# Horizon
## FOR INDUSTRY

**100% Egyptian manufacturer**

**Totter's** ™

# CERTIFICATE
# OF REGISTRATION

**intertek**
Total Quality. Assured.

This is to certify that the management system of:

## Horizon for Industry

Main Site: Administration Office : 80 Rabaa Investment Buildings,NozhaSt., Ard El-Golf, Cairo, Egypt

Additional Site: Horizon for Industry.., Factory: 72 El-Mahager Zone B&C Industrial Zone, Obour City

has been registered by Intertek as conforming to the requirements of:

## ISO 9001:2015

### The management system is applicable to:

Manufacturing & Assembling Data Network Racks & Consoles according to market requirements

ISO 9001:2015
CERTIFICATION ™
**intertek**

UKAS
MANAGEMENT
SYSTEMS
014

**Calin Moldovean**
President, Business Assurance

Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom Intertek Certification Limited is a UKASaccredited body under schedule of accreditation no. 014.

## Approved By

**ECG** جماعة المهندسين الاستشاريين
ENGINEERING CONSULTANTS GROUP S.A.

# Table of Content

# Totter's ™

**BY** *Horizon*
FOR INDUSTRY

## Indoors Racks

# General specifications:

1. **Dimensions:** H154 x W537 x D475 OR customized upon request.
2. **Material:** Galvanized Sheet metal thickness 1.2-1.5mm.
3. **Mounting angles:** Mounted from 1.5mm galvanized steel angles.
4. **Front Door:** Front Glass window, opens with hinges and supplied with opening stopper.
5. **Mounting plate:** Mounting Plate: 3U rotating + 5U Fixed side plates for Patch Panel.
6. **Access Control:** Lock with keys on front.
7. **Painting: :** Electrostatic oven painting for outdoor applications. Ral.7035 or 9005 Black.
8. **Fixation:** Wall Mount Type.
9. **Ventilation:** One fan 9cm.

**Slim Rack
3U + 5U**

# General specifications:

1. **Material:** Galvanized Sheet metal, thickness 1.5 mm.
2. **Equipment orientation:** Vertical equipment mounting.
3. **Front Door:** Opens with hinges and supplied with opening stopper.
4. **Mounting columns:** Galvanized 19" mounting bars for 3U or 5U.
5. **Access Control:** Lock with keys on front.
6. **Cable Entry:** knock out at the top & bottom.
7. **Painting:** Electrostatic oven painting. Ral.7035 or 9005 Black.
8. **Fixation:** Wall Mount Type.
9. **Ventilation:** Ventilation slots.

**Slim Rack**

# Options:

1. **Ventilation:** Adding fans to the design.
2. **Rear mounting:** mirror thickness 1.5mm galvanized H250 x W300cm.
1. **Slim rack designs:** Customisable upon request.
2. **Non 19" equipment fitting:** Rear galvanized mounting plate for non 19" equipment.

**Standard sizes:** H*W*D
**1** 525*500*150   **2** 500*450*120
**Flush mount standard sizes:**
**1** 600*400*120

**All dimensions
are in mm**

**Flush mount
Slim rack**

**2** Rear removable panel

**1** Rack top with 2-fans openings

**3** Removable side panel

**4** Rear 19" bars

**5** Front 19" bars

**6** Front glass door

**12U 600*600**
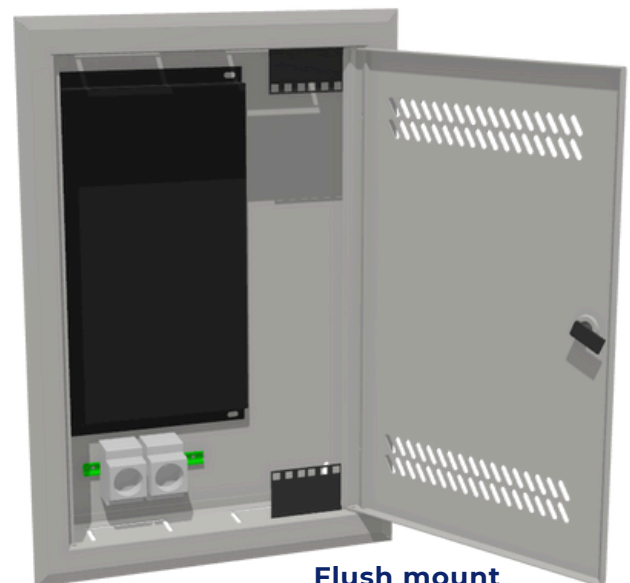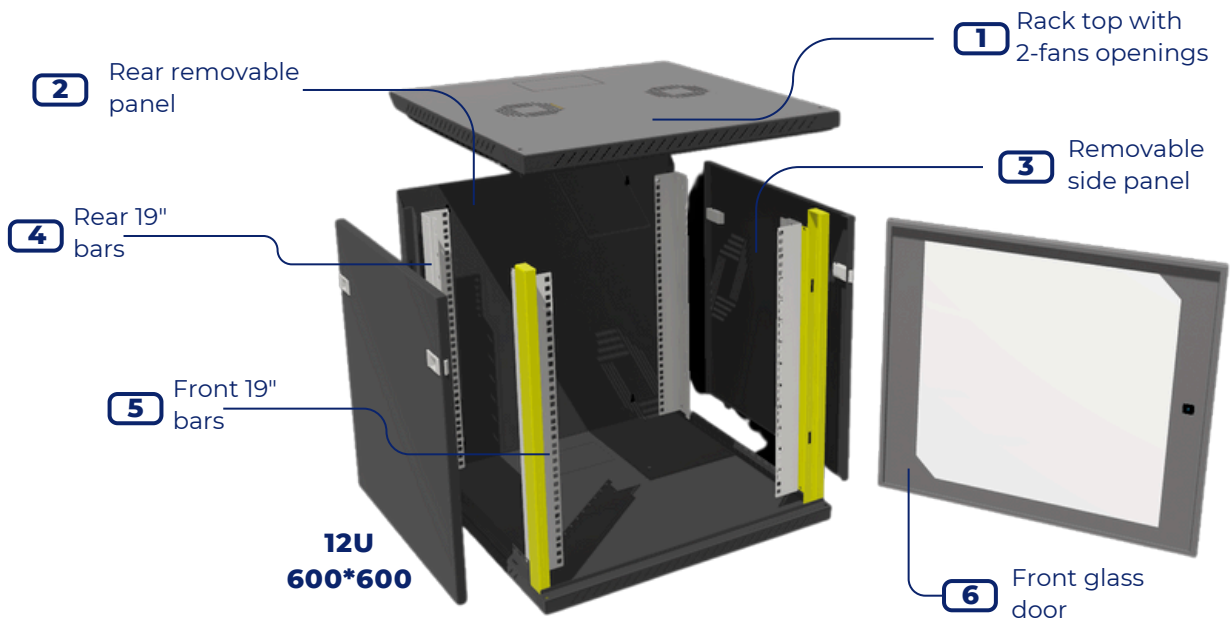
## General specifications:

1. **Material:** 1.25mm steel.
2. **Front Door:** Lock and Key.
3. **Access Control:** Lock with keys on front and removable sides for easy access.
4. **Painting: :** Electrostatic oven painting.
5. **Fixation:** Wall Mount Type.
6. **Ventilation:** 1 to 2 fans unit.

## Options:

1. **Front door design:** Glass window or perforated with the option to remove it for easy access while assembling components.
2. **Side panels:** Removable for side access or fixed.
3. **Shelves:** Shelves dimensions could be customised according to the rack depth.
4. **Ventilation:** The rack could use 2 side fans or 4 fans for maximum ventilation with 2 fans positioned on the sides and 2 fans fixed under the top cover.



