

NON METALLIC PANEL

CAPE Manufactures LT distribution Panels for industrial application made from Thermoplastic / Thermosetting plastic materials which are available in IP65 / IP66 range for Outdoor / Indoor usage. **CAPE's** panels are Shock Proof and UV Resistant. These Non Metallic panels manufactured are Halogen free and are available with wall mounting / floor mounting facility.



Features of **CAPE's** Panels :

- Shock proof
- UV Resistant
- Double Insulated
- Temp Range from -35 Deg to +120 Deg
- Halogen Free

Panel Types :

- MCCB and MCB Panels up to 630 amps Incoming
- Metering Panels
- Combiner Box and array junction boxes for solar
- Local control Stations, Electrical Junction Boxes
- Fixing Electronics boards
- Shock Proof Construction Panels
- Feeder Pillar / Street Light control Panels

PANELS INSTALLED IN RAILWAYS

CAPE Supplies panels for more than 15 years to various railway departments in several Zones including Southern, Eastern, Northern, South western, Northeast Frontier, Central Railways Etc. Panels supplied are of highest impact resistance of IK10 and UV resistant to withstand harsh outdoor environments. These Non-Metallic panels provides an additional safety with protection against hazard of electric shock due to deformation by external mechanical impacts and temporarily contact with live parts.



Initiation for modernization of above panels are done by SSE/P/BBQ



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Pre-Cooling Units

Pre-Cooling Units are outdoor power supply units used to power air-conditioned railway coaches when the train is in stationery. The panels are installed generally near the railway track in wet, dusty and harsh environment and are equipped with CEE type industrial sockets suitable for 63 or 125 amps current.

The application require strong, corrosion free, easy to operate panels for long life, which is a challenge to obtain and is one of the unique application which calls for a very high quality installation.

Enclosures also shall be large enough to accommodate aluminium armored incoming and outgoing cables as well as to accommodate switchgears and industrial sockets. In addition the panel shall be strong enough (eg IK10) to withstand the forces while fixing the plugs. Higher ingress Protection as well as UV resistance are a must to withstand the outdoor environment for a long life. These double insulated panels are completely shockproof.



Mechanical Impact: IK10

Overall Ingress Protection:IP66

UV resistant

- Thermally isolated, Flame retardant and Self extinguishing. Do not melt down and do not expand fire
- Maximum Life even in most adverse weather and chemical condition, while keeping the same mechanical properties IK10
- Withstand Rain, Wind, Dust, Saline environments, Snow, Sunlight (UV)
- Temperature Range: -30 °C to +120 °C
- Best and most suitable INSULATED material available in the market for outdoor application and is Shock Proof.
- Double insulated - No body earthing required
- Thermally insulated - Any external heat source will not damage the internal equipment of the enclosure
- Lightness and easy maintenance - Much lighter than metal. Zero Maintenance

Notes:

Ingress protection according to IEC 60529 (IP code) Consists of 2 digits. The first digit of the IP code stands for the level of protection against contact with dangerous parts and the ingress of solid bodies such as dust. The second digit of the IP code stands for the level of protection against harmful ingress of water. IP 66 – offers full contact protection as well as protection against ingress of dust and protection against heavy jet water from all directions.

Impact strength according to IEC 62262 (IK code) – Means degree of protection by enclosure for electrical equipment against mechanical impact. Each number in the code is allocated to the individual stress energy values. The code consists of the letter IK followed by two digits. IK 10 – is the maximum impact protection as per the standard which is equal to an impact energy of 20 joules. (eg the enclosure is resistant against an impact from an object of 5 kg thrown from a distance of 40 cm

Double insulation (also called as protection class II – IEC 61140) Insulation comprising of both basic and supplementary insulation. Double insulated electrical appliance is one which has been designed in such a way that it does not require a safety connection to earth. The basic requirement is that no single failure can result in dangerous voltage becoming exposed so that it might cause an electric shock



Non Metallic Enclosures

Metallic Enclosures

Materials	Thermoset plastics – Glass Fiber reinforced Polyester	Fabricated in steel – Painted for protection against corrosion
Electrical	Fully insulated – No chance of electric shock	No insulation – Chance of electric shock
Earthing	Double insulated – NO earthing required	Earthing is a must
Corrosion	No Corrosion. High life in corrosive environment	Will corrode in most environments especially outdoors
Mechanical	IK 10	IK 10
Thermal	Thermally insulated (GRP materials). No influence of external heat to internal components of the enclosure	No thermal insulation for the internal components from external heat.
Life	Offer a long life span even in the most adverse weather or chemical conditions while keeping the same mechanical properties than metal IK10	Less life in outdoor and Chemical environments
Fire	Self-Extinguishing (GRP will not melt or catch fire)	
Safety	Due to the electrical insulation behavior of plastic materials these are best suited for outdoor application	
No Corrosion	Plastic enclosures such as PC, GRP are UV resistance and can withstand most Chemical environments. Hence these can be used for outdoor application as well as for chemical environments	
Ingress Protection	Plastic enclosures can be designed and manufactured to offer high degree of ingress protection (IP). The enclosures retain the behavior after several years of operation	
Earthing	Double insulated nonconductive enclosures do not need earthing (refer IS standards)	
Handling	Plastic enclosures are light weight and easy to handle	
Maintenance	No maintenance required for UV resistance plastic enclosures (PC & FRP)	
Halogen	Enclosures manufactured by international players offered by Cape Electric in India are completely Halogen free	
Special application	<ul style="list-style-type: none"> Cape Electric Non metallic enclosures offer Excellent performance in Different enclosures available in the range can be selected and used For Area 0 to Area 2 satisfying the safety requirements of IEC 60364-7-701, 702 (Requirements for special installations – Locations containing a bath or shower / Swimming pools and fountain) Best suited for agriculture and horticulture application confirming to IEC 60364-7-705 Increased safety for commercial kitchens, un ventilated areas, laundry rooms, cold rooms Strong and non corrosive for installation in streets, paths and plazas, courtyards, passages and garden, construction sites, Railways platforms, Ramp and Roofs, Cranes, Construction machinery, Filling stations and building external walls Best suited for SOLAR outdoor applications (1500 volt DC – high insulation resistance requirements, UV resistant, Wall / floor mounted enclosures) 	



Modular Enclosure - CA
CA-64as – 540 x 360 x 205 mm
CA-84as – 720 x 360 x 205 mm



Wall mounted cabinet - BRES
BRES-64 – 600 x 400 x 230 mm
BRES-65 – 500 x 600 x 230 mm



63A 5Pin(3P+N+E) IP67 Socket



125A 5Pin(3P+N+E) IP67 Socket



63A 5Pin(3P+N+E) IP67 Plug



125A 5Pin(3P+N+E) IP67 Plug

Under Technical Support from

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