

Freedom™

FROM ATTABOX™ | A BRAND OF ROBROY® ENCLOSURES

Proven Protection Made Possible By The Freedom To Design For Your Individual Application Needs

Freedom™ (FR) Series enclosures are developed for maximum design flexibility and pleasing aesthetics. These attractive yet highly durable fiberglass-reinforced polyester enclosures are ideal for diverse applications including: high-end electronics, OEM housings and conspicuous industrial applications. They excel in corrosive environments where a full seal against the outside environment is critical.

A unique benefit of the Freedom™ Series is the internal panel management system empowering the end user to select and use only the features required for their specific application --- and to use every cubic inch of valuable internal enclosure space!

FREEDOM SERIES ATTRIBUTES

- Available in 2 cover options:
 1. Opaque cover
 2. Flush bonded window
- Maximum visibility to raised panels and control devices
- High temperature, flame retardant, non corrosive, environmental designs
- Stands up to an exceptionally broad range of chemical exposures
- Results in an environmentally sealed, environmentally sound space
- High impact resistance
- Double insulated material No incidental electrical contact
- Solid construction in a lightweight design
- UV Resistant



Freedom (FR)



**Freedom
Flush Bonded Window (FRW)**

FREEDOM SERIES INDUSTRY STANDARDS

| | |
|--|--|
| UL/cUL File # | E64358 |
| NEMA Ratings (UL508A, UL50 & UL50e) | 1, 3, 3S, 4X, 12, 13 |
| CSA Std. C22.2 File # | LR069014 |
| IEC 60529 Ratings | IP66 |
| UL 1741 File # | E333478 |
| Temperature Range | (-76°F to +274°F) (-60°C to +134°C) |
| Window Temperature Range | (-26°F to +170°F) (-32°C to +76°C) |
| Flammability Rating | UL94-5V |
| Window Flammability Rating | UL94-HB |
| Self Extinguishing | Non-Halogenated, Non-flame propagating |
| NFPA No. 101 Flame Spread | Class A (1) |
| Impact Rating | IK10 |
| Certifications | UL, CSA, CE, REACH, RoHS |
| Outdoor UV Exposure (UL 746C) | (f1) Rated |
| Chemical Resistance | Visit AttaBox.com |

Freedom | HW

HINGED, 2 COVER SCREWS



CONSTRUCTION

| | |
|-----------------------------|--|
| Material | Hot Compression Molded Fiberglass Reinforced Polyester (Thermoset) |
| Gasket | Poured Seamless Polyurethane Gasket |
| Cover Screw Material | 304 Stainless Steel |
| Cover Screw Size | #10-32 x 1-1/4 |
| Cover Screw Torque | 20-24 in.-lbs. |
| Hinge Hardware | 304 Stainless Steel |

Freedom | HPL

HINGED, 2 LOCKABLE PULL LATCHES



CONSTRUCTION

| | |
|---------------------------------|--|
| Material | Hot Compression Molded Fiberglass Reinforced Polyester (Thermoset) |
| Gasket | Poured Seamless Polyurethane Gasket |
| Cover Screw Size | #10-32 x 1-1/4 |
| Cover Screw Torque | 20-24 in.-lbs. |
| Hinge and Latch Hardware | 304 Stainless Steel |

