

SAUDI
MADE



صناعة
سعودية

رؤية
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA



شركة مصنع جاما للصناعات المعدنية GAMMA FACTORY FOR METAL INDS.

MORE THAN **15** YEARS IN MANUFACTURING OF :

- Cabinets & Accessories
- IP... Outdoor Enclosures
- NEMA x Stainless Steel Enclosures
- Power Distribution Unit (PDU)



GAMMA 19" OUTDOOR IP RACK CABINETS Wall Mount and Pole Mount



◆ GAMMA NEW GENERATION SECURITY OUTDOOR CABINET – IP PROTECTION

➤ 1.0 Gamma Outdoor General Features :

1- Security Cabinet: GAMMA Security Cabinets with Pole mount version enable protecting your valuable and sensitive equipment's with its unique design. It is well protected against rain, snow, wind, sun radiation With its perfect resistance against to corrosion, protects your technological investments against environmental effects. Overall, between the inner and outer skin there is an Optional isolation rubber material or Aluminium foil to prevent skin heat to go inside cabinet

2- Cabinet Structure: Structure made from Galvanized steel material, with high corrosion resistance and polyester outdoor electrostatic Powder Coated painting through fully Automated 6 stages pretreatment Powder coating line with Robotic spraying Guns

3- Filter and Fan System: The cabinet has a replaceable 1 or 2 filter housing with Canopy at right side , which eliminates water and dust entry while allowing fresh air entry to the cabinet. The left side of the cabinet is equipped with 1 or 2 fan with filters. The Single cycle fan system allows fresh air entry from right side and discharge from left side accumulated heat from the ventilation filters back of the fans .

4- Rain Canopy at top of the cabinet for double protection from rain

5- Painting: Outdoor style polyester paint through fully Automated 6 stages pretreatment Powder coating line with Robotic spraying Guns applied to resist environmental corrosive effects. It also resists to sun radiation. Standard applied colour is RAL7035 Light Grey.

6- Optional Sunshade 50 mm – 100 mm sunshade over the rain canopy for more heat reduction in case of direct sun all day to eliminate direct heat of cabinet skin

7- Front Door Structure and Lock System: Hidden 3 hinge, fixed on front door and 1 or 2 key lock depend on cabinet size . With gasket, the front door provides maximum safety and sealing when the door is closed.. It has a sealing gasket structure, provides excellent IP protection even cold / hot weather condition.

8- Mounting Plate : Back Mounting Pillars are provided according to cabinet size

9- Optional isolated Skin Structure: Isolated Skin protects the equipment's inside cabinet from external effects, and harsh environmental conditions.



GAMMA OUTDOOR IP RACK CABINETS WALL MOUNT AND POLE MOUNT (MOUNTING PLATE –MP)

◆ Standard Dimensions :

Height : 400/500/700/800/1000/1200 mm

Width : 1400/500/600/700/800 mm

custom design available on request

◆ Standard Colour :

RAL 7035

Light Gray



Other colours available
on request



◆ Complying with International Standards:

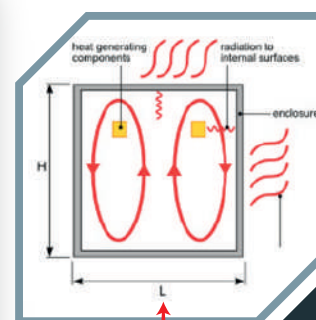
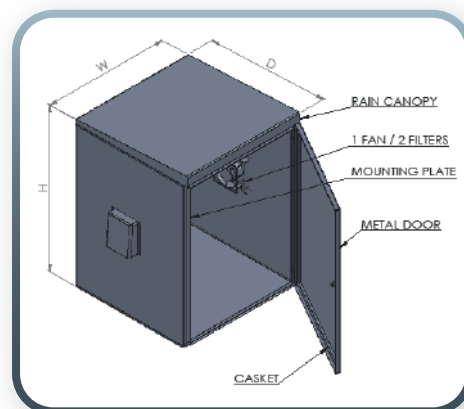
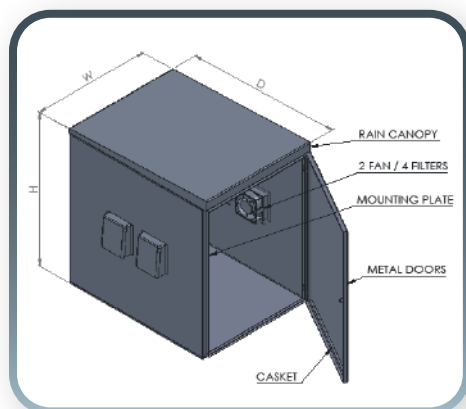
- ISO 9001-2015
- ISO 14001:2015
- EIA/ECA- 310 E & EIA-310 D
- IEC 297-1 19" MOUNTING
- IEC 297-2 Overall cabinet dimensions
- IP66 Protected
- MADE IN KSA



