



YASKAWA

UL Type 3R Package



Overview

The UL Type 3R Package is specifically designed for Adjustable Frequency Drives, such as Yaskawa's E7, F7, G7, P7, and iQpump models.

A new benchmark for performance, benefits and quality, the UL Type 3R Package includes numerous built-in features to accommodate outdoor installations.

The UL Type 3R Package is designed for applications such as Cooling Towers, Rooftop AHUs or Exhaust Fans, Irrigation Pumps and Water/Wastewater Pumps.

Designed to operate in ambient temperatures up to 104°F without air conditioning with space for several commonly used options, makes this the preferred outdoor duty package for adjustable frequency drives.

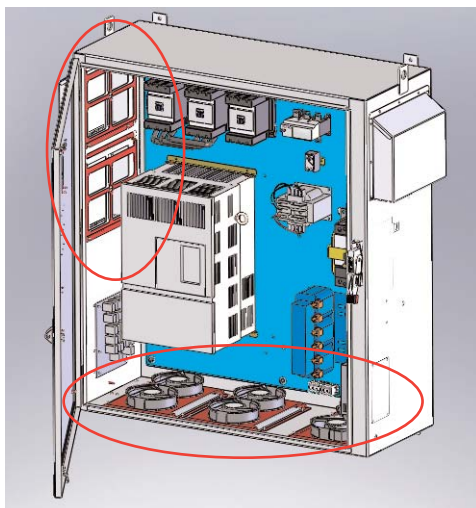
Standard Features include:

- 12 Gauge Steel Construction
- Integral ¼ Turn Door Latches
- Padlock Hasp
- UV / Type 3R Keypad Membrane
- Powder Coat White Paint
- Whole Door Gasket
- Stainless Steel Hardware

There are many standard features of the Yaskawa UL Type 3R Package.

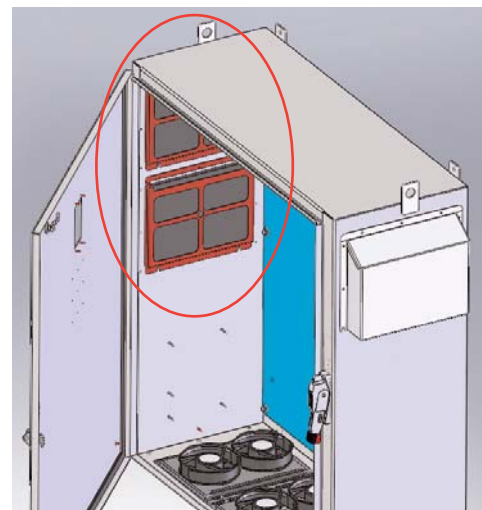
- Meets UL50, File No. E143427, Type 3R for outdoor use to provide a degree of protection against falling rain; undamaged by the formation of ice on the enclosure

• The areas highlighted in red use the same filter media. This decreases the number of filter media part numbers which lowers cost of ownership. The filter media is easy to replace which lowers the overall maintenance cost of this outdoor duty package.

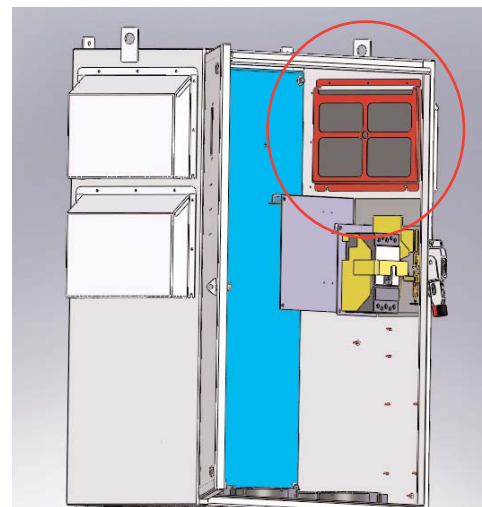


Inside View

- Dual ground lug - one lug for earth ground, one lug for utility ground.
- Standard practice in the Yaskawa UL Type 3R Package is to provide filter media at enclosure exhaust ports. The filter media brackets include integral filter supports as highlighted in red below.



