

VPL-3300B Commercial Vertical Platform Lift Technical Specifications

MODEL NUMBERS: Unenclosed VPL-3300B Series: Models VPL-3353B and VPL-3375B (DC-powered)
3-Gate VPL-3300B Series: Models VPL-3353B (DC-powered)
Enclosure (by Bruno) VPL-3300B Series: Models VPL-3353B, VPL-3375B,
VPL-3310B, VPL-3312B, and VPL-3314B (DC-powered)
Hoistway (by others) VPL-3300B Series: Models VPL-3353B, VPL-3375B,
VPL-3310B, VPL-3312B, and VPL-3314B (DC-powered)

U.S. F.D.A. CLASSIFICATION: Class II, 510(K) exempt

CLASSIFICATION NUMBER: 890.3930

PRODUCT CODE: PCE

ETL-Intertek C-US Listed: Control Number: 4004689

PERFORMANCE STANDARDS:

ASME A18.1-2011 (Sec. 2) Safety Standards for Platform Lifts and Stairway Chairlifts
ASME A18.1-2014 (Sec. 2) Safety Standards for Platform Lifts and Stairway Chairlifts
ASME A18.1-2017 (Sec. 2) Safety Standards for Platform Lifts and Stairway Chairlifts
CSA B355-09 Lifts for Persons with Physical Disabilities
CSA B355-15 Lifts for Persons with Physical Disabilities (Commercial Application)
CSA B355-19 Platform Lifts and Stair Lifts for Barrier-Free Access (Residential Application)
CSA B44.1-11/ASME A17.5-2011 Elevator and Escalator Electrical Equipment
CSA B44.1-14/ASME A17.5-2014 Elevator and Escalator Electrical Equipment
CSA B44.1-19/ASME A17.5-2019 Elevator and Escalator Electrical Equipment

RATED LOAD: 750 lb (340 kg) maximum

NUMBER OF PASSENGERS: 1 passenger with mobility device

APPLICATIONS: Commercial, Indoors, Outdoors

DRIVE:

- DC battery-powered units:
 - primary drive: 1/2 hp motor, 1750 rpm, 24VDC permanent magnet, 20 full-load amps, continuous duty (VPL-3353B and VPL-3375B)
 - primary drive: 1 hp motor, 1750 rpm, 24VDC permanent magnet, 20 full-load amps, continuous duty (VPL-3310B, VPL-3312B and VPL-3314B)
 - 5A, 24VDC output internal battery charger, 120VAC, 60 Hz, 3A maximum input power required

INTERMEDIATE REDUCTION: dual 4L style poly-V belts and pulleys, 3.94:1 pulley reduction

FINAL DRIVE:

- 1" (25.4 mm) diameter Acme screw with bronze nut and bronze safety back up nut (VPL-3353B & VPL-3375B)
- 1 1/4" (32 mm) diameter Acme screw with bronze nut and bronze safety back up nut (VPL-3310B, VPL-3312B, & VPL-3314B)

MOTOR CONTROLLER:

- DC battery-powered units: 24VDC relay control with 35A circuit breaker and disconnect (VPL-3353B & VPL-3375B)
- DC battery-powered units: 24VDC relay control with 60A circuit breaker and disconnect (VPL-3310B, VPL-3312B & VPL-3314B)

BRAKING:

- DC battery-powered units: precision landing control

STANDARD CONTROL: up and down rocker switch or paddle controls, continuous pressure, key switch control, lighted controls

EMERGENCY STOP SWITCH: red, sealed, 1.55" (39 mm) diameter mushroom head, illuminated with audio alarm, push to stop, pull to reset

SPEED:

- DC battery-powered units: 10 ft/min (0.05 m/s) maximum

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NUMBER OF LANDINGS: 2-Stop (VPL-3353B, VPL-3375B, VPL-3310B, VPL-3312B, and VPL-3314B)
3-Stop (optional for VPL-3310B, VPL-3312B, and VPL-3314B)

MAIN FRAME CONSTRUCTION: welded steel tubular guide construction with formed sheet steel guarding

