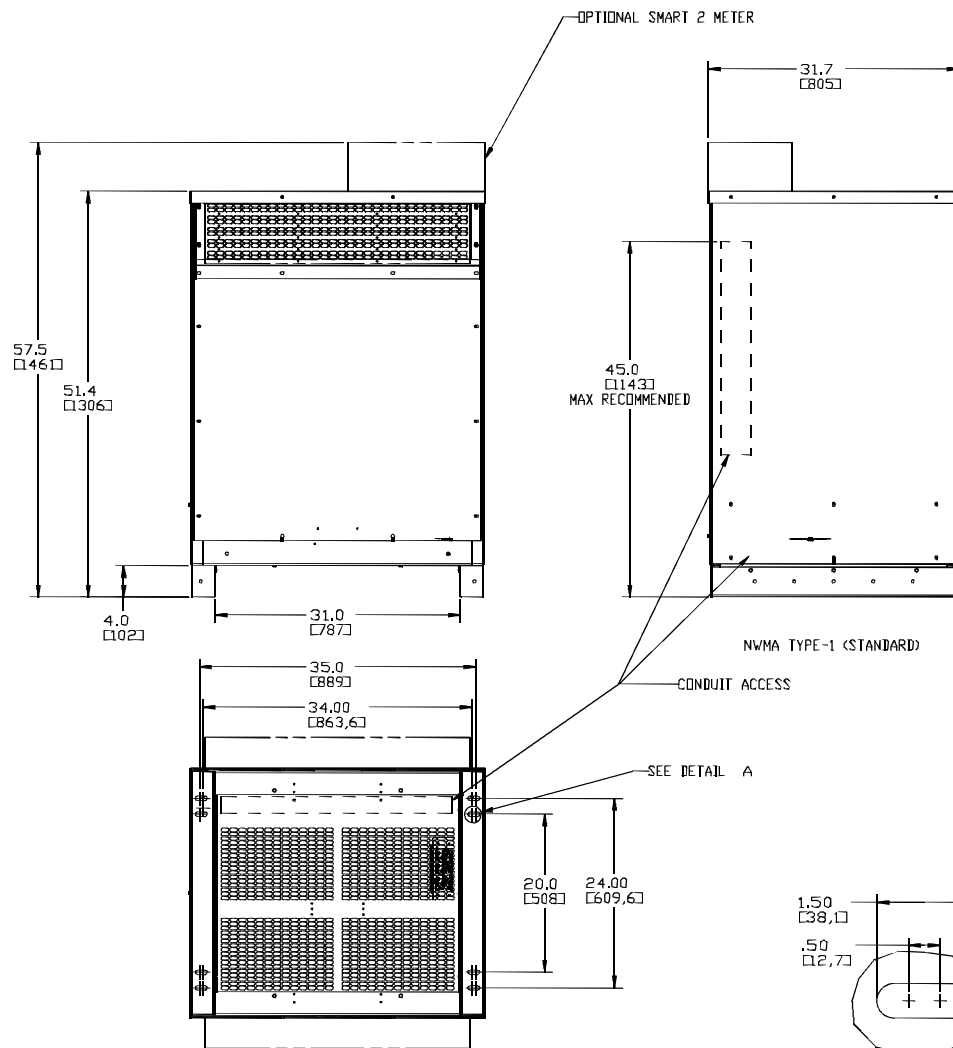
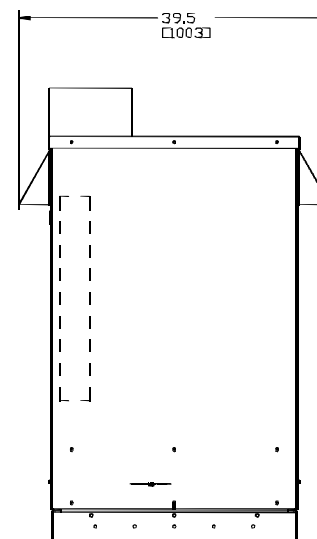


