LARSON ELECTRONICS
9419 US-175
Kemp, TX 75143 USA

INSTALLATION, OPERATION & MAINTENANCE DATA SHEET
SERIES USF JUNCTION BOXES
Increased Safety Terminal Enclosures For Use In Zone Classified Hazardous Locations



EPL-AEH-SS SERIES JUNCTION BOXES Increased Safety Terminal Enclosures For Use In Zone* Classified Hazardous Locations

CE 0518 Ex **SIRA 14 ATEX 3157**
IECEx SIR 14.0054

*** - Suitable For Use In Division Classified Locations Based On Equivalency - See North American Certification Ratings Below**

C SA US

General Safety Information:

CAUTION:

Before installing, make sure you are compliant with area classifications, failure to do so may result in bodily injury, death and property damage. Do not attempt installation until you are familiar with the following procedures. All installation must comply with the applicable Electrical Code.

Make sure that the circuit is De-energized before starting installation or maintenance.
Verify that the installation is grounded. Failure to ground will create electrical shock hazards, which can cause serious injury and or death.

IMPORTANT:

Please read these instructions carefully before installing or maintaining this equipment. Good electrical practices should be followed at all times and this data should be used as a guide only.

Technical information, advice and recommendations contained in these documents is based upon information that Larson believes to be reliable. All the information and advice contained in these documents is intended for use only by persons having been trained and possessing the requisite skill and know-how and to be used by such persons only at their own discretion and risk. The nature of these instructions is informative only and does not cover all of the details, variations or combinations in which this equipment may be used, its storage, delivery, installation, check out, safe operation and maintenance. Since conditions of use of the product are outside of the care, custody and control of Larson, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection therewith.

Application Information

a: The enclosure forms the basis for certification of a unit or protection system for use in hazardous areas other than Zone 0 (Class I Div. 1).

b: All internal components mounted in these Junction Box enclosures should be ATEX and IECEx Certified , and Listed or Recognized for CANADA and US, for the application.

c: All components must be installed in accordance with the component manufacturer's installation instructions.

d: A complete Junction Box should be installed using supply wiring methods (including grounding) in accordance with the local/jurisdictional electrical code(s).

e.: A 1/4-20 UNC (M6) ground / earthing stud is supplied on all Series USF enclosures.

f: To maintian proper IP ratings, be sure to follow all mfr's. mounting instructions when installing certified cable glands or conduit entries.

Warning: *Enclosures* ***must be*** *installed in the upright vertical position only. Mounting the enclosures in a horizontal position could cause a fire or explosion due to excessive dust / heat build-up.*

CATALOG LOGIC:

USF	12 12 06	*	W	S	1	6	GP1234	*
1	2	3	4	5	6	7	8	9

1. SERIES DESIGNATOR

2. ENCLOSURE SIZE - L x W x D (inches)

3. MATERIAL
Blank = 316 Stainless Steel
S = 304 Stainless Steel
C = Carbon Steel (Painted)

4. TERMINAL MANUFACTURER
W = Weidmuller
A = ABB
P = Phoenix
G = WAGO
K = Klemsan Elektrik

5. TERMINAL TYPE
S = Screw
C = Cage Clamp

6. NUMBER OF ROWS (OF TERMINALS)

7. TERMINAL BLOCK SIZE
1 = 1.5 mm^2 (#14 AWG) 2 = 2.5 mm^2 (#14 AWG)
4 = 4 mm^2 (#12 AWG) 6 = 6 mm^2 (#10 AWG)
10 = 10 mm^2 (#8 AWG) 16 = 16 mm^2 (#6 AWG)
35 = 35 mm^2 (#2 AWG)
For Larger Sizes : Please Contact Customer Service

8. GLAND PLATE LOCATOR
0 = None 1 = Bottom 2 = LHS 3 = Top 4 = RHS

9. OPTIONS (See Catalog)

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Enclosure and Cover Installation Instructions

WARNING: Enclosures that are powder coated have a potential electrostatic charging hazard. Wipe the enclosure down with a moist cloth before servicing.

a: Using a screwdriver with a #2 Phillips Head, a Standard Slotted or Robertson style head, remove the cover screws. Securely fasten the enclosure to the mounting location, using up to a 1/4" (M6) diameter steel bolt and washer. The mounting location must be flat and provide proper clearance, rigidity and strength to support the enclosure and all contained devices. Mounting dimensions are shown in this document.

b: Install Internal Components per the Mfrs. installation instructions. (See **"Wiring and Terminal Block"** and **"Cable Gland / Conduit Entry" Installation Instructions** Sections below).

