GREAT LAKES CASE & CABINET
Invest in Solid Engineering

SPECIFICATION GUIDELINES FOR WM18 ENCLOSURE

Includes enclosures with the following prefixes or series:

GLN4-WM18PCR
GLN4X-WM18S4S
GLN4X-WM18S6S
GLN4X-WM18P4S
GLN4X-WM18P6S
GLN4X-WM18PAL

Full Specification
General
Enclosure dimensions can range from
6”H x 6”W x 4”D to 84”H x 36”W x 30” D

WM18 Enclosure An enclosure including the long definitions of the WM18 FAMILY and WM18 SERIES as further described below.

WM18 Family Enclosures must meet the WM18 FAMILY long definition. The long definition of WM18 FAMILY is defined as an enclosure that has wall mount features or capabilities, rapid tool-less release concealed hinge(s), quarter-turn latch(s), and a removable single front hinged door. This FAMILY is mostly symmetrical in its features allowing for rotation of the enclosure 180-degrees resulting with its front single door opening in either the left or right position. This operation creates a hinged left or hinged right door depending on desired location.

WM18 Series Enclosures must also meet the WM18 SERIES long definition. The long definition of a WM18 SERIES includes information about the highest or maximum tested and approved NEMA TYPE RATING of the enclosure which is specified by an acronym which identifies the TYPE RATING (e.g., N4X, meaning NEMA Type 4X is the maximum tested rating of the enclosure series). Series also include the family name acronym (e.g., WM18) and the primary finish and material acronym (e.g., PCR). In this example PCR stands for RAL 7035 Light Gray Powder Coated Cold Rolled Steel. The prefixes of the enclosures listed above under the main heading of this document also identify a WM18 SERIES of enclosures within the WM18 FAMILY.

Industry Standards WM18 Enclosures will meet multiple industry standards and shall include a label clearly identifying the standards met. The WM18 FAMILY and the corresponding SERIES within the FAMILY are labeled to industry standards as identified below:

GLN4-WM18PCR or all outdoor-rated powder-coated cold rolled steel series in this family shall be tested and approved to UL, cUL, NEMA, and IEC industry standards as listed below:

UL 508A Listed; Type 1, 2, 3R, 4, 5, 12, 12K
cUL Listed per CSA C22.2, No. 14; Type 1, 2, 3, 3R, 4, 5, 12, 12K
NEMA; Type 1, 2, 3R, 4, 5, 12, 12K
IEC 60529; IP 65, IP 66

GLN4X-WM18S4S and *GLN4X-WM18S6S* or all outdoor-rated passivated or clean manufactured stainless steel (304 or 316) series in this family shall be tested and approved to UL, cUL, NEMA, and IEC industry standards as listed below:

UL 508A Listed; Type 1, 2, 3R, 3RX, 4, 4X, 5, 12, 12K
cUL Listed per CSA C22.2, No. 14; Type 1, 2, 3, 3R, 3RX, 4, 4X, 5, 12, 12K
NEMA; Type 1, 2, 3R, 3RX, 4, 4X, 5, 12, 12K
IEC 60529; IP 65, IP 66

GLN4X-WM18P4S and *GLN4X-WM18P6S* or all outdoor-rated powder coated stainless steel (304 or 316) series in this family shall be tested and approved to UL, cUL, NEMA, and IEC industry standards as listed below:

UL 508A Listed; Type 1, 2, 3R, 3RX, 4, 4X, 5, 12, 12K
cUL Listed per CSA C22.2, No. 14; Type 1, 2, 3, 3R, 3RX, 4, 4X, 5, 12, 12K
NEMA; Type 1, 2, 3R, 3RX, 4, 4X, 5, 12, 12K
IEC 60529; IP 65, IP 66

GLN4X-WM18PAL or all outdoor-rated powder coated aluminum series in this family shall be tested and approved to UL, cUL, NEMA, and IEC industry standards as listed below:

UL 508A Listed; Type 1, 2, 3R, 3RX, 4, 4X, 5, 12, 12K
cUL Listed per CSA C22.2, No. 14; Type 1, 2, 3, 3R, 3RX, 4, 4X, 5, 12, 12K
NEMA; Type 1, 2, 3R, 3RX, 4, 4X, 5, 12, 12K
IEC 60529; IP 65, IP 66

Material Thickness or Gauge Allowable minimum thicknesses required by designated industry standards and requirements for supporting internal and external accessory mounting provisions.

Body Wrap Typical enclosure features a body wrap with rear or back formed with a left and right side; each side includes enclosure opening return flanges consisting of three (3) flanges or forms. The back of the body wrap will have four (4), ½-inch wall mounting holes near each

corner and four (4), COLLAR STUD 5/16-18 .75 STANDOFF W/ 5/8 THREAD for mounting internal back panels and other internal accessory options. The wrap will also include a total of eight (8), #10-32 x 3/8”L PEM STUDS or 10-32 CD STUDS available for mounting internal accessory options; there are two (2) sets of two (2) studs per side near where corner of enclosure exists. The material of the PEM and CD hardware shall be acceptable per requirements of the industry standards met as described by the series (e.g.; GLN4X-WM18S4S will get stainless steel hardware, not zinc plated steel or steel hardware).

