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PROLINE G2
THE NEXT GENERATION MODULAR SOLUTION

DESIGN WITH CONFIDENCE

RIGID PROTECTION

THE MODULAR ENCLOSURE SOLUTION

PROLINE G2 is designed to bear the advanced loads and harsh environments of industrial applications, while at the same time making the electrical enclosure easier to use and faster to populate. PROLINE G2 features an innovative modular design which offers the following benefits:

- **Better Interior Access**
  Removable doors, tops, sides and bases.
- **More Mounting Options**
  Multiple subpanels, rack mounting, swing-out panels or racks, grid system mounting.
- **Designed to Join/Bay**
  Join enclosures without field modification. Easier to move and ship large systems.
- **Custom Solutions from Standard Components**
  Hundreds of components and accessories that can be used to create unique plug and play solutions.

APPLICATIONS

- Industrial automation controls (PLC, VFD)
- Process controls (DCS, SCADA, Safety Systems)
- Networking in industrial environments
- Electrical panels
- Equipment protection
- Power distribution
- HMI controls

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FLEXIBLE SOLUTIONS

PROLINE G2: THE NEXT GENERATION MODULAR SOLUTION

PROLINE G2 raises the level of innovation, quality and value in modular electrical enclosures.

- **Superior Performance Under Load**
  Designed and tested for industrial environments.

- **Maximized Usable Space**
  More room for your electronics; same footprint.

- **Easier and Faster to Load Electronics**
  Save time and money.

- **Built to Last**
  Durable materials and quality components.

- **Expanded Standard Size Options**
  Quickly get what you want with over 150 standard frame options and over 350 standard industrial package options.

THE HOFFMAN DIFFERENCE

- **Assemble to Order at No Additional Cost**
  Don't pay someone to assemble your enclosure. Let Hoffman's factory certified professionals assemble it for you.

- **Standard, Modified or Custom Solutions**
  Custom colors, holes/cut-outs, integrated accessories or more unique solutions are never a problem.

- **Global Distribution Network**
  Experts who know you and work to satisfy your needs.

- **ISO Certified Manufacturing Facilities**
  Global sites that produce repeatable quality you can rely on.

- **UL Certified Testing and Global Certifications**
  Rigorous testing above and beyond global requirements.

- **Customer First Commitment**
  Configuration advice, design changes, or spare parts. Hoffman will get what you need.

EZ Install Grid Network

EZ Load Glide Block
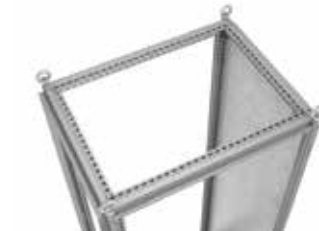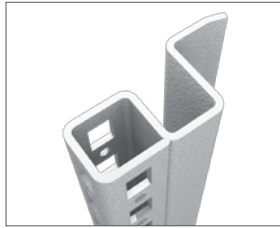
Mounted sub-panel, rear-most position

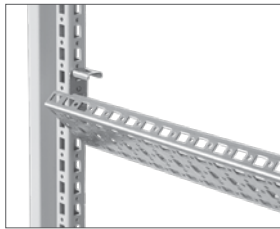Flange Trough Collar

NEXT GENERATION INNOVATION

HYBRID FRAME*
Superior performance under load.

SMOOTH GLIDE LATCHING*
A solid seal with a low closure force.

EZ INSTALL GRID NETWORK
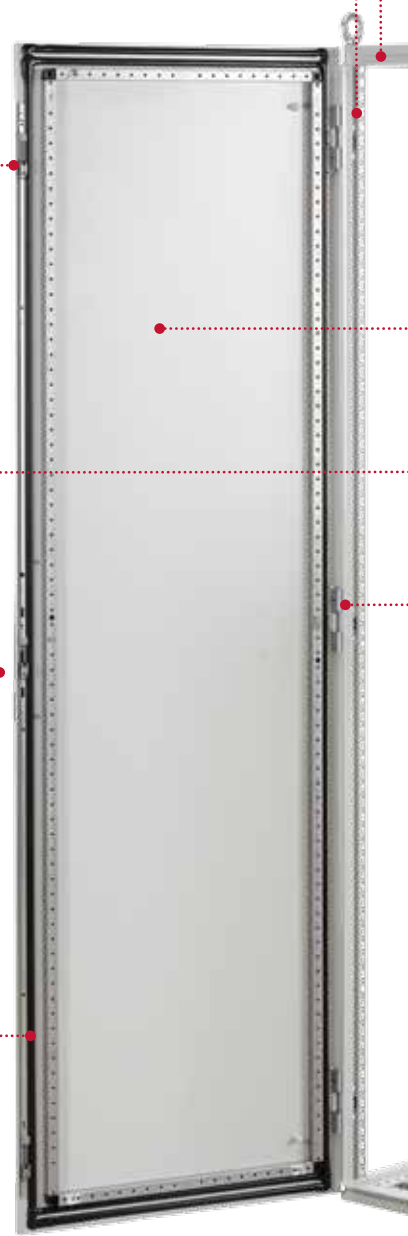Quick installation and flexible configuration options.

