

EPA Energy Star® Compliant Transformers from Sola/Hevi-Duty

According to the Environment Protection Agency (EPA), energy generation and distribution has become a major cause of pollution. Increasing electrical equipment efficiency has become an important part of the solution. Certain states within the USA have adopted Energy Star® standards to NEMA TP-1 levels and testing. More states are likely to adopt these standards as pollution and energy costs increase. Sola/Hevi-Duty offers a broad range of high efficiency transformers, including a new line of Energy Star® rated transformers.

Sola/Hevi-Duty makes it easy to meet these standards with its E versions of Low Voltage General Purpose transformers. These transformers meet strict efficiency standards as proposed by NEMA TP-1, yet are the same compact size as the basic Sola/Hevi-Duty LVGP unit so floor space is not comprised. The efficiencies of these transformers are optimized to meet NEMA TP-1 limits for the load losses calculated at 35% of the name plate rating. This 35% represents an industry average load of most LVGP transformers.

Available in single phase from 15 KVA to 167 KVA, and three phase voltages from 15 KVA to 500 KVA, and meet the high quality and construction of Sola/Hevi-Duty LVGP products.

Features

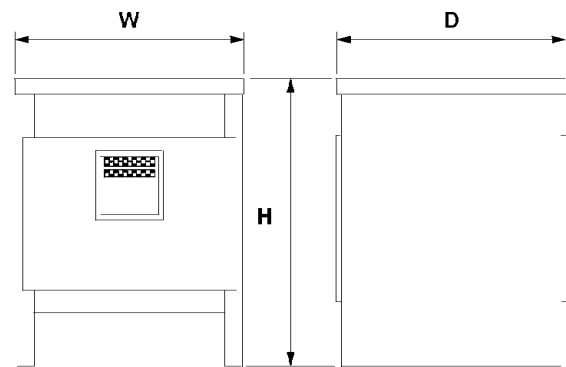
- High efficiency for low cost operation.
- Identical size as basic 150°C rating unit.
- Compliant to NEMA TP-1 Standards.
- Class 220°C insulation system.
- Single and three phase availability.

Accessories and Optional Design Styles

- Wall mounting brackets (through 75 KVA only).
- Weather Shields (UL-3R).
- Stainless Steel Enclosures.
- Totally enclosed non-ventilated designs.
- Open core and coil designs.
- Copper Wound designs.



Design Style



Ventilated Design

Selection Tables: Single Phase



Listed



Certified

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

KVA	Catalog Number	NEMA 3R Weather Shield*	Height (inch)	Width (inch)	Depth (inch)	Ship Weight Approx. (lbs)	Elec Conn	Primary Amps	Secondary Amps
15	ES5H15S	WS-01	23	14	16	175	1	62.5/31.3	125/62.5
25	ES5H25S	WS-15	28	16	16	265	1	104/52.1	208/104
37.5	ES5H37S	WS-17	31	18	18	340	1	156/78	313/156
50	ES5H50S	WS-17	31	18	18	425	1	208/104	416/208
75	ES5H75S	WS-09	44	23	21	655	1	313/156	625/313
100	ES5H100S	WS-09	44	23	21	750	1	417/208	833/417
167	ES5H167S	WS-16	46	26	24	980	1	695/348	1392/695

* Weather shields (set of two) must be ordered separately.

Selection Tables: Three Phase

Group A – 480 Δ Primary, 208/120 Secondary, 60 Hz

KVA	Catalog Number	NEMA 3R Weather Shield*	Height (inch)	Width (inch)	Depth (inch)	Ship Weight Approx. (lbs)	Elec Conn	Primary Amps	Secondary Amps
15	ET2H15S	WS-02	23	18	14	205	2	18.1	41.7
30	ET2H30S	WS-14	28	23	16	305	2	36.1	83.4
45	ET2H45S	WS-14	28	23	16	405	2	54.2	125.0
75	ET2H75S	WS-30	34	28	22	535	2	90.3	208.0
112.5	ET2H112S	WS-30	34	28	22	805	2	135	313.0
150	ET2H150S	WS-10	44	33	21	972	2	181	417.0
225	ET2H225S	WS-11	46	36	24	1350	2	271	625.0
300	ET2H300S	WS-11	46	36	24	1515	2	361	834.0
500	ET2H500S	WS-12	65	45	35	2460	2	602	1390.0

* Weather shields (set of two) must be ordered separately.

