



ALUMEN

ALTERNATORS
FOR LIGHTING TOWERS
60HZ

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TECHNICAL DATA

ALUMEN - Single-phase 4 poles with capacitor with damping cage

Type	Single Phase 120/240 V- Series Parallel kVA			
	150/40	125/40	105/40	80/40
ALUMEN SB	4.5	4.2	3.8	3.4
ALUMEN MD	6.5	6	5.5	4.8
ALUMEN LE	8.8	8	7.5	6.5
ALUMEN LF	11	10	9.2	8

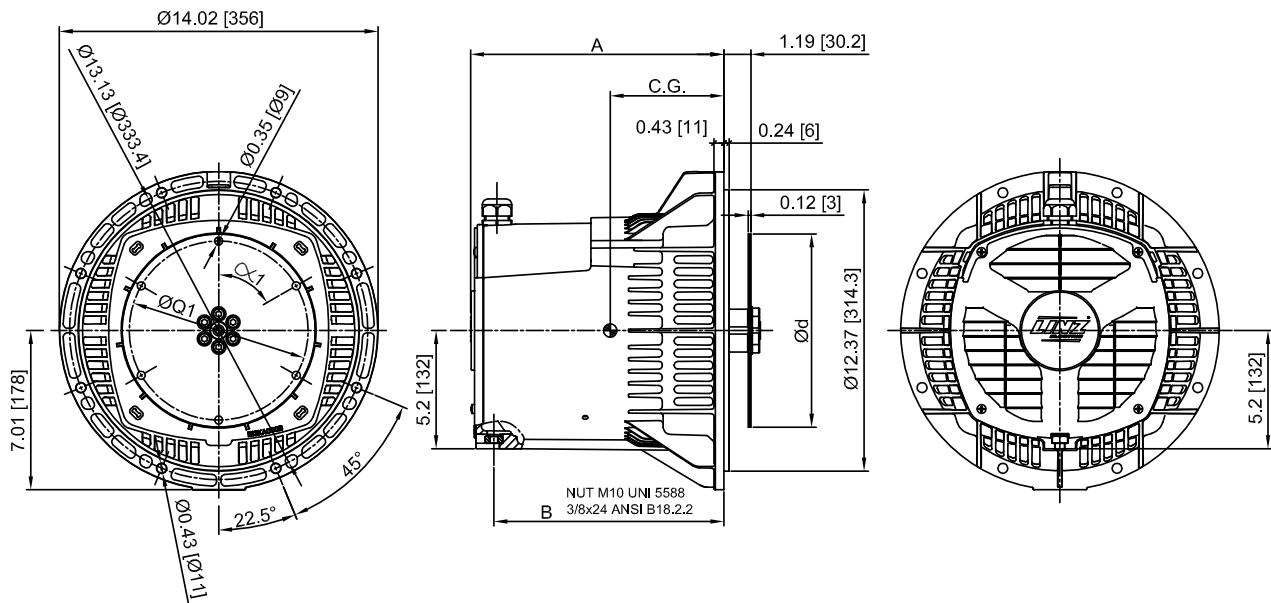
Type	Rating kVA	Efficiency %		Driving power		Mom. of inertia (J) (kgm ²) B2 SAE	Net weight SAE (lbs)	Air volume (m ³ /1')
		Full load	75% of load	kW	Hp			
ALUMEN SB	4.2	75.8	78.7	5.5	7.4	0.0401	69	2.7
ALUMEN MD	6	81.4	81.8	7.4	9.9	0.0532	90.5	3.6
ALUMEN LE	8	82.3	83	9.7	13	0.0631	104.5	6.4
ALUMEN LF	10	82.6	82.8	11.6	15.6	0.0727	122	6.1



