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LINE OF DELVALLE EMC SOLUTIONS

# EMC SERIES

ELECTRICAL ENCLOSURES SOLUTIONS



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## WE PUT AT YOUR DISPOSAL

We offer over **50 years** providing solutions to demanding customers who require very specific characteristics and behaviour according to the sector and their needs.

## WHEREVER YOU GO

We are committed to working closely with our customers, providing them with **exceptional service** and offering an advanced and extensive range of products with very competitive prices.

## HIGH STANDARD OF QUALITY AND SERVICES

We only use materials provided by companies who offer the very **highest quality**, suitable and certified products. Our success is due to top quality assurance: ISO 9001, SGS, UL, TÜV, ISO 14000 and Ohsas 18001.

## CUSTOMIZE TOTALLY YOUR ENCLOSURE

Our production systems can give custom-made solutions **on demand**. Every colour from RAL chart is available to be personalized. A variety of protection standards thanks to our own painting facilities.



**100%**  
*Entirely designed  
and manufactured  
in Europe*

## CONTACT US

Confidentiality, reliability & quality

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ALSO ONLINE

Please contact our technical sales department

A team of professionals with high experience and ability to solve all your queries



## ELECTRICAL ENCLOSURES SOLUTIONS EMC SERIES DELVALLE

Electromagnetic Compatibility is defined in the EMC Directive as “the ability of equipments to function satisfactorily in a electromagnetic environment without introducing intolerable electromagnetic disturbances to other equipment in the same environment,” and covers two basic principles:

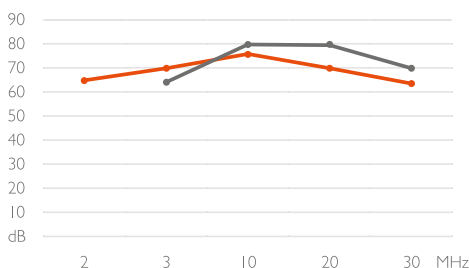
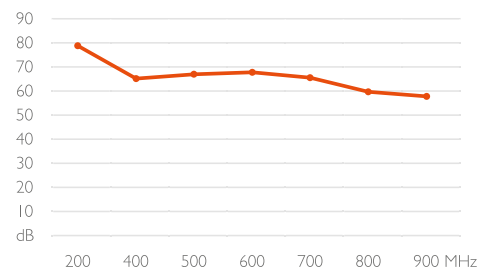
- Not to disturb the other equipment and not to emit disturbances above a given level (this is called “disturbance emission”).
- Not to be disturbed by other equipment with a sufficient level of protection so as not to be disturbed easily (this is called “disturbance immunity”).

Electric, magnetic and electromagnetic fields are everywhere. Also around enclosures and boxes: They are mostly conventional electromagnetic fields such as grid connection lines, signal and control lines, and electrical and electronic modules which radiate electromagnetic fields. Delvalle electrical enclosures gives the protection needed for conventional electromagnetic fields. However, for some intense electromagnetic fields like microwaves, EDM facilities by arc, HF welding technique it is necessary to create a complete screening effect. So we have created our line of EMC solutions Delvalle (enclosures, ventilation, air conditioning and accessories).

### EFFECTIVENESS OF SCREENING IN EMC DELVALLE ENCLOSURES

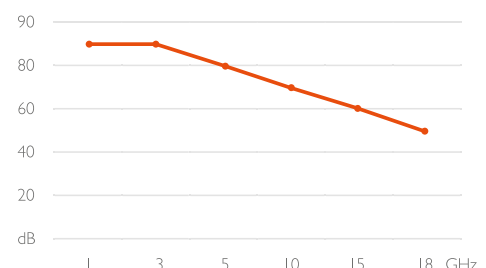
Delvalle enclosures offer optimum shielding effect to achieve electromagnetic compatibility, both in conventional and strong electromagnetic fields.

FREQUENCY	ELECTRIC FIELD AND PLANE WAVES
200 MHz	78 dB
400 MHz	64 dB
500 MHz	66 dB
600 MHz	67 dB
700 MHz	64 dB
800 MHz	60 dB
900 MHz	58 dB



FREQUENCY	MAGNETIC FIELD	ELECTRIC FIELD
2 MHz	--	66 dB
3 MHz	63 dB	--
10 MHz	80 dB	75 dB
20 MHz	80 dB	69 dB
30 MHz	70 dB	65 dB

FREQUENCY	PLANE WAVES
1 GHz	86 dB
3 GHz	86 dB
5 GHz	80 dB
10 GHz	69 dB
15 GHz	60 dB
18 GHz	50 dB



# ELECTRIC WALL CABINET LUXOR EMC SERIES IP55



Example

**Provides the Necessary Approvals to Guarantee Safety in your Assembly Work**

EMC enclosures with an EPDM conductive gasket between frame and contact surface, ensure a perfect electrical connection and superior shielding.

It meets all standards required to ensure total safety in electrical installations. Furthermore each component has passed tests carried out under extreme conditions.

Features improved design and materials, robustness, easy opening, smooth-turning lock, flexibility, maximum door opening (up to 120°), maximum working width for your assemblies, easily dismantable, unique features for great performance and highly polished surface.



[FOR MORE INFORMATION CLICK HERE](#)

## CHARACTERISTICS

- EMC joint EPDM conductive coated with Cu and Sn and 60 shore hardness.
- Electromagnetically protected.
- Delivery with protective film that prevents scratches and abrasions during handling.
- Compact design offering complete protection and resistance to impact.
- With a drainage channels which prevents liquid contact with the EPDM gasket and with concealed hinges.
- Delvalle can make any size to suit to your needs.
- Meets EMC, RFI and EMI standards.

## APPLICATIONS

Especially designed for telecommunications, railway signals, airtraffic signals, medical and military industries or where extra protection against electromagnetic interference is needed.

## OPTIONS

- With a choice of two doors (from 1200mm width).
- Plinths at base, metal legs, wall support, cable entry cover, castors and metal legs.
- Transparent polycarbonate door.
- Manufactured in stainless steel AISI 316L EN 14404.
- Mounting plate insulation (bakelite) or stainless steel.

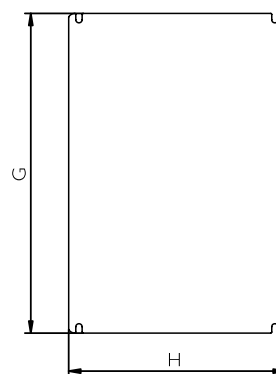
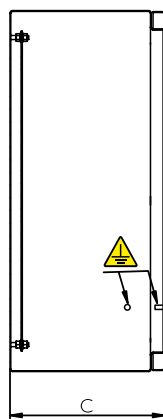
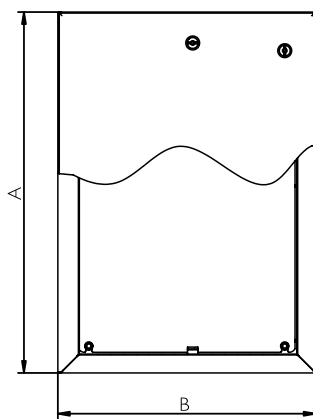
# ELECTRIC WALL CABINET LUXOR EMC SERIES IP55

## NORMS

- Complies with 2014/30/UE and EMC Directive 2014/35/UE.
- To IP55 (IP55 two doors) Norm IEC EN62208 - EN 60529.
- Manufactured following EU low voltage ruling 2014/35/UE
- RoHs, EMC, RFI y EMI compliant.
- UL approval Nema 4x, 12, 3r, I (on request). N°File E342220.
- Temperature resistant: -40°C +100°C (short time +160°C).
- Option silicone gasket: from -60°C to +180°C (short time up to +350°C).

