

COMPANY PROFILE

SATER Contracts LLC.- High grade technology Combined with aesthetic beauty and innovation

SATER is a manufacturing company based in **Dubai, U.A.E.** and has its base of operations at the same.

SATER- the specialist for sun, weather protection and energy saving has been resolute in matters of quality, starting from production right up to customer service.

We are dealing in roller shutters, roller doors, garage doors, exterior blinds like Venation blinds and insect repelling system. They can be manually operated or completely automated for ultimate convenience.

The main focus of the company is to ensure

- Highest quality of our products
- Continuing commitment to further development
- Trained and versatile consulting services

We offer a variety of window and door treatments with high quality German systems with elegant design and style, which make completely unique to your window and doors.

Our unique range of automatic shutters provides unparalleled levels of protection against solar radiation and a remarkable insulation against the heat.

Sater window and door shutters are an attractive way to help secure homes, commercial premises and corporate office buildings. Sater offers a variety of curtain design options, tailored to suit the requirements, from complete privacy to security with a view.

We also ensure punctuality in the delivery of our products. We, SATER realize that, when we commit ourselves to our customers, we make sure that we fulfill

our commitment by all means necessary.

We have a trained staff to ensure utmost efficiency and time conservation. We, Sater, deal with our customers in a manner they feel most comfortable with.

Our Executives always take a personal interest in the fulfilling the customer's requirements as we believe that a personal touch is always necessary to improve and maintain good relations with our customers.

PRODUCTS

- Window Roller Shutter
- Door Roller Shutter
- Garage Shutter
- Venetian Blinds
- Insect Repelling System

FEATURES

- **Visual Protection:** more privacy in your home
- **Energy Saver:** supports the heat insulation, saves energy and cooling (AC) costs
- **Burglary Protection:** an additional barrier for your security, discourages intruders
- **Sun Protection:** pleasantly cool and shady on hot summer days
- **Weather Protection:** protects against hail and storm damages
- **Noise Insulation:** reduce noise pollution
- **Insect Repelling System:** can be integrated into all roller shutter boxes, keeps out pesky critters
- **Stability:** Boxes and profiles made of non-corroding aluminum - solid, long - lasting, low - maintenance and recyclable
- **Ease of Use:** without limitations - either with strap or card operation, crank mechanism or conveniently via electronic drive

ENERGY SAVING

Europe discovered that shutter system is much better way to save energy up to 30% in all types of weathers.

They protect you against too much solar radiation. The heat is kept outside and the climate in your living room gets so comfortable, as you will like it.

HOW SHUTTER SAVES ENERGY

1. PUR-foam filled roller shutters made of aluminum provides an ideal insulation against heat, coldness and noises.
2. No thermal bridges on top of the windows, Glass is transparent so the heat gets in through it.
3. Fully automated control units close the curtain in case of strong solar radiation, nightfall or whenever you wish to do so - once set, energy is saved permanently.
4. Comfortable control system, preferably via radio, for easy operating system with less effort

[less expensive than you might think](#)

PRIVACY

Roller shutters and exterior blinds are opaque and could work as a net as a curtain and as a blackout, thus guaranteeing your privacy.

With the roller shutter systems you lock the world out and can enjoy your privacy in your own four walls without being disturbed.

SUSTAINABILITY & RECYCLABLE

Boxes and profiles are made of non-corrosion aluminum - solid, long - lasting, low - maintenance and recyclable.

Aluminum retains a high scrap value. It can be recycled indefinitely without losing any of its superior characteristics

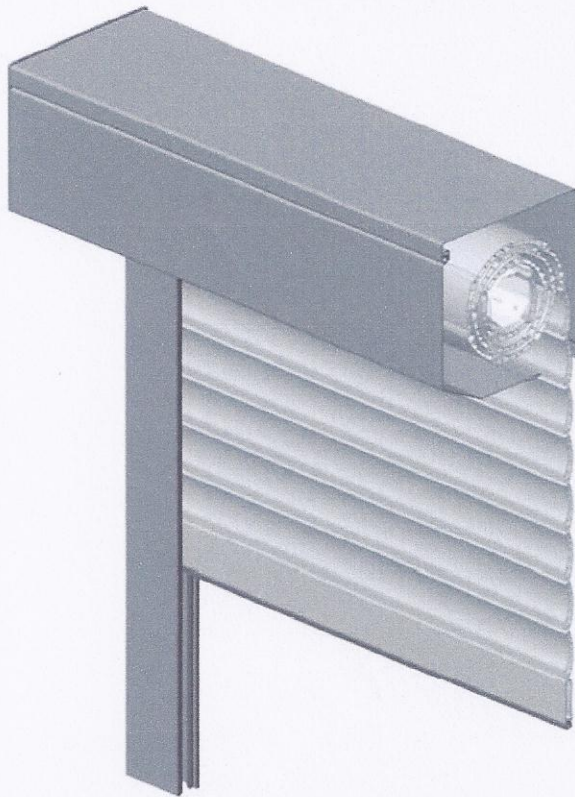
DESIGN

The fact is that roller shutters, besides their functional advantages, look visually impressive and due to the variety of colours fit perfectly to the particular facade design and the individual liking, argues additionally for these durable all-rounder.

SATER Built-on Roller Shutter, Square Design, Roll Formed

Type: STR

EDV-Model: NOR



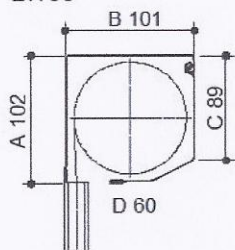
Field of application and use

Energy saving built-on roller shutter for after installation in new and old buildings.