FLUSH SWING HANDLE
Low profile, ergonomic design.

SEAMLESS FOAM-IN-PLACE GASKET
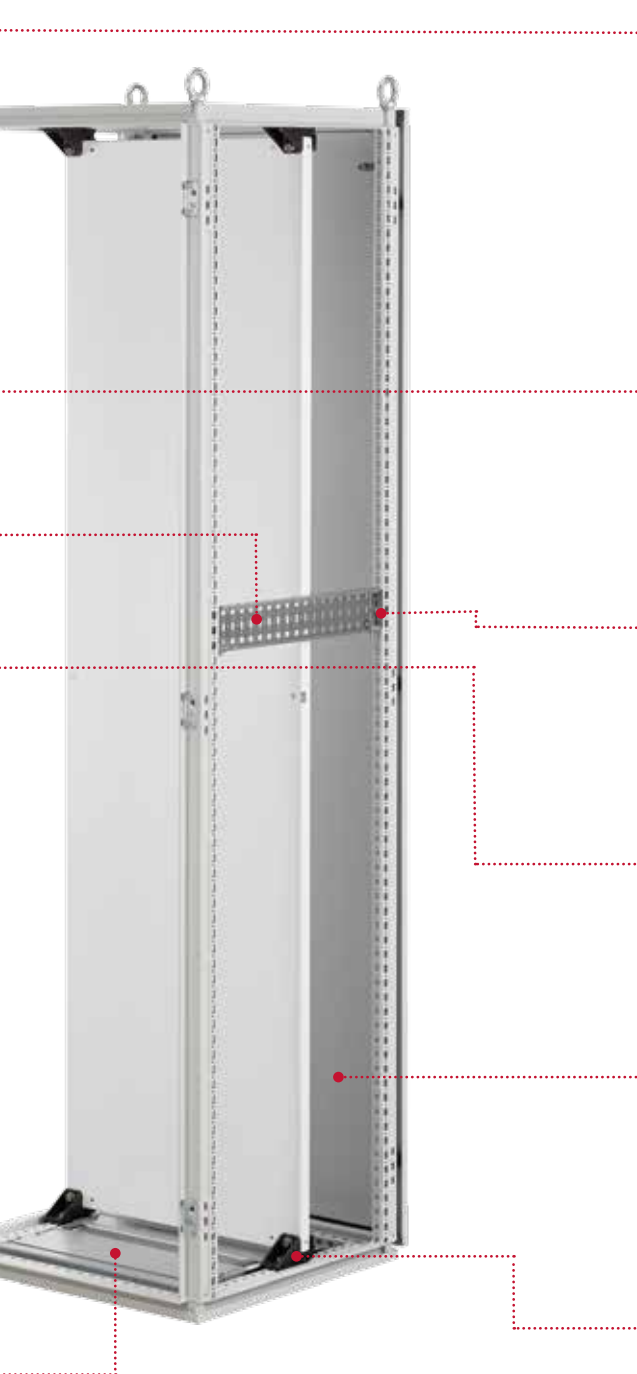Water- and dust-tight seal against moisture and contaminants.

DURO-STAND GLAND PLATES
Durable gland plates designed so a person can stand on them.
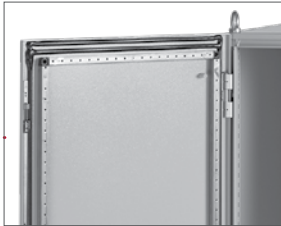
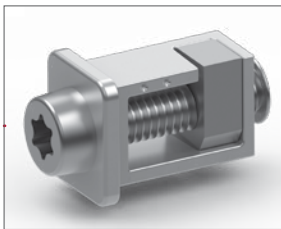**ACCOMMODATE HEAVY LOADS**

OPTIMIZE USABLE SPACE

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FLANGE TROUGH COLLAR

Superior protection from contaminants.