## PLAN

→ [CLICK HERE TO DOWNLOAD THE FILES CAD - PLANS - CERTIFICATES](#)



**10**  
YEARS  
GUARANTEE  
ANTI-CORROSION

**5**  
YEARS  
GUARANTEE  
MECHANICAL PARTS

## REFERENCES

REFERENCES - MATERIALS			DOORS	DIMENSIONS (mm)			
STAINLESS STEEL	GALVANIZED STEEL	ALUMINIUM	BLIND DOORS	HEIGHT -A-	WIDTH -B-	DEPTH -C-	PLATE MEASURES -GxH-
MVAB302015M	MVGB302015M	MVALB302015M	I	300	200	155	240x130
MVAB383015M	MVGB383015M	MVALB383015M	I	380	300	155	320x230
MVAB383021M	MVGB383021M	MVALB383021M	I	380	300	210	320x230
MVAB603815M	MVGB603815M	MVALB603815M	I	600	380	155	540x310
MVAB603821M	MVGB603821M	MVALB603821M	I	600	380	210	540x310
MVAB404021M	MVGB404021M	MVALB404021M	I	400	400	210	340x330
MVAB504021M	MVGB504021M	MVALB504021M	I	500	400	210	440x330
MVAB505021M	MVGB505021M	MVALB505021M	I	500	500	210	440x430
MVAB605021M	MVGB605021M	MVALB705021M	I	600	500	210	540x430
MVAB705021M	MVGB705021M	MVALB705021M	I	700	500	210	640x430
MVAB606021M	MVGB606021M	MVALB606021M	I	600	600	210	540x530
MVAB806030M	MVGB806030M	MVALB806030M	I	800	600	300	740x530
MVAB808030M	MVGB808030M	MVALB808030M	I	800	800	300	740x730
MVAB108030M	MVGB108030M	MVALB108030M	I	1000	800	300	940x730
MVAB128030M	MVGB128030M	MVALB128030M	I	1200	800	300	1140x730
MVAB101030M	MVGB101030M	MVALB101030M	I	1000	1000	300	940x930
MVAB121030M	MVGB121030M	MVALB121030M	I	1200	1000	300	1140x930
MVAB101230M	MVGB101230M	MVALB101230M	I	1000	1200	300	870x1070
MVAB121230M	MVGB121230M	MVALB121230M	I	1200	1200	300	1070x1070
MVAB806030M	MVGB806030M	MVALB806030M	2	800	600	300	740x540
MVAB808030M	MVGB808030M	MVALB808030M	2	800	800	300	740x740
MVAB108030M	MVGB108030M	MVALB108030M	2	1000	800	300	940x740
MVAB128030M	MVGB128030M	MVALB128030M	2	1200	800	300	1140x740
MVAB101030M	MVGB101030M	MVALB101030M	2	1000	1000	300	940x940
MVAB121030M	MVGB121030M	MVALB121030M	2	1200	1000	300	1140x940
MVAB12123M	MVGB12123M	MVALB12123M	2	1200	1200	300	1140x1140

Separation depth plate 20 mm

# COMPACT ELECTRIC CABINET **TRIBECA EMC SERIES** IP55



Example

## It has an EPDM Conductor Between Frame and the Contact Surfaces

EMC enclosures with an EPDM conductive gasket between frame and contact surface, ensure a perfect electrical connection and superior shielding.

It meets all standards required to ensure total safety in electrical installations. Furthermore each component has passed tests carried out under extreme conditions.

Features improved design and materials, robustness, easy opening, smooth-turning lock, flexibility, maximum door opening (up to 120°), maximum working width for your assemblies, easily dismantable, unique features for great performance and highly polished surface. We recommend plinths at base for cable entry in Tribeca.



[FOR MORE INFORMATION CLICK HERE](#)

## CHARACTERISTICS

- EMC joint EPDM conductive coated with Cu and Sn and 60 shore hardness.
- Electromagnetically protected.
- Delivery with protective film that prevents scratches and abrasions during handling.
- Compact design offering complete protection and resistance to impact.
- With a drainage channels which prevents liquid contact with the EPDM gasket and with concealed hinges.
- Delvalle can make any size to suit to your needs.
- Meets EMC, RFI and EMI standards.

## APPLICATIONS

Especially designed for telecommunications, railway signals, airtraffic signals, medical and military industries or where extra protection against electromagnetic interference is needed.

## OPTIONS

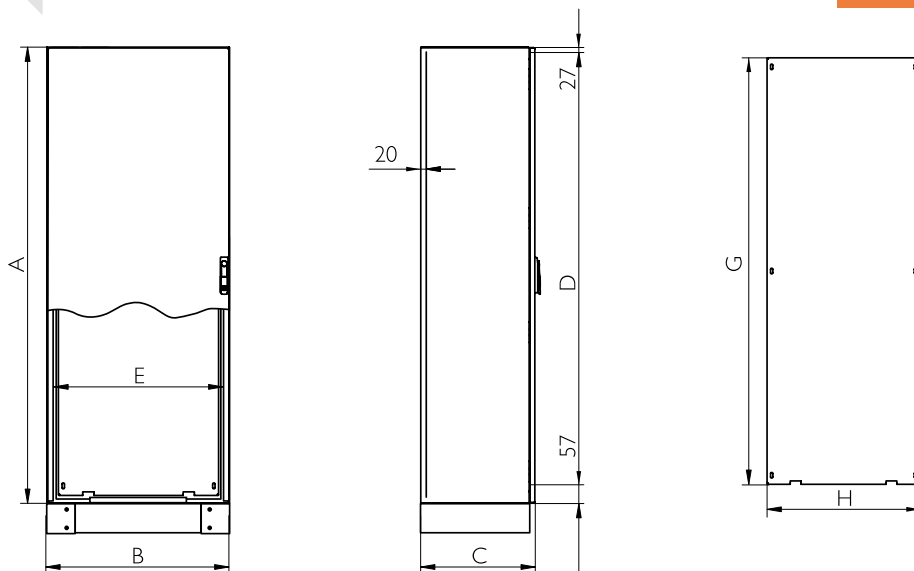
- With a choice of two doors (from 1200mm width).
- Plinths at base, metal legs, wall support, cable entry cover, castors and metal legs.
- Transparent polycarbonate door.
- Manufactured in stainless steel AISI 316L EN 14404.
- Mounting plate insulation (bakelite) or stainless steel.

# COMPACT ELECTRIC CABINET **TRIBECA EMC SERIES** IP55

## NORMS

- Complies with 2014/30/UE and EMC Directive 2014/35/UE.
- To IP55 (IP55 two doors) Norm IEC EN62208 - EN 60529.
- Manufactured following EU low voltage ruling 2014/35/UE
- RoHs, EMC, RFI y EMI compliant.
- UL approval Nema 4x, 12, 3r, I (on request). N°File E342220.
- Temperature resistant: -40°C +100°C (short time +160°C).
- Option silicone gasket: from -60°C to +180°C (short time up to +350°C).

## PLAN



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**10**  
YEARS  
GUARANTEE  
ANTI-CORROSION