15U

600

600

Single glass door



9U

600

600

Single glass door

3

**9U
600*600**

**12U**

**Single glass door**

**800**

**600**

**15U**

**Single glass door**

**800**

**600**
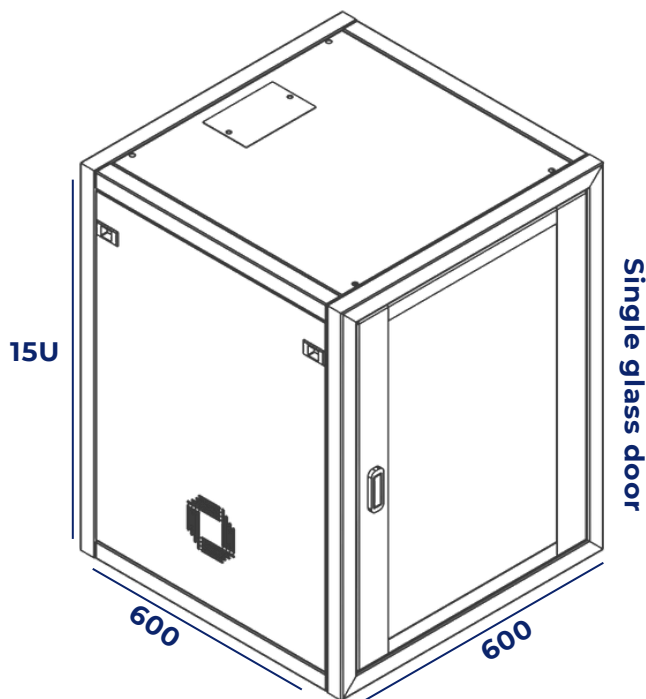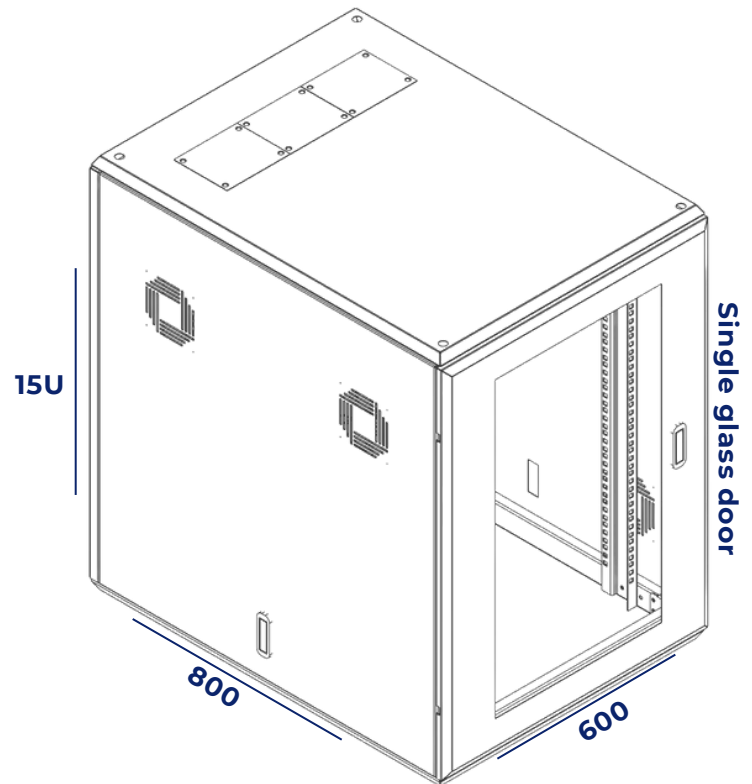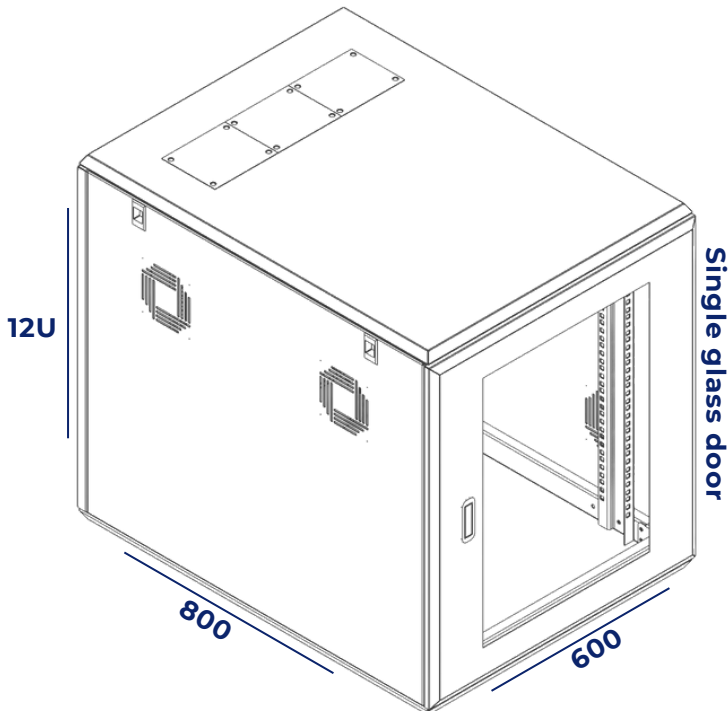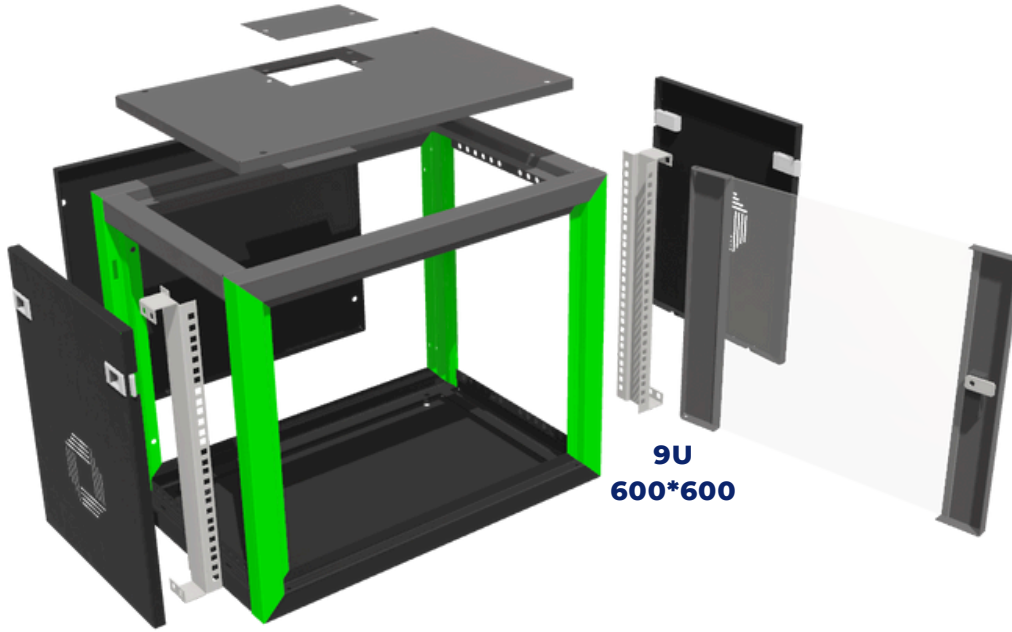
| | 600x400 | 600x600 | 600x800 | 600x1000 | Ref.# |
|---|---|---|---|---|---|
| 7U | • | | | | PR07/6040 |
| 9U | | • | • | • | PR09/6060/6080/60100 |
| 12U | | • | • | | PR12/6060/6080 |
| 15U | | • | | • | PR15/6060/60100 |

**All dimensions
are in mm**

4

1 Top Cover

3 Top Fans Unit

2 Rear Single/Double Doors

4 Removable side panels

5 Rear 19" bars

6 Front Single/Double Doors

7 Front 19" bars

**27U
600*600**
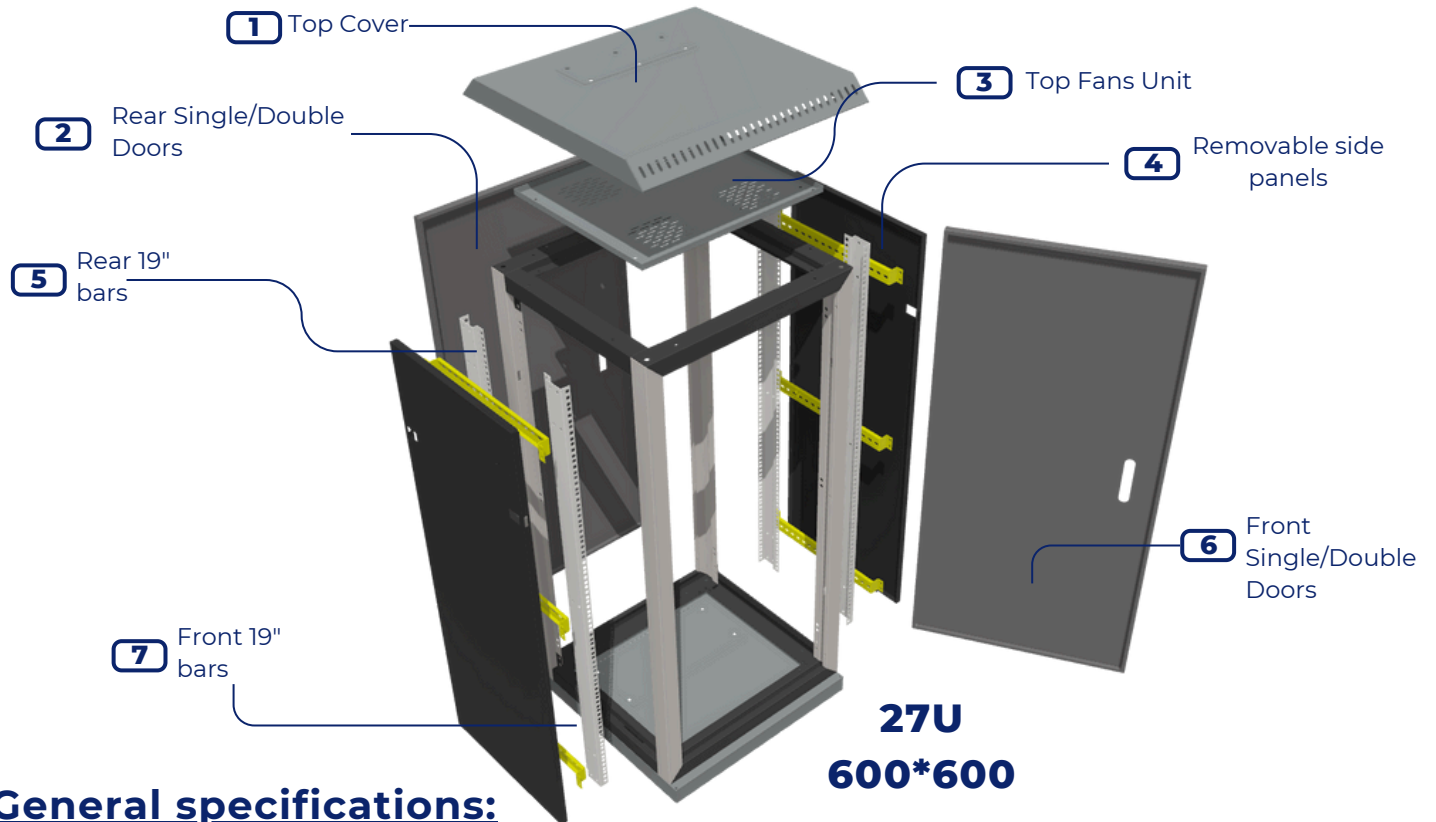
## General specifications:

1. **Materials used:** 1.0 - 1.5mm
2. **Ventilation:** From 2 up to 4 fans.
3. **Painting method:** Powder electrostatic paint.
4. **Anti-rust protection:** Galvanizing mounting bars and side braces.

