



## QUOTATION

Project Name: ALLTEC Ultimate Package  
Quote #: 24OQALLTECP2  
Company: Residential-Ultimate



These are Residential Packages for Houses at Kerala State only, ALL KERALA FREE DELIVERY, NO HIDDEN CHARGES

Revision:  
Terms: \*\*\*  
Ship via: Land Cargo  
C&F Landed  
Weight: \*\*\* As applicable

TERRA STREAMER  
Lightning Protection System  
Make : ALLTEC, USA

Supply of External Lightning Protection System ALLTEC – Terra Streamer® ESEs are made of non-corrosive materials, utilize advance and sustainable technologies, maintain a 15-year replacement warranty, are independently tested certified to NFC 17102 and UNE 21186 standards. TerraStreamer® products complete the ALLTEC Protection Pyramid- protection radius in Level IV 60 mtrs by capturing dangerous lightning discharges and safely channelling it to earth. All mounting mast connected with FRP mast for Protection of Side Flash Lightning Current and Test link Joint Kit IP 55/65 weather proof enclosure for testing the earth pit. Insulation material should be used to electrically isolate the panels, The lightning air terminal shall be maintenance free type & frequent testing should not be necessary for ensuring the working of it. The central finial shall be elevated above the spheroid and it should be sharp pointed & made-up of stainless steel material for long and reliable operations. An air gap shall be provided between the individual electrically isolated 4 panels and the finial tip of the central rod.

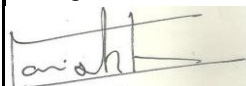
Number	Item	Description	Qty.	Unit	Unit Cost	Total Cost
		<b>Lightning Protection System</b>			(in INR)	(in INR)
1	Terrastreamer 20	ALLTEC USA Terrastreamer 20 Lightning Arrester with SS ADAPTOR	1	No	INR 87,400	INR 87,400
2	Earthing	Maintenance free Earthing For Lightning Arrestor: Using 2 no's of 2 Mtr long / 250 micron, 14.2mm Dia DOLPHIN UL Listed Copper bonded Steel Rod & TEKSO ELECTRON Fill , a low resistivity ,RoHS certified & Maintenance free Grounding Enhancement backfill Compound Model:-TEKSO ULTRA FILL(8Kg Bag 4No's) with tester clamp fixings As per ALLTEC USA Standards	1	Set	INR 12,000	INR 12,000
3	Elevation Mast	Specially designed 3 mtrs GI mast Setting , and 1 mtr FRP insulation mast Specially designed As per ALLTEC USA Standards; Roof top/Tower side mounting arrangement & fixing accessories (anchoring rope & anchoring plate, Base -for roof top installation). The mast coated with paint for additional protection,Cable connector Adaptor	1	Set	INR 8,000	INR 8,000
4	Down Conductor	70 Sqmm V Guard/Polycab HRFR Insulated Copper Cable with tester cables for ESE Lightng Arrester tester	25	Mtrs	INR 1,000	INR 25,000
5	Surge protection device	LSG Protect BC100 Imported 3 Phase 1+2 Combicontrol 100KA AC Surge protection device	1	No	Complementary	Complementary
6	Equipotential bonding Device	LSG PROTECT EQB50 , Lightning impulse current Limp 50KA 10/350, Imax 8/20 50KA, Protection against reverse path effect and equal distribution of lightning current to earth rods.	1	No	INR 14,000	INR 14,000
7	Lightning strike counter	LSG Protect 6 Digit lightning strike counter	1	No	INR 10,000	INR 10,000
8	Exothermic bonding	LSG Protect Knitweld Exothermic bonding for earthing connections, (exothermic bonding is a process for permanently joining copper, using a chemical reaction between a metal oxide and copper powder. The process generates intense heat through an exothermic oxidation-reduction reaction, producing molten metal that can fuse with reduces resistance by about 80% and the conductor and earthing becoming a single part.	2	SET	INR 4,000	INR 8,000
9	Installation	Installation of ESE Lightning Protection System, tester system, SPDs with Down conductor routing from the LA terminal to the earth pit. Earth termination, fixing & Backfilling	1	Job	INR 10,600	INR 10,600
Quotation Valid For 20 days					<b>GRAND TOTAL</b>	INR 1,75,000.00