FREEDOM OPAQUE COVER SERIES ENCLOSURES

| SIZE ID NUMBER | OVERALL H X W X D | INSIDE A X B X C | MOUNTING P X R | K | L | S | T | OPT. MOUNT. FEET E X F | N | J | M | SHIPPING WEIGHT | PANEL NUMBER |
|---|--|--|------------------------------|----------------|----------------|---------------|-------------|------------------------------|----------------|----------------|------------|-----------------|--------------|
| FR60604HW FR60604HPL | 7.41 x 7.79 x 4.31 (188 x 198 x 110) | 6.77 x 6.77 x 4.06 (172 x 172 x 103) | 5.93 x 4.00 (151 x 102) | 4.25 (108) | 4.25 (108) | 3.60 (92) | .38 (10) | 8.24 x 4.00 (209 x 102) | 9.02 (229) | 4.56 (116) | .25 (6) | 3.8 lbs | BP66* |
| FR80604HW FR80604HPL | 9.41 x 7.79 x 4.31 (239 x 198 x 110) | 8.77 x 6.77 x 4.06 (223 x 172 x 103) | 7.91 x 4.00 (201 x 102) | 6.25 (159) | 4.25 (108) | 3.60 (92) | .38 (10) | 10.21 x 4.00 (259 x 102) | 10.98 (279) | 4.56 (116) | .25 (6) | 4.1 lbs | BP86* |
| FR80804HW FR80804HPL | 9.39 x 9.76 x 4.31 (239 x 248 x 109) | 8.74 x 8.74 x 4.06 (222 x 222 x 103) | 7.91 x 6.00 (201 x 152) | 6.25 (159) | 6.25 (159) | 3.60 (92) | .38 (10) | 10.21 x 6.00 (259 x 152) | 10.98 (279) | 4.56 (116) | .25 (6) | 4.9 lbs | BP88* |
| FR100806HW FR100806HPL | 11.42 x 9.79 x 6.31 (290 x 249 x 160) | 10.73 x 8.73 x 6.06 (273 x 222 x 154) | 9.89 x 6.00 (251 x 152) | 8.25 (210) | 6.25 (159) | 5.60 (142) | .38 (10) | 12.19 x 6.00 (310 x 152) | 12.96 (329) | 6.56 (167) | .25 (6) | 6.2 lbs | BP108* |
| FR121006HW FR121006HPL | 13.45 x 11.83 x 6.31 (342 x 301 x 160) | 12.69 x 10.69 x 6.06 (322 x 272 x 154) | 11.88 x 8.00 (302 x 203) | 10.25 (260) | 8.25 (210) | 5.60 (142) | .38 (10) | 14.18 x 8.00 (360 x 203) | 14.95 (380) | 6.56 (167) | .25 (6) | 8.0 lbs | BP1210* |
| FR141206HW FR141206HPL | 15.44 x 13.86 x 6.34 (392 x 352 x 161) | 14.72 x 12.72 x 6.06 (374 x 323 x 154) | 13.91 x 10.00 (353 x 254) | 12.25 (311) | 10.25 (260) | 5.60 (142) | .38 (10) | 16.21 x 10.00 (412 x 254) | 16.98 (431) | 6.59 (167) | .25 (6) | 10.0 lbs | BP1412* |
| FR141208HW FR141208HPL | 15.44 x 13.86 x 8.34 (392 x 352 x 212) | 14.66 x 12.66 x 8.06 (372 x 322 x 205) | 13.91 x 10.00 (353 x 254) | 12.25 (311) | 10.25 (260) | 7.60 (193) | .38 (10) | 16.19 x 10.00 (411 x 254) | 16.96 (431) | 8.59 (218) | .25 (6) | 12.5 lbs | BP1412* |
| FR161408HW FR161408HPL | 17.58 x 15.96 x 8.34 (447 x 405 x 212) | 16.69 x 14.69 x 8.06 (424 x 373 x 205) | 15.96 x 12.00 (405 x 305) | 14.25 (362) | 12.25 (311) | 7.60 (193) | .38 (10) | 18.26 x 12.00 (464 x 305) | 19.04 (484) | 8.59 (218) | .25 (6) | 13.3 lbs | BP1614* |
| FR181610HW FR181610HPL | 19.77 x 18.15 x 10.34 (502 x 461 x 263) | 18.63 x 16.63 x 10.06 (473 x 422 x 256) | 17.94 x 14.00 (456 x 356) | 16.25 (413) | 14.25 (362) | 9.60 (244) | .38 (10) | 20.24 x 14.00 (514 x 356) | 21.02 (534) | 10.59 (269) | .25 (6) | 20.2 lbs | BP1816* |
| FR201610HW FR201610HPL | 21.79 x 18.16 x 10.34 (554 x 461 x 263) | 20.63 x 16.63 x 10.06 (524 x 422 x 256) | 19.96 x 14.00 (507 x 356) | 18.25 (463) | 14.25 (362) | 9.59 (244) | .38 (10) | 22.26 x 14.00 (566 x 356) | 23.04 (585) | 10.59 (269) | .25 (6) | 21.7 lbs | BP2016* |

All measures are in inches, items in parentheses are in millimeters.

