

Delta Part 4000 - Liber Superthermic Insulated Bi-Folding Door

Product Data Sheet
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Product Description

The new generation of industrial doors are expressed by the Superthermic range of products. We have put into practice the experience built up over fifty years of design and manufacture, during which it has kept pace with the evolution of technology.

The production of large volumes of doors has always been marked by a high competence for customised solutions and the innovative design, especially appreciated by the architects as well as the end users.

Our business vision is based on employing cutting-edge technology for our products, certified by many exclusive patents, to provide solutions with added value for our customers.

Sustained by these solid roots, Enerco is the ideal partner for every architect, design engineer, building contractor or end user who is looking for door solutions that combine quality, functionality with high levels of aesthetics.

The Delta Part 4000 Liber door is one of the range of highly insulated bi-folding doors manufactured for large openings in a variety of track arrangements. The maximum height of the door is 6m but can be manufactured to suit wide openings with 4 + 2 door leaf combinations. This door does not require a bottom track



The Liber offers a proven individual door system solution where insulation, minimum headroom of only 150mm, no bottom track or rail, high security and large openings are being considered.

All Enerco insulated bi-folding doors are manufactured in modular design and are almost maintenance free. This results in outstanding operational reliability, fast and inexpensive repairs when damage occurs, as well as low operating costs.

This is especially true of this door with its various patents and exclusive design. Providing high levels of insulation from its 55mm thick panels the Liber door is competitively priced to replace the conventional un-insulated steel folding shutter commonly used throughout the UK market.

The door can be fitted with complete all round safety controls i.e. photocells at low level and fail safe opto-electric safety edge.



Product Advantages

1. High insulation, 55mm thick CFC Polyurethane filled panels with thermal insulation value (for 25 m² surface without windows) of 1,53 W/m².°K
2. Can be manufactured to suit very large openings up to 6m high x widths up to 9m wide dependant on opening arrangement
3. Aesthetically designed to complement the building structure
4. Opens to one side or bi-parting
5. Leaves stack at 90° or 180° depending on side room and track arrangement
6. Flexible track arrangements without problematic bottom track
7. Can be supplied manually or electrically operated to suit your budget and operation.
8. Emergency wicket doors or integrated personnel doors available.
9. Quick operational speeds offering full height opening immediately thus virtually eliminating the often high cost repairs associated with vertically rising doors.
10. Will operate normally in wind pressures of up to 140km/h BS EN 12424 Class 4
11. Full range of vision sections including framed and glazed

Applications

- Large opening where conventional sectional doors and roller shutter are limited.
- Minimise draughts, improve insulation and maintain constant temperatures.
- As an external door where goods are despatched and received on a regular basis.
- As a partition between factory areas.
- Improves the working environment.
- Enhances aesthetic appearance.
- Exposed applications.
- Loading bay areas.

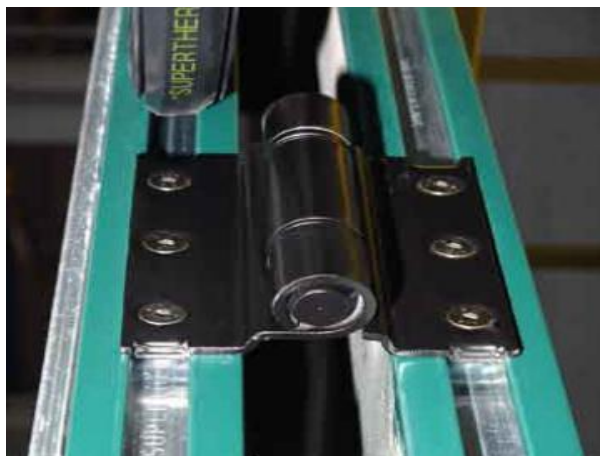
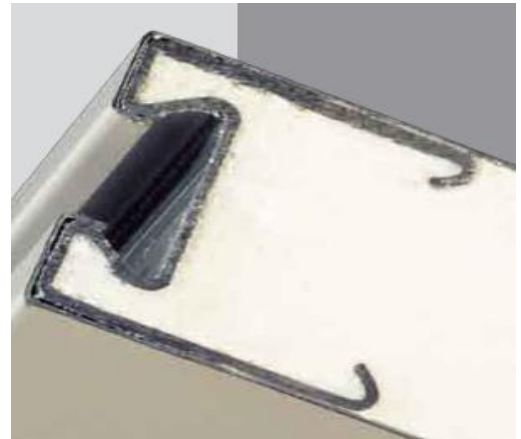
Door Design

The panels are manufactured from two skins of galvanised powder coated steel sheets encapsulating the robust internal steel frame sections that provide the door with its superior strength characteristics. Once assembled, the panels are injected with the CFC Polyurethane foam and assembled with the hinges, seals any additional items such as windows or mouldings.