CARRIAGE CONSTRUCTION: welded carriage with 2.25" (57 mm) diameter front and back sealed dual-ball-bearing wheels and adjustable low-friction plastic side stabilizer guide pads

LIFTING HEIGHT: Model VPL-3353B (Unenclosed, Enclosure, Hoistway and 3-Gate): 53" (1346 mm) maximum floor-to-floor height and 11" (279 mm) minimum floor-to-floor height;
Model VPL-3375B (Unenclosed): 60" (1524 mm) maximum floor-to-floor height and 32" (813 mm) minimum floor-to-floor height
Model VPL-3375B (Enclosure and Hoistway): 75" (1905 mm) maximum floor-to-floor height and 32" (813 mm) minimum floor-to-floor height
Model VPL-3310B (Enclosure and Hoistway): 123" (3124 mm) maximum floor-to-floor height;
Model VPL-3312B (Enclosure and Hoistway): 147" (3734 mm) maximum floor-to-floor height;
Model VPL-3314B (Enclosure and Hoistway): 171" (4343 mm) maximum floor-to-floor height

For pit applications, maximum floor-to-floor is measured from the bottom of the pit to the upper landing. [Check local codes for maximum lifting height for unenclosed applications. ASME A18.1 (Sec. 2.7.1) limits maximum floor-to-floor to 60" (1524 mm).]

PLATFORM CONSTRUCTION: totally enclosed side walls consisting of 1" (25 mm) tubular framing and sheet metal siding

ENCLOSURE CONSTRUCTION: aluminum frame with Plexiglas and steel panels

UNDER CARRIAGE SAFETY: totally enclosed bottom formed steel safety pans for unenclosed applications only

AUTOMATIC LOWER RAMP: 16" (406 mm) long self-lowering ramp (standard on unenclosed applications)

EMERGENCY LOWERING: external lockable keyed switch for lowering platform by means of a separate battery located inside the electrical enclosure (models VPL-3310B, VPL-3312B, and VPL-3314B)

FINISH: exterior grade powder coat paint (standard color is champagne with anti-skid graphite gray platform floor and ramp)
E-coated legs, platform and landing gate parts
E-coated enclosure parts made of steel

LIMIT SWITCHES: adjustable upper and lower limit switches; upper and lower final limit switches

MANUAL LOWER DEVICE: optional; manual hand crank to lower device available; access to adaptive shaft via safety interlocked top cap

REMOTE CONTROL: optional; station includes a separate landing call/send rocker switch or paddle controls and a keyed on/off switch

LOWER LANDING GATE (3-Gate): standard; includes Bruno mechanical interlock which releases door, only when platform is at lower landing; electronic sensors stop platform from operating unless door is closed; also includes call/send rocker switch or paddle controls and keyed on/off switch mounted into gate frame or remote mount

TOP LANDING GATE: optional; includes Bruno electrical mechanical interlock (EMI) or electric strike interlock (ESI) which releases door, only when platform is at upper landing; electronic sensors stop platform from operating unless door is closed; also includes call/send rocker switch or paddle controls and keyed on/off switch mounted into gate frame or remote mount; steel, clear Plexiglas, or bronze Plexiglas insert panels

PLATFORM GATE (Unenclosed & 3-Gate): standard; includes Bruno electrical mechanical interlock which releases door, only when platform is at lower landing. Electronic sensors stop platform from operating unless door is closed

FLUSH MOUNT DOOR: optional; includes electric strike interlock (ESI) which releases door only when platform is at door landing; electronic sensors stop platform from operating unless door is closed; offered as an oak door with steel frame (no fire rating) or a steel door with steel frame (90 min. fire rating including a viewing window); delay action hydraulic closer; keyed ESI for bypass entry; also available in an aluminum frame and door with clear or bronze panels

STATIONARY RAMP (Hoistway): optional; 24" L x 36" W x 3" H (610 mm L x 914 mm W x 76 mm H) aluminum stationary ramp with anti-skid graphite gray powder coat.
(3-Gate): standard; 24" L x 41" W x 3" H (610 mm L x 1041 mm W x 76 mm H) aluminum stationary ramp with anti-skid graphite gray powder coat.
(Enclosure – 36" Door): standard; 24" L x 42" W x 3" H (610 mm L x 1067 mm W x 76 mm H) steel stationary ramp with E-coated anti-skid graphite gray powder coat.
(Enclosure – 45" Door): standard; 24" L x 51" W x 3" H (610 mm L x 1295 mm W x 76 mm H) steel stationary ramp with E-coated anti-skid graphite gray powder coat.