OPTIMIZED DOOR DESIGN

Solid swing, high load capacity and maximum usable space.

FRONT LOAD BV-M6*
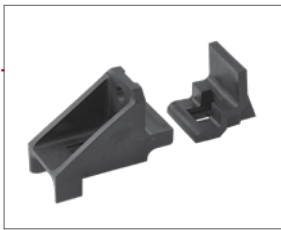
Blind, variable M6 screw-based fastener.

REVERSIBLE HINGING

Retained hinge pins for easy door removal.

POWDER COAT PAINT FINISH INSIDE AND OUT

Superior performance in industrial environments.

EZ LOAD MOUNTING SYSTEM*

Safer and more flexible mounting subpanel installation and optimal space efficiency.

*Patent Pending

BUILT TO LAST

REDUCE EQUIPMENT INSTALLATION TIMES

RIGID PROTECTION
BUILT FROM A STRONG FOUNDATION

A foundational design element of PROLINE G2 is the 12-gauge (2.5 mm) hybrid frame.* The frame of a modular enclosure is the key design element which protects the expensive equipment inside the enclosure.

OPEN AND CLOSED PROFILES

A frame with an open profile design has a more gradual failure mode under load; the frame opens up gradually but doesn't collapse.
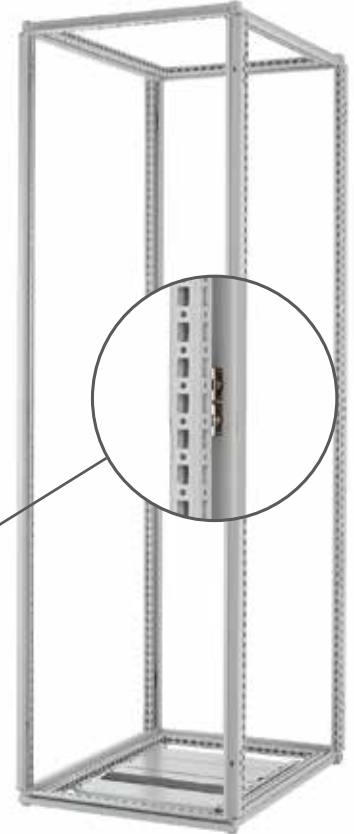
A closed profile frame can be used to create strength with less material; however this design is susceptible to bending when a load is applied (which can create door close problems). The closed profile has a catastrophic failure mode (analogous to a soda can that could hold the weight of a person until a side is compromised).

NEXT GENERATION HYBRID DESIGN

PROLINE G2's patent-pending hybrid frame is an innovative combination of an open and closed frame profile. The profile of a modular frame is a cross section of the vertical or horizontal frame. An open profile has no connecting folds; a closed profile has connecting folds.

SUPERIOR PERFORMANCE UNDER LOAD

The 12-gauge hybrid frame of PROLINE G2 combines the advantages of open and closed frame profiles, resulting in superior performance under load in every direction (all three axes). The frame also features a durable, powder-coated finish.

*Patent pending

12-gauge hybrid frame

FRAME STRENGTH COMPARISON

Front to Back

PROLINE G2 can bear a higher load with less frame deflection

Load in Pounds

Deflection in Inches

Side to Side

Load in Pounds

Deflection in Inches

Twist/Torque

Load in Pounds

Deflection in Inches
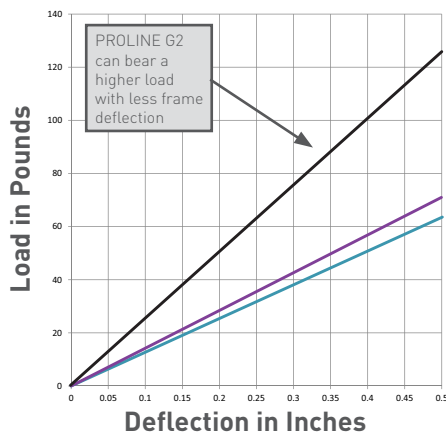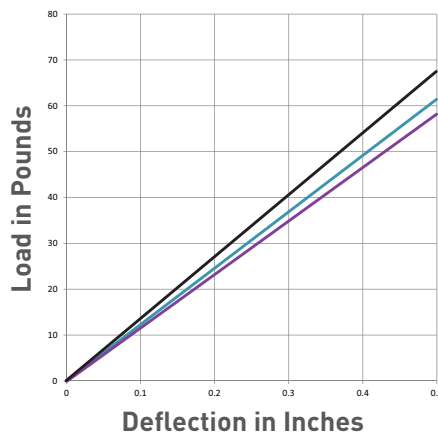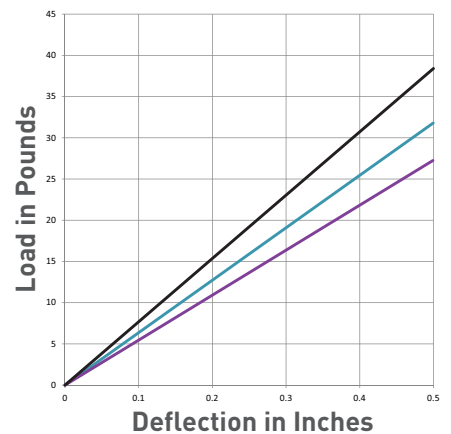
PROLINE G2 — PROLINE — Competitor