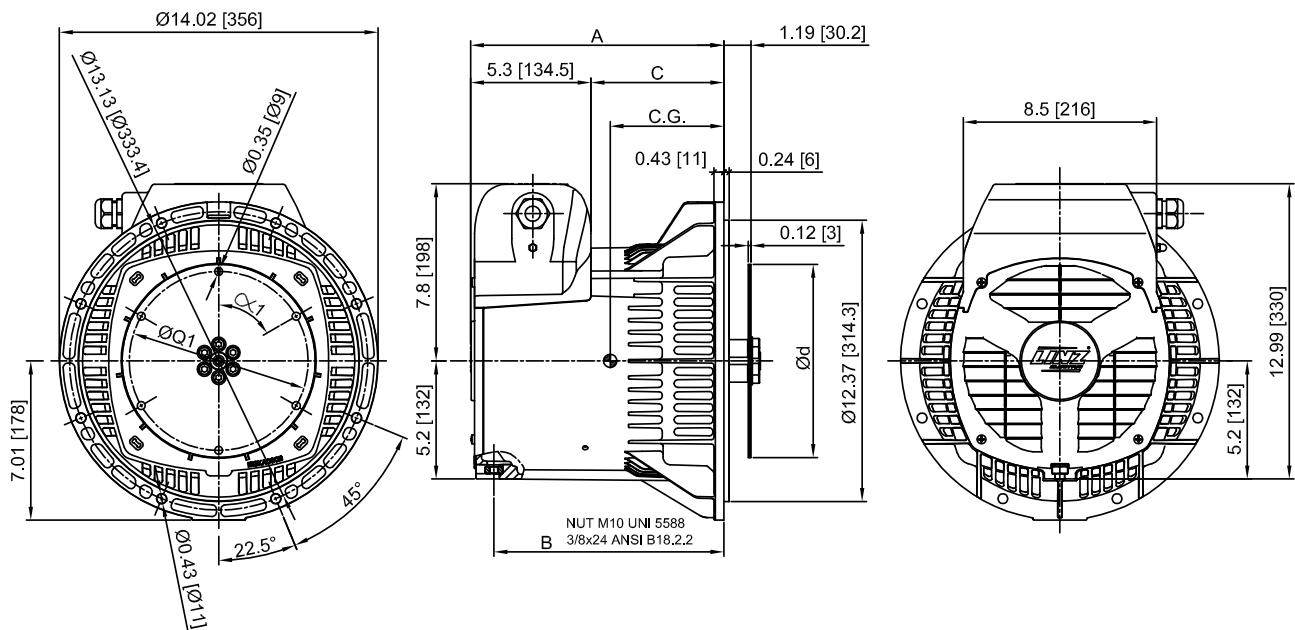
OVERALL DIMENSIONS ALUMEN

Dimensions in inches and [millimeters]

FORM SAE



FORM SAE - OPTIONAL



TYPE	A	B	C	C.G.
ALUMEN 'S'	9.76 [248]	8.74 [222]	4.47 [113.5]	4.96 [126]
ALUMEN 'M'	11.14 [283]	10.12 [257]	5.85 [148.5]	5.71 [145]
ALUMEN 'L'	13.15 [334]	12.13 [308]	7.85 [199.5]	6.75 [171.5]

SAE N.	COUPLING DISCS			
	Ød	ØQ1	holes No.	α1
6 1/2	8.5 [215.9]	7.87 [200]	6	60°
7 1/2	9.5 [241.3]	8.75 [222.25]	8	45°

TECHNICAL DETAILS

WHY CHOOSE ALUMEN SERIES

The ALUMEN series is a set of single-phase, 4-pole brushless alternators with an auxiliary winding to regulate the voltage loaded onto highly insulated capacitors to protect from high ignition voltage. This series has been especially designed for use in LIGHTING TOWERS with metal halide, halogen or LED lamps.

1. **BEST IN CLASS EFFICIENCY**
2. **COMPACT AND EASY TO ASSEMBLE**
3. **ROBUST AND RELIABLE**
4. **FLEXIBLE DESIGN**
5. **EASY MAINTENANCE**



Find out below why it has been chosen by the largest lighting tower manufactures:

1. BEST IN CLASS EFFICIENCY

The Alumen alternators have been designed to guarantee the best efficiency values in the market. We performed some internal tests with our Alumen series and the outcome is that our alternators have an average efficiency 4% higher than the average of our competitors'.

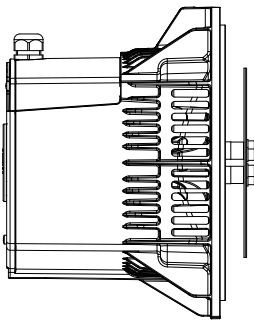
2. COMPACT AND EASY TO ASSEMBLE

One of the main feature of Alumen is to be a unique aluminum body for an easy and quick assembling. It is available in three different lengths and SAE5 coupling. Due to a single central eye-lift, handling is very easy.

