ASI Technologies

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TECHNICAL DATA SHEET

ASI VENTHERM Series

Reflow Soldering Ovens · VENTHERM C3 / VENTHERM P5

P/N FAM-VENTHERM	**Document** TDS-FAM-VENTHERM	**Rev.** 05	**Date** 12 Nov 2026



Main function

The **ASI VENTHERM Reflow Ovens** provides controlled convection reflow soldering for SMT production, with independently programmable heating zones and touchscreen-based process control.

Available in two configurations, the series provides a choice between the compact **VENTHERM C3** with three top and three bottom heating zones, and the production-oriented **VENTHERM P5** with five top and five bottom heating zones.

3+3 / 5+5	**320°C**	**±1°C**	**250 / 330 mm**	**PLC + 8"**
Heating zones (C3 / P5)	Maximum temperature	Temp. control accuracy (set point)	Max. PCB width (C3 / P5)	Android touchscreen HMI

Key Features

- Independently programmable heating zones
- **8-inch** Android-based capacitive touchscreen controller
- Maximum operating temperature of **320°C**
- Compatible with most leaded and lead-free solder paste profiles
- On-board reflow profiling with support for up to **3 thermocouples**
- Programmable conveyor speed, heating temperature, convection heat flow and cooling fans
- Plenum convection heating technology for uniform temperature profiling across the PCB
- Storage for up to **100** individual profiles
- Real-time graphical temperature display
- Password protection
- USB flash-drive data logging
- Status light tower
- Low-mass stainless-steel conveyor
- Clamshell hood design with mechanical strut
- RS232 PC interface
- Optional nitrogen capability

תקציר בעברית: סדרת ASI VENTHERM – תנורי הלחמת Reflow בהסעת אוויר חם (Plenum convection) לייצור SMT, עם אזורי חימום הניתנים לתכנות בנפרד, בשני דגמים: **VENTHERM C3** הקומפקטי – 3 אזורי חימום עליונים ו-3 תחתונים, רוחב כרטיס עד 250 מ"מ ומנהרה מחוממת של 850 מ"מ; **VENTHERM P5** לייצור Inline – 5+5 אזורי חימום, רוחב כרטיס עד 330 מ"מ, מנהרה של 1,745 מ"מ ומסוע רשת או מסוע פינים. טמפרטורה מרבית 320°C, דיוק בקרת טמפרטורה (נקודת קביעה) ±1°C, בקר PLC עם מסך מגע Android בגודל 8 אינץ', פרופיילינג מובנה עד 3 צמדים תרמיים, שמירת עד 100 פרופילים, רישום נתונים ל-USB, ממשק RS232 ואפשרות לחנקן. מתח 410VAC תלת-פאזי.

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Heating & temperature		
Specification	**ASI VENTHERM C3**	**ASI VENTHERM P5**
Heating zones	3 top + 3 bottom	5 top + 5 bottom
Maximum temperature	320°C	320°C
Temperature control accuracy (set point)	±1°C	±1°C
Heating method	Plenum air convection	Plenum air convection
Heated tunnel length	850 mm	1,745 mm
Cooling	1 station / 1 fan	1 station / 2 fans
Nitrogen capability	Optional	Optional
PCB & conveyor		
Maximum PCB width	250 mm	330 mm
Component clearance*	35 mm	35 mm
Conveyor type	Mesh belt	Mesh belt / edge support
Conveyor speed	10-40 cm/min	10-60 cm/min
Conveyor speed accuracy	±5%	±5%
Conveyor direction	Left to right	Left to right
Conveyor extensions	Not specified	Optional (SMEMA)
Control & data		
Controller	PLC	PLC
Touchscreen HMI	8-inch Android capacitive	8-inch Android capacitive
Data logging	USB flash drive	USB flash drive
Built-in profiling	Up to 3 thermocouples	Up to 3 thermocouples
Recipe storage	Up to 100 profiles	Up to 100 profiles
Temperature display	Real-time graphical display	Real-time graphical display
PC interface	RS232 included	RS232 included
Utilities, dimensions & weight		
Exhaust connections	2 × Ø102 mm	3 × Ø102 mm
Exhaust flow	425 m³/h	425 m³/h
Peak power	5.5 kW	14.5 kW
Power supply**	410 VAC, 3-phase, 50/60 Hz	410 VAC, 3-phase, 50/60 Hz
Dimensions (L × W × H)	1,400 × 755 × 450 mm	2,500 × 945 × 1,255 mm
Net machine weight	150 kg	400 kg
Chamber access	Clamshell cover	Clamshell cover
Notes		
*	Clearance above/below the PCB has not been separately confirmed.	
**	Supported input-voltage range must be confirmed before installation.	
Alarm and diagnostics	Alarm and diagnostic functions: detailed specification not yet confirmed.	

Specifications are subject to change without notice. Rev. history: Rev 03: new datasheet layout; temperature control accuracy specified at set point (±1°C) | Rev 04: conveyor extensions: SMEMA interface designation corrected | Rev 05: עדכון עיצוב, ללא שינוי טכני

ASI VENTHERM C3

Compact 3-Zone Reflow Soldering Oven. Compact configuration featuring 3 top and 3 bottom independently programmable heating zones, a maximum PCB width of 250 mm, and an 850 mm heated tunnel.



ASI VENTHERM P5

Production 5-Zone Inline Reflow Soldering Oven. Production-oriented inline configuration featuring 5 top and 5 bottom independently programmable heating zones, support for PCB widths up to 330 mm, and a 1745 mm heated tunnel. The system supports a mesh-belt or edge-pin conveyor and optional SMEMA conveyor extensions.

