Abbott Diagnostics



# ARCHITECT *c* 4000

The ARCHITECT *c* 4000 Clinical Chemistry Analyzer demonstrates that some “big” things—for example, high-quality testing results and rapid STAT turnaround time—can come in a small package. Designed with advanced technology, the ARCHITECT *c* 4000 enhances laboratory productivity and provides users high confidence in clinical results.

For *in vitro* diagnostic use only.



## SYSTEM SPECIFICATIONS

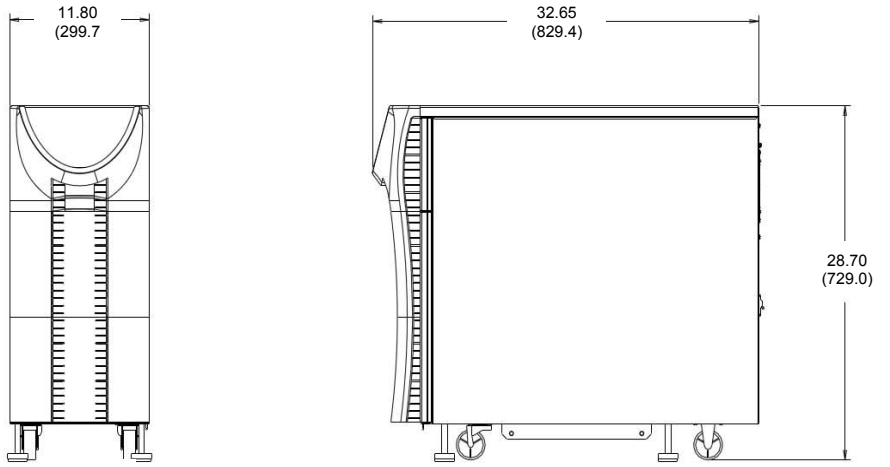
Review a few details about the ARCHITECT *c* 4000 Clinical Chemistry Analyzer in the specifications listed here.

Refer to the operations manual or user guide for warnings, precautions and limitations for proper use of the instrument.

| | ARCHITECT *c*4000<br>Clinical Chemistry |
|---|---|
| **Methods** | Photometric, Potentiometric, Turbidimetric |
| **Maximum Throughput** | Up to 800 tests/hour |
| **Sample Types** | Serum, Plasma, Urine, CSF |

| | |
|---|---|
| **Sample Tubes** | Height: 72-102 mm<br>Diameter: 9.6 -16.1 mm |
| **Sample Cup** | Yes (50 µL dead volume) |
| **Sample Capacity** | 100 |
| **Sample Barcode Types** | Code 39, Codabar, Interleaved 2 of 5, Code 128 |
| **Sample Result Storage** | 50,000 |
| **Sample Volume** | 1-35 µL, Average: 7 µL |
| **Automatic Dilution** | Yes |
| **Sample Probe Carryover** | <0.1 parts per million |
| **Reagent Capacity** | Up to 55 refrigerated positions plus patented ISE (Na+, K+, Cl-) |
| **Reagent Type** | >95% Liquid ready-to-use |
| **Reagent Onboard Stability** | 5-65 days<br>Average: 40 days |
| **Calibration Frequency** | 1-60 days<br>Average: 25 days |
| **Sample, Clot and Bubble Detection** | Yes |
| **Reagent Pressure Monitoring** | Yes |
| **Sample Interference Measurement** | Yes: Hemolysis, Icterus, and Lipemia |
| **System Control Center** | 1 SCC, with color touchscreen monitor, keyboard, and mouse |
| **Onboard Maintenance Records** | Yes |
| **Online Error Code Help** | Yes |
| **Host Interface** | Bidirectional, serial RS-232 interface, host query option available |
| **Remote Diagnostics** | AbbottLink® |
| **Dimensions (HxWxD)** | 49" x 63" x 36"<br>125.1 x 160 x 90.7 cm |
| **Weight** | 1,132 lb<br>513.5 kg |
| **Electrical Requirements** | AC 180-264V, 47-63 Hz, 20 Amp |
| **Water Requirements** | Deionized Water, ≤15 liters/hour |
| **Heat Output*** | 3050 BTU/hr, Running Mode |

