

# HPS Sentinel®

## Energy Efficient Distribution Transformers

### Specifications & Accessories - Copper or Aluminum



**15 to 45 kVA**



**75 to 150 kVA**



**225-1000 kVA**

### STANDARD SPECIFICATIONS

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

## 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



## COPPER WOUND, THREE PHASE



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	<b>SG3A0015KKOC</b>	DH1	21.5	20.1	22.0	210	F or W/C	SCD 19
30	<b>SG3A0030KKOC</b>	DH2	25.8	23.8	28.8	340	F or W/C	SCD 19
45	<b>SG3A0045KKOC</b>	DH2	25.8	23.8	28.8	400	F or W/C	SCD 19
75	<b>SG3A0075KKOC</b>	DH3	28.3	27.0	36.0	590	F (Opt W/C)	SCD 19
112.5	<b>SG3A0112KKOC</b>	DH3	28.3	27.0	36.0	740	F (Opt W/C)	SCD 19
150	<b>SG3A0150KKOC</b>	DH4	31.5	29.5	44.5	930	F	SCD 19
225	<b>SG3A0225KKOC</b>	DH4	31.5	29.5	44.5	1350	F	SCD 19
300	<b>SG3A0300KKOC</b>	DH5	37.5	34.0	52.0	1800	F	SCD 19
500	<b>SG3A0500KKOC</b>	DH6	49.0	41.5	64.0	3200	F	SCD 20
750	<b>SG3A0750KKOC</b>	DH6	49.0	41.5	64.0	4050	F	SCD 20
1000	<b>SG3A1000KKOC</b>	DH7	54.0	46.5	72.0	5200	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	<b>SG3A0015PB0C</b>	DH1	21.5	20.1	22.0	210	F or W/C	SCD 19
30	<b>SG3A0030PB0C</b>	DH2	25.8	23.8	28.8	340	F or W/C	SCD 19
45	<b>SG3A0045PB0C</b>	DH2	25.8	23.8	28.8	400	F or W/C	SCD 19
75	<b>SG3A0075PB0C</b>	DH3	28.3	27.0	36.0	590	F (Opt W/C)	SCD 19
112.5	<b>SG3A0112PB0C</b>	DH3	28.3	27.0	36.0	740	F (Opt W/C)	SCD 19
150	<b>SG3A0150PB0C</b>	DH4	31.5	29.5	44.5	930	F	SCD 19
225	<b>SG3A0225PB0C</b>	DH4	31.5	29.5	44.5	1350	F	SCD 19
300	<b>SG3A0300PB0C</b>	DH5	37.5	34.0	52.0	1800	F	SCD 19
500	<b>SG3A0500PB0C</b>	DH6	49.0	41.5	64.0	3200	F	SCD 20
750	<b>SG3A0750PB0C</b>	DH6	49.0	41.5	64.0	4050	F	SCD 20
1000	<b>SG3A1000PB0C</b>	DH7	54.0	46.5	72.0	5200	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

600Y Primary Volts

240 Delta 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	<b>SG3B0015PD0C</b>	DH1	21.5	20.1	22.0	210	F or W/C	SCD 54
30	<b>SG3B0030PD0C</b>	DH2	25.8	23.8	28.8	340	F or W/C	SCD 54
45	<b>SG3B0045PD0C</b>	DH2	25.8	23.8	28.8	400	F or W/C	SCD 54
75	<b>SG3B0075PD0C</b>	DH3	28.3	27.0	36.0	590	F (Opt W/C)	SCD 54
112.5	<b>SG3B0112PD0C</b>	DH3	28.3	27.0	36.0	740	F (Opt W/C)	SCD 54
150	<b>SG3B0150PD0C</b>	DH4	31.5	29.5	44.5	930	F	SCD 54
225	<b>SG3B0225PD0C</b>	DH4	31.5	29.5	44.5	1350	F	SCD 54
300	<b>SG3B0300PD0C</b>	DH5	37.5	34.0	52.0	1800	F	SCD 54
500	<b>SG3B0500PD0C</b>	DH6	49.0	41.5	64.0	3200	F	SCD 58
750	<b>SG3B0750PD0C</b>	DH6	49.0	41.5	64.0	4050	F	SCD 58
1000	<b>SG3B1000PD0C</b>	DH7	54.0	46.5	72.0	5200	F	SCD 29

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