

Workflow Systems

Site Preparation

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Revision History

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A-Z	Oct 25, 2006	Derek Braendel	Added PE840, Opti745
B-A	09 Jan, 2007	K. DeCarle	Added IBM 3580, Qualstar TLS-82xx, Qualstar TLS-84xx
B-B	16 April 2007	G. Tanaka	Added ML370G5/DL380G5
B-C	May 28, 2007	G.Tanaka	Added ML310G4
B-D	Aug 14, 2007	G.Tanaka	Added Tripplite SMX1500SLT
B-E	Sep 28, 2007	G.Tanaka	Added Dell Optiplex 755
B-F	Feb 13, 2008	G.Tanaka	Added Dell PowerEdge R200
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1. SCOPE

This document lists the specifications and site requirements for new installations of a Workflow system. This information is to be used by customers and field engineers when planning for the system's electrical and environmental installation requirements. This documents takes into consideration all the workflow components, hence if you have a subsystem of the workflow you will be concerned only with the relevant sections as outlined below. The intention is to highlight the importance of certain factors affecting the overall functionality and reliability of the system, so please consider following the appropriate steps to ensure better system reliability.

This document will continue to include specifications of older/obsolete hardware, while new hardware specifications continue to be appended.

2. SERVERS

2.1 HP Servers

2.1.1 ProLiant ML310G5

	Specification	Measurement
Dimensions	Height	Ped: 43.2 cm (17.0 inches)
	Width	Ped: 20.0 cm (7.9 inches)
	Depth	Ped: 61.0 cm (24.0 inches)
Weight	Weight	Ped: 15.0 kg (33.1 lbs)
Power Requirements	Input Voltage	90 to 264 V at 47-63 Hz
	Input Current	6.4A @ 100 vac full load
	VA Max	836 va (400w)
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1836 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	10% to 90% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.1.2 ProLiant ML310G4

	Specification	Measurement
Dimensions	Height	Ped: 43.0 cm (17.0 inches)
	Width	Ped: 20.0 cm (7.9 inches)
	Depth	Ped: 55.0 cm (22.0 inches)
Weight	Weight	Ped: 17.9 kg (39.5 lbs)
Power Requirements	Input Voltage	100 to 240 V at 47-66 Hz
	Input Current	6.4A @ 100 vac full load
	VA Max	495 va (350w)
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1,560 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.1.3 ProLiant ML310G3

	Specification	Measurement
Dimensions	Height	Ped: 43.0 cm (17.0 inches)
	Width	Ped: 20.0 cm (7.9 inches)
	Depth	Ped: 55.0 cm (22.0 inches)
Weight	Weight	Ped: 16.8 kg (37 lbs)
Power Requirements	Input Voltage	100 to 240 V at 50/60 Hz
	Input Current	<6A @ 90vac full load
	VA Max	495 va (350w)
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1,560 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 93º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.1.4 ProLiant ML370G5

	Specification	Measurement
Dimensions	Height	Ped: 46.67 cm (18.38 inches)
	Width	Ped: 21.92 cm (8.63 inches)
	Depth	Ped: 72.39 cm (28.5 inches)
Weight	Weight	Ped: 34.93 kg (77 lbs)
Power Requirements	Input Voltage	90 to 264 V at 47/63 Hz
	Input Current	8.8A @ 120v
	VA Max	1056 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	3,420 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	5% to 95% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)
	ILO	1x 100Mb RJ45 Copper (Static IP)

2.1.5 ProLiant ML370G4

	Specification	Measurement
Dimensions	Height	Ped: 46.88 cm (18.46 inches)
	Width	Ped: 22.07 cm (8.69 inches)
	Depth	Ped: 71.12 cm (28 inches)
Weight	Weight	Ped: 31.75 kg (70 lbs)
Power Requirements	Input Voltage	90 to 264 V at 47/63 Hz
	Input Current	7.3A @ 115v
	VA Max	803 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2,732 BTU/hr nominal
	Temperature	5º C to 35º C (41º F to 95º F)
	Humidity	5% to 95% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)
	ILO	1x 100Mb RJ45 Copper (Static IP)

2.1.6 ProLiant DL380G5

	Specification	Measurement
Dimensions	Height	2U, 8.59 cm (3.38 inches)
	Width	44.54 cm (17.54 inches)
	Depth	66.07 cm (26.01 inches)
Weight	Weight	27.22 kg (60 lbs)
Power Requirements	Input Voltage	90 to 264 V at 47/63 Hz
	Input Current	8.8A @ 120v
	VA Max	1056 va
	Plugs	2x IEC320
Environmental (Operating)	Heat Dissipation	3,490 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	10% to 90% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP) 1x 1Gb RJ45 Copper (no connection)
	ILO	1x 100Mb RJ45 Copper (Static IP)

2.1.7 ProLiant DL380G4

	Specification	Measurement
Dimensions	Height	2U, 8.59 cm (3.38 inches)
	Width	44.54 cm (17.54 inches)
	Depth	66.07 cm (26.01 inches)
Weight	Weight	27.22 kg (60 lbs)
Power Requirements	Input Voltage	90 to 264 V at 47/63 Hz
	Input Current	6.5A @ 115v
	VA Max	750 va
	Plugs	2x IEC320
Environmental (Operating)	Heat Dissipation	2,508 BTU/hr nominal
	Temperature	10º C to 35º C (41º F to 95º F)
	Humidity	10% to 90 non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP) 1x 1Gb RJ45 Copper (no connection)
	ILO	1x 100Mb RJ45 Copper (Static IP)

