

45 Liter Refrigerated Circulator, -25°C



AD45R-20

Key Specifications

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| Description | -25, 45 L Ref. Circulator |
| Controller Type | Advanced Digital |
| Display | 3.75" Touch-Pad LCD |
| Connectivity | Ethernet, USB A & B, RS232/addressable RS485, External Temperature Probe |
| Languages Supported | 4: French, German, Spanish, English |
| Swivel 180 Rotating Controller | Yes |
| Working Temperature Range °C | -25° to 135° |
| Temperature Stability °C | ±0.01° |
| Fluid Optimization/Specific Heat Tuning | Automatic and/or user-adjustable |
| Temperature Calibration Capability | 1-point |
| Working Access (L x W x D) (cm) | 54.9 x 39.8 x 14 cm |
| Pump Type | Pressure/Suction |
| External Temperature Control Capability | Yes |
| Flammability Class (DIN 12876-1) | III (FL) |
| Electrical Plug Options | Part numbers listed are Standard U.S. and European types. Country specific plug types available. Contact your regional distributor to order. |

Key Features

Advanced Digital Controller

Key Features

- Intuitive 3.75" (9.5 cm) display with touch-pad control
- 4 languages: French, German, Spanish, English
- Swivel 180™ Rotating Controller
- On-board connectivity: USB-A & B, Ethernet, RS-232/RS-485, and external temperature probe
- On-screen prompts
- Automatic performance optimization and specific heat tuning
- Single-point calibration capability

Common Specifications

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| Working Temperature Range °F | -13° to 275° |
| Working Temperature Range °C | -25° to 135° |
| Nominal Cooling Capacity @ +20C (W) | 1400 |
| Reservoir Capacity (gallons) | 11.88 |
| Reservoir Capacity (liters) | 45 |
| Reservoir/Tank Material | Stainless Steel |
| Reservoir Cover | Included |
| DuraTop | Yes |
| Cleanable Air Filter | Yes |
| Working Access (L x W x D) (inches) | 21.6 x 15.68 x 5.5 in |
| Working Access (L x W x D) (cm) | 54.9 x 39.8 x 14 cm |
| Temperature Stability °F | ±0.02° |
| Temperature Stability °C | ±0.01° |
| Display | 3.75" Touch-Pad LCD |
| Display Resolution (Set) | 0.01 |
| Display Resolution (Read) | 0.01 |
| Pump Type | Pressure/Suction |
| Pump Speed | Variable |
| Process Connections | 1/4" (F) NPT |
| External Temperature Control Capability | Yes |
| Flammability Class (DIN 12876-1) | III (FL) |
| Over-Temperature Protection / Failsafe Heater Control | Yes |
| Low Liquid Level Protection | Yes |
| WhisperCool Environmental Control Technology | Yes |
| Cool Command Refrigeration Technology | Yes |

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| Reservoir Drain | Yes |
| Included Software | PolyTemp Viewer, USB driver |
| Maximum Ambient Temperature °F | 95° |
| Maximum Ambient Temperature °C | 35° |
| Overall Dimensions (L x W x H) (inches) | 35.8 x 22.4 x 42.1 in |
| Overall Dimensions (L x W x H) (cm) | 90.9 x 56.8 x 107 cm |
| Refrigerant | R134a |
| Environmental Compliance | RoHS, WEEE |
| Shipping Weight (pounds) | 180.0 |
| Shipping Weight (kilograms) | 81.5 |
| Catalog Page Number | 40-41 |

60 Hz Only

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| Part Number | AD45R-20-A13D |
| Maximum Pressure (psi) | 4.3 |
| Maximum Pressure (bar) | 0.30 |
| Maximum Pressure Flow Rate (gpm) | 5.30 |
| Maximum Pressure Flow Rate (l/min) | 20.1 |
| Maximum Suction Flow Rate (gpm) | 3.9 |
| Maximum Suction Flow Rate (l/min) | 14.7 |
| Cooling Capacity @ -20°C (W) | 250 |
| Cooling Capacity @ 0°C (W) | 800 |
| Cooling Capacity @ +20°C (W) | 1400 |
| Cooling Capacity @ +100°C (W) | 1400 |
| Included Hardware | Nylon hose adapters for 3/8", 1/4", and 3/16" |
| Heater Wattage | 2200 |
| Electrical Requirements (VAC/Hz/Ph/A) | 208-230/60/1/13 |
| Regulatory Approvals | ETL |

50 Hz Only

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|---|---------------|
| Part Number | AD45R-20-A12E |
| Maximum Pressure (psi) | 3.6 |
| Maximum Pressure (bar) | 0.25 |
| Maximum Pressure Flow Rate (gpm) | 4.40 |
| Maximum Pressure Flow Rate (l/min) | 16.7 |
| Maximum Suction Flow Rate (gpm) | 3.2 |
| Maximum Suction Flow Rate (l/min) | 12.2 |
| Cooling Capacity @ -20°C (W) | 250 |
| Cooling Capacity @ 0°C (W) | 800 |
| Cooling Capacity @ +20°C (W) | 1400 |

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| Cooling Capacity @ +100°C (W) | 1400 |
| Included Hardware | Nylon hose adapters for 3/8", 1/4", and 3/16", and 1/4" NPT to M16 adapter |
| Heater Wattage | 2200 |
| Electrical Requirements (VAC/Hz/Ph/A) | 208-240/50/60/1/13 |
| Regulatory Approvals | CE |



© 2015-2019 **PolyScience** 6600 W. Touhy Avenue, Niles, Illinois 60714-4516 USA

Phone: +1(847) 647-0611 or +1(800) 229-7569 **Fax:** +1(847) 647-1155

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Source URL (modified on 12/26/2019 - 12:10): <https://www.polyscience.com/circulating-baths/45-liter-refrigerated-circulator-25%C2%B0c-2>