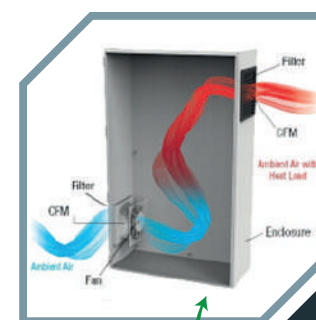
GAMMA OUTDOOR IP RATED WALL/Pole Metal CABINET & Enclosures

GAMMA OUTDOOR IP RATED WITH MOUNTING PLATE (MP) Wall /Pole Mount Metal Enclosures

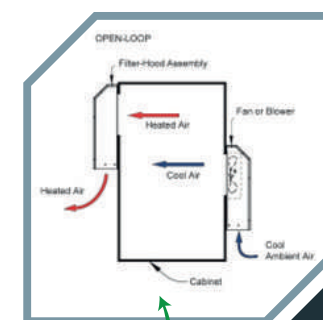
Part Number	Standard Description (W X H X D) mm	MP SIZE (WXH) mm	Depth (D)
GMC-OD-WMS-4040-25-1F	Wall/Pole Mounting Enclosures size 400X400X250 1 door IP 66 with Mounting Plate - 1 FAN	300 × 300	250
GMC-OD-WMS-5050-25-1F	Wall/Pole Mounting Enclosures size 500X500X250 1 door IP 66 with Mounting Plate - 1 FAN	400 × 400	250
GMC-OD-WMS-6060-25-1F	Wall/Pole Mounting Enclosures size 600X600X200 1 door IP 66 with Mounting Plate - 1 FAN	500 × 500	250
GMC-OD-WMS-7070-25-2F	Wall/Pole Mounting Enclosures size 700X700X250 1 door IP 66 with Mounting Plate - 2 FAN	600 × 600	250
GMC-OD-WMS-8080-30-2F	Wall/Pole Mounting Enclosures size 800X800X250 1 door IP 66 with Mounting Plate - 2 FAN	700 × 700	300
GMC-OD-WMS-80100-30-2F	Wall/Pole Mounting Enclosures size 800X1000X300 1 door IP 66 with Mounting Plate - 2 FAN	700 × 900	300
GMC-OD-WMS-80120-30-2F	Wall/Pole Mounting Enclosures size 800X1200X300 1 door IP 66 with Mounting Plate - 2 FAN	700 × 1100	300



Enclosure without FAN



Enclosure with FAN



GAMMA 19" OUTDOOR IP RACK CABINETS WALL MOUNT AND POLE MOUNT

◆ Standard Dimensions :

Height : 6U / 9U/ 12U/ 15U/ 18U/ 21U

Width : 600 mm

Depth : 600/800 mm

◆ Standard Colour :