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QUALITY ELEMENTS BUILT TO LAST

SECURE DOOR CLOSE

PROLINE G2 has a high-performance door which features a solid swing, a high load capacity, and a reliable and repeatable close.

LARGE DOOR OPENING

PROLINE G2 has a large door (and door opening), which means it is easier to work inside the enclosure, and there is more room to add electronics or accessories to the door.

SMOOTH GLIDE LATCHING*

Smooth latching over the lifetime of the enclosure is achieved through a combination of a sturdy double-flanged latch rod and three Delrin® rollers which prevent metal-on-metal grinding. A patent-pending, timed latch engagement ensures the top and bottom of the door catch reliably and repeatedly.

FLUSH SWING HANDLE

The handle of PROLINE G2 is ergonomically designed to provide style and function in a low profile. A full offering of lock inserts can be used including key, double-bit, slotted screw, DIN and padlock.

DURO-STAND GLAND PLATES

Gland plates are used with a plinth base to provide cable management solutions while maintaining a NEMA 12 rating. PROLINE G2's unique Duro-Stand Gland Plate was designed to bear the weight of a person, making it easier to work on the enclosure when the gland plate is installed.

FULLY SEALED PLINTH BASE

No need to use a gland plate with our 100 mm solid base, which includes fully-sealed gland plates on the sides. Solid bases can easily be joined, creating additional base options.

PLINTH BASE WITH DURABLE CAST ALUMINUM CORNER BLOCKS

A plinth base consists of four corner supports connected to four access panels to provide space for cable entry. PROLINE G2's cast aluminum corner supports provide superior structural support and enhanced stability during in-the-field wiring.

*Patent pending

FLEXIBLE SOLUTIONS
FLEXIBLE MOUNTING OPTIONS

The EZ Load Mounting System in PROLINE G2 was designed to make loading the mounting subpanel into the frame simpler and safer by giving the user a variety of loading options. The EZ Load Glide Blocks can be used to load a subpanel vertically from the front, rear or side. Additionally, they can be used to load a subpanel horizontally from the front or rear.

## TRADITIONAL SOLUTIONS/VERTICAL SUBPANEL LOADING

Front Loading

Rear Loading

Side Loading

NEW SOLUTIONS – HORIZONTAL LOADING

The EZ Load Glide Blocks can be used to attach the mounting subpanel to the frame while the subpanel is horizontal. This is convenient if the mounting subpanel is populated on a table prior to inserting into the enclosure. The frame can be lowered over the mounting subpanel (horizontal rear loading), or conversely the subpanel could be lowered into the frame (horizontal front loading). EZ Load Glide Blocks can be fastened and then the frame lifting eyes can be used to lift the frame and subpanel - a new, more controlled method for loading a subpanel into an enclosure.
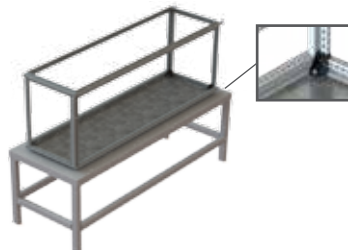
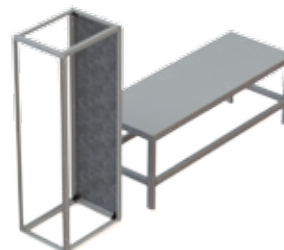## 4-STEP PROCESS FOR HORIZONTAL LOADING
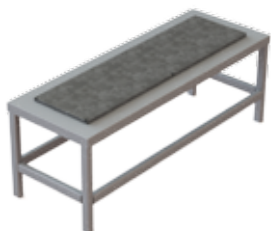
Place mounting subpanel on table

Lower frame over mounting subpanel

Fasten frame to subpanel using EZ Load Glide Blocks

Use lifting eyes to raise frame and mounting subpanel

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MAXIMUM SPACE UTILIZATION

PROLINE G2's mounting subpanel features the highest space efficiency ratio of any global competitor: 84%. The space efficiency ratio is simply the area of the mounting subpanel divided by the area of the enclosure.

