SAFETY SOLUTION

for property and life

PT. CIPTA TEKNIK UTAMA

PT. Cipta Teknik Utama (member of PT. Cipta Graha Kreasitama Group of companies) was estabilished in 2011, we are a company organized and existing under the law of Indonesia, having its registered at Jl Danau Sunter Utara - Rukan Sunter Permai Blok A-18, Sunter Agung, Jakarta Utara 14350.

BLITZ
LIGHTNING SPECIALIST

We are Distributor and System Integrator of:

- Blitz - External and Internal Lightning Protection System
- Ruggear & iSafe - Intrinsically-Save Mobile Phones
- Fireblock - Pemadam Api Cerdas Terinstalasi

Support and services :

1. Survey, Consultation, Disain Drawing
2. After sales service
3. Backup unit
4. Spare parts
5. Operational and Troubleshoot Training
6. Standar Operating Procedures, Manual, Literatures
7. Testing & Commisioning
8. Factori Acceptance Test

We expect every customer can get satisfied services while selecting PT Cipta Teknik Utama products and expect every customers to become our company's long term partner. This is the commitments made by PT. Cipta Teknik Utama and also is the very target we have been persuing for years.

Installations

Our company will advise the client on the correct installation for their requirements, for lightning protection and earthing, in accordance with the relevant local and international standards.

Each installation is designed specifically to the unique requirement of the structure, such us hazardous areas, electronic process control, local lightning conditions, corrosiveness of grond etc, as well as oesthetics.

Our company has fully equipped installation teams, who comply with relevant codes of practice and our strict quality control. Our quality control has been developed to ensure that the protection systems as designed are installed accordingly and are fully operative at handover. All materials are manufactured to the relevant codes of practice.

PT. Cipta Teknik Utama recommends that all earthing system by inspected or audited annualy to ensure that the system is well working.

We design supply and install protection systems for all industries such as mining, oil and gas, industrial plants, offices, education, telecommunications utilities and shopping centers

Testing

The design, supply and installations of a lightning protection system includes a range of test. A soil resistivity survey is conducted prior to design to determine the soil resistivity of the site. The installation will be designed according to the results obtained.

Once the installation is complete the earth resistance is tested. The resistance and layout of the earthing system determines the efficiency of the protection system installed.

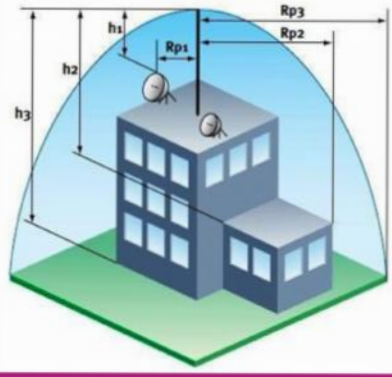
Continuity tests must be conducted throughout the instalation. There must be contunuity between the different earthing system and the lightning protection system. This result in the lightning protection system. This result in the creation of on equipotential earth

LIGHTNING
protection system

- Design, supplay and installation of external lightning protection and earthing systems, complying with the relevant codes of practice and specifications.
- Soil resistivity surveys and earth testing.
- Lightning and surge/overvoltage protections systems.
- Specialised earthing systems.
- Maintenance of existing protection systems.
- PT. Cipta Teknik Utama offers an annual inspections or audit of the earthing and lightning protection systems. These inspections include testing of system with calibrated test equipment and a visual inspection. A report of our findings and recommendations or repairs (if required) is submitted together with a sertificate of compliance, where applicable.
- Inspection and testing for insurance purposes.
- Risk Analysis in accordance with local and international stndards.
- Testing and checking the Blitz ESE Air Terminal using ESE Function Tester to analyze the Air Terminal.

Radius of Protection

Model Number	BLZ-800	BLZ-1100
Max. Discharge Current	≥ 200 KA (10/350μs)	≥ 200 KA (10/350μs)
Capacity againts win speed	≥ 40 m/s	≥ 40 m/s
Length	37 cm	40 cm
Discharge time in Advance ΔT	30 μs	60 μs
Weight	3,5 Kg	4,5 Kg
Protection Radius	By Formula	By Formula
Material/Copper	Stainless Stell/Copper	Stainless Stell/Copper
Standard	France NFC17-102 (1995)	France NFC17-102 (1995)



The Protection Area RP of BLZ ESE Lightning conductor is calculated according to France Standard NFC 17-102

$$Rp = \sqrt{h(2D+h)} + \Delta L(2D+\Delta L)$$

Rp : Radius Protection
D : Protection Level (20/45/60)
$\Delta L(m) = V(m/s) \times \Delta T(s)$