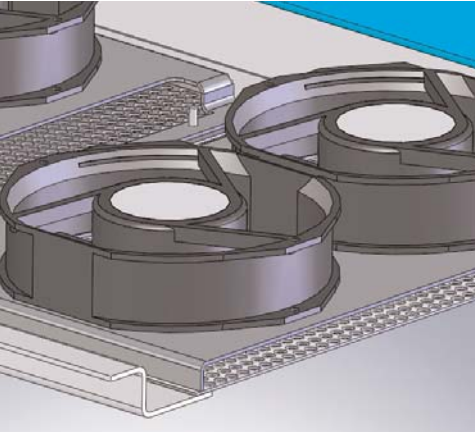
Inside Left View



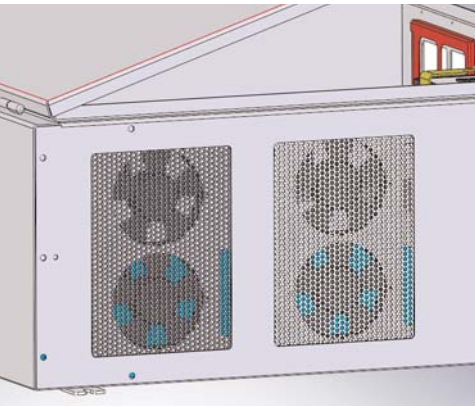
Inside Right View

Construction

- Protecting the cabinet cooling fans in an outdoor duty enclosure is a top priority. A screen is provided to go between the fan bracket and the enclosure bottom to prevent small items from damaging the filter media or blocking fan operation.

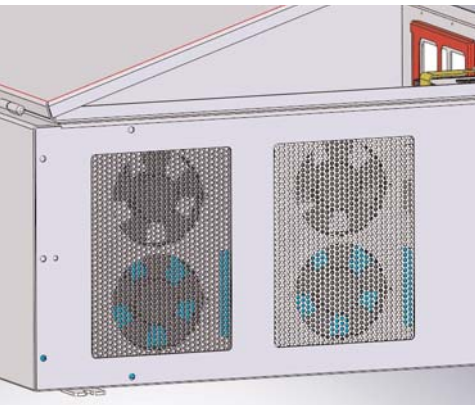


Inside Bottom View



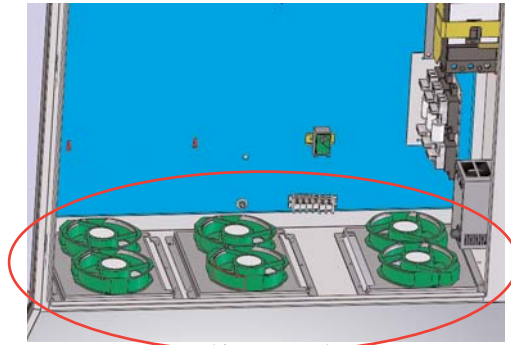
Outside Bottom View

- The filter media can be inserted into the fan bracket to protect the UL Type 3R Package from dusty environments.



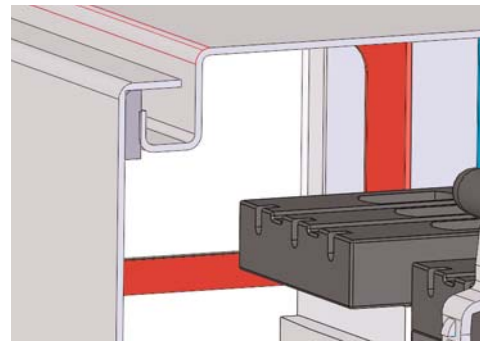
Outside Bottom View

- The UL Type 3R Package is designed to operate in a 0°F to 104°F ambient temperature range. A standard option is a 0°F to 122°F (50°C) ambient temperature range. This UL Type 3R Package is designed to operate at either temperature range without air conditioning due to the thermostatically controlled cabinet cooling fans highlighted in green. Derating the adjustable frequency drive is not required.



