

HPS Titan Series

Encapsulated Transformers

HPS Titan N encapsulated transformers offer an innovative design with technological improvements for industrial and hazardous applications.

The transformer core and coil is completely encapsulated in epoxy and silica, providing excellent protection from airborne contaminants and prevents the ingress of moisture.

HPS Titan N three phase design has a removable hinged door and factory installed grounding lugs, reducing installation time and money.



APPLICATIONS



Petrochemical



Marine



Industrial



Oil & Gas



Mining



Wastewater

APPROVALS

- ANSI/ISA 12.12.10 - File No. E258346 (Class 1, Division 2, Groups A, B, C, D and Class 1, Zone 2, Group IIC, T3 Hazardous Locations) - T3C/T3A Temperature Classification
- UL 5085-1 and UL5085-2 Listed - File No. E258346
- ABS Type Approval (Marine Duty Service and Offshore Applications)



*For three phase units only

FEATURES & BENEFITS

Single Phase

- Copper winding
- Electrostatic shield
- Standard wall mounting with keyhole mounting slots
- Front accessible hinged door
- Standard Type 3R enclosure suitable for indoor or outdoor applications

Three Phase

- Higher impedance designs lower inrush and short circuit currents, allowing the use of less costly protective devices
- Completely encapsulated in epoxy and silica to prevent the ingress of moisture
- Standard 10kV BIL rating provides increased reliability and protection against critical equipment failure (including voltage spikes and other line transients)
- Copper winding
- Electrostatic shield
- Improved efficiency level that reduces energy costs
- Standard Type 4 enclosure suitable for indoor or outdoor applications
- Removable hinged door allows for easy access to terminations
- Standard integral floor and wall mounting brackets on select kVA's for faster installation
- Optional breather drains ensure that any moisture build-up due to condensation is easily eliminated without compromising Type 4/12 enclosure integrity

Temperature Code*:

- Class 1, Zone 2, Group IIC, T3
- T3A (115°C rise units) at 40°C ambient
- T3C (80°C & 95°C rise units) at 40°C ambient
- **HPS Titan N 80°C and 95°C rise units are suitable for 50°C ambient**
80°C rise at 50°C ambient maintains T3C performance
95°C rise at 50°C ambient maintains T3A performance
(95°C rise unit only available in three phase)

Specifications & Accessories

Single Phase



STANDARD SPECIFICATIONS

kVA:	Up to 37.5kVA	Termination:	Front accessible separated high and low voltage lead wires or copper tabs
UL Listed:	File: E258346	Conduit Entry:	Rear or side entry
Frequency:	60 Hz (50/60Hz options available)	Impedance:	Typically 1% to 7%
Insulation System:	130°C (80°C rise) up to 1 kVA 180°C (115°C rise) 1.5 to 37.5 kVA optional 180°C (80°C rise) 1.5 to 37.5 kVA	Mounting:	Standard wall mounting with keyhole mounting slots. Lifting provisions standard from 5 kVA to 37.5 kVA.
Enclosure Type:	Heavy duty enclosed Type 3R standard [optional Type 4, 12, 4X]	Seismic:	Seismically qualified according to the International Building Code (IBC) 2018, and the American Society of Civil Engineers ASCE 7-10 specifications, with the following design parameters: Spectral acceleration: $S_{DS} \leq 2.0$ g Importance factor: $I_p = 1.5$ Attachment/height ratio: $z/h = 1.0$ " O.S.H.P.D. California Certified
Enclosure Finish:	ANSI 61 Grey	Sound Level:	Meets NEMA ST-20 standards (optional low noise units available)
Standard Primary Taps:	Refer to wiring diagrams for details	Warranty:	10 years

