



ENVIRONMENT? HAZARDOUS LOCATION?



OLSUN

DOES THAT!



OLSUN ELECTRICS CORPORATION

## NEC® HAZARDOUS LOCATIONS? OLSUN DOES THAT.

Hazardous Locations are well defined by the National Electric Code (NEC®) for good reason. Choosing the wrong transformer for use in perilous environments containing volatile gases, dust, liquids or fibers can lead to serious consequences. Choosing the right transformer for hazardous applications is critical — and easy.

### The Right Transformer is Olsun Electrics Haz-Pac™

Olsun Electrics Haz-Pac™ transformer line is designed and built specifically for hazardous locations in compliance with article 500 of the NEC and is UL\* listed for Class I, Division 2, Groups C and D locations. And with a North American Temperature Classification of T3C, Haz-Pac keeps its cool under load — when you and the surroundings need it to be. Couple our dedicated hazardous duty design with high short-circuit strength, 80 degree C rise availability and Olsun Electrics' industry proven reliability and you're literally playing it safe in choosing Olsun for long life in your application.

\* UL Listing applicable to single-phase sizes through 25 kVA and three-phase sizes through 75 kVA, through 600 volts.

Do you need a Haz-Pac Transformer for your application?

*Compare your real world environment to the NEC Classes guidelines.*

#### National Electric Code - Classes

Does your application include:

- Environments with flammable gases and vapors (Class I)
- Environments with combustible dusts (Class II)
- Environments with "flying", i.e., cotton linters, sawdust, etc. (Class III)

#### National Electric Code - Divisions

Does your application include:

- Explosive atmosphere that is continually present (Division 1)
- Explosive atmosphere that is present only in the event of abnormal operation of equipment (Division 2)

#### National Electric Code - Groups

Does your application include:

- Atmospheres including, but not limited to ethyl ether, ethylene, or gases or vapors of like hazard (Group C)
- Atmospheres including, but not limited to ammonia, benzene, butane, ethane, gasoline, methane, propylene, and toluene (Group D)

*Make the right transformer choice.*

*Let Olsun Electrics' experience in manufacturing transformers for use in perilous, dangerous and hazardous locations give you peace of mind.*

*Specify Olsun's Haz-Pac for your hazardous applications.*





## Hazardous Application Typical Specification

Per the approved electrical plans, furnish and install dry type, hazardous duty rated transformers as manufactured by Olsun Electric Corporation or approved equal. Single-phase transformers through and including 25 kVA and three-phase transformers through and including 75 kVA shall meet the requirements of UL Standard 1604, latest revision, entitled "Electrical Equipment for use in Class I and Class II, Division 2, and Class III Hazardous (Classified) Locations".

Transformer sizes (kVA ratings) shall be as shown on the electrical plans or transformer schedule. Primary taps shall be full capacity, with a minimum of 2, 5% below nominal primary voltage rating on kVA sizes through 15; 2, 2.5% above and below nominal primary voltage rating on kVA sizes above 15 kVA.

All transformers shall have a maximum full load temperature rise of 115 degrees C above a 30 degree C ambient. All insulating materials used shall have a minimum UL 180 degrees C system rating. Encapsulating resin shall have a minimum UL temperature system rating of 180 degrees C. The temperature rise shall be designated on the nameplate.

The transformer cores are to be constructed of high grade, non-aging silicon steel laminations with high magnetic permeability and low hysteresis and eddy current losses. Magnetic flux densities shall be kept well below the saturation point. The core laminations shall be clamped together with heavy structural steel angles.

The enclosure shall be 14 gauge, or heavier, type 316 stainless steel in accordance with the latest NEMA, ANSI and UL requirements for outdoor enclosures. The enclosure shall be provided with suitable lifting means. Jacking and lifting provisions shall be provided on all units weighing in excess of 600 pounds. All enclosure seams shall be continually welded using compatible welding rod and all weld seams shall be ground smooth. An ANSI 61 gray, powder coat finish shall be applied to a minimum thickness of 1.5 mils.