c: Grounding connections are available at the din rail, earth continuity plate and internal- external ground stud.

d: Bonding connections are available on covers and boxes of all enclosures. All exposed metal should be bonded per local electrical codes.

e: Closing / Installing the enclosure cover: Thread each cover screw half way into the threaded insert without completely tightening in a diagonal pattern. Then complete installation of cover by tightening screws in the same diagonal pattern to a minimum torque of 3 Nm (26 lb-ins.) to a maximum of 4 Nm (35 lb-ins.). **DO NOT OVERTIGHTEN OR USE AN IMPACT TOOL.** *A consistent fit over the entire length of the cover joint should be verified at the time of installation.*

f: This enclosure is provided without cable glands / conduit sealing devices. Proper selection of cable glands / conduit sealing devices must occur in the field.

g: Cable fittings must be certified "Ex e" components per EN 60079-7. For lines which are not permanently installed, only cable fittings appropriate for this purpose can be used. They are to be protected from loosening and locked against rotation, i.e. clips, cemented, etc., per EN 60079-7. The operating (service) temperature of the enclosure is limited to the temperature of the gland fitting if less than the enclosure.

h: Optional drain and breather may be installed. The operating temperature of the enclosure is limited to the temperature of the drain and breathers if lower than the enclosure's. **Other drain and breathers may be installed, the user is responsible for ensuring that the protection concept, temperature class and relevant IP rating is maintained.**

i: All unused conduit openings must be fitted with a certified close-up plug of equivalent minimum required IP rating as required.

Terminal Block Installation and Wiring Instructions:

a: Attention to detail is highly recommended when installing and wiring the Terminal Blocks. Proper installation is required to ensure the component Certification Ratings are not invalidated.

b: Care should be taken not to damage or crack the DIN-Rail mounting clips when removing or installing polymeric terminal blocks. **Damaged or loose-fitting terminal blocks should be replaced before energizing the device.**

c: Refer to each Terminal Block Manufacturer's Installation Instructions for suitable wire types (ie: Solid, Stranded), proper wire stripping lengths, and terminal torques. **OVERTIGHTENED or LOOSE WIRE TERMINALS MAY CAUSE OVERHEATING, WHICH CAN RESULT IN AN ELECTRIC SHOCK OR EXPLOSION HAZARD**.

d Care shall be taken to ensure proper separation of circuits (voltages), and spacings (creepage and clearance distances between live parts of opposite polarity, and between all live parts and dead metal) are maintained. Refer to IEC/EN/UL/CSA 60079-7, Table 2, for minimum creepage and clearance distances.

e: Grounding connections are available at the din rail, earth continuity plate and internal- external ground stud. Bonding connections are available on covers and boxes of all enclosures. All exposed metal should be bonded per local electrical codes.

f: Wiring must be carried out in accordance with the relevant local and national electrical codes (ie: IEC/EN 60079-14, IEC/EN 61241-0 and IEC/EN 61241-1.

g: All conductor insulation and terminal block service temperature ratings shall be suitable for (exceed) the minimum ambient and maximum temperature (defer to T-Code) achieved in service. All conductors shall be sized per the National or Local Electrical Codes for the max. continuous current or max. motor load of the installation.

h: Conductors at entry points may reach 73ºC in a +55ºC ambient, and may reach 108ºC in a +90ºC ambient.

i: Only the terminal blocks listed on product certificates may be installed in the enclosures. See **Table A** below.

j: No more than one conductor shall not be permitted in a wire terminal, unless the device has been evaluated specifically for multiconductor installation (See Terminal Block Mfr's Installation Instructions). Ferrules may be used if the Terminal Block has been approved for use with Solid Wires of equivalent diameter.

k: When installing Terminal blocks, the maximum voltage, current and dissipated power shown on the Junction Box nameplate must not be exceeded.

l: When Weidmuller **WDU 1.5 or WDU 2.5** Series Terminal Blocks are installed, they are limited to a **maximum current of 15A**.

