

HPS Sentinel[®]

Energy Efficient Distribution Transformers

Specifications & Accessories - Copper or Aluminum



15 to 45 kVA



75 to 150 kVA



225-1000 kVA

STANDARD SPECIFICATIONS

<p>kVA: 15-1000kVA</p> <p>UL Listed: File: E112313</p> <p>CSA Certified: File: LR3902</p> <p>Frequency: 60 Hz (optional 50/60 Hz available)</p> <p>Insulation System: 220°C (150°C rise) (optional 115°C & 80°C rise available)</p> <p>BIL Rating 10 kV (on all 3PH low voltage products)</p> <p>Enclosure Type: Heavy duty ventilated Type 3R standard (optional Type 4, 4X (stainless steel) & 12)</p> <p>Enclosure Finish: ANSI 61 Grey, UL50</p> <p>Neutral: Neutral terminal for field connection (on applicable units)</p> <p>Standard Primary Taps: Refer to wiring diagrams for details</p> <p>Optional Accessories:</p> <ul style="list-style-type: none"> • Thermal sensing & indication <ul style="list-style-type: none"> - Thermocouples - Thermometers (analog/digital) - Thermostat alarm / trip (N.O. /N.C. contacts) • Electrostatic shielding • Rated to handle current harmonics [K4] [K9] [K13] • Strip heater (space heater to prevent condensation) • Surge protection devices • Type 3R or 4X available in stainless steel • Type 3R enhanced with baffling for horizontal blowing rain and snow 	<p>Termination: Front accessible separate high and low voltage terminals; connectors suitable for aluminum and copper are provided for easy cable installation.</p> <p>Conduit Entry: Side knock-outs standard on all units; Bottom entry provision (exceptions apply)</p> <p>Impedance: Typically 3.5% to 6.5%</p> <p>Mounting: Floor or wall/ceiling mounting available. Refer to selection tables for details.</p> <p>Seismic: Seismically qualified according to the International Building Code (IBC) 2012, 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</p> <p>Sound Level: Meets NEMA ST-20 standards (optional low noise units available)</p> <p>Warranty: 10 years</p>
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HPS Sentinel Part Number Guide

Example

Family	Type	Generation	Phase	kVA				Pri. Volt.	Sec. Volt	K Rating	Winding Material/ Electrostatic Shield	Temp. Rise & Insul. Class	Enclosure
S	G	3	A	0	0	4	5	K	B	0	K	F	K

Family:

S - Sentinel

Type:

G - General
K - K Rated
H - Harmonic Mitigation

Generation:

2 - current designs
3 - current designs

Phase (Pri-Sec):

A - 3PH Delta-Wye
B - 3PH Wye-Delta
C - 3PH Delta-Delta/CT
D - 3PH Delta-Delta
Y - 3PH Wye-Wye
T - 3PH Zig Zag- 0° PH Shift
U - 3PH Zig Zag- -30°PH Shift
L- 1PH Single-Dual
N- 1PH Dual-Dual
M- 1PH Multiple-Dual

kVA:

kVA Rating

Primary Voltage:

1PH 3PH
B 208 208D, 208Y/120
D 240 240D
F 277
H 416 416D
K 480 480D, 480Y/277
L 240x480
P 600 600D, 600Y/347
X multiple

Secondary Voltage:

1PH 3PH
B 208 208D or 208Y/120
D 240 240D, 240D/120CT or
240Y/139
E 120/240
K 480 480D or 480Y/277
P 600 600D or 600Y/347
Y 380Y/220V w taps at
400Y, 416Y and 430Y

K Rating:

0 = None
4 = K4
9 = K9
3 = K13
2 = K20

Winding Material/Electrostatic Shield:

A - Aluminum
S - AL + Shield
C - Copper
K - CU + Shield

Temperature Rise at standard 220°C Insulation Class:

B - 80°C
F - 115°C
G - 130°C
H - 150°C

Enclosure:

A - Type 1 F - Type 4
B - Type 2 G - Type 4X (304SS)
C - Type 3R H - Type 4X (316SS)
D - Type 3RE K - Type 12
E - Type 3RX X - None (Core & Coil)

Additional options include low sound level and special duty (marine, etc)

Support & Resources

No other transformer company can offer our service and quality in a full range of products.

Transformer Efficiency Calculator



The HPS Efficiency Calculator allows you to determine how much money and energy you can save by switching to a HPS Sentinel G3, K3, or H3 transformer. Visit the "Online Tools" area of the HPS website.

Extensive Inventory



We carry a complete inventory of Distribution Transformers throughout North America to quickly meet your needs.

