043	1260	1008	1284	1027	1134	907	1008	806
1VL	1520	1216	1470	1176	1498	1198	1322	1058	1176	941
2VL	1666	1333	1610	1288	1642	1314	1448	1158	1288	1030
3VL	1810	1448	1750	1400	1784	1427	1574	1259	1400	1120
6.0-6.6kV pitch5/6										
1L	1168	934	1130	904	1152	922	1016	813	904	723
2L	1288	1030	1245	996	1268	1014	1120	896	996	797
3L	1402	1122	1355	1084	1382	1106	1218	974	1084	867
1VL	1640	1312	1585	1268	1616	1293	1426	1141	1268	1014
2VL	1794	1435	1735	1388	1768	1414	1560	1248	1388	1110
3VL	1956	1565	1890	1512	1926	1541	1700	1360	1512	1210
9.5-12kV pitch2/3										
1L	930	744	900	720	918	734	810	648	720	576
2L	1024	819	990	792	1008	806	890	712	792	634
3L	1122	898	1085	868	1106	885	976	781	868	694
1VL	1308	1046	1265	1012	1290	1032	1138	910	1012	810
2VL	1432	1146	1385	1108	1412	1130	1246	997	1108	886
3VL	1556	1245	1505	1204	1534	1227	1354	1083	1204	963
9.5-12kV pitch5/6										
1L	1086	869	1050	840	1070	856	944	755	840	672
2L	1194	955	1155	924	1178	942	1038	830	924	739
3L	1304	1043	1260	1008	1284	1027	1134	907	1008	806
1VL	1520	1216	1470	1176	1498	1198	1322	1058	1176	941
2VL	1666	1333	1610	1288	1642	1314	1448	1158	1288	1030
3VL	1810	1448	1750	1400	1784	1427	1574	1259	1400	1120

ECO46 MV/HV /4 - 60Hz

MODEL	150/40		125/40		130/40		105/40		80/40	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
3.0-3.5kV pitch2/3										
1L	1116	893	1080	864	1100	880	972	778	864	691
2L	1228	982	1188	950	1208	966	1068	854	950	760
3L	1346	1077	1302	1042	1326	1061	1170	936	1040	832
1VL	1568	1254	1518	1214	1548	1238	1364	1091	1214	971
2VL	1718	1374	1662	1330	1694	1355	1494	1195	1328	1062
3VL	1866	1493	1806	1445	1840	1472	1624	1299	1444	1155
3.0-3.5kV pitch5/6										