*Values provided represent the typical output in “Running” mode for the system processing module and sample handler. A maximum value of 389 BTU/hr was




**FRONT** **SIDE** **REAR**

| | Model | ABCDEF4000-22 | | | | |
|---|---|---|---|---|---|---|
| | Topology | True On-Line, Double-Conversation, IGBT Design, Internal Isolation Transformer | | | | |
| | | | | | | |
| INPUT | Voltage (VAC) | 200 | 208 | 220 | 230 | 240 |
| | Voltage Range (VAC) | 140-230 | 146-239 | 154-253 | 161-264 | 168-276 |
| | Voltage Tolerance | + 15% ~ -30% before switching to batteries | | | | |
| | Frequency (Hz) | 50/60 | | | | |
| | Frequency Tolerance | 42 Hz to 69 Hz before switching to batteries | | | | |
| | Input PF | > 0.95 | | | | |
| | Input Current THD | < 5.0% | | | | |
| | Input Connection | Hardwired Standard; Line Cord Optional (Consult factory) | | | | |
| | Input Capacity | 4320 VA | | | | |
| | | | | | | |
| OUTPUT | Capacity | 4000VA/ 3600W | | | | |
| | Voltage (VAC) | 200 | 120/208/240 | 220 | 230 | 120/208/240 |
| | Voltage Regulation | ± 3.0% Max, ± 1.0% Normal | | | | |
| | Output Voltage THD | < 3.0% | | | | |
| | Power Factor | 0.9 | | | | |
| | Step Load Response | ± 4.0% for 50% step load change<br>± 6.0% for 100% step load change<br>Return to ±3.0% of nominal within 3 cycles | | | | |
| | Crest Factor | 3:1 | | | | |
| | Frequency (Hz) | 50/60 | | | | |
| | Frequency Regulation | ± 0.1Hz | | | | |
| | Overload | 125% for 2 minutes<br>150% for 30 seconds<br>300% for 500ms | | | | |
| | Efficiency | AC-AC >85.0%<br>DC-AC >78.0% | | | | |
| | Common Mode Noise | < 0.5 VRMS | | | | |
| | Output Connection | Hardwired Standard; Output Receptacles Optional (Consult factory) | | | | |
| | | | | | | |
| BYPASS | Input Voltage (VAC) | 200 | 208 | 220 | 230 | 240 |
| | Output Voltage (VAC) | 200 | 120/208/240 | 220 | 230 | 120/208/240 |
| | Transformer Voltage Regulation | ± 3.0% | | | | |
| | Overload | 125% for 10 minutes<br>150% for 500ms<br>1000% for 1 cycle | | | | |
| | Efficiency | > 95.0% | | | | |

# SPECIFICATIONS

| | | |
|---|---|---|
| **BATTERY** | Voltage (VDC) | 96.0, nominal<br>109.2, float |
| | Battery | 12V, 34W flame retardant<br>High Rate, Sealed Lead-Acid |
| | Quantity | 16 |
| | Charge Current (ADC) | 3.0 |
| | Backup Time (min) | > 8.0 |
| | Recharge Time | 8 Hours to 90% |
| | | |
| **ENVIRONMENT** | Temperature (°C) | 0 to 40, operating<br>-20 to 60, transit |
| | Altitude (m) | 2,000, operating<br>12,000, transit |
| | Humidity | 5.0% to 90.0%, non condensing |
| | Audible (dBA) | 50-55 @ 1m from front of unit |
| | Heat Dissipation (BTU/hr) | 3252 |
| | | |
| **AGENCIES** | EMC | FCC Part 15J Class A<br>EN 55022 Class A/ CISPR 22<br>EN 50091-2<br>IEC 61000-3-2 |
| | Safety Agencies | UL1778 4th Ed.<br>cUL to CSA22.2 No.107.1<br>CE:<br>IEC62040, w/CB report and certificate<br>IEC61000-4-2, Electrostatic Discharge<br>IEC61000-4-3, Radiated Electromagnetic Field Immunity<br>IEC61000-4-4, Electrical Fast Transient/ Burst Immunity<br>IEC61000-4-5, Surge Immunity<br>IEC61000-4-6, Immunity to Conducted Radio Frequency Disturbances<br>IEC61000-4-8, Power Frequency Magnetic Field Immunity<br>IEC61000-4-11, Voltage Dips, Short Interruptions, and Voltage Variations |
| | RoHS | All units are RoHS compliant |
| | | |
| **OTHER** | Communication | RS-232<br>USB<br>DB-9 Dry Contacts<br>Internal SNMP Adapter (option) |
| | Unit Weight | 317 lbs. / 143 kg. |
| | Shipping Weight | 412 lbs. / 185 kg. |
| | Plug & Receptacle* | L6-30P (2)5-20R (1)L6-30R |