Top Wrap Typical enclosure features a top wrap continuously seam welded to the top of the body wrap. The front of wrap includes a return flange consisting of three (3) flanges or forms similar to the body wrap and welded to the corners of the body wrap. The top wrap will also include a total of four (4), #10-32 x 3/8”L PEM STUDS or 10-32 CD STUDS available for mounting internal accessory options; there are one (1) set of two (2) studs per side near where corner of enclosure exists. The material of the PEM and CD hardware shall be acceptable per requirements of the industry standards met as described by the series (e.g.; GLN4X-WM18S4S will receive stainless steel hardware, GLN4-WM18PCR zinc plated steel hardware, and GLN4X-WM18PAL aluminum or stainless hardware).

Bottom Wrap Typical enclosure features a bottom wrap continuously seam welded to the bottom of the body wrap. The front of wrap includes a return flange consisting of three (3) flanges or forms similar to the body wrap and welded to the corners of the body wrap. The bottom wrap will also include a total of four (4), #10-32 x 3/8”L PEM STUDS or 10-32 CD STUDS available for mounting internal accessory options; there are one (1) set of two (2) studs per side near where corner of enclosure exists. The material of the PEM and CD hardware shall be acceptable per requirements of the industry standards met as described by the series (e.g.; GLN4X-WM18S4S will receive stainless steel hardware, GLN4-WM18PCR zinc plated steel hardware, and GLN4X-WM18PAL aluminum or stainless hardware).

Door Typical enclosure features a removable front hinged door. The door includes integrated formed hinge barrels manufactured during the forming process. Doors include multiple hinging locations based on requirements of industry standards met. Most doors will include at least two hinge barrel sets, each set is two barrels spaced approximately 1-inch apart. Each door shall include a ground stud. Ground studs shall be 1/4-20 x 5/8”L copper PEM or CD studs on cold rolled steel enclosures and 1/4-20 x 5/8"L 300-Series stainless steel without flange on stainless steel enclosures. Stainless steel or copper studs can be used on aluminum enclosures. In addition to the ground stud there shall be five (5) accessory mounting PEM or CD weld studs included on the door for various accessory options. These studs shall be consistent with the industry standard ((e.g.; GLN4X-WM18S4S will receive stainless steel hardware, GLN4-WM18PCR zinc plated steel hardware, and GLN4X-WM18PAL aluminum or stainless hardware).

Hinges Typical enclosure features bolt-on concealed hinges with rapid tool-less release hinge pins. The hinges, pins, and hardware are made of stainless steel for all series of WM18 family enclosures. Each pin shall include a dual-ball spring detent designed to secure pins in place to prevent removal in normal installation conditions. These pins shall be easily removable with common tools or without tools. Each pin has an added security hole designed

to accept a 5/64” diameter, 3.8”L slotted spring pin. This spring pin locks the hinge pin in place after installation preventing removal due to excessive vibration or tampering. Multiple hinges shall be used to meet industry standards based on distances between hinges and the overall height of the door and enclosure. Hinges shall meet industry standards applied to the enclosure for compression of gaskets assisting in the sealing of doors to the body of the enclosure.

Latching Typical enclosure features one or more quarter-turn latches based on the requirements of the industry standard. Each quarter-turn latch will include an external sealing washer and up to two internal o-rings to meet a minimum IP 65 and IP 66 rating. The quarter-turn latch must maintain the maximum type rating applied to the enclosure. Latching shall meet industry standards for compression of gaskets assisting in the sealing of doors to the body of the enclosure. Cam shoes and other means to maintain proper compression are acceptable. Alternative handles, padlocking features, and other latching options can be used to within the industry standard required. Latching must meet all applicable industry standards applied to the enclosure.

Gaskets Typical enclosure shall include a ¼” x ¾” PORON gasket with industry approved adhesive used to seal the gasket in the corners and to the door of the enclosure. Gaskets must meet all applicable industry standards applied to the enclosure.

Welds Typical enclosure features continuously seam welded corners that shall be grinded and buffed to a uniform radius providing a smooth transition between the faces of the enclosure. Enclosure welds are used to seal the enclosure and shall be tested with an air tight test after the welding and all grinding is completed. Welds must meet applicable industry standards applied to the enclosure after grinding is complete.

Finish Typical enclosure features finishes that are unique to each series. All bare stainless steel enclosure series shall be passivated or manufactured in a stainless steel only area to limit impurities from other manufacturing processes and materials. All other enclosure will be powder-coated with outdoor-rated material per requirements of the industry standards. Hardware used in the enclosure shall be protected with masking or caps to insure operational post finishing processes.

Hardware Package Typical enclosure features a loose mounting hardware package which includes sets of four (4) BUTTON PLUG, 1/2” FLUSH TYPE BLACK BPF; four (4) WASHER 3/8 SEALING; four (4) BOLT, 3/8"-16 X 1" HEX HD; four (4) 3/8-16 FLANGE HEX NUT; and four (4) 5/64”D x 3/8”L SLOTTED SPRING PINS. Hardware shall be stainless steel 300 Series in all Type 4X rated enclosures. Hardware shall be zinc plated hardware in all Type 4 rated enclosures.

Labels Typical enclosure features three (3) labels. Label one (1) is a Great Lakes Manufacturing Part Number Label; label two (2) is a UL Serialized Great Lakes Manufacturing UL label with the appropriate UL ratings listed; and label three (3) is NEMA Type Specific label.