The hinges are produced from galvanised steel, painted black, fitted with ball bearings and assembled to the load bearing frame by means of an adaptor plate and are concealed with the black rubber seal. (Patented system)

The extruded galvanised top track profile provides the guide and support for the panels and is equipped with the door leaf deflector assembly that transfer the leaves through 90° or 180° to their stored position.

Fully adjustable roller trolleys are fitted with adjustable 20 mm dia. pins to ensure the door can cater for any uneven door levels.



Door Drive Mechanism and Control Panel

Either the door can be manually operated or supplied with an electric drive. Both drives can be either single action to one side or bi-parting. The electric drive is powered by either 415v 3PHNE or 240v single phase motor driving the traction chain system with manual override in the event of power failure. Proximity switches are used to limit the doors travel in either direction.

The top track supports the weight of the door and enables the door to withstand the high wind pressures experienced.

Safety Features

As standard the door is supplied with dead man operation. As an option, safety equipment can be used to monitor the door threshold so that the door can be operated push to run. Safety equipment such as photocells and a safety edge can be added to the door. All safety features are self-diagnostic and fail-safe.

Windows

Can be inserted in every leaf of the door and the dimensions can be customised according to the size of the door leaves and the customer's requirements. The windows can be set in either black rubber EPDM frame with 130mm radius corners which makes it possible to insert safety glass up to 10 mm thick.

Alternatively aluminium profiles with thermal breaks and 90° mitred corners can be used which allows for safety or double glazed glass up to 40 mm thick.



Available in any geometric shape with standard size glazing as per the details below.

On request, special glass with "low U-values" can be fitted to ensure compliance with relevant building control requirements.

Dimensions

As standard the following window sizes are available in both the rubber and aluminium frames with transparent 8/9 safety glass,

530mm diameter, 700mm x 700mm,
500mm x 600mm, 700mm x 1000mm,
500mm x 800mm,
700mm x 1500mm, 580mm x 880mm & 700 x 2000 mm.

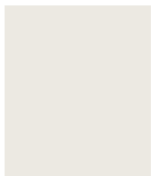

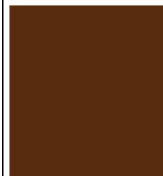









Standard Colours

On request, powder coated finishes are available in other RAL colours.

The unique manufacturing process allows us to customise the aesthetics of the door with plain door leaves, vertical mouldings, rounded panes etc, please ask any of our team for advice.

| | | | | | | | |
|---|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |  |
| White RAL 9002 | Red RAL 3000 | Brown RAL 8019 | Grey RAL 7016 | Blue RAL 5010 | Green RAL 6005 | Grey RAL 9006 | Wooden color SL45 |



Wicket Door

Wicket doors can be incorporated into the door leaf of the door with a minimal threshold. The door can be equipped with a panic bar or handle, cylinder and key.



Locking

The locking comprises of a black shoot bolt handle with galvanised steel bars which when activated protrude into the locks in the top and bottom position.

