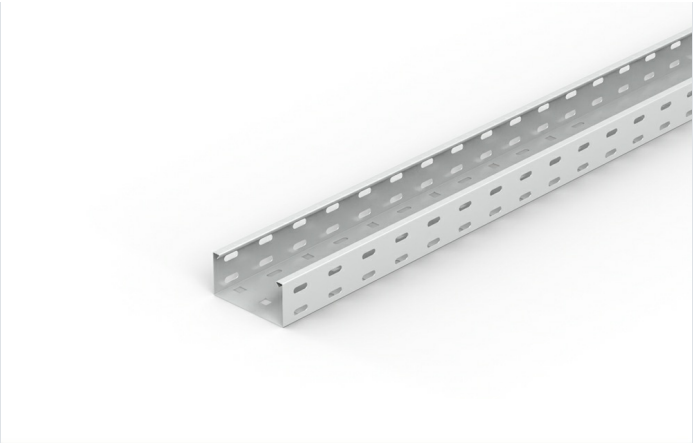
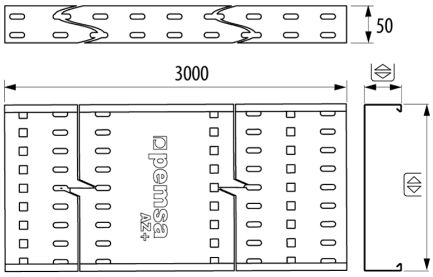
# Pemsaband Vulcan Heavy Duty ( Ref: 82004665 )






## Description

Pemsaband Vulcan Heavy Duty perforated metal cable tray with quick-connect system, available in 50mm height, made of steel with PG and AZ+ protection systems. The quick-connect system features tool-free fastening clips, saving on material and labour costs. Of 50 mm height, Width 100 mm, With AZ+ protection system. The Pemsaband® Vulcan Heavy Duty cable tray is designed for supporting and routing electrical and telecommunications cables for heavy duty loads. The Pemsaband® Vulcan product range has been designed in accordance with the technical requirements of IEC 61537, Edition 3, and BS-EN 61537.

## Advantages

High corrosion resistance. Available in PG and AZ+ protection systems. Class 3 and Class 8 according to BS EN 61537

Wide range of sizes and accessories. Dividers, Covers, Bends, T-joints, Crossovers, Risers, brackets and accessories for connecting lighting or devices.

Slot pattern designed to facilitate cable fixing.

New design of profile and safety edge. The contact area increases by 80%. Increases the contact surface between the cable tray and cover, ensuring electrical continuity in accordance with Edition 3 of the IEC 61357 standard

VulcanFast quick-connect system with tool-free, quick-fixing clips saves on material and labuor costs. Reduces installation time by 3x.

## Applications

A system designed for the management, support, transport and distribution of cables in electrical and/or telecommunications installations. It is applicable to, among others, the following areas: - Buildings, including public buildings, shopping centres, and Data Centres (DCs) . - Civil works and infrastructure, such as tunnels, Car parks, airports and railways and underground/metro lines. - The service and industrial sectors, being suitable for applications in the manufacturing, chemical and food industries. The system is suitable for rapid installation indoors in controlled atmospheres, as well as in outdoor installations or humid environments, selecting the appropriate protection and finishing system in each case based on the environmental and service conditions.

## Solutions



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## Product data

| | | | |
|---|---|---|---|
| **ETIM 10** | EC000047 | **Material** | Steel with surface coating |
| **Huella de CO2. GWP A1-A3 (kg CO2 eq.)** | | **Impact Strength (J)** | 20 J |
| **Protection System** | AZ+ | **Section (mm2)** | 4841 |
| **Finish** | ZM High Resistance Alloy | **IP** | IP23 |
| **Resistance Class** | Class 8 | **Working temperature range (°C)** | -50 / 150 °C |
| **Flange (mm)** | 50 | **Fire resistance** | A1 No combustible |
| **Width (mm)** | 100 | | |
| **Length (m)** | 3 | | |