1L	1302	1042	1260	1008	1284	1027	1132	906	1008	806
2L	1432	1146	1386	1109	1412	1130	1244	995	1108	886
3L	1564	1251	1512	1210	1540	1232	1360	1088	1208	966
1VL	1824	1459	1764	1411	1796	1437	1586	1269	1410	1128
2VL	1998	1598	1932	1546	1970	1576	1736	1389	1544	1235
3VL	2172	1738	2100	1680	2140	1712	1888	1510	1680	1344
6.0-6.6kV pitch2/3										
1L	1302	1042	1260	1008	1284	1027	1132	906	1008	806
2L	1432	1146	1386	1109	1412	1130	1244	995	1108	886
3L	1564	1251	1512	1210	1540	1232	1360	1088	1208	966
1VL	1824	1459	1764	1411	1796	1437	1586	1269	1410	1128
2VL	1998	1598	1932	1546	1970	1576	1736	1389	1544	1235
3VL	2172	1738	2100	1680	2140	1712	1888	1510	1680	1344
6.0-6.6kV pitch5/6										
1L	1400	1120	1356	1085	1382	1106	1218	974	1084	867
2L	1544	1235	1494	1195	1520	1216	1344	1075	1194	955
3L	1682	1346	1626	1301	1658	1326	1460	1168	1300	1040
1VL	1968	1574	1902	1522	1938	1550	1710	1368	1520	1216
2VL	2152	1722	2082	1666	2120	1696	1872	1498	1664	1331
3VL	2346	1877	2268	1814	2310	1848	2040	1632	1814	1451
9.5-12kV pitch2/3										
1L	1116	893	1080	864	1100	880	972	778	864	691
2L	1228	982	1188	950	1208	966	1068	854	950	760
3L	1346	1077	1302	1042	1326	1061	1170	936	1040	832
1VL	1568	1254	1518	1214	1548	1238	1364	1091	1214	971
2VL	1718	1374	1662	1330	1694	1355	1494	1195	1328	1062
3VL	1866	1493	1806	1445	1840	1472	1624	1299	1444	1155
9.5-12kV pitch5/6										
1L	1302	1042	1260	1008	1284	1027	1132	906	1008	806
2L	1432	1146	1386	1109	1412	1130	1244	995	1108	886
3L	1564	1251	1512	1210	1540	1232	1360	1088	1208	966
1VL	1824	1459	1764	1411	1796	1437	1586	1269	1410	1128
2VL	1998	1598	1932	1546	1970	1576	1736	1389	1544	1235
3VL	2172	1738	2100	1680	2140	1712	1888	1510	1680	1344