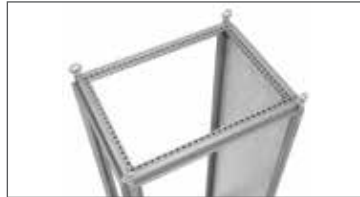$$\text{Space Efficiency Ratio} = \frac{\text{Mounting Subpanel (HxW)}}{\text{Enclosure (HxW)}}$$

DEPTH ADJUSTABLE

The mounting subpanel is easily depth adjustable.

REARMOST POSITION

The mounting subpanel can be used in the rearmost position of the enclosure (completely inset into the frame) to maximize usable space.


BACK-TO-BACK SUBPANELS

Two subpanels can be used back-to-back with no space between.

PERFORMANCE UNDER LOAD

The EZ Load Mounting System and the EZ Load Glide Blocks underwent static and dynamic load testing. With a safety factor of 2.5, the subpanel mounting system in PROLINE G2 can bear 2000 lbs.* Note: IEC 62208 tests the load to a 1.25 safety factor.

* Load rating is for an enclosure with a frame size of 2000x600x800mm and varies by enclosure size.

EZ Load Mounting Subpanel System
Performance Under Load
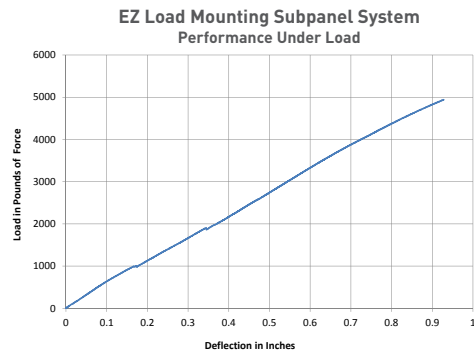
SAFELY SECURED

The weight of the mounting subpanel is supported by the frame and securely fastened at the top and bottom.

Top

Bottom

EASY TO USE AND ORDER
FAST AND EASY EQUIPMENT INSTALLATION

COMBINED SCREW AND NUT

The BV-M6 fastener combines a screw and nut in one easy-to-handle package, which makes attaching items to the frame or grid strap network easier than ever. Just insert the BV-M6 into a rectangular hole in either the vertical or horizontal frame section and tighten.

Insert BV-M6 into regular hole in frame

Tighten with T30 Torx tool

Use BV-M6 to attach grid straps, accessories or other brackets

SNAP-IN GRID STRAP

Now you can attach grids straps to the frame with just two fasteners per side. Use BV-M6 fasteners to attach the brackets, then snap in the grid strap and secure in place with a BV-M6 on each side.

NO REDUCTION OF USABLE WIDTH

The grid straps and brackets are inset within the frame and form a smooth interior surface, maintaining the maximum usable width of the frame.
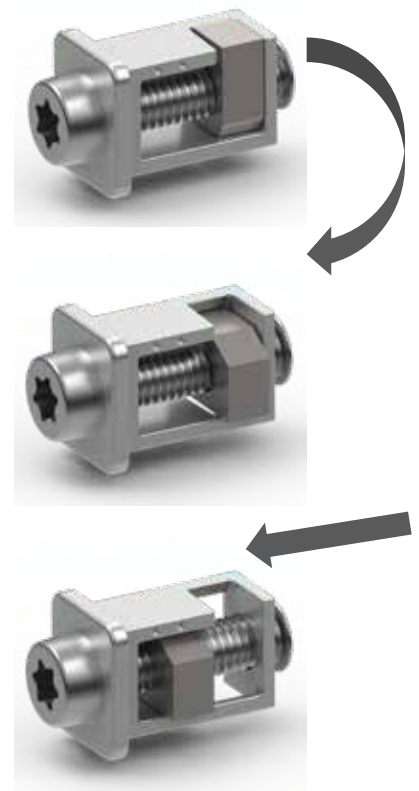
BV-M6 Actuation: As the Torx head is tightened, the embedded nut engages and travels up the thread.