& IT AND MECHANICAL ELECTRICAL SYSTEM INTEGRATOR

As a System Intergrator for the IT and Mechanical & Electrical System PT. CIPTA TEKNIK UTAMA also can provide:
- Consultancy Services
- Sales and Ditsribution of High End Video Displays Solution and Back End System
- Technical Support - Installation, Testing and Commisioning Service
- After Sales Support - In House Service Center, Maintenance Services

STANDARS REFERENCE
- French NFC17-102, 1995 for ESE Lighning Protection System
- IEC 62305 for Conventional Lighning Protection System and Grounding System
- SNI 04-0225-2000 for Grounding System
- NFPA for Fire Protection and Lighning Protection System
- UL94-V-0 for Enclosure Material

AGENCY
PT. CIPTA TEKNIK UTAMA is Sale Agent and Distributor in Indonesia for:
- Blitz Total Solution for Lightning Protection System (External & Internal).
- Multi Display Video Solution - GE, Honeywell, Vewell, HIKvision, DET.
- Multi-Graphic Videowall Processor.
- Projector and Image Processing - Barco, Epson, NEC.
- Outdoor or Indoor LED Screen/Videotran.
- Fireblock Fire Extinguisher.
- I.Safe MOBILE Intrinsically-safe mobile phones

NFPA IEC UL SNI

WORKING EXPERIENCES

PT. CIPTA TEKNIK UTAMA has provide the complete solution for design, install and maintenance of Lighning Protection System for customers such as:

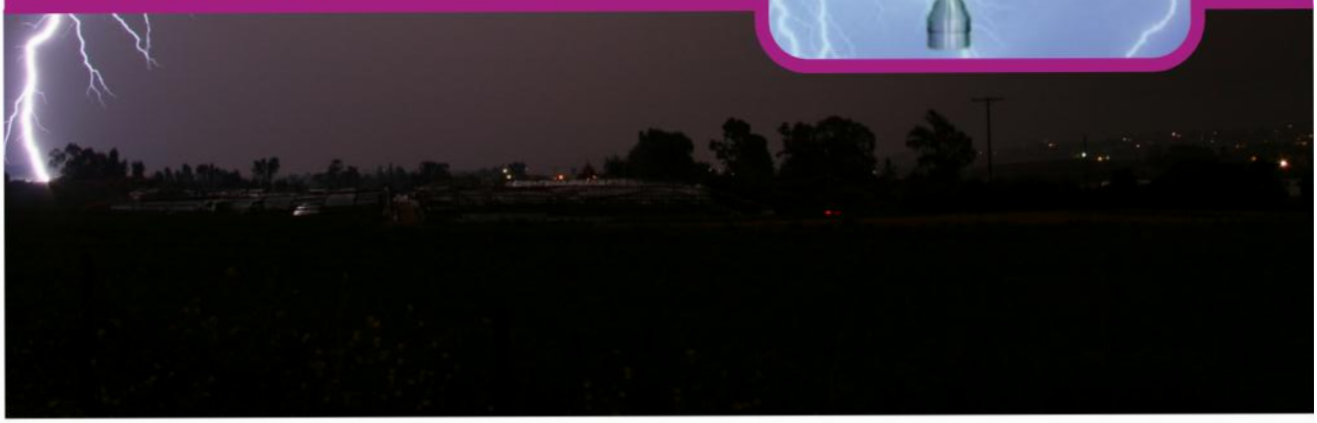
- Airport
- Bank
- Chuch & Temple
- Cigarette Manufacture & Distributor
- Data Center
- Goverment & Ministry
- Hotel
- Indonesian Shiyard
- Mechanical & Electrical Contractor
- Mining
- Plantaion, Private International School
- Oil & Gas Industries
- Radio Stations
- System Integrators
- TV Broadcasts

PERTAMINA
MNC
DEPARTEMEN SOSIAL REPUBLIK INDONESIA
SUARA MERDEKA
TVRI
DEPARTEMEN KEUANGAN RI
wilmar

BLITZ

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 Blitz Ese terminal does this by collecting and storing ground charge during the initial phase of a thunderstorm development.

Once a thunderstorm begins creating downward step leaders, the ambient electric field intensity in the area of the ESE terminal increases. When this electric field intensity reaches a preset level, it triggers the terminal to release the storage ground charge, forming an upward streamer microseconds earlier than other object in the immediate area.



The ionisation device is charged via the lower Electrodes using the ambient electrical field. This means The BLITZ ESE Terminal is fully autonomous system requiring no external power supply.

