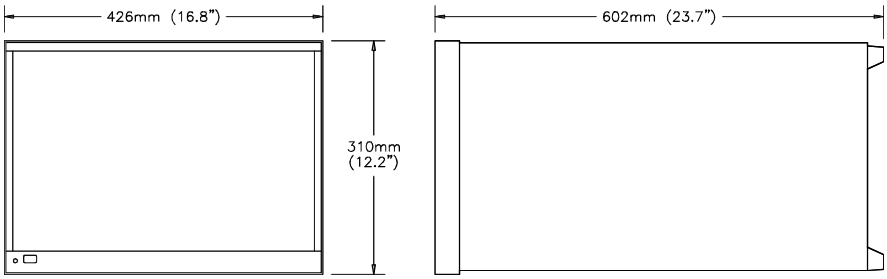
Appendix A
HP E1401B Specifications

The HP E1401B High-Power mainframes are 100% compatible with VXIbus specification revision 1.4.

Overall Mainframe Size



Mainframe Weight

HP E1401B: 22 Kg (48.5 lbs) with no modules installed.

Module Size

Thirteen (13) C-Size slots. The mainframes also accept A- or B- Size modules using the optional HP E1403 Module Carrier.

Input Power

50 - 60 Hz Input Power:
Automatic Voltage Ranging, nominal range: 100 - 240 Vac ±10%
Nominal Frequency Range:50 - 60 Hz ±10%

400 Hz Input Power:
Nominal Voltage Range: 100 - 120 VAC ±10%
Nominal Frequency: 400 Hz ±10%

DC Input Power:
Input Voltage Range: 100 VDC minimum - 370 VDC maximum

General Power Supply

Power Factor Corrected
Power Switch: On/Standby with lighted indicator in front
Rear panel connection allows remote operation.
Inrush Current: 40A max
Designed to meet EN-60555-2
Socket for detachable line cord: IEC 320 "HOT"
Chassis ground tap on rear panel: M4 x 0.7 threaded insert.

Fuse:

Voltage	Maximum Current	Fuse
100Vac	15A	15AF
120Vac	12A	15AF
220-240Vac	8A	15AF

Power Supply Outputs

DC Output Voltage	Peak DC Output Current (*IMP) 40°C	55°C	P-P Dynamic Current (**IMD)	CD Current Limit (supply shuts down)
+5V	65A	60A	9.0A	70 - 80A
+12V	14A	12A	2.5A	14 - 18A
-12V	14A	12A	2.5A	14 - 18A
+24V	14A	12A	5.0A	15 - 19A
-24V	12A	10A	5.0A	12 - 16A
-5.2V	65A	60A	8.5A	70 - 80A
-2V	35A	30A	4.5A	35 - 41A

* IMP = Rated mainframe peak DC output current as defined by the VXIbus Specification.

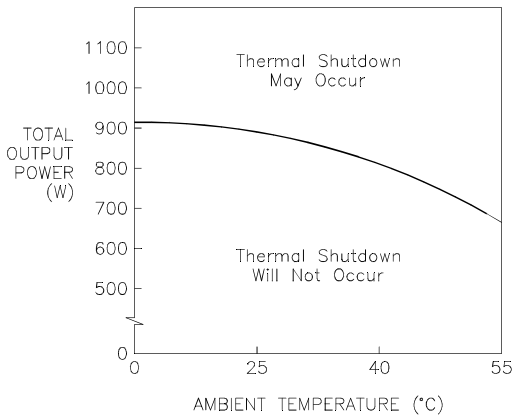
** IMD = Rated mainframe peak-to-peak dynamic current as defined in the VXIbus Specification by a current vs. frequency curve.

VXI Ripple/Noise*

DC Output Voltage	Allowed Variation	Max. DC Load Ripple/Noise	Max. Induced Ripple/Noise
+5V	+0.25/-0.125	50 mV	50 mV
+12V	+0.06/-0.36	50 mV	50 mV
-12V	-0.60/+0.36	50 mV	50 mV
+24V	+1.2/-0.72	150 mV	150 mV
-24V	-1.2/+0.72	150 mV	150 mV
-5.2V	-0.26/+0.156	50 mV	50 mV
-2V	-0.10/+0.10	50 mV	50 mV

* Per VXI Specification rev. 1.4

Maximum Power Output**



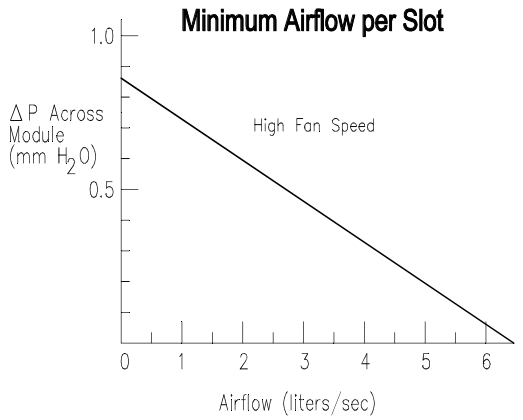
** Uncertainty in shutdown is due to variable loading. Heavy loading on +5V, -2V, and -5.2V will cause shutdown at the lower edge of the band. Heavy loading of the +12V, -12V, +24V, or -24V will cause shutdown at the higher edge of the band. Low line voltage (90Vac) will cause shutdown at the lower edge of the band.

Humidity Exceeds MIL-T-28800D test limit 3.7.2, 40 ºC and 95% RH.

Temperature Range Exceeds MIL-T-28800D Test Limits 3.7.2,
Non-operating:-40ºC to +75ºC
Operating: 0ºC to 55ºC

Shock and Vibration Meets the following MIL-T-28800D Test Limits:
Vibration test limits: 3.7.4.1 and 4.5.5.3.1
Shock Test Limits: 3.7.5.1 and 4.5.5.4.1
Bench handling test limits: 3.7.5.3 and 4.5.5.4.3

Cooling Provided



Fan set to "Variable": Quiet operation (approximately 75% airflow) at <30ºC ambient temperature and high speed operation at >40ºC ambient temperature.
Fan set to "HIGH": Full airflow all the time.
For modules with typical density:
10ºC rise at 60W per slot
15ºC rise at 75W per slot

Acoustical Noise **Low fan speed:** 48 dBA sound pressure at bystander position.
Lpa = 48 dB fiktiver Arbeitsplatz, normalier Betrieb, nach DIN 45635 T.1
High fan speed: 56 dBA sound pressure at bystander position.
Lpa = 56 dB fiktiver Arbeitsplatz, normalier Betrieb, nach DIN 45635 T.1

Classification Classified under MIL-T-28800 as Type III, Class 5, Style E, Color R.

EMC Testing Within the requirements of MIL-STD-461 methods CE01, CE02 (relaxed 30 dB below 2 MHz, relaxed 10 dB between 2 and 15 MHz), CS01, CS02, CS06, RE01 (relaxed 10 dB), RE02, and RS02, RS03. Meets requirements of CISPR 11 Level A.

Module Weight Maximum 3.5 Kg (7.7 lbs) per slot to comply with vibration and shock specifications. Heavier modules may be installed if vibration and shock environment is less severe.

Safety IEC 348, UL 1244, and CSA C22.2 #231.