

HPS (Harmonic Premium Solution) is an Ultra High efficiency harmonic mitigating transformer specifically designed to deliver enhanced power quality by treating the harmonics in the electrical system that are generated by single phase non-linear loads such as computers, monitors, printers, copiers, scanners, televisions, and electronic ballasts. When phase shifted, it treats 5th, 7th, 11th, and 13th harmonics at the system level. Harmonic mitigating capabilities of HPS makes it a great facilitator for IEEE 519 conformity. It is designed as a three-phase isolation transformer capable of handling load profiles of up to K30 without derating.



Astonishing high efficiency and low operating cost of HPS results in a quick return on investment. It will also improve the bottom line by reducing equipment malfunction, equipment failure, downtime, and scheduled equipment maintenance. Efficiency level of HPS easily exceeds the levels required by NEMA TP-1, CSA 802.2-06 and US DOE CSL-3 standards. The efficiency of HPS is third party verified by Intertek, one of the most trusted test organizations in the world. It also bears the Intertek efficiency logo together with the related verification number. HPS products are in line with KYOTO accord requirements for reduction of greenhouse gasses and carry the longest warranty in the industry.

Similar to any other Synergy Energy Transformers, HPS has front access to all connection points (Primary, Secondary, Voltage Taps, Ground Lugs, Electrostatic Shields, etc). HPS accepts a wide variety of extra options. The standard version of HPS has a maximum temperature rise of 130 °C with two, full width copper electrostatic shields and Six primary voltage taps (Two taps above and four taps below the nominal voltage).

The finished product is shipped in a shrink-wrapped, gray NEMA 3R enclosure with corner protectors on our unique SmartSkid® for safe and effortless transportation and installation. For more information about SmartSkid® and its advantages, please refer to the SmartSkid® section of catalogue.

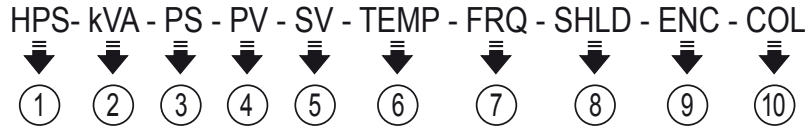
Standard Features:

Warranty:	50 years (Pro-Rated)
Efficiency:	Exceeds NEMA TP1, CSA 802.2-06 & CSL-3
Type:	Three Phase, Dry, Isolation, Common Core
3rd Party Efficiency Verification:	Intertek
Cooling:	Air with Natural Convection (ANN)
Coils:	Copper, Internally Brazed
Primary Taps:	2x2.5% FCAN & 4x2.5% FCBN (Brazed)
Temperature Rise:	130 °C
Neutral Rating:	200% of Line Current
Electrostatic Shields:	Two
Insulation Class:	220 °C
Audible Noise Level:	Per NEMA ST20
Vibration Dampers:	Between the core clamping brackets and the enclosure
Enclosure Type:	NEMA 3R
Packaging:	SmartSkid®



Model Number Creation:

To create a Model Number, match the numbers to the corresponding Key Optional Features and reference the related abbreviations in designated location and order as depicted below:



Key Optional Features:

Note: Options depicted in **RED** will increase the manufacturing cost of the product and its sales price. For further details, please either consult your local area representative or Synergy Energy Inc.











- ① Product: HPS
- ② Rating: 9 for 9 kVA up to 5000 for 5000 kVA
- ③ Phase Shift: Zero or 30 Degrees
- ④ Primary Voltage: Up to 25 kV (600 V and below are standard voltages at no extra charge)
- ⑤ Secondary Voltage: Up to 25 kV (600 V and below are standard voltages at no extra charge)
- ⑥ Temperature Rise: 130 for 130 °C, 115 for **115 °C** and 80 for **80 °C**
- ⑦ Frequency: 60 for 60Hz, 50 for **50Hz**
- ⑧ Electrostatic Shield: 2S for Two Shields, 3S for **Three Shields**
- ⑨ Enclosure: CC for NO Enclosure, N3R for NEMA 3R, N4 for **NEMA 4 (Totally enclosed)**
- ⑩ Enclosure Color: GRY for Gray, BLU for **Royal Blue**, RED for **Red** (Other colors are available)

Example: HPS with 75 kVA Rating, Zero Degrees Phase Shift, 480 V Primary, 208/120 V Secondary, 130 °C Temperature Rise, 60 Hz Frequency, 2 Electrostatic Shields, in Gray NEMA 3R Enclosure

Model Number: HPS-75-0-480-208-130-60-2S-N3R-GRY

Additional Options:

The Additional Options available for the product are listed below. Additional Options are not abbreviated in the part number of the product and should be listed separately at the time of order. Please note that some of these Options might not be available with certain sizes of the product. For complete details please refer to the related page in the "Options" section of the catalogue.

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|--|--|---|
|  Lug Kit |  Wall Mount |  Digital Voltmeter |
|  Thermal Sensor |  Phase Loss Alarm |  Digital Ammeter |
|  Ground Busbar |  Over-Current Alarm | |
|  Ultra Quiet |  Over-Temperature Alarm | |