

# INSULATED FIRE FOLDING CURTAIN

IFRU 120  
IFRU 240

**Delta Tech Group**



**Delta Technology Pte Ltd**

**RD SBS Roller Door Pte Ltd**

Address: 34 Loyang Crescent Singapore 508993

Tel: +65 6382 2621 | +65 6285 7813

Fax: 65 6281 3496 | +65 6285 8150

Email: [enquiry@deltatech.com.sg](mailto:enquiry@deltatech.com.sg)

Website: [www.deltatech.com.sg](http://www.deltatech.com.sg)





# INSULATED FIRE FOLDING CURTAIN



UP TO  
**240** minutes | FIRE Resistance & Insulation

Under our Delta Tech Group, IFRU series insulated Fire folding curtain is tested to BSEN 1634-1:2008 to 4 hours fire rating integrity and 4 hours fire insulation.

Our double layer curtain are design to compartmentalize and seal off the toughest fire outbreak including complex design, corner, shape and sizes. It allow to bend at each corner or run continuously without any additional post in between. During normal circumstances, the IFRU is always in open position to allow traffic to pass and only to closed via gravity through fusible link or fire alarm activation upon fire outbreak.

IFRU is commonly installed in places such as commercial, industrial, residential and public buildings, escalator and void.



Model	Fire Rating Integrity	Fire Rating Insulation
IFRU 120	4 Hours Integrity	2 Hours Insulation
IFRU 240	4 Hours Integrity	4 Hours Insulation

Before Test



After Test

## Distinctive Features



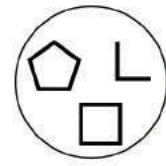
### High Standards of Fire-Ratng

Ensures the highest standard of fire safety in the industry with fire Integrity up to 4 hours and insulation up to 4 hours. Tested to BSEN 1634-1: 2008



### Unlimited Span

Maximum span of unlimited x 9m (H) in dimension, this caters to the largest openings in the market



### Versatility

The IFRU can be erected in a 'L' shape or in square/rectangular shape forming a closed loop without the need for side guide



### Fire Activation via Fusible Link

IFRU has a fusible link that melts at 69°C, thereby causing the shutter to slide down freely under gravity. This is a fail-safe mechanism



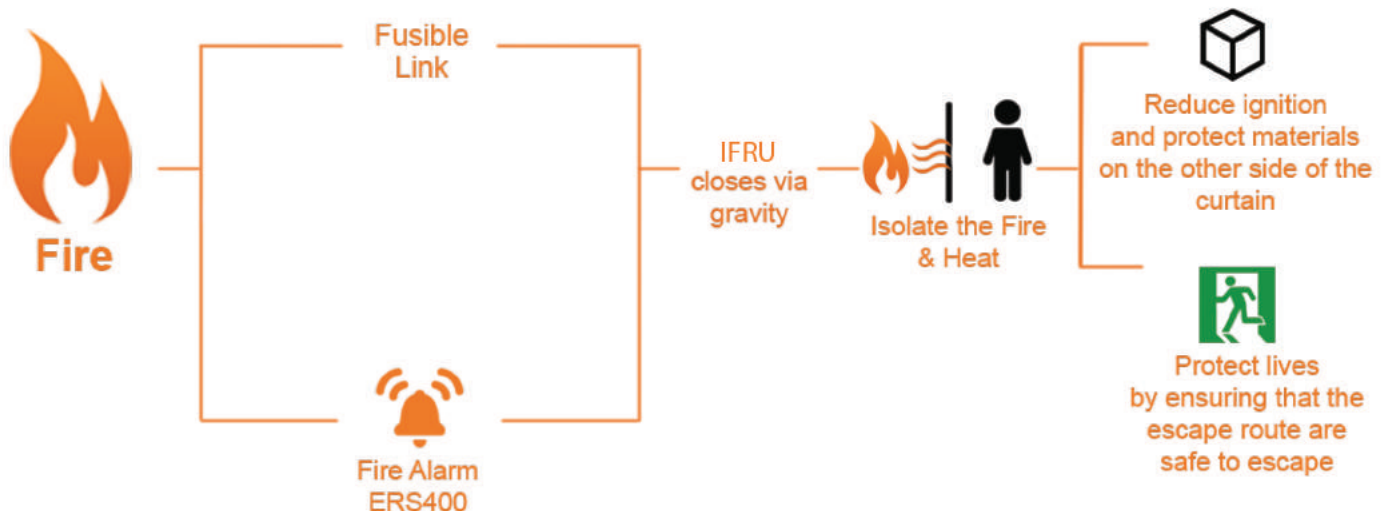
### Fire Activation Via Alarm

Upon activation of fire alarm (ERS400), the alarm will release the brake, thus allowing the shutter to close down freely under gravity.