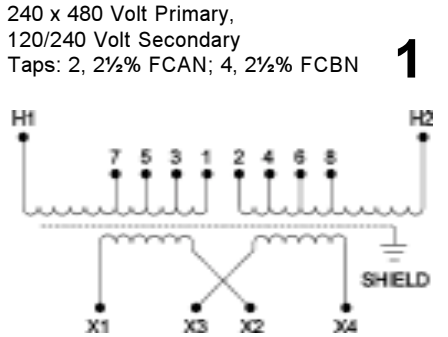
Group B – 480 Δ Primary, 240 Volt Δ, Secondary with reduced capacity center tap*, 60 Hz

KVA	Catalog Number	NEMA 3R Weather Shield**	Height (inch)	Width (inch)	Depth (inch)	Ship Weight Approx. (lbs)	Elec Conn	Primary Amps	Secondary Amps
15	ET5H15S	WS-02	23	19	14	205	3	18.1	36.1
30	ET5H30S	WS-14	28	23	16	305	3	36.1	72.3
45	ET5H45S	WS-14	28	23	16	405	3	54.2	108
75	ET5H75S	WS-30	34	28	22	535	3	90.3	181
112.5	ET5H112S	WS-30	34	28	22	805	3	135	271
150	ET5H150S	WS-10	44	33	21	972	3	181	361
225	ET5H225S	WS-11	46	36	24	1325	3	271	542
300	ET5H300S	WS-11	46	36	24	1515	3	361	723
500	ET5H500S	WS-12	65	45	35	2460	3	602	1204

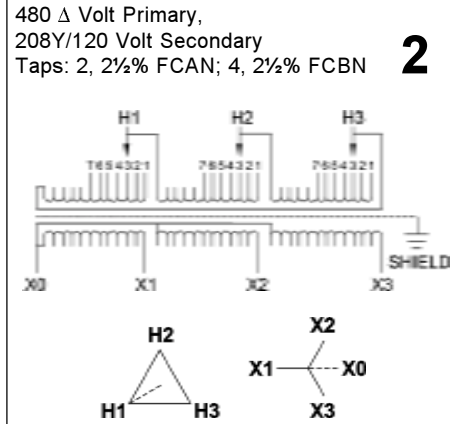
* See the Technical Notes section for information on the capacity of the center tap.

** Weather shields (set of two) must be ordered separately.

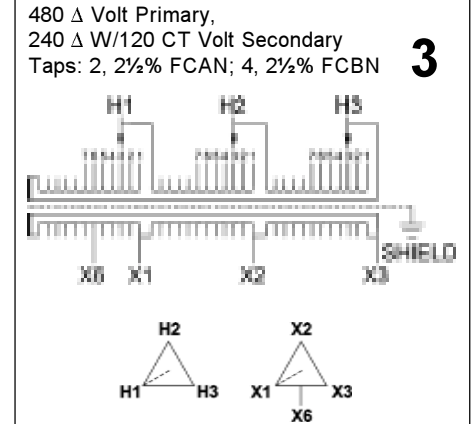
Electrical Connections



Primary Voltage	Interconnect	Connect Lines To
504	1 to 2	H1 & H2
492	2 to 3	H1 & H2
480	3 to 4	H1 & H2
468	4 to 5	H1 & H2
456	5 to 6	H1 & H2
444	6 to 7	H1 & H2
432	7 to 8	H1 & H2
252	H1 to 2 H2 to 1	H1 & H2
240	H1 to 4 H2 to 3	H1 & H2
228	H1 to 6 H2 to 5	H1 & H2
216	H1 to 8 H2 to 7	H1 & H2
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



Primary @ Tap	H1-H2-H3 Voltage	Secondary Voltage	
		X1, X2, X3	X0-X1, -X2, -X3
1	504	208	120
2	492		
3	480		
4	468		
5	456		
6	444		
7	432		



Primary @ Tap	H1-H2-H3 Voltage	Secondary Voltage	
		X1, X2, X3	X6-X1, X6-X3
1	504	240	120
2	492		
3	480		
4	468		
5	456		
6	444		
7	432		