

Automation Transformers - Non-Ventilated 50 VA to 45 kVA

SolaHD encapsulated transformers are rated for Hazardous Locations (Class 1, Division 2, Group A-D) as well as harsh industrial environments. Encapsulation and rugged NEMA 3R enclosures protect the transformer from dust, moisture, and provide extra shock and vibration resistance. SolaHD UL listed transformers fully comply with the latest addition of the National Electrical Code for Class 1, Division 2, Group A-D locations when installed in compliance with NEC 501.100(B).

Features

Single Phase: .05 – .250 kVA

- UL-3R non encapsulated enclosure for indoor and outdoor service
- Low temperature rise, UL Class 130°C or 180°C insulation system, 80°C temperature rise under full load
- Conduit knockouts for side entry into wiring compartment
- Copper lead wire terminations
- Class 1, Division 2

Single Phase: 0.500 – 25 kVA

Three Phase: 3 – 45 kVA

- UL-3R encapsulated enclosure for indoor and outdoor service
- Electrostatically shielded for quality power on sizes 1 kVA and larger
- UL Class 180°C or 200°C insulation system, 115°C temperature rise under full load
- Conduit knockouts for side entry into wiring compartment
- Copper lead wire terminations
- .500 - 45 kVA units are encapsulated with electrical grade silica and epoxy for industrial applications



Related Products

- Some SolaHD DC power supplies are available with Class 1, Division 2 ratings or encapsulation.
- Surge Protective Devices

Accessories and Optional Design Styles*

- Wall mounting brackets (500 lbs maximum) (Item WB1C)
- Weather Shields
- Stainless Steel Enclosures
- Totally enclosed non-ventilated designs (TENV)
- Open core and coil designs
- Copper Wound designs
- NEMA 4/12 or 4X Encapsulated Enclosures
- Low temperature designs available.

*Not all optional designs are UL listed. Contact Technical Services.

Note: Weights and dimensions may change and should not be used for construction purposes.

Selection Table: Single Phase, Encapsulated

Group 1: 240 x 480 Primary, 120/240 Secondary, 60 Hz



kVA	Catalog Number Group I Rolled Steel	Catalog Number Group II Stainless Steel	Height (inch)	Width (inch)	Depth (inch)	Approx. Ship Weight (lbs)	Design Style**	Elec Conn*	Primary Amps	Secondary Amps
Non-Encapsulated										
.050	HS1B50	N/A	6	4	3	3	2	15	.208/.104	4.16/2.08
.075	HS1B75		6	4	3	3	2	15	.312/.156	6.25/3.12
.100	HS1B100		6	4	3	4	2	15	.417/.208	8.33/4.17
.150	HS1B150		8	4	4	5	2	15	.625/.313	1.25/.625
.250	HS1B250		8	4	4	8	2	15	1.04/.512	2.08/1.04
Encapsulated										
0.5	HS1F500B	HSS1F500B	10	6	5	22	3	15	2.08/1.04	4.16/2.08
0.75	HS1F750B	HSS1F750B	10	6	5	27	3	15	3.13/1.56	6.25/3.13
1	HS1F1BS	HSS1F1BS	10	6	5	28	3	16	4.17/2.08	8.33/4.17
1.5	HS1F1.5AS	HSS1F1.5AS	12	10	7	38	4	16	6.25/3.13	12.5/6.25
2	HS1F2AS	HSS1F2AS	12	10	7	45	4	16	8.33/4.17	16.7/8.33
3	HS5F3AS	HSS5F3AS	12	10	7	55	4	17	12.5/6.25	25.0/12.5
5	HS5F5AS	HSS5F5AS	17	14	9	131	4	17	20.8/10.4	41.6/20.8
7.5	HS5F7.5AS	HSS5F7.5AS	17	14	9	156	4	18	31.3/15.6	62.5/31.3
10	HS5F10AS	HSS5F10AS	17	14	9	156	4	18	41.7/20.8	83.3/41.7
15	HS5F15AS	HSS5F15AS	30	29	12	549	4	18	62.5/31.2	125.0/62.5
25	HS5F25AS	HSS5F25AS	30	29	12	637	4	18	104.0/52.0	208.0/104.0