*Panel sold separately.

** Clear cover option available. Consult factory.

*** Screw down cover option available. Consult factory.

**** HLL cover option available. Consult factory.

Freedom | Flush Bonded Window | HPL

HINGED, 2 LOCKABLE PULL LATCHES

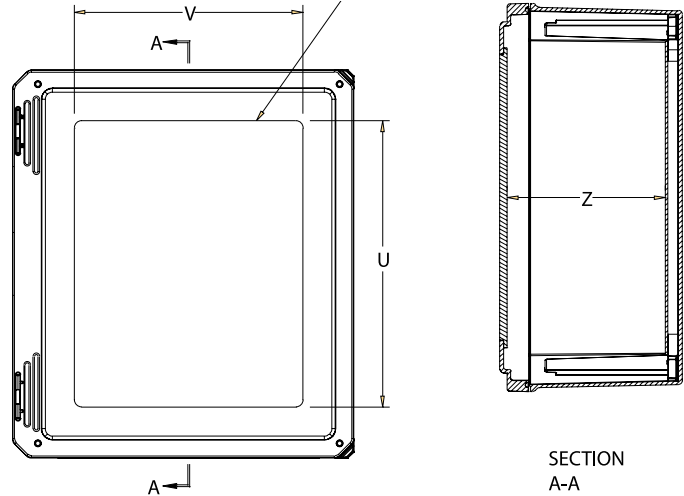


CONSTRUCTION

| | |
|---------------------------------|--|
| Material | Hot Compression Molded Fiberglass Reinforced Polyester (Thermoset) |
| Gasket | Poured Seamless Polyurethane Gasket |
| Window | Acrylic - Super Abrasion Resistant (SAR) |
| Hinge and Latch Hardware | 304 Stainless Steel |

VIEWING WINDOW COVER (FRW)

| SIZE ID NUMBER | U | V | Z |
|------------------|-------------------|-------------------|------------------|
| FRW60604 | 4.25 (107.95) | 4.25 (107.95) | 3.48 (88.26) |
| FRW80604 | 6.25 (158.75) | 4.25 (107.95) | 3.48 (88.26) |
| FRW80804 | 6.25 (158.75) | 6.25 (158.75) | 3.48 (88.26) |
| FRW100806 | 8.25 (209.55) | 6.25 (158.75) | 5.48 (139.19) |
| FRW121006 | 10.25 (260.35) | 8.25 (209.55) | 5.48 (139.19) |
| FRW141206 | 12.25 (311.15) | 10.25 (260.35) | 5.48 (139.19) |
| FRW141208 | 12.25 (311.15) | 10.25 (260.35) | 7.48 (189.99) |
| FRW161408 | 14.25 (361.95) | 12.25 (311.15) | 7.48 (189.99) |
| FRW181610 | 16.25 (412.75) | 14.25 (361.95) | 9.48 (240.79) |
| FRW201610 | 18.25 (463.55) | 14.25 (361.95) | 9.46 (240.28) |



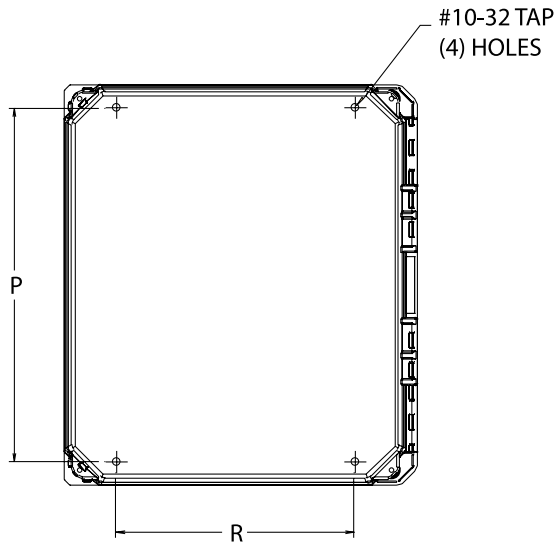
All measures are in inches, items in parentheses are in millimeters.