RAL 7035
Light Gray



Other colours available
on request



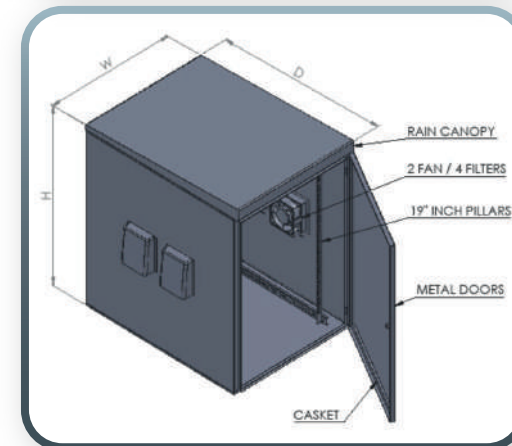
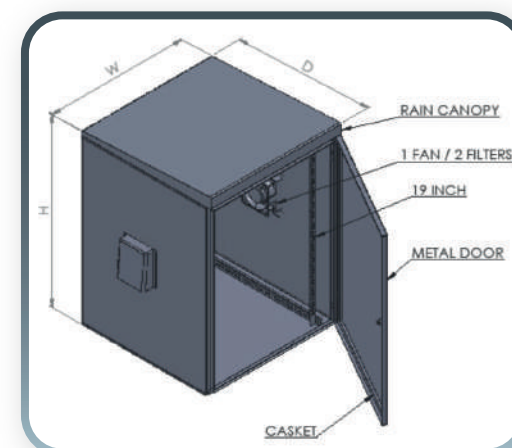
◆ Complying with International Standards:

- ISO 9001-2015
- ISO 14001:2015
- EIA/ECA- 310 E & EIA-310 D
- IEC 297-1 19" MOUNTING
- IEC 297-2 Overall cabinet dimensions
- IP66 Protected
- MADE IN KSA



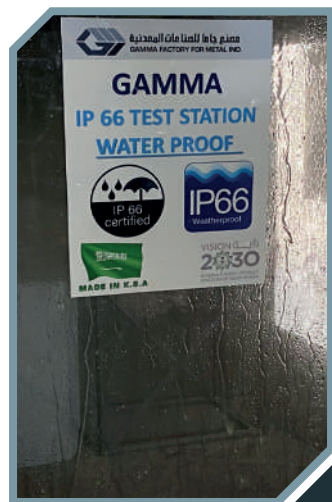
GAMMA OUTDOOR IP RATED WITH 19" Pillars Wall /Pole Mount Metal CABINET

Part Number	Standard Description (W X H X D) mm	Depth (D)
GMC-OD-WMS-6U-66-1F	6U Wall mounting steel enclosures size 600X600 1 door IP 65 with 4 19 inch Pillars – 1 Fan	600
GMC-OD-WMS-6U-68-1F	6U Wall mounting steel enclosures size 600X800 1 door IP 65 with 4 19 inch Pillars – 1 Fan	800
GMC-OD-WMS-9U-66-1F	9U Wall mounting steel enclosures size 600X600 1 door IP 65 with 4 19 inch Pillars – 1 Fan	600
GMC-OD-WMS-9U-68-1F	9U Wall mounting steel enclosures size 600X800 1 door IP 65 with 4 19 inch Pillars – 1 Fan	800
GMC-OD-WMS-12U-66-1F	12U Wall mounting steel enclosures size 600X600 1 door IP 65 with 4 19 inch Pillars – 1 Fan	600
GMC-OD-WMS-12U-68-1F	12U Wall mounting steel enclosures size 600X800 1 door IP 65 with 4 19 inch Pillars – 1 Fan	800
GMC-OD-WMS-15U-66-1F	15U Wall mounting steel enclosures size 600X600 1 door IP 65 with 4 19 inch Pillars – 1 Fan	600
GMC-OD-WMS-15U-68-2F	15U Wall mounting steel enclosures size 600X800 1 door IP 65 with 4 19 inch Pillars – 2 Fan	800
GMC-OD-WMS-18U-66-1F	18U Wall mounting steel enclosures size 600X600 1 door IP 65 with 4 19 inch Pillars – 1 Fan	600
GMC-OD-WMS-18U-68-2F	18U Wall mounting steel enclosures size 600X800 1 door IP 65 with 4 19 inch Pillars – 2 Fan	800
GMC-OD-WMS-21U-66-1F	21U Wall mounting steel enclosures size 600X600 1 door IP 65 with 4 19 inch Pillars – 1 Fan	600
GMC-OD-WMS-21U-68-2F	21U Wall mounting steel enclosures size 600X800 1 door IP 65 with 4 19 inch Pillars – 2 Fan	800



