

GE
Power Conversion

N3 Series Model N37

MV Induction Motor
4 Pole, 50Hz





High
Power Density



High
Efficiency



Low
Vibration



Low
Noise



More power in a smaller package.

Built on extensive rotating machine experience.

GE manufactured motors and generators for some of the first commercial and industrial electrical applications. We continue to deliver innovative electrical and mechanical power solutions to the world. Our machines efficiently operate in challenging applications and severe environments where reliability and ease of maintenance is critical.

Innovations pack more power in a smaller frame.

A specially-designed frame and stator in the N37 that cools so effectively, that higher power ratings are easily achieved by smaller frame sizes. This motor is ideally suited in applications where space is at a premium and in platforms that require less weight.

Fast builds with pre-engineered components.

The N37 features a standard set of frame, rotor and stator components that can fit into the majority of common application configurations. This means a faster cycle time to build and more consistent performance results during operation.

Better access to the core.

Portals in the sides of the frame give unprecedented access to the stator and rotor from the sides instead of just at the drive-end and opposite drive-end. This makes examination and maintenance much easier for plant operators.

Quick selection with catalogue product.

Standard-built N37 squirrel-cage induction motors operate at 50 Hz, 1500 rpm synchronous speed with outputs ranging up to 18,500 kW.

- Designed for direct-on-line applications and can optionally work with drives.
- Rated ExP for use in a safe zone and can be modified for ExN.
- Welded totally enclosed frame construction with air, water and blower-mounted cooling. WP11 enclosure is also available.
- IP 55 standard protection.

Innovative electro-mechanical design.

Technical Features

- Adheres to IEC 60034
- S1 duty (S2 to S9 duty types optional)
- 50 Hz. frequency
- 3300, 6600 and 11000 volts (other voltages optional)
- Class F insulation
- ≤ 1000 meter altitude
- -20° to $+40^{\circ}$ C ambient

TEWAC: Default Inlet water temperature is 25°C . Catalogue is suitable for 25°C and 30°C

TEAAC: Ambient air temperature is 40°C .

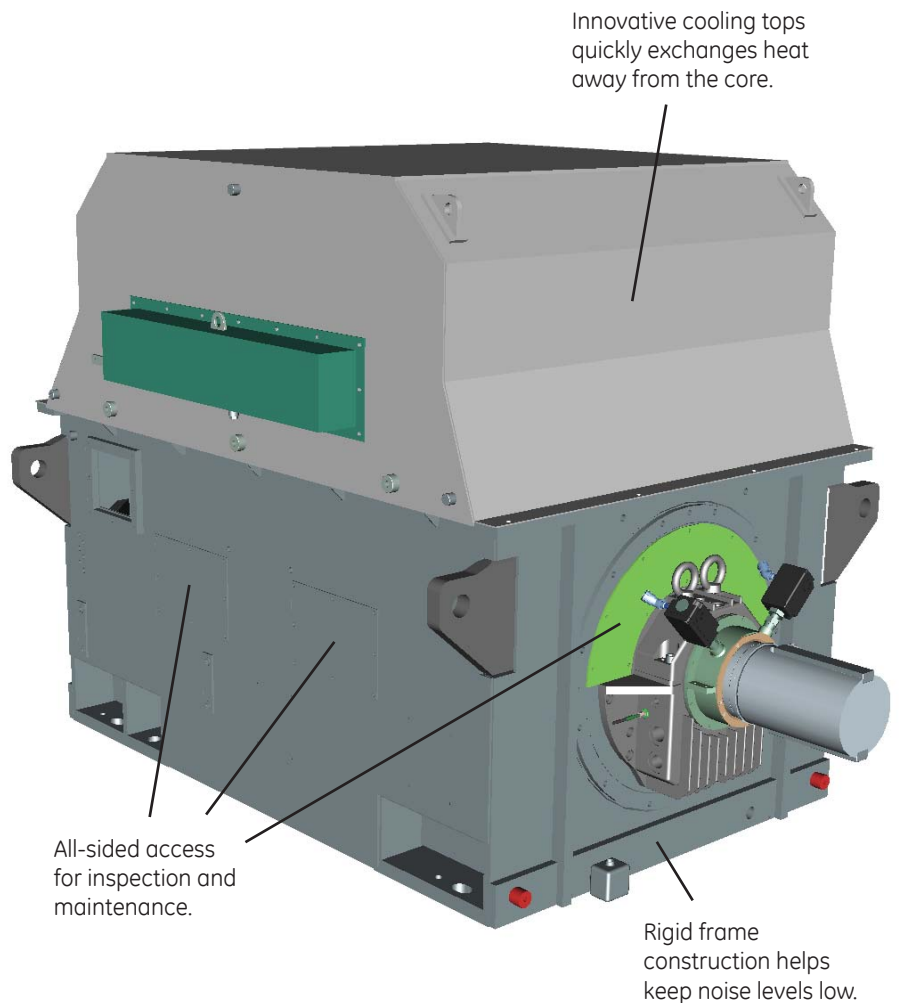
Note: Other voltages, higher altitude or ambient will require engineering evaluation and design customization.