Selection Tables

HPS Titan
Encapsulated Transformer

COPPER WOUND, SINGLE PHASE

*208/240/277 Primary Volts

120/240 Secondary Volts



60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			°C Temp. Rise	Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height				
0.5	QC50YECB	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	80	19 [8.6]	W	SCD 3.1
0.75	QC75YEKB	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	80	21 [9.5]	W	SCD 3.1
1	Q1C0YEKB	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	80	28 [12.6]	W	SCD 3.1
1.5	Q1C5YEKF	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	115	36 [16.2]	W	SCD 3.1
2	Q002YEKF	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	115	44 [19.8]	W	SCD 3.1
3	Q003YEKF	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	115	56 [25.2]	W	SCD 3.1
5	Q005YEKF	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115	134 [61]	W	SCD 3.1
7.5	Q007YEKF	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115	160 [72]	W	SCD 3.1
10	Q010YEKF	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	115	204 [92]	W	SCD 3.1
15	Q015YEKF	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	115	248 [112]	W	SCD 3.1
25	Q025YEKF	NQ7	14.50 [368.30]	10.75 [273.05]	21.38 [543.06]	115	345 [156]	W	SCD 3.1
37.5	Q037YEKF	NQ8	14.50 [368.30]	10.75 [273.05]	27.38 [695.46]	115	476 [215]	W	SCD 3.1

*347/380 Primary Volts

120/240 Secondary Volts



50/60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			°C Temp. Rise	Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height				
0.5	QC50FECB	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	80	19 [8.6]	W	SCD 5.1
0.75	QC75FEKB	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	80	21 [9.5]	W	SCD 5.1
1	Q1C0FEKB	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	80	28 [12.6]	W	SCD 5.1
1.5	Q1C5FEKF	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	115	36 [16.2]	W	SCD 5.1
2	Q002FEKF	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	115	44 [19.8]	W	SCD 5.1
3	Q003FEKF	NQ5	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	115	56 [25.2]	W	SCD 5.1
5	Q005FEKF	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115	134 [61]	W	SCD 5.1
7.5	Q007FEKF	NQ6	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115	160 [72]	W	SCD 5.1
10	Q010FEKF	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	115	204 [92]	W	SCD 5.1
15	Q015FEKF	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	115	248 [112]	W	SCD 5.1
25	Q025FEKF	NQ7	14.50 [368.30]	10.75 [273.05]	21.38 [543.06]	115	345 [156]	W	SCD 5.1
37.5	Q037FEKF	NQ8	14.50 [368.30]	10.75 [273.05]	27.38 [695.46]	115	476 [215]	W	SCD 5.1

*240 X 480 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			°C Temp. Rise	Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height				
0.5	QC50LECB	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	80	23 [10.4]	W	SCD 1.1
0.75	QC75LEKB	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	80	24 [10.8]	W	SCD 1.1
1	Q1C0LEKB	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	80	28 [12.6]	W	SCD 1.1
1.5	Q1C5LEKF	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	115	35 [15.8]	W	SCD 1.1
2	Q002LEKF	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	115	47 [21.2]	W	SCD 1.1
3	Q003LEKF	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	115	62 [27.9]	W	SCD 1.1
5	Q005LEKF	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115	131 [59.0]	W	SCD 1.1
7.5	Q007LEKF	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115	155 [69.8]	W	SCD 1.1
10	Q010LEKF	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	115	220 [99.0]	W	SCD 1.1
15	Q015LEKF	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	115	248 [112]	W	SCD 1.1
25	Q025LEKF	NQ7	14.50 [368.30]	10.75 [273.05]	21.38 [543.06]	115	345 [156]	W	SCD 1.1
37.5	Q037LEKF	NQ8	14.50 [368.30]	10.75 [273.05]	27.38 [695.46]	115	476 [215]	W	SCD 1.1

Electrical Schematics & Connection Drawings - Single Phase

SCD 1.1

SCHEMATIC			
	Primary Volts	Connect lines to	Inter-connect
	480	H1, H4	H2-H4
	240	H1, H4	H1-H3, H2-H4
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X4	X2-X3
	120/240	X1, X2, X4	X2-X3
120	X1, X4	X1-X3, X2-X4	

SCD 2.1

SCHEMATIC			
	Primary Volts	Connect lines to	Inter-connect
	600	H1, H2	-
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X4	X2-X3
	120/240	X1, X2, X4	X2-X3
	120	X1, X4	X1-X3, X2-X4

SCD 3.1

SCHEMATIC			
	Primary Volts	Connect lines to	Inter-connect
	208	H1, H2	-
	240	H1, H3	-
	277	H1, H4	-
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X4	X2-X3
120/240	X1, X2, X4	X2-X3	
120	X1, X4	X1-X3, X2-X4	

Tap arrangements shown are for standard products only. May not be applicable for other products.