GRID STRAP INSTALLATION
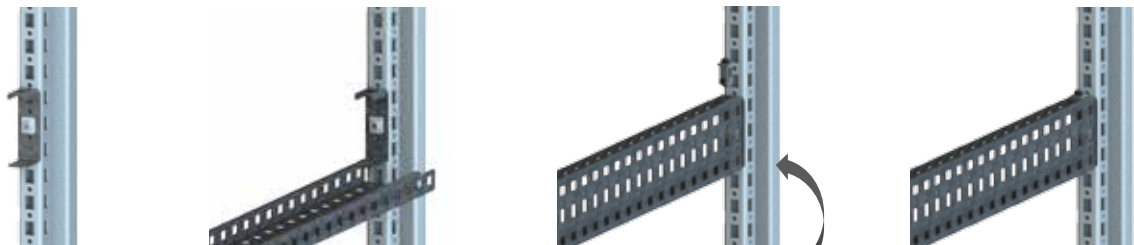
Install bracket on each side 1 BV-M6 per bracket

Hook grid strap on bracket

Snap in place

Secure with 1 BV-M6 per side (can secure on top or bottom)

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EXPANDED STANDARD SIZE OPTIONS

PROLINE G2 industrial packages include a solid door, handle and key lock, top, rear cover, galvanized subpanel (mounting plate), galvanized gland plate, and four lifting eyes.

Side walls and bases can be ordered separately with many options to choose from to suit your application.

SIMPLY CHOOSE YOUR SIZE AND OPTIONS
Standard Type 12, Disconnect and EMC Protected Options

HEIGHT (mm)	WIDTH (mm)	DEPTH (mm)
600	600, 800	400, 600, 800
800	600, 800	400, 600, 800
1000	600, 800, 1200	400, 500, 600, 800
1200	600, 800, 1200	400, 500, 600, 800
1400	600, 800, 1200	500, 600, 800
1600	600, 800, 1200	500, 600, 800
1800	600, 800, 1200, 1600	400, 500, 600, 800
2000	400, 600, 800, 1000, 1200, 1600, 1800	400, 500, 600, 800, 1000
2200	400, 600, 800, 1000, 1200, 1600, 1800	400, 500, 600, 800, 1000

- Not every depth is available for each width
- Custom sizes available upon request

TYPE 12 UL/NEMA/CSA/EEMAC
IP55 IEC/VDE

SMART NUMBER MODEL KEYS

Industrial Packages

Model	Component	Type	Height	Width	Depth	Specialty	Catalog Number
P2	K	Blank	20	8	6	Blank	= P2K2086
PROLINE G2	Industrial Package/Kit	Blank = single door OD = overlapping double door DR = disconnect right DL = disconnect left	mm 22 = 2200 20 = 2000 18 = 1800 16 = 1600 14 = 1400 12 = 1200 10 = 1000 8 = 800 6 = 600	mm 18 = 1800 16 = 1600 12 = 1200 10 = 1000 8 = 800 6 = 600 4 = 400	mm 10 = 1000 8 = 800 6 = 600 5 = 500 4 = 400	Blank = left hinge/ key lock E = right hinge/ double bit lock HF = EMC components	

Side Covers*

Model	Component	Type	Height	Depth	Specialty	Catalog Number
P2	C	S	20	6	Blank	= P2CS206
PROLINE G2	Cover	Blank = cover S = side cover B = barrier panel	mm 22 = 2200 20 = 2000 18 = 1800 16 = 1600 14 = 1400 12 = 1200 10 = 1000 8 = 800 6 = 600	mm 10 = 1000 8 = 800 6 = 600 5 = 500 4 = 400	Blank = standard HF = EMC protected	

Other Component Codes**

Model	Component
P2	K
PROLINE G2	K = Industrial Package (Kit) F = Frame D = Door T = Top C = Cover P = Mounting Subpanel G = Grid Accessory R = Rack Accessory A = Accessory

*Sold singly
**For more complete information on ordering individual components, visit www.pentairprotect.com/hoffman

COMPREHENSIVE
PRODUCT OFFERING

PROLINE G2 features a comprehensive set of standard components and accessories. These standard components can be used to create a custom enclosure uniquely suited to your application.