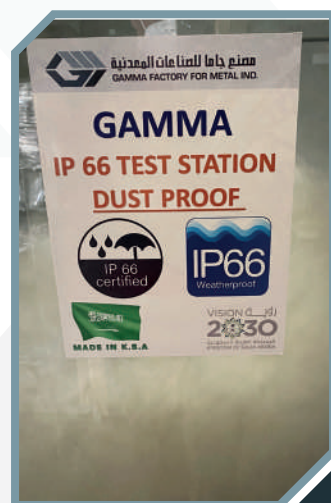
◆ GAMMA OD TEST REPORT – WATER PROOF

- **Test product :** GAMMA OUTDOOR CABINETS IP66
- **Manufacturer :** GAMMA FACTORY FOR METAL INDS. KSA
- **Cabinet Size :** 500 X 700 X 250 mm
- **Cabinet Data Include :** Rubber Inside Isolation
2 Fans with Filter,
2 Air Inlet Filters, Rain Canopy
Sabic Galvanized Steel GI – G90
- **Test Duration :** 15 min
- **Test Type :** High Pressure water from all Direction
- **Number of Water Nozzles :** 76 Nozzles x 14 mm Water Pipe



GAMMA OD TEST REPORT –DUST PROOF

- **Test product :** GAMMA OUTDOOR CABINETS IP66
- **Manufacturer :** GAMMA FACTORY FOR METAL INDS. KSA
- **Cabinet Size :** 500 X 700 X 250 mm
- **Cabinet Data Include :** Rubber Inside Isolation
2 Fans with Filter,
2 Air Inlet Filters, Rain Canopy
Sabic Galvanized Steel GI – G90
- **Test Duration :** 30 min
- **Test Type :** Dust from all Direction
- **Type of Dust :** Powder coating Material RAL7032



◆ GAMMA OD TEST REPORT – FAN TEST

Test product : GAMMA OUTDOOR CABINETS IP66
Manufacturer : GAMMA FACTORY FOR METAL INDS. KSA
Cabinet Size : 500 X 700 X 250 mm

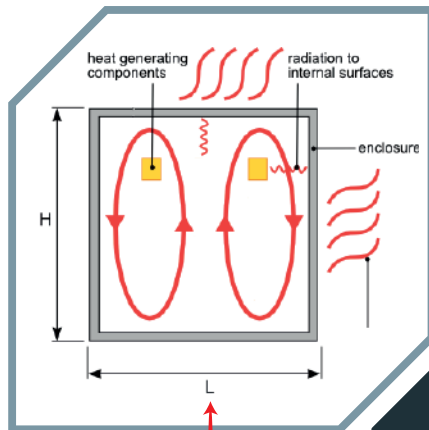
Cabinet Data Include : Rubber Inside Isolation
 2 Fans with Filter,
 2 Air Inlet Filters, Rain Canopy
 Sabic Galvanized Steel GI – G90

Test Duration : 60 min

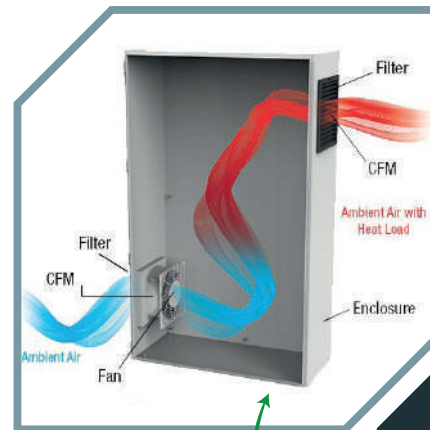
Test Type : Fan Heat Dissipation

Heat Load : 200 Watt

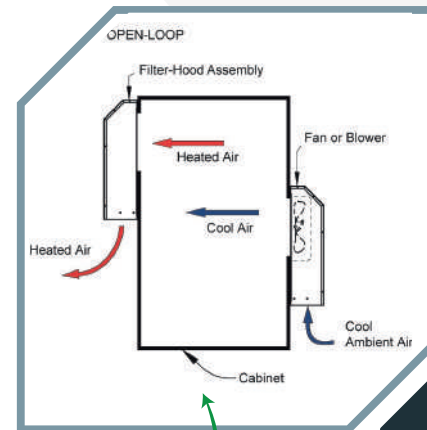
Test Room : Normal Room Environments



Enclosure without FAN



Enclosure with FAN



GAMMA OD TEST REPORT –FAN TEST

1 →



Heat Source OFF & Fan OFF
Inside Temp. = 30 C
Outside Temp. = 31 C

2 →



Heat Source ON / Fan OFF
Inside Temp. = 40 C
Duration : 15 min
Outside Temp. = 30 C