*Hardwire unit is standard. Plug & Receptacle is optional. Contact factory for part numbers.

**NOISE REJECTION-ISOLATION:** With unit under power and an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-CM).

**SURGE VOLTAGE WITHSTAND CAPABILITY:** Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE587-1980). Cat. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHZ decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHZ decay.

Compatible External (Extended Run) Battery Cabinets:
Model: D9632-22 Description: 4 Pack (32 Batt) Extended Run Battery Cabinet
Model: D9648-22 Description: 6 Pack (48 Batt) Extended Run Battery Cabinet

| ABCDEF4000-22 TYPICAL RUN-TIMES (MINs) | | | | |
|---|---|---|---|---|
| | 25% (900 W) | 50% (1800 W) | 75% (2700 W) | 100% (3600 W) |
| Internal Batteries Only | 25 | 17 | 11 | 8 |
| Internal + 1) D9632-22 | 120 | 75 | 50 | 35 |
| Internal + 2) D9632-22 | 250 | 150 | 100 | 75 |
| Internal + 3) D9632-22 | 375 | 220 | 150 | 110 |
| Internal + 4) D9632-22 | 550 | 325 | 210 | 160 |
| Internal + 5) D9632-22 | >12 Hrs | 425 | 275 | 210 |
| | | | | |
| Internal + 1) D9648-22 | 170 | 110 | 75 | 55 |
| Internal + 2) D9648-22 | 375 | 220 | 150 | 120 |
| Internal + 3) D9648-22 | 625 | 375 | 250 | 185 |
| Internal + 4) D9648-22 | >12 Hrs | 525 | 350 | 275 |
| Internal + 5) D9648-22 | >12 Hrs | >12 Hrs | 475 | 350 |

Notes: Run-Times are based on new fully charged batteries at 25 deg C ambient.

**Battery Life Disclaimer**: POWERVAR's standard battery warranty applies only to UPS and UPM products which are continuously connected to AC mains power, except during utility power outages. Products which are regularly and intentionally disconnected from AC mains power will experience battery discharge/charge cycles potentially far more numerous than those for which the battery was designed. As a result, products used in such applications will experience substantially reduced battery life. For that reason, POWERVAR's standard battery warranty does not apply for applications in which the UPS or UPM product is regularly and intentionally disconnected from AC mains power. POWERVAR UPS and UPM products used in such applications shall receive a 90 day warranty on batteries.

**Warranty/Support:** POWERVAR warrants the electronics and transformers used in its uninterruptible power supplies to be free from defects in materials and workmanship for a period of three years from the date of shipment. Batteries are warranted for a period of two years from the date of shipment for standby use; 90 days for cyclic use. For North American service or support on any POWERVAR product, please contact POWERVAR Technical Support at (800) 369-7179 (in Illinois call (847-596-7000). For service and support in EMEA, contact POWERVAR, Ltd. in the United Kingdom at +44 (0) 1793 553980. Or visit the POWERVAR website at **www.powervar.com**.