# FLASH VECTRON LIGHTNING CABLES







EXTERNAL INSTALLATION

INTERNAL/EXT INSTALLATION HI

When the installation of lightning conductor cable placed outside away from building and other installation (electrical and data) or away from the reach of the occupants can use the cable cord BCC (Bare copper conductor) at least 50 mm, with cheap consideration.

Meanwhile, when the ani-lightning conductor cable in put away from the buildings and other installation (electrical, data) or away from the reach of the occupants can use chale NYY 50mm or 70mm cable with consideration enough to with stand lightning induction.

NYA exact same cable with NYY, make into the NYY cable that has two insulators or two layers of copper wrapping, wrapping one layer while the NYA or the insulator.

And when the path installation can not keep it away from other installation (electrical, data control,etc) then the cable that can withstand voltage breakdown/induction (inception voltage) flow lightning , for example N2XSY Coaxial cable and 2x35mm.

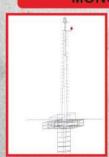
# SURGE ARRESTER CABLE



NYAF 16mm cable is usually used in the installation of internal protection (surge Arrester Power), because in additiction to bending this cable also has and insulator or wrapping copper, unlik cable BC.Even installation is also higly recomended to wear conduite. In term of installation must be connected to the grounding cable that typically use 50mm BC cable or connected directly to Ground

In the installition of internal protection (Surge Arrester PABX) Used to use a reguler telephone wires generally type of coaxial cable used in small in size. This of course adapted to the use of its PABX installation on the cable. If you have installed the cable should remain connected to the grounding system,installation so that it can funtion optimally.

### MONOPOLE LIGHTNING ROD



Monopole can be used as an option Lighthning Construction pole, from of construction is ideal for securing hilly areas or wide area air.

Ideal funtion of monopole is focused boit of lightning in the lightning channel point, because with the sharpening of a static objecting then charge the eart will be more focused on the and, of course it is ideal for electrostatic lightning rod, lightning rod because utilizing electrostatic energy the system work.

This type of contruction has the technical term ranging from monopole singel pole free standing ,which is cleary the from that this construction standing upright without any support, either in the from of pipe ir stell wirw. Sling, the from can be pipe (round) or polygon.

Materials withou it is possible to make a single pillair/monopole is plumbing, galfanis, staenles steel, scedule with a minimun thicness of 4mm when the bottom of the pipe will make the pole as high as 4/-20 mtr, of follow the pole height to be made should the higher thick (more than 4mm).



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# ABOUT FLASH VECTRON

#### FLASH VECTRON LIGHTNING PROTECTION SUPREMACY

Flash vectron lightning protection is an electrostatic lightning rod, ESE based on and designed exceptional Tropical Zone like Indonesia Country.

- 1. Designe by Indonesin lightning engineer and Germany architect,
- 2. Secure Terminal Unit,
- 3. Free Maintenance,
- No Power Supply or solar cells
- No Radioactive
- Discharge Curent 300 KA
- 4. More Practice , designed easily for instalation in ground,
- 5. Higly material,
- SNI & IEC Standart
- 6. More Economic and Affordable Value,
- 7. Current Tecnologict (Exceptional Tropical Zone)
- 8. Trustwortly Produsen
- Local Production Company Lightning Rod Cooperate with Germany Company

**FLASH VECTORN** lightning protection system is a system designed to protec a structure from demage due to lightning strikes by intercepting such strikes and safely passing their extremely high voltage current to "ground". Flash Vectron Lightning Protection designed to provide a low resistance path to ground for potential strikes.

### RECOMENDATION

- a. Certification Flash Vectron Lingtning Protection
- b. 3 (Three) year Warranty
- c. Labor Department letter
- d. State Electricity Firm and Indonesian LMK

### **OBJECTIVITY**

- a. Building
- b. Industry Area
- c. Factory
- e. Huge Electronic Tools/Transmitter



# **FLASH VECTRON DETAIL**



#### Main Rod Receiver

The rod is made of metal high temperature, this rod has capacity to receive lightning flash up to 300 KA.

#### Electrodes

This electrodes play main role incollect, reserve and deposit energy as sources energy for awakening Early Streamer Emission (ESE) system.

#### Compact Ion Carbon/Generator

Collect energy from electric field, consist of energy capacitor unit and ion awakening, sensoring and protection ware.

#### Wing Disseminator

This part is conductor to shoot ion.

#### Connector

This part is connector of down conductor.

### **Operating System**

In the mean time a flock of cloud flow and approach the top of building which has been protected by lightning protection Flash Vectron. The electro these attached in the equipment collect and deposit energy from electrical cloud and electric field. In the capacitor unit after refillin has been adequate the flown to the ion generation. In the same time plenty of atmoshipheric electrical energy among the cloud inform ion generator. This information then managed by ion generator as a trigge to discharge the energy. This triggering will result streamer leader from central pick up rod









# **FLASH VECTRON TYPE**



### Specification

Type FV6
Weight 3,5 Kg
Lenght 430 mm
Diameter 5 Inches
Radius Protection 150 Meters



#### Specification Type FV3

Weight 3 Kg Lenght 370 mm Diameter 5 Inches Radius Protection 85 Meters

Lightning strike occur of the change of electrical load (negative charge) from the cloud to the surface of the ground, chose the highest object that containing electrical load (positive charge). We can see "Step leader"

lightning strike, it is like a glowing lines on the sky. Effect from the lightning strike can cause very serious demages to building, occupants and electrical Equipment.

Flash Vectron is the pioneer of lightning conductor electrostatis system from indonesia, have a large protection area, efficient an low maintenance (Flash Vectron use existing power from negative charge of the grounding system).

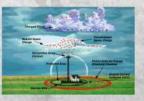
#### TABLE RADIUS PROTECTION HIGH RISK 12 Meters of Top Structure Building 3M 4M 10M 20M 139 FV3 53 93 98 FV6 108 116 124 132 140 197 76

	TABLE RADIUS STANDARD PROTECTION 12 Meters of Top Structure Building									
FV3	67	78	87	95	103	110	117	123	174	
FV6	95	110	123	135	146	157	166	175	247	

### **Protection Shape**

Protection Shape of this Flash Vectron as similliar with cage (look at figur below) so everthing under and inside of the cage will be safe from direct lightning flash.





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