**5**  
YEARS  
GUARANTEE  
MECHANICAL PARTS

## REFERENCES

REFERENCES - MATERIALS			DOORS	DIMENSIONS (mm)			
STAINLESS STEEL	GALVANIZED STEEL	ALUMINIUM	BLIND DOORS	HEIGHT -A-	WIDTH -B-	DEPTH -C-	PLATE MEASURES -GxH-
MVAC166040M	MVGC166040M	MVAL166040M	1	1650	600	400	1520x470
MVAC168040M	MVGC168040M	MVAL168040M	1	1650	800	400	1520x670
MVAC161040M	MVGC161040M	MVAL161040M	1	1650	1000	400	1520x870
MVAC186040M	MVGC186040M	MVAL186040M	1	1800	600	400	1670x470
MVAC188040M	MVGC188040M	MVAL188040M	1	1800	800	400	1670x670
MVAC186050M	MVGC186050M	MVAL186050M	1	1800	600	500	1670x470
MVAC188050M	MVGC188050M	MVAL188050M	1	1800	800	500	1670x670
MVAC181040M	MVGC181040M	MVAL181040M	1	1800	1000	400	1670x870
MVAC181050M	MVGC181050M	MVAL181050M	1	1800	1000	500	1670x870
MVAC206040M	MVGC206040M	MVAL206040M	1	2000	600	400	1870x470
MVAC208040M	MVGC208040M	MVAL208040M	1	2000	800	400	1870x670
MVAC208050M	MVGC208050M	MVAL208050M	1	2000	800	500	1870x670
MVAC201040M	MVGC201040M	MVAL201040M	1	2000	1000	400	1870x870
MVAC201050M	MVGC201050M	MVAL201050M	1	2000	1000	500	1870x870
MVAC161240M	MVGC161240M	MVAL161240M	2	1650	1200	400	1520x1070
MVAC181240M	MVGC181240M	MVAL181240M	2	1800	1200	400	1670x1070
MVAC181250M	MVGC181250M	MVAL181250M	2	1800	1200	500	1670x1070
MVAC201240M	MVGC201240M	MVAL201240M	2	2000	1200	400	1870x1070
MVAC201250M	MVGC201250M	MVAL201250M	2	2000	1200	500	1870x1070
MVAC201440M	MVGC201440M	MVAL201440M	2	2000	1400	400	1870x1270
MVAC201450M	MVGC201450M	MVAL201450M	2	2000	1400	500	1870x1270
MVAC201640M	MVGC201640M	MVAL201640M	2	2000	1600	400	1870x1420
MVAC201650M	MVGC201650M	MVAL201650M	2	2000	1600	500	1870x1420

Closure with handle. Separation depth plate 20 mm

## JUNCTION STAINLESS STEEL BOX EMC GEO SERIES IP55



Examples



### Strength, Durability and Long Life

EMC Junction boxes, special body and door gasket (IP + EMC) providing both environmental protection and continuity between the door and body of the enclosure. EMC enclosures range provides a shielded alternative for Test Instrumentation, Industrial Controls & Electronic applications. These solutions are more suitable for military and hospital areas and chemical and food-processing industries. Main sources of electrical interference and equipment sensitive to it.

➔ [FOR MORE INFORMATION CLICK HERE](#)

### ADVANTAGES

- Unlimited custom made options
- Supplied with protective film which prevents scratches and abrasions during handling.
- The manufacture of the stainless steel monobloc allows sealing and ensures maximum resistance.
- Delvalle supplies any measurements required including custom built holes and cut outs both for the door and enclosure.
- Up to IP55
- Strength, durability and long life
- Special built to measure solutions
- 100% stainless steel
- Wide variety of accessories
- Stainless steel AISI 304L or AISI 316L

### APPLICATIONS

Special body and door gasket (IP + EMC) providing both environmental protection and continuity between the door and body of the enclosure. Programmable controllers. Electronic circuits or boards. Regulators. Input signal cables (detectors, sensors, measurement probes).

### OPTIONS

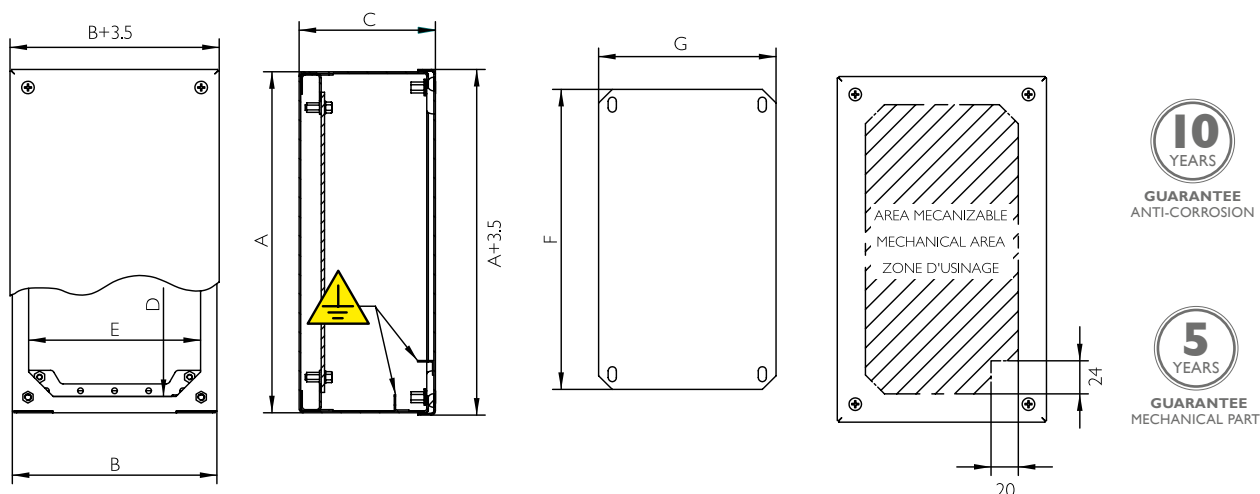
- Custom made based on your needs.
- Manufactured in stainless steel AISI 316L - EN 14404.
- Finished in textured paint RAL on request.
- Mounting plate insulator (Bakelite) or painted steel.
- EMC version according to 2014/30/UE of electromagnetic compatibility.

# JUNCTION STAINLESS STEEL BOX EMC GEO SERIES IP55

## NORMS

- IP55 Norm IEC 60529.
- Maximum IK10 resistance Norm IEC 62262.
- Manufactured following EU low voltage ruling 2014/35/UE
- RoHS Directive 2011/65/UE compliant.
- Maximum voltage 1000V
- Temperature resistant: -40°C +100°C

## PLAN



## REFERENCES

REFERENCES - MATERIALS			DIMENSIONS (mm)					
STAINLESS STEEL	GALVANIZED STEEL	ALUMINIUM	HEIGHT - A -	WIDTH - B -	DEPTH - C -	ACCESS - Dx E -	MACHINABLE AREA	PLATE MEASUR - FxG -
MVCB909080M	MVCBG909080M	MVCBA909080M	90	90	80	66x66	48x48	60x70
MVCB149080M	MVCBG149080M	MVCBA149080M	140	90	80	116x66	98x48	110x70
MVCB209080M	MVCBG209080M	MVCBA209080M	200	90	80	176x66	158x48	170x70
MVCB269012M	MVCBG269012M	MVCBA269012M	260	90	120	236x66	218x48	230x70
MVCB101612M	MVCBG101612M	MVCBA101612M	100	160	120	76x136	58x118	70x140
MVCB161612M	MVCBG161612M	MVCBA161612M	160	160	120	136x136	118x118	130x140
MVCB202012M	MVCBG202012M	MVCBA202012M	200	200	120	176x176	158x158	170x180
MVCB202515M	MVCBG202515M	MVCBA202515M	200	250	150	176x226	158x208	170x230
MVCB252515M	MVCBG252515M	MVCBA252515M	250	250	150	226x226	208x208	220x230
MVCB203015M	MVCBG203015M	MVCBA203015M	200	300	150	176x276	158x258	170x280
MVCB303015M	MVCBG303015M	MVCBA303015M	300	300	150	276x276	258x258	270x280
MVCB304015M	MVCBG304015M	MVCBA304015M	300	400	150	276x376	258x358	270x380
MVCB404015M	MVCBG404015M	MVCBA404015M	400	400	150	376x376	358x358	370x380

# OUTDOOR RACK **STORM EMC SERIES** IP55



Examples



**Specially Designed  
for Urban and Interurban  
Areas, Roads or Highways**

Outdoor Storm Series enclosure, designed to be placed in urban or interurban areas, protecting the electronic equipment needed for lighting, signage and video surveillance. Its application range is extended with external telecommunication installations, telephones, computers, weather stations and any other application that needs extra protection. The Storm Series is characterized by its high resistance to corrosion and wear, ideal for placement in cities and highways, spacious interior; thanks to its construction, it achieves greater width and height than the rest. Provided with approved water repellent injected seals on exterior doors allowing for tightness and stabilising an ideal temperature for placement in areas of extreme temperature or hostile weather environments. Made of stainless steel AISI 304L (EN 14306) with polyester paint finish, and features a handle made of a material highly resistant to vandalism and forced openings. The interior design allows easy placement of racks, mounting plates or separators.