## Specific features:

1. **Side panels:** 1mm steel.
2. **Front door(s):** secured with 3-points lock.
3. **Top cover:** designed with knockout panels for cable entry and top ventilation.
4. **Top fans unit:** designed to accommodate up to 6-fans unit.
5. **19" mounting bars:** galvanized and numbered.
6. **Side braces:** manufactured to maximize the rack's stability, sturdiness and loading capacity.
7. **Back door(s):** Secured with single point lock.

**Standard sizes:**

1 600* 600      2 600*800

3 600*1000

**All dimensions are in mm**

## Options:

1. **Side panels design:**
   panel/side - 2 vertical or horizontal panels - Fixed - Removable via plastic locks or lock and key.
2. **Front door(s):**
   2.1 Either double doors or a single door design.
   2.2 Door(s) design could be perforated for 80% ventilation, glass window or fully solid design.
3. **Top cover:**
   Could be designed with knockout panels, brushes covered windows for dust repelling or fully closed.
4. **Top fans unit:**
   The top fan unit has the option to include up to 6 fans and can be matched with bottom similar setup for perfect air circulation.
5. **Rear door(s):**
   5.1 The back of the rack could be designed fully fixed, on hinges and 3-points lock or plastic easy to release locks.
   5.2 Either double doors or a single door design.
   5.3 Door(s) design could be perforated for 80% ventilation, glass window or fully closed design.

**36U**

**Single perforated door**

**800**

**600**

**33U**

**Single glass door**

**800**

**600**

**1000**

**42U**

**Single glass door**

**600**
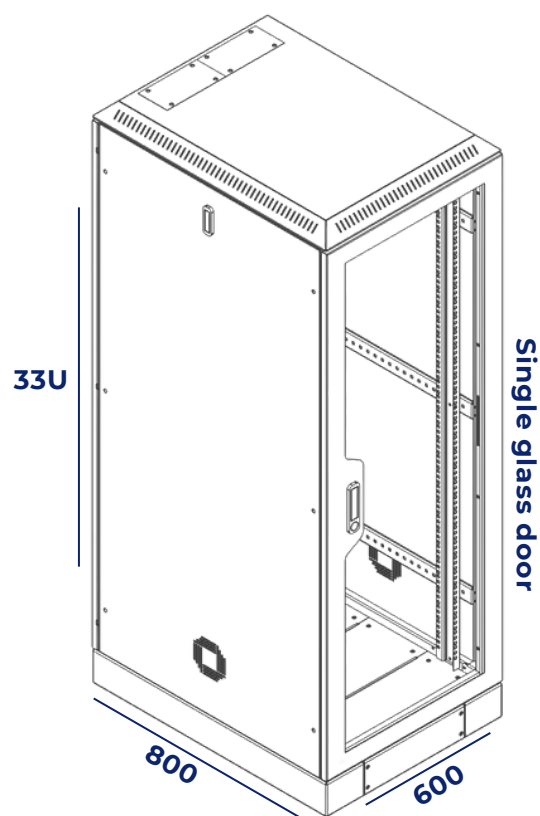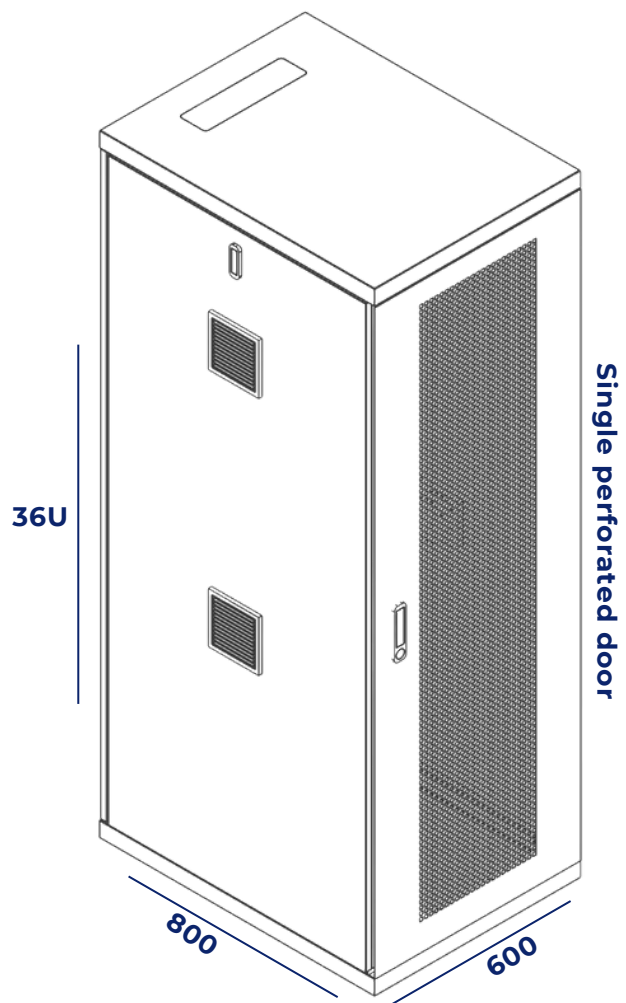
| | 600x600 | 600x800 | 600x1000 | Ref.# |
|---|---|---|---|---|
| 18U | | • | | PR18/6080 |
| 27U | • | • | • | PR27/6060/6080/60100 |
| 32U | | • | | PR32/6080 |
| 37U | • | | | PR37/6060 |
| 42U | • | • | • | PR42/6080/60100 |
| 44U | • | | | PR44/6060 |

**All dimensions are in mm**

**3** Top Cover

**7** Back Door

**6** Side braces

**1** Removable side panels

**42U 800*800**

**9** Left hinged cable organizer

**4** 4-Fans unit

2-Fans unit

**2** Front Perforated Door

**5** Front 19" bars

**8** knockout Panels

## General specifications:

1. **Materials used:** 1.5mm for chassis.
2. **Ventilation:** From 4 up to 8 fans.
3. **Painting method:** Powder electrostatic paint.
4. **Anti-rust protection:** Galvanized mounting bars and side braces.

## Specific features:

1. **Side panels:** 1 mm steel. One or two pieces side panel.
2. **Front door(s):** secured with 3-points lock.
3. **Top cover:** designed with knockout panels for cable entry and top ventilation.
4. **Top fans unit:** accommodates up to 6-fan unit.
5. **19" mounting bars:** galvanized and numbered.
6. **Side braces:** manufactured to maximize the rack's stability, sturdiness and loading capacity.
7. **Back door(s):** Single or double doors.
8. **Knock out paneles**
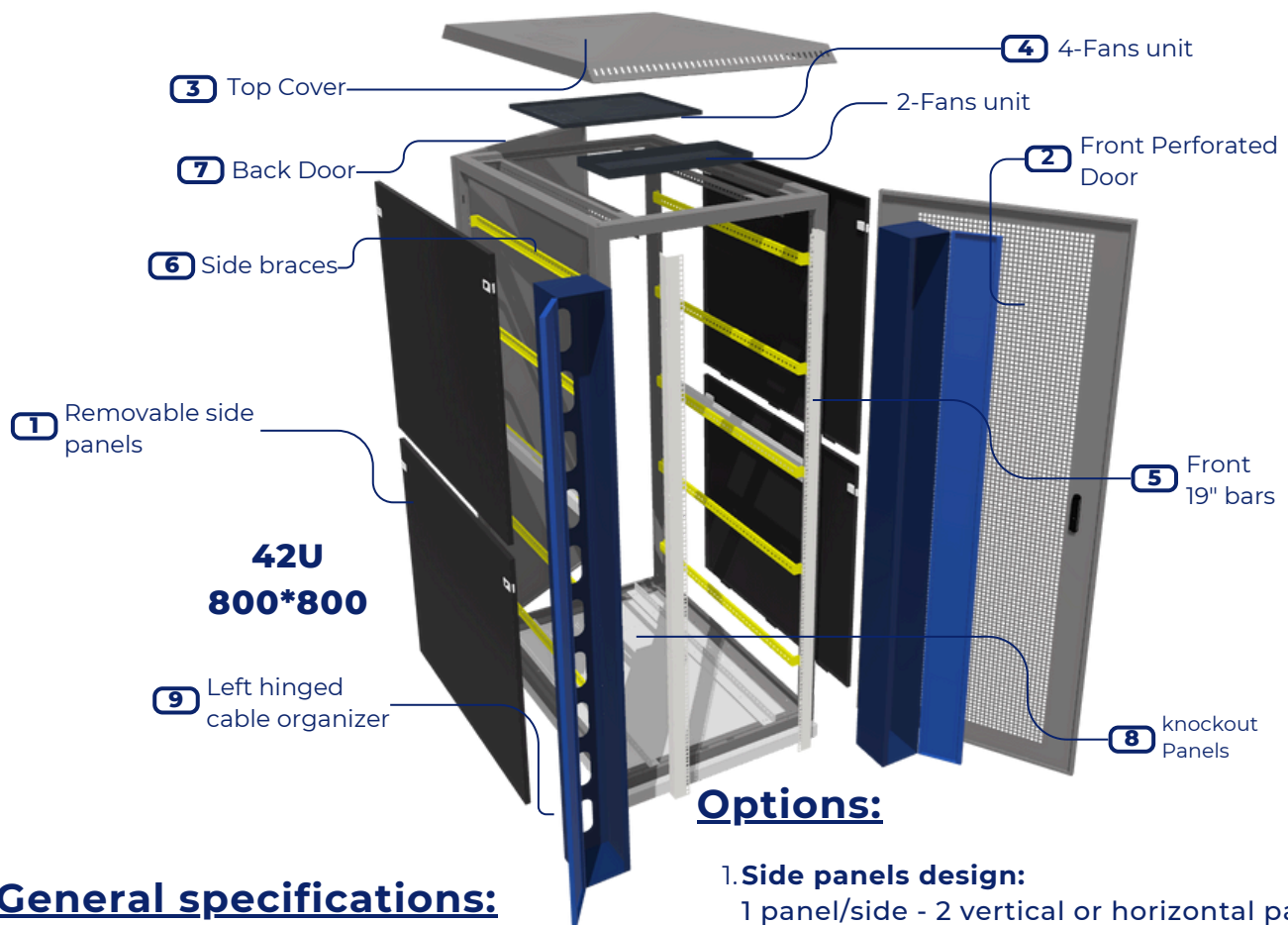9. **Left hinged cable organizer**