**Terms & Conditions**

- 1 Price Landed at site
- 2 Customers Scope: Material safety will be customer scope after delivery
- 3 Approvals /Permission of work/storage of tools & equipment/safety etc : At customers scope

*Thank you,*

**Best Regards**



ELSAFE PROTECTION & CONTROL SYSTEMS

**CALL US AT 08848281812**



Doc. No. : ES242512121

Rev. No. :

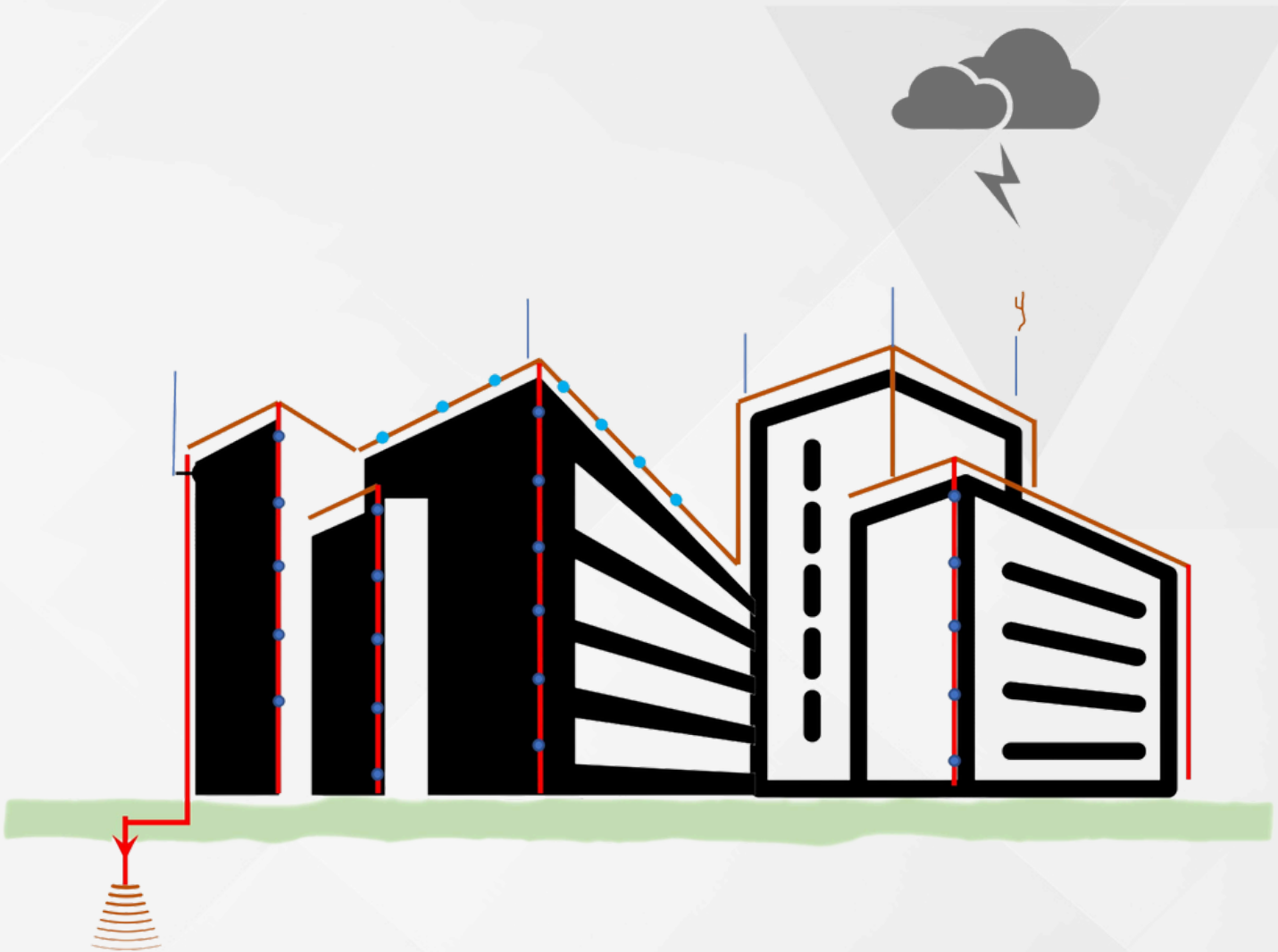
Rev. Date :