## Ⓢ Protection System

**CU** - Copper electroplated

**PG** - Pregalvanised

**EZ** - Electrogalvanised

**BC** - Electrogalvanised Bichromate

**BK8** - High Resistance Coating

**GC** - Hot Dip Galvanising

**INOX** - Stainless Steel

**PT** - Polyester Paint

**AL** - Aluminum

**LN** - Brass or Nickel-plated brass

## Ⓜ Insulating materials

**PC+ABS** - Halogen Free Polycarbonate + ABS

**PVC** - Polyvinyl Chloride

**PP** - Halogen Free Polypropylene

**PA6** - Halogen Free Polyamide 6

**PA12** - Halogen Free Polyamide 12

**PU** - Polyurethane

**PE** - Polyethylene

**NBR** - NBR rubber

**PET** - Thermoplastic Polyester

**TPV** - Thermoplastic



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# Pemsaband Vulcan Heavy Duty ( Ref: 82004665 )

## Load diagrams

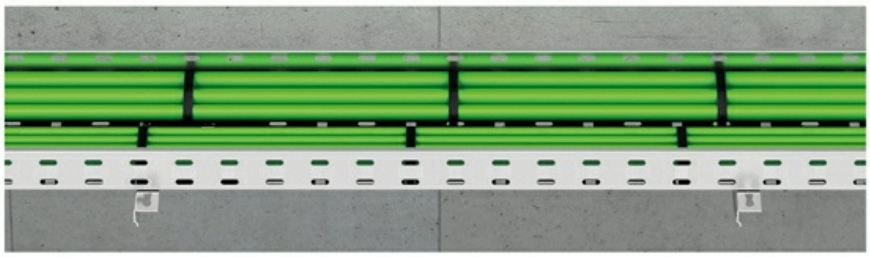
pemsaband VULCAN

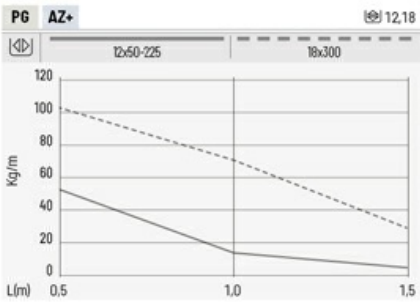
Technical data

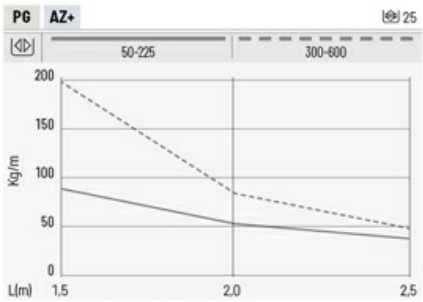
### Test for safety working loads installed in the horizontal way

Values obtained in accordance with IEC 61537, edition 3, according to the horizontal tests of multiple spans listed in point 10.3.4 of this standard, with a safety factor of 170% and without collapse in any case.

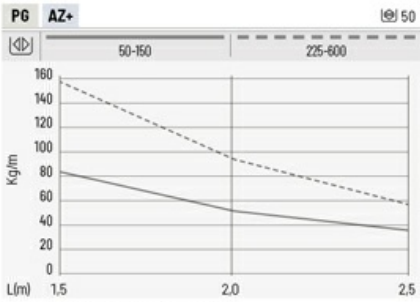
The safety working loads test on the 750 and 900 mm wide cable trays were carried out in accordance with the test method set out in section 10.4, and also included a safety factor of 170%.






Working loads for widths of 750 and 900 mm on request




Working loads for widths of 750 and 900 mm on request



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# Pemsaband Vulcan Heavy Duty ( Ref: 82004665 )

## Technical data

The technical data for the Pemsaband® Vulcan cable tray range, based on tests carried out in accordance with the international product standard IEC 61537, 3rd edition, is set out below.