TABLE A: Terminal Blocks Approved For Use in USF Junction Boxes

Manufacturer	Series	Style	ATEX Certificate	IECEx Certificate	Minimum Ambient "Ta" of Overall Junction Box When Installed
Weidmuller	WDU	Screw	KEMA 98ATEX1683U	N/A	-50°C
Weidmuller	WDU	Screw	KEMA 01ATEX2186U KEMA 08ATEX0014U KEMA 98ATEX1686U KEMA 99ATEX6545U SIRA 02ATEX3153U SIRA 02ATEX3242 SIRA 02ATEX3242U	IECEx SIR 05.0040U IECEx SIR 05.0039U IECEx ULD 05.0008U	-50°C
Weidmuller	ZDU	Cage clamp	KEMA 97ATEX4677U	N/A	-50°C
Weidmuller	ZDU	Cage clamp	KEMA 97ATEX2755U KEMA 99ATEX5514U KEMA 97ATEX2521U KEMA 01ATEX2106U KEMA 00ATEX2107U	IECEx ULD 05.0009U IECEx KEM 07.0061U IECEx KEM 06.0048U	-50°C (-40°C for devices covered by Cert. Number KEMA 01ATEX2106U)
Weidmuller	PDU	Spring (push in)	KEMA 06ATEX0177U	IECEx KEMA 06.0032U	-50°C
Klemsan Elektrik	AVK	Screw	FTZU 10ATEX0071U	IECEx FTZU 10.0012U	-20°C
Klemsan Elektrik	MVK	Screw	FTZU 09ATEX0252U	IECEx FTZU 10.0011U	-50°C
Klemsan Elektrik	PIK	Screw	FTZU 09ATEX0252U	IECEx FTZU 10.0011U	-50°C
Klemsan Elektrik	PUK	Screw	FTZU 09ATEX0252U	IECEx FTZU 10.0011U	-50°C
Klemsan Elektrik	PYK	Cage clamp	FTZU 09ATEX0252U	IECEx FTZU 10.0011U	-50°C
ABB	ZS	Screw	LCIE 08ATEX0007U	IECEx LCI 08.0031U	-50°C
ABB	ZK	Cage clamp	LCIE 13ATEX3042U	IECEx LCI 13.0025U	-50°C
WAGO	2001-****	Cage clamp	PTB 05ATEX1094U	IECEx PTB 11.0093U	-50°C
WAGO	2002-****	Cage clamp	PTB 03ATEX1162U	IECEx PTB 03.004U	-50°C
WAGO	2004-****	Cage clamp	PTB 05ATEX1095U	IECEx PTB 05.0033U	-50°C
WAGO	2006-****	Cage clamp	PTB 05ATEX1030U	IECEx PTB 05.0014U	-50°C
WAGO	2010-****	Cage clamp	PTB 05ATEX1070U	IECEx PTB 06.0003U	-50°C
WAGO	2016-****	Cage clamp	PTB 05ATEX1031U	IECEx PTB 05.0015U	-50°C
Phoenix	UKH	Screw	KEMA 98ATEX1786U KEMA 99ATEX8332U	IECEx KEM 06.0029U IECEx KEM 06.0030U	-50°C
Phoenix	UT	Screw	KEMA 04ATEX2048U KEMA 06ATEX0017U	IECEx KEM 06.0027U IECEx KEM 06.0013U	-50°C
Phoenix	PT	Push in	PTB 09ATEX1111U PTB 09ATEX1112U	IECEx PTB 10.0021U IECEx KEM 10.0046U	-50°C
Phoenix	ST	Cage clamp	KEMA 01ATEX2129U KEMA 00ATEX2052U KEMA 01ATEX2260U	IECEx KEM 06.0051U IECEx KEM 06.0050U IECEx KEM 06.0033U IECEX KEM 06.0043U	-50°C
Phoenix	QT	Cage clamp	KEMA 04ATEX2226U KEMA 03ATEX2557U KEMA 05ATEX2148U	IECEx KEM 07.0015U IECEx KEM 07.0010U	-45°C
Phoenix	UK	Screw	KEMA 96ATEX4370U KEMA 06ATEX0119U KEMA 98ATEX1651U KEMA 98ATEX1786U KEMA 99ATEX4487 U KEMA 96ATEX4370U	IECEx KEM 06.0034U IECEx KEM 06.0029U IECEX KEM 06.0035U	-50°C

Maintenance Instructions:

WARNING: Before servicing the enclosure, be sure ALL electrical power is OFF and LOCKED OUT.

WARNING: Enclosures that are powder coated have a potential electrostatic charging hazard. Wipe the enclosure down with a moist cloth before servicing.