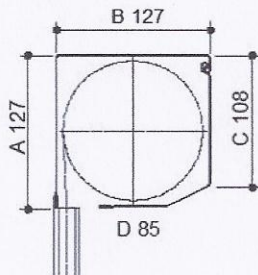
Benefits of the product

- Energy saving due to insulating air cushions between the blind and the window pane
- Sight screen
- Sun protection
- Excellent black-out effect
- Sound insulation due to optimum distance of the blind to the window pane (with distance guide rails)
- Weather protection
- Little noise development due to brush or keder insert in the guide rails
- High-quality, corrosion resistant materials guarantee a long lifespan
- Bay and corner situations are perfectly solvable with mitres
- Design element

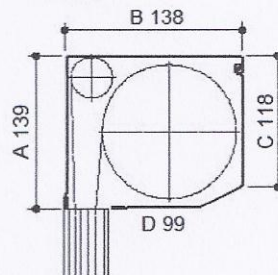
B.100



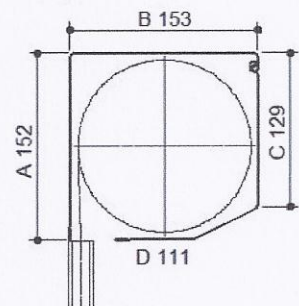
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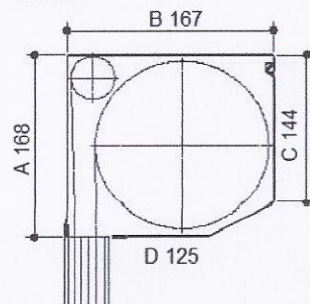
B.138



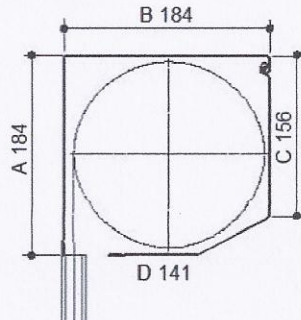
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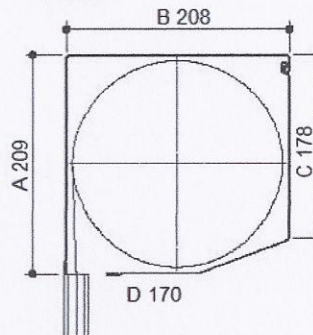
B.165



B.185



B.205



STR – Tender Specification

Type: STR **EDV-Model: NOR**

Roller shutter box

in 2 parts, consisting of a slanted left roller cover and a right roller cover at the rear side, made of profiled aluminium sheet steel, linked with a stable hinge for re-adjustment purposes. XL-design usually with box sealing brush, optionally available with all other box sizes.

The box is laterally closed with end caps made of cast aluminium.

Available in 7 box sizes: B.100, B.127, B.138, B.150, B.165
B.185, B.205.

Guide rails

made of extruded aluminium with wetting or stable brush, 53x22 mm, boreholes closed with covering caps. Additional guide rails see chapter "Guide rails and accessories".

Shaft

40x0.6 mm octagon steel shaft, sendzimir-galvanised;
with motor drive 60x0.6 mm octagon steel shaft, sendzimir-galvanised,
40x0.6 mm octagon shaft without surcharge, if requested, or, for a surcharge, with aluminium locking shaft (Top Safe shaft) ø51.6x2.3 mm.

Type of drive

Lift tape: Width of the lift tape: 14 mm, made of polyester blended fabric, optionally available with lift tape gear 2:1

Pull cord: Cord ø4.5 mm, made of polyester blended fabric

Crank handle: Crank handle gear with gear reduction 3:1 or 4:1, worm-wheel gear with gear reduction 5.33:1 or 8:1, complete with bearing, powder-coated crank rod, folding handle and crank holder

Motor drive: Plug-in drive built into the primary shaft, with protection device against unintentionally raising of the blind, and automatic limit stop (only available in combination with an octagon shaft, 60 mm).

Drive with emergency crank handle from box size 13.

Roller shutter curtain

M317(37x7.5 mm) and MY442 (42x8.7mm), made of double-walled aluminium, foamed, with light and ventilation slots. On both sides the blind is locked over the complete height, so that a lateral shifting of the profiles is not possible.

Daylight profile T10 (10x8 mm), made of double-walled aluminium with light and ventilation slots. On both sides the blind is locked over the complete height, so that a lateral shifting of the profiles is not possible.

Daylight profile T37 (38.4x8.5 mm), made of extruded, double-walled, powder-coated aluminium. On both sides the blind is locked over the complete height, so that a lateral shifting of the profiles is not possible.

Intermediate profiles made of diffused plastic (PMMA). In the lower part of the roller shutter curtain the intermediate profiles are provided with ventilation slots.

Safety profile S37 (37x9.5 mm), made of double-walled, extruded, foam-free aluminium, with light and ventilation slots. On both sides the blind is locked over the complete height, so that a lateral shifting of the profiles is not possible.

End rod

made of extruded aluminium, with laterally built-in, twistable, discreetly hidden plastic stoppers; the lower edge is provided with a supporting profile made of plastic (36x7.5 mm); optionally available with "plane end rod" (30x7.5mm).

Colours

The end caps of the boxes, the guide rails and the end rod are powder-coated, optionally available in white RAL 9016, brown RAL 8077, sepia brown RAL 8014 or silver RAL 9006. For standard colours for the roller shutter curtains see chapter "Standard colours for nova built-on roller shutters". Special colours for the roller shutter profiles on request (exception: profile K37).

Special equipment

moscita insect screen

The insect screen, which is provided with a brake, is completely integrated into the roller shutter box

Insect screen made of fibre glass, plastic sheathed grey coloured

Mesh size: 18x16 threads/inch

Warp: 6.7 threads/cm

Weft: 6.0 threads/cm

Thickness of the thread: 0.29 mm

Transparency: 58 %

Weight: 93.6 g

With brush seals guided safely in the guide rails behind the roller shutter. Manually operated via a separate spring shaft drive when the window is opened.

A SYNERGY OF PROTECTION AND HARMONY

Due to the small size of the box a subsequent installation is possible under all window lintels. The built-on roller shutter proves its true strength with its extremely efficient protection against cold and heat. The energy saver!

All designs are also available with additional insulation.