### Intelligent System (IS)

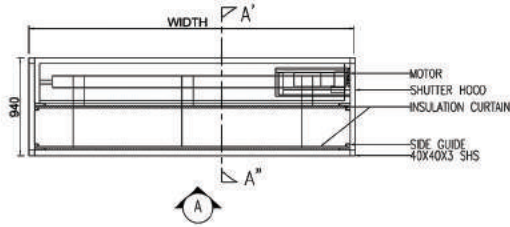
IS has a built-in Brake Renagement Device that stops the shutter once it touches the ground, this will protect the shutter and the ground from any damages. In addition, IS will automatically reset itself after the fire alarm is switched off, this conveniences the user as no physical reset is required.





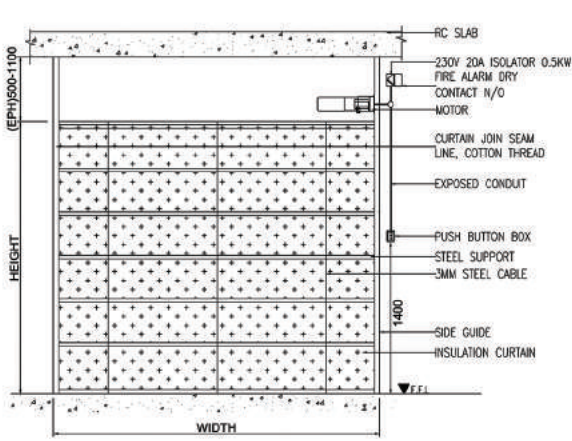
# Typical Drawing

## Insulated Fire Folding Curtain Components

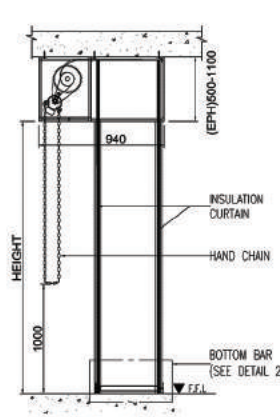


PLAN OF MOTORISED INSULATED FIRE FOLDING CURTAIN (IFRU - SINGLE SPAN)

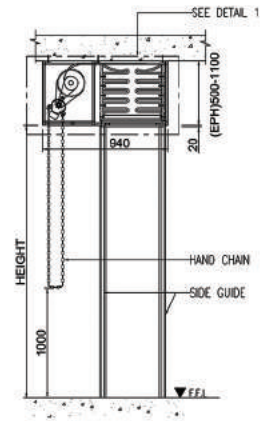
ENDPLATE SIZE (MM)	
HEIGHT(H)	EPH
$H \leq 3000$	500
$3000 < H \leq 4000$	600
$4000 < H \leq 5000$	700
$5000 < H \leq 6000$	800
$6000 < H \leq 7000$	900
$7000 < H \leq 8000$	1000
$8000 < H \leq 9000$	1100



ELEVATION A



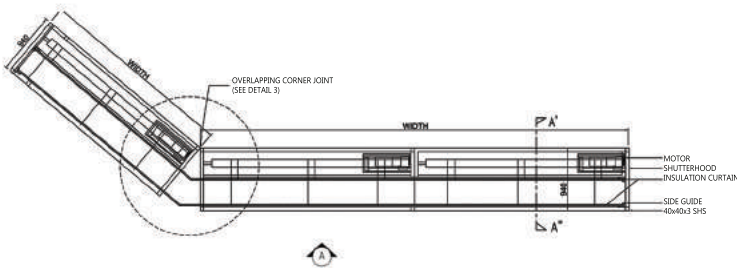
SECTION A-A' (CLOSE POSITION)



