

E-Saver-25H

Ultra Efficient Application Optimized Dry Type Transformer

Optimized for Application Load (OPAL) yields substantially lower losses than typical DOE compliant units

Electrical Ratings	Power [kVA]	75						
	Continous Overload [kVA]	90 <i>Max. Linear Load; 1 THD < 0.05 p.u. < 30°C Amb.</i>						
	Primary [V]	480						
	Secondaries [V]	120/208						
Topology & Materials	Electrical Topology	Primary: Delta 3 -Wire		Secondary: Wye 4 -Wire				
	Terminals: Material / Rating	Neutral: Copper/200%		Line: Copper/100%		Ground: Mechanical Lug		
	Coils / Construction	Aluminium (Sec.)/Copper (Prim.); Welded/Brazed Internal Connections						
	Core / Configuration	3 Leg, Low loss super grain-oriented electrical steel						
Regulatory Efficiency	Insulation Class / Type	220 (<i>UL Listed, E221932</i>)		Nomex based				
	Impregnant / Properties	Epoxy/Polyester co-polymer; Dielectric 3.2kV/mil. x 3 mil. build; Low VOCs						
	B.I.L.	10kV (Primary & Secondary)						
	35% Load @ 75 °C [%]	≥ 98.80 ; <i>tested per DOE 10CFR431⁺, Subpart K, & CSA C802.2</i>						
Load Performance	Reference levels:	(75kVA): DOE 2016: 98.60%; CSA C802.2-12: 98.00 %						
	⁺ Powersmiths exceeds DOE test requirements by guaranteeing min. stated efficiency of every unit							
	Percent Loading:	No Load	16.7%	25.0%	35.0%	50.0%	75.0%	100.0%
	Linear Load Efficiency* [%]		98.51	98.78	98.85	98.77	98.42	97.90
	Linear Load Loss* [W]	157	189	231	305	465	894	1593
General Operation	[BTU/hr]	536	645	788	1041	1587	3050	5435
	K7 Load (IEEE C57.110)* [%]		98.5	98.7	98.8	98.6	98.2	97.5
	<i>*Calculated @ 20°C Amb. Accuracy: Loss ± 3% measurement tolerance per DOE 10CFR431; Efficiencies ± 0.05%</i>							
	Temperature Rise/Ambient [°C]	< 105 (<i>Full Linear Load</i>)			40 (<i>Per ANSI C57.96.2013</i>)			
Impedance	Regulation (<i>full load</i>) [%]	1.9 (<i>Cos Φ=1.0</i>)			3.7 (<i>Cos Φ =0.8</i>)			
	Excitation [A]	0.8 (<i>~ Effective Current</i>)						
	Audible Noise [dBA]	47 (6 dBA less than NEMA ST-20 > K13 requirement 51-150kVA)						
Abnormal	Z: +/- Sequence [%]	Z: 4.0	X: 3.5	R: 1.8	<i>(per ANSI C57.12.91/UL1561)</i>			
	N/A	Zo:	Xo:	Ro:	<i>(per ANSI C57.12.91)</i>			
Enclosure Type & Installation	Bolted Faults (Output)** [A]	Symmetrical:		Source (reflected):		2,305		L/L/L-N: 5,320
	**Zero Upstream Impedance	Asymmetrical:		L - N:		5,320		L - L: 4,607
	Inrush x FLA (@ % Source Imp.)	4 @ 3%	8 @ 1½%	12 @ 0%	<i>(per IEEE 389)</i>			
Physical	Type / Environment	2: Indoor Ventilated; 3R: Sprinkler/Weather Shields (Field Installed Option)						
	Installation / Location	Non-combustible floor; Restricted Access Area, non-public accessible						
Quality, Standards & Certification	Ventilation Clearances	2" to rear wall; zero clearance for sides (Grill opening < 1/2", Vermin Resistant)						
	Paint / Finish	Polyester Powder Coat, Semi-Gloss, Textured; Color: Green (RAL 6018)						
	Size & Drawing	TC0: (W: 32" D: 22" H: 40"); Drawing: 300-003761-800						
Additional Specified Attributes & Options: <i>(As listed)</i>	Net Weight	830 lbs / 377 kg <i>Note: Wall or ceiling brackets available</i>						
	Quality	ISO 9001-2000: Quality Management System ISO 14001-2004: Environmental Management System ISO 17025: Efficiency Measurement Certification (CSA)						
	Design / Build / Test	UL 1561; CSA C22.2-47; NEMA ST-20; ANSI C57.91						
Certifications		UL/CUL Listed; CSA Certified					<i>UL1561 Listed for Non-linear loads</i>	



POWERSMITHS INTERNATIONAL CORP.