Model NRS: round, extruded box



Model NVS: square, extruded box



Model NVR: square, roll formed box

Profile types

M 317



MY442



The hollow space of the double-walled, roll formed aluminium roller shutter profiles with light gaps are foam filled. The outer surfaces of the profiles, which are locked over the entire height, are coated with thick lacquer.

K 37



T 10



T 37



S 37



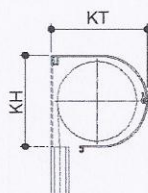
K 37: double-walled plastic roller shutter profiles made of extruded, coloured plastic

T 10: double-walled, roll formed aluminium roller shutter profile

T 37: double-walled, extruded aluminium roller shutter profile in two parts with intermediate profile

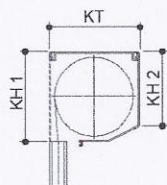
S 37: double-walled, extruded and high-strength aluminium roller shutter profile with light slots

NRS



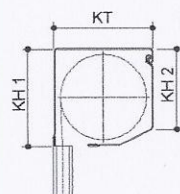
Type	Box height (KH)	Box depth (KT)
	(mm)	(mm)
R13	138	140
R13 XL	150	151
R16	165	167
R16 XL	180	177
R18	205	193

NVS







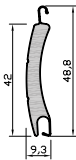


Type	Box height 1 (KH 1)	Box height 2 (KH 2)	Box depth (KT)
	(mm)	(mm)	(mm)
V13 XL	138	132	140
V16	150	180	151
V16 XL	165	235	167
V18	180	306	177
V20	205	417	193

NVR



Type	Box height 1 (KH 1)	Box height 2 (KH 2)	Box depth (KT)
	(mm)	(mm)	(mm)
V13 XL	138	132	140
V16	150	180	151
V16 XL	165	235	167
V18	184	306	177
V20	209	417	193

Limit Sizes	A 32	M 317	MY442	K 37	T 10	T 37	S 37
max. profile width (mm)	2500	3000	4000	2000	2400	2500	2500
max. surface (m²)	5	7.5	8.5	3.5	6	5	6.5
Profile thickness (mm)	7.5	7.5	9.3	0	7.8	8.5	9.5
Profile height (mm)	32	37	48	37	9.9	38.4	37
Weight (kg per m²)	3.4	2.8	2.85	2.7	5.8	9.05	8.0

Profile	M 317 Foamed aluminium roller shutter profile	M 337 Foamed aluminium roller shutter profile	M 328-N Foamed aluminium roller shutter profile	RM 37 PVC-roller shutter profile	MY 442 Foamed aluminium roller shutter profile	M 520 Foamed aluminium roller shutter profile	RE 52 PVC-roller shutter profile
							
Technical data							
Profile height	37,0 mm	37,2 mm	37,0 mm	36,6 mm	42,0 mm	52,0 mm	52,5 mm
Weight	2,80 kg/m ²	2,90 kg/m ²	2,60 kg/m ²	3,60 kg/m ²	2,85 kg/m ²	3,10 kg/m ²	3,80 kg/m ²
Width max.	290 cm	320 cm	270 cm	200 cm	400 cm	380 cm	220 cm
Surface max.	6,5 m ²	7,0 m ²	5,8 m ²	2,9 m ²	8,5 m ²	8,0 m ²	4,6 m ²

Producer's Declaration

The producer

ALUKON GmbH & Co. KG
Münchberger Straße 31
95176 Konradsreuth

herewith declares,

that the foamed aluminium profile M317 is in line with the state-of-the-art of all EN standards and tolerances applicable.

ALUKON, producer as defined in the EU-Construction Products Directives fulfills product standard DIN EN 13659 with the construction product „roller shutters”.

ALUKON implements widely the processes corresponding to DIN EN ISO 9001:2008.

Hint:

Our products are subject to an in-company inspection and are tested on a regular basis.

Konradsreuth, 06.09.2012



Head of Quality Management

Technical Data of ALUKON Aluminum Roller Shutters

Aluminum profile

1. Forming process : rollforming , PU foamed
2. Slats material :
 - Aluminum alloy type : 3005 = EN AW 3005 (AlMn 1Mg0,5)
 - Material thickness : 0.30 mm (incl lacquer thickness tolerance +/- 0,02)
 - Surface treatment → is done by our coil suppliers (liquid coating)
 - lacquer thickness: 0,30 μ m
 - luminance brightness: Delta E +/- 0,5
 - Tensile strength : 190 – 235 N/m²
 - Foaming density : 75 kg/m³ +/- 15% , Thermal conduction PU = 0,035 w/m²·k
 - Static Mechanical property: resistant to wearing, impact and bending:
 - Cross-Cut Test: DIN EN ISO 2409
 - Bend Test: DIN EN ISO 1519
 - Impact Test ASTM 02794
 - Fire proofing performance (DIN 4102) : nonflammable structural material-A2→ not applicable as roller shutters are no construction material
 - Resist to industrial gas infiltration.--> not applicable
 - Resist to water infiltration.—only applies to garage door profiles, not for roller shutters
 - Thermal insulation (DIN 4108); thermal resistance R(sh) of MY 442 is 0,18m²*K/W depending on the type of glass used for the windows
 - Sound insulation (DIN 4109) , R=37 dB (has not been tested)
 - Other technical standards please refer to EN 13659 as per declaration of Conformity

Made in Germany



Konradswarth,
6th September 2012

Results wind resistance to wind load

Testergebnisse Produktprüfung gem. Produktnorm DIN EN 13659

Widerstand gegen Windlast

M317

Pos	PanzerTyp	FS Typ	Kasten Element										M Klasse
			FS Breite in mm	ohne	mitte	hohe	Lichte Breite in mm	Lichte Höhe in mm	Druck in Pa	Faktor in Pa	Q in N		
1	M 317	A 13	68	150	2000	2000	1864	1850	520	347	1197	279	5 O.K.
2	M 317	A 13	68	150	2000	2000	1864	1850	400	267	921	215	5 O.K.
3	M 317	A 13	68	150	2000	2000	1864	1850	480	320	1103	257	5 O.K.
4	M 317	A 13	68	150	2800	2000	2864	1850	200	133	655	218	3 O.K.
5	M 317	A 13	68	150	3200	2000	3064	1850	155	103	564	224	3 O.K.
6	M 317	A 3	53	150	2000	2000	1894	1850	350	233	816	193	4 O.K.
7	M 317	A 5	53	150	2000	2000	1894	1850	300	200	701	166	4 O.K.
6	M 317	AK(P)	53	150	2000	2000	1894	1850	330	220	771	183	4 O.K.

