

# LATERAL FIRE RATED ROLLER SHUTTER

LFRS120

LFRS240



**Delta Tech Group**



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# LATERAL FIRE RATED ROLLER SHUTTER



**UP TO**  
**240** | FIRE  
 minutes | RESISTANCE

## Introduction

Under our Delta Technology, LFRS series Insulated Fire Rated Roller Shutter is tested to SS 489 : 2001 & BSEN 1634-1 : 2008 with 4 hours fire rating integrity value. We are listed with SETSCO Services Pte Ltd.

Our lateral shutter are design to compartmentalize and seal off the toughest fire outbreak; offering maximum protect and isolate against fire. The unique design required no single barrel with single motor to operate.

During normal circumstances, the LFRS is always in open position to allow traffic to pass and only to closed via fire alarm activation upon fire outbreak.

LFRS is commonly installed in places such as schools, industrial opening, stalls, malls and car parks where fire hazard can be a concern.



| Model    | Fire Rating Integrity [E] |
|----------|---------------------------|
| LFRS 120 | 2 Hours Integrity         |
| LFRS 240 | 4 Hours Integrity         |



Before Test



After Test



## Distinctive Features



### High Standard of Fire-Rating

Ensues highest standard of fire safety in the industry with Fire integrity up to 4 hours. Tested to SS489:2001/BS 476/ BSEN1634-1:2008. LFRS isolate fire



### Bigger, Larger, Wider

Single span up to 30m x 8m in dimension, this caters to any large openings in the market.



### Spiral Shape

LFRS is able to bend through shaping up as a curved shape yet retaining its fire protection purpose. Minimum radius 200m.



### Operation Versatility

LFRS can be manually or automatically operated by using hand chain or control box respectively.



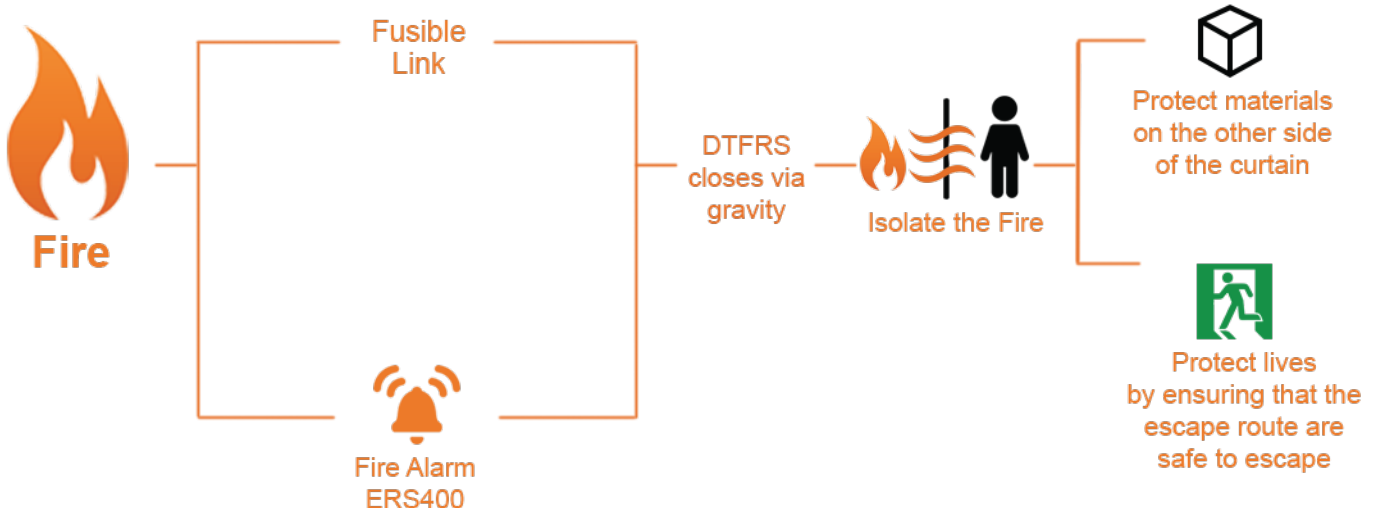
### Fire Activation Via Alarm

Upon activation of fire alarm (ERS400), the alarm will activate the shutter to operate and close to the end.