*Sales and Service Provider of ALLTEC USA / LSG FRANCE/ TEKSAI-INDIA, Lightning Arresters, Surge Arresters, Maintenance free Earthing*



# CATALOGUE

**LIGHTNING -SURGE PROTECTION  
EARTHING & BONDING**



## About us

We **ELSAFE PROTECTION AND CONTROL SYSTEMS** is a renowned company specialized towards enduring electrical safety cultures across a wide range of markets. We specialize in a total electrical safety model which includes Quality lightning protection system, surge protection system, low resistivity Chemical earthing.



## Our brands



### ALLTEC USA

ALLTEC USA is an international, full-service company specializing in customized design & engineering solutions for grounding/earthing & bonding, surge/transient protection, and lightning protection.

### LSG FRANCE

LSG is a specialist company, in the fields of lightning protection, electrical earthing and surge protection. which grow the business through dynamic technical orientation and exceptional customer service

### TEKSAI INDIA

TEKSAI is an ISO 9001-2023 certified company and a leading brand in India Since 2003 & Tekesai has proven itself leader in the Design, Manufacturing of Grounding System, Lightning Protection System & Electrical installation

## Our Certifications



**RDSO**  
Research Design & Standards Organisation



## Our Products

01

**ESE LIGHTNING ARRESTERS**

02

**CONVENTIONAL LIGHTNING ARRESTERS**

03

**SURGE ARRESTERS**

04

**EARTHING RODS , ELECTRODES AND  
EARTH COMPOUNDS**

05

**COPPER/GI/ALUMINIUM STRIPS,  
CONDUCTORS, CABLES**

06

**EXOTHERMIC WELDING**

## Our services

01

**PRODUCT SALES**

Our Stock management and Our Supply chain management is well appointed and best managed to Provide best customer experience and timely completion of Orders.

02

**SITE VISIT & DESIGN**

Understanding of the Site design, layout and their plan for electrical safety implementation all enable us to contribute efficiently; ensuring total Protection and Solution level is achieved

03

**INSTALLATION**

Our installation crews and field technicians perform all forms of exterior earth grounding and internal equipment bonding and grounding, including comprehensive turnkey installation service. Employees participate in continuing education and advancement courses and are ALLTEC Certified Master Installers.

04

**TESTING AND SUPPORT**

Our field technicians and engineers perform 3-point fall of potential tests, 4-point soil resistivity tests, and clamp-on resistance tests of grounding systems, as well as complete facility site survey and consulting services. Our staff is equipped with the latest testing equipment. Extensive experience in ground testing and design



भारतीय प्रौद्योगिकी संस्थान हैदराबाद  
Indian Institute of Technology Hyderabad

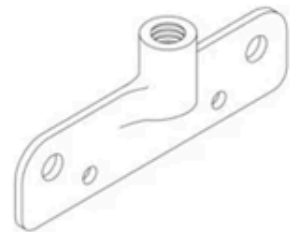
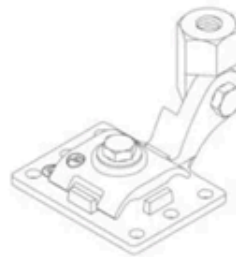
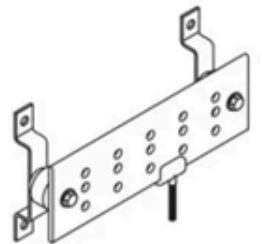
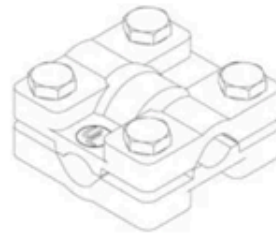
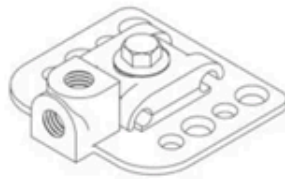