E-Saver-25H		Ultra Efficient Application Optimized Dry Type Transformer						
		Optimized for Application Load (OPAL) yields substantially lower losses than typical DOE compliant units						
Electrical Ratings	Power [kVA]	225						
	Continuous Overload [kVA]	270						
	Primary [V]	480						
	Secondaries [V]	120/208						
Topology & Materials	Frequency [Hz]/Phase/Shift	60 / 3-Phase -30 deg.						
	Primary Taps	2 x 2 1/2 % FCAN; 4 x 2 1/2 % FCBN; (6 Taps)						
	K-Rating (IEEE C57.110) [K]	K13 @ 100%; >K30 @ 80%; Refer Powersmiths published tables for other ratings						
	Electrical Topology	Primary: Delta 3-Wire Secondary: Wye 4-Wire						
Regulatory Efficiency	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						
	Insulation Class / Type	220 (UL Listed, E221932)   Nomex based						
Load Performance	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 [%]	≥ 99.08 ;tested per DOE 10CFR431*, Subpart K, & CSA C802.2						
	Reference levels:	(225kVA): DOE 2016: 98.94%; CSA C802.2-12: 98.50%						
General Operation	*Powersmiths exceeds DOE test requirements by guaranteeing performance of every unit							
	Percent Loading:	No Load	16.7%	25.0%	35.0%	50.0%	75.0%	100.0%
	Linear Load Efficiency+ [%]		98.90	99.10	99.14	99.07	98.80	98.39
	Linear Load Loss+ [W]	341	417	512	680	1050	2036	3645
Impedance	[BTU/hr]	1163	1423	1747	2320	3583	6947	12437
	K7 Load (IEEE C57.110)+ [%]		98.9	99.0	99.1	98.9	98.6	98.1
	+ Calculated @ 20°C Amb. Accuracy: Linear Loss ± 3% measurement tolerance per DOE 10CFR431; Efficiencies ± 0.05%							
	Temperature Rise/Ambient [°C]	< 105 (Full Linear Load) 40 (Per ANSI C57.96.2013)						
Abnormal	Regulation (full load) [%]	1.5 (Cos Φ=1.0)   3.6 (Cos Φ=0.8)						
	Excitation [A]	1.6 (~ Effective Current)						
	Audible Noise [dBA]	52 (3 dBA less than NEMA ST-20 requirement 151-300kVA)						
	Z: +/- Sequence [%]	Z: 4.2	X: 4.0	R: 1.4	(per ANSI C57.12.91/UL1561)			
Enclosure Type & Installation	N/A	Zo:	Xo:	Ro:	(per ANSI C57.12.91)			
	Shortcircuit Current** [A]	Symmetrical Bolted faults		Primary: 6,540		Secondary: 15,092		
	**Zero Upstream Impedance	Asymmetrical Bolted faults		L - N: 15,092		L - L: 13,070		
	Inrush x FLA /@ % Source	3 /@ 3%		7 /@ 1½%		10 /@ 0% (per IEEE 389)		
Physical	Type / Environment	2: Indoor Ventilated; 3R: Sprinkler/Weather Shields (Field Installed Option)						
	Installation / Location	Non-combustible floor; Restricted Access Area, non-public accessible						
	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)						
Quality, Standards & Certification	Size & Drawing	TD1: (W: 38" D: 32" H: 52"); Drawing: 300-003779-800						
	Net Weight	1695 lbs / 770 kg						
	Quality	ISO 9001-2000: Quality Management System						
	Design / Build / Test	ISO 14001-2004: Environmental Management System						
Additional Specified Attributes & Options:	Certifications	ISO 17025: Efficiency Measurement Certification (CSA)						
		UL 1561; CSA C22.2-47; NEMA ST-20; ANSI C57.91						
		UL/CUL Listed; CSA Certified						
		UL1561 Listed for Non-linear loads						
POWERSMITHS		POWERSMITHS INTERNATIONAL CORP.						
		10 Devon Rd. Brampton, ON. L6T 5B5, Canada powersmiths.com						
OPAL Series Model:		E-Saver-25H-225-480-208						
Prepared: D. Faria		Date: 26-Nov-15		Part No: 211-004522 -100				
Revised:		Date: 25-Jan-16		Doc No: 211-004522 -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



NWMA TYPE-1 (STANDARD)



UL/NEMA TYPE-2/3R (OPTION WHEN SPECIFIED)  
NOTE: DRIP SHIELDS INSTALLED AT SITE

DETAIL A  
SCALE 1.000

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 1-PLACE DECIMAL: .015 2-PLACE DECIMAL: .005 3-PLACE DECIMAL: .001 4-PLACE DECIMAL: .0005 SURFACE FINISH: .125 MATERIAL: FINISH:	BY: DATE	POWERSMITHS INTERNATIONAL CORP 10 Brown Rd. Brampton, Ontario, Canada, L6T 9B5 TITLE: OUTLINE, TDI CASE DRAWING NO. 300-003779-800 REV. A00 SHEET 1 of 1 PRO/ENGINEER
	APPROVED BY: 05-JUN-14	
	APPROVED	
	APPROVED	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 1-PLACE DECIMAL: .015 2-PLACE DECIMAL: .005 3-PLACE DECIMAL: .001 4-PLACE DECIMAL: .0005 SURFACE FINISH: .125 MATERIAL: FINISH:	APPROVED	
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	APPROVED	

PRO/ENGINEER