1	M317/A13	1395	1313	1240	1175	1116	1063	1015	970	930	893	858	827	797
width	160	170	180	190	200	210	220	230	240	250	260	270	280 width	
pressure	>=400	>=400	370	332	299	272	248	226	208	192	177	164	153 pressure	
class	6			5					4			3	chits	
width	160	170	180	190	200	210	220	230	240	250	260	270	280 width	

6	M317/A3	965	908	858	813	772	735	702	671	643	618	594	572	551
width	160	170	180	190	200	210	220	230	240	250	260	270	280 width	
pressure	324	287	256	230	207	188	171	157	144	133	123	114	106 pressure	
class	5				4					3			class	
width	160	170	180	190	200	210	220	230	240	250	260	270	280 width	

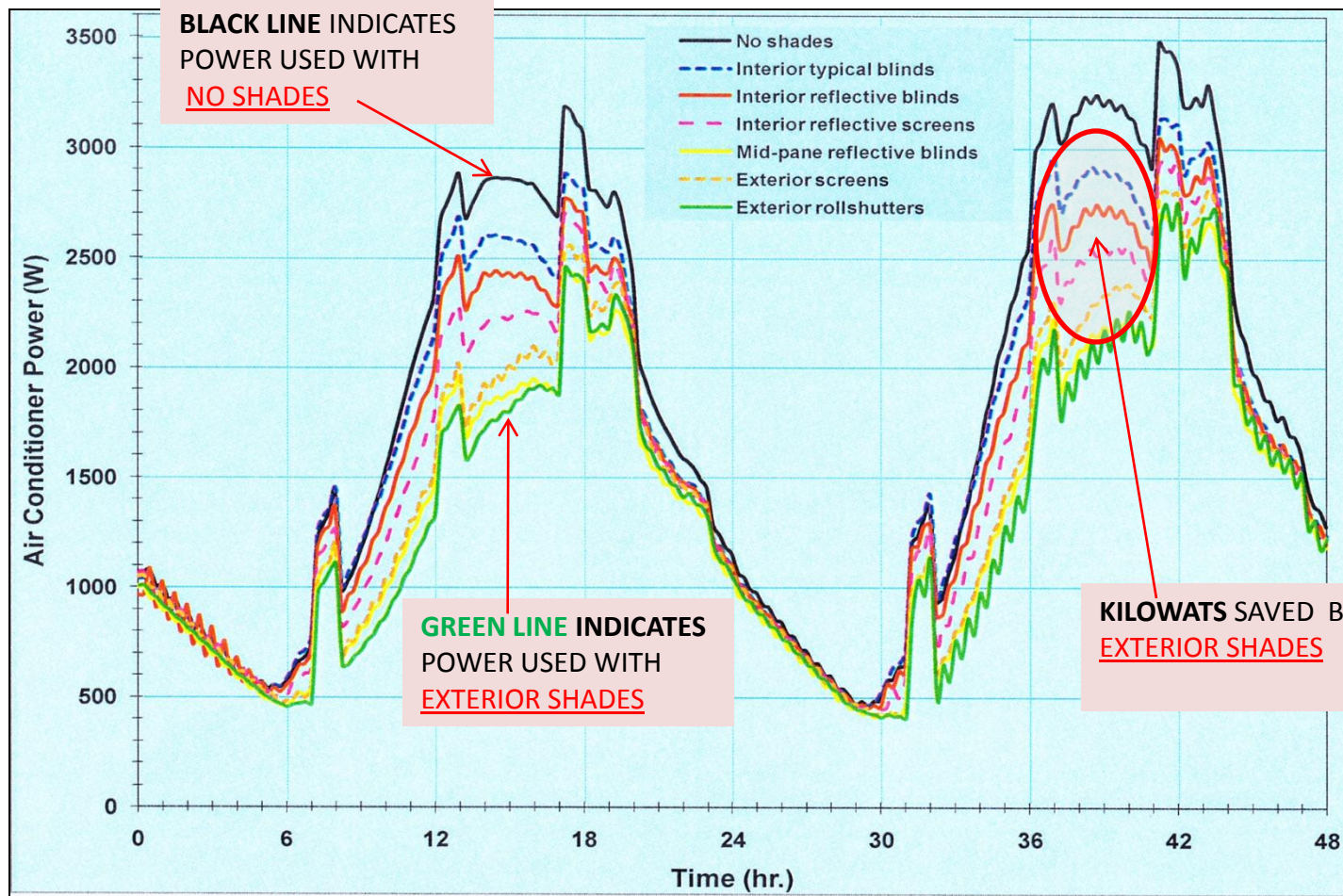
6	M 317/A 5	830	781	738	699	664	632	604	577	553	531	511	492	474
width	160	170	180	190	200	210	220	230	240	250	260	270	280 width	
pressure	274	243	216	194	175	159	145	132	122	112	104	96	89 pressure	
class	5	4	3	2	class									
width	160	170	180	190	200	210	220	230	240	250	260	270	280 width	

6	M 317 AK(P)	1046	976	915	861	813	771	732	697	665	637	610	586	563	542	523	505
width	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	width
Pressure	>=400	349	307	272	242	218	196	178	162	149	136	126	116	108	100	93	Pressure
Class	6	5	5	5	5	4	3	3	3	3	3	3	3	3	3	3	Class
width	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	width

