# PROTEK DOUBLE-HINGED FAN PACKAGES

## INDUSTRY STANDARDS

UL 508A Listed; File Number E61997
cUL Listed per CSA C22.2 No. 94; File Number E61997
Solid Door: Type 3R
Window Door: Type 1

NEMA / EEMAC: Type 1 or 3R
IEC 60529, IP30 or IP 32, IK 10

## APPLICATION

PROTEK Double-Hinged Fan Package cabinets are an excellent, off-the-shelf choice for mounting 19-in. rack, panel-mounted devices or other electronic equipment. An integral top solar/drip shield and thermostatically-controlled fans provide airflow to cool internal equipment. Cabinets are available in UL Type 3R for outdoor use. A UL Type 1 window version is available for indoor applications. The cabinets are designed to provide both front and rear access to 19-in. rack-mounted equipment, while ensuring protection against water, dirt and other contaminants. PROTEK is an excellent choice for applications where space is at a premium and the only option is wall mounting. PROTEK comes in a broad range of sizes, materials and configurations to meet many demanding applications.

## FEATURES

- Front and rear access to 19-in. rack equipment provided by three-part design: door, center section and wall section
- Solid door provides complete physical and visual protection
- Integral top solar/drip shield
- Two thermostatically controlled, long-life, high-performance fans mounted into top
- Window door, made of .25-in. scratch-resistant safety glass and mechanically fastened, provides visual monitoring of internal equipment while maintaining equipment protection
- All seams are fully welded and ground smooth
- Perforated, vented base with internal, expanded metal, serviceable filter
- Door, center section and wall section are provided with ground studs to facilitate proper bonding and grounding of the cabinet
- Premium seamless, foam-in-place gasket prevents contaminants from entering the cabinet
- Keylocking wing knob provides access control to the cabinet; two keys are included with each cabinet
- One set of plated, self-grounding, tapped 10-32 rack angles per EIA universal spacing standards, adjustable front-to-back within the center section of the cabinet
- Additional rack angles in tapped- or square-hole versions can be added to the cabinet
- Wall section welded panel studs which accommodate standard panels (steel and wood available), can be ordered separately

## SPECIFICATIONS

- Doors made of 16 gauge; wall and center sections made of 14 gauge steel
- Integral top with two 6-in. fans powered by 120 VAC via cord with standard NEMA plug, provide 230 CFM of airflow
- Window made of .25-in. safety glass
- Rack angles with 10-32 tapped holes per EIA universal standards are made of 12 gauge plated steel
- Incoming air filter made of expanded aluminum
- M6 door and body ground studs are masked from paint
- Twenty 10-32 rack angle equipment mounting screws included with cabinet
- Foam-in-place gasket made of durable polyurethane
- Inline thermostat turns fans on when temperature exceeds 85 F/30 C

## FINISH

Pretreated steel coated with light-gray, low-gloss, lightly textured RAL 7035 polyester powder

## LOAD RATING

| Height | Rating |
|---|---|
| 24 in. | 250 lb./113.4 kg |
| 36 in. | 300 lb./136.0 kg |
| 48 in. | 350 lb./158.7 kg |

## ACCESSORIES

Locks and handles
Panels (steel and wood)
Grounding kits
Power Distribution Units (PDUs)
Rack angles

## NOTES

Performance data based on:

- Effective measured airflow provided by integral fans is 272 CFM
- Delta T or ΔT (Ambient Temperature – Maximum in-cabinet Temperature)
  - Ambient air must be cooler than maximum in-cabinet temperature
  - For applications that have less than a ΔT of 5 F, use PROTEK with AC unit
- Total Cooling = (Air cooling + Cabinet cooling)
- Air Cooling [Watts = .316 x CFM x ΔT] Cabinet cooling [Watts = (.22 x Area) / ΔT]

**Example:** Cabinet height 24 in. x 24 in. deep with ambient temperature 110 F, with a maximum internal cabinet temperature 120 F (ΔT = 10 F). The cabinet and fans will provide a total cooling capability of 762 Watts or 1300 BTU.

(See Performance Chart)

**BULLETIN: DWDH2**

## Performance Chart **Total Cooling in Watts (BTUs)**

| Delta T | A=24 in. | A=36 in. | A=48 in. |
|---|---|---|---|
| 25F | 2237 (7634) | 2270 (7747) | 2309 (7860) |
| 20F | 1789 (6107) | 1816 (6197) | 1842 (6288) |
| 15F | 1342 (4580) | 1362 (4648) | 1382 (4716) |
| 10F | 895 (3054) | 908 (3099) | 921 (3144) |
| 5F | 447 (1527) | 454 (1550) | 460 (1572) |

See Notes on page 1.