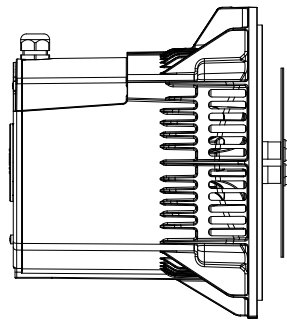
3. ROBUST AND RELIABLE

The reliability and top performance of our alternators is granted by the quality of our materials and our highly automated production which guarantees the highest level of controlled and constant quality. The insulation is class H and windings are designed to manage severe overloads. Furthermore the stator has an additional impregnation for a better protection. Last but not least, the use of top level and over sized capacitors guarantees a higher reliability even in very severe working conditions.

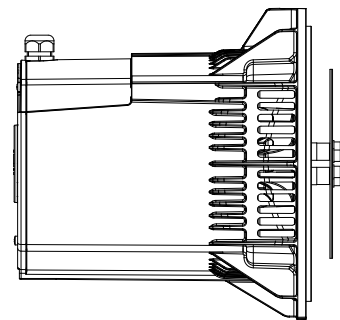
3 LENGHTS AVAILABLE



S=9.76 in / 248 mm



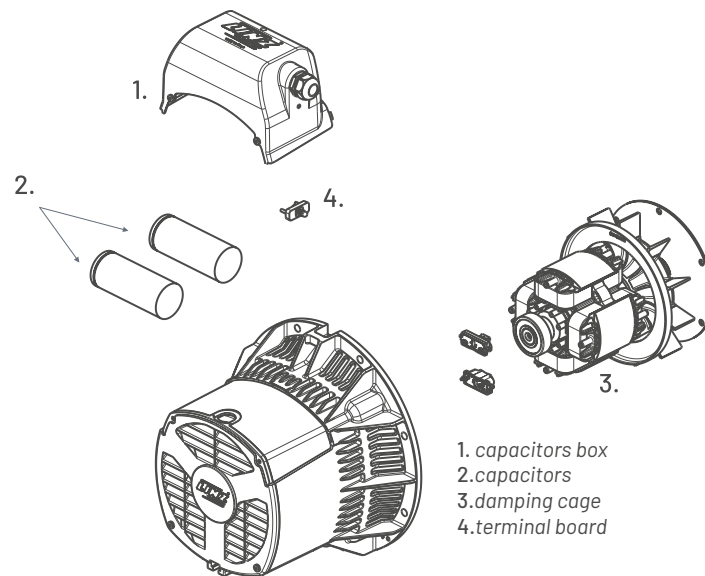
M=11.14 in / 283 mm



L=13.15 in / 334 mm

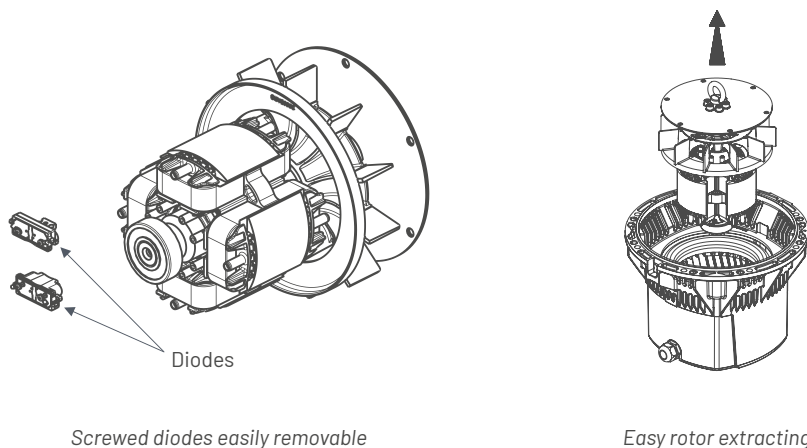
4. FLEXIBLE DESIGN

This product has been designed from the beginning to comply with needs coming from the lighting tower market. In fact, one of the most required features is the flexibility and we can satisfy this request offering a product which can be supplied in different versions, as follows: with or without terminal and capacitor box, with external cable extension.