➔ [FOR MORE INFORMATION CLICK HERE](#)

# OUTDOOR RACK STORM EMC SERIES IP55

## APPLICATIONS

Our Storm Series, design, finishing and sealing make it ideal for outdoor use. As its name suggests its placement is usually on roads, signalling or lighting, and use in weather stations, telecommunications, telephones, fibre optics and video surveillance in urban or interurban areas.

## CHARACTERISTICS

- Designs and pictures available on request.
- Plinths at base for enclosures of any size. They allow enclosures to stand over the floor, with extra room for cable entry. Available 100mm (standard) and 200mm high.
- Stainless steel AISI 316L, EN 1.4404.
- Ventilation KIT (Fan, resistance heating and dual thermostat)
- Graffiti-proof protective paint
- EMC version according to 2014/30/UE of electromagnetic compatibility.

## OPTIONS

- With a choice of two doors (from 1200mm width).
- Plinths at base, metal legs, wall support, cable entry cover, castors and metal legs.
- Transparent polycarbonate door.
- Manufactured in stainless steel AISI 316L EN 14404.
- Mounting plate insulation (bakelite) or stainless steel.



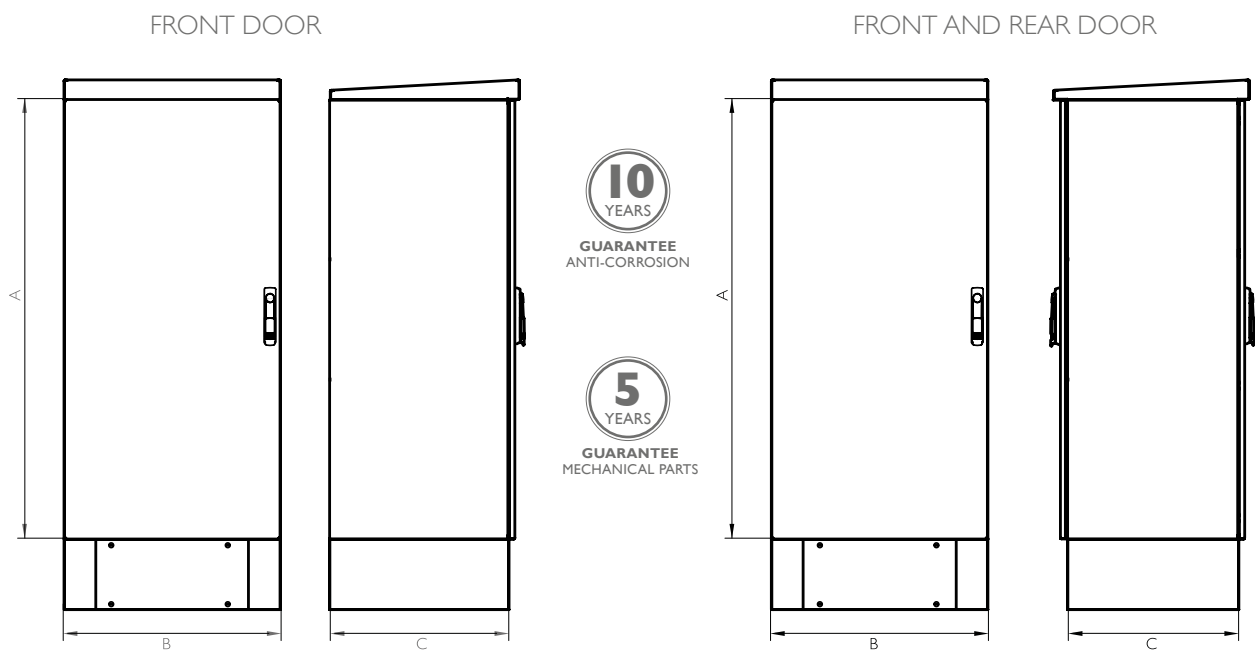
## NORMS

- IP55 Norm EN 62208 and EN 60529.
- Maximum IK10 resistance Norm IEC 62208 and EN 50102
- En 61969-3 Mechanical Structures for Electronic Equipment - outdoor enclosures -.
- IEC 60068-2-30 and IEC 60068-2-11
- Built to CE standards. 2014/35/UE UL Nema 4x, 12, 1, 3r by request. N°File E342220.
- Shock resistant against sharp objects EN 60439-5
- RoHs compliant.
- Maximum voltage 1000V
- Temperature resistant: -40°C +100°C (short time +160°C).
- Option silicone gasket: from -60°C to +180°C (short time up to +350°C).

# OUTDOOR RACK STORM EMC SERIES IP55

## PLAN

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## REFERENCES

REFERENCES - MATERIALS				DIMENSIONS (mm)			
STAINLESS STEEL	STAINLESS STEEL FRONT AND REAR DOOR	GALVANIZED	GALVANIZED FRONT AND REAR DOOR	RACKS	HEIGHT -A-	WIDTH -B-	DEPTH -C-
RD606040M	RD606040PM	RDG606040M	RDG606040PM	12 U	600	600	400
RD606050M	RD606050PM	RDG606050M	RDG606050PM	12 U	600	600	500
RD606060M	RD606060PM	RDG606060M	RDG606060PM	12 U	600	600	600
RD606080M	RD606080PM	RDG606080M	RDG606080PM	12 U	600	600	800
RD126040M	RD126040PM	RDG126040M	RDG126040PM	24 U	1200	600	400
RD126050M	RD126050PM	RDG126050M	RDG126050PM	24 U	1200	600	500
RD126060M	RD126060PM	RDG126060M	RDG126060PM	24 U	1200	600	600
RD126080M	RD126080PM	RDG126080M	RDG126080PM	24 U	1200	600	800
RD146040M	RD146040PM	RDG146040M	RDG146040PM	30 U	1450	600	400
RD146050M	RD146050PM	RDG146050M	RDG146050PM	30 U	1450	600	500
RD146060M	RD146060PM	RDG146060M	RDG146060PM	30 U	1450	600	600
RD146080M	RD146080PM	RDG146080M	RDG146080PM	30 U	1450	600	800
RD148040M	RD148040PM	RDG148040M	RDG148040PM	30 U	1450	800	400
RD148050M	RD148050PM	RDG148050M	RDG148050PM	30 U	1450	800	500
RD148060M	RD148060PM	RDG148060M	RDG148060PM	30 U	1450	800	600
RD148080M	RD148080PM	RDG148080M	RDG148080PM	30 U	1450	800	800
RD196040M	RD196040PM	RDG196040M	RDG196040PM	40 U	1900	600	400
RD196050M	RD196050PM	RDG196050M	RDG196050PM	40 U	1900	600	500
RD196060M	RD196060PM	RDG196060M	RDG196060PM	40 U	1900	600	600
RD196080M	RD196080PM	RDG196080M	RDG196080PM	40 U	1900	600	800
RD198040M	RD198040PM	RDG198040M	RDG198040PM	40 U	1900	800	400
RD198050M	RD198050PM	RDG198050M	RDG198050PM	40 U	1900	800	500
RD198060M	RD198060PM	RDG198060M	RDG198060PM	40 U	1900	800	600
RD198080M	RD198080PM	RDG198080M	RDG198080PM	40 U	1900	800	800

# OUTDOOR RACK **TORNADO EMC SERIES** IP55



Examples



## Large Space Inside for Rack Equipments

EMC enclosures with an EPDM conductive gasket between frame and contact surface, ensure a perfect electrical connection and superior shielding.

It meets all standards required to ensure total safety in electrical installations. Furthermore each component has passed tests carried out under extreme conditions.

Features improved design and materials, robustness, easy opening, smooth-turning lock, flexibility, maximum door opening (up to 120°),

maximum working width for your assemblies, easily dismantlable, unique features for great performance and highly polished surface. We recommend plinths at base for cable entry in Tribeca.