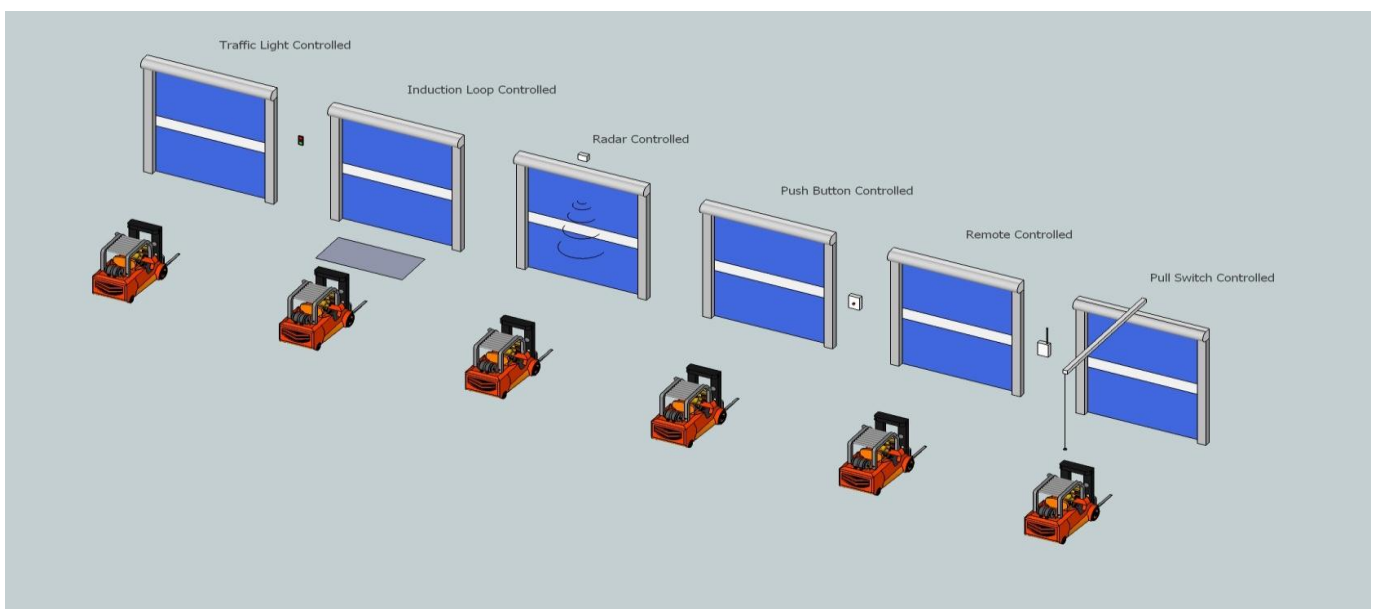
Remote Controls

The door can be supplied with additional remote controls. These fall into two categories, activation and safety. When wired to activate, they will open the door from its closed position, stop the door from closing when open and stop / reverse the door when closing. When wired to safety the features are the same as to activate however the door will not open when closed.

Remote controls include those shown below (left to right) interlocked and traffic light controlled, induction loops, radar (motion and presence sensor), push buttons, radio / infra red controls or pull switch operation.

Other methods of operation are available such as light grilles, photocells etc i.e. virtually any method providing which momentarily closes a 0 volt normally open circuit. In addition dependant on the complexity of the operation, it may be necessary to use a combination of two different types.

For example where you have numerous doors in close proximity using a radar and radio control gives high control over the doors rather than using multi channel transmitters. Our sales team will be pleased to discuss the options with you.



Technical Data

| | | |
|----------------------------------|--|-----------------------|
| Application | Internal | Yes |
| | External | Yes |
| CE Marked | Manufacturers Declaration of Conformity | Compliant |
| Mechanical compliance | BS EN12604 | Compliant |
| Safe Use of Power Operated Doors | BS EN12453 | Compliant |
| Safety equipment | DIN EN13241 – 1 | Compliant |
| Resistance against wind pressure | DIN EN12424 | Class 4 |
| Sound Insulation | | 22dB |
| Door sizes | Width max. mm (4 + 2 leaves) | 9000 |
| | Height max. mm (55mm panel) | 6000 |
| Space requirement for fitting | Subject to size | |
| | Headroom internally mounted | 150 |
| | Headroom externally mounted | 730 |
| Control Panel Style & Size | Controls in plastic casing (W x H x D) cm | 20 x 40 x 20 included |
| Door construction | Self supporting | Modular |
| Curtain / Door leaf | 55mm thick insulated panels | Included |
| Track Material | Galvanised steel | Included |
| | Powder coated RAL choose colour | Optional |
| | Polished stainless steel | N/A |
| Track Cover | Standard | Optional |
| | Sloped 30° | Optional |
| Operator and controls | Manual operation (8400mm \90 degree opening) | Standard |
| | Electric operation | Optional |
| | Supply voltage | 1PHNE or 3PHNE |
| | Open-Stop-Close Buttons | Optional |
| | Emergency Stop | Optional |
| | Fuse rating for electric operation | 16amp slow acting |
| | Protection category | IP54 |
| | Safety protection | Optional |
| | Photocell | Optional |
| | Safety edge | Optional |
| | Timed closing | Optional |
| | Electronic limits | Included |
| Emergency Opening | Manual change over if electric | Included |
| Activators | Induction loop | Optional |
| | Photocells | Optional |
| | Pull cords | Optional |
| | Radar | Optional |
| | Radio control | Optional |
| Accessories | Traffic lights | Optional |
| | Flashing beacon | Optional |
| | Audible alarm | Optional |
| | Protection barriers / Bollards | Optional |