Current Calculator



Calculate the Amps, Volts, or kVA of a transformer. Visit the "Online Tools" area of the HPS website.

Live Telephone Technical Support



Our inside sales team is available to quickly answer your questions. They are technically trained and able to answer most questions right over the phone.

Fast On-Site Response



On-site technicians are available to assist with any technical problems or issues that cannot be resolved over the phone.

Easy-To-Access Installation Manuals



All transformer installation manuals are conveniently located on our website so you can access them anywhere, anytime.

Selection Tables

HPS Sentinel G3
Energy Efficient General Purpose Distribution



ALUMINUM WOUND, THREE PHASE



480 Delta Primary Volts 380Y/220, 400Y/231, 416Y/240, 430Y/248 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall F - Floor	Wiring Diagram	
			Width	Depth	Height				
15	SG3A0015KY	DH1	21.5	20.1	22.0	210	F or W/C	SCD 52	
30	SG3A0030KY	DH2	25.8	23.8	28.8	310	F or W/C	SCD 52	
45	SG3A0045KY	DH2	25.8	23.8	28.8	380	F or W/C	SCD 52	
75	SG3A0075KY	DH3	28.3	27.0	36.0	510	F (Opt W/C)	SCD 52	
112.5	SG3A0112KY	DH3	28.3	27.0	36.0	680	F (Opt W/C)	SCD 52	
150	SG3A0150KY	DH4	31.5	29.5	44.5	870	F	SCD 52	
225	SG3A0225KY		Consult HPS Sales						
300	SG3A0300KY								
500	SG3A0500KY								
750	SG3A0750KY								
1000	SG3A1000KY								

W/C: Built-in Wall Ceiling Mounting Opt W/C: Wall Ceiling Mounting Kit "DW3" Available OSHPD Certified for Floor Mounting Only

480 Delta Primary Volts 480Y/277 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
15	SG3A0015KK	DH1	21.5	20.1	22.0	210	F or W/C	SCD 19
30	SG3A0030KK	DH2	25.8	23.8	28.8	310	F or W/C	SCD 19
45	SG3A0045KK	DH2	25.8	23.8	28.8	380	F or W/C	SCD 19
75	SG3A0075KK	DH3	28.3	27.0	36.0	510	F (Opt W/C)	SCD 19
112.5	SG3A0112KK	DH3	28.3	27.0	36.0	680	F (Opt W/C)	SCD 19
150	SG3A0150KK	DH4	31.5	29.5	44.5	870	F	SCD 19
225	SG3A0225KK	DH5	37.5	34.0	52.0	1350	F	SCD 19
300	SG3A0300KK	DH5	37.5	34.0	52.0	1800	F	SCD 19
500	SG3A0500KK	DH6	49.0	41.5	64.0	2750	F	SCD 20
750	SG3A0750KK	DH7	54.0	46.5	72.0	4100	F	SCD 20
1000	SG3A1000KK	DH8	60.0	49.5	82.0	5400	F	SCD 10

W/C: Built-in Wall Ceiling Mounting Opt W/C: Wall Ceiling Mounting Kit "DW3" Available OSHPD Certified for Floor Mounting Only

600 Delta Primary Volts 208Y/120 Secondary Volts 60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
15	SG3A0015PB	DH1	21.5	20.1	22.0	210	F or W/C	SCD 19
30	SG3A0030PB	DH2	25.8	23.8	28.8	310	F or W/C	SCD 19
45	SG3A0045PB	DH2	25.8	23.8	28.8	380	F or W/C	SCD 19
75	SG3A0075PB	DH3	28.3	27.0	36.0	510	F (Opt W/C)	SCD 19
112.5	SG3A0112PB	DH3	28.3	27.0	36.0	680	F (Opt W/C)	SCD 19
150	SG3A0150PB	DH4	31.5	29.5	44.5	870	F	SCD 19
225	SG3A0225PB	DH5	37.5	34.0	52.0	1350	F	SCD 19
300	SG3A0300PB	DH5	37.5	34.0	52.0	1800	F	SCD 19
500	SG3A0500PB	DH6	49.0	41.5	64.0	2750	F	SCD 20
750	SG3A0750PB	DH7	54.0	46.5	72.0	4100	F	SCD 20
1000	SG3A1000PB	DH8	60.0	49.5	82.0	5400	F	SCD 10

W/C: Built-in Wall Ceiling Mounting Opt W/C: Wall Ceiling Mounting Kit "DW3" Available OSHPD Certified for Floor Mounting Only