5. EASY MAINTENANCE

One of the main advantage of this alternator is the very easy and quick maintenance. The rectifier bridge has a very easy access and having screwed diodes the replacement is extremely simple. This advantage combined with fast rotor extraction lets Alumen become a reference point within easy maintenance solutions.



VOLTAGES

Standard 120/240V,60Hz. Special voltages on request at both 50 and 60 Hz.

VOLTAGE ACCURACY

± 5% from no load to full load, $\cos\phi = 1$ at constant rotation speed.

SHORT CIRCUIT CURRENT

In case of short circuit the permanent current exceeds rated current by three times, ensuring the correct operation of protections.

OVERLOAD

A 10% overload for one hour every 6 hours is accepted.

OUTPUT VOLTAGE WAVE FORM

The low harmonic content <5% allows feeding any type of single-phase load. The damping cage allows a good operation also in case of distorting loads.

TRANSIENT VOLTAGE DIP AT RATED LOAD INSERTION

The voltage dip when load is inserted is lower than 10% at $\cos\phi = 1$ and nominal rpm.

MECHANICAL SPECIFICATIONS

The ALUMEN series is manufactured by means of advanced technology and high quality materials. The frame is made of vibration-resistant aluminium alloy. The shaft is made of high tensile steel. The rotor is designed to withstand the runaway speed of traction motors, and it comes with a damping cage allowing better operation also in case of distorting loads. The bearings are life-long lubricated. Axial ventilation is ensured with intake from N.D.E. (non-drive end). Both rotation directions are possible.

ELECTRIC CHARACTERISTICS

Insulation is obtained with class H materials for both stator and rotor, in accordance with UL standards. Windings are tropicalized and low-loss lamination is used.

TERMINAL BOARD

Alumen S and M series with capacitor box are supplied with terminal board for 120 and 240 Volt connections.

REFERENCE STANDARDS

Alternators are manufactured pursuant to the provisions of the following standards:

- cCSAus (CAV/CSA - C22.2 N. 100-14, UL 1004-1, UL 1004-4) and UL insulation systems (UL 1446 - CSA C22.2 N. 0) certification;
- EN 60034-1, EN 60204-1, EN61000-6-2, EN61000-6-4, EN 55014-1, EN 55011 and 2006/42/CE, 2014/35/CE, 2014/30/UE directives.