WARNING: Maintenance on the end product should be carried out by authorized and trained personnel only. Following any maintenance, the enclosure gasket must be checked for damage before the cover is replaced / reinstalled.

a: After initial installation, the unit should be inspected at regular intervals to verify the cover is tight; that all conduit or gland connections are intact and free of corrosion and that the enclosure mounting bolts are tight and in good condition.

b: Inspect flanged surfaces of the box and of the cover gasket. Surfaces must be free of nicks, dirt or any foreign particle build-up that would prevent a proper seal. Check hinges to ensure they are improper working order.

c: Should the surfaces be damaged, consult factory. Never attempt to rework the surfaces in the field. Surfaces must seat fully against each other to provide the proper joint.

d: Apply a light coating of lubricant to the box flange before closing the cover. All cover screws must be installed tightly (25 to 36 lb-ins.) to ensure the joint between the box and cover is sealed prior to powering the unit. An improper joint can result in an explosion with the possibility of physical injury and property damage.

e: **Series USF** hinged covers are permanent and are not field removable or replaceable. Prior to securing the cover add lubrication to the hinge pin to aid in operation and the free movement of the cover . **Important**: Care is to be taken opening the cover to help prevent accidental damage to the cover and cover gasket. Never apply excess force to the cover when closing the hinged cover. Never hammer the cover, this will deform the covers and possibly reduce the protection level of the enclosure.

Conditions For Safe Use (IECEx/ATEX):

WARNING: Enclosures that are powder coated have a potential electrostatic charging hazard. Wipe the enclosure down with a moist cloth before servicing. Conductors at entry points may reach 73°C in a +55°C ambient, and may reach 108°C in a +90°C ambient.

a: The range of enclosures shall only be used in a service temperature range of -55 ^{O}C to +135 ^{O}C.

b: When Junction Boxes are equipped by the manufacturer with wired terminals, a routine electric strength test is required per EN 60079, Clause 6.1.

c: The maximum dissipated power in watts for each model of junction box shall be calculated in accordance with EN 60079-7, Annex E, E.2, and shall not exceed the maximums given in Table 6 below.

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Certification Information

North American Certifications:

North American (NEC/CEC) Certifications*:**
Class I, Zone 1 AEx eb IIC Gb T6...T4 (U.S.)
Zone 21 AEx tb IIIC Db T80 ºC...T130 ºC IP66 (U.S.)
Ex db eb IIC Gb T6...T4 (CAN)
Ex tb IIIC Db T85 ºC...T135 ºC IP66 (CAN)
Class I, Division 2, Groups A,B,C,D
Class II, Zone 21 & 22
Class II, Groups E, F, G; Class III
Type 3/4/4X**/IP66
** - Only 304 and 316 Stainless Steel Enclosures are Type 4X

- 50ºC ≤ Ta ≤ +40ºC (when marked T6 / T80ºC)
- 50ºC ≤ Ta ≤ +55ºC (when marked T5 / T100ºC)
- 50ºC ≤ Ta ≤ +90ºC (when marked T4 / T130ºC)

Standards Applied:

CSA 60079-0	*ANSI/ISA 60079-0*
CSA 60079-7	*ANSI/ISA 60079-7*
CSA 60079-31	*ANSI/ISA 60079-31*
CSA No. 94.1 / 94.2 / 14	*UL50 / UL50E / UL508*
CSA 60529	*ANSI/IEC 60529*

IEC / ATEX Certifications:

ATEX Ratings: SIRA 14 ATEX 3157
0518 Ex II 1 G Ex ia IIC T6/T5/T4 Ga
II 2 D Ex tb IIIC T80ºC / T100ºC / T130ºC Db IP66
OR
0518 Ex II 2 G Ex eb IIC T6/T5/T4 Gb
Ex ib IIC T6/T5/T4 Gb
II 2 D Ex tb IIIC T80ºC / T100ºC / T130ºC Db IP66
OR
0518 Ex II 1 G Ex eb ib IIC T6/T5/T4 Gb
II 2 D Ex tb IIIC T80ºC / T100ºC / T130ºC Db IP66

IECEx Ratings: IECEx SIR 14.0054
When ia Terminals are installed (only):
Ex ia IIC T6/T5/T4 Ga
Ex tb IIIC T80ºC / T100ºC / T130ºC Db IP66
OR
Ex eb IIC T6/T5/T4 Gb (with Ex e terminals only) OR
Ex ib IIC T6/T5/T4 Gb (with Ex ib terminals only)
Ex tb IIIC T80ºC / T100ºC / T130ºC Db IP66
OR
Ex eb ib IIC T6/T5/T4 Gb (with Ex e & ib terminals)
Ex tb IIIC T80ºC / T100ºC / T130ºC Db IP66

- **#**ºC ≤ Ta ≤ +40ºC (when marked T6 / T80ºC)
- **#**ºC ≤ Ta ≤ +55ºC (when marked T5 / T100ºC)
- **#**ºC ≤ Ta ≤ +90ºC (when marked T4 / T130ºC)

- Mimumum Ambient Temp. may be either -50ºC, -45ºC, -40ºC or -20ºC - See Table 1 below for minimum ambient ratings based on installed T-Blocks.