Maintenance free for life over 30 years.

Specially designed for urban and interurban areas, roads or highways.

Especially designed for telecommunications, railway signals, air traffic signals, medical and military industries or where extra protection against electromagnetic interference is needed. Very good mechanical properties and high resistance to shape distortion, with water repellent injected seal.

Delvalle can adapt this design to the measurements required by the client, retaining the fundamentals of insulation, sealing and safety.

Strength, durability and long life. High resistance to vandalism.

➔ [FOR MORE INFORMATION CLICK HERE](#)

# OUTDOOR RACK TORNADO EMC SERIES IP55

## APPLICATIONS

Especially designed for telecommunications, railway signals, air traffic signals, medical and military industries or where extra protection against electromagnetic interference is needed.

Outdoor placement:

- Areas with extreme temperatures or harsh environments
- Arid tropics, high mountain.

## ADVANTAGES

- Very good mechanical properties and high resistance to shape distortion.
- With water repellent injected seal.
- Door retained with stoppers.
- The enclosure includes anti-vandalism locks and handles suitable for semi-cylindrical profile locks.
- Maintenance free for life over 30 years.
- Delvalle can adapt this design to the measurements required by the client, retaining the fundamentals of insulation, sealing and safety.
- Strength, durability and long life.
- High resistance to vandalism.
- Specially designed for urban and interurban areas, roads or highways.
- High resistance to corrosion and wear.
- Large space inside for Rack equipments.
- Two versions: galvanized steel and painted galvanized steel.

## MATERIALS

- Aluminium Outdoor Rack: Improves cooling and is lighter (2 mm).
- Galvanized Outdoor Rack: a cheaper alternative.
- Stainless Steel Outdoor Rack: consult details and prices.

## OPTIONS

- Delvalle can design a specific solution to the client's requirements while retaining the fundamentals of thermal insulation, sealing, safety and easy installation.
- 19" or 21", depending on rack support position.
- Ventilation KIT: fan, dual thermostat and resistance heater.
- Several options in roof ventilation.
- 200 mm plinth at base.
- Possibility of including air conditioning equipment attached to one side or the roof.
- Can also be supplied without a frame rack but with trays.
- Handle with locking system.
- Available with 1 or 2 doors.
- Full range of accessories available.
- Degree of protection: up to IP55.
- The tray can include micro cuts for later placement of different options.

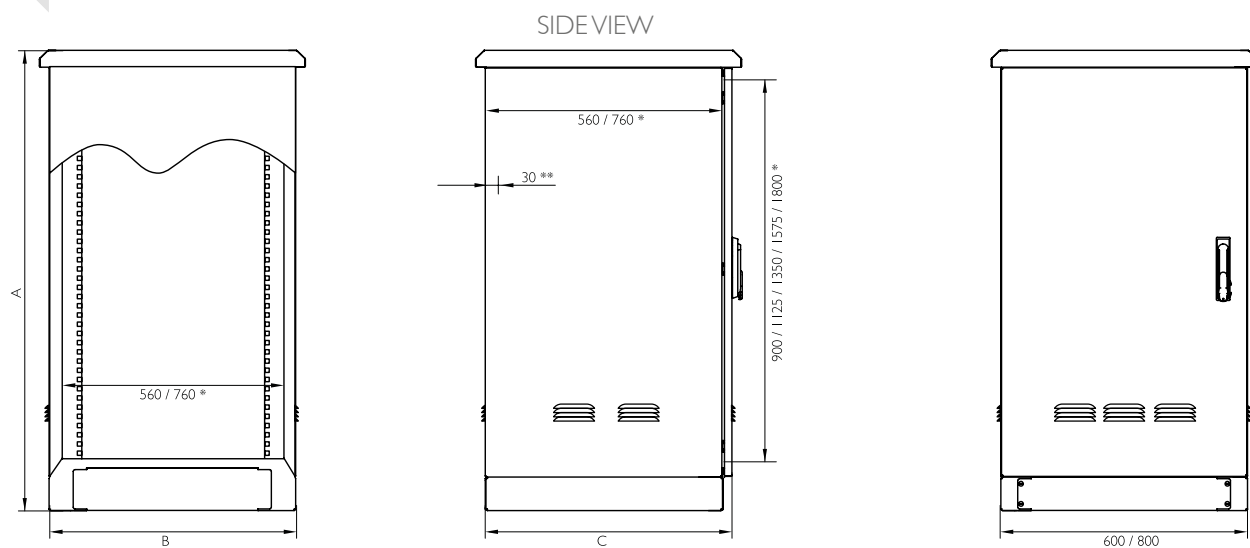
## FEATURES EMC

- EMC joint EPDM conductive coated with Cu and Sn and 60 shore hardness
- Electromagnetically protected.
- Delivery with protective film that prevents scratches and abrasions during handling.
- Compact design offering complete protection and resistance to impact.
- With drainage channels which prevents liquid contact with the EPDM gasket and with concealed hinges.
- Delvalle can make any size to suit to your needs.
- Meets EMC, RFI and EMI standards

# OUTDOOR RACK TORNADO EMC SERIES IP55

## PLAN I DOOR

[CLICK HERE TO DOWNLOAD THE FILES CAD - PLANS - CERTIFICATES](#)



## REFERENCES I DOOR

REFERENCES - MATERIALS			DIMENSIONS (mm)						
STAINLESS	ALUMINIUM	GALVANIZED	DESCRIPTION	HEIGHT (A)	WIDTH (B)	DEPTH (C)	DOUBLE DOOR MACHINABLE AREA	LATERAL MACHINABLE AREA	PLATE MEASURES
TR116080M	TRAL116080M	TRG116080M	TORNADO 20 U	1185	600	800	905x430	925x715	965x530
TR116060M	TRAL116060M	TRG116060M	TORNADO 20 U	1185	600	600	905x430	925x515	965x530
TR118080M	TRAL118080M	TRG118080M	TORNADO 20 U	1185	800	800	905x630	925x715	965x730
TR118060M	TRAL118060M	TRG118060M	TORNADO 20 U	1185	800	600	905x630	925x515	965x730
TR136080M	TRAL136080M	TRG136080M	TORNADO 25 U	1385	600	800	1105x430	1125x715	1165x530
TR136060M	TRAL136060M	TRG136060M	TORNADO 25 U	1385	600	600	1105x430	1125x515	1165x530
TR138080M	TRAL138080M	TRG138080M	TORNADO 25 U	1385	800	800	1105x630	1125x715	1165x730
TR138060M	TRAL138060M	TRG138060M	TORNADO 25 U	1385	800	600	1105x630	1125x515	1165x730
TR156080M	TRAL156080M	TRG156080M	TORNADO 30 U	1585	600	800	1305x430	1325x715	1165x730
TR156060M	TRAL156060M	TRG156060M	TORNADO 30 U	1585	600	600	1305x430	1325x515	1165x730
TR158080M	TRAL158080M	TRG158080M	TORNADO 30 U	1585	800	800	1305x630	1325x715	1365x530
TR158060M	TRAL158060M	TRG158060M	TORNADO 30 U	1585	800	600	1305x630	1325x515	1365x530
TR186080M	TRAL186080M	TRG186080M	TORNADO 30 U	1885	600	800	1555x430	1575x715	1615x530
TR186060M	TRAL186060M	TRG186060M	TORNADO 30 U	1885	600	600	1555x430	1575x515	1615x530
TR188080M	TRAL188080M	TRG188080M	TORNADO 35 U	1885	800	800	1555x630	1575x715	1615x730
TR188060M	TRAL188060M	TRG188060M	TORNADO 35 U	1885	800	600	1555x630	1575x515	1615x730
TR206080M	TRAL206080M	TRG206080M	TORNADO 40 U	2060	600	800	1780x430	1800x715	1840x530
TR206060M	TRAL206060M	TRG206060M	TORNADO 40 U	2060	600	600	1780x430	1800x515	1840x530
TR208080M	TRAL208080M	TRG208080M	TORNADO 40 U	2060	800	800	1780x630	1800x715	1840x730
TR208060M	TRAL208060M	TRG208060M	TORNADO 40 U	2060	800	600	1780x630	1800x515	1840x730
Version Norme UL			Add "UL" to reference. Ex: "TR116080UL"						
Version rear door			Add code letter P to reference. Ex: "TR116080P"						