WEIGHT OF UNIT:

- **DC battery-powered units:**
 - Model VPL-3353B: 857 lb (388 kg) (without batteries) (with batteries +40 to 80 lb /18 to 36 kg)
 - Model VPL-3375B: 930 lb (422 kg) (without batteries) (with batteries +40 to 80 lb /18 to 36 kg)
 - Model VPL-3310B: 1210 lb (549 kg) (with batteries)
 - Model VPL-3312B: 1304 lb (591 kg) (with batteries)
 - Model VPL-3314B: 1400 lb (635 kg) (with batteries)

- **All Models:**
 - Top Landing Gate Option: 99 lb (45 kg)
 - Top Landing Wide Gate Option: 108 lb (49 kg)

- **3-Gate:**
 - Lower Landing Gate and Walls: 130 lb (59 kg)

- **Enclosure (used with a Gate on the top landing):**
 - Enclosure Walls, Full Height Door, and Ramp: 520 lb (236 kg) (model VPL-3353B)
 - 600 lb (272 kg) (model VPL-3375B)
 - 680 lb (308 kg) (model VPL-3310B)
 - 760 lb (345 kg) (model VPL-3312B)
 - 840 lb (381 kg) (model VPL-3314B)

TESTING PERFORMED:

- 1) life cycle test performed at manufacturer's location
- 2) ASME A18.1 (Sec. 2) and CSA B355 code tests performed at manufacturer's location

OPTIONS:

- 1) tool for manual lowering device
- 2) telephone kit (ADA compliant with battery backup)
- 3) battery package upgrade - 34 AH battery package (VPL-3353B and VPL-3375B)
- 4) cold-weather package [recommended if operating temperature is below 20°F (-7°C)]
- 5) pit switch
- 6) door/gate operator (used for power-assisted top landing door/gate, lower landing gate on 3-Gate, and lower landing door on enclosure)
- 7) platform gate operator (used for power-assisted platform gate on unenclosed models)
- 8) single timer (used with electric strike interlocks on 3-stop middle landing)
- 9) flood zone tower (electronics and batteries located on top section of tower)
- 10) flood sensor kit

VPL Job Site Preparation

The following is a list of general operations designed to prepare the job site for installation of the VPL. This list is provided as a guide to help the installer. For a complete list of requirements check the installation site's applicable local codes.

Electrical Requirements:

- **DC battery-powered units:** Check applicable local codes for all electrical and wiring requirements. If it is determined that a GFI (Ground Fault Interrupter) outlet is required; use a GFI 120V, 15A, 60 Hz single phase circuit to operate the internal battery charger (charger draws 3A max.). National Electrical Code requires a GFI is used in all outdoor or wet environment applications.

Platform Pathway Requirements:

Make sure the pathway that the platform runs in is clear of any electrical conduit and wire ways. Make sure no liquids, steam or gas piping discharge into the pathway, and make sure that there is sufficient headroom clearance (minimum of 80"– 2032 mm) throughout floor-to-floor travel. Make sure the area is sufficiently lit.

Floor Recommendations:

4" (102 mm) thick, 3500 PSI minimum compressive strength, reinforced concrete slab. Refer to technical drawings for minimum slab dimensions. If the temperature can fall below freezing, it is recommended that you insert an insulation sheet between the concrete slab and the compacted rock.

Floor Attachment:

VPL must be fastened to concrete slab using four (4) 1/2" (3/8" bolt) x minimum 2-1/2" long concrete anchors suitable for the environment. Refer to technical drawings for mounting hole locations. Follow selected concrete anchor manufacturer's guidelines and applicable codes.

