

E-Saver-C3™ The Green Transformer

APPLICATIONS

The E-Saver-C3 transformer is the ideal transformer for institutional and commercial environments where energy efficiency is a priority. Optimized for lowest life cycle cost, the E-Saver-C3 reduces waste by as much as 74%. The E-Saver-C3 is a practical and affordable solution for K-12, colleges and universities, healthcare, governments and commercial buildings where lowest life cycle cost and energy savings are a priority.

DESCRIPTION AND CHARACTERISTICS

The E-Saver-C3 sets new benchmarks for environmental protection, energy efficiency and reliability. Designed to provide the lowest life cycle cost, the E-Saver-C3 goes beyond US DOE Candidate Level 3 efficiency ensuring lower operating losses than standard off-the-shelf transformers. To provide superior performance and reduce environmental impact, the E-Saver-C3 comes with a superior Nomex based insulation system impregnated with an organic epoxy adhesive.

QUIET OPERATION

Workplace productivity can be compromised when noisy transformers are located close to people. To meet this challenge, the E-Saver-C3 has embedded structural and acoustic treatments that combine to ensure quiet-operation. To ensure quiet operation, noise tests are part of our ISO 9001 procedures for every transformer.

OPTIONAL INTEGRATED METERING

To facilitate on-site commissioning and monitoring, Powersmiths SMART meter can be integrated into the transformer. SMART is an energy and power meter that serves as a data acquisition system, providing on-going energy and power quality data for the building's energy management systems and education for sustainability software such as Powersmiths Windows on the World™ (WOW) education for sustainability system. An optional port is available to provide safe external access to live transformer primary and secondary voltages and currents; operating temperature and TVSS status, without opening the transformer enclosure.



OPTIONAL INFRARED VIEWING PORT

Powersmiths Rotatable IR (Infrared) Viewing Port enables safe, non-invasive thermographic imaging of live equipment without exposing maintenance personnel to electrical hazards, including Arc-Flash.

ENVIRONMENTAL BENEFIT

The E-Saver-C3 is built in an ISO 9001 (quality management) and ISO 14001 (environmental management) certified facility. Throughout the manufacturing process, Powersmiths takes steps to ensure that waste is eliminated and hazardous materials are avoided. Because Powersmiths transformers generate lower losses, they reduce power drawn from generating stations resulting in less smog and lower greenhouse gas emissions.

TESTING AND WARRANTY

E-Saver-C3 is subjected to rigorous testing to ensure: efficiency under various load profiles and loading conditions, quiet operation and insulation integrity and production-tests with actual computer-power loading in an ISO 9001 environment.

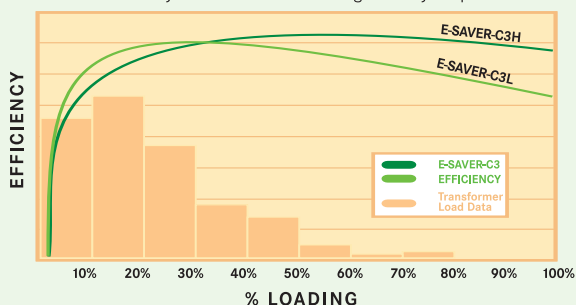
The E-Saver-C3's long life and dependable performance is backed up by Powersmiths' industry leading 25 year pro-rated warranty.

KEY FEATURES

- Reduces electricity waste to help you meet your sustainability goals
- Optimized to provide quiet, efficient electrical power for improved productivity
- Significantly exceeds NEMA TP-1 efficiency for low operating cost over life of transformer
- Provides the lowest life cycle cost of any transformer on the market
- Produced in an ISO 9001 and ISO 14001 certified facility to ensure high quality and low environmental impact

MAXIMIZE YOUR ENERGY SAVINGS

Matches Efficiency With Load Profile and Significantly Outperforms TP1



STANDARD CONFIGURATION

Powersmiths E-Saver-C3 is a 3-phase common-core, ventilated, dry type isolation transformer, built in an ISO 9001 and ISO14001 environment to NEMA ST-20 and other applicable ANSI and IEEE standards. Primary and secondary terminals and voltage taps are readily accessible by removing the front cover plate; 10kV BIL.