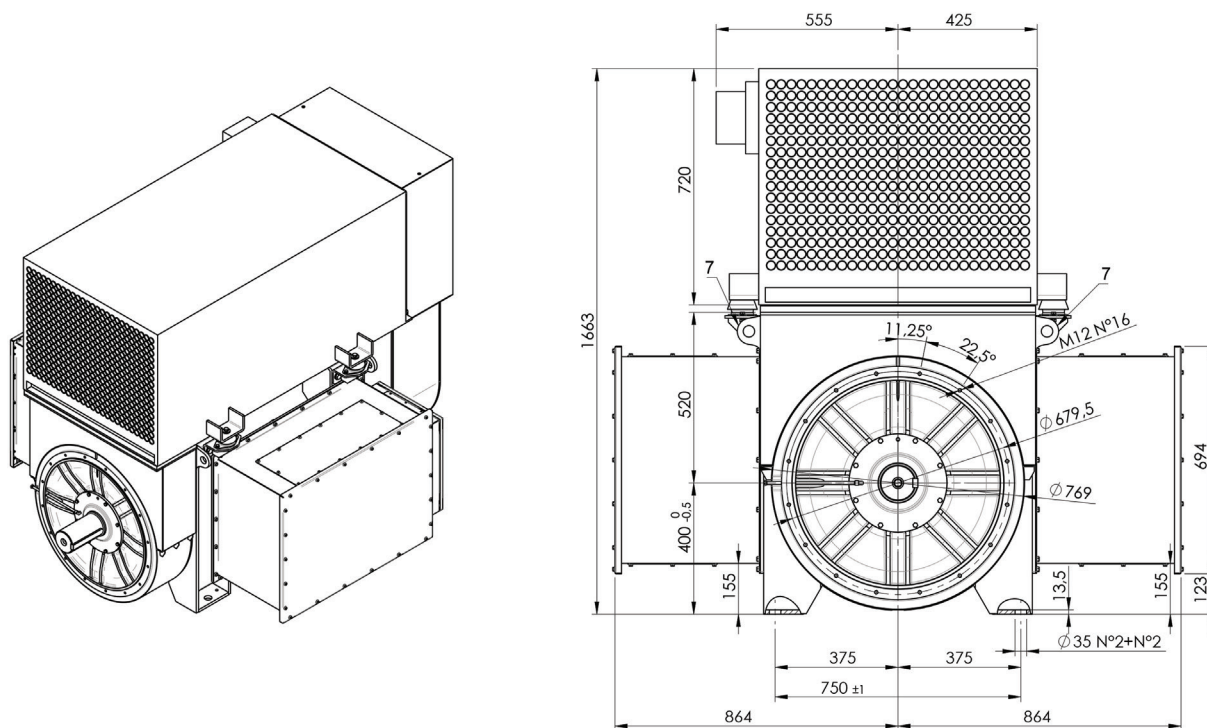
ECO47 MV/HV /4 - 50Hz

MODEL	150/40		125/40		130/40		105/40		80/40	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
3.0-3.5kV pitch2/3										
1M	2216	1773	2142	1714	2184	1747	1926	1541	1712	1370
2M	2506	2005	2422	1938	2470	1976	2178	1742	1936	1549
1L	2716	2173	2625	2100	2676	2141	2362	1890	2100	1680
3.0-3.5kV pitch5/6										
1M	2340	1872	2261	1809	2306	1845	2034	1627	1808	1446
2M	2676	2141	2587	2069	2638	2110	2326	1861	2068	1654
1L	3024	2419	2923	2338	2980	2384	2630	2104	2338	1870
6.0-6.6kV pitch2/3										
1M	2244	1795	2170	1736	2212	1770	1952	1562	1736	1389
2M	2592	2074	2506	2005	2556	2045	2254	1803	2004	1603
1L	2940	2352	2842	2274	2898	2318	2556	2045	2272	1818
6.0-6.6kV pitch5/6										
1M	2340	1872	2261	1809	2306	1845	2034	1627	1808	1446
2M	2706	2165	2615	2092	2666	2133	2352	1882	2090	1672
1L	3070	2456	2968	2374	3026	2421	2670	2136	2374	1899
9.5-12kV pitch2/3										
1M	1992	1594	1925	1540	1962	1570	1732	1386	1540	1232
2M	2244	1795	2170	1736	2212	1770	1952	1562	1736	1389
1L	2556	2045	2471	1977	2520	2016	2222	1778	1976	1581
9.5-12kV pitch5/6										
1M	2288	1830	2212	1770	2256	1805	1990	1592	1768	1414
2M	2608	2086	2520	2016	2570	2056	2268	1814	2016	1613
1L	2898	2318	2800	2240	2856	2285	2520	2016	2240	1792