# ALLTEC



## CONVENTIONAL LIGHTNING PROTECTION







# ALLTEC



## ESE LIGHTNING PROTECTION





**LSG PROTECT**®

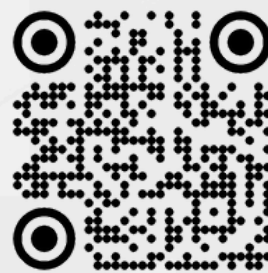


## SURGE PROTECTION DEVICES





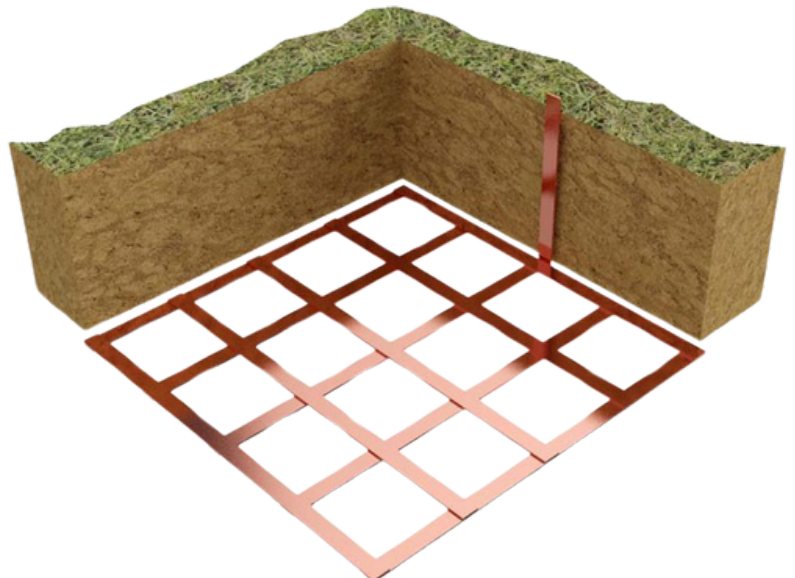
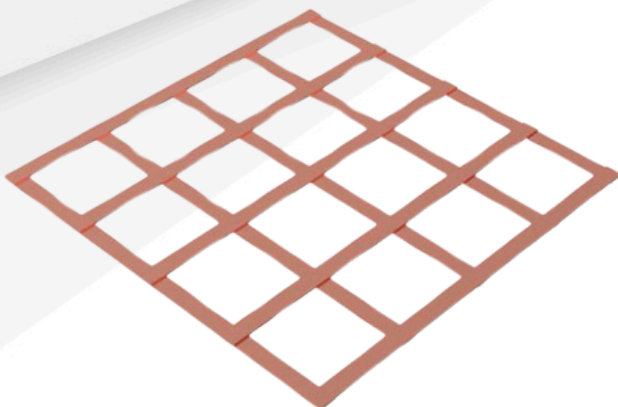
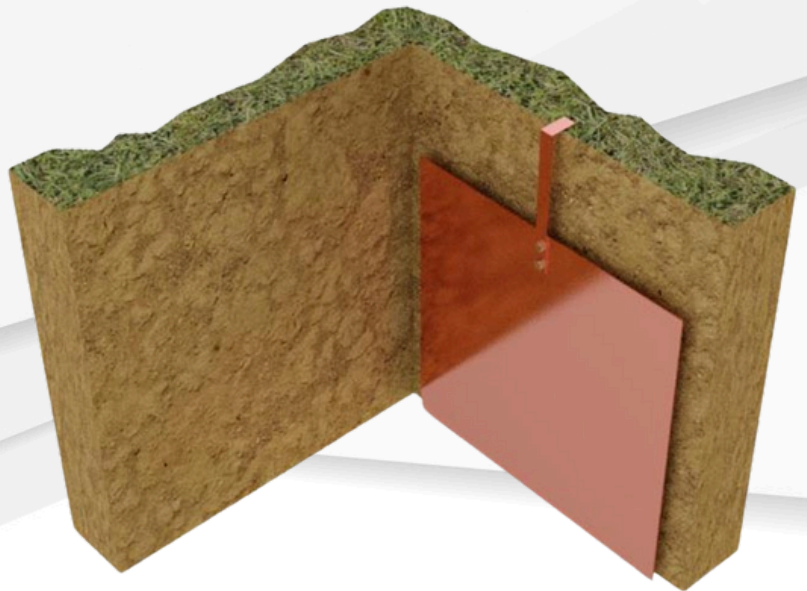
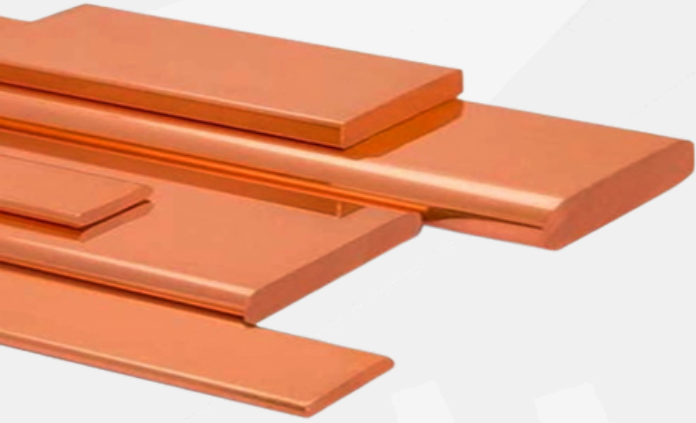
**LSG PROTECT**®