Standards Applied:

EN 60079-0	*IEC 60079-0*	
EN 60079-7	*IEC 60079-7*	
EN 60079-11	*IEC 60079-11*	*(Terminal Blocks)*
IEC 60079-31		

Electrical Ratings

The overall electrical ratings of an USF Junction Box is dependent upon the ratings of the terminal blocks installed. **Please refer to the Terminal Block Mfr's. website.**

Labels / Nameplates

To maintain the IP (Ingress Protection) levels and the NEMA / TYPE ratings of the Series USF enclosures, end-product nameplates or label & tag mounting holes must **not penetrate the interior of the enclosure.**

Earthing (Grounding)

The earth connection accepts a cable lug. The cable must be run and fixed near to the enclosure. The earth connection must be made in all circumstances.

Conduit Hubs and Cable Glands

Conduit hubs and cable gland sizes may be mixed. The maximum number of hubs or cable glands must be selected such that the walls are not weakened nor the enclosure stability affected .

See Figure 1 below, and Tables 1 - 7 below for Enclosure Dimensions and Mounting Hole Locations, Conduit and Gland Mountnig Details (Useable Wall Area, Hole Spacing Details, etc) .

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TABLE 1 - Minimum Distance - From Edge of Enclosure to Center of Conduit / Cable Entry

NPT (Metric)	4"	3-1/2"	3" (M75)	2-1/2" (M63)	2" (M50)	1-1/2" (M40)	1-1/4" (M32)	1" (M25)	3/4" (M20)	1/2" (M16)
IN. (mm)	2-3/4 (70)	2-1/2 (64)	2 (51)	2 (51)	1-5/8 (41)	1-3/8 (35)	1-1/4 (32)	1 (25)	7/8 (22)	3/4 (19)

TABLE 2 - Minimum Distance - From Edge of Gland Plate to Center of Conduit / Cable Entry

NPT (Metric)	4"	3-1/2"	3" (M75)	2-1/2" (M63)	2" (M50)	1-1/2" (M40)	1-1/4" (M32)	1" (M25)	3/4" (M20)	1/2" (M16)
IN. (mm)	3-1/4 (83)	3 (76)	2-3/4 (70)	2-1/2 (64)	2-1/8 (54)	1-7/8 (48)	1-3/4 (44)	1-1/2 (38)	1-3/8 (35)	1-1/4 (32)

TABLE 3 - CEC / NEC Minimum Wire Bending Space - From Inside Wall of Enclosure (North America Applications Only)

Size AWG (mm2)	16 (1.5)	14 (2.5)	12 (4)	10 (6)	8 (10)	6 (16)	4 (25)	2 (35)	1/0 (50)	2/0 (70)	3/0 (95)	4/0 (120)
IN. (mm)	1.5 (38)	1.5 (38)	1.5 (38)	1.5 (38)	1.5 (38)	2 (51)	3 (76)	3.5 (89)	5.5 (140)	6 (152)	6.5 (164)	7 (178)

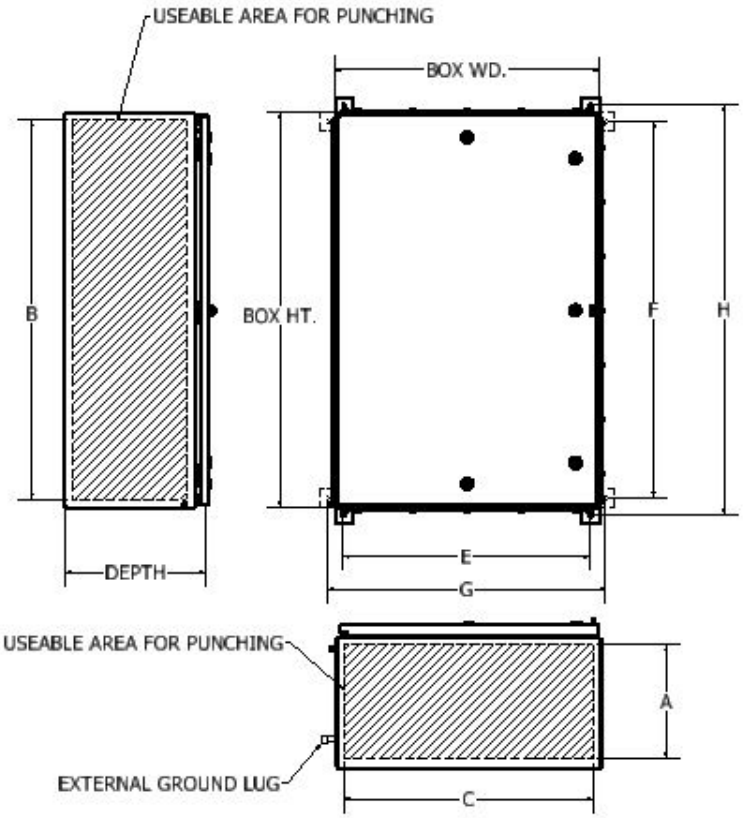
TABLE 4 - Conduit / Cable Gland Hole Diameters - For additional sizes, please contact Customer Service