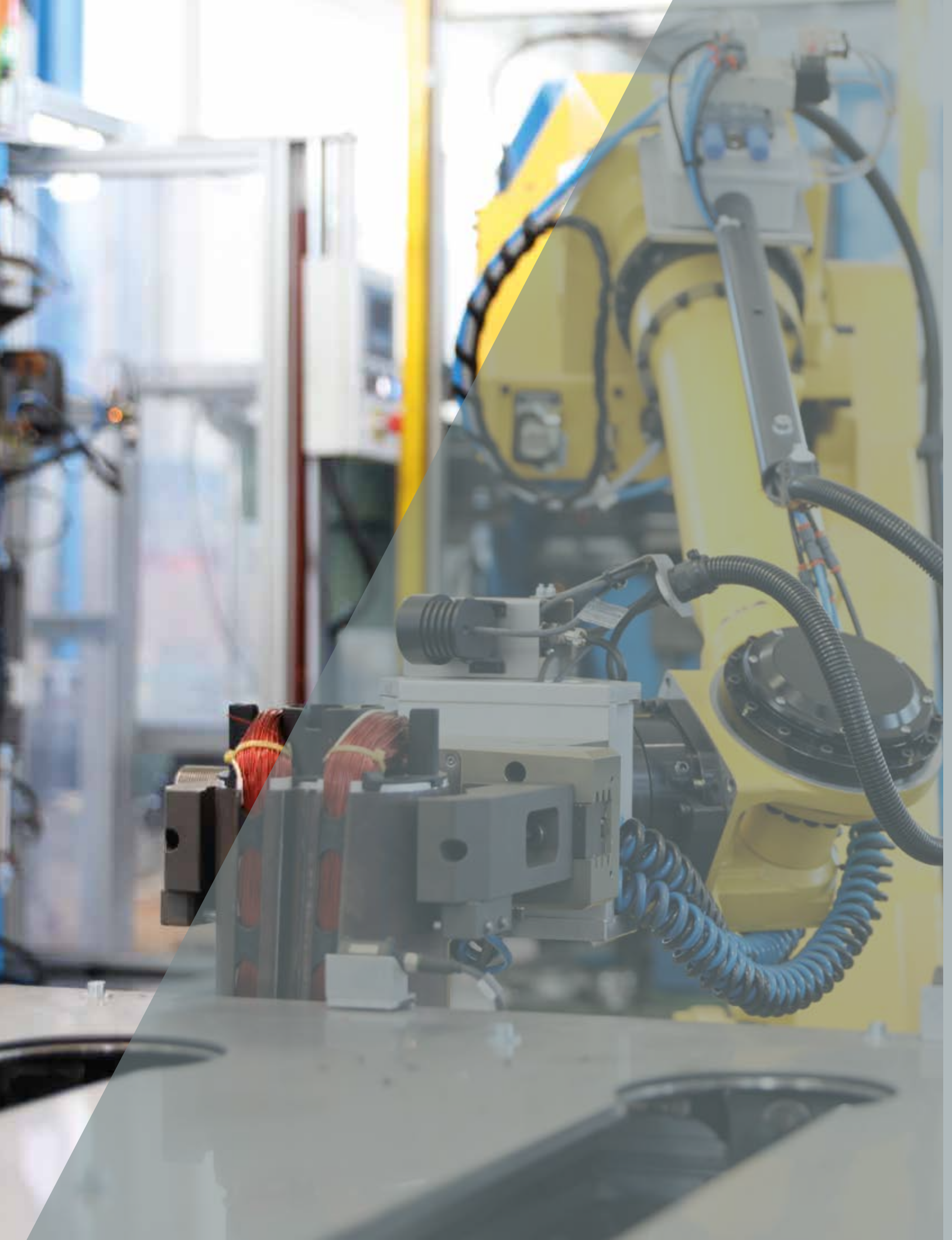
PROTECTION DEGREE

Standard IP 21.

OPERATING CONDITIONS

The performance datas reported in the present catalogue are valid for operation at an altitude not exceeding 1000 m (3300ft) a.s.l. and ambient temperature not exceeding 40°C (104°F). If operation takes place in different conditions, see the table below.

Power variation according to temperature and altitude					
Altitude m/ft	Ambient temperature				
	25° C / 77° F	40° C / 104° F	45° C / 113° F	50° C / 122° F	55° C / 131° F
< 1000 / 3000	1.09	1	0.96	0.93	0.91
1000 - 1500 / 3300-4900	1.01	0.96	0.92	0.89	0.87
1500 - 2000 / 4900-6600	0.96	0.91	0.87	0.84	0.83
2000 - 3000 / 6600-9900	0.9	0.85	0.81	0.78	0.76



A photograph of a modern, light-colored commercial building with large windows and a dark grey base. The building features a prominent logo for 'LINZ ELECTRIC' in blue and orange. A dark sedan is parked in front of the building. The sky is overcast.

LINZ
ELECTRIC

***WHO
WE ARE***

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FLEXIBILITY, QUALITY AND PRODUCT EXCELLENCE.

LINZ ELECTRIC S.p.A., part of the **Pedrollo Group** of companies, is specialized in the **production of alternators and rotating machines**. It was founded in 2002 and became in few years one of the major players in the sector. The knowledge and long experience of its **designers** together with the strong propensity for **innovation** and a **natural tendency for investment** has quickly led to the development of a full range of **Made in Italy products** whose high quality standards are recognised and appreciated worldwide by the most important gen-sets manufacturers. In accordance with its deep values the main focus of Linz Electric has always been the **Customer Satisfaction** by controlling the key points of the production through a strong vertical integration, a constant focus on the **Product Quality** and a **quick and complete Service**.

LINZ ELECTRIC lands in the United States in 2015, with a new subsidiary, **LINZ ELECTRIC INC**. Thanks to this important step and to the proximity to the market we have been offering an optimized pre- and after-sales service to our North American customers, quick deliveries and customer support through the competence that always distinguishes Linz Electric and its people.