The E-Saver-C3 has a 220 °C class insulation, is rated for 60Hz, and comes in a NEMA 1 ventilated indoor enclosure. It exceeds the efficiency requirements of DOE candidate Standard Level 3 (CSL 3).

The E-Saver-C3L comes in two models optimized for light loading: copper-wound k-7 listed, and aluminum-wound k-4 listed. Both have a 130 °C temperature rise.

The E-Saver-C3H is optimized for heavy loading, is copper-wound, has a UL listed k-13 rating, and a 105 °C temperature rise. The C3H model has an 80 °C option with k-20 rating.

SELECT

kVA: Rating of unit (15-1000 kVA, up to 5000 kVA)

PV: Primary voltage (600, 480, 415, 400, 380, 208, up to 15kV)

SV: Secondary voltage (208/120V, 480/277V, 600/347V, others available)

SAMPLE PART NUMBER

E-SAVER-C3L-75-480-208

* FEDERAL REGISTER – US Department of Energy, Office of Energy Efficiency and Renewable Energy. 10 CFR Part 430, July 29, 2004. Energy Conservation Program for Commercial and Industrial Equipment: Energy Conservation Standards

TECHNICAL DATA

kVA	Impedance (%Z)	C3L Weight (lbs)	C3H Weight (lbs)	Case Size (Inches)
15	3.0 - 6.0%	200 - 250	210 - 260	A (18W x 17D x 27H)
30	3.0 - 6.0%	320 - 400	350 - 430	B (26W x 18D x 30H)
45	3.0 - 6.0%	400 - 500	420 - 520	B (26W x 18D x 30H)
75	3.0 - 6.0%	570 - 670	610 - 710	C (32W x 22D x 40H)
112.5	3.0 - 6.0%	850 - 950	880 - 1000	C (32W x 22D x 40H)
150	3.0 - 6.0%	1100 - 1300	1150 - 1350	D (38W x 27D x 48H)
225	3.0 - 6.0%	1550 - 1750	1700 - 1900	D+ (38W x 32D x 52H)
300	3.0 - 6.0%	1850 - 2050	1950 - 2150	D+ (38W x 32D x 52H)
500	3.0 - 6.0%	2500 - 2700	2900 - 3100	E+ (52W x 38D x 61H)
750	3.0 - 6.0%	3700 - 4300	4000 - 4400	F (64W x 47D x 67H)

The above data applies to configurations up to 600V, with NEMA 1 enclosure and standard temperature rise. Selection of some options may change enclosure size and weight. Consult factory for detailed product data sheet for these and other configurations.

* Specific case used determined by factory unless specified. Special designs available to meet custom requirements.

AVAILABLE OPTIONS

SMART1: Integrated metering port

SMART2: Integrated Power & Energy Meter

SMART3: Integrated Meter with Web access

CYBERHAWK-TX: Efficiency & Power Meter

N3R: NEMA 3R, ventilated enclosure

T80: 80 deg. C operating Temp. rise (C3H model only)

F50: 50Hz design

1S: Single electrostatic shields

2S: Dual electrostatic shields

3S: Triple electrostatic shields

ECO: ECOLOGO certified

SPD: (120/208V OR 277/480V)

PRO80: 80kA, 7 mode, Filter

PRO120: 120kA, 7 mode, Filter

PRO160: 160kA, 7 mode, Filter

PRO200: 200kA, 7 mode, Filter

PRO240: 240kA, 7 mode, Filter

PROXX: Where xx is custom ID

LK: Lug kit, screw-type

COL: Color other than the factory standard

TSB: Terminal Safety Barrier

TS: Thermal Sensors at 170 °C and 200 °C

NLT: Nonlinear load test

SE: Sensitive Environment, extra low noise

A: Aluminum windings

WARRANTY: 25 years pro-rated.



Technical specification subject to change without notice.

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