## Options:

1. **Side panels design:**
   1 panel/side - 2 vertical or horizontal panels - Fixed - Removable via plastic locks or lock and key
2. **Front door(s):**
   2.1 Double doors or a single door design.
   2.2 Single or double door(s) design could be perforated for 80% ventilation, glass window or fully closed design.
3. **Top cover:**
   Could be designed with knockout panels, brushes covered windows for dust repelling or fully closed.
4. **Top fans unit:**
   The top fan unit has the option to include up to 6 fans and can be matched with bottom similar setup for perfect air circulation.
5. **Rear door(s):**
   5.1 The back of the rack could be designed to be fully fixed, on hinges and 3-points lock or using plastic easy to release locks.
   5.2 Either double doors or a single door design.
   5.3 Door(s) design could be perforated for 80% ventilation, glass window or fully closed design.
6. **Cable organizer:** Two vertical cable organizers with hinges at the front of the rack.

**44U**

1200

800

**Single glass door**

**42U**

1200

800

**Single perforated door**

**42U**

1000

800

**Double perforated door**
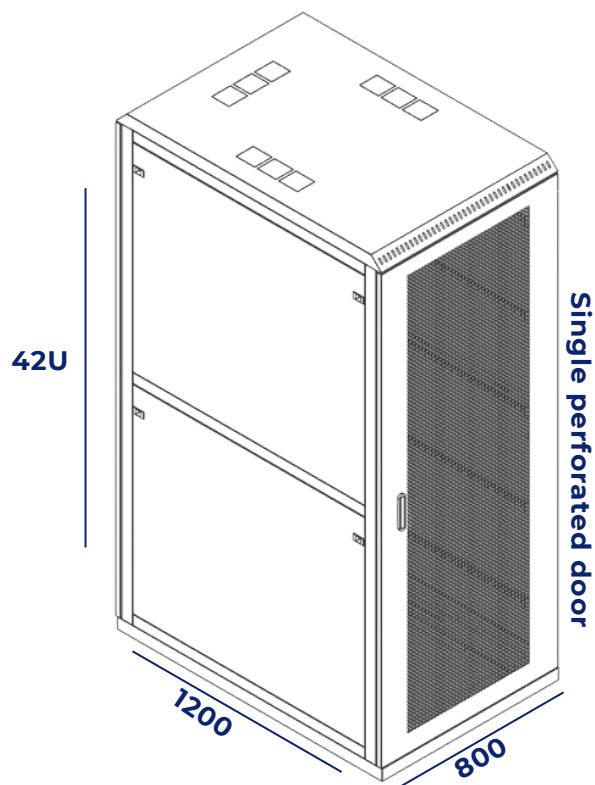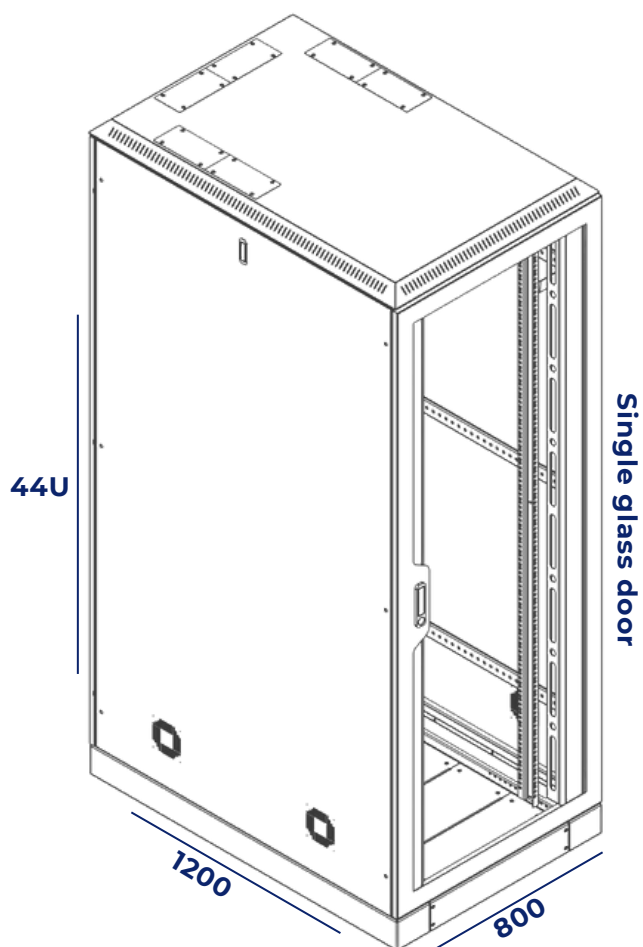
|  | 800*600 | 800x800 | 800x1000 | 800x1100 | 800x1200 | Ref# |
|---|---|---|---|---|---|---|
| 27U |  | • |  |  |  | PR27/8080 |
| 32U |  | • | • |  |  | PR32/8080/80100 |
| 37U |  |  | • |  |  | PR37/80100 |
| 42U | • | • | • |  | • | PR42/8060/8080/80100/80120 |
| 47U |  |  |  | • | • | PR4780110/801200 |

**All dimensions
are in mm**

8
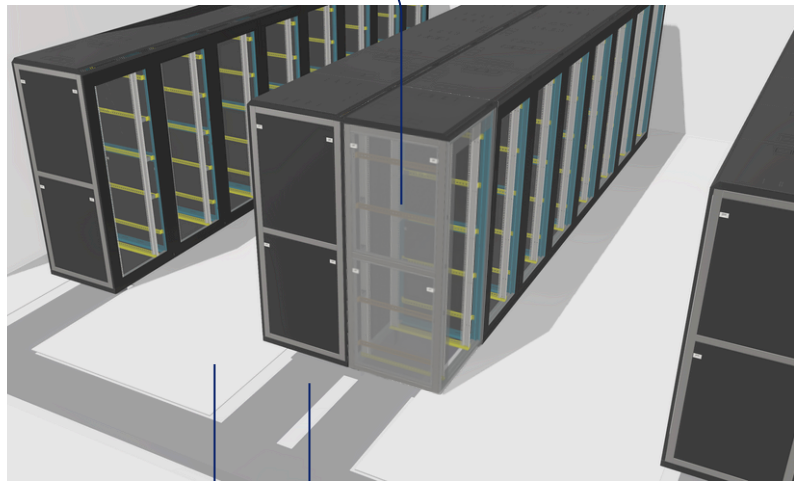
Our in-house manufacturing capabilities allow us to deliver comprehensive data center solutions tailored to your specific requirements. From small-scale data centers to large-scale enterprise deployments, we offer a wide range of products and services, including: the customized racks for each product along with the requested accessories and the raised floor.

**1** 42U Rack

**3** Cable Duct

**2** Raised floor

# **1** **42U rack:**

Industry-standard 42U network rack provides reliable support for servers, networking equipment, and patch panels.

With enhanced airflow management and customizable configuration options, this rack is engineered to accommodate diverse infrastructure needs.

List of options can be customized to each project's specific needs such as: lockable doors, cable management systems, and power distribution units.

Optimized airflow and cable management for efficient operation.

The chosen rack size and dimensions vary from a project to another.

All racks are customizable.
Options are listed in pages 5 & 7.

## **Specification:**

1.  **Materials used:** 1.5mm for chassis.
2. **Painting method:** Powder  electrostatic paint.
3. **Anti-rust protection:** Galvanized mounting bars and side braces.
4. **Accessories and add-ons:**
    4.1. Power Distribution Units: Designed to manage power effectively within your data center, available in various configurations to suit your rack and equipment layout.
    4.2. Cable organizers and Ladders: Simplify cable organization with versatile, easy-to-install trays and ladder options.