## ESE LIGHTNING PROTECTION









**EARTHING SOLUTIONS**



# COPPER/GI/ALUMINIUM CONDUCTORS







# CONTACT



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PO, Kakkanad, Ernakulam-683565  
Kerala State, India



Grounding and Bonding Solutions • Surge Suppression • Lightning Protection



SOLUTION PROVIDERS FOR AN ENERGIZED WORLD™



## **LIGHTNING PROTECTION TIER THREE:**

Securing investments, operations, and personnel against direct lightning strikes is critical for any organization. ALLTEC's TerraStat® Charge Dissipation Terminals, TerraStreamer® Early Streamer Emission Terminals, and traditional lightning protection components each have their own unique methods of effectively protecting your people and facility from lightning damages and injury. You can learn more at [www.alltecglobal.com/lightningprotection](http://www.alltecglobal.com/lightningprotection).

## Early Streamer Emission Terminal (ESE)

# TerraStreamer®

Extensive research has allowed ALLTEC to create a lightweight, low wind loading ESE system to provide a safe and efficient manner of controlling dangerous lightning energy before it damages a structure or its important contents, including human occupants. The TerraStreamer® ESE air terminal initiates the upward connecting streamer earlier in time than a traditional lightning air terminal, thus extending the effective range of protection over and above that of conventional lightning air terminals. By utilizing this advanced technology, TerraStreamer® ESEs provide lightning protection to facilities that would otherwise be difficult or cost prohibitive to protect by conventional means.



### FEATURES & BENEFITS

- Patented Technology
- NF C 17 – 102 and UNE 21 186 tested and certified
- Lightweight and low wind loading
- Reliable performance in all weather conditions
- Suitable for corrosive environments
- Available in five models for numerous applications
- Economical and easy to install
- No internal electronics or power supply

You can learn more at [www.alltecglobal.com/terrastreamer](http://www.alltecglobal.com/terrastreamer)

### TYPICAL APPLICATIONS

- Distribution Warehouses
- Industrial Plants
- Apartment Buildings
- Shopping Malls
- Shipping Terminals
- Other Large Area Structures





## The ESE Principle

The principle of operation for ESE terminals is to create an upward propagating streamer earlier than conventional air terminals or other objects on the earth. TerraStreamer® does this by collecting and storing ground charge during the initial phase of a thunderstorm development.

