

HPS Sentinel

Energy Efficient Distribution Transformers

BENEFITS

- HPS Sentinel G, K, and H product lines meet the latest energy efficiency standards outlined by DOE and NRCAn offering significant energy savings to our customers and positive societal/environmental benefits.
- Standard Type 3R enclosure suitable for indoor or outdoor applications.
- For our customers, higher efficiency translates into:
 - Increased profitability due to lower operating costs
 - Decreased cost of ownership over the lifetime of the transformer
 - Less air conditioning cost due to lower heat emissions
- Expanded catalog product offer - up to 1000kVA
- Standard 10kV BIL rating provides increased reliability and protection against critical equipment failure (including voltage spikes and other line transients).
- Standard integral floor and wall mounting brackets up to 45kVA allow for faster installation.
- All units utilize a uniform 220°C insulation system with a 80°C, 115°C, or 150°C temperature rise.
- Industry leading design solutions, technology and materials continue the legacy of quality and reliability in all HPS products.



FEATURES

Core & Coil Construction:

- Manufactured from quality non-aging, cold rolled, silicon steel laminations using state-of-the-art equipment
- Cores are precision cut to close tolerances which eliminates burrs and improves performance
- Core is coated to prevent the ingress of moisture
- Precision wound with copper or aluminum conductors that are electrically balanced to minimize axial forces during short-circuit conditions
- Robust interface between core & coils for better short circuit performance

Conductor material: Copper or Aluminum

Temperature rise: 150°C typical (low rise options avail.)

Insulation system: 220°C



Standard type 3R enclosure on all low voltage HPS transformers



Integrated wall mounting brackets for added convenience at no extra cost



Expanded neutral bar for multiple customer connections

HPS Sentinel

Energy Efficient Distribution Transformers

Specifications & Accessories - Copper or Aluminum



15 to 45 kVA



75 to 150 kVA



225 to 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</p> <p>Enclosure Type: Heavy duty ventilated Type 3R standard [optional Type 4, 4X (stainless steel) & 12 - outside of DOE/NRCan scope]</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 • 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 • Optional infrared windows 	<p>Termination: Front accessible separate high and low voltage terminals; connectors suitable for aluminum and copper are provided for easy cable installation (exceptions apply).</p> <p>Conduit Entry: Side knock-outs standard on all units; Bottom entry provision (exceptions apply).</p> <p>Impedance: Typically 1.8% to 7.5%</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) 2018, and the American Society of Civil Engineers ASCE 7-16 specifications, with the following design parameters: Spectral acceleration: $S_{DS} \leq 2.0$ g Importance factor: $I_p = 1.5$ Attachment/Height ratio: $z/h = 1.0$ (up to and including DH4 enclosure). Attachment/Height ratio: $z/h = 0$ (for all other enclosures). O.S.H.P.D (optional). Please contact HPS for more information on seismic compliances.</p> <p>Sound Level: Meets NEMA ST-20 standards (optional low noise units available)</p> <p>Warranty: 10 years</p>
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Selection Tables

HPS Sentinel G

Energy Efficient General Purpose Distribution



COPPER WOUND, SINGLE PHASE

277 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
15	SG3L0015FE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	175 [79]	F or W/C*	SCD 6
25	SG3L0025FE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	230 [104]	F or W/C*	SCD 6
37.5	SG3L0037FE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	300 [136]	F or W/C*	SCD 6
50	SG3L0050FE0C	DH2	25.75 [654]	23.75 [603]	28.75 [730]	350 [159]	F or W/C*	SCD 6
75	SG3L0075FE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	520 [236]	F (Opt W/C)	SCD 6
100	SG3L0100FE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	630 [286]	F (Opt W/C)	SCD 6
150	SG3L0150FE0C	DH4	31.50 [800]	29.50 [749]	44.50 [1130]	920 [417]	F	SCD 68
167	SG3L0167FE0C	DH4	31.50 [800]	29.50 [749]	44.50 [1130]	980 [444]	F	SCD 68

W/C: Built-in Wall Ceiling Mounting Opt W/C: Wall Ceiling Mounting Kit "DW3" Available

416 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs [Kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
15	SG3L0015HE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	175 [79]	F or W/C*	SCD 6
25	SG3L0025HE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	230 [104]	F or W/C*	SCD 6
37.5	SG3L0037HE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	300 [136]	F or W/C*	SCD 6
50	SG3L0050HE0C	DH2	25.75 [654]	23.75 [603]	28.75 [730]	350 [159]	F or W/C*	SCD 6
75	SG3L0075HE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	520 [236]	F (Opt W/C)	SCD 6
100	SG3L0100HE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	630 [286]	F (Opt W/C)	SCD 6
150	SG3L0150HE0C	DH4	31.50 [800]	29.50 [749]	44.50 [1130]	920 [417]	F	SCD 39
167	SG3L0167HE0C	DH4	31.50 [800]	29.50 [749]	44.50 [1130]	980 [444]	F	SCD 39

W/C: Built-in Wall Ceiling Mounting Opt W/C: Wall Ceiling Mounting Kit "DW3" Available

600 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
15	SG3L0015PE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	175 [79]	F or W/C*	SCD 6
25	SG3L0025PE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	230 [104]	F or W/C*	SCD 6
37.5	SG3L0037PE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	300 [136]	F or W/C*	SCD 6
50	SG3L0050PE0C	DH2	25.75 [654]	23.75 [603]	28.75 [730]	350 [159]	F or W/C*	SCD 6
75	SG3L0075PE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	520 [236]	F (Opt W/C)	SCD 6
100	SG3L0100PE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	630 [286]	F (Opt W/C)	SCD 6
150	SG3L0150PE0C	DH4	31.50 [800]	29.50 [749]	44.50 [1130]	920 [417]	F	SCD 39
167	SG3L0167PE0C	DH4	31.50 [800]	29.50 [749]	44.50 [1130]	980 [444]	F	SCD 39

W/C: Built-in Wall Ceiling Mounting Opt W/C: Wall Ceiling Mounting Kit "DW3" Available

SINGLE PHASE, EXPORT MODEL

190/200/208/220 X 380/400/416/440 Primary Volts

120/240 Secondary Volts

50/60 Hz**

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
15	SG3M0015XE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	175 [79]	F or W/C*	SCD 30
25	SG3M0025XE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	230 [104]	F or W/C*	SCD 30
37.5	SG3M0037XE0C	DH1-1	22.30 [566]	23.80 [604]	26.70 [678]	300 [136]	F or W/C*	SCD 30
50	SG3M0050XE0C	DH2	25.75 [654]	23.75 [603]	28.75 [730]	350 [159]	F or W/C*	SCD 30
75	SG3M0075XE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	520 [286]	F (Opt W/C)	SCD 30
100	SG3M0100XE0C	DH3	28.25 [717]	27.00 [686]	36.00 [914]	630 [286]	F (Opt W/C)	SCD 30
150	SG3M0150XE0C	Please contact your HPS Sales Representative						
167	SG3M0167XE0C	Please contact your HPS Sales Representative						

W/C: Built-in Wall Ceiling Mounting Opt W/C: Wall Ceiling Mounting Kit "DW3" Available

**Note: Meets DOE 2016/NRCan 2019 at 60 Hz.