3 →



Heat Source ON / Fan ON
Inside Temp. = 37 C
Duration : 10 min
Outside Temp. = 31 C

4 →



Heat Source ON / Fan ON
Inside Temp. = 34 C
Duration : 15 min
Outside Temp. = 31 C

5 →



Heat Source ON / Fan ON
Inside Temp. = 32 C
Duration : 5 min
Outside Temp. = 32 C

6



Heat Source ON / Fan ON
Inside Temp. = 33 C
Duration : 5 min
Outside Temp. = 33 C

GAMMA CABINETS MANUFACTURED ACCORDING EIA-310 E, ETSI SPECIFICATIONS

Gamma Data Cabinets Fit all 19" Equipments

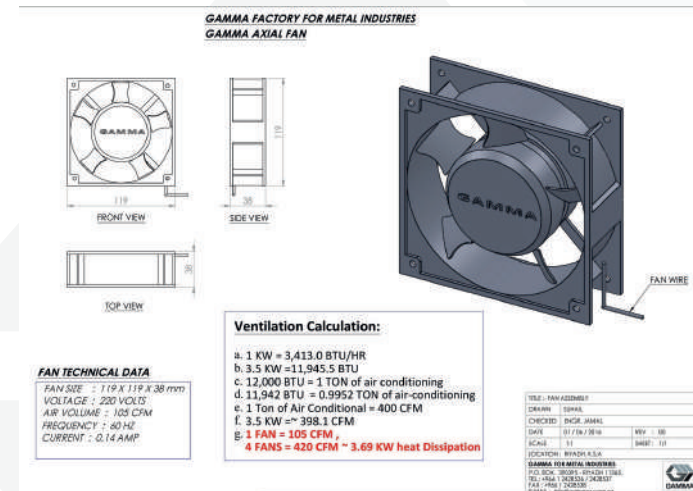
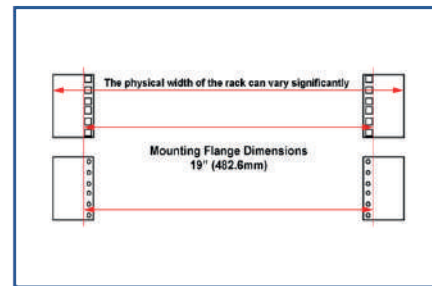
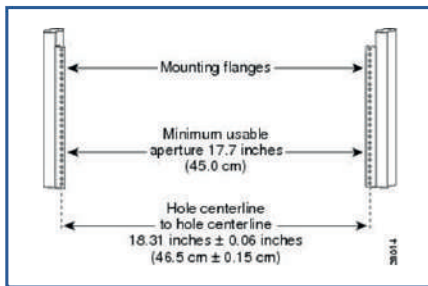
GAMMA NET AXIAL FAN DATA SHEET

GAMMA Ventilation Fan Calculation:

GAMMA Ventilation Calculation as below clarifications:

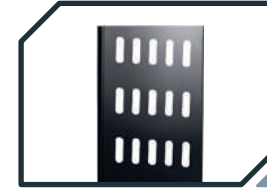
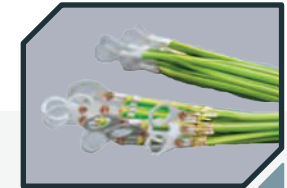
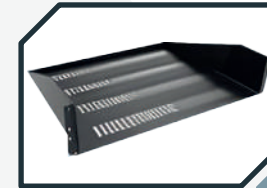
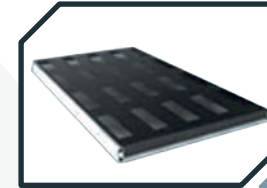
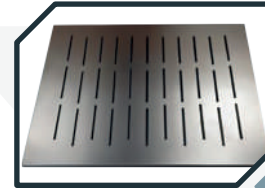
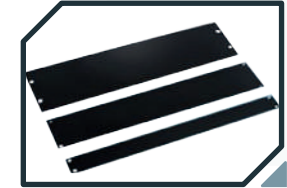
- a. 1 KW = 3,413.0 BTU/HR
- b. 3.5 KW = 11,945.5 BTU
- c. 12,000 BTU = 1 TON of air conditioning
- d. 11,942 BTU = 0.9952 TON of air-conditioning
- e. 1 Ton of Air Conditional = 400 CFM
- f. 3.5 KW = ~398.1 CFM
- g. 1 FAN = 105 CFM, 4 FANS = 420 CFM ~ 3.69 KW heat Dissipation