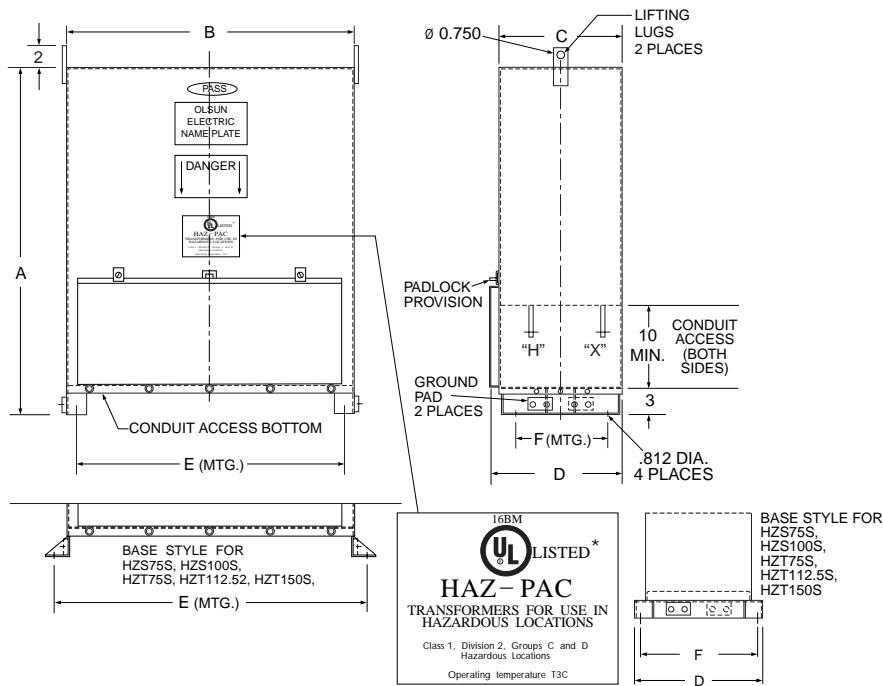
The enclosure shall have adequate surface area to limit the maximum temperature rise of the enclosure to 65 degrees C above a 40 degree C ambient at full load and rated voltage.

The sound level of the transformer shall be guaranteed by the manufacturer to be at least 3 dB lower than that stated in ANSI C57.12.01 latest revision, for dry type ventilated transformers. The basic impulse levels (BIL) shall be a minimum 30 kV for all windings rated 1000 volts or higher and 10 kV for all windings less than 1000 volts.

Contractors and/or suppliers wishing to furnish equals to the units specified shall supply the Engineer with certified drawings and performance data, including sound level, on similar transformers, plus a sample for the Project Engineer's inspection at least 10 days prior to the bid date.

# PERILOUS APPLICATION? DANGEROUS

## 1 Phase / 3 Phase Transformers



### 1 Phase

KVA	A	B	C	D	E	F	WGT.	Rise
*HZS10S	26	14	12	13.5	11.5	10	270	80
							255	115
*HZS15S	26	14	12	13.5	11.5	10	375	80
							340	115
*HZS25S	32	16	12	13.5	13.5	10	450	80
							390	115
*HZS37.5S	38	20	14	15.5	17.5	12	625	80
							555	115
HZS50S	38	20	14	15.5	17.5	12	860	80
							785	115
HZS75S	52	24	16	20	26	18	1530	80
							1340	115
HZS100S	52	24	16	20	26	18	1650	80
							1480	115

\*UL Listed  
Dimensions in inches.

### 3 Phase

KVA	A	B	C	D	E	F	WGT.	Rise
*HZT15S	24	18	10	12	15.5	8	445	80
							410	115
*HZT30S	34	24	12	13	21.5	10	685	80
							640	115
*HZT45S	34	28	12	13	25.5	10	875	80
							800	115
*HZT75S	44	30	12	15	32	13.5	1280	80
							1170	115
HZT112.5S	52	36	14	17	38	15.5	1770	80
							1650	115
HZT150S	52	36	14	17	38	15.5	2165	80
							1960	115

\*UL Listed  
Dimensions in inches.

Be Sure to visit the Olsun Electric's website at [www.olsun.com](http://www.olsun.com) for additional solutions to your transformer and switchgear application needs.



Olsun Electric's Corporation  
10901 Commercial Street P.O. Box 1  
Richmond, Illinois 60071-0001  
Phone: 815-678-2421  
Fax: 815-678-4909

Specializing in Dry Type Transformers, Reactors and Switchgear