# **2** **Raised Floor System:**

The raised floor system provides optimal airflow and efficient cooling pathways for heat-intensive data environment along with the removable rack base to insure maximum accessibility for both cooling and cabling.

## **Specification:**

1. **Panel Size:** 600mm x 600mm.
2. **Material:** Anti-static, heavy-duty panels.
3. **Customization:** Adjustable height, durable finish & customizable tile colors.

# **3** **Under Surface Cable Ducts:**

The under surface cable duct system ensures streamlined cable management, preventing clutter and maintaining the integrity of power and data connections.

Constructed to support large volumes of cables, this solution facilitates organized routing, reduces signal interference, and enhances data center reliability.

## **Specifications:**

1. **Duct Size:** Customizable widths and depths.
2. **Material:** 1-1.5mm steel.
3. **Protection:** Galvanized.

**1** Top Cover

**2** Rear Door

**3** Lockable side panel

**4** Side fan's filter

**5** Rear 19" bars

**6** Front 19" bars

**7** Side Fans

**8** Upper glass door

**9** Middle sliding keyboard shelf

**10** Server shelves

**11** Lower glass door
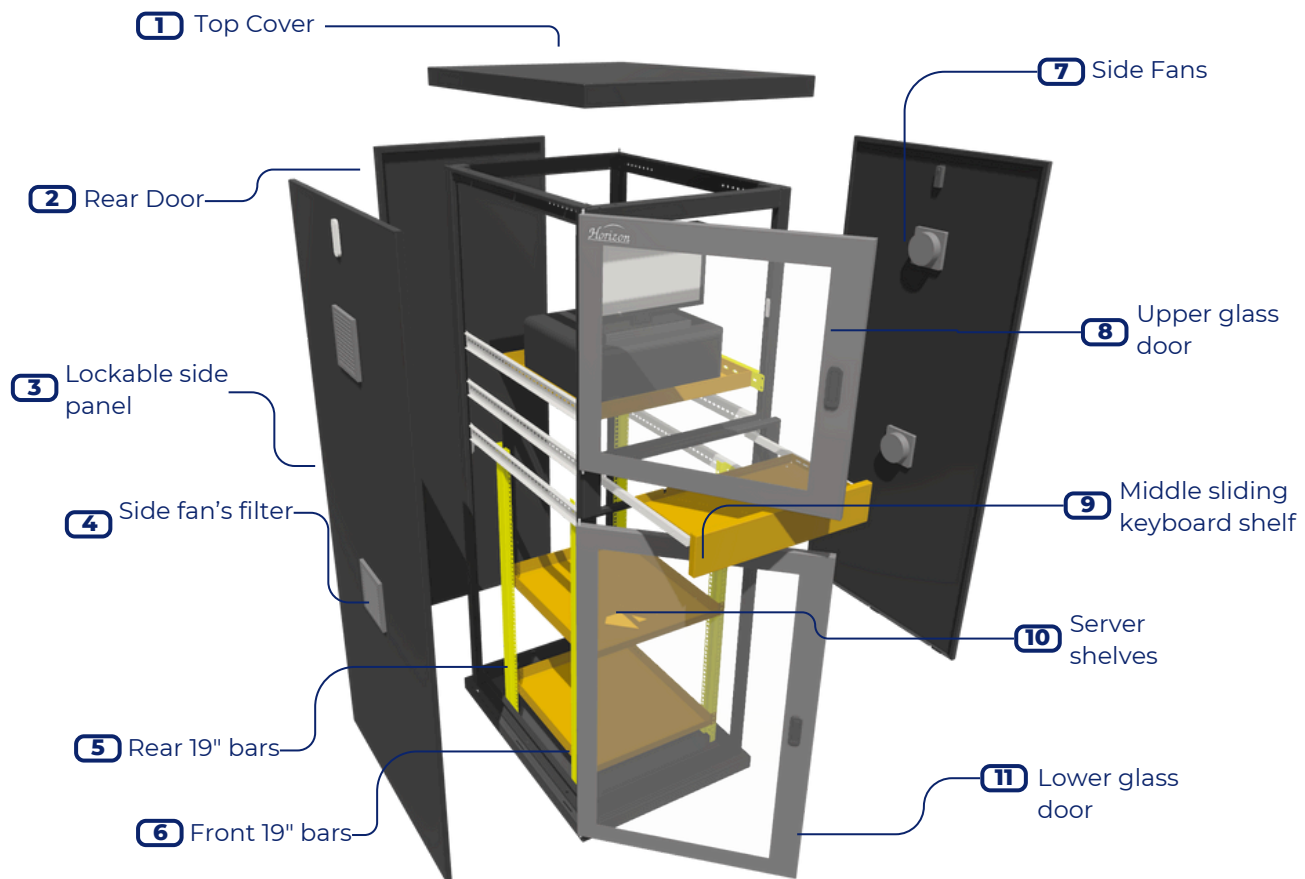
## General specifications:

1. **19" Indoor rack (36U) Three sections 600 x 600mm.**
2. **Material:** Sheet Metal 1.5mm.
3. **Side panels:** Removable sides equipped with two fans each.
4. **Painting method:** Powder electrostatic paint Color 9005 or 7035.

## Upper section:

1. **Dimensions:** 13U height.
2. **Shelf:** The screen is mounted on a fixed shelf.
3. **Front door:** The computer is secured glass door with lock & key.
4. **Mounting:** The upper section has only the computer shelf without 19" columns.
5. **Ventilation:** Two fans mounted under the roof with two more fans mounted on each rack side.

## Middle section:

1. **Dimensions:** 4U height.
2. **Shelf:** The middle shelf is sliding with a handle for the keyboard and mouse.

## Lower section:

1. **Dimensions:** 19U height.
2. **19" Mounting bars:** 4 x 19" mounting bars, 2 at the front and two at back of the rack.
3. **Shelf:** 2 Fixed shelves with a depth of 50cm and load up to 100 Kgs.
4. **Front door:** Security glass door with lock & key.
5. **Ventilation:** Two Side Fans with filter in each side.

## Options:

1. **Top view dimensions:** Both the depth and width are customizable upon request.
2. **The sections division:** Each section could be divided according to the screen and other used equipment's dimensions.

# Outdoor Racks

## Outdoor IP55 Certificate

Ministry of Higher Education
& Scientific Research
National Institute of Standards

NIS

وزارة التعليم العالى والبحث العلمى
المعهد القومى للمعايرة

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### TEST REPORT
تقرير إختبار

| • Report No. | 739/46T031/2/217/2024 | Code | OPR09-0060.T |
|---|---|---|---|

### • Test Results

#### IP 55

| IP Level | First digit: Ingress of Solids Objects | Effective Against | Results |
|---|---|---|---|
| 5 | Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact | Dust Protected | complete protection against contact |

| | Second Digit: Liquids | | Results |
|---|---|---|---|
| 5 | Water projected by a nozzle (6.3mm) against the enclosure from any direction shall have no harmful effects. | Water jets | No harmful effect. |

### • Uncertainty Statement

The combined standard uncertainty is calculated based on ISO 0000:year which include at least the standard uncertainty reported for the reference standard, the standard uncertainty for the measurement process, the standard uncertainty for any uncorrected errors. The combined standard uncertainty is multiplied by a coverage factor (k) of 2 to provide an expanded uncertainty, which defines a level of confidence of approximately 95 percent (95.45 %). The expanded uncertainty presented in this certificate/report is consistent with the ISO/IEC GUIDE 98-3:2008 "Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)".

Tested by

Reviewed by Mohamed

Page 3 of 3

# Outdoor IP65 Certificate



Ministry of Higher Education
& Scientific Research
National Institute of Standards

وزارة التعليم العالى والبحث العلمى
المعهد القومى للمعايرة

El- Sadat (Tersa) St., El Haram, Giza, Egypt - P.O.Box 136 Giza - Code 12211 - Tel./ Fax: +202 - 33867462 - NIS Tel +202 - 37401113
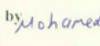
## TEST REPORT
تقرير إختبار

| • Report No. | 739/46T031/1/216/2024 | Code | OPR09-6060 |
|---|---|---|---|

### • Test Results

| IP 65 | | | |
|---|---|---|---|
| IP Level | First digit: Ingress of Solids Objects | Effective Against | Results |
| 6 | Dust Tight | No ingress of dust; complete protection against contact | No Effect |
| | Second Digit: Liquids | Effective Against | Results |
| 5 | Water jets | Water projected by a nozzle (6.3mm) against the enclosure from any direction shall have no harmful effects. | No harmful effect. |

**• Uncertainty Statement**

The combined standard uncertainty is calculated based on ISO 0000:year which include at least the standard uncertainty reported for the reference standard, the standard uncertainty for the measurement process, the standard uncertainty for any uncorrected errors. The combined standard uncertainty is multiplied by a coverage factor (k) of 2 to provide an expanded uncertainty, which defines a level of confidence of approximately 95 percent (95.45 %). The expanded uncertainty presented in this certificate/report is consistent with the ISO/IEC GUIDE 98-3:2008 "Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)".