The ionization phenomenon is controlled by device wich detects appearance of downward leader the local electrical field increase rapidly when a discharge is imminent.

Early triggering of the upward leader using a system of spark ionization beetwen the upper electrodes and central tip. The Blitz Ese Terminal abbillity to trigger an upward leader ahead of any other protruding point within the protected area ensures it will be the preferential point of impact for the lightning discharge preferential point of impact for the lightning discharge.

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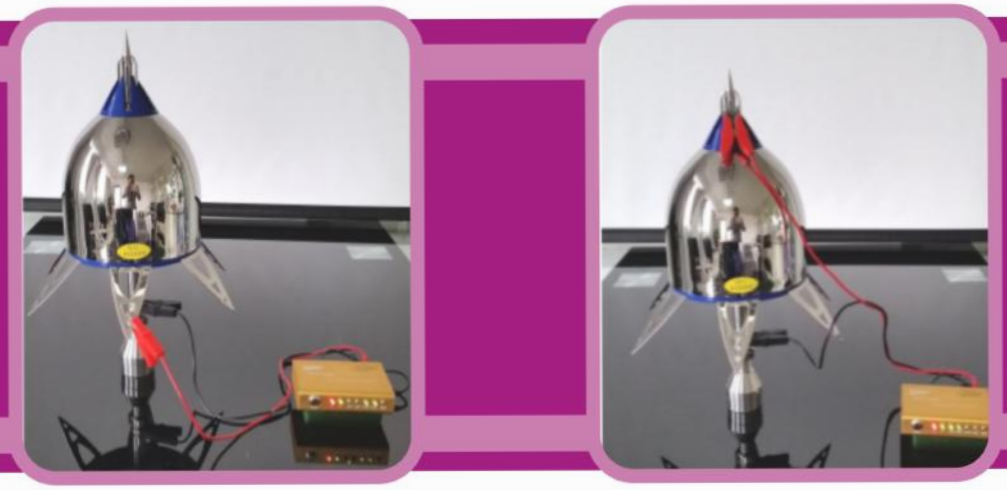


Interface Illustration & Small Product Size (L*W*H): 113 mm*84 mm*28 mm

Front & Back Interface Introduction

Front Interface				Back Interface	
	Test Button	P	Power Indication Lamp	SWITCH	Power Switch Button
		T	Test Indication Lamp	Recharge Terminal	Power Recharge Terminal
		UP	Upper Electrode Indication Lamp	Output Terminal	+/-5VCD Power Output
		-OK	OK Indication Lamp		
		LOW	Lower Electrode Indication Lamp		
		-OK	OK Indication Lamp		
		DEF	Faulty Indication Lamp		

How to test

Connection: Before connecting the tester with Power by the Power adapter (110V/220V/230V -9V) or with 9V Portable Power Source, insert the alligator clips into OUTPUT terminal following its RED/BLACK colour. Then press button SWITCH, Power Indication Lamp's on, hold the Black clamp to the central rod of the TSTLP ESE terminal.

(**Note**: Red and Black alligator clip's connection to the central rod and lower electrodes or central rod to the upper electrodes can be exchanged for test).

Safe Function Test

a. Lower (LOW) electrode test: Hold one RED alligator clip to any lower electrode, press T, it's working OK if T and LOW-OK indication lamp's on which makes long voice. It's faulty if DEF indication lamp's on, which makes several short-noise. Repeat same operation steps to rest lower electrodes till finished.

b. Upper (UP) electrode test: Hold one RED alligator clip to the any upper electrode, press T, it's working OK if T UP-OK indication lamp's on swich makes long voice. Its faulty if DEF indication lamp's on which makes several Short-noice. Repeat same operation steps to rest upper electrodes till finished.

BLZ-100C25

Uc	: 275/385 V
Up	: ≤ 3 kV
Iimp	: 25 kA (10/350 µs)
Iimp	: 100 kA (8/20 µs)
Imaks	: 120 kA (8/20 µs)
TRes	: ≤ 25 ns
Enclosure Material	: UL94-V0
Connection Type	: Parallel

BLZ-100/3

Uc	: 275/385 V
Up	: ≤ 3 kV
Iimp	: 100 kA (8/20 µs)
Imaks	: 150 kA (8/20 µs)
TRes	: ≤ 25 ns
Enclosure Material	: UL94-V0
Connection Type	: Parallel