COVER AND SIDE OPTIONS

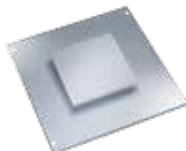| Solid Cover	Solid Door	Window Door	Overlapping Double Door	Dress Frame	Disconnect Door

TOP AND BASE OPTIONS

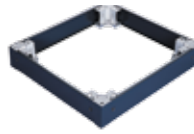| Solid Top Solid Base	Pagoda Top	Fully Sealed Plinth 100 mm Solid Base	Plinth Base	Transportation Base	Cable Entry Gland Plate
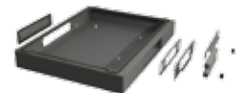
MOUNTING SUBPANEL SOLUTIONS

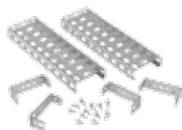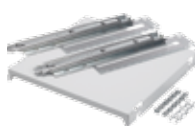| Full Subpanels	Partial Subpanels	Swing-out Subpanels	Side-Mount Subpanel	Joining Subpanel	Rack Panel

RACK AND GRID MOUNT ACCESSORIES
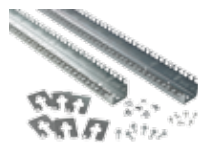
Rack Angles	Grid Straps (to form Grid Network)	Pull-out Shelf	Drawer	Keyboard Compartment	Consolet Compartment
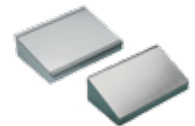
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STANDARD COMPONENTS AND ACCESSORIES

COOLING AND HIGH PERFORMANCE ACCESSORIES

Slim Fit Air Conditioner	Fans and Filters	Barrier Panel	Panel Support Brace	Transformer Rails	Center Upright
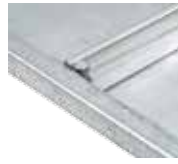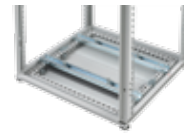
DOOR, BASE AND TOP ACCESSORIES

Casters	Electrical and Mechanical Door Interlocks	Data Pockets	Lifting Eyes, Angles and Bars	Door Stop	Folding Shelf

BUSBARS, GROUNDING BARS AND CABLE MANAGEMENT ACCESSORIES

Busbars	Grounding Bars	Cable Entry Cabinet	Cable Tiedown	Basket Tray	D Rings

ACCESSORIES

Joining Kit	Hole Seals	LED Lights	HMI Solutions	Handle Options	Window Kits

FOUR WAYS TO SELECT
YOUR PROLINE G2

FULFILLMENT SPEED SCALE

FAST

MODERATE

OPTION 1: STANDARD
PROLINE G2 Industrial Packages

PROLINE G2 industrial packages are full-featured, ready-to-use enclosure solutions that make it unnecessary to order each component separately. The offering is rounded out by a large selection of off-the-shelf accessories.

- Reversible door
- Handle and key lock
- Top
- Rear cover
- Full subpanel
- Gland plate
- Lifting eyes

TYPE 12 UL®/NEMA/CSA/EEMAC
IP55 IEC/VDE

OPTION 2: DESIGN YOUR STANDARD
Configure from Standard Parts

Build your enclosure from the ground up using standard parts. Starting with the frame, select from the wide range of available tops, bases, covers, sides and doors as well as a large variety of accessories to configure the optimal solution for your needs.

OPTION 3: MODIFIED

Configure from Standard Parts + Custom Paint + Holes/Cut-outs
Need a specific paint color or custom holes or cut-outs? You can add these requirements to your standard configuration with only a small effect on your first-run delivery lead time.

OPTION 4: CUSTOM

Configure from Modified Parts + Custom Paint + Holes/Cut-outs
Need something more unique? We will modify the standard PROLINE G2 to fit your specific application needs. This option includes special dimensions, integrated ventilation or cooling components, custom-designed components or other unique requirements you may have. A strong engineering team and global manufacturing organization support this service across the globe.

FREE FACTORY ASSEMBLY

Whether you need a standard preconfigured enclosure or a custom solution, PROLINE G2 enclosures can be assembled at the factory free of charge as part of Hoffman's unique Assemble To Order program.

Save time and hassle by using this free service offering.

- Factory assembly by certified professionals
- Preconfigured or custom solutions
- No fee
- Fast delivery

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SPECIFICATIONS

COMPONENT SPECIFICATIONS*

Load ratings are based on an enclosure size of 2000 x 600 x 800 mm and vary by enclosure size.