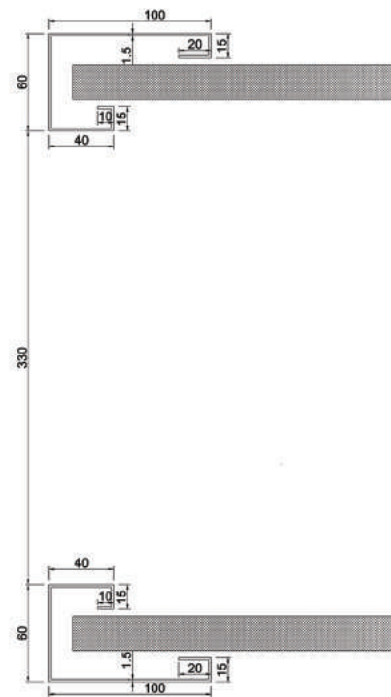
SECTION A-A' (OPEN POSITION)

## IFRU of Multi Spans Details

## Details of Side Guide

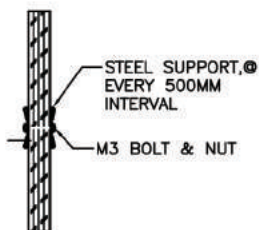


PLAN OF MOTORISED INSULATED FIRE FOLDING CURTAIN (IFRU - MULTI SPANS)



SIDE GUIDE DETAIL

## Curtain Profile



CURTAIN PROFILE (20MM THICK)

## Material & Finish Details

Part	Material	Coating
Curtain	20mm Thick Ceramic cloth and ceramic wool	No Coating, White colour & Grey
Side Guide	1.5mm Thick Mild Steel, SUS304	Electro-galvanized, Colourbond, Powder Coated, Fluorocarbon <sup>^</sup>
Bottom Bar	Mild Steel, SUS304	Electro-galvanized, Powder Coated, Fluorocarbon <sup>^</sup>
Shutterhood Cover	Mild Steel, SUS304	Electro-galvanized, Colourbond, Powder Coated, Fluorocarbon <sup>^</sup>
Motor Cover	Mild Steel, SUS304	Colourbond, Powder Coated, Fluorocarbon <sup>^</sup>

<sup>^</sup>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	DT-5000	DT-7500
Direct Lifting Load (kg)	300	400	500	700	1000	1500	2000	3000	5000	7500
Operation Mode	Electric, AC									
Manual Function	Hand Chain Pulley					Rotational Crank, with handle				
Power(hp)	0.20	0.28	0.42	0.47	1.00	1.50	2.00	3.00	5.00	7.50
Power(W)	150	210	310	350	750	1000	1500	2200	3750	5600
Voltage(V)	230	230	230	230/415	230/415	230/415	415	415	415	415
Full Load Current(A)	0.65	0.91	1.35	1.52/0.84	3.2/1.80	4.34/2.40	3.61	5.30	9.04	13.49
Starting Current(A)	2.48	3.47	5.12	5.78/3.19	12.16/6.84	16.49/9.12	13.73	20.14	34.34	51.28
Poles(P)	4P					6P				
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	Single Brake Unit			Dual Brake Unit						
Bracket	Chain Driven									
Sprocket	9T	9T	9T	10T	11T	11T	11T	11T	11T	11T
Chain	#50			#60/#80	#60/#80	#80	#80/#100	#80/#100	#120D	#120D
Length(mm)	445	445	470	570	615	635	660	690		

\*Thermal Overload Protection cut off at 100°C

## Shutter Specifications

Item	Model	IFRU120	IFRU240
	Fire Rating Integrity		4 Hours Integrity
Fire Rating Insulation		2 Hours Insulation	4 Hours Insulation
Maximum Span		Unlimited ( Width)	
		9000 (Height)	
Main Body	Side Guide	W60 x L100 (1.5mm Thick)	
	Shutterhood	500~1100	
	Curtain	20mm, Double Layer	
	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



Sealing  
Silicone sealant can be  
applied onto the shutterhood  
to prevent water seepage  
However, the shutterhood is  
not water tight

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>)

**Delta Tech Group**



**Delta Technology Pte Ltd**

**RD SBS Roller Door Pte Ltd**

Address: 34 Loyang Crescent Singapore 508993

Tel: +65 6382 2621 | +65 6285 7813

Fax: 65 6281 3496 | +65 6285 8150

Email: [enquiry@deltatech.com.sg](mailto:enquiry@deltatech.com.sg)

Website: [www.deltatech.com.sg](http://www.deltatech.com.sg)

