PLATFORM SCREEN DOORS (PSD)

@Babu Mamidi

PSD?

Platform screen doors (PSDs) in railways are safety barriers installed at train station platforms. These doors are typically transparent and serve as a barrier between the station platform and the tracks.

@Babu Mamidi

FUNCTIONS OF PSD'S

1. Safety
2. Security
3. Energy efficiency
4. Crowd management
3. Train operation

@Babu Mamidi

SAFETY

PSDs act as a physical barrier between the platform and the tracks, preventing passengers from accidentally falling or stepping onto the tracks. This helps reduce the risk of accidents, injuries, and fatalities.

@Babu Mamidi

SECURITY

PSDs enhance security by restricting unauthorized access to the tracks, platforms, and station facilities. This helps prevent vandalism, trespassing, and other security threats.

@Babu Mamidi

ENERGY EFFICIENCY

PSDs can help improve energy efficiency by reducing the need for heating or cooling in stations. By creating a barrier between the platform and the tracks, PSDs help maintain a more controlled environment on the platform, reducing energy consumption.

@Babu Mamidi

CROWD MANAGEMENT

PSDs help in managing crowds by controlling the flow of passengers onto and off of the platform. They can prevent overcrowding near the platform edge, improving passenger safety and comfort.

@Babu Mamidi

TRAIN OPERATION EFFICIENCY

PSDs can improve the efficiency of train operations by reducing the time needed for passengers to board and alight from trains. They also help minimize delays caused by accidents or incidents on the platform.

@Babu Mamidi

TYPES OF PSD'S

By the operations PSDs can be

i. Automatic Platform Screen Doors:

- Equipped with automated mechanisms for opening and closing.
- Synchronize with the train doors to ensure a seamless operation.
- Enhance efficiency and reduce the risk of human error.

ii. Manual Platform Screen Doors:
require manual operation, rarely used

@Babu Mamidi

a. Sliding Platform Screen Doors:

Doors that slide horizontally to open and close.

Efficient in terms of space utilization and suitable for platforms with limited space.

Commonly found in metro stations and high-density urban areas.

b. Swinging Platform Screen Doors:

Doors that swing open and closed, similar to traditional doors. Rarely used.

a. Horizontal Platform Screen Doors

Doors that slide horizontally to open and close. Which are Commonly found

b. Vertical Platform Screen Doors

Doors that slides vertically.

@Babu Mamidi

FULL-HEIGHT PSD'S

Normally Glass & Horizontal type

FULL-HEIGHT PSD'S

Extend from the floor to the ceiling, creating a complete barrier.

Highly effective at preventing unauthorized access and ensuring safety.

Commonly used in metro systems and high-speed rail stations.

@Babu Mamidi

HALF-HEIGHT PSD'S

Normally Glass & Horizontal type

HALF-HEIGHT PSD'S

Extend from the floor but only reach up to approximately waist or chest height.

Provides a barrier while allowing for better visibility and ventilation.

Often used in light rail systems and stations with less stringent security requirements.

@Babu Mamidi

ROPE TYPE PSD'S

Normally Vertical type

ROPE-TYPE PSD'S

This PSDs are similar to Full height PSDs type, but application little bit different

where multiple train types with different lengths and distances between the doors are different and train door structures use the same platforms, then it’s some challenges to implement PSDs within reasonable cost. Then rope-type PSD will be used where the barriers (i.e., rope) move upwards rather than sideways.

VARIABLE-TYPE PSD'S

This PSDs will handle all types of trains with different lengths (i.e., doors will adjust their length). When the train reaches the station, a special scanner on the platform receives and scans the information on the ID tag placed on the train to identify the type and number of train cars. With the type and number of cars for the arriving train having been instantly identified, each unit will slide automatically to match the length of the stopped train cars.

Like

Comment

Share

Save

Did you like the post?

follow for more!

@Babu Mamidi