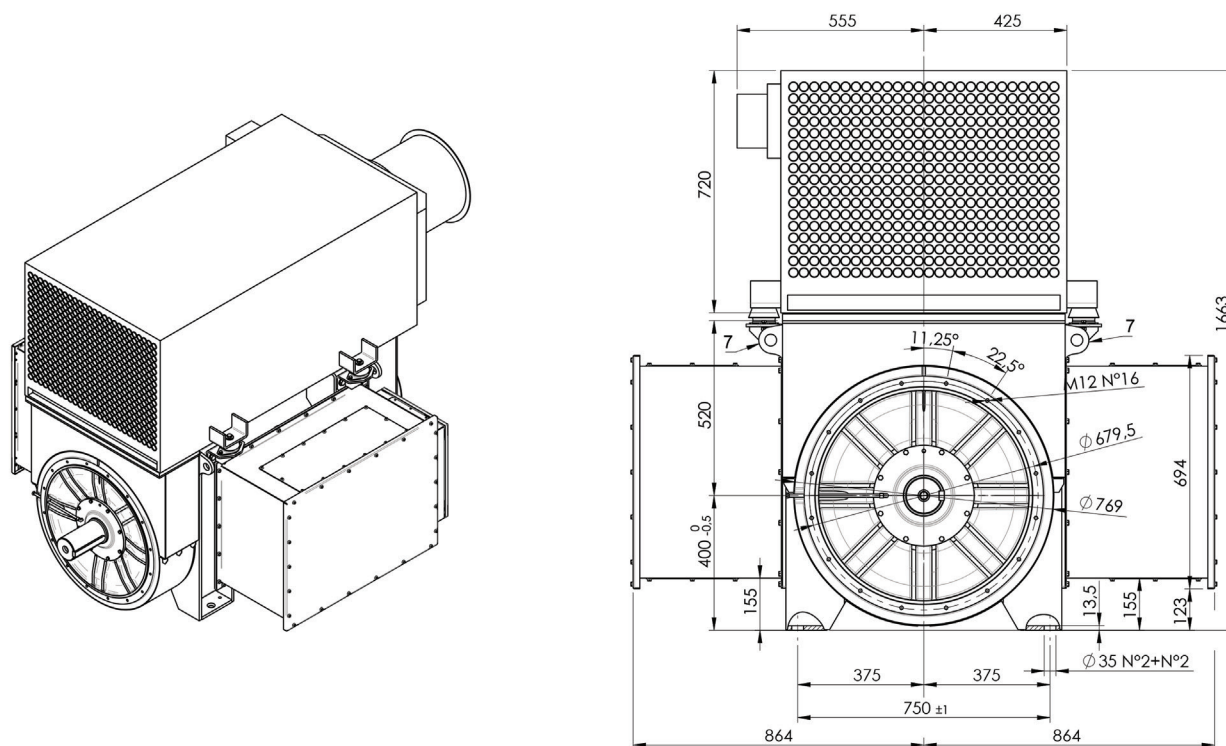
ECO47 MV/HV /4 - 60Hz

MODEL	150/40		125/40		130/40		105/40		80/40	
	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
3.0-3.5kV pitch2/3										
1M	2658	2126	2570	2056	2620	2096	2310	1848	2054	1643
2M	3006	2405	2906	2325	2964	2371	2612	2090	2322	1858
1L	3258	2606	3150	2520	3210	2568	2834	2267	2520	2016
3.0-3.5kV pitch5/6										
1M	2808	2246	2713	2171	2766	2213	2440	1952	2168	1734
2M	3210	2568	3104	2483	3164	2531	2790	2232	2480	1984
1L	3628	2902	3507	2805	3576	2861	3156	2525	2804	2243
6.0-6.6kV pitch2/3										
1M	2692	2154	2604	2083	2654	2123	2342	1874	2082	1666
2M	3110	2488	3007	2406	3066	2453	2704	2163	2404	1923
1L	3528	2822	3410	2728	3476	2781	3066	2453	2726	2181
6.0-6.6kV pitch5/6										
1M	2808	2246	2713	2171	2766	2213	2440	1952	2168	1734
2M	3246	2597	3137	2510	3198	2558	2822	2258	2508	2006
1L	3684	2947	3562	2849	3630	2904	3204	2563	2848	2278
9.5-12kV pitch2/3										
1M	2390	1912	2310	1848	2354	1883	2078	1662	1848	1478
2M	2692	2154	2604	2083	2654	2123	2342	1874	2082	1666
1L	3066	2453	2965	2372	3024	2419	2666	2133	2370	1896
9.5-12kV pitch5/6										
1M	2744	2195	2654	2124	2706	2165	2388	1910	2120	1696
2M	3128	2502	3024	2419	3084	2467	2720	2176	2418	1934
1L	3476	2781	3360	2688	3426	2741	3024	2419	2688	2150