BLZ-40/3

Uc	: 275/385 V
Up	: ≤ 1,2 kV
Iimp	: 20 kA (8/20 µs)
Imaks	: 40 kA (8/20 µs)
TRes	: ≤ 25 ns
Enclosure Material	: PBT (Pollycarbonate)
Connection Type	: Parallel

BLZ-SK6

Uc	: 220/275 V
Up	: ≤ 1 kV
Iimp	: 10 kA (8/20 µs)
Imaks	:
Connection Type	: Series

BLITZ
LIGHTNING SPECIALIST

Data Surge Arrester :

BLZ-RJ45E100/8

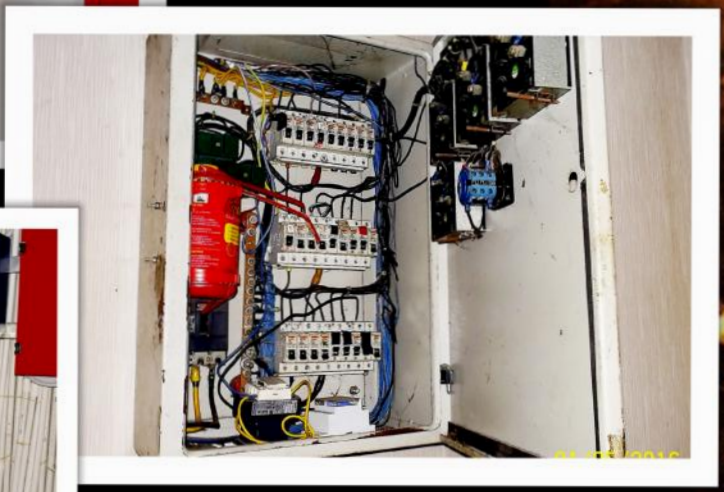
Uc	: 5/6 V
Up	: ≤ 13 kV
Iimp	: 2,5 kA (8/20 µs)
TRes	: ≤ 1 ns
Connection Type	: Series

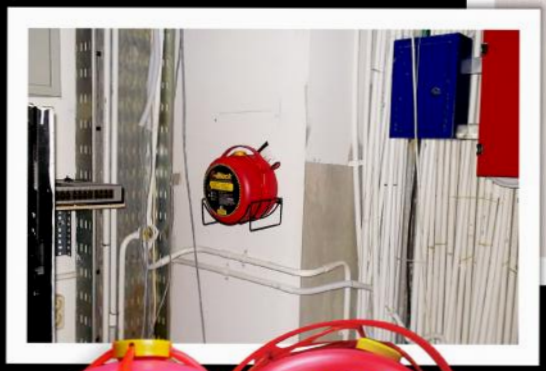
BLZ-24RJ45E100/8

Uc	: 5/6 V
Up	: ≤ 13 kV
Iimp	: 2,5 kA (8/20 µs)
TRes	: ≤ 1 ns
Connection Type	: Series

Signal Surge Arrester :

FireBlock





Specification

	FB/P1	FB/P4
Capacity	1.0 Liter	4.0 Liter
Area Outage	2 meters	7 meters
The Validitty period of	6 years	6 years
Working temperature (Celsius)	-10°- +55°	-10°- +55°
Contents	water & Surfactant Flouracarbon	water & Surfactant Flouracarbon

- Siaga 24 jam sehari/7 hari seminggu
- Masa pakai 6 tahun
- Tanpa isi ulang
- Tanpa baterai/listrik
- Lulus Sertifikat Penguji Dinas Pemadam Kebakaran dan Penanggulangan Bencana Provinsi DKI Jakarta
- Tanpa instalasi pipa atau pompa
- Tidak beracun
- Ramah Lingkungan
- Lulus Sertifikasi ISO 9001:2008

i.safe MOBILE

RugGear iSafe is the leading manufacturer of the world's most advanced intrinsically-safe mobile phones used in some of the most dangerous and potentially explosive areas like oil and gas, chemicals, petrochemicals, mining, pharmaceuticals, energy, bunkering etc.

As the demands of these industries increase, RugGear iSafe is committed to deliver the highest quality of explosion-safe mobile phonesin the world, meeting the ATEX and IECEx safety standards.