1. Thunderstorm begins creating downward step leaders
2. Ambient electric field intensity in the area of the ESE terminal increases
3. Terminal is triggered to release the stored ground charge
4. Upward streamer is formed microseconds earlier than other objects in the immediate area
5. The TerraStreamer® ESE terminal becomes the target of the developing lightning strike

The selection of the TerraStreamer® model, placement, and mounting height above the protected area all factor into formulas calculating the dimensions of the protection area.

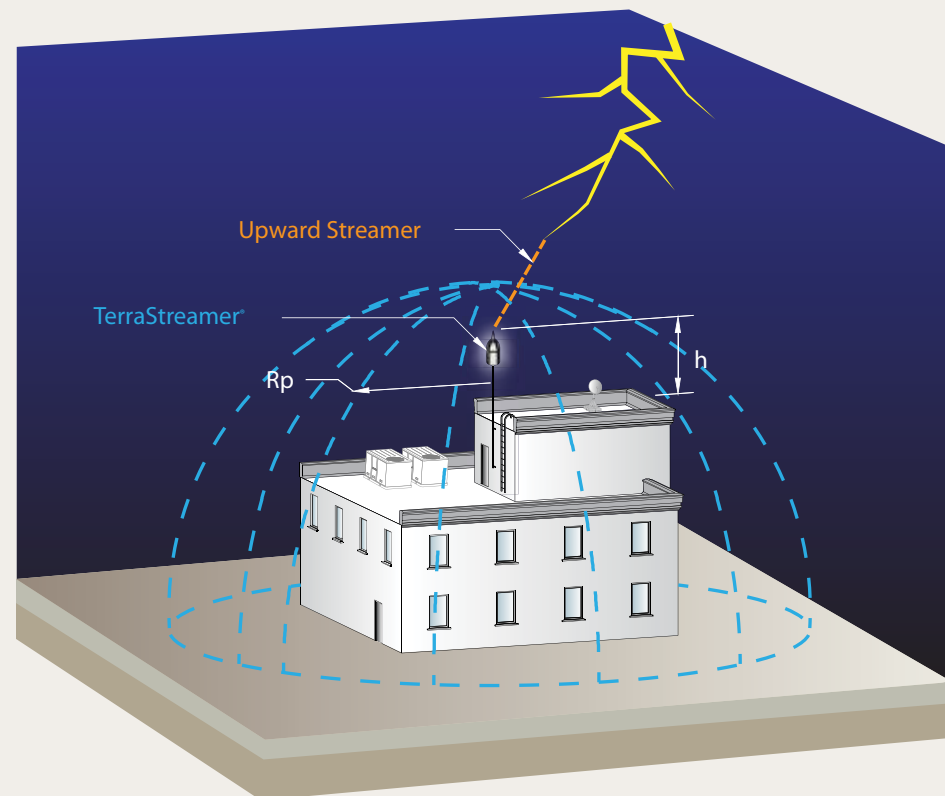
## Advantages

The installation of a TerraStreamer® ESE Terminal combines the best advantages of two systems: the direct path to ground of a conventional lightning protection system, and state-of-the-art ESE technology employed in the TerraStreamer®'s patented design. TerraStreamer® terminals are:

- Externally mounted, proactive, structural lightning protection devices
- Designed to activate in the moments directly preceding an imminent, direct strike
- Tested to certify gain in triggering time ( $\Delta T$ ) as per NF C 17-102 and UNE 21 186
- Designed to ensure that the system provides a secure zone of protection

## Protection Radius

The standard protection radius  $R_p$  of the TerraStreamer® is linked (according to NF C 17-102 standard) to  $T$ , to the protection levels I, II, III, or IV and to the height of the TerraStreamer® above the protected structure ( $h$ , defined by NF C 17-102 as a minimum of 2 m). The NF C 17-102 standard includes four levels of protection.



Grounding and Bonding Solutions • Surge Suppression • Lightning Protection



SOLUTION PROVIDERS FOR AN ENERGIZED WORLD™



**WORLD HEADQUARTERS**

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For more information, contact your nearest office or visit [www.alltecglobal.com](http://www.alltecglobal.com)



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