4 Fans will be enough for 3.5 KW heat.



GAMMA NET RACK CABINETS OPTIONS

Part Number	Description
GMC-SDP-F	Single Door Perforated Front
GMC-SDP-B	Single Door Perforated back
GMC-DDP-F	Double Door Perforated Front 800
GMC-DDP-B	Double Door Perforated Back 800
GMC-DDP-F-60	Double Door Perforated Front 600
GMC-DDP-B-60	Double Door Perforated Back 600
GMC-VCM	Vertical Cable Management for 800 W
GMC-EBB	Earthing Bus Bar – 19" rack mounted
GMC-TH-M	Thermostat for Fans -Mechanical
GMC-EK	Earthing Kit – 10 pcs/set
GMC-HCO	Horizontal Cable Organizer – 19" Mount
GMC-PS	Perforated Side Doors
GMC-GN	Gauge Nut – 20 pcs/set
GMC-FR	Fixed Shelves
GMC-SLS	Sliding Shelf
GMC-7035	Colour Light Gray RAL 7035
GMC-CT	Vertical Cable Tray (2 pcs)
GMC-BP-1U	1U Blank Panel
GMC-BP-2U	2U Blank Panel
GMC-GP	Gland Plate for base covering
GMC-PDU-6W-UK13A	PDU 6 Way UK type 13 Amps
GMC-PDU-UK-6W-16A	PDU 6 Way UK type 16 Amps
GMC-C13-C19-16A	Vertical PDU C13 X 20 , C19 X 4 , 16 A
GMC-C13-C19-32A	Vertical PDU C13 X 20 , C19 X 4 , 32 A