**Classification according to: IEC 61537 BS-EN 61537**

| | |
|---|---|
| Type of material | Metallic |
| According to flame propagation | No flame propagation |
| Electrical continuity | With electrical continuity |
| Maximum impedance of a joint of cable trays | <50 mΩ |
| Maximum impedance along the length of a cable tray | <50 mΩ/m |
| Maximum impedance along the width of a cable tray | <50 mΩ |
| Maximum impedance between length and cover | <50 mΩ |
| Maximum impedance between the length and equipotential bonding (references 68000034 and 68000035, installed according to assembly instructions) | <50 mΩ |
| Electrical conductivity | Conductive |
| **Resistance against corrosion** | |
| Pregalvanized PG<br>Hot Dip Galvanising GC | Class 3 |
| AZ+ High resistance alloy | Class 8 |
| **Temperature of transport, storage, installation and use** | |
| Minimum temperature | -50 ºC |
| Máximum temperature | +150 ºC |
| **Perforation in the base area** | |
| Pemsaband® Vulcan Perforated | B Classification |
| Impact strength | Up to 20 J |
| **SWL test (Safety working loads)** | |
| Horizontal SWL test | Spans 0.5, 1, 1.5, 2 and 2.5 meters |


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pemsaband VULCAN

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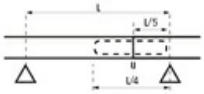
Technical data

## Test for safety working loads installed in the horizontal way

Values obtained in accordance with IEC 61537, edition 3, according to the horizontal tests of multiple spans listed in point 10.3.4 of this standard, with a safety factor of 170% and without collapse in any case.

IEC 61537

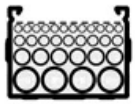
### Safe working load test conditions for cable trays EN61537

| | |
|---|---|
| Support Span | 0.5 m - 1 m - 1.5 m - 2 m - 2.5 (depending on cable tray height) |
| Longitudinal deflection | Less than 1% support span |
| Transverse deflection | Less than 5% of the cable tray width |
| Placement of joints | (L/4 ) > u > (L/5 )   |
| Increased safety coefficient | 1.7 times the declared safe working load |

The safety working loads test on the 750 and 900 mm wide cable trays were carried out in accordance with the test method set out in section 10.4, and also included a safety factor of 170%.

### Maximum Fill Capacity

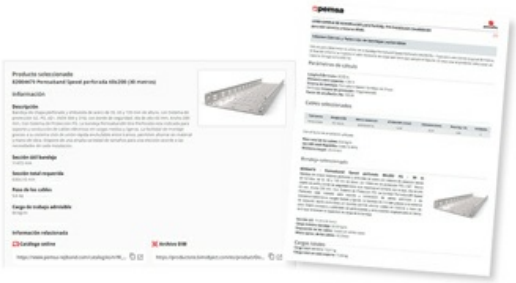
The load values shown in the load diagrams and tables above are tested and designed to allow operation at the maximum capacity based on the usable tray cross-section shown in the table below:



| | 50 | 75 | 100 | 150 | 225 | 300 | 450 | 600 | 750 | 900 |
|---|---|---|---|---|---|---|---|---|---|---|
| | mm² | | | | | | | | | |
| 12_18 | 542 | 822 | 1102 | 1662 | 2502 | 5000 | | | | |
| 25 | 1171 | 1776 | 2381 | 3591 | 5406 | 7083 | 10653 | 14223 | 17158 | 20608 |
| 50 | 2381 | 3611 | 4841 | 7301 | 10863 | 14523 | 21843 | 29163 | 35808 | 43008 |

### Cable tray configurator and selector

For more precise and specific configurations involving electrical cables, and taking into account the maximum working capacity and the usable cross-sectional area of the trays, Pemsa offers Pemsa Pro, a product configurator that selects the most suitable tray for the user-defined cable configuration. For access and more information, scan this QR code.



pemsaPro ONLINE



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