Tested by

Reviewed by
Nermen Mohmed

Page 3 of 3

**Outdoor's Link**

Vertical 19" mounting bars

Top suction fan

Power outlets & Circuit breaker

Sealing rubber frame

Industrial Lock

Temperature control thermostat

Front Door

Bottom exhaust fan

## General Specifications:

1. **Dimensions:** H620 x W530 x D200mm (Customizable).
2. **Materials used:** 1.2mm galvanized steel.
3. **Outdoor protection measures:**
   3.1. Dust filters for each fan.
   3.2. Rubber gasket frame on the door.
   3.3. Rubber gaskets on cable entries.
4. **Cable entry:** through special cable glands with inner rubber gaskets to protect against dust or insect entry.
5. **Ventilation:** 1 suction fan with opposite exhaust fan to create positive air circulation.
6. **Mounting:** Pole-mount or wall-mount.
7. **Painting method:** Electrostatic oven painting for outdoor applications. Ral.7035.
8. **Anti-rust protection:** Galvanizing the mounting bars and side braces.

**Wall-mount Slim rack**

## Option:

**Temperature control:** An electronically pre-set thermostat could be added to control the fans on/off for maximum efficiency and durability.

Sealing rubber frame

Industrial Lock

Front Door

Bottom exhaust fan

**Electrical Outdoor box**
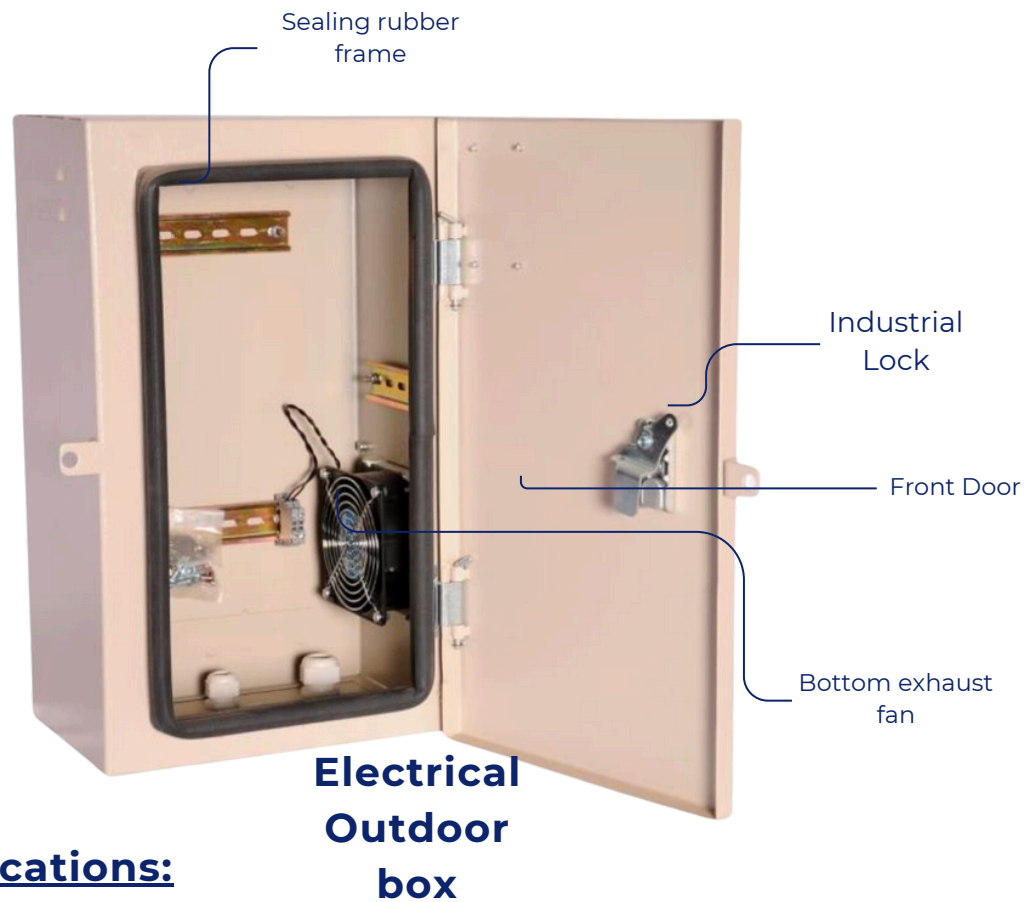
## General specifications:

1. **Dimensions:** IP 55 – H500 x W300 x D200mm (customizable)
2. **Materials used:** 1.2mm galvanized steel.
3. **Outdoor protection measures:**
   3.1. Dust filters for each fan.
   3.2. Rubber gasket frame on the door.
   3.3. Rubber gaskets on cable entries.
4. **Access Control:** Lock with keys on front.
5. **Cable entry:** through special cable glands with inner rubber gasket to protect against dust or insect entry.
6. **Ventilation:** 1 suction fan with filter and cover.
7. **Mounting:** Pole-mount or wall-mount.
8. **Painting method:** Electrostatic oven painting for outdoor applications. Ral.7035.
9. **Anti-rust protection:** Galvanizing mounting bars and side braces.

## Option:

1. **Fans are controlled:** by a pre-set thermostat to control the temperature degree at which fans operate & when they stop. This is essential to control enclosure temperature and to give rest for fans.
2. **Bracket:** For fixing to Pole.

14

Tilted roof

Left openable side

3-point lock

Outdoor protected fans

**33U**
**600*800**

# General specifications:

1. **Materials used:** 1.2mm galvanized steel.
2. **Outdoor protection measures:**
   3.1. Dust filters for each fan.
   3.2. Rubber gasket frame on the door.
   3.3. Rubber gaskets on cable entries.
3. **Rain protection:** The roof is designed tilted to protect against rain accumulation.
4. **Cable entry:** through special cable glands with inner rubber gaskets to protect against dust or insect entry.
5. **Ventilation:** 1 or 2 suction fans with opposite exhaust 1 or 2 fans to create positive air circulation.
6. **Mounting:** Pole-mount, wall-mount or free-standing.
7. **Painting method:** Electrostatic oven painting for outdoor applications. Ral.7035.
8. **Anti-rust protection:** Galvanizing mounting bars and side braces.
9. **IP protection:** All designs and product are available in IP55 and IP65.

22U

600

600
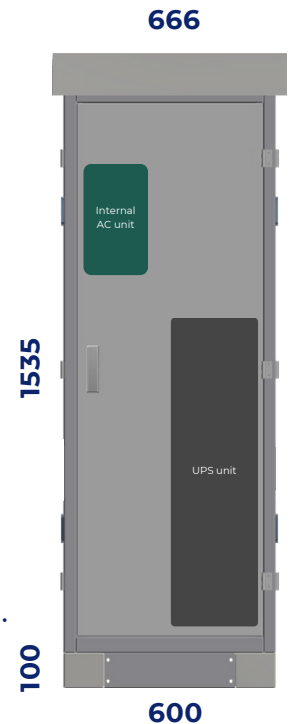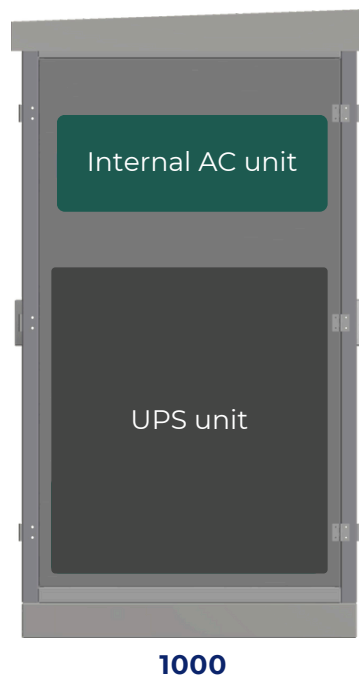
| | 600x400 | 600x600 | Ref.# |
|---|---|---|---|
| 6U | • | | OPR06/6040 |
| 7U | | • | OPR07/6060 |
| 9U | • | • | OPR09/6040/ 6060 |
| 12U | | • | OPR12/6060 |
| 15U | | • | OPR15/6060 |
| 24U | | • | OPR24/6060 |

**All dimensions are in mm**

**UPS Outdoor Rack**

**Side view**



Internal AC unit

UPS unit

1000

666

1535

100

600

## Technical Specifications:

1. **IP65 protection**
2. **Outer dimensions:** Length 1535mm, Depth 1000mm, Width 600mm.
3. **Rain protection:** Slightly tilted second top cover (for rain and dust directing).
4. **Access Control:** 3-Point lock with keys for the front door.
5. **In-rack air condition:** Fixed AC unit inside the rack with cable glands protecting the ducts reaching the compressor unit outside the rack.
6. **AC Compressor:** Compressor could be positioned under the rack (with modified rack plinth upon request).
7. **Double wall insulation:** Rockwool thermal insulation between the two wall panels to prevent the outdoor heat in and the AC air out, achieving the optimum operating setup for the UPS.  The double wall insulation plus the control of outer air leaking inside lead to maximize the air condition effectiveness and durability.
8. **Rubber sealing gaskets:** on door frame.
9. **Cable entry protection:** outdoor protection achieved through special cable glands with inner rubber gasket to protect against dust or insect entry.
11. **Cable entry location and dimensions:** depend on the project's requirements.
12. **Outer wall:** manufactured with 1.25mm galvanized steel sheet, the inner wall is 1mm steel and the chassis is 2mm thick.
13. **Rack is mount:** on a 100mm height plinth or 4 legs stand.