## Technical Fan Data

| Nominal Size | Qty. | Voltage | Amperage 50/60 Hz | Plug | Effective CFM |
|---|---|---|---|---|---|
| 6 in. | 2 | 120 VAC | .90/.72 | Standard NEMA 5-15P | 272 (Clean filter) |

## Standard Product **PROTEK Double-Hinged Solid Door, Type 3R (indoor or outdoor)**

| Catalog Number | in./mm | Rack Units | P in./mm | Q in./mm | Optional Steel Panel | Optional Wood Panel | Additional Rack Angles[a] |
|---|---|---|---|---|---|---|---|
| **PTHS24242G3** | 24.09 x 23.62 x 24.02<br>612 x 600 x 610 | 12 | ---<br>--- | ---<br>--- | CP2020 | CP2020W | PTRA24T or PTRA24S |
| **PTHS36242G3** | 36.30 x 23.62 x 24.02<br>922 x 600 x 610 | 19 | ---<br>--- | ---<br>--- | CP3220 | CP3220W | PTRA36T or PTRA36S |
| **PTHS48242G3** | 48.62 x 23.62 x 24.02<br>1235 x 600 x 610 | 26 | ---<br>--- | ---<br>--- | CP4420 | CP4420W | PTRA48T or PTRA48S |

Cabinet dimensions do not include integral solar/drip shield and fan top. See dimensional drawing.

[a]T=tapped 10-32; S=Square hole (.375 in. x .375 in./10 mm x 10 mm)

Replacement filter part number 10100038

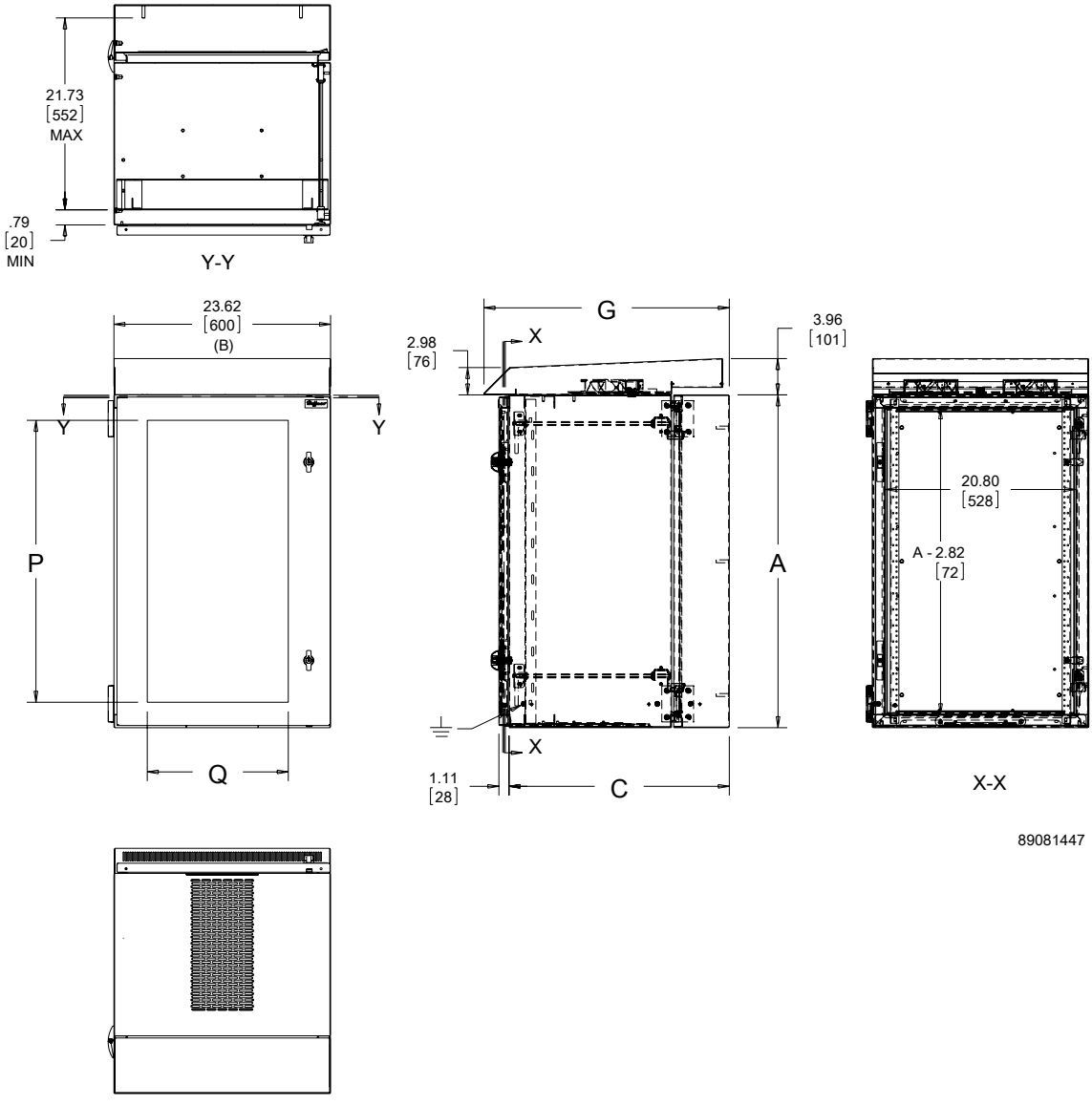
## Standard Product **PROTEK Double-Hinged Window Door, Type 1 (indoor only)**