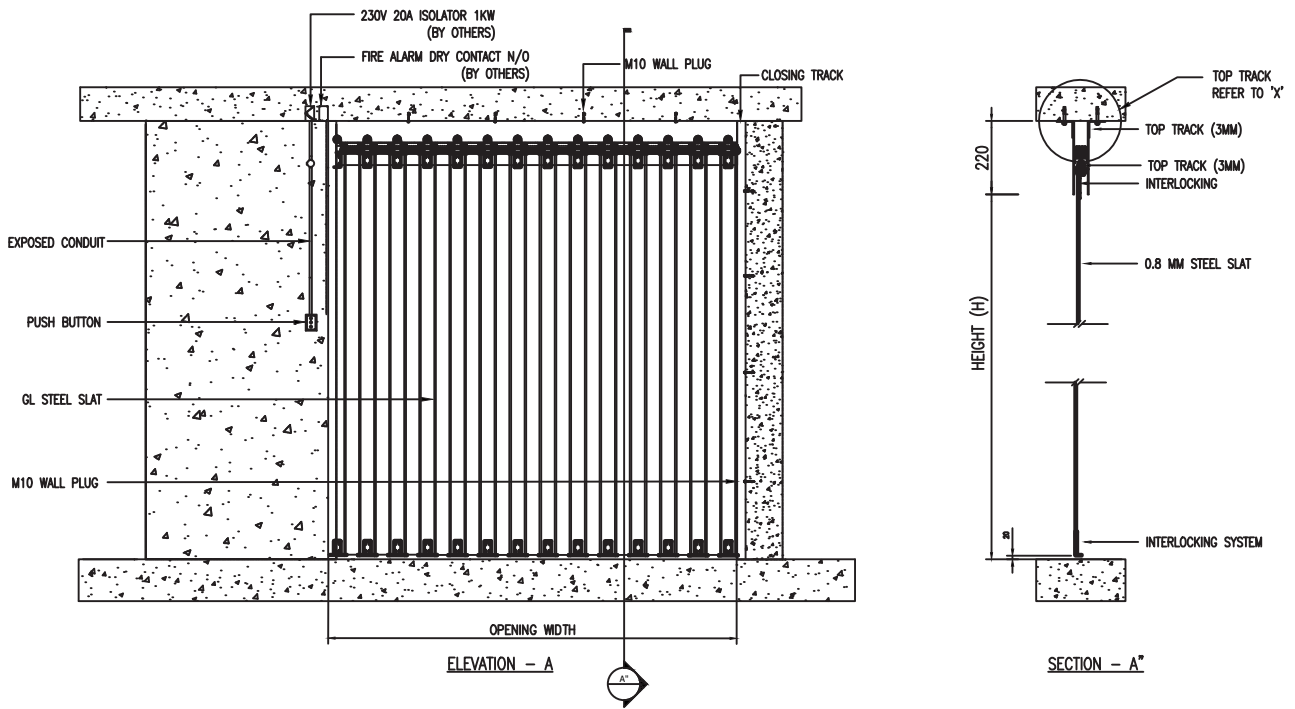
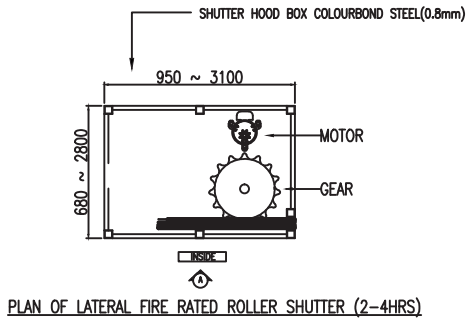
### Intelligent System(IS)

IS has a built-in Brake Renagement Device that stops the shutter once it touches the ground, this will protect the shutter and the ground from any damages. In addition, IS will automatically reset itself after the fire alarm is switched off, this conveniences the user as no physical reset is required.

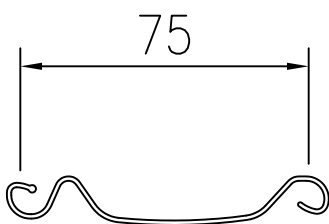


# Typical Drawing

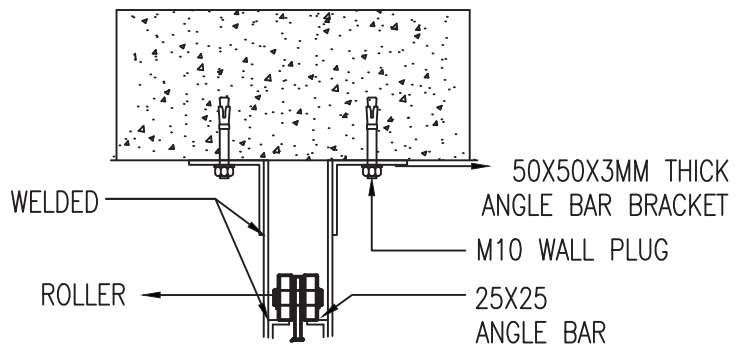
## Lateral Fire Rated Roller Shutter Component