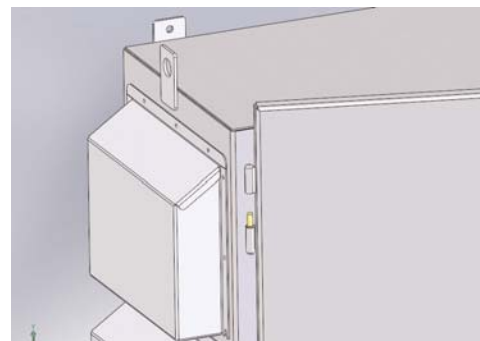
Inside Bottom View

- Enclosure top flange channels water away from the door gasket to prevent gasket saturation and possible water ingress to internal electrical components.



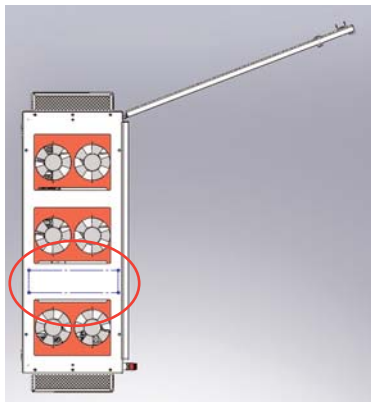
Enclosure Top Flange Cut-a-Way

- Lift-off door hinges with brass pins provide improved security and weather protection as well as easier access than a traditional piano hinge.



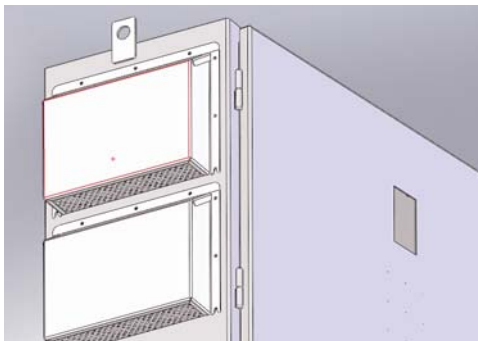
Outside Upper Left Corner

- Bottom conduit entry is available without pre-determined knockouts, to provide an added degree of protection from the weather elements for input power wiring, motor wiring, and control circuits. This configuration provides flexible installation options for the electrician. See recommended conduit entrance area highlighted with blue dashed line.



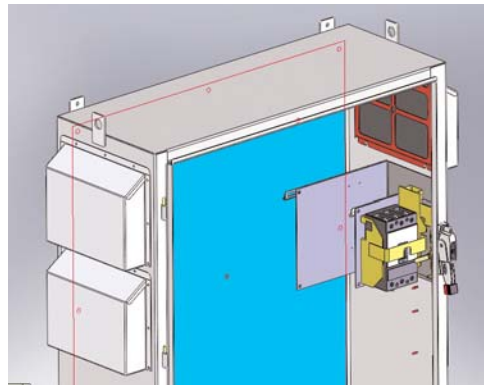
Outside Bottom View

- Rain hoods with screens prevent falling rain and small items from entering the exhaust.

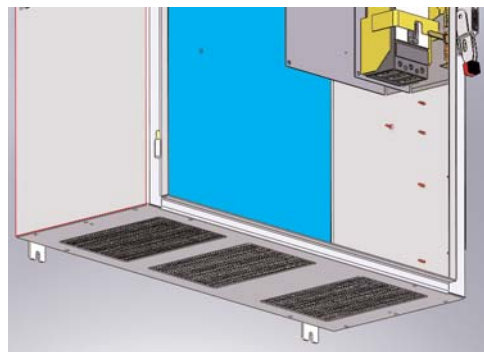


Outside Left View

- A standard part of the UL Type 3R Package are the integral lifting tabs provided on the side of enclosure to facilitate the physical installation without blocking access to the mounting holes. The bottom mounting holes are slotted to "rest" the UL Type 3R Package on the bottom two bolts until the top two bolts can be aligned.