Separation depth plate 20mm

# OUTDOOR RACK TORNADO EMC SERIES IP55

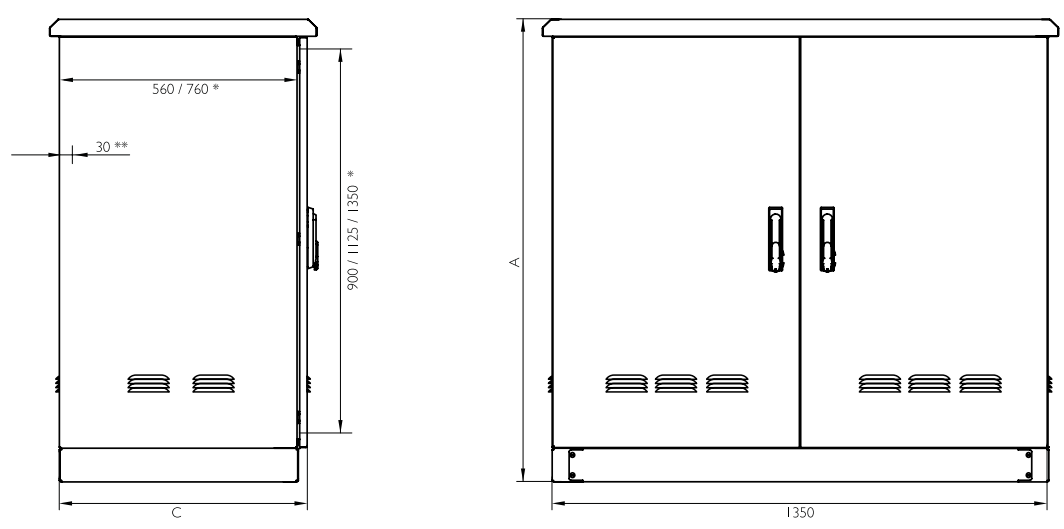
## NORM

- IP55 . Norm IEC EN 62208 and EN 60529/10.91.
  - IP55 with ventilation brackets
  - IP55 with vent grille
  - IP55 without ventilation
- EN61969-3 Mechanical Structures for Electronic Equipment and Outdoor Enclosures.
- 2014/35/UE - EN 50102 - Max. voltage 1000V
- Temperature resistant: -40°C +100°C (short time +160°C).
- Option silicone gasket: from -60°C to +180°C (short time up to +350°C).
- UL Nema 4x, 12, 1, 3r by request. N°File E342220.

## PLAN 2 DOORS

[CLICK HERE TO DOWNLOAD THE FILES CAD - PLANS - CERTIFICATES](#)

SIDE VIEW



**10**  
YEARS  
GUARANTEE  
ANTI-CORROSION

**5**  
YEARS  
GUARANTEE  
MECHANICAL PARTS

## REFERENCES 2 DOORS

REFERENCES - MATERIALS			DIMENSIONS (mm)			
STAINLESS	ALUMINIUM	GALVANIZED	DESCRIPTION	HEIGHT (A)	WIDTH (B)	DEPTH (C)
TRI11380DM	TRALI11380DM	TRGI11380DM	20 U	1160	1350	800
TRI11360DM	TRALI11360DM	TRGI11360DM	20 U	1160	1350	600
TRI31380DM	TRALI31380DM	TRGI31380DM	25 U	1385	1350	800
TRI31360DM	TRALI31360DM	TRGI31360DM	25 U	1385	1350	600
TRI61380DM	TRALI61380DM	TRGI61380DM	30 U	1610	1350	800
TRI61360DM	TRALI61360DM	TRGI61360DM	30 U	1610	1350	600
TRI81380DM	TRALI81380DM	TRGI81380DM	35 U	1835	1350	800
TRI81360DM	TRALI81360DM	TRGI81360DM	35 u	1835	1350	600

\* Standard dimensions (any rack can be custom made to meet needs)

# FILTER FAN EMC SERIES IP55



Examples



Examples stainless steel version

## EMC fan with Fitted Filter and EMC Conductive Gasket

EMC fan with fitted filter and EMC conductive gasket.

High performance, low power, and silent working, with a slim design, only 4 mm, and an affordable price. These fans are ideal for the removal of large heat loads inside the cabinets economically and easily.

Its compact design, easy mounting and dismounting for quick cleaning make it ideal for use in any heat dissipation from inside the enclosure. Quick assembly thanks to the fast "Clip-on" mounting with self-adhesive gasket.

➔ [FOR MORE INFORMATION CLICK HERE](#)

## CHARACTERISTICS

- With EMC conductive gasket
- Life time +50.000 hours in 40°C
- ECOfriendly: low consumption, high efficiency and very silent.
- Fast "Clip-on" mounting
- "Inside-out" air flow
- Ball bearing
- Maximum reliable and efficient engine
- Extrathick panels (1.2 - 2.4 mm)
- Operating temperature -10 /+70°C
- 100% work cycle.
- The fan is supplied with a high resistant filter designed for easy cleaning.
- Also available in stainless steel.

## APPLICATIONS

Especially designed for telecommunications, railway signals, airtraffic signals, medical and military industries or where needing extra protection against electromagnetic interference or requiring a high level of protection IP55.

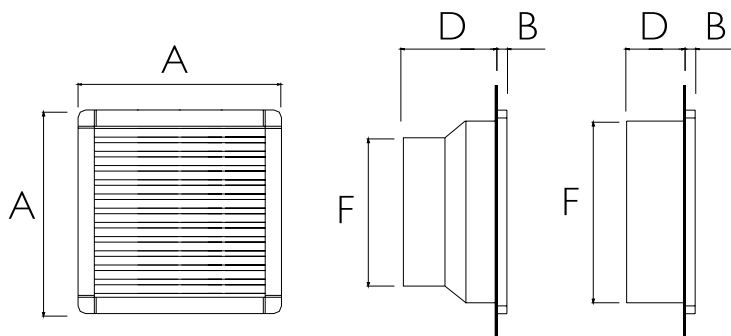
## NORMS

- Complies with 2014/30/UE and EMC Directive 2014/35/UE.
- IP55/Class I Norm IEC 60529.
- Built under directive 2014/35/UE low voltage.
- Operating temperature -10°C +70°C.
- Filter mat (Eurovent) EU2 and EU3 (depending on model).
- Material ABS UL94V-O. Colour Ral 7035.
- Working life over 50.000 hours at 40°C.