**W600 D1000**

16

## General specifications:

1. **IP protection: IP65**
2. **Materials used:** 1.2mm galvanized steel.
3. **Outdoor protection measures:**
   3.1. Dust filters for each fan.
   3.2. Rubber gasket frame on the door.
   3.3. Rubber gaskets on cable entries.
4. **Access Control:** 3-Point lock with keys on the front.
5. **Rain protection:** The roof is tilted to protect against rain accumulation.
6. **Temperature control:** Fans are electronically controlled by a pre-set thermostat.
7. **Cable entry:** through special cable glands with inner rubber gaskets to protect against dust or insect entry.
8. **Ventilation:** 1 or 2  suction fans with opposite exhaust 1 or 2 fans to create positive air circulation.
9. **Mounting:** Pole-mount, wall-mount or free-standing.
10. **Painting method:** Electrostatic oven painting for outdoor applications. Ral.7035.
11. **Anti-rust protection:** Galvanized mounting bars and side braces.

## General specifications:

1. **Material:** 1.2mm galvanized steel.
2. **Outdoor protection:**
    2.1. standard IP56.
    2.2. Rubber steel-reinforced gaskets to tighten all doors' openings.
    2.3. Insulation material PEF in between the double layers for heat insulation.
    2.4. Isolated batteries compartments.
    2.5. Insulation material: Polyethylene foam.
3. **Mounting bars:** 19" & 21" Mounting columns made from 1.5mm stainless steel sheets.
4. **Earth bars:** 25cm made from red electrical copper (99.9% purity), fixed in the bottom layer of the compartments.
5. **Back panel ventilation:** slots for releasing harmful gas generated by batteries.
6. **Ventilation:** AC or heat exchanger.
7. **Stance:** Free standing on a concrete base (with four brackets to be fixed on the concrete.
8. **Anti-rust protection:** Galvanized mounting bars and side braces.
9. **Painting method:** Electrostatic oven painting for outdoor applications. Ral.7035.
10. **Cable entry:** Separate cable entrance openings for power, data and optical cables.


## Doors & Partitions Specifications:

1. Enclosure includes two front doors for the two separated compartments with 110° opening angle controlled by  door limiting devices.
2. One side door for the side MDF compartment.
3. One side window at the other side for consumption meter inspection.
4. The lock is theft proof three-point lock with door sensors.
5. Every component's section is completely isolated (equipment, battery & power supply) for safety and better heat isolation and temperature control.
6. Special windows in the intermediate walls for cables traffic.

## Technical Specifications:

1. **Material:** Doors & sides thickness is 2mm, Inner lining for doors & Sides are 1mm. All galvanized steel sheets.
2. **19" mounting bars:** 19" Outdoor 28U Twin Rack
3. **Stance:** Free-Standing standard on chassis.
4. **Outdoor protection:**
   4.1. Standard IP56.
   4.2. Double wall for better temperature isolation (option).
5. **Roof tilted:** to protect against rain accumulation above the roof.
6. **Front & Back Doors:** Twin double doors with 3 point fixation.
7. **Stance:** Free standing on concrete base.
8. **Ventilation:** AC or heat exchanger.
9. **Anti-rust protection:** Galvanizing mounting bars and side braces.
10. **Painting method:** Electrostatic oven painting for outdoor applications. Ral.7035.
11. **Double layer wall:** Can be equipped with inner rock wool or high-density 37 polyethylene foam lining upon request for extra temperature insulation.
12. **Movable 19" Mounting Columns:** Can be shifted forward & backward at 20mm steps to best-fit depths of all types of equipment.
13. **Cable entry:** Cable handling compartment with 20cm Height beneath the whole rack area. It has front & rear doors 13cm height under the rack base.
14. **Cable Organizers:** At sides of the 19" columns.
15. **Optic Fiber Organizers:** At front side of the 19" columns.
16. **Access Control:** Lock with keys on front & back.
17. **Galvanization:** 19" mounting columns for scratch protection. Prior galvanization is must to resist the weather conditions.

28U
600
1000



**All dimensions are in mm**

# Totter's
## BY Horizon
### FOR INDUSTRY
## Accessories

**Accessories Link**

## 19" 6 Sockets power distribution unit:

1. **Dimension:** 19" x 2U.
2. **Components:** 6 sockets with 10-amp. impedance and a max of 16 amp.
3. **Socket protection:** Sockets with accidental opening protection. Both socket openings should be opened together.
4. **Circuit breakers:** Supplied with 2 circuit breakers, Max 10 Amp each. Each circuit breaker protects three sockets to provide a backup solution in case of a short circuit.
   **Painting:** Electrostatic oven painting for indoor applications. Ral 9005 (Black Color).
5. **Earth (GND):** Standard earth terminal.

## 19" 8 Or 10 socket power distribution unit:

1. **Dimension:** 19" x 2U
2. **Components:** 8 or 10 sockets with 10-amp. impedance and a max of 16 amp.
3. **Socket protection:** Sockets with accidental opening protection. Both socket openings should be opened together.
4. **Circuit breakers:** Supplied with 2 circuit breakers. 10 Amp. Max. per each CB. One for each 4 or 5 sockets with a separate power circuit to provide a backup solution when a short circuit happens at one group of sockets.
5. **Painting:** Electrostatic oven painting for indoor applications. Ral 9005 (Black Color).
6. **Earth (GND):** Standard earth terminal.

Front view

Back view

## 20-socket power distribution unit +circuit breaker:

1. **Stance:** Stand alone or vertically mounted on a rack's 19" bars.
2. **Paint:** Electrostatic paint for indoor application
3. **Sockets:**
   3.1. Bticino / Lucci, Modo
   3.2. High voltage sockets, switches and wire.
   3.3. Sockets with 10 amp. impedance and a max. of 16 amp.
   3.4. Sockets with accidental opening protection.

## C13 20-socket power distribution unit +circuit breaker:

Vertical Power Distribution Panel 20 Sockets C13 : PDP 20-2CB

1. **Dimension:** L1100mm x W560mm
2. **Components:** 20 sockets **C13** with 10 amp. impedance and a max of 16 amp Sockets
3. **Circuit breakers:** 2 circuit breakers, 32 Amp. Max. per each CB (customizable upon request) Each circuit breaker controls 10 sockets to provide a backup solution when a short circuit happens at one group of sockets.
4. **Sockets:** Industrial grade sockets **IEC 60309 2P** 32Amp –
5. **Painting:** Electrostatic oven painting for indoor applications. Ral 9005 (Black Color).
6. **Earth (GND):** Standard earth terminal.

## Fan units



### Fan unit

Four-fans including on/off front indicator switch

1. Height 1U.
2. On/Off switch.
3. Thermal sensors.
4. Sensor to monitor the temperature of the rack and activates 1, 2, 3 or 4 fans according to the temperature recorded, an alarm (buzzer). When the temperature is safe again, it shuts off the fans.
5. Outdoor option, fitted with outdoor filters and wind blocker.

### Available sizes:

1. 2 fans-unit
2. 4 fans-unit
3. 6 fans-unti

### Stance options



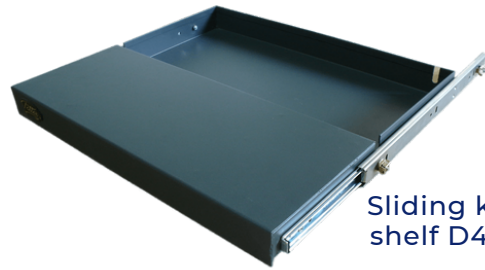**Wheels with brakes**

**Adjustable feet**



**Plinth**



**Pole or wall mount**

## Keyboard shelves



Sliding keyboard shelf D400 x 1U

### Technical Specifications:

1. Keyboard Shelf for 19" racks
2. Dimensions:
2.1. (PKB 19-6) for 600 x 600mm Racks.
2.2. (PKB 19-8) for 600/800 x 800mm Racks.
2.3. (PKB 19-10) for 800 x 1000mm Racks.
   3. Load capacity is up to 30 Kg.

## Server shelves
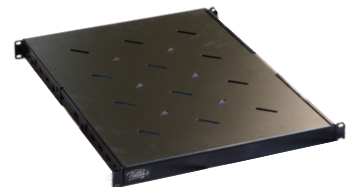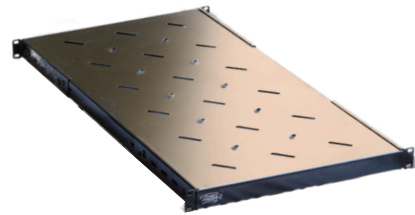


### Technical Specifications:

1. 19" Fixed server shelf with mounting kit. Best fit for loads up to 100 Kgs.
2. **Dimensions:**
   2.1. 500mm depth x 1U height for Racks D600mm (PFS-50).
   2.2. 650mm depth x 1U height for Racks D800mm (PFS-65).
   2.3. 850mm depth x 1U height for Racks D1000mm (PFS-85).

**Closed**

**Opened**

## Vertical cable organiser:

1. Vertical built-in cable organizer along the whole rack.
2. With clip-on door mechanism for elegant and organized setup.
3. The cable organizer's door is designed to be removable for easy access while wiring.

## Vertical Cable Organizer (PVOC):

Side Vertical Cable Organizer to control Cable traffic. Fixed in racks between front and rear chassis

## 19" Organizer with Cover (PHOC):

1. **Dimensions:** 1U horizontal front or rear fixation cable organizer
2. **Cover Dimensions:** 19"
3. x 90mm depth x 1U height.