OUR NUMBERS

2002

Established

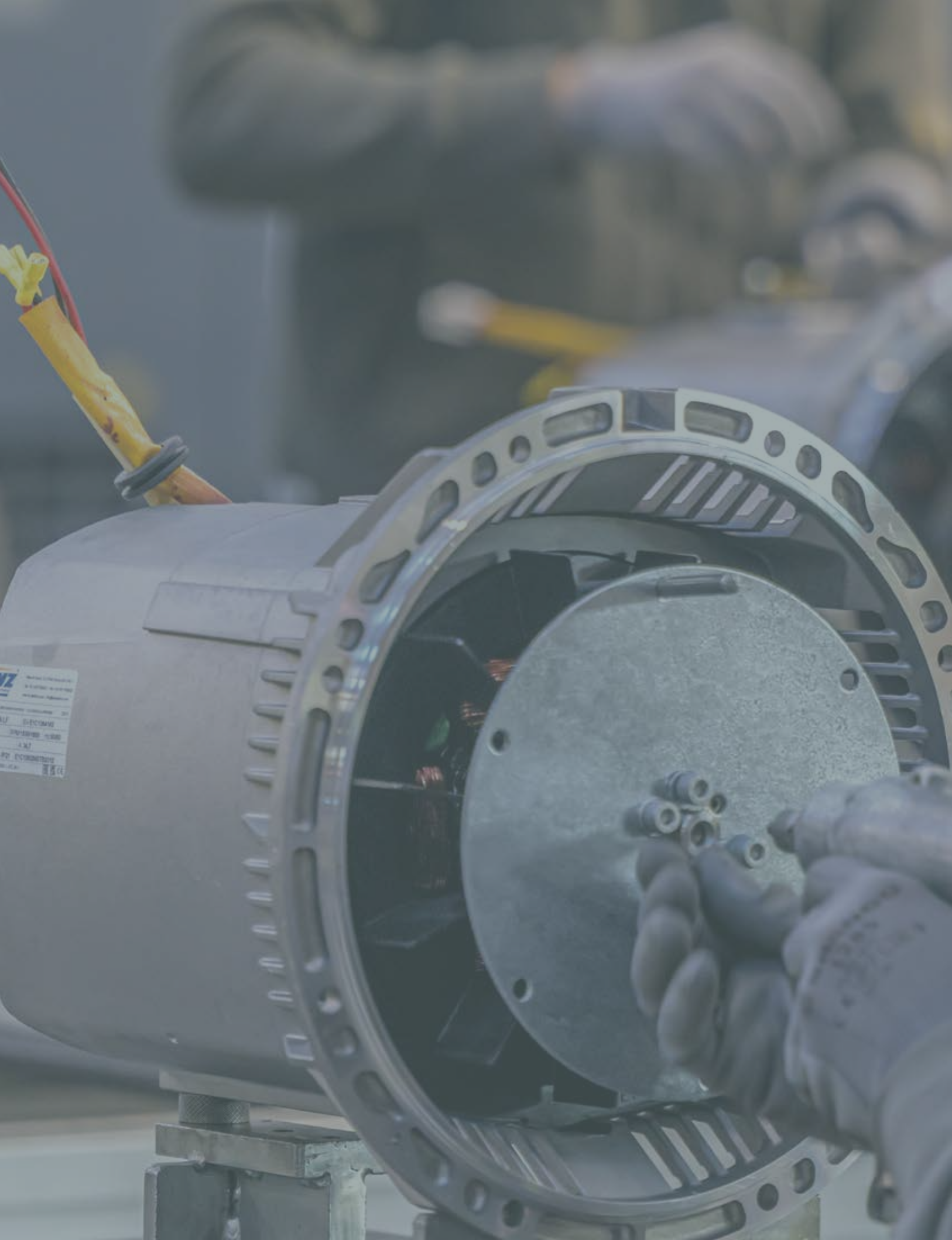
30.000

Sq.m of covered production plants in Verona, Italy

1.000.000

Alternators produced since foundation





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ALUMEN 60Hz 2026

*The features and specifications herein stated are in no way binding for LINZ ELECTRIC S.p.A.
LINZ ELECTRIC S.p.A. is free to modify the product at any time without previous notice.*



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