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Data Sheet

August 15, 2026

ESSEMTEC

Essemtec RO300FC Reflow Soldering Oven

Essemtec RO300FC Full Convection Reflow Oven Queue model RO300FC is the Essemtec RO300FC 300 mm full-convection reflow oven. Essemtec RO300FC specification brochure lists 3 heating zones plus 1 cooling zone, mesh-belt or pin/chain conveyor (RO300FC-C), air or nitrogen (RO300FCN2, changeover less than 5 minutes), 300 C (572 F) max gas set per heat zone, 3000 W + 3000 W + 3000/2500 W heat, plus or minus 3 K regulation, FR4 ramps 1.8-2 K/s preheat and 2-3 K/s reflow, 2.5-3 K/s cool, Delta-T within 300 mm less than 4 C, zone-to-zone difference up to 100 C, heat-up 6 min on a 160-160-160-235 C profile, cold start 14 min to 235 C / 35 min to 300 C on the air mesh row, conveyor 100-800 mm/min, footprint about 2 m x 0.7 m (about 80 in long), SMEMA on chain models, microprocessor LCD with 20 preset profiles, up to 700 boards per 8-hour shift in application text. Queue model RO300FC is the Essemtec RO300FC 300 mm full-convection reflow oven. Essemtec RO300FC specification brochure lists 3 heating zones plus 1 cooling zone, mesh-belt or pin/chain conveyor (RO300FC-C), air or nitrogen (RO300FCN2, changeover less than 5 minutes), 300 C (572 F) max gas set per heat zone, 3000 W + 3000 W + 3000/2500 W heat, plus or minus 3 K regulation, FR4 ramps 1.8-2 K/s preheat and 2-3 K/s reflow, 2.5-3 K/s cool, Delta-T within 300 mm less than 4 C, zone-to-zone difference up to 100 C, heat-up 6 min on a



MODEL

**Essemtec
RO300FC**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

RO300FC

LISTING

<https://aumictechlabs.com/products/ro300fc-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Essemtec RO300FC is a high-precision pick and place nozzle designed to optimize component handling in automated assembly processes. This nozzle is specifically engineered for use with Essemtec pick and place machines, ensuring seamless integration and reliable performance. It facilitates the accurate and efficient placement of a wide range of electronic components, contributing to enhanced production speeds and reduced error rates.

RO300FC Characteristics / Specifications

PARAMETER	VALUE
Model	RO300FC
Instrument Type	Full convection reflow soldering oven
Family	Essemtec RO300FC / RO300FCN2 / RO300FC-C
Heat Zones	3
Cool Zones	1
Process Width	300 mm
Max Gas Temp	300 C (572 F) per heat zone
Heat Power	3000 W plus 2500 W reflow
Regulation	plus or minus 3 K under reflow conditions
Ramp Preheat	1.8 to 2 K/s (FR4 inboard)
Ramp Reflow	2 to 3 K/s
Ramp Cool	2.5 to 3 K/s
Delta T	less than 4 C within 300 mm conveyor width
Zone Separation	up to 100 C between adjacent zones
Profile Heatup	6 min for 160-160-160-235 C typical profile from 20 C
Cold Start 2	14 min (air mesh row)
Cold Start 3	35 min (air mesh row)
Conveyor Speed	100 to 800 mm/min
Conveyor Types	mesh belt or pin/chain (C models)
Atmosphere	air; nitrogen on N2 models, changeover less than 5 minutes
Footprint	about 2 m by 0.7 m
Smema	standard on chain-conveyorCmodels
Control	integrated microprocessor with LCD, 20 preset profiles
Throughput Class	up to 700 boards per 8-hour shift (application text)
Manufacturer	Essemtec

PARAMETER	VALUE
Literature	Essectec RO300FC full convection reflow oven specification brochure

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	R0300FC
Instrument Type	Full convection reflow soldering oven
Family	Essemtec R0300FC / R0300FCN2 / R0300FC-C
Heat Zones	3
Cool Zones	1
Process Width	300 mm
Max Gas Temp	300 C (572 F) per heat zone
Heat Power 1	3000 W preheat 1
Heat Power 2	3000 W preheat 2
Heat Power 3	3000 W plus 2500 W reflow
Regulation	plus or minus 3 K under reflow conditions
Ramp Preheat	1.8 to 2 K/s (FR4 inboard)
Ramp Reflow	2 to 3 K/s
Ramp Cool	2.5 to 3 K/s
Delta T	less than 4 C within 300 mm conveyor width
Zone Separation	up to 100 C between adjacent zones
Profile Heatup	6 min for 160-160-160-235 C typical profile from 20 C
Cold Start 235	14 min (air mesh row)
Cold Start 300	35 min (air mesh row)
Conveyor Speed	100 to 800 mm/min
Conveyor Types	mesh belt or pin/chain (C models)
Atmosphere	air; nitrogen on N2 models, changeover less than 5 minutes
Footprint	about 2 m by 0.7 m
Smema	standard on chain-conveyorCmodels
Control	integrated microprocessor with LCD, 20 preset profiles
Throughput Class	up to 700 boards per 8-hour shift (application text)

PARAMETER	VALUE
Manufacturer	Essemtec
Literature	Essemtec R0300FC full convection reflow oven specification brochure

Notes

From Essemtec R0300FC specification tables. N2 and chain-conveyor cold-start minutes on R0300FCN2-C rows are shorter than the air mesh 14/35 min figures and are not copied onto base R0300FC.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.