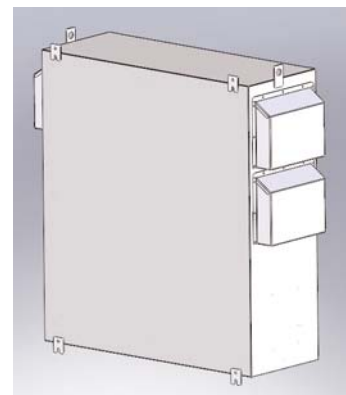


Inside Bottom View



Outside Bottom View

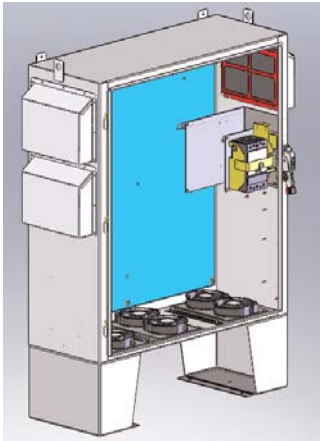
- Because of its flush back, the UL Type 3R Package can be mounted to many vertical surfaces, including, but not limited to, concrete or brick wall, cooling tower frame, or field-constructed bracket.



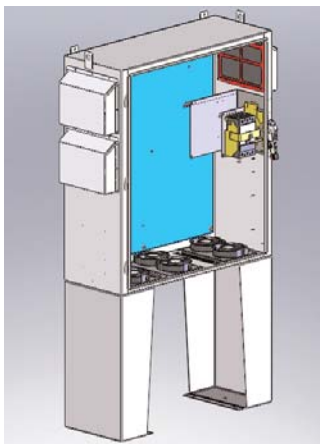
Rear View

Options

When vertical surfaces are limited, optional leg kits are available for the UL Type 3R Package to become a freestanding installation. An optional 12" Leg Kit or 30" Leg Kit is available as shown below.



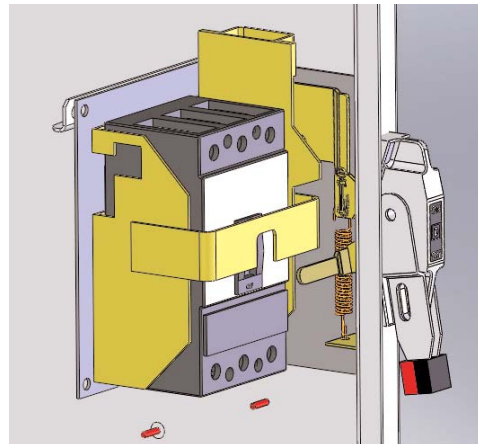
12" Leg Kit



30" Leg Kit

The following are UL Type 3R package options:

- Service Entrance Rated Disconnect
- Space Heater with Thermostat - maintains the internal cabinet temperature to reduce condensation
- NEC branch circuit protection device for input power with flange-mounted operating handle (as shown below)
- Surge Suppressor - adds a degree of protection to the UL Type 3R Package from transient surges coming through the power line cables. Lightning strikes are the most common source of surges
- Custom Engraved Nameplates - white lettering on black lamicon is available
- Drive Keypad Internal - the digital drive keypad will be mounted inside the UL Type 3R Package on the Adjustable Frequency Drive
- Drive Keypad Viewing Window - the digital drive keypad is mounted on the outside of the UL Type 3R Package door. This option provides a viewing window which is hinged and lockable



Service Entrance Rated Disconnect

www.yaskawa.com



Yaskawa Electric America, Inc.
2121 Norman Drive South
Waukegan, IL 60085

800-YASKAWA (927-5292) Fax: 847-887-7310
DrivesHelpDesk@yaskawa.com

Bulletin BL.N3R.01 © 2008 Yaskawa Electric America, Inc. 12/01/08