= Klasse 6 = Klasse 5 = Klasse 4 = Klasse 3 = Klasse 2 = Klasse 1

Research Data: Reduction of Air Conditioner Power Use

Comparison of **Interior** and **Exterior** Window Shade Efficiency



Al Mizar Residence - East Facing Window #1 – Shade CLOSED

Kitchen Area

Exterior View



12.09.2010 11:30

Window #1

Date &Time: 9/12/10 11:30

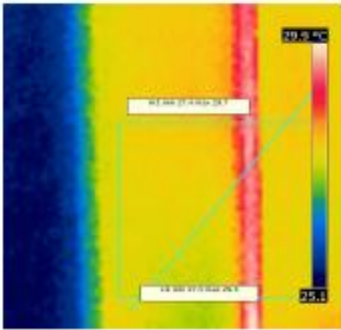
Orientation: East Facing

Shade Position: 100% CLOSED

Temperature Readings

@ shutter: 33.1 C

@ wall: 23.7 C



19.45 °C

25.63

Window #1 - Thermal Image A

Date &Time: 09/12/10 11:14

Shade Position: 100% CLOSED

Duration: previous 4 hrs

Glass Temperature: 27.6C (average)

TEMPERATURE
DIFFERENCE
BETWEEN WALL
AND WINDOW
GLASS 2.5C

Interior View



12.09.2010 11:08

Window #1

Date &Time: 9/12/10 11:08

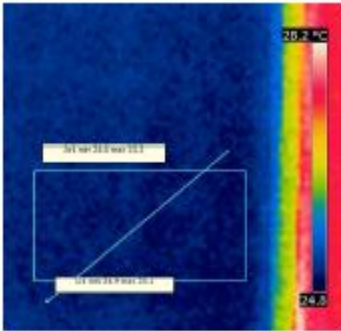
Orientation: East Facing

Room Temp: 26.4 C A/C Off

Shade Position: 100% CLOSED

Wall Area: 15.6 m2,

Window Area: 2.5 m2 (16%)



26.2 °C

24.5

Window #1 - Thermal Image B

Date &Time: 9/12/10 11:14

Shade Position: 100% CLOSED

Duration: previous 4 hrs

Wall Temperature: 25.1C (average)

Photo Images

Thermal Images

Al Mizar Residence - East Facing Window #2 – Shade OPEN

Play Room

Exterior View



12.09.2010 11:00

Window #2

Date &Time: 28/9/10 10: 21

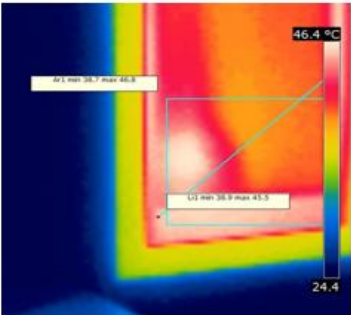
Orientation: East Facing

Shade Position: 100% OPEN

Temperature Readings

@ glass: 45.7 C

@ wall: 23.7C



46.4 °C

24.4

45.1 min 35.7 max 45.8

43.1 min 33.9 max 43.3

Window #2 - Thermal Image A

Date &Time: 28/9/10 10:40

Shade Position: 100% OPEN

Duration: previous 4 hrs

Glass Temperature: 42.1 C (average)

TEMPERATURE
DIFFERENCE
BETWEEN WALL
AND WINDOW
GLASS 17.6C

Interior View



12.09.2010 11:00

Window #2

Date &Time: 28/9/10 10: 25

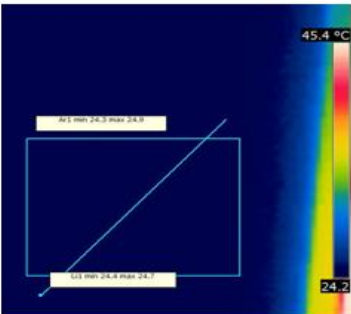
Orientation: East Facing

Room Temp: 27 C A/C Off

Shade Position: 100% OPEN

Wall Area: 12.2 m2,

Window Area: 1.5 m2 (12%)