- Class B winding temperature rise by resistance method
- Maximum torque limitation – Bi-phase short circuit condition is considered for the winding, shaft and frame. (Fast bus transfer torque may be verified upon request.)
- Vibration levels compliant to American Petroleum Institute (API) specifications.
- Low Noise

TEWAC: Average sound pressure of 80 dB(A) max at 1 m no load.

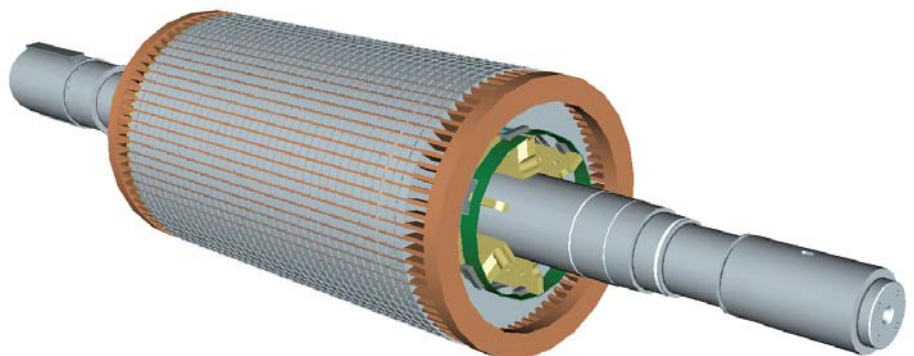
TEAAC: Average sound pressure of 85 dB(A) max at 1 m no load.

Lower dB(A) levels are available upon request.

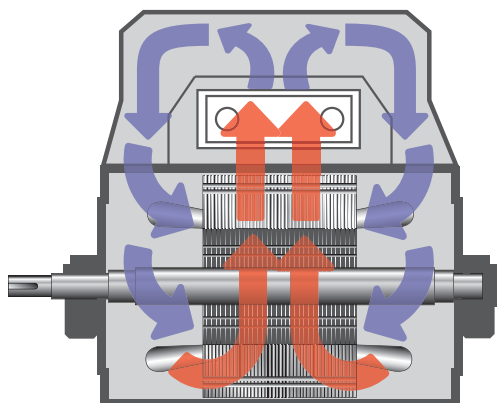


Benefits

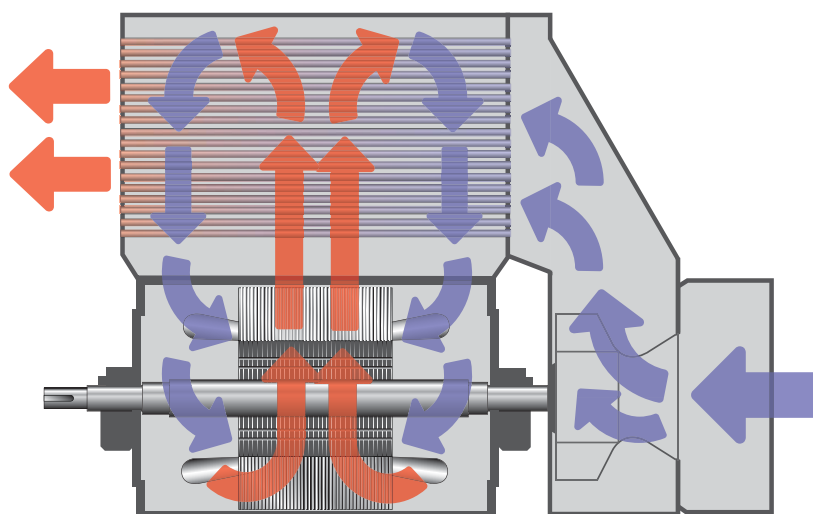
- Small footprint due to high power density.
- High efficiency to assist with energy savings.
- Low vibration enables high reliability and MTBF.
- Low noise level to help reduce environmental impact.