FREEDOM WINDOW SERIES ENCLOSURES

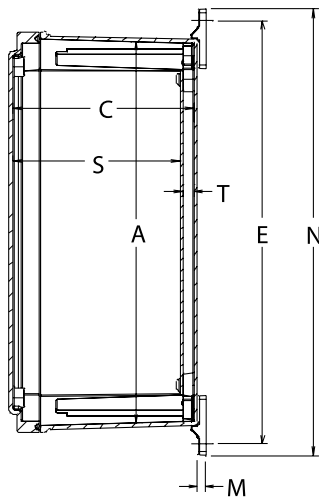
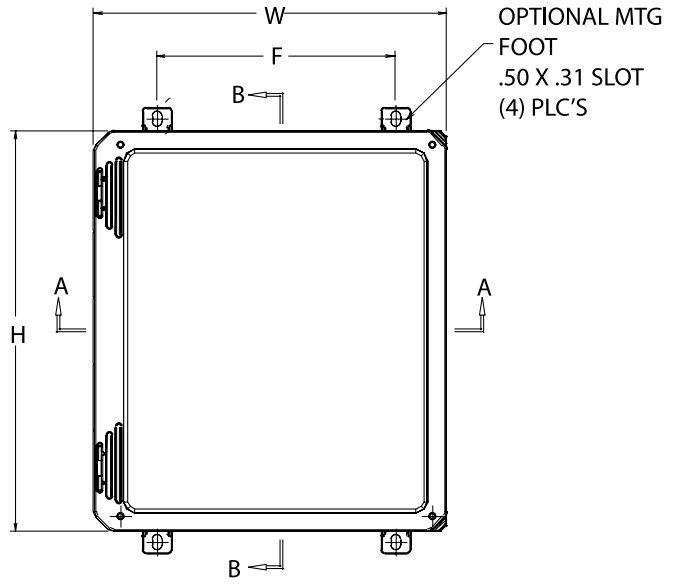
| SIZE ID NUMBER | OVERALL H X W X D | INSIDE A X B X C | MOUNTING P X R | K | L | S | T | OPT. MOUNT. FEET E X F | N | J | M | SHIPPING WEIGHT | PANEL NUMBER |
|---------------------|--|--|------------------------------|----------------|----------------|---------------|-------------|------------------------------|----------------|----------------|------------|-----------------|--------------|
| FRW60604HPL | 7.41 x 7.79 x 4.31 (188 x 198 x 110) | 6.77 x 6.77 x 4.06 (172 x 172 x 103) | 5.93 x 4.00 (151 x 102) | 4.25 (108) | 4.25 (108) | 3.60 (92) | .38 (10) | 8.24 x 4.00 (209 x 102) | 9.02 (229) | 4.56 (116) | .25 (6) | 3.8 lbs | BP66* |
| FRW80604HPL | 9.41 x 7.79 x 4.31 (239 x 198 x 110) | 8.77 x 6.77 x 4.06 (223 x 172 x 103) | 7.91 x 4.00 (201 x 102) | 6.25 (159) | 4.25 (108) | 3.60 (92) | .38 (10) | 10.21 x 4.00 (259 x 102) | 10.98 (279) | 4.56 (116) | .25 (6) | 4.1 lbs | BP86* |
| FRW80804HPL | 9.39 x 9.76 x 4.31 (239 x 248 x 110) | 8.74 x 8.74 x 4.06 (222 x 222 x 103) | 7.91 x 6.00 (201 x 152) | 6.25 (159) | 6.25 (159) | 3.60 (92) | .38 (10) | 10.21 x 6.00 (259 x 152) | 10.98 (279) | 4.56 (116) | .25 (6) | 4.9 lbs | BP88* |
| FRW100806HPL | 11.42 x 9.79 x 6.31 (290 x 249 x 160) | 10.73 x 8.73 x 6.06 (273 x 222 x 154) | 9.89 x 6.00 (251 x 152) | 8.25 (210) | 6.25 (159) | 5.60 (142) | .38 (10) | 12.19 x 6.00 (310 x 152) | 12.96 (329) | 6.56 (167) | .25 (6) | 6.2 lbs | BP108* |
| FRW121006HPL | 13.45 x 11.83 x 6.31 (342 x 301 x 160) | 12.69 x 10.69 x 6.06 (322 x 272 x 154) | 11.88 x 8.00 (302 x 203) | 10.25 (260) | 8.25 (210) | 5.60 (142) | .38 (10) | 14.18 x 8.00 (360 x 203) | 14.95 (380) | 6.56 (167) | .25 (6) | 8.0 lbs | BP1210* |
| FRW141206HPL | 15.49 x 13.86 x 6.34 (393 x 352 x 161) | 14.72 x 12.72 x 6.06 (374 x 323 x 154) | 13.91 x 10.00 (353 x 254) | 12.25 (311) | 10.25 (260) | 5.60 (142) | .38 (10) | 16.21 x 10.00 (412 x 254) | 16.98 (431) | 6.59 (167) | .25 (6) | 10.0 lbs | BP1412* |
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| FRW181610HPL | 19.77 x 18.15 x 10.34 (502 x 461 x 263) | 18.63 x 16.63 x 10.06 (473 x 422 x 256) | 17.94 x 14.00 (456 x 356) | 16.25 (413) | 14.25 (362) | 9.60 (244) | .38 (10) | 20.24 x 14.00 (514 x 356) | 21.02 (534) | 10.59 (269) | .25 (6) | 20.2 lbs | BP1816* |
| FRW201610HPL | 21.79 x 18.16 x 10.34 (554 x 461 x 263) | 20.63 x 16.63 x 10.06 (524 x 422 x 256) | 19.96 x 14.00 (507 x 356) | 18.25 (463) | 14.25 (362) | 9.59 (244) | .38 (10) | 22.26 x 14.00 (566 x 356) | 23.04 (585) | 10.59 (269) | .25 (6) | 21.7 lbs | BP2016* |