### Slat Profile



### Side Guide Fixing Position



TOP TRACK FIXING

## Material & Finish Details

| Part              | Material           | Coating   |
|-------------------|--------------------|---|
| Slats             | Mild Steel, SUS304 | Galvalume, Colourbond, Powder Coated, Fluorocarbon          |
| Top Track         | 3mm Mild Steel     | Colourbond, Powder Coated, Fluorocarbon                     |
| Interlocking      | Mild Steel, SUS304 | Galvanised, Stainless Steel                                 |
| Shutterhood Cover | Mild Steel, SUS304 | Electro-galvanized, Colourbond, Powder Coated, Fluorocarbon |
| Motor Cover       | Mild Steel, SUS304 | Colourbond, Powder Coated, Fluorocarbon                     |

\*Refer DNT Chart for fluorocarbon colour options

\*Refer to oxyplast chart for powder coating colour option

## Motor Specifications

| Model                    | DT-300                     | DT-400 | DT-500    | DT-700     | DT-1000                     | DT-1500    | DT-2000 | DT-3000 |
|--------------------------|----------------------------|--------|-----------|------------|-----------------------------|------------|---------|---------|
| Direct Lifting Load (kg) | 300                        | 400    | 500       | 700        | 1000                        | 1500       | 2000    | 3000    |
| Operation mode           | Electric, AC               |        |           |            |                             |            |         |         |
| Manual Function          | Hand Chain Pulley          |        |           |            |                             |            |         |         |
| Power (hp)               | 0.20                       | 0.28   | 0.42      | 0.47       | 1.00                        | 1.50       | 2.00    | 3.00    |
| Power (W)                | 150                        | 210    | 310       | 350        | 750                         | 1000       | 1500    | 2200    |
| Voltage (V)              | 230(V)                     | 230(V) | 230(V)    | 230/415(V) | 230/415(V)                  | 415(V)     | 415(V)  | 415(V)  |
| Current (A)              | 0.63                       | 0.88   | 1.29      | 1.46       | 3.13                        | 3.3        | 3.5     | 5       |
| Poles (P)                | 4P                         |        |           |            |                             |            |         |         |
| Rating Time              | 5 minutes                  |        |           |            |                             |            |         |         |
| Rotation R.P.M           | 1720                       |        |           |            |                             |            |         |         |
| Gear Transmission        | Single-Row-Off-Centre Gear |        |           |            | Double-Layer Planetary Gear |            |         |         |
| Gear Ratio               | 45:1                       |        |           |            | 68:1                        |            |         |         |
| Brake and Clutch System  | Autonomous Unit            |        |           |            | Dual Brake                  |            |         |         |
| Bracket                  | Chain Driven               |        |           |            |                             |            |         |         |
| Sprocket                 | 9T                         | 9T     | 9T        | 10T        | 11T                         | 11T        | 11T     | 11T     |
| Chain                    | #50                        |        | #60 / #80 | #60 / #80  | #80                         | #80 / #100 | #100    |         |
| Length (mm)              | 445                        | 445    | 470       | 570        | 615                         | 635        | 660     | 690     |

\*Thermal Overload 100°C

## Shutter Specifications

| Item                | Model       | LFRS 120                | LFRS 240 |
|---------------------|-------------|-------------------------|----------|
|                     |             | Fire Integrity          | 2 Hours  |
| Maximum Single Span |             | 30000 (Width)           |          |
|                     |             | 8000 (Height)           |          |
| Main Body           | Side Guide  | H220 x W46 (3mm Thick)  |          |
|                     | Shutterhood | 950 x 680 - 3100 x 2800 |          |
|                     | Slat        | 0.8mm ~ 1.5 mm          |          |
|                     | Roller      | 32 mm                   |          |
|                     | Bottom Bar  | "I" Shape               |          |

\*All dimensions in mm.

# Components

## Basic Components



Push Button Box  
Electrically operate  
(Mechanical)



Fusible Link  
Fire activation



Motor  
Roller shutter  
motorised operator

## Optional Components



UPS  
For emergency  
back-up battery  
power



Remote  
Handheld controller  
to operate shutter



Motor Cover  
Protection Cover for  
motor



BMS  
To monitor the  
shutter position  
(open/ close/ fault)  
from BCC/FCC

Others  
Wind Lock  
Explosion Proof  
Remote Interfacing System

### Remarks:

- Due to the properties of printing ink, the colour of the product may differ from the actual color.
- The specifications are subject to change without notice for improvements.
- All items are subjected to Delta Tech Group Terms & Conditions (available at our website, <http://www.deltatech.com.sg>)

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