



## AE 35TX and AE 50TX

(Formerly known as PVP35kW and PVP50kW)

### Three-Phase inverter solutions for small commercial projects

The AE 35TX and AE 50TX commercial inverters feature the same industry leading reliability, efficiency, ease of installation, and lifetime maintainability of Advanced Energy's larger commercial inverters. These two models are sized to serve smaller PV system designs, or to provide the perfect fit to complete a larger PV project. In addition, the AE 35TX and AE 50TX deliver the highest efficiency in their class and rival the efficiency of much larger inverters.

High reliability is enabled by a ground-up design for a 20+ year operating life that features busbar power connections, card cage circuit board design, and the widest temperature rating of any inverter in its class. The highly integrated system saves installers time and money by including load break rated AC & DC service disconnects, neutral-free installation, oversized busbar landings and generous cable bending area. The AE 35TX and AE 50TX have a 295 VDC minimum MPPT voltage that enables stringing flexibility that is critical for smaller rooftop projects.

The AE 35TX and the AE 50TX are backed with an industry-leading 10-year nationwide warranty and an optional 20-year warranty; plus the most responsive service and support team in the business.



#### Superior Reliability

- Designed for 20+ year operating life
- Smart Air Management™
- Increased availability with >99% monitored fleet availability
- Low parts count reduces potential failure points
- Card cage circuit board system minimizes electronic interconnections

#### Exceptional Installability

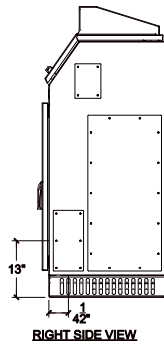
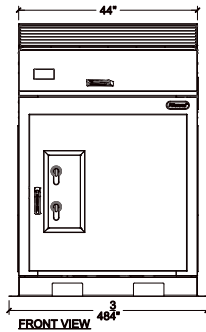
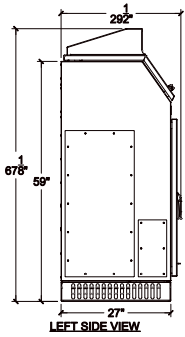
- Bottom and side cable entry with generous bending area and oversized busbar landings
- Customizable subcombiner fusing options
- Full power output at 295 VDC enables more PV array design options
- Exterior mounting flanges for fast and easy anchoring with no pre-drilling

#### Easy to Maintain

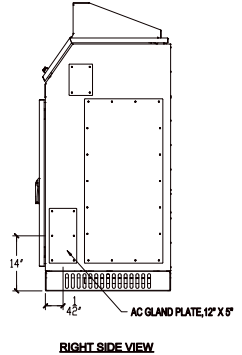
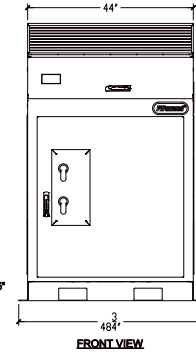
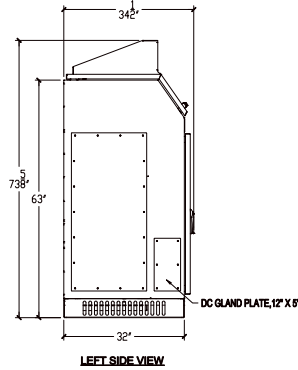
- All maintenance and service via front access
- Fast change circuit board system shortens service time
- Load break rated AC and DC service disconnects
- Dedicated monitoring section separate from AC and DC modules



## Dimensions AE 35TX



## AE 50TX



## AE 35TX and AE 50TX Summary Specifications\*

Mechanical	AE 35TX	AE 50TX
Weight	1200 lbs	1500 lbs
Construction	Powder coated 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
<b>Electrical</b>		
<b>DC Inputs</b>		
Array Configuration	Positive or negative ground	Positive or negative ground
Maximum Operating Input Current	125 A	178 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
<b>AC Output</b>		
Continuous Output Power (kW)	35 kW	50 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: 100 A 480: 43 A 600: 35 A	208: 141 A 480: 61 A 600: 49 A
Short Circuit Fault Current	208: 112 Arms @ 208 VAC, 60.3 ms 480: 49 Arms @ 480 VAC, 60.3 ms 600: 39 Arms @ 600 VAC, 60.3 ms	208: 111 Arms @ 208 VAC, 60.3 ms 480: 48 Arms @ 480 VAC, 60.3 ms 600: 38 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
<b>Efficiency</b>		
Efficiency: Peak/CEC	208: 96.2% / 95.5% 480: 97.0% / 96.0% 600: 96.4% / 95.5%	208: 96.7% / 96.0% 480: 97.2% / 96.0% 600: 96.6% / 96.0%
Standby Losses	< 33 W	< 33 W
<b>Inverter Controls and Monitoring</b>		
Power Factor	> 0.99	> 0.99
Communication Interfaces and Protocols	RS-485, Ethernet, Modbus, TCP/IP	RS-485, Ethernet, Modbus, TCP/IP
<b>Environmental</b>		
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	< 54 dBA, typical at full load	< 54 dBA, typical at full load
<b>Regulatory</b>		
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](mailto:sales.support@aei.com).

## Options

- Subcombiner fusing
- Integrated data monitoring solutions
- Integrated revenue grade meter
- Stainless Steel (AE 50TX only)
- Positive ground
- Preventative maintenance program
- 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.



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