NPT	4"	3-1/2"	3"	2-1/2"	2"	1-1/2	1-1/4"	1"	3/4"	1/2"
Max. Hole Dia. IN. (mm)	4.53 (115.06)	4.03 (102.36)	3.53 (89.66)	2.905 (73.79)	2.405 (61.08)	1.93 (49.2)	1.69 (42.93)	1.345 (34.16)	1.08 (27.4)	.87 (22.09)
Metric	M100	M80	M75	M63	M50	M40	M32	M25	M20	M16
Max. Hole Dia. mm (IN.)	100.7 (3.94)	80.7 (3.15)	75.7 (2.95)	63.7 (2.48)	50.7 (1.97)	40.7 (1.58)	32.7 (1.26)	25.7 (0.98)	20.7 (0.79)	16.7 (0.63)

TABLE 5 - Minimum Distance - From Center Line to Center Line of Conduit / Cable Entries

(NPT) [METRIC]	4 [M100]	3 1/2 [M80]	3 [M75]	2 1/2 [M63]	2 [M50]	1 1/2 [M40]	1 1/4 [M32]	1 [M25]	3/4 [M20]	1/2 [M16]
1/2 [M16]	3 5/8 [92mm]	3 3/8 [86mm]	3 1/8 [80mm]	2 3/4 [70mm]	2 1/2 [64mm]	2 1/4 [58mm]	2 1/8 [54mm]	1 7/8 [48mm]	1 3/4 [45mm]	1 5/8 [41mm]
3/4 [M20]	3 3/4 [96mm]	3 1/2 [89mm]	3 1/4 [83mm]	2 7/8 [74mm]	2 5/8 [68mm]	2 3/8 [60mm]	2 1/4 [58mm]	2 [51mm]	1 7/8 [48mm]	
1 [M25]	3 7/8 [99mm]	3 5/8 [92mm]	3 3/8 [86mm]	3 [77mm]	2 3/4 [70mm]	2 1/2 [64mm]	2 3/8 [60mm]	2 1/8 [54mm]		
1 1/4 [M32]	4 1/8 [105mm]	3 7/8 [99mm]	3 1/2 [89mm]	3 1/4 [83mm]	3 [77mm]	2 3/4 [70mm]	2 1/2 [64mm]			
1 1/2 [M40]	4 1/4 [108mm]	4 [102mm]	3 3/4 [96mm]	3 3/8 [86mm]	3 1/8 [80mm]	2 7/8 [73mm]				
2 [M50]	4 3/4 [121mm]	4 1/2 [115mm]	4 [102mm]	3 5/8 [92mm]	3 3/8 [86mm]					
2 1/2 [M63]	4 7/8 [124mm]	4 5/8 [118mm]	4 1/4 [108mm]	3 7/8 [99mm]						
3 [M75]	5 1/4 [134mm]	5 [127mm]	4 5/8 [118mm]							
3 1/2 [M80]	5 3/4 [147mm]	5 1/2 [140mm]								
4 [M100]	6 1/4 [159mm]									

FIGURE 1 - USF (HINGED COVER) - (See Table 6 and 7 below)



Note: The maximum hole size for enclosure depths of 6" (153mm) through 20" (508mm) and with blank walls is a 4" NPT (M100). The maximum hole size for enclosure with a depths of 6" (153mm) and with gland plate cut outs is 3"NPT (M75). The maximum hole size for enclosure depths of 8" (203mm) through 20" (508mm) and with gland plate cut outs is 4" NPT (M100).