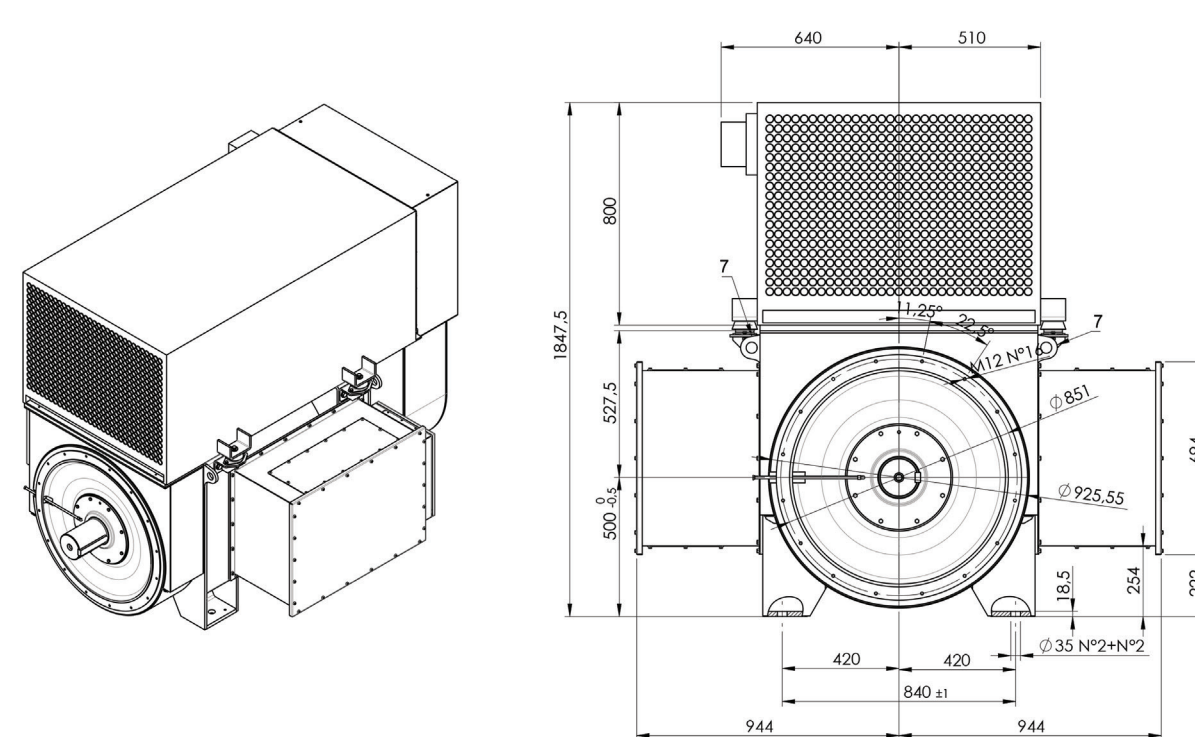
ECO43 MV/HV /4 (IC611)



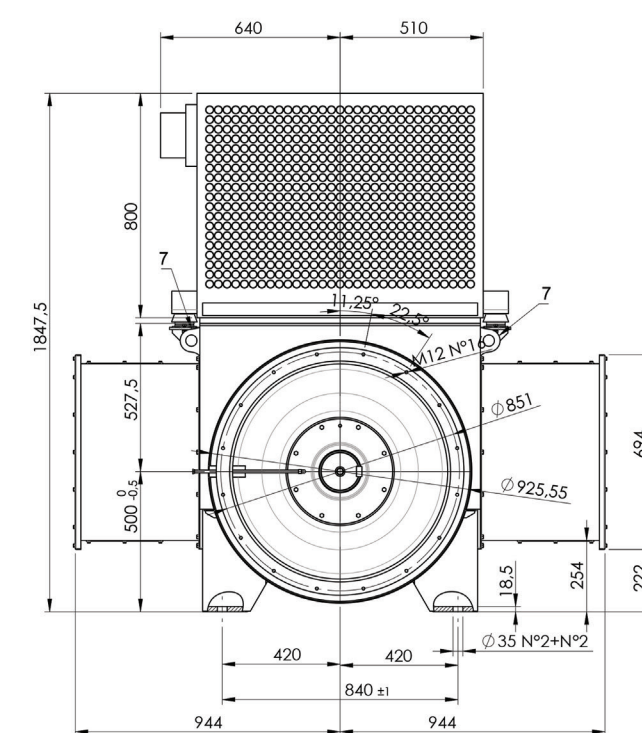
ECO43 MV/HV /4 (IC616)