45.4 °C

24.2

40.3 min 24.3 max 24.9

33.3 min 24.4 max 24.7

Window #2 - Thermal Image B

Date &Time: 9/12/10 10:40

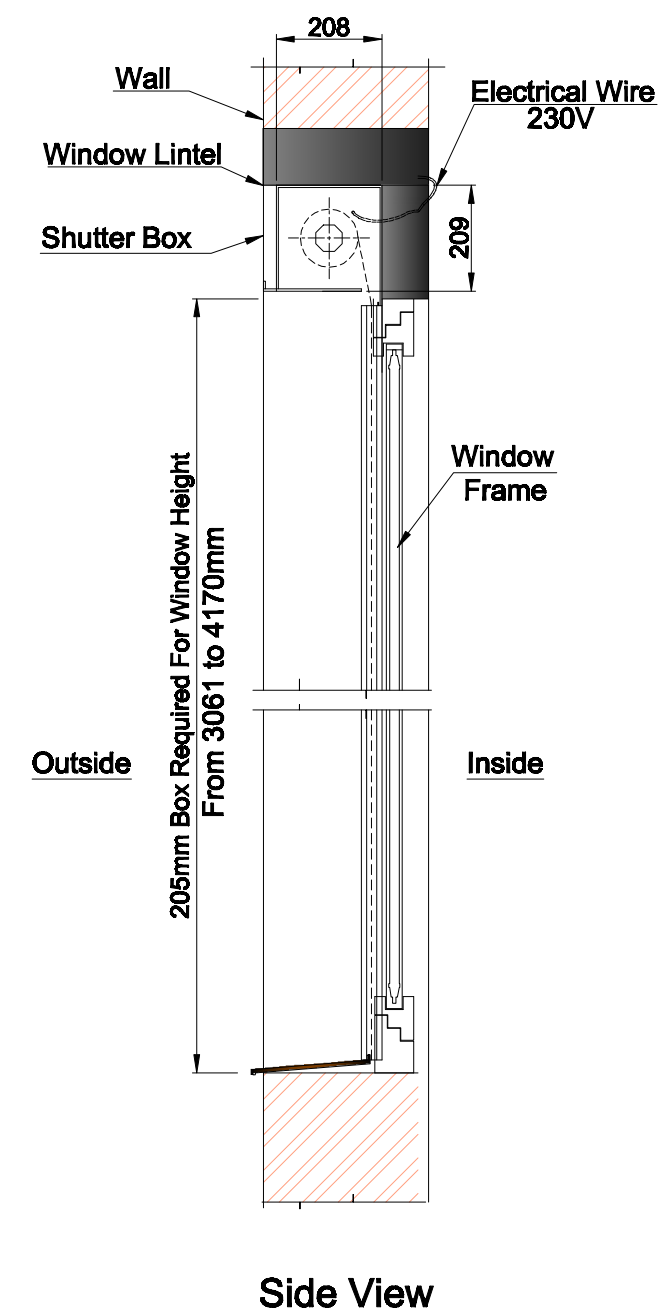
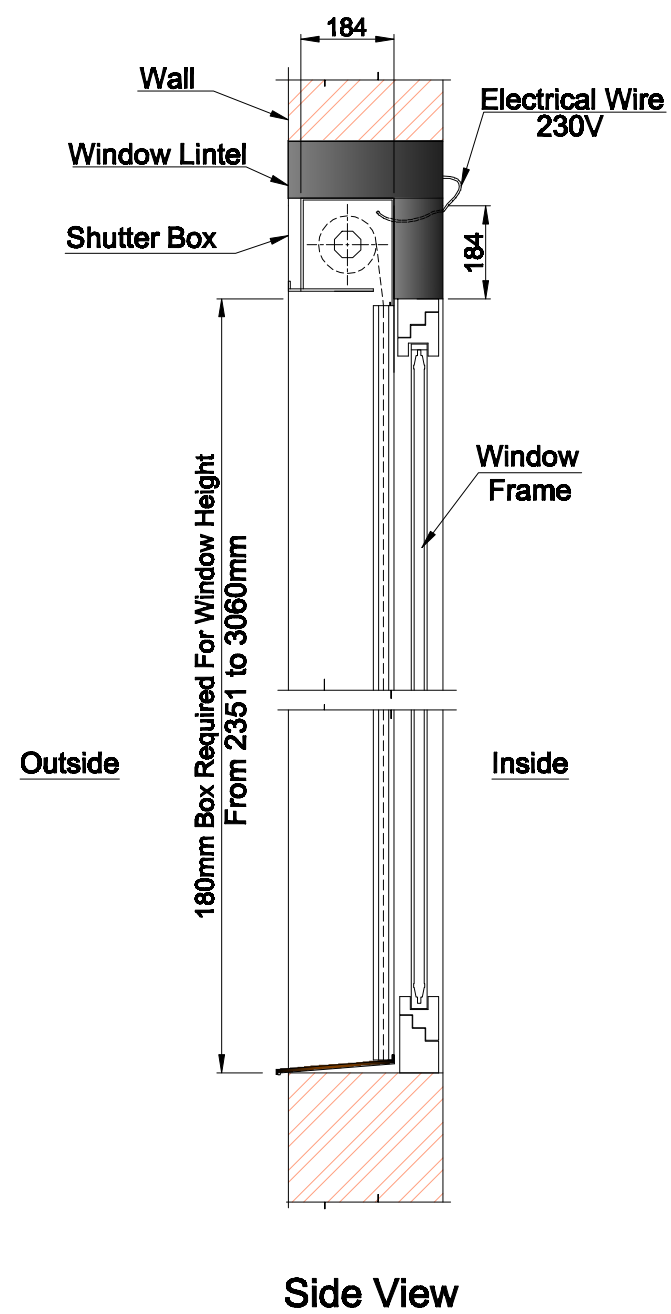
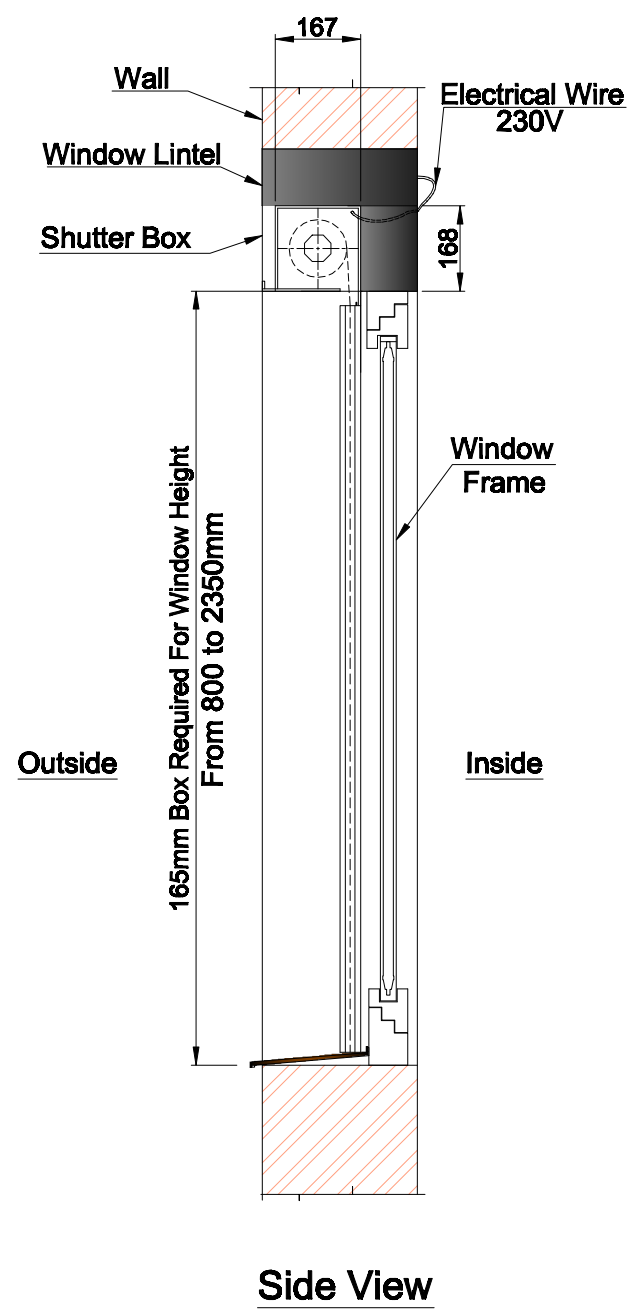
Shade Position: 100% OPEN