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TABLE 6 - USF OVERALL DIMENSION CHART

Catalog Number	Height in. (mm)	Width	Depth	"E"	"F"	"G"	"H"	Max. Power Dissipation (W)	
								when using Screw Type Terminals	when using Cage Clamp Terminals
USF121206	12 (305)	12 (305)	6 (153)	10.69 (272)	10.69 (272)	13.63 (346)	13.63 (346)	15.0	7.5
USF161206	16 (407)	12 (305)	6 (153)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	17.0	8.5
USF161208	16 (407)	12 (305)	8 (203)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	20.6	10.3
USF161210	16 (407)	12 (305)	10 (254)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	23.5	11.7
USF161606	16 (407)	16 (407)	6 (153)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	19.0	9.5
USF161608	16 (407)	16 (407)	8 (203)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	20.0	10.0
USF161610	16 (407)	16 (407)	10 (254)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	25.0	12.5
USF201606	20 (508)	16 (407)	6 (153)	18.69 (475)	14.69 (373)	21.63 (549)	17.63 (448)	21.0	10.5
USF201608	20 (508)	16 (407)	8 (203)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	23.0	11.5
USF201610	20 (508)	16 (407)	10 (254)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	26.0	13.0
USF202006	20 (508)	20 (508)	6 (153)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	24.3	12.1
USF202008	20 (508)	20 (508)	8 (203)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	26.0	13.0
USF202010	20 (508)	20 (508)	10 (254)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	30.0	15.0
USF202012	20 (508)	20 (508)	12 (305)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	36.0	18.0
USF241606	24 (610)	16 (407)	6 (153	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	23.0	11.5
USF241608	24 (610)	16 (407)	8 (203)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	23.0	11.5
USF241610	24 (610)	16 (407)	10 (254)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	31.0	15.5
USF242006	24 (610)	20 (508)	6 (153)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	24.5	12.2
USF242008	24 (610)	20 (508)	8 (203)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	31.5	15.7
USF242010	24 (610)	20 (508)	10 (254)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	33.6	16.8
USF242012	24 (610)	20 (508)	12 (305)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	36.0	18.0
USF242406	24 (610)	24 (610)	6 (153)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	25.8	12.9
USF242408	24 (610)	24 (610)	8 (203)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	34.0	17.0
USF242410	24 (610)	24 (610)	10 (254)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	34.0	17.0
USF242412	24 (610)	24 (610)	12 (305)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	38.0	19.0
USF242416	24 (610)	24 (610)	16 (407)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	42.0	21.0
USF242420	24 (610)	24 (610)	20 (508)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	57.3	28.6
USF302008	30 (762)	20 (508)	8 (203)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	36.5	18.2
USF302010	30 (762)	20 (508)	10 (254)	18.69 (475)	28.69 (729)	21.63 (549)	31.63 (803)	36.0	18.0
USF302408	30 (762)	24 (610)	8 (203)	18.69 (475)	28.69 (729)	21.63 (549)	31.63 (803)	39.0	19.5
USF302410	30 (762)	24 (610)	10 (254)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	38.0	19.0
USF302412	30 (762)	24 (610)	12 (305)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	40.0	20.0
USF302420	30 (762)	24 (610)	20 (508)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	57.3	28.6
USF303008	30 (762)	30 (762)	8 (203)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	43.0	21.5
USF303010	30 (762)	30 (762)	10 (254)	28.69 (729)	28.69 (729)	31.63 (803)	31.63 (803)	40.0	20.0
USF303012	30 (762)	30 (762)	12 (305)	28.69 (729)	28.69 (729)	31.63 (803)	31.63 (803)	46.0	23.0
USF362408	36 (915)	24 (610)	8 (203)	34.69 (881)	28.69 (729)	37.63 (956)	31.63 (803)	44.0	22.0
USF362410	36 (915)	24 (610)	10 (254)	9.79 (249)	35.20 (894)	8.15 (207)	27.63 (702)	40.0	20.0