Cooling & Power Range



Totally Enclosed Water-to-Air Cooled
TEWAC / CACW



Totally Enclosed Air-to-Air Cooled
TEAAC / CACA

Power Ranges (kW)

4 Pole		Voltage (kV)					
		3.3	6.6	11	3.3	6.6	11
Frame	C.L.	Power in kW IC81W Water Cooler (CACW)			Power in kW IC 611 [630 & 710 frame] / IC 616 [800 & 900 frame] Air Cooler (CACA)		
630	S	6500	6350	5500	5600	5200	4600
	M	6950	6900	6000	6100	5950	5200
	L	8000	7700	6700	7000	6500	5800
710	S	9000	9000	7300	7800	7900	6400
	M	10000	10000	8200	8700	8700	7300
	L	11700	11600	9100	9900	9700	7900
	L	-	-	10000	-	-	8500
800	S	-	13000	11500	-	12200	11000
	M	-	14000	12500	-	13200	12000
	L	-	16000	14200	-	15000	13300
900	S	-	16500	15000	-	15400	14500
	M	-	17000	16200	-	15800	15400
	L	-	18500	18000	-	17800	17000

Model Nomenclature

Standardized designations for faster project proposals.

These common attributes will set you on an immediate path for streamlining a proposal for you or your customer.



	N37	H	X	N	630	L	4	C
Series Name								
Protection & Cooling								
R								
H								
Voltage								
X								
Y								
Z								
Special Protection								
P								
E								
N								
(Blank)								
Frame Size (Shaft Height mm)								
Magnetic Circuit Length								
L								
M								
S								
N								
Number of Poles								
Bearing Type								
C								

Performance Data - TEWAC

Quick selection with catalogue product.

Designation	Catalog	Output Rating (kW)	FL Speed (rpm)	Efficiency (%) Load			Power Factor (p.u.) (%) Load			FL Current (A)	I _d / I _n	T _n (Nm)	T _a / T _n	T _{max} / T _n	Rotor Inertia (kgM ²)	Weight (kg)
				100%	75%	50%	100%	75%	50%							
IP55, IC 81W, 4 Pole, 3300V, 50 HZ, 1500 RPM (4)																
N37HX630S4C	SP2515001	6500	1487	97.20	97.40	97.20	0.89	0.87	0.80	1315	6.0	41742.05	0.60	2.50	154	11500
N37HX630M4C	SP2515002	6950	1488	97.30	97.50	97.40	0.90	0.89	0.84	1389	5.7	44601.89	0.60	2.30	169	12000
N37HX630L4C	SP2515003	8000	1489	97.40	97.60	97.40	0.89	0.87	0.80	1615	6.0	51305.82	0.60	2.50	187	12650
N37HX710S4C	UP2515004	9000	1489	97.30	97.40	97.20	0.90	0.88	0.82	1798	6.0	57719.05	0.60	2.50	271	16700
N37HX710M4C	UP2515005	10000	1488	97.40	97.60	97.50	0.90	0.90	0.86	1996	5.2	64175.38	0.50	2.00	302	17600
N37HX710L4C	UP2515006	11700	1488	97.50	97.60	97.40	0.90	0.88	0.82	2333	6.0	75085.19	0.60	2.50	328	18400
IP55, IC 81W, 4 Pole, 6600V, 50 HZ, 1500 RPM (4)																
N37HX630S4C	SR2515007	6350	1486	97.10	97.30	97.20	0.90	0.88	0.84	636	5.2	40806.21	0.50	2.10	155	11550
N37HX630M4C	SR2515008	6900	1487	97.20	97.40	97.30	0.90	0.89	0.85	690	5.3	44310.79	0.50	2.10	169	12000
N37HX630L4C	SR2515009	7700	1488	97.40	97.50	97.40	0.90	0.89	0.83	768	5.6	49415.04	0.50	2.20	190	12600
N37HX710S4C	UR2515010	9000	1489	97.30	97.40	97.20	0.90	0.88	0.82	899	6.0	57719.05	0.60	2.50	270	16600
N37HX710M4C	UR2515011	10000	1489	97.40	97.50	97.30	0.90	0.88	0.82	998	6.0	64132.28	0.60	2.50	299	17400
N37HX710L4C	UR2515012	11600	1489	97.50	97.60	97.40	0.90	0.88	0.82	1156	6.0	74393.45	0.60	2.50	326	18300
N37HX800S4C	ER2515013	13000	1490	97.50	97.60	97.40	0.91	0.90	0.86	1282	5.6	83316.01	0.50	2.20	487	23700
N37HX800M4C	ER2515014	14000	1489	97.50	97.70	97.60	0.91	0.91	0.89	1380	5.0	89785.19	0.40	2.10	515	24700
N37HX800L4C	ER2515015	16000	1491	97.65	97.80	97.65	0.90	0.90	0.85	1593	5.6	102474.01	0.50	2.20	558	25600
N37HX900S4C	NR2515016	16500	1492	97.70	97.75	97.55	0.90	0.90	0.86	1642	6.0	105605.49	0.45	2.40	805	30300
N37HX900M4C	NR2515017	17000	1492	97.65	97.75	97.60	0.91	0.91	0.88	1674	5.8	108805.66	0.45	2.40	840	30900
N37HX900L4C	NR2515018	18500	1493	97.75	97.80	97.50	0.91	0.89	0.85	1819	6.0	118326.85	0.45	2.50	898	32100
IP55, IC 81W, 4 Pole, 11000V, 50 HZ, 1500 RPM (4)																
N37HY630S4C	SS2515019	5500	1487	96.90	97.10	96.90	0.90	0.89	0.84	331	5.2	35320.20	0.50	2.00	155	11400
N37HY630M4C	SS2515020	6000	1488	97.10	97.30	97.10	0.90	0.89	0.85	360	5.5	38505.23	0.50	2.20	169	11900
N37HY630L4C	SS2515021	6700	1489	97.20	97.20	97.00	0.90	0.88	0.82	402	6.0	42968.63	0.60	2.40	187	12450
N37HY710S4C	US2515022	7300	1489	97.10	97.20	96.90	0.90	0.88	0.82	438	6.0	46816.56	0.60	2.50	263	16400
N37HY710M4C	US2515023	8200	1489	97.20	97.30	97.00	0.90	0.88	0.83	492	6.0	52588.47	0.60	2.30	290	17200
N37HY710L4C	US2515024	9100	1489	97.20	97.30	97.10	0.90	0.89	0.84	546	6.0	58360.38	0.60	2.30	318	18000
N37HY710L4C	US2515025	10000	1488	97.30	97.40	97.20	0.90	0.89	0.85	599	5.7	64175.38	0.50	2.20	323	18100
N37HY800S4C	ES2515026	11500	1489	97.30	97.40	97.30	0.91	0.91	0.87	682	5.7	73752.12	0.45	2.30	481	23700
N37HY800M4C	ES2515027	12500	1490	97.35	97.50	97.30	0.90	0.89	0.85	749	5.7	80111.55	0.45	2.30	496	24200
N37HY800L4C	ES2515028	14200	1490	97.45	97.60	97.40	0.91	0.90	0.86	840	6.0	91006.72	0.50	2.40	545	25200
N37HY900S4C	NS2515029	15000	1489	97.50	97.60	97.30	0.92	0.91	0.87	878	6.0	96198.42	0.45	2.50	789	30100
N37HY900M4C	NS2515030	16200	1489	97.50	97.60	97.40	0.92	0.91	0.88	948	5.9	103894.29	0.45	2.45	821	30700
N37HY900L4C	NS2515031	18000	1489	97.60	97.70	97.50	0.92	0.92	0.88	1052	6.0	115438.11	0.45	2.50	889	31900

