

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 | kVA: kVA Rating | K Rating: 0 = None 4 = K4 9 = K9 3 = K13 2 = K20 |
| Type: G - General K - K Rated H - Harmonic Mitigation | Primary Voltage: <u>1PH</u> <u>3PH</u> 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 | Winding Material/Electrostatic Shield: A - Aluminum S - AL + Shield C - Copper K - CU + Shield |
| Generation: 2 - current designs 3 - current designs | Secondary Voltage: <u>1PH</u> <u>3PH</u> 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 | Temperature Rise at standard 220°C Insulation Class: B - 80°C F - 115°C G - 130°C H - 150°C |
| 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 | | 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

240 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 | SG3A0015DK | DH1 | 21.5 | 20.1 | 22.0 | 210 | F or W/C | SCD 53 |
| 30 | SG3A0030DK | DH2 | 25.8 | 23.8 | 28.8 | 310 | F or W/C | SCD 53 |
| 45 | SG3A0045DK | DH2 | 25.8 | 23.8 | 28.8 | 380 | F or W/C | SCD 53 |
| 75 | SG3A0075DK | DH3 | 28.3 | 27.0 | 36.0 | 510 | F (Opt W/C) | SCD 53 |
| 112.5 | SG3A0112DK | DH3 | 28.3 | 27.0 | 36.0 | 680 | F (Opt W/C) | SCD 53 |
| 150 | SG3A0150DK | DH4 | 31.5 | 29.5 | 44.5 | 870 | F | SCD 53 |
| 225 | SG3A0225DK | DH5 | 37.5 | 34.0 | 52.0 | 1350 | F | SCD 56 |
| 300 | SG3A0300DK | DH5 | 37.5 | 34.0 | 52.0 | 1800 | F | SCD 56 |
| 500 | SG3A0500DK | DH6 | 49.0 | 41.5 | 64.0 | 2750 | F | SCD 23A |
| 750 | SG3A0750DK | DH7 | 54.0 | 46.5 | 72.0 | 4100 | F | SCD 61 |
| 1000 | SG3A1000DK | DH8 | 60.0 | 49.5 | 82.0 | 5400 | F | SCD 61 |

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

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 | SG3A0015KB | DH1 | 21.5 | 20.1 | 22.0 | 210 | F or W/C | SCD 19 |
| 30 | SG3A0030KB | DH2 | 25.8 | 23.8 | 28.8 | 310 | F or W/C | SCD 19 |
| 45 | SG3A0045KB | DH2 | 25.8 | 23.8 | 28.8 | 380 | F or W/C | SCD 19 |
| 75 | SG3A0075KB | DH3 | 28.3 | 27.0 | 36.0 | 510 | F (Opt W/C) | SCD 19 |
| 112.5 | SG3A0112KB | DH3 | 28.3 | 27.0 | 36.0 | 680 | F (Opt W/C) | SCD 19 |
| 150 | SG3A0150KB | DH4 | 31.5 | 29.5 | 44.5 | 870 | F | SCD 19 |
| 225 | SG3A0225KB | DH5 | 37.5 | 34.0 | 52.0 | 1350 | F | SCD 19 |
| 300 | SG3A0300KB | DH5 | 37.5 | 34.0 | 52.0 | 1800 | F | SCD 19 |
| 500 | SG3A0500KB | DH6 | 49.0 | 41.5 | 64.0 | 2750 | F | SCD 20 |
| 750 | SG3A0750KB | DH7 | 54.0 | 46.5 | 72.0 | 4100 | F | SCD 20 |
| 1000 | SG3A1000KB | 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

480 Delta Primary Volts

240 Delta/120 CT 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 | SG3C0015KD | DH1 | 21.5 | 20.1 | 22.0 | 210 | F or W/C | SCD 21 |
| 30 | SG3C0030KD | DH2 | 25.8 | 23.8 | 28.8 | 310 | F or W/C | SCD 21 |
| 45 | SG3C0045KD | DH2 | 25.8 | 23.8 | 28.8 | 380 | F or W/C | SCD 21 |
| 75 | SG3C0075KD | DH3 | 28.3 | 27.0 | 36.0 | 510 | F (Opt W/C) | SCD 21 |
| 112.5 | SG3C0112KD | DH3 | 28.3 | 27.0 | 36.0 | 680 | F (Opt W/C) | SCD 21 |
| 150 | SG3C0150KD | DH4 | 31.5 | 29.5 | 44.5 | 870 | F | SCD 21 |
| 225 | SG3C0225KD | DH5 | 37.5 | 34.0 | 52.0 | 1350 | F | SCD 21 |
| 300 | SG3C0300KD | DH5 | 37.5 | 34.0 | 52.0 | 1800 | F | SCD 21 |
| 500 | SG3C0500KD | DH6 | 49.0 | 41.5 | 64.0 | 2750 | F | SCD 22 |
| 750 | SG3C0750KD | DH7 | 54.0 | 46.5 | 72.0 | 4100 | F | SCD 22 |
| 1000 | SG3C1000KD | DH8 | 60.0 | 49.5 | 82.0 | 5400 | F | SCD 59 |

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