COMPONENT	THICKNESS (gauge/mm)	MATERIAL	SURFACE FINISH	LOAD RATING (lb/kg)	SAFETY FACTOR[5]
Frame	12/2.5	roll-formed, carbon steel; fully welded corners; 25 mm DIN standard	painted[3]	3000/1361	1.75
Mounting subpanel[1]	10-12/3.0-2.5		galvanized or painted options[3]	2000/907	2.5
Door	14/1.75		painted[3]	250/113	1.5
Covers and Sides[2]	14-16/1.75-1.5		painted[3]	300/136	1.5
Grid strap – 3 row (single)	14/1.75	carbon steel	galvanized	300/136	1.5
Grid strap – 1 row (single)	14/1.75		galvanized	200/90	1.5
Gland plate	14/1.75		galvanized or painted options[4]	200/90	1.5

[1] Mounting subpanels ≥1200mm (W) 10/3.0, <1200mm are 12/2.5.
[2] Covers >600mm (W) are 14/1.75, ≤600mm are 16/1.5. Side Covers >800 (D) are 14/1.75, ≤800 are 16/1.5.
[3] Powder-coated color RAL 7035 textured light gray, custom colors available.
[4] Industrial packages include galvanized mounting subpanel and galvanized gland plates.
[5] IEC 62208 uses a 1.25 safety factor, which would result in higher load ratings.

INDUSTRY STANDARDS

UL 508A Listed; Type 12; File Number E61997
cUL Listed per CSA C22.2 No 94; Type 12; File Number E61997

NEMA/EEMAC Type 12
CSA File Number 42186: Type 12
VDE IP55
IEC 60529, IP55

NOMINAL VERSUS ACTUAL SIZE

Example frame enclosure size: 2000x600x800 mm

	NOMINAL	PROLINE G2	PROLINE
Height (mm)	2000	2002.0	1982.8
Width (mm)	600	607.6	607.6
Depth (mm)	800	805.0	794.6

COMPONENT DETAILS

Frame

- Welded corners with steel corner blocks
- Flange trough collar on door and side openings deflect liquids away from the enclosure interior
- Accommodate 25 mm DIN standard
- Rectangular frame holes designed for BV-M6 fasteners or metric cage nut fasteners
- Round frame holes accommodate M5 self-tapping screws and allow numerous grounding locations using M5 thread-forming screws
- Universal frame member used for both horizontal and vertical frame sections to simplify component installation
- Uniform internal frame width to simplify component installation
- Removable rear centerpost for frames ≥1200 mm wide
- Integral frame channels support the full weight of the subpanels

Mounting subpanel

- Includes four sets of EZ Load Mounting Blocks which accommodate five loading options: vertical front, vertical side, vertical rear, horizontal rear (frame over subpanel), horizontal front (subpanel lowered into frame)
- Depth adjustable, accommodates back-to-back subpanels
- Subpanels can be mounted in 25 mm increments from front to rear and on the sides
- Side mount subpanels can be mounted on the sides

Doors

- Door bar system on all doors (including window doors)
- Single/primary door includes three-point roller latch system with timed latch engagement (two-point latching for heights ≤800mm)
- Two-door enclosures include overlapping double doors to provide full-width open front; secondary door latches with one center lever
- Reversible hinging on single and overlapping double doors
- Two grounding studs

Gasket

- Seamless foam-in-place gasket (UL component recognized) on all external components

CAD DRAWINGS
Available at www.pentairprotect.com/hoffman

* Specifications reflect typical performances and are subject to change without notice.

PENTAIR

NORTH AMERICA
Minneapolis, MN
Tel: +1.763.421.2240

Mexico, D.F.
Tel: +52.55.5280.1449

Toronto, Canada
Tel: +1.416.289.2770

SOUTH AMERICA
Sao Paulo, Brazil
Tel: +55.11.5184.2100

Boitura, Brazil
Tel: +55.15.3363.9148

EUROPE
Straubenhardt, Germany
Tel: +49.7082.794.0

Dzierzoniow, Poland
Tel: +48.74.64.63.900

Lainate, Italy
Tel: +39.02.932.7141

Aachen, Germany
Tel: +49.2405.40996.0

MIDDLE EAST & INDIA
Dubai, United Arab
Emirates
Tel: +971.4.378.1700

Bangalore, India
Tel: +91.80.6715.2001

ASIA
Shanghai, P.R. China
Tel: +86.21.2412.6943

Singapore
Tel: +65.6768.5800

Shin-Yokohama, Japan
Tel: +81.45.476.0271

Seoul, Korea
Tel: +82.2.2129.7755

Qingdao
Tel: +86.532.8771.6101

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