All Catalogue values are subjected to IEC tolerance except starting current.

Performance Data - TEAAC

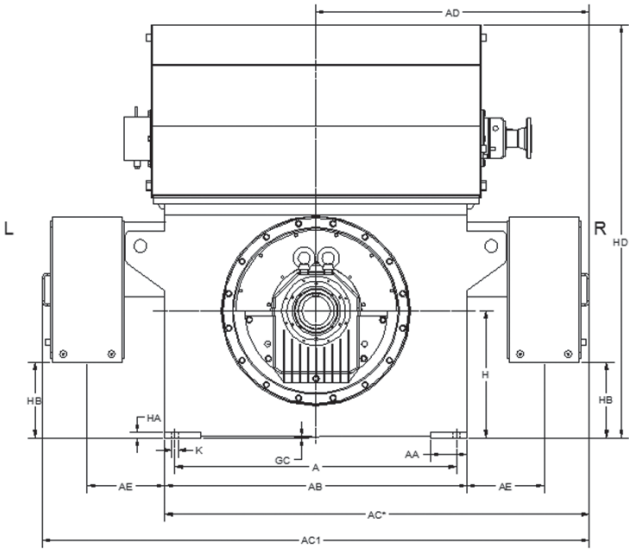
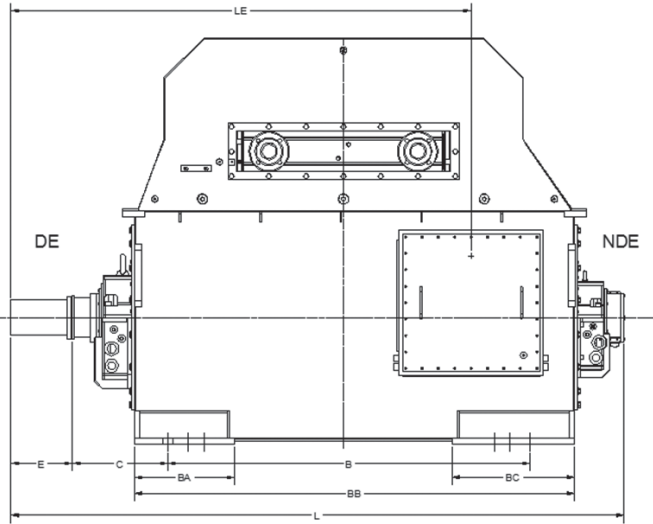
Quick selection with catalogue product.