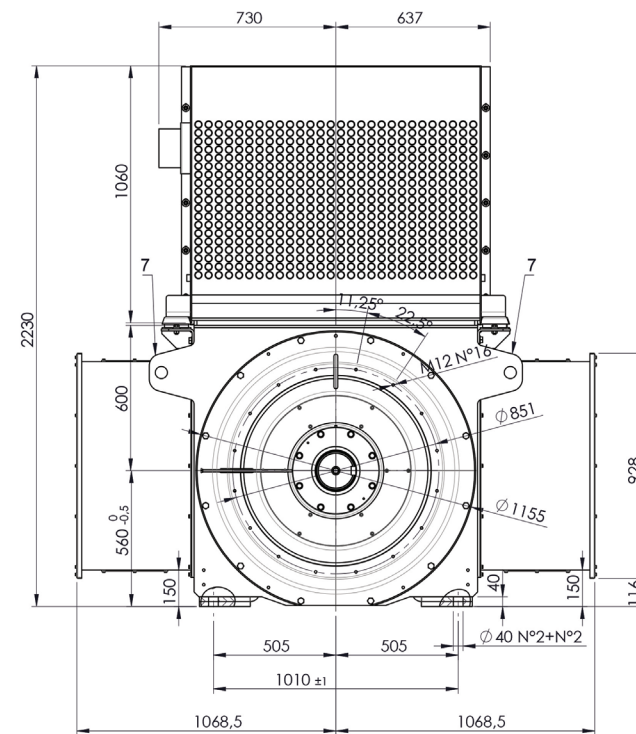
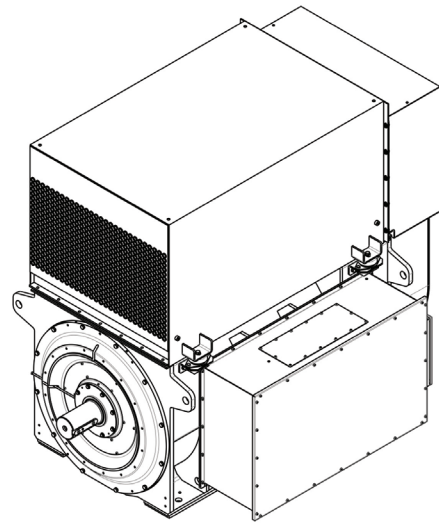
ECO46 MV/HV /4 (IC611)



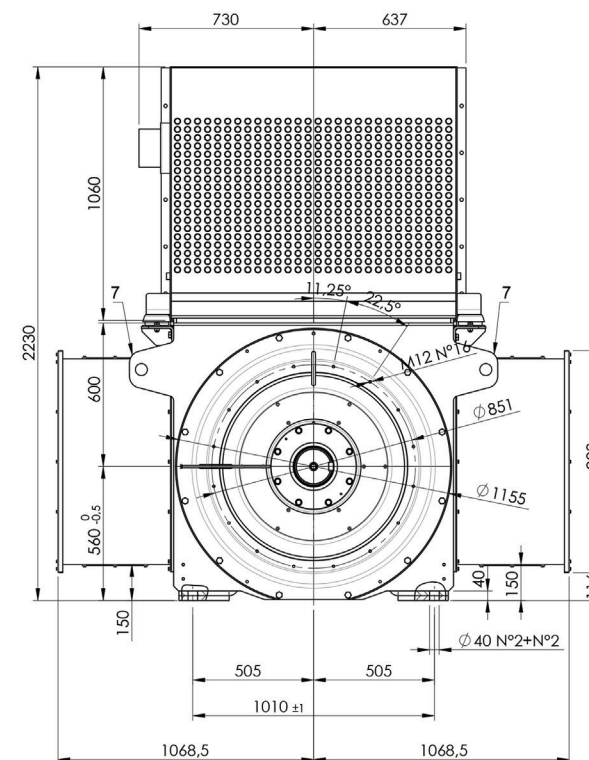
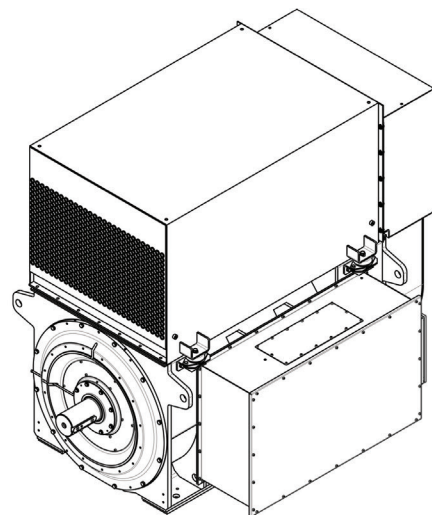
ECO46 MV/HV /4 (IC616)



ECO47 MV/HV /4 (IC611)



ECO47 MV/HV /4 (IC616)



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