| Catalog Number | AxBxC in./mm | Rack Units | P in./mm | Q in./mm | Optional Steel Panel | Optional Wood Panel | Additional Rack Angles[a] |
|---|---|---|---|---|---|---|---|
| **PTHW242424GF** | 24.09 x 23.62 x 24.02<br>612 x 600 x 610 | 12 | 18.25<br>464 | 15.38<br>391 | CP2020 | CP2020W | PTRA24T or PTRA24S |
| **PTHW362424GF** | 36.30 x 23.62 x 24.02<br>922 x 600 x 610 | 19 | 30.75<br>781 | 15.38<br>391 | CP3220 | CP3220W | PTRA36T or PTRA36S |
| **PTHW482424GF** | 48.54 x 23.62 x 24.02<br>1233 x 600 x 610 | 26 | 42.70<br>1085 | 15.38<br>391 | CP4420 | CP4420W | PTRA48T or PTRA48S |

Cabinet dimensions do not include integral solar/drip shield and fan top. See dimensional drawing.

[a]T=tapped 10-32; S=Square hole (.375 in. x .375 in./10 mm x 10 mm)

Replacement filter part number 10100038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A - 2.82
[72]
X-X
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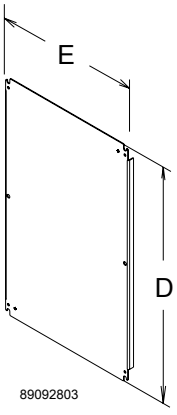
## PROTEK WALL-MOUNT CABINET ACCESSORY PANELS

Where equipment mounting space is limited, Accessory Panels increase cabinet capacity by providing a mounting surface for 19-in. equipment and accessories at the back of the cabinet. The panels mount on collar studs provided in the cabinet. Available in painted mild steel.

BULLETIN: CWP, DWDH2



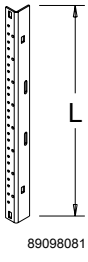

Standard Product

| Catalog Number | Panel Size D x E mm/in. | Gauge |
|---|---|---|
| CP2014 | 462 x 310 | 14 |
| CP2020 | 462 x 462 | 12 |
| CP2442 | 564 x 1021 | 12 |
| CP3220 | 762 x 462 | 12 |
| CP4420 | 1072 x 462 | 12 |
| CP5620 | 1351 x 462 | 12 |

## PROTEK RACK ANGLES

Square- and tapped-hole rack angles fit into PROTEK single-and double-hinged cabinets.

BULLETIN: DWDH2




Standard Product

| Catalog Number | L in./mm | Hole Type | Fits Cabinet Height in./mm | Rack Units |
|---|---|---|---|---|
| PTRA16T | 16.12<br>409 | Tapped | 16.00 | 8 |
| PTRA16S | 16.12<br>409 | Square | 16.00 | 8 |
| PTRA24T | 23.12<br>587 | Tapped | 24.00 | 12 |
| PTRA24S | 23.12<br>587 | Square | 24.00 | 12 |
| PTRA36T | 35.32<br>897 | Tapped | 36.00 | 19 |
| PTRA36S | 35.32<br>897 | Square | 36.00 | 19 |
| PTRA48T | 45.57<br>1157 | Tapped | 48.00 | 26 |
| PTRA48S | 45.57<br>1157 | Square | 48.00 | 26 |
| PTRA60T | 59.07<br>1500 | Tapped | 60.00 | 32 |
| PTRA60S | 59.07<br>1500 | Square | 60.00 | 32 |