Designation	Catalog	Output Rating (kW)	FL Speed (rpm)	Efficiency (%) Load			Power Factor (p.u.) (%) Load			FL Current (A)	I ₀ / I _n	T _n (Nm)	T _a / T _n	T _{max} / T _n	Rotor Inertia (kgM ²)	Weight (kg)
				100%	75%	50%	100%	75%	50%							
IP55, IC 611, 4 Pole, 3300V, 50 HZ, 1500 RPM (4), Shaft Fan																
N37RX630S4C	SP2515032	5600	1489	96.80	96.70	96.10	0.88	0.85	0.76	1150	6.7	35914.08	0.60	2.50	154	12800
N37RX630M4C	SP2515033	6100	1489	96.90	96.90	96.40	0.90	0.88	0.82	1224	6.1	39120.69	0.60	2.40	169	13300
N37RX630L4C	SP2515034	7000	1491	97.10	97.10	96.50	0.88	0.85	0.78	1433	6.7	44832.38	0.60	2.50	187	13900
N37RX710S4C	UP2515035	7800	1490	96.80	96.70	96.00	0.89	0.86	0.79	1584	6.4	49989.61	0.60	2.50	271	18100
N37RX710M4C	UP2515036	8700	1490	97.00	96.90	96.40	0.91	0.89	0.85	1724	6.0	55757.64	0.60	2.20	302	19000
N37RX710L4C	UP2515037	9900	1491	97.10	97.00	96.40	0.89	0.86	0.78	2004	6.8	63405.79	0.60	2.50	328	19800
IP55, IC 611, 4 Pole, 6600V, 50 HZ, 1500 RPM (4), Shaft Fan																
N37RX630S4C	SR2515038	5200	1489	96.70	96.60	96.00	0.89	0.87	0.80	529	6.0	33348.79	0.60	2.40	155	12800
N37RX630M4C	SR2515039	5950	1489	96.80	96.80	96.30	0.90	0.88	0.82	597	6.0	38158.71	0.60	2.40	169	13200
N37RX630L4C	SR2515040	6500	1491	97.00	96.95	96.40	0.89	0.87	0.80	659	6.2	41630.07	0.60	2.50	190	13900
N37RX710S4C	UR2515041	7900	1490	96.80	96.70	96.10	0.89	0.86	0.79	802	6.3	50630.50	0.60	2.50	271	18000
N37RX710M4C	UR2515042	8700	1490	96.90	96.80	96.20	0.89	0.87	0.79	882	6.6	55757.64	0.60	2.50	299	18800
N37RX710L4C	UR2515043	9700	1491	97.10	97.00	96.30	0.89	0.86	0.78	982	6.9	62124.87	0.60	2.50	326	19700
IP55, IC 611, 4 Pole, 11000V, 50 HZ, 1500 RPM (4), Shaft Fan																
N37RX800S4C	ER2515044	4600	1489	96.50	96.40	95.70	0.90	0.88	0.82	278	6.0	29500.85	0.60	2.40	155	12700
N37RX800M4C	ER2515045	5200	1490	96.60	96.60	95.90	0.90	0.88	0.82	314	6.0	33326.40	0.60	2.40	169	13200
N37RX800L4C	ER2515046	5800	1491	96.80	96.60	96.00	0.89	0.86	0.78	354	6.7	37146.83	0.60	2.50	185	13700
N37RX900S4C	NR2515047	6400	1491	96.50	96.30	95.50	0.89	0.86	0.79	391	6.7	40989.60	0.60	2.50	263	17800
N37RX900M4C	NR2515048	7300	1490	96.60	96.50	95.80	0.90	0.87	0.81	441	6.4	46785.14	0.60	2.50	290	18600
N37RX900L4C	NR2515049	7900	1491	96.70	96.60	95.90	0.90	0.88	0.82	476	6.6	50596.54	0.60	2.50	318	19400
N37RY630S4C	SS2515050	8500	1490	96.80	96.70	96.10	0.90	0.88	0.82	512	6.3	54475.85	0.60	2.50	323	19500
IP55, IC 616, 4 Pole, 6600V, 50 HZ, 1500 RPM (4), Motor Fan																
N37MY630M4C	SS2515051	12200	1491	96.90	96.80	96.20	0.91	0.90	0.86	1210	5.9	78136.43	0.40	2.20	485	27100
N37MY630L4C	SS2515052	13200	1489	96.95	96.90	96.50	0.92	0.91	0.88	1295	5.5	84654.61	0.45	2.20	516	28000
N37MY710S4C	US2515053	15000	1492	97.20	97.10	96.60	0.90	0.89	0.85	1500	6.0	96004.99	0.50	2.20	558	28900
N37MY710M4C	US2515054	15400	1493	97.10	97.00	96.30	0.91	0.90	0.85	1525	6.3	98499.11	0.40	2.40	805	34200
N37MY710L4C	US2515055	15800	1493	97.10	97.00	96.40	0.91	0.91	0.88	1564	6.0	101057.53	0.40	2.40	840	34800
N37MY710L4C	US2515056	17800	1493	97.30	97.20	96.50	0.90	0.89	0.84	1778	6.3	113849.62	0.40	2.50	898	36000
IP55, IC 616, 4 Pole, 11000V, 50 HZ, 1500 RPM (4), Motor Fan																
N37MY800S4C	ES2515057	11000	1490	96.70	96.60	96.00	0.92	0.91	0.87	649	6.0	70498.16	0.40	2.30	481	27000
N37MY800M4C	ES2515058	12000	1491	96.80	96.70	96.10	0.90	0.89	0.85	723	6.0	76855.51	0.50	2.20	496	27500
N37MY800L4C	ES2515059	13300	1491	96.90	96.80	96.30	0.91	0.90	0.85	792	6.1	85181.52	0.40	2.50	545	28500
N37MY900S4C	NS2515060	14500	1492	96.90	96.70	96.10	0.92	0.91	0.86	854	6.1	92804.83	0.40	2.50	789	34000
N37MY900M4C	NS2515061	15400	1491	96.90	96.80	96.20	0.92	0.92	0.88	907	6.0	98631.23	0.40	2.40	821	34600
N37MY900L4C	NS2515062	17000	1492	97.10	97.00	96.40	0.92	0.91	0.87	999	6.3	108805.66	0.40	2.50	889	35800