## 19" Organizer with Brackets (PHOB):

## Optical Distribution Frame (ODF).
## Technical specifications:

1. High density and high-capacity frame dedicated to provide cable interconnections.
2. Covers fiber splicing, termination and connectors all together in one frame.
3. 4U/ 5U height. (Customisable)
4. ODF 144 connectors includes vertical multiple shelves to carry the splicing unit and connectors.
5. Cable organizer rings are vertically and horizontally fixed in front and rear areas of ODF for accessibility.
6. ODF front cover keeps the network components safe from misuse.
7. ODF is manufactured from steel sheets 1-1.5mm thick, and electrostatic painted.
8. ODF front cover keeps the network components safe from misuse.
9. ODF is manufactured from steel sheets 1-1.5mm thick, and electrostatic painted.
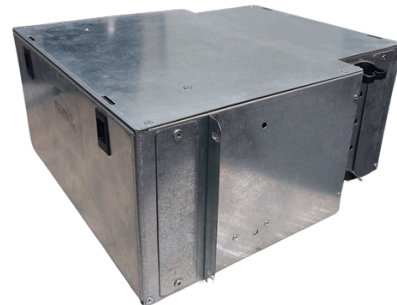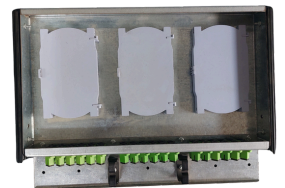
# Totter's
BY *Horizon* FOR INDUSTRY

## Surveillance Consoles

# General description:

Consoles are used in a wide range of applications and services while being one of the extremely essential elements in security rooms, surveillance facilities, education labs, art theatres, media production studios, editing labs, power stations, control rooms, football VAR room, crisis management rooms...etc.

Each console is a totally unique setup with every single detail is tailored specifically for each project needs and technical requirements.



Each console design is influenced by a wide range of factors formulate its specification, such area and layout of the room, number of equipment and screens used, screens sizes, number of operators and supervisors, angles of screen tilting, work surface position, light and air condition...etc.

All these factors are important design inputs to help formulate the perfect design for a given console to perfectly meet its purposes.

**Horizon for Industry** has a long and diversified history in design and production of a vast range of console types, features, facilities and appearances with different types such as:

### 1. Desk console:
Desk console and operation desk arrays contain lower cables path (duct) with power distribution unit (PDU) and protection circuit breakers. With the wooden worksurface desktop as specified by the client.

### 2. Stacked screens chassis:
Work surface may contain multiple screen holder(s) with movable arms.

### 3. Wall console:
Wall consoles include back path (ducts) for power cable and a separate path for signal cables to prevent the interference of the electromagnetic waves that affect the quality of signals.

### 4. Video wall console:
Screen mounting and dismantling is user friendly, from 1 to 3 screens are vertically stacked. First screen is 17° backward tilted with the second screen is vertically fixed and third (upper) screen is 17° forward tilted for best viewing angles.

### 5. Operation desks :
It may contain PC sliding housing and keyboard drawer with a wide range of modifications tailored to the nature of the project and to facilitate the operator's daily use.

### 6. Equipment racking:
In most cases the workstation is mounted over 9U rack or 19" mounting bars and internal horizontal and vertical cable ducts for cable management. Vertical ducts fixed behind each stacked screen line with 4 power sockets with a protection 10 Amp circuit breaker.

# Totter's ™

BY *Horizon*
FOR INDUSTRY

## Clients Reference List

# Government Sector

# University Sector

# Petroleum Sector

# Sports Sector

# Telecom Sector

# Banking Sector

# System Integrator Sector

SIEMENS

Nokia Siemens Networks

CCS
القاهرة لأنظمة الإتصالات
Cairo Comm. Systems

UDIO TECHNOLOGY

ECEE
Egyptian Co. for Electrical Equipment
الشركة المصرية للأجهزة الكهربائية

دبي فستيفال سيتي
Dubai Festival City

ORASCOM CONSTRUCTION

ACT

EGTI

ALKAN ARABIA

RAYA

mobiserve

ORASCOM

STS

SEE
مصر للنظم الهندسية
Systems Engineering of Egypt

G4S

TECO

RADIO HOLLAND

TeleTech

# Other Sectors

WADI EL NEEL HOSPITAL
مستشفى وادي النيل

SAMA GROUP
Real Estate . Media . Telecom . Travel

مكتبة الاسكندرية
Bibliotheca Alexandrina

MCV

P&G

H&M

DP WORLD

محور

Four Seasons
CHAMBER JAZZ SERIES

RENAISSANCE
HOTELS & RESORTS

هيئة ميناء دمياط
D.P.A
DAMIETTA PORT AUTHORITY

# Server Racks & Cabinets

## 1) Government:
- Ministry of Defense "MOD".
- Egyptian Intelligence Authority.
- Ministry of Interior.
- Ministry of Trade and Industry.
- Ministry of Communications & Information Technology, MCIT.
- Ministry of Electricity and Power.
- Suez Canal Authority.
- People's Assembly of Egypt (Egyptian Parliament).
- Shurah Assembly.
- Egyptian Museum

## 2) Telecom Organizations:
- Vodafone
- Mobinil
- Etisalat
- Nokia
- Schneider Electric
- Alcatel-Lucent
- Nilesat
- Media Production City
- Delta Limited, Saudi Arabia, 3 different TV studios in
Dammam and Mecca
- Rotana (Art studios in Four Seasons, Cairo)
- Egyptian Radio & TV Union, ERTU

## 3) Petroleum Sector
- Gasco
- Enppi
- Egyptian Maintenance Co. [EMC]
- San Misr
- Petroleum Pipes Company - Mostorod
- The Egyptian Mud Engineering & Chemicals Co. "EMEC".

## 4) Banking Sector:
- Central Bank of Egypt – Mohandeseen.
- Central Bank of Egypt – Kasr El-Nil
- HSBC Bank.
- Head Office for Barclays Bank - City Star

- National Bank of Egypt, NBE.
- Bank of Alexandria.
- Misr Bank.
- Commercial International Bank, CIB.
- United Bank.
- Audi Bank.
- BNP Paribas Bank.
- National Bank of Greece "NBG Bank"

## 5) Embassies:
- Sultanate Of Oman Embassy.

## 6) System Integrators:
- Cairo Communications Systems
- Audio Technology
- Egyptian company for Electrical Equipment (Panasonic)
- Siemens Technologies SAE.
- Nokia Siemens Networks.
- EGTI.
- Orascom Construction.
- Orascom Technology.
- Summit .
- Mobi Serve Holding.
- Telecom Services International "FZC".
- Raya Integration.
- Advanced Computer Technology "ACT".
- Alkan Telecom.
- Cairo Festival.
- G4S Security Services.
- Telecommunication Engineering Consultant Office "Teco".
- Catech .
- Radio Holland.
- Telecom & Technology Co. "TeleTech".
- System Engineering Of Egypt. "SEE".

## 7) Universities:
- American University in Cairo, AUC.
- German University in Cairo, GUC.
- Cairo University.
- MSA University
- Sinai University – Areesh.
- Modern Academy

# Server Racks & Cabinets

**7) Sports:**
- Alexandria Stadium .
- Port said Stadium.
- Aswan Stadium.

**8) Others:**
- SAMA Holding Group.
- Dubai Ports World – Sokhna "DP World Sokhna"

- Mercedes Commercial Vehicles MCV.
- Bibliotheca Alexandrina.
- Damietta Sea Port.
- Different 5-star hotels.
- Mountain View

# Surveillance  Consoles

**1) Banks (control rooms):**
The Central Bank Of Egypt
The Central Bank of Egypt – Mohandessin.
The Central Bank of Egypt - Kasr El Nile.
The Central Bank of Egypt – The Monetary Press.
Bank Misr – Headquarters
The United Bank - Ramsis branch
The United Bank - Kasr El Ainy branch
Banque du Caire

**2) Government (Control rooms):**
General Intelligence Authority
National Security Authority
Egyptian Armed Forces
Ministry of Interior - General Traffic Administration - Nasr City
Alexandria Governorate Headquarts
Suez Canal Authority - Vessel Traffic Service Center (VTS) – Portsaid Governorate
Suez Canal Authority - Vessel Traffic Service Center (VTS) – Suez Governorate
Suez Canal Authority - Vessel Traffic Service Center (VTS) – Ismailia Governorate
Suez Canal – Ismailia
Al Azhar Tunnel
Power Station - Talkha, Dakahleya Governorate
Power Station – Abu El-Nomres

**3) Culture and Sports (Control rooms):**
Confederation Of African Football "CAF"
Renaissance Sharm El-Sheikh Resort
Museum of Culture (UNESCO)
Islamic Museum
Portsaid Stadium
Alexandria Stadium
Aswan Stadium
Wadi Al Nile Hospital
NileSat
P&G company - All branches
Al Ain Al Sokhna Port (DP World)
Sultanate of Oman Embassy
Four Seasons Hotel - Garden City
Mehwar channels
Carrefour – Maadi
Living In buildings - 5th Compound, New Cairo
H&M - City Stars
Egyptian National Library and Archives

**4) Petroleum sector (Control rooms):**
Enppi - (Assiut Oil Refining Company)
Gasco
Petrobel
Alexandria Mineral Oils Company (AMOC)

**5) Universities (Control rooms):**
Modern Technology University (MTU)

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