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OPAL Series Model: E-Saver-25H-75-480-208

Prepared: D. Faria

Date: 19-Nov-15

Part No: **225-004510 -100**

Revised: D. Faria

Date: 19-Feb-16

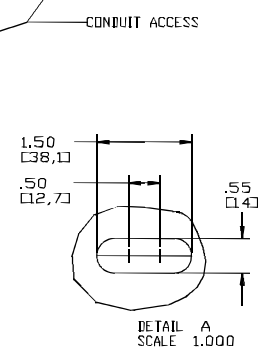
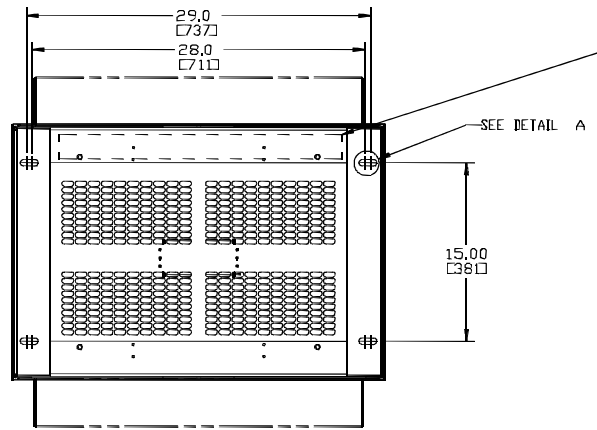
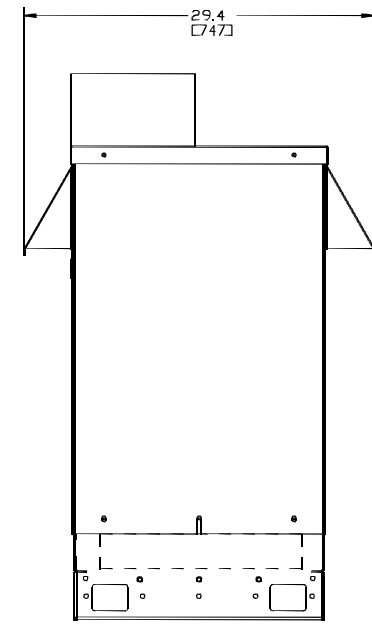
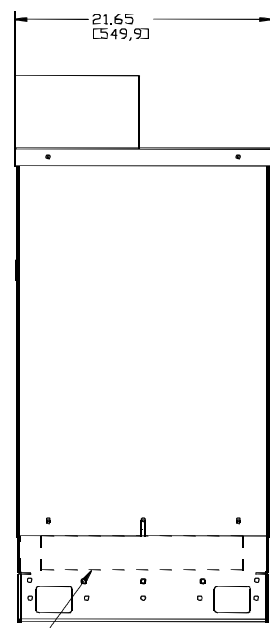
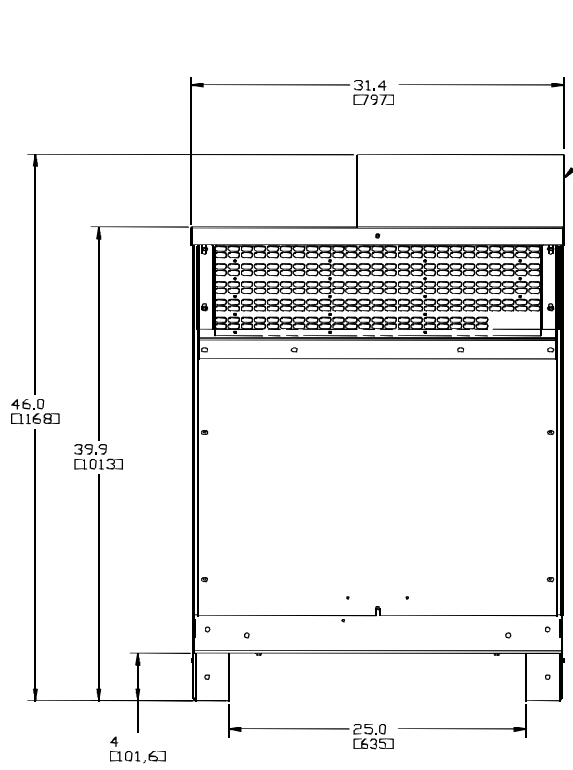
Doc No: **225-004510 -800**

Rev: **A01**

Note: Powersmiths International Corp. reserves the right to revise these specifications without notice; refer to most recent document revision

Ref. Project/Unit ID:

REV	ECO NO.	DESCRIPTION



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	BY: [Signature] DATE: 05-JUN-14	POWERSMITHS INTERNATIONAL CORP <small>10 Brown Rd. Shelburne, Ontario, Canada L4T 2S6</small>
TOLERANCES ARE: 1-PLACE DECIMAL 2-PLACE DECIMAL 3-PLACE DECIMAL ANGLES	APPROVED: BY: [Signature]	
SURFACE FINISH: MATERIAL:	APPROVED:	
FINISH:	UNLESS OTHERWISE NOTED SHOWN ALL DIMENSIONS AND SHARP EDGES	DRAWING NO.: 300-003761-800
	SCALE: 0.188	REV.: A00
		REF: SHEET 1 OF 1

PRO/ENGINEER