All Catalogue values are subjected to IEC tolerance except starting current.

Dimensions

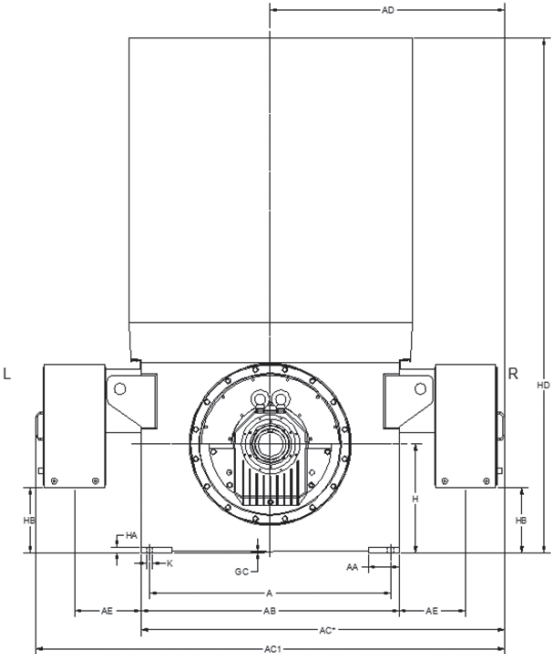
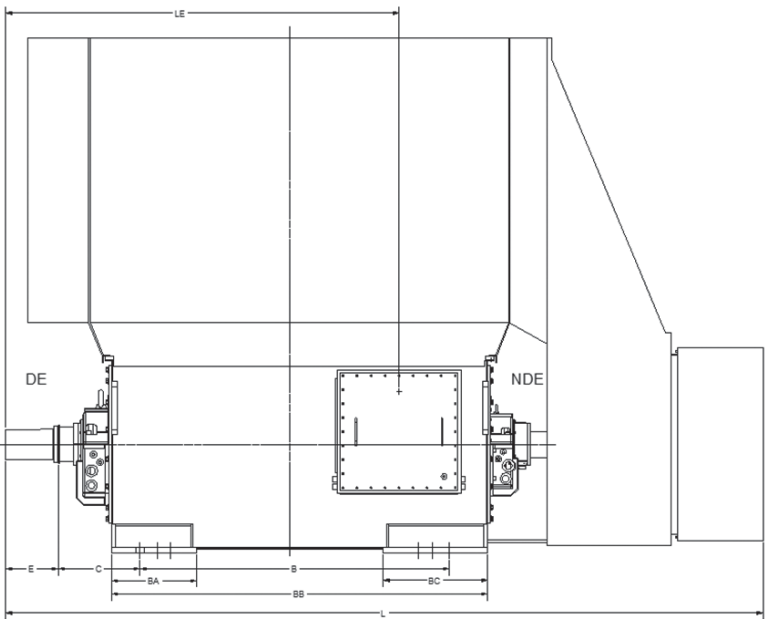
TEWAC – 630 to 900 Frames – All Voltages
IC81W