# FILTER FAN EMC SERIES IP55

## PLAN AND REFERENCES FILTER FAN

➔ [CLICK HERE TO DOWNLOAD THE FILES CAD - PLANS - CERTIFICATES](#)

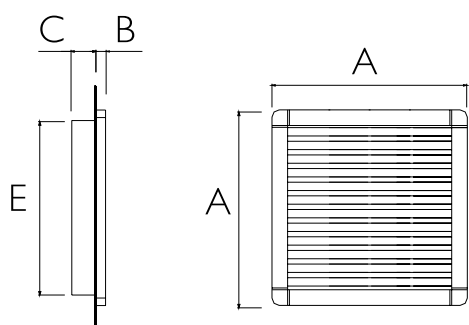


Examples with case IP55

REFERENCE - CHARACTERISTICS FILTER FAN									DIMENSIONS (mm)				
REFERENCE	AIR FLOW RATE	POWER SUPPLY	POWER CONSUMPTION	CURRENT CONSUMPTION	OVERCURRENT PROTECTION	ELECTRIC CONNECTION	NOISE	FILTER MAT (EUROVENT)	MACHINING MOUNTING	A	B	D	F
MVP024ASM	24m³/h	230V/50-60Hz	13W	0,10A	Impedance	faston 2,8x0,5mm	30dB	EU2	92x92 <sup>+0,5</sup> / <sub>0</sub>	114	4	53	90
MVP024BSM	24m³/h	115V/50-60Hz	13W	0,14A	Impedance	faston 2,8x0,5mm	30dB	EU2	92x92 <sup>+0,5</sup> / <sub>0</sub>	114	4	53	90
MVP024DSM	24m³/h	12VCD	3W	0,25A	Impedance	2-pole terminal 1,5mm²	35dB	EU2	92x92 <sup>+0,5</sup> / <sub>0</sub>	114	4	41	90
MVP024ESM	24m³/h	24VCD	4W	0,16A	Impedance	2-pole terminal 1,5mm²	35dB	EU2	92x92 <sup>+0,5</sup> / <sub>0</sub>	114	4	41	90
MVP055ASM	55m³/h	230V/50-60Hz	22W	0,14A	Impedance	faston 2,8x0,5mm	43dB	EU3	125x125 <sup>+1</sup> / <sub>0</sub>	150	5,5	71	124
MVP055BSM	55m³/h	115V/50-60Hz	22W	0,26A	Impedance	faston 2,8x0,5mm	43dB	EU3	125x125 <sup>+1</sup> / <sub>0</sub>	150	5,5	71	124
MVP055ESM	55m³/h	24VCD	9W	0,37A	Impedance	2-pole terminal 1,5mm²	45dB	EU3	125x125 <sup>+1</sup> / <sub>0</sub>	150	5,5	71	124
MVP055FSM	55m³/h	48VCD	13W	0,27A	Impedance	2-pole terminal 1,5mm²	45dB	EU3	125x125 <sup>+1</sup> / <sub>0</sub>	150	5,5	71	124
MVP120ASM	120m³/h	230V/50-60Hz	22W	0,14A	Impedance	faston 2,8x0,5mm	43dB	EU3	177x177 <sup>+1</sup> / <sub>0</sub>	204	5,5	92	121
MVP120BSM	120m³/h	115V/50-60Hz	22W	0,26A	Impedance	faston 2,8x0,5mm	43dB	EU3	177x177 <sup>+1</sup> / <sub>0</sub>	204	5,5	92	121
MVP120ESM	120m³/h	24VCD	9W	0,37A	Impedance	2-pole terminal 1,5mm²	45dB	EU3	177x177 <sup>+1</sup> / <sub>0</sub>	204	5,5	92	121
MVP120FSM	120m³/h	48VCD	13W	0,27A	Impedance	2-pole terminal 1,5mm²	45dB	EU3	177x177 <sup>+1</sup> / <sub>0</sub>	204	5,5	92	121
MVP230ASM	230m³/h	230V/50-60Hz	40W	0,17A	Thermal	3-pole terminal 2,5mm²	53dB	EU3	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	113	172
MVP230BSM	230m³/h	115V/50-60Hz	40W	0,34A	Thermal	3-pole terminal 2,5mm²	53dB	EU3	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	113	172
MVP230ESM	230m³/h	24VCD	26W	1,08A	Impedance	3-pole terminal 2,5mm²	61dB	EU3	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	113	172
MVP230FSM	230m³/h	48VCD	33W	0,68A	Impedance	3-pole terminal 2,5mm²	61dB	EU3	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	113	172
MVP370ASM	370m³/h	230V/50-60Hz	70W	0,40A	Thermal	4-pole terminal 1,5mm²	65dB	EU3	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	104	218
MVP370BSM	370m³/h	115V/50-60Hz	70W	0,80A	Thermal	4-pole terminal 1,5mm²	65dB	EU3	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	104	218
MVP370CSM	370m³/h	400V/50-60Hz	60W	0,18A	Thermal	4-pole terminal 1,5mm²	65dB	EU3	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	104	218
MVP500ASM	500m³/h	230V/50-60Hz	70W	0,40A	Thermal	3-pole terminal 2,5mm²	65dB	EU3	291x291 <sup>+1</sup> / <sub>0</sub>	320	5,5	145	220
MVP500BSM	500m³/h	115V/50-60Hz	70W	0,80A	Thermal	3-pole terminal 2,5mm²	65dB	EU3	291x291 <sup>+1</sup> / <sub>0</sub>	320	5,5	145	220
MVP500CSM	500m³/h	400V/50-60Hz	60W	0,18A	Thermal	3-pole terminal 2,5mm²	65dB	EU3	291x291 <sup>+1</sup> / <sub>0</sub>	320	5,5	145	220
MVP630ASM	630m³/h	230V/50-60Hz	130W	0,55A	Thermal	4-pole terminal 1,5mm²	72dB	EU3	291x291 <sup>+1</sup> / <sub>0</sub>	320	5,5	145	270
MVP630BSM	630m³/h	115V/50-60Hz	130W	1,10A	Thermal	4-pole terminal 1,5mm²	72dB	EU3	291x291 <sup>+1</sup> / <sub>0</sub>	320	5,5	145	270

Version flow direction "outdoor-in"	Effacer "S" a la référence. Ex: "MVP024A"
Version UL approval	Ajouter "UL" a la référence. Ex: "MVP024ASUL"
Version stainless steel	Ajouter "X" a la référence. Ex: "MVP024AXS"
Version case	Ajouter "X" a la référence. Ex: "MVP500AS5"

## PLAN AND REFERENCES GRILLE WITH FILTER



REFERENCE	DIMENSIONS (mm)				
REFERENCE	MACHINING MOUNTING	A	B	C	E
MVPR024M	92x92 <sup>+0,5</sup> / <sub>0</sub>	114	4	12	90
MVPR055M	125x125 <sup>+1</sup> / <sub>0</sub>	150	5,5	22	124
MVPR120M	177x177 <sup>+1</sup> / <sub>0</sub>	204	5,5	23	174
MVPR230M	224x224 <sup>+1</sup> / <sub>0</sub>	250	5,5	24	220
MVPR500M	291x291 <sup>+1</sup> / <sub>0</sub>	320	5,5	24	290
Optionnel Norme UL	Ajouter "UL" a la référence				
Optionnel inoxydable.	Ajouter "X" a la référence				

## METRIC EMC STAINLESS STEEL AISI 304 AND NICKEL PLATED CABLE GLANDS IP55

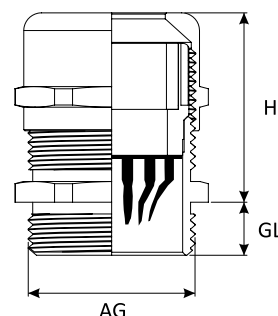
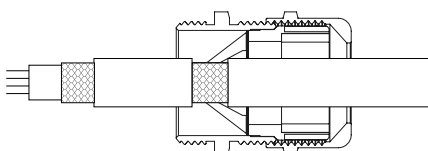
Modern technologies and modern products are becoming more and more efficient and complex. The demands on general safety and functional reliability are constantly increasing. More electromagnetic interlinks are taking place as a result of the rising number of electronic appliances. As a result, the "EMC Law" was passed. Since 01.01.1996 there is an EU Directive of

Electromagnetic Compatibility 2014/30/UE. In the EMC directive, the following objectives are agreed upon:



- A harmonised and acceptable level of protection
- Electronic devices must not disturb one another
- Devices must have their own adequate level of intrinsic immunity to electromagnetic disturbances.





