ADVANCED ENERGY®



AE 75TX and AE 100TX

(Formerly known as PVP75kW and PVP100kW)

The industry standard for reliability and ease of installation

The AE 75TX and AE 100TX commercial inverters set the industry standard for high reliability, ease of installation, and lifetime maintainability. Designed for a 20+ year operating life, high reliability is enabled by busbar power connections, redundant cooling system, and card cage circuit board design resulting in a track record of 99+% uptime. With a best-in-class efficiency of 96%, the highly integrated system is designed to save installers time and money with load break rated AC & DC service disconnects, neutral-free installation, oversized busbar landings, and generous cable bending area with bottom and side entry options. The wide 295-595 V operating window maximizes energy harvest and provides exceptional stringing flexibility.

New features include remote disable inputs and an expanded array of monitored subcombiner fusing options. A 24 V auxiliary power supply, revenue grade meter, and performance monitoring gateway can also be added for a completely integrated inverter solution. Advanced power controls provide essential utility support functions including power factor, curtailment, and controlled ramp rate.

The AE 75TX and the AE 100TX are backed with an industry-leading 10-year nationwide warranty and a comprehensive optional 20-year warranty; plus the best service and support team in the business.

Superior Reliability

- Engineered power connections eliminate failure points
- Increased availability with >99% monitored fleet availability
- Card cage circuit board design
- Redundant cooling system with Smart Air Management™
- Redundant industrial grade power supply

Exceptional Installability

- Bottom and side cable entry
- Generous cable bending area
- Complete range of fused DC subcombiner options
- Exterior mounting flange for fast and easy anchoring
- Error-free AC auto-phasing

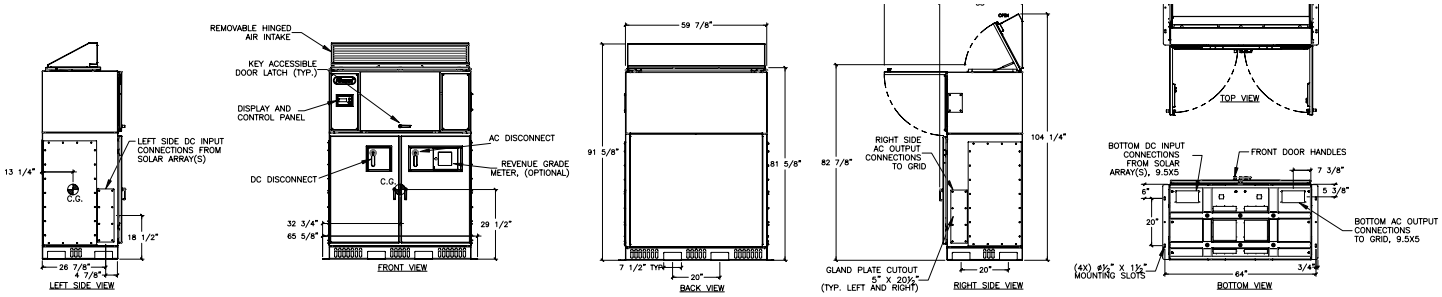
Easy to Maintain

- All maintenance and service via front and side access
- Fast change circuit board system shortens service time
- Load break rated AC and DC service disconnects
- Dedicated performance monitoring section

AE Solar Energy is a US based company.