| Model | Leaves configuration | Maximum door width mm. | Clear opening | | Motor | Pass Door | |
|--------|----------------------|---------------------------|---------------|------|-------|----------------|-------------------|
| | | | 90° | 180° | | WITH threshold | WITHOUT threshold |
| | | | mm. | mm. | | | |
| 1002MO | 2+0 | 3150 | 2790 | 2990 | Yes | Yes | Yes |
| 2002MO | 1+1 | 3150 | 2830 | 2990 | Yes | Yes | No |
| 2003MO | 2+1 | 4650 | 4210 | 4490 | Yes | Yes | Yes |
| 2004MO | 2+2 | 6150 | 5590 | 5990 | Yes | Yes | Yes |
| 1003MA | 3+0 | 4650 | 4190 | 4490 | No | Yes | No |
| 1004MO | 4+0 | 6150 | 5590 | - | Yes | Yes | Yes |
| 1004MA | 4+0 | 6150 | - | 5990 | No | Yes | Yes |
| 2005MO | 4+1 | 7650 | 7010 | - | Yes | Yes | Yes |
| 2005MA | 4+1 | 7650 | - | 7490 | No | Yes | Yes |
| 2005MA | 3+2 | 7650 | 6990 | 7490 | No | Yes | Yes |
| 2006MO | 4+2 | 9150 | 8390 | - | Yes | Yes | Yes |
| 2006MA | 4+2 | 9150 | - | 8990 | No | Yes | Yes |
| 2006MA | 3+3 | 9150 | 8390 | 8990 | No | Yes | No |



Warranty

The door is supplied with a 24 month parts and labour warranty as standard providing the equipment is serviced by an Enerco trained fully qualified high speed door engineer in accordance with the service intervals detailed below. To satisfy the requirements of the warranty, an agreement must be signed and dated within 30 days of the installation date. Failure to service the product in accordance with the service schedule or by unqualified engineers will result in the warranty being null and void.

Servicing

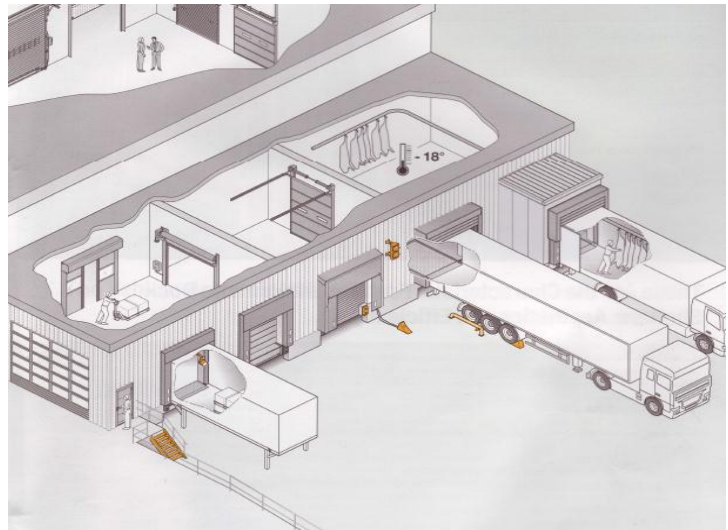
To help protect your investment and extend the effective working life of the equipment, full maintenance packages are available and, in most cases, we can maintain all of your existing doors and loading bay equipment. The door must be serviced at least once per annum or every 25,000 cycles whichever is applicable. Full details of our preventative maintenance packages are available on request. Enerco recommend the first service is carried out 6 months after installation to ensure the number of cycles can be monitored.

We have Safe Contractor, CHAS and Construction Line accreditation as well as being active members of the Doors and Hardware Federation (DHF) where we have their seal of approval for the service and maintenance of doors. We ensure that our staff are trained to the highest standard and all have an NVQ qualification in line with current industry guidelines This NVQ is in addition to the CSCS Health and Safety, First Aid, Asbestos Awareness and other training including product training applicable to our industry and is continually being updated.



Other products in the Delta range from Enerco include: -

- Delta Guard – Commercial Shutters
- Delta Roll – Steel Roller Shutter Doors
- Delta Check – Fire Roller Shutter
- Delta Secure – High Speed Security Doors
- Delta Slide – Insulated Overhead Doors
- Delta Insudoor – Insulated Roller Shutters
- Delta Part – Insulated Bi – Parting Doors
- Delta Strip – Strip Curtains
- Delta Steel – Steel Security Door Sets
- Delta Fold – Steel Sliding Folding Shutters
- Delta Level – Dock Levellers
- Delta Lift – Scissor Lifts
- Delta Seal – Dock Sealing Systems
- Delta Shield – Perimeter Security
- Delta Bar – Window Bars
- Delta Grille – Retractable Window Grilles
- Delta Service – Service and Repairs
- Delta Load – Loading Bay Accessories
- Delta Glide – Garage Doors
- Delta Aluglaze – Aluminium Glazed Systems
- Delta Crash – Crash Door Systems



Please contact our sales team for more information on 01525 289322 or a brochure. Alternatively visit our web site www.enerco.co.uk or our dedicated high speed door site www.enercohighspeeddoors.co.uk .

We reserve the right to change the product data sheets and specification without prior notification