TABLE 7 - USABLE WALL AREA - DIMENSIONS

Catalog Number	"A" Gland Plate	"B" Gland Plate	"C" Gland Plate	"A" Blank Wall Area	"B" Blank Wall Area	"C" Blank Wall Area
USF121206	5.79 (147)	11.20 (284)	5.79 (147)	11.75 (298)	35.2 (894)	11.2 (284)
USF161206	5.79 (147)	15.20 (386)	5.79 (147)	11.75 (298)	35.2 (894)	11.2 (284)
USF161208	7.79 (198)	15.20 (386)	7.79 (198)	11.75 (298)	35.2 (894)	11.2 (284)
USF161210	9.79 (249)	15.20 (386)	9.79 (249)	11.75 (298)	35.2 (894)	11.2 (284)
USF161606	5.79 (147)	15.20 (386)	5.79 (147)	11.75 (298)	35.2 (894)	15.2 (386)
USF161608	7.79 (198)	15.20 (386)	7.79 (198)	11.75 (298)	35.2 (894)	15.2 (386)
USF161610	9.79 (249)	15.20 (386)	9.79 (249)	11.75 (298)	35.2 (894)	15.2 (386)
USF201606	5.79 (147)	15.20 (386)	5.79 (147)	11.75 (298)	35.2 (894)	19.2 (488)
USF201608	5.79 (147)	19.20 (488)	5.79 (147)	11.75 (298)	35.2 (894)	15.2 (386)
USF201610	7.79 (198)	19.20 (488)	7.79 (198)	11.75 (298)	35.2 (894)	15.2 (386)
USF202006	9.79 (249)	19.20 (488)	9.79 (249)	11.75 (298)	35.2 (894)	15.2 (386)
USF202008	5.79 (147)	19.20 (488)	5.79 (147)	11.75 (298)	35.2 (894)	19.2 (488)
USF202010	7.79 (198)	19.20 (488)	7.79 (198)	11.75 (298)	35.2 (894)	19.2 (488)
USF202012	9.79 (249)	19.20 (488)	9.79 (249)	11.75 (298)	35.2 (894)	19.2 (488)
USF241606	11.79 (299)	19.20 (488)	5.79 (147)	11.75 (298)	35.2 (894)	11.2 (284)
USF241608	11.79 (299)	19.20 (488)	11.79 (299)	11.75 (298)	35.2 (894)	15.2 (386)
USF241610	7.79 (198)	23.20 (589)	7.79 (198)	11.75 (298)	35.2 (894)	15.2 (386)
USF242006	9.79 (249)	23.20 (589)	9.79 (249)	11.75 (298)	35.2 (894)	19.2 (488)
USF242008	5.79 (147)	23.20 (589)	5.79 (147)	11.75 (298)	35.2 (894)	19.2 (488)
USF242010	7.79 (198)	23.20 (589)	7.79 (198)	11.75 (298)	35.2 (894)	19.2 (488)
USF242012	9.79 (249)	23.20 (589)	9.79 (249)	11.75 (298)	35.2 (894)	19.2 (488)
USF242406	11.79 (299)	23.20 (589)	11.79 (299)	11.75 (298)	35.2 (894)	23.2 (589)
USF242408	5.79 (147)	23.20 (589)	5.79 (147)	11.75 (298)	35.2 (894)	23.2 (589)
USF242410	7.79 (198)	23.20 (589)	7.79 (198)	11.75 (298)	35.2 (894)	23.2 (589)
USF242412	9.79 (249)	23.20 (589)	9.79 (249)	11.75 (298)	35.2 (894)	23.2 (589)
USF242416	11.79 (299)	23.20 (589)	11.79 (299)	11.75 (298)	35.2 (894)	23.2 (589)
USF242420	15.79 (401)	23.20 (589)	15.79 (401)	11.75 (298)	35.2 (894)	23.2 (589)
USF302008	19.79 (503)	23.20 (589)	19.79 (503)	11.75 (298)	35.2 (894)	19.2 (488)
USF302010	7.79 (198)	29.20 (742)	7.79 (198)	11.75 (298)	35.2 (894)	19.2 (488)
USF302408	9.79 (249)	29.20 (742)	9.79 (249)	11.75 (298)	35.2 (894)	23.2 (589)
USF302410	7.79 (198)	29.20 (742)	7.79 (198)	11.75 (298)	35.2 (894)	23.2 (589)
USF302412	9.79 (249)	29.20 (742)	9.79 (249)	11.75 (298)	35.2 (894)	23.2 (589)
USF302420	11.79 (299)	29.20 (742)	11.79 (299)	11.75 (298)	35.2 (894)	23.2 (589)
USF303008	19.79 (503)	29.20 (742)	19.79 (503)	11.75 (298)	35.2 (894)	29.2 (742)
USF303010	7.79 (198)	29.20 (742)	7.79 (198)	11.75 (298)	35.2 (894)	29.2 (742)
USF303012	9.79 (249)	29.20 (742)	9.79 (249)	11.75 (298)	35.2 (894)	29.2 (742)
USF362408	11.79 (299)	29.20 (742)	11.79 (299)	11.75 (298)	35.2 (894)	23.2 (589)
USF362410	7.79 (198)	35.20 (894)	7.79 (198)	11.75 (298)	35.2 (894)	23.2 (589)