SOME OF CONSULTANTS AND MINISTRIES REFERENCE LIST



هيئة الزكاة والضريبة والجمارك
Zakat, Tax and Customs Authority



CERTIFICATES



REFERENCE LIST

PROJECT	المشروع	PROJECT	المشروع	PROJECT	المشروع	PROJECT	المشروع
The red sea development company	تطوير البحر الأحمر	General Directorate of investigation	المديرية العامة للمباحث	STC WI FI 3G Offloading Project - KASC Jeddah	مدينة الملك عبدالله الرياضية	Schools Infrastructure Development - wave 2	شركة تطوير للمباني TBC
King Abdullah security project KAP1	مركز الملك عبدالله للمقرات الأمنية	The Saudi Central Bank (SAMA)	البنك المركزي السعودي	Ministry of Health - MOH West - MOH ESTERN	وزارة الصحة - المراكز الطبية	Rotana Hotel	فندق روتانا
King Abdullah security project KAP2	مركز الملك عبدالله للمقرات الأمنية	NEOM Hospital	مستشفى نيوم	DIGITAL TRUNKED RADIO SYSTEM WOA	الهيئة السعودية للكهرباء	Plazza in Hotel	فندق بلازا ان
King Abdullah security project KAP2-B	مركز الملك عبدالله للمقرات الأمنية	New Boulevards	البوليفر - الهيئة العامة للترفيه	Qasem Hospital	مستشفى القصيم	Half Moon Beach Hotel	فندق هاف مون بيتش
King Abdullah security project KAP2-C	مركز الملك عبدالله للمقرات الأمنية	Winter Land	ونتر لاند - الهيئة العامة للترفيه	MOH - PHC	وزارة الصحة - الرعاية الصحية الأولى	Hyat Regency Hotel	فندق حياة ريجنسي
King Abdullah security project KAP4	مركز الملك عبدالله للمقرات الأمنية	City Walk Jeddah	سيني ووك جده - الهيئة العامة للترفيه	Qasem University Hospital	مستشفى جامعة القصيم	Hilton Garden in Hotel	هيلتون جاردن
Royal Commission for Riyadh City (RCRC)	الهيئة الملكية لمدينة الرياض	Nuclear and Radiological Regulatory	هيئة الوقاية النووية والإشعاعية	Riyadh Metro	مترو الرياض	Park Inn - Jeddah	فندق بارك ان - جده
Security Force Medical Center (SFMC)	المركز الطبي لقوات الأمن	ARAR AIRPORT	مطار عرعر	General Commission for Survey - Phase 3 & 2	الهيئة العامة للمساحة	Park Inn hotel - JRIYADH	فندق بارك ان - الرياض
200 BED HOSPITAL - TABUK	مستشفى ٢٠٠ سرير - تبوك	VSAT BACKUP HUB FOR SCECO	الهيئة السعودية للكهرباء	General Directorate for Health Affairs	المديرية العامة للشؤون الصحية	Narsis Buder Hotel	فندق ناريسيس بوديل
Hajj Command and HOLLY CAPITAL PROJECT	مشروع قيادة الحج	National Water Commission (NWC)	الهيئة الوطنية للمياه (NWC)	MOI CCTV Project	مشروع كاميرات المراقبة لوزارة الداخلية	Makan Hotel	فندق مكان
King Salman Hospital	مستشفى الملك سلمان	World Trade Center - WTC	مركز الملك عبدالله المالي	E - learning Project - Tatweer - School Project	مشروع التعليم الإلكتروني	MUNICIPALITY OF MEDINA	بلدية المدينة المنورة
Marriott Executive Apartment	فندق شقق الماريوت التنفيذية	ISLAMIC University	الجامعة الإسلامية	Royal Saudi Navy Force - RSNF	القوة البحرية الملكية السعودية	Tabuk Emirate	إمارة تبوك
South Border Guards Housing	إسكان الحدود الجنوبية	Samsung C&T	سامسونج - رابغ	Saudi Electronic University	الجامعة السعودية الإلكترونية	MUNICIPALITY OF TAIF	بلدية الطائف
AL SALAM PALACE	قصر السلام	AL ULA University	جامعة العلا - جامعة طبية	Royal Saudi Air Force - RSAF	القوات الجوية الملكية السعودية	Eastern Province Emirate	إمارة المنطقة الشرقية
King Abdulla Finance District - KAFC	مركز الملك عبدالله المالي	Imam Moh'd University	جامعة الإمام محمد	Strategic Missile Force - SMF	قوة الصواريخ الاستراتيجية	Security Development and Planning Agency	وكالة التطوير والتخطيط الأمني
Jeddah Islamic Port	ميناء جدة الإسلامي	Prince Satam University	جامعة الأمير سطام	SAIC - RSAF PROJECT - USA	مشروع القوات الجوية الملكية - الولايات المتحدة الأمريكية	Royal Private Affairs	قصور ملكية
Ministry of Municipal and Rural Affairs	وزارة الشؤون البلدية والقروية	Al - Jouf University	جامعة الجوف	King Abdul Aziz Center National Dialogue	مركز الملك عبد العزيز للحوار الوطني	VSAT -COGS	في سات
Building of Secretary of the GCC	مبنى الأمين العام لمجلس التعاون	Hafar Al-Batin University	جامعة حفر الباطن	National Center for Technology Electrical Energy Systems	المركز الوطني لتكنولوجيا أنظمة الطاقة الكهربائية	Technical and Vocational Training Corporation	المؤسسة العامة للتدريب التقني والمهني
Radusson Blue Hotel	فندق راديسون بلو	Taima & Hakel University	جامعة تيماء وحقل	Qassim Emirates	إمارة القصيم	MIFON Project Phase 3	المرحلة 3 MIFON مشروع
National Water Commission (NWC)	الهيئة الوطنية للمياه (NWC)	Hakel University	جامعة حائل	SOIETZ Saudi Organization for Industry	الهيئة السعودية للمدن الصناعية	King Abdullah University Hospital	مستشفى جامعة الملك عبد الله بن عبد العزيز





شركة مصنع جاما للصناعات المعدنية
GAMMA FACTORY FOR METAL INDS.



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