Housing Attachment:

Unenclosed: None required. Can use 5/16-18 tapped holes on tower frame work to fasten the tower housing to a vertical wall for additional stability. Note: Housing must remain intact.

3-Gate: Lower landing walls must be secured to the house (fascia) with the brackets provided. Note: Housing must remain intact.

Hoistway (by other): Use 5/16-18 tapped holes on tower frame work to fasten the tower housing to a vertical wall near or above the upper landing (200 lb/91 kg wall loading). Mounting brackets are supplied with unit.

Lower Landing Gate Attachment (3-Gate):

Refer to 3-Gate technical drawing (see below).

Top Landing Gate Attachment:

Refer to VPL gate technical drawing (see below).

Flush Mount Door Attachment:

Refer to VPL flush mount door detail drawing (see below).

Space Requirements:

Refer to technical drawings (see below).

Platform-to-Top Landing Sill Clearance:

ASME code indicates the platform floor-to-sill clearance at the upper landing shall not be less than 3/8" (9.5 mm) nor exceed 3/4" (19 mm). Follow applicable local codes.

Fascia Wall Requirements:

ASME code indicates that fascia should be smooth and non-perforated that guards the full length and width of the platform. The fascia shall be securely fastened from the upper landing sill down to the lower landing sill. It should also be able to withstand a 125-pound side load over any 4-inch square area. Follow applicable local codes.

Technical Drawings (available at www.bruno.com):

Gates and Doors

- ILS-00804 Gate Installation Framing
- ILS-00938 Top Landing Gate Detail
- ILS-01027 Flush Mount Door Detail with a Wood or Steel Door
- ILS-01194 Flush Mount Aluminum Door with Clear or Bronze Panels

Unenclosed - Models VPL-3353B and VPL-3375B

- ILS-01102 Unenclosed Straight-Through Platform With Platform Gate (No Pit)
- ILS-01103 Unenclosed Straight-Through Platform With Platform Gate (Pit Application)
- ILS-01104 Unenclosed 90°/Adjacent-Exit Platform With Platform Gate (No Pit)
- ILS-01105 Unenclosed 90°/Adjacent-Exit Platform With Platform Gate (Pit Application)

Partial Enclosure (3-Gate) - Model VPL-3353B

- ILS-01154 Enclosed Straight-Through Platform With 3-Gate (Pit Application)
- ILS-01155 Enclosed Straight-Through Platform With 3-Gate (No Pit)

Hoistway - Models VPL-3353B, VPL-3375B, VPL-3310B, VPL-3312B, and VPL-3314B

- ILS-01176 Hoistway Straight-Through Platform (No Pit)
- ILS-01177 Hoistway Straight-Through Platform (Pit Application)
- ILS-01178 Hoistway 90°/Adjacent-Exit Platform (No Pit)
- ILS-01179 Hoistway 90°/Adjacent-Exit Platform (Pit Application)
- ILS-01253 Hoistway Same Side Platform (No Pit)
- ILS-01254 Hoistway Same Side Platform (Pit Application)

Enclosure - Models VPL-3353B and VPL-3375B

- ILS-01215 Enclosure Straight-Through Platform (No Pit)
- ILS-01216 Enclosure Straight-Through Platform (Pit Application)
- ILS-01241 Enclosure 90°/Adjacent-Exit Platform (No Pit)
- ILS-01242 Enclosure 90°/Adjacent-Exit Platform (Pit Application)

Enclosure – Models VPL-3310B, VPL-3312B, and VPL-3314B

- ILS-01277 Enclosure Straight-Through Platform (No Pit)
- ILS-01278 Enclosure Straight-Through Platform (Pit Application)
- ILS-01289 Enclosure Same Side Platform (No Pit)
- ILS-01290 Enclosure Same Side Platform (Pit Application)
- ILS-01318 Enclosure 90°/Adjacent-Exit Platform (No Pit)
- ILS-01319 Enclosure 90°/Adjacent-Exit Platform (Pit Application)