- Material: Stainless steel AISI 304 / Nickel plated
- Thread: Metric
- Sealing ring: NBR
- Stainless steel lock nut included
- Ultraviolet (UV) resistance
- Protection: IP55 - 5 bar
- Certificates: CE, ROHS, REACH
- Temperature resistance:
  - -40°C to +100°C



REFERENCES METRIC EMC STAINLESS STEEL AISI 304 CABLE GLANDS

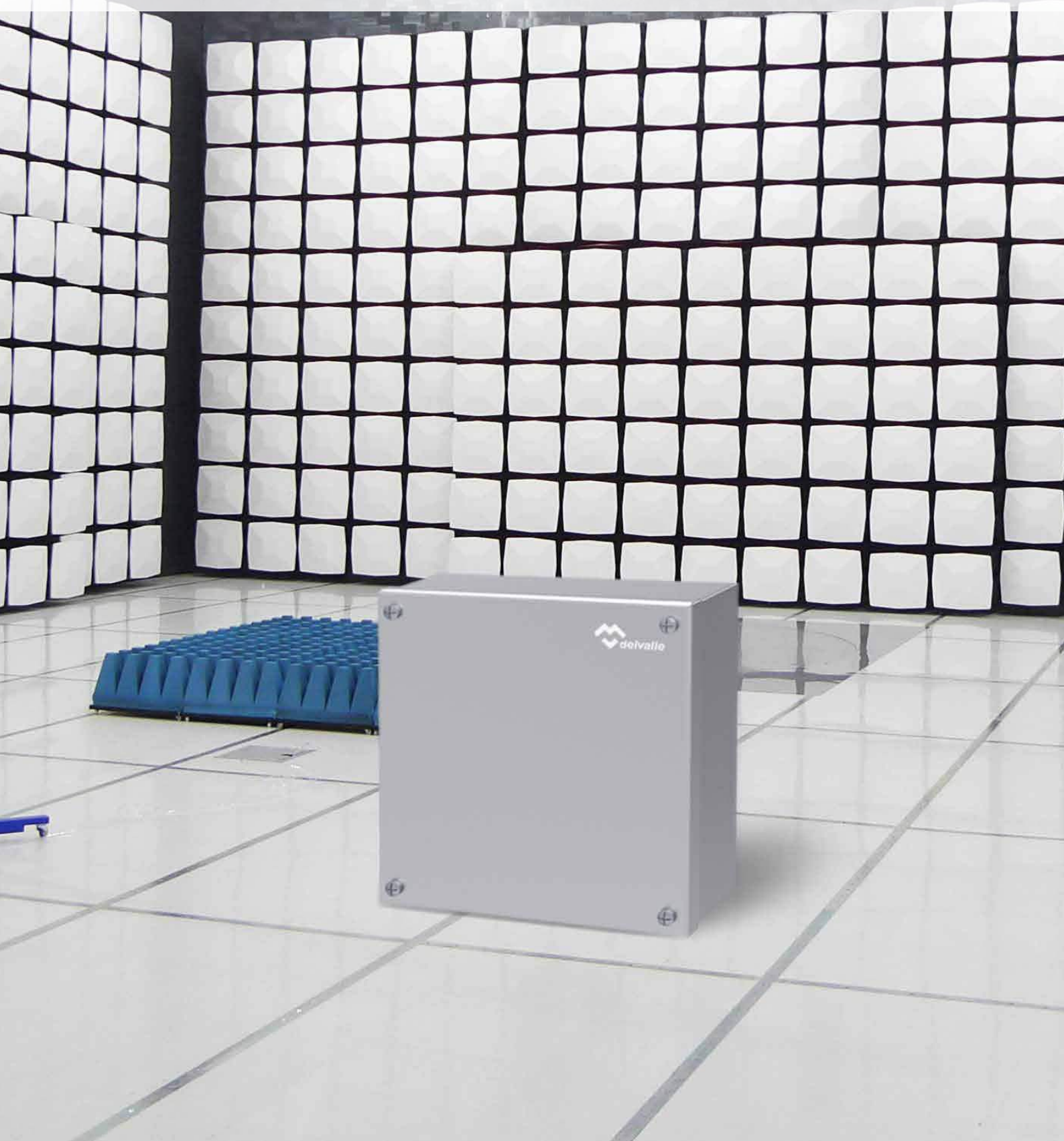
METRIC EMC STAINLESS STEEL AISI 304 CABLE GLANDS	SIZE	CABLE RANGE		THREAD DIAMETER AG (mm)	LENGTH OF THE THREAD GL (mm)	LENGTH OF THE ASSEMBLY GL + H (mm)	 (mm)	 MINIMUM
		≥	≤					
DVCG.M12.S4.EMC	M12x1,5	3	7	12	6	20	16	50
DVCG.M16.S4.EMC	M16x1,5	4	10	16	7	24	20	10
DVCG.M20.S4.EMC	M20x1,5	6	13	20	9	27	24	10
DVCG.M25.S4.EMC	M25x1,5	9	17	25	8	29	30	10
DVCG.M32.S4.EMC	M32x1,5	11	21	32	9	33	36	5
DVCG.M40.S4.EMC	M40x1,5	19	28	40	9	41	45	5
DVCG.M50.S4.EMC	M50x1,5	26	35	50	9	45	55	2
DVCG.M63.S4.EMC	M63x1,5	34	45	63	14	48	68	1

REFERENCES METRIC EMC NICKEL PLATED CABLE GLANDS

METRIC EMC NICKEL PLATED CABLE GLANDS	SIZE	CABLE RANGE		THREAD DIAMETER AG (mm)	LENGTH OF THE THREAD GL (mm)	LENGTH OF THE ASSEMBLY GL + H (mm)	 (mm)	 MINIMUM
		≥	≤					
DVCG.M12.ON.EMC	M12x1,5	3	7	12	6	20	16	50
DVCG.M16.ON.EMC	M16x1,5	4	10	16	7	24	20	50
DVCG.M20.ON.EMC	M20x1,5	6	13	20	9	27	24	50
DVCG.M25.ON.EMC	M25x1,5	9	17	25	8	29	30	50
DVCG.M32.ON.EMC	M32x1,5	11	21	32	9	33	36	25
DVCG.M40.ON.EMC	M40x1,5	19	28	40	9	41	45	10
DVCG.M50.ON.EMC	M50x1,5	26	35	50	9	45	55	10
DVCG.M63.ON.EMC	M63x1,5	34	45	63	14	48	68	10



# EMC ELECTRICAL ENCLOSURES SOLUTIONS



## CUSTOMIZED ENCLOSURE SOLUTIONS DELVALLE

*Delvalle has more than 50 years of experience using the latest technology to implement and obtain the most innovative products on offer to all our customers. Delvalle is an ideal partner, combining an advanced and wide range of products at very competitive prices.*

*The customized manufacture of all electrical enclosures and cabinets Delvallebox is carry out with the most advanced technical methods and with the precision and consciousness of a craftsman. This makes the difference from competitors and is the best way to gain our customers' trust.*

*In Delvallebox we bear in mind that customers perceive the quality very clearly. In every product (for instance, in the cabinets here presented) safety and useful solutions are what customers value most.*



STAINLESS STEEL  
INDUSTRIAL ENCLOSURES



OUTDOOR ELECTRICAL  
ENCLOSURES



GLOBAL ELECTRICAL  
SOLUTIONS FOR URBAN AREAS



GALVANIZED STEEL  
ELECTRICAL ENCLOSURES

# ATEX INDUSTRIAL ENCLOSURES



### SLOPED ROOF ENCLOSURES - HYGIENIC



**INDUSTRIAL ENCLOSURES IP55**

Buy direct from manufacturer of custom made IP55 heavy duty industrial and waterproof electrical enclosures AISI 304L and 316L made by standard IEC 60529. Delvalle has tested all sizes and dimensions of waterproof enclosures according to EN 60529:2018. All weather resistant enclosures are more than simply rainproof, they meet a minimum of Nema 4X and IP55 requirements to ensure your electronics are protected. From Juntion boxes to industrial enclosures, Delvalle weatherproof enclosures offer a wide range of sizes and styles to keep your project waterproof.



## CLIMATE CONTROL COOLING FOR ENCLOSURES



### CABLE GLANDS FOR ELECTRICAL ENCLOSURES





## **INDUSTRIAL ENCLOSURE SOLUTIONS**



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