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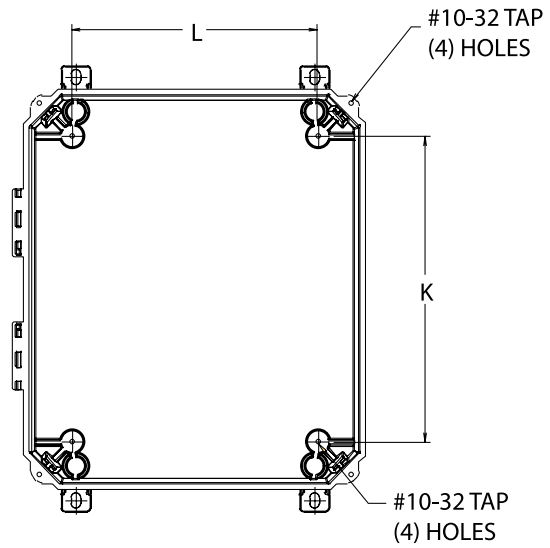
*Panel sold separately.



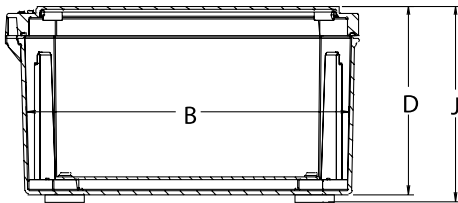
REAR VIEW



SECTION B-B



COVER
REMOVED



SECTION A-A