Group 2: 600 Volt Primary, 120/240 Secondary, 60 Hz

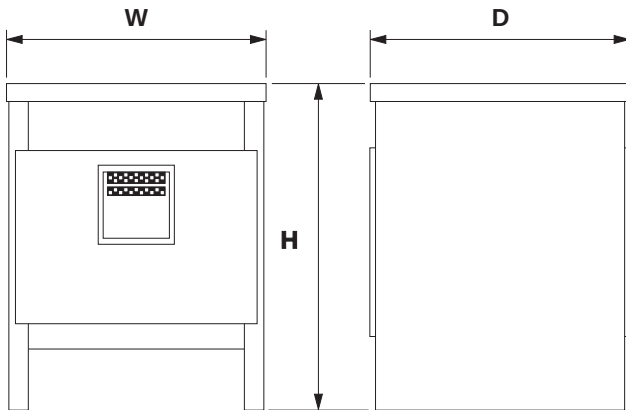


kVA	Catalog Number Group 1 Rolled Steel	Catalog Number Group 2 Stainless Steel	Height (inch)	Width (inch)	Depth (inch)	Ship Weight Approx. (lbs)	Design Style*	Elec Conn*	Primary Amps	Secondary Amps
Non-Encapsulated										
.100	HS10B100	N/A	6	4	3	4	2	21	0.167	.833/.417
.150	HS10B150		8	4	4	5	2	21	0.25	1.25/.625
.250	HS10B250		8	4	4	8	2	21	0.417	2.08/1.04
Encapsulated										
.500	HS10F500B	HSS10F500B	10	6	5	22	3	21	0.833	4.16/2.08
.750	HS10F750B	HSS10F750B	10	6	5	23	3	21	1.25	6.25/3.13
1	HS10F1BS	HSS10F1BS	10	6	5	28	3	21	1.67	8.33/4.17
1.5	HS10F1.5AS	HSS10F1.5AS	12	10	7	38	4	21	2.5	12.5/6.25
2	HS10F2AS	HSS10F2AS	12	10	7	60	4	21	3.33	16.7/8.33
3	HS10F3AS	HSS10F3AS	12	10	7	66	4	22	5.0	25.0/12.5
5	HS10F5AS	HSS10F5AS	17	14	9	100	4	22	8.3	41.6/20.8
7.5	HS10F7.5AS	HSS10F7.5AS	17	14	9	135	4	22	12.5	62.5/31.3
10	HS10F10AS	HSS10F10AS	17	14	9	150	4	22	16.7	83.3/41.7

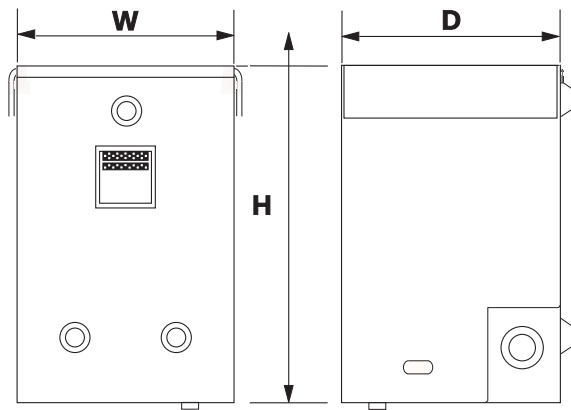
Note:

* Design Style and Electrical Connections can be found on pages 204-205.

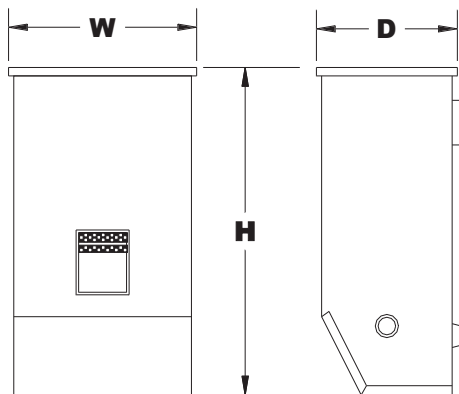
Design Styles



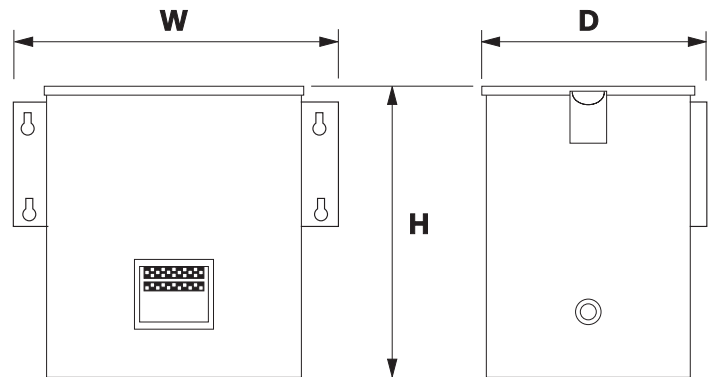
Style 1 - Ventilated



Style 2 - Non-Encapsulated

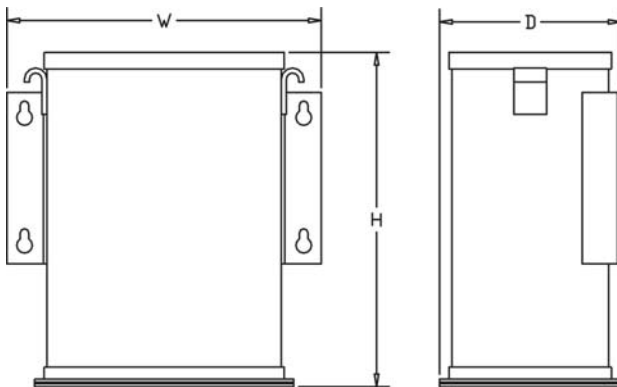


Style 3 - Encapsulated



Style 4 - Encapsulated

Customized Enclosures - Contact Technical Services



Style 5 - Encapsulated

Available for all encapsulated kVA sizes (For NEMA 4, 12 and 4X)