Duration: previous 4 hrs

Wall Temperature: 24.5C (average)

Photo Images

Thermal Images



- NOTE:** (1) External Fixing of Window Shutters.
- (2) Window Shutter Dwg For Propose New Building Windows Lintel.
- (3) All Window Shutter Box Width Will be Changed as per window shutter height.
- (4) ShutterBox Should be Excessable for Fixing & Maintance As per given Dimension.
- (5) All Window Shutters Electrical Wire Conection Should be rightside of window from inside the room.

NOTE:
All Dimension Mentioned Are In mm.

Sub- Cont:

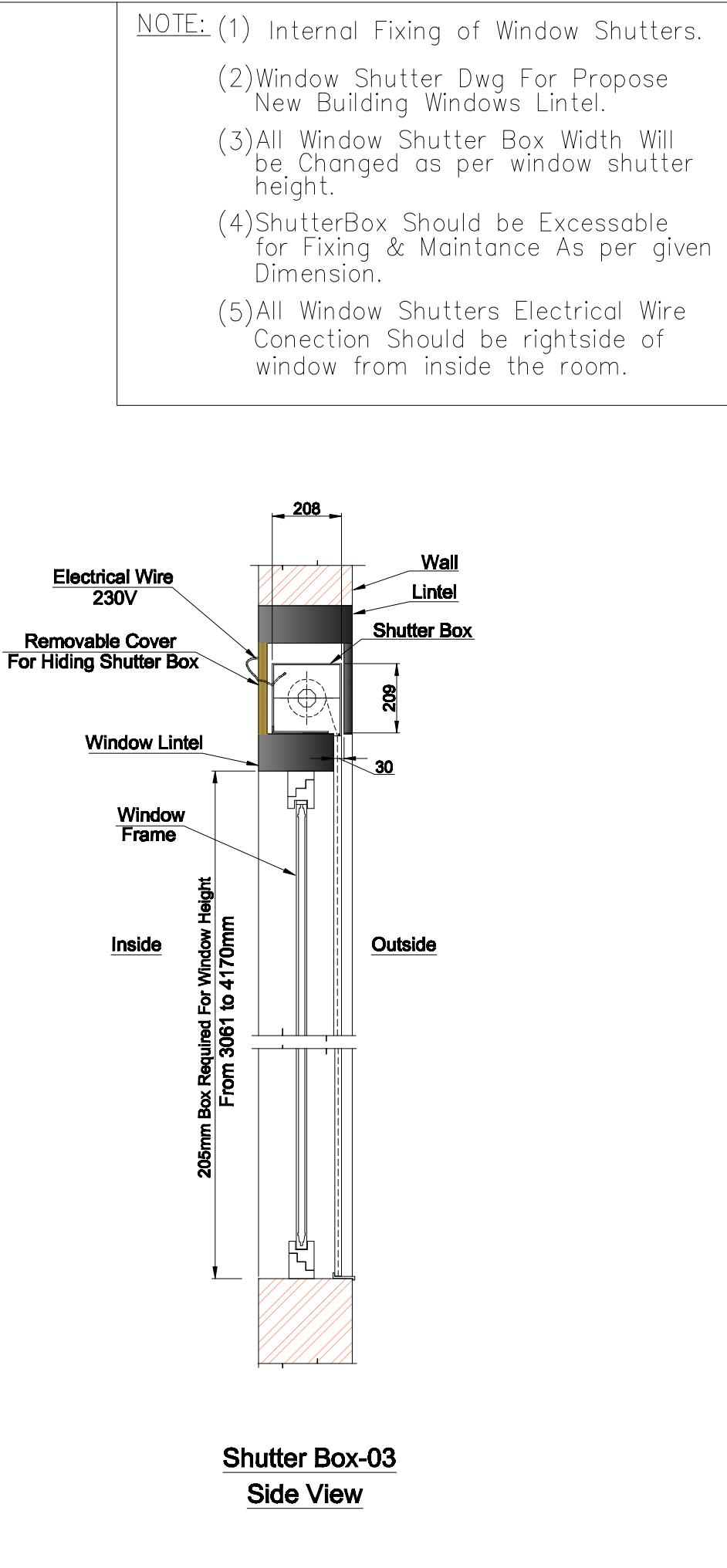
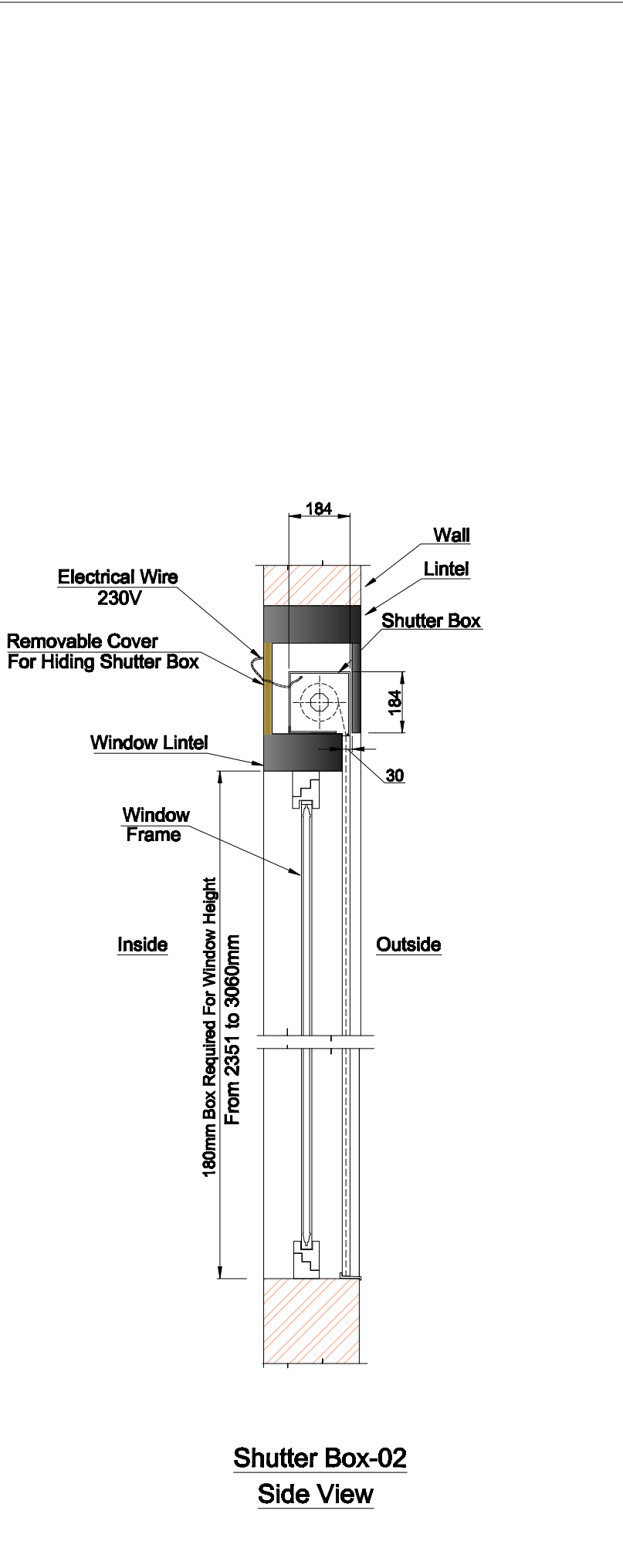