ONTARIO FEED IN TARIFF
DOMESTIC CONTENT COMPLIANT

Dimensions - AE 75TX and AE 100TX



AE 75TX and AE 100TX Summary Specifications*

Mechanical	AE 75TX	AE 100TX
Weight	2750 lbs	3000 lbs
Construction	Powder coated steel, optional stainless steel	Powder coated steel, optional stainless steel
Environmental Rating	NEMA 4	NEMA 4
Mounting	Pad Mount	Pad Mount
Isolation Transformer	Integrated	Integrated
Integrated AC/DC Disconnect	Included	Included
AC and DC Surge Protection	Included	Included
Electrical		
DC Inputs		
Array Configuration	Positive or negative ground	Positive or negative ground
Maximum Operating Input Current	267A	356 A
Maximum DC Input Voltage (VOC)	600 V	600 V
MPPT Voltage Range	295-595 V	295-595 V
Open-Circuit Turn-On Voltage	330 V	330 V
AC Output		
Continuous Output Power (kW)	75 kW	100 kW
Nominal Voltage	208 Y, 480 Y, 600 Y	208 Y, 480 Y, 600 Y
Operating Voltage Range	-12% / +10%	-12% / +10%
Electrical Service Compatibility	3 phase, 4 wire, grounded Wye	3 phase, 4 wire, grounded Wye
Maximum Continuous Current	208: 208 A 480: 91 A 600: 72 A	208: 278 A 480: 120 A 600: 96 A
Short Circuit Fault Current	208: 320 Arms @ 208 VAC, 60.3 ms 480: 139 Arms @ 480 VAC, 60.3 ms 600: 111 Arms @ 600 VAC, 60.3 ms	208: 320 Arms @ 208 VAC, 60.3 ms 480: 139 Arms @ 480 VAC, 60.3 ms 600: 111 Arms @ 600 VAC, 60.3 ms
Nominal Frequency	60 Hz	60 Hz
Frequency Range	59.3 - 60.5 Hz, adjustable to 57.0 Hz	59.3 - 60.5 Hz, adjustable to 57.0 Hz
Total Harmonic Distortion	< 3% THD	< 3% THD
Efficiency		
Efficiency: Peak/CEC	208: 96.1% / 95.5% 480: 96.6% / 95.5% 600: 96.5% / 96.0%	208: 96.4% / 95.5% 480: 97.1% / 96.0% 600: 96.4% / 96.0%
Standby Losses	< 42 W	< 42 W
Inverter Controls and Monitoring		
Power Factor	> 0.99, adjustable to 0.9 leading or lagging	> 0.99, adjustable to 0.9 leading or lagging
Power Curtailment	5 - 100%, 1% increments	5 - 100%, 1% increments
Communication Interfaces and Protocols	RS-485, Ethernet, Modbus, TCP/IP	RS-485, Ethernet, Modbus, TCP/IP
Environmental		
Operating Ambient Temp. Range	-30 °C to 50 °C	-30 °C to 50 °C
Standby/Storage Ambient Temp. Range	-40 °C to 60 °C	-40 °C to 60 °C
Cooling	Forced Convection	Forced Convection
Relative Humidity	0 to 95%, non-condensing	0 to 95%, non-condensing
Elevation	6000 ft	6000 ft
Noise Emission	< 61 dBA, typical at full load	< 61 dBA, typical at full load
Regulatory		
Agency Approvals / Regulatory Compliance	UL 1741, IEEE 519, IEEE 929, IEEE 1547, CSA 107.1-1, FCC Class A	UL 1741, IEEE 519, IEEE 929, IEEE 1547, CSA 107.1-1, FCC Class A
Inverter Warranty	10 Year	10 Year

Subject to change without notice. Refer to user manual for detailed specification.
*Note: Not all performance window specifications can be achieved simultaneously. Performance varies per site.
Consult your AE sales or service representatives for specific PV system design questions at sales.support@aei.com.

Advanced Power Controls

- Power factor
- Curtailment
- Controlled ramp rate
- Remote enable/disable

Options

- Integrated fused subcombiner: up to 9 inputs of 70 A - 600 A (max total of 675 A)
- Integrated fused subcombiner with monitoring: Up to 6 inputs of 70 A - 100 A or up to 5 inputs of 70 A - 200 A (max total of 675 A)
- Integrated revenue grade meter
- Integrated data monitoring
- 24 V auxiliary power supply
- Stainless steel
- 20-year extended warranty

Performance Monitoring

Increase uptime and reduce maintenance costs with integrated performance monitoring hardware that enables connectivity to a variety of software solutions from industry leading monitoring partners. The tight integration between Advanced Energy and our monitoring partners creates a superior service and support experience while seamlessly delivering meaningful data. Factory integration and testing of our UL listed monitoring solution ensures high reliability and significantly reduces field installation costs.

ecoDIRECT
CLEAN ENERGY SOLUTIONS

ADVANCED ENERGY®
AE Solar Energy • 20720 Brinson Blvd • Bend, OR 97701 U.S.A.
www.advanced-energy.com/solarenergy
877.312.3832 • sales.support@aei.com • invertersupport@aei.com
Please see www.advanced-energy.com for worldwide contact information.

© Advanced Energy Industries, Inc. 2012
All rights reserved. Printed in U.S.A.
ENG-AE75-100TX-250-06 11/12

Advanced Energy is a registered U.S. trademark of Advanced Energy Industries, Inc.