Electrical Connections (Single Phase)

240 X 480 Volt Primary
120/240 Volt Secondary
Taps: None

15

Primary Voltage	Interconnect	Connect Lines to
480	H2 to H3	H1 & H4
240	H1 to H3 H2 to H4	H1 & H4
Secondary Voltage	Interconnect	Connect Lines to
240	X2 to X3	X1 & X4
120-0-120	X2 to X3 X2 to $\perp$	X1-X2-X4
120	X1 to X3 X2 to X4	X1 & X4

HS1 Series

240 X 480 Volt Primary,
120/240 Volt Secondary
Taps: 2, 2½% FCAN; 4, 2½% FCBN

18

Primary Voltage	Interconnect	Connect Lines to
504	H5 to H6	H1 & H10
492	H4 to H6	H1 & H10
480	H4 to H7	H1 & H10
468	H3 to H7	H1 & H10
456	H3 to H8	H1 & H10
444	H2 to H8	H1 & H10
432	H2 to H9	H1 & H10
252	H1 to H6 H5 to H10	H1 & H10
240	H1 to H7 H4 to H10	H1 & H10
228	H1 to H8 H3 to H10	H1 & H10
216	H1 to H9 H2 to H10	H1 & H10
Secondary Voltage	Interconnect	Connect Lines to
240	X2 to X3	X1 & X4
120-0-120	X2 to X3 X2 to $\perp$	X1-X2-X4
120	X1 to X3 X2 to X4	X1 & X4

HS5 Series

240 X 480 Volt Primary
120/240 Volt Secondary
Taps: None

16

Primary Voltage	Interconnect	Connect Lines to
480	H2 to H3	H1 & H4
240	H1 to H3 H2 to H4	H1 & H4
Secondary Voltage	Interconnect	Connect Lines to
240	X2 to X3	X1 & X4
120-0-120	X2 to X3 X2 to $\perp$	X1-X2-X4
120	X1 to X3 X2 to X4	X1 & X4

HS1 Series

120/208/240/277 Volt Primary
120/240 Volt Secondary
Taps: None

19

Primary Voltage	Interconnect	Connect Lines to
277	H2 to H3	H1 & H6
240	H2 to H3	H1 & H5
208	H2 to H3	H1 & H4
120	H1 to H3 H2 to H5	H1 & H5
Secondary Voltage	Interconnect	Connect Lines to
240	X2 to X3	X1 & X4
120-0-120	X2 to X3 X2 to $\perp$	X1-X2-X4
120	X1 to X3 X2 to X4	X1 & X4

HS12 Series (1 kVA only)

$\perp$ = Earth Ground

Note:

Connect the electrostatic shield to the equipment ground (green) or to both the equipment ground and the system ground (white). Specifications are subject to change without notice.

240 X 480 Volt Primary
120/240 Volt Secondary
Taps: 2, 2½% FCAN & FCBN

17

Primary Voltage	Interconnect	Connect Lines to
504	H4 to H5	H1 & H8
492	H3 to H5	H1 & H8
480	H3 to H6	H1 & H8
468	H2 to H6	H1 & H8
456	H2 to H7	H1 & H8
252	H1 to H5 H4 to H8	H1 & H8
240	H1 to H6 H3 to H8	H1 & H8
228	H1 to H7 H2 to H8	H1 & H8
Secondary Voltage	Interconnect	Connect Lines to
240	X2 to X3	X1 & X4
120-0-120	X2 to X3 X2 to $\perp$	X1-X2-X4
120	X1 to X3 X2 to X4	X1 & X4

HS5 Series

120/208/240/277 Volt Primary
120/240 Volt Secondary
Taps: None

20

Primary Voltage	Interconnect	Connect Lines to
277	H4 to H5	H1 & H8
240	H3 to H6	H1 & H8
208	H2 to H7	H1 & H8
120	H1 to H6 H3 to H8	H1 & H8
Secondary Voltage	Interconnect	Connect Lines to
240	X2 to X3	X1 & X4
120-0-120	X2 to X3 X2 to $\perp$	X1-X2-X4
120	X1 to X3 X2 to X4	X1 & X4

HS12 Series