2G GSM Frequencies : 850/900/1800/1900
Quad-Band : GPRS Class 12 EDGE
3G Frequencies : 850/1900/2100 Mhz, HSPA, 3G, Bluetooth V.2.1, SMS, MMS,GPS, PTT
Size : 127x63x24 mm (5,0"x2,5"x0,95")
Weight : 180 gram with battery
USB : Micro USB
LCD Display : 2.2 QVGA LCD, 240X320 pixel
Pictureformat : JPEG, BMP
Videoformat : AAC/AMR/3GP/3GPP/MP4/AVI/ ASF/WMV/WMA
Camera : 2 mega pixel
Colour : yellow/black
Standbytime : up to 300 hours
Talktime : up to 5,5 hours
Chargingtime : approx. 3,5 hours
Protectionlevel : IP 67
Droptest : 2 meters
TemperatureRange : -20 to 60 C
FM Radio : Antenna external via earphone

StorageCapacity : 256Mb+128Mb up to 8Gb Micro-SD card slot
Java/WAP : Java/WAP Java 2.0 / WAP(V2.0)
Languages : Languages English, German, Spanish, French and many more
Tools : Calculator, world time, alarm clock, stopwatch
ArticleNumber : A010000D

ADVANTAGE 1.0

Whether you are a mining enterprise or a utilities manager - RugGear iSafe mobile phones deliver safe and reliable communications to make clear calls, anytime under any extreme conditions and environments.

Frequencies : GSM 900/1800/1900 MHz
Supported : GPRS, WAP
Dimention : 60 mm x 126 mm x 22 mm (5,0"x2,5"x0,95")
Talktime : 5,5 h (depending on local network)
Stanbytime : 450 h (depending on local network)
Weight : 180 gram with battery
USB : Micro USB
Screensize : 2.2 LCM/QVGA
Camera : 2.0 MP, CMDS Sensor
Phonebookcapacity : 1000pcs
SMS capacity : 1000pcs
Battery : Battery 1800mAh
OperatingTemperature : -20 C.55 C
Memory : Support up to 16GB

GUARDIAN 1.0

Network and Wireless Connectivity: 2 SIM-Card Slot GSM/GPRS/EDGE(850/900/1800/ 1900 Mhz)Bluetooth 3.0
Communication : SMS, MMS, PTT (Server based, third party software required)
Processor : MT6260A
Display : 2.0" (176 x 220)
memory : 64MB RAM, 64MB ROM Slot for Micro-SD card up to 32GB
Camera : CHALLENGER 2.0: 1,3MP Camera, CHALLENGER 2.1: no camera
USB OTG : USB on-the-go able to charge other USB device
Keys : Full size phone keypad 2 volume control keys Dedicated PTT key

Battery : 2500mAh lithium ion battery up to 600hstandby time (80/10/100) up to 10h continous)4hrs charging time via USB charger
Mechanical Data : 126 x 58 x 23 mm (4.96"x2.28"x0.91") 165g. IP68

CHALLENGER 2.0

Safety Function : Dedicated SOS Key LWP-prepared
Network and Wireless Connectivity : 2G: GSM/GPRS/EDGE (850/900/1800/1900MHz) 3G: UMTS/WCDMA/HSPA+ (850/1900 /2100 MHz or 900/1900/2100 Mhz
Wi-Fi : 802.11b/g/n Bluetooth 4.0 NFC
Communication : SMS, MMS, E-mail (Microsoft Exchange and IMAP) PTT Server based, third party software required)
OperatingSystem : ANDROID 4.2.1
Processor : MT6589 quad core (1,2GHz)
Display : 3,2" HVGA (480 x 320) with capasitive touchscreen
Memory : 1GB RAM, 4GB ROM slot for Micro-SD card up to 32GB
Camera : 5MP autofocus camera with flash, 0,3 front camera
Location : AGPS

Sensors : Acceleration, Humidity, Temperature Air Pressure, Electronic Compass
Keys : Power Key, Menu, Home and Back Keys 2 volume control keys. Dedicated PTT and SOS keys
Battery : 1800mAh lithium ion battery up to 100h standby time (80/10/10) charging time via USB charger14 x 68,5 x 29mm
MechanicalData : (4.88" x 2.69" x 1.14") 24g, IP68

INNOVATION 2.0

i.safe MOBILE

Service Certificate

PT. CIPTA TEKNIK UTAMA

Jl. Danau Sunter Utara - Rukan Sunter Permai Blok A-18,

Sunter Agung - Jakarta Utara 14350

Telp./Fax. (62) 21 65302105 / (62) 21 6506737

is an authorised **i.safe MOBILE Service Centre Workshop.**

This certificate is issued by **i.safe MOBILE GmbH** having its registered office at i_Park Tauberfranken 10, D-97980 Lauda-Koenigshofen, Germany.

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Martin Haaf
Managing Director
i.Safe MOBILE GmbH

Danny Lim
Operations Manager
OKTA Holding Pte Ltd

Date: 1 January 2015

PT. CIPTA TEKNIK UTAMA

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