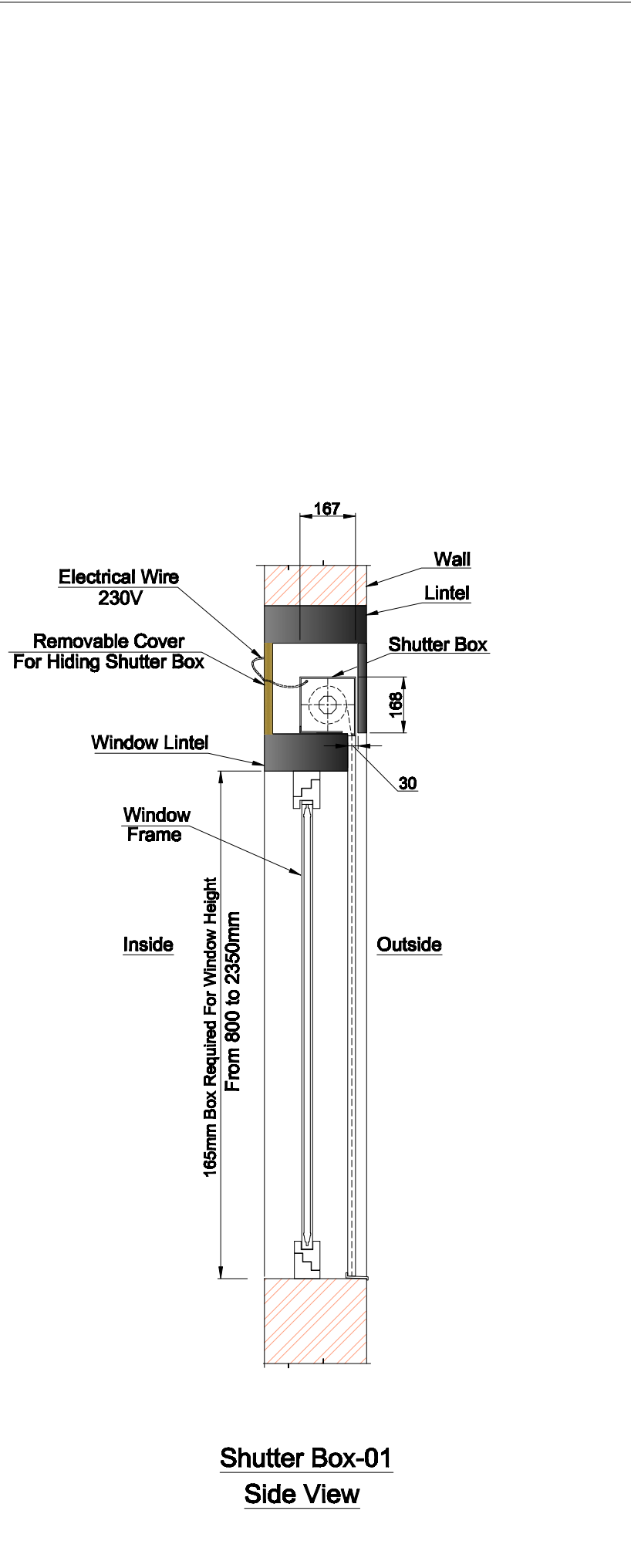
SATER

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PORT SAID AREA, P.O.Box :13333
DEIRA DUBAI, U.A.E.
TEL +971 4 294 7070
FAX +971 4 294 7171
EMAIL : INFO@SATERUAE.AE

Sheet Content:

**External General Window
Shutter Side- View**

**For Propose Building
Window**



NOTE:
All Dimension Mentioned Are In mm.

Sub- Cont:

SATER

AL SERKAL BUILDING, OFFICE No.501,
PORT SAID AREA, P.O.Box :13333
DEIRA DUBAI, U.A.E.
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EMAIL : INFO@SATERUAE.AE

Sheet Content:

**Internal General Window
Shutter Side- View**

**For Propose Building
Window**