Frame	Cooling	Poles	A	AA	AB	GC	H	HA	HD	HB	AC	DE Bearing
630	TEWAC	4	1400	180	1500	5	630	30	2050	375	2720	EMZLB18-200
710	TEWAC	4	1600	200	1700	5	710	40	2115	456	2920	EMZLB18-225
800	TEWAC	4	1800	200	1900	10	800	40	2285	420	3120	EMZLB22-225
900	TEWAC	4	2000	220	2120	10	900	60	2530	520	3340	EMZLB22-300
Frame	Cooling	Poles	B	BA	BC	BB	E	C	L	LE	AD	NDE Bearing
630	TEWAC	4	1800	496	608.5	2185	350	475	3045	2290	1360	EMZLQ14-160
710	TEWAC	4	1800	498	595	2300	410	450	3300	2500	1460	EMZLQ18-200
800	TEWAC	4	2000	516	550	2430	410	500	3450	2535	1560	EMZLQ18-200
900	TEWAC	4	2000	565	640	2650	465	560	3870	2730	1670	EMZLB22-300
Frame	Cooling	Poles	DB	DC	GD	GA	D	G	F	AE	GE	K
630	TEWAC	4	24	82	28	235	230	213	50	385	17	42
710	TEWAC	4	30	89	32	272	260	240	63	375	20	42
800	TEWAC	4	30	89	32	272	260	240	63	375	20	42
900	TEWAC	4	30	89	36	314	300	278	70	385	22	48

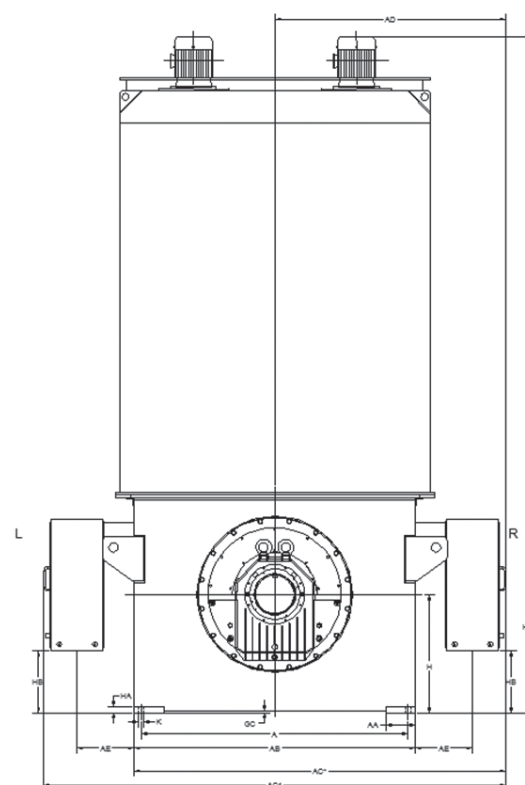
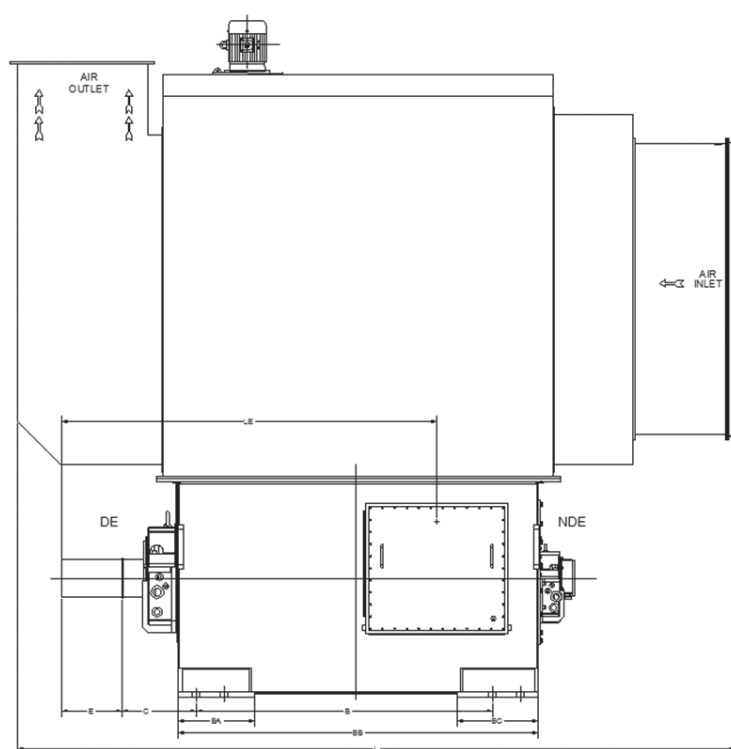
Dimensions

TEAAC – 630 and 700 Frames – All Voltages
IC611



Frame	Cooling	Poles	A	AA	AB	GC	H	HA	HD	HB	AC	DE Bearing
630	TEAAC	4	1400	180	1500	5	630	30	2990	375	2720	EMZLB18-200
710	TEAAC	4	1600	200	1700	5	710	40	2965	456	2920	EMZLB18-225
Frame	Cooling	Poles	B	BA	BC	BB	E	C	L	LE	AD	NDE Bearing
630	TEAAC	4	1800	496	608.5	2185	350	475	4400	2290	1360	EMZLQ14-160
710	TEAAC	4	1800	498	595	2300	410	450	4610	2500	1460	EMZLQ18-200
Frame	Cooling	Poles	DB	DC	GD	GA	D	G	F	AE	GE	K
630	TEAAC	4	24	82	28	235	230	213	50	385	17	42
710	TEAAC	4	30	89	32	272	260	240	63	375	20	42

Dimensions

TEAAC – 800 and 900 Frames – All Voltages
IC616

Frame	Cooling	Poles	A	AA	AB	GC	H	HA	HD	HB	AC	DE Bearing
800	TEAAC	4	1800	200	1900	10	800	40	5345	420	3120	EMZLB22-225
900	TEAAC	4	2000	220	2120	10	900	60	5630	520	3340	EMZLB22-300
Frame	Cooling	Poles	B	BA	BC	BB	E	C	L	LE	AD	NDE Bearing
800	TEAAC	4	2000	516	550	2430	410	500	4900	2535	1560	EMZLQ18-200
900	TEAAC	4	2000	565	640	2650	465	560	5150	2730	1670	EMZLQ22-300
Frame	Cooling	Poles	DB	DC	GD	GA	D	G	F	AE	GE	K
800	TEAAC	4	30	89	32	272	260	240	63	375	20	42
900	TEAAC	4	30	89	36	314	300	278	70	385	22	48

Global Services



Global manufacturing capability

GE has global manufacturing capability to meet local content requirement and help to reduce lead time and cost. GE's manufacturing locations across the globe provide capacity to address the growing demand for high voltage motors.

Reducing risk, enhancing productivity

GE is a strong global partner, operating in 170 countries with 130 years of experience in energy infrastructure projects.

Power Conversion services include all support for utilities and operators to protect assets, keep critical processes running, to help decreasing risk and enhancing productivity.

We deliver original equipment spares around the world as well as repair, refurbish and upgrade customer systems with the latest technology. We offer risk protection through performance-based contracts based on system experience and sophisticated application calculations.

Through advanced digital platforms, we can deliver expert onsite and remote emergency 24/7 support, interventions and planned maintenance customized to meet unique requirements around the globe.

Standard Accessories

- 2 RTD 's per phase in stator [Simplex]
- 1 Double RTD per bearing
- Water Leakage detector (for CACW cooler)
- Auxiliaries box steel [IP 56] [Right side to DE]
One for RTD & one for Space heater.
- Space heater
- Oil Pipes inlet position
– Default Right side from DE [both side provision] – ANSI standard

- Water pipe & cooler position with respect to water inlet
– Right side from NDE
- Un-drilled gland plates
- Fixation Kits [Bolt & Shims]
- Orifice plate at oil inlet.

Accessories are for safe area. Additional accessories for Exp are also available upon request.





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