2.1.8 ProLiant ML110

	Specification	Measurement
Dimensions	Height	Ped: 55.0 cm (21.7 inches)
	Width	Ped: 20.0 cm (7.9 inches)
	Depth	Ped: 43.0 cm (16.9 inches)
Weight	Weight	Ped: 16.8 kg (37 lbs)
Power Requirements	Input Voltage	90 to 265 V at 47/63 Hz
	Input Current	8A @ 115v
	VA Max	920 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1,907 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 93º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.1.9 HP DC7100

	Specification	Measurement
Dimensions	Height	Ped: 44.83 cm (17.65 inches)
	Width	Ped: 16.76 cm (6.6 inches)
	Depth	Ped: 45.21 cm (17.8 inches)
Weight	Weight	Ped: 14.7 kg (32.5 lbs)
Power Requirements	Input Voltage	90 to 265 V at 47/63 Hz
	Input Current	6A @ 115v
	VA Max	690 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	256 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	10% to 90% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.1.10 HP DC7600

	Specification	Measurement
Dimensions	Height	Ped: 44.83 cm (17.65 inches)
	Width	Ped: 16.76 cm (6.6 inches)
	Depth	Ped: 45.21 cm (17.8 inches)
Weight	Weight	Ped: 14.7 kg (32.5 lbs)
Power Requirements	Input Voltage	90 to 264 V at 47/63 Hz
	Input Current	0.87A @ 115v
	VA Max	100 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	375 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	10% to 90% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2 Dell Servers

2.2.1 DELL GX150

	Specification	Measurement
Dimensions	Height	Ped: 42.5 cm (16.7 inches)
	Width	Ped: 18.1 cm (7.1 inches)
	Depth	Ped: 44.7 cm (17.6 inches)
Weight	Weight	Ped: 12.7 kg (28 lbs)
Power Requirements	Input Voltage	90 to 135 V at 50/60 Hz 180 to 265 V at 50/60 Hz
	Input Current	1.7A @ 115v
	VA Max	200 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	910 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing

2.2.2 DELL GX260

	Specification	Measurement
Dimensions	Height	Ped: 42.5 cm (16.7 inches)
	Width	Ped: 18.1 cm (7.1 inches)
	Depth	Ped: 44.7 cm (17.6 inches)
Weight	Weight	Ped: 12.7 kg (28 lbs)
Power Requirements	Input Voltage	90 to 135 V at 50/60 Hz 180 to 265 V at 50/60 Hz
	Input Current	2.8A @ 115v
	VA Max	322 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	600 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing

2.2.3 DELL GX270

	Specification	Measurement
Dimensions	Height	Ped: 42.5 cm (16.7 inches)
	Width	Ped: 18.1 cm (7.1 inches)
	Depth	Ped: 44.7 cm (17.6 inches)
Weight	Weight	Ped: 14.5 kg (32 lbs)
Power Requirements	Input Voltage	90 to 135 V at 50/60 Hz 180 to 265 V at 50/60 Hz
	Input Current	2.8A @ 115v
	VA Max	322 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	910 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing

2.2.4 DELL GX280

	Specification	Measurement
Dimensions	Height	Ped: 42.5 cm (16.7 inches)
	Width	Ped: 18.1 cm (7.1 inches)
	Depth	Ped: 44.7 cm (17.6 inches)
Weight	Weight	Ped: 12.7 kg (28 lbs)
Power Requirements	Input Voltage	90 to 135 V at 50/60 Hz 180 to 265 V at 50/60 Hz
	Input Current	2.8A @ 115v
	VA Max	305 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1041 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.5 DELL GX620

	Specification	Measurement
Dimensions	Height	41.4 cm (16.3 inches)
	Width	18.5 cm (7.3 inches)
	Depth	43.9 cm (17.3 inches)
Weight	Weight	12.34 kg (27.2 lb)
Power Requirements	Input Voltage	90 to 135 V at 50/60 Hz 180 to 265 V at 50/60 Hz
	Input Current	3.0A @ 115v
	VA Max	345
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	532 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.6 DELL Opti755

	Specification	Measurement
Dimensions	Height	16.3” (41.4cm)
	Width	7.3” (18.5cm)
	Depth	17.3” (43.9cm) with bezel
Weight	Weight	12.34 Kg, 27.2 lb. (fully loaded)
Power Requirements	Input Voltage	90 to 135 V at 60 Hz 180 to 265 V at 50Hz
	Input Current	1.5A @ 115v
	VA Max	180
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1041 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.7 DELL Opti745

	Specification	Measurement
Dimensions	Height	41.4 cm (16.3 inches)
	Width	18.5 cm (7.3 inches)
	Depth	43.9 cm (17.3 inches)
Weight	Weight	12.34 kg (27.2 lb)
Power Requirements	Input Voltage	90 to 135 V at 50/60 Hz 180 to 265 V at 50/60 Hz
	Input Current	1.7A @ 115v
	VA Max	200
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	532 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.8 DELL PE400SC

	Specification	Measurement
Dimensions	Height	Ped: 42.7 cm (16.8 inches)
	Width	Ped: 19.1 cm (7.5 inches)
	Depth	Ped: 45.0 cm (17.7inches)
Weight	Weight	Ped: 12.7 Kg, 28 lb. (fully loaded)
Power Requirements	Input Voltage	Manual Switch 90 to 135 or 180 to 265v @ 47 to 63 Hz
	Input Current Max	6.0A @ 115v
	VA Max	690 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	910 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	8% to 80% non-condensing

2.2.9 DELL PE700

	Specification	Measurement
Dimensions	Height	Ped: 17.28” (43.9cm)
	Width	Ped: 7.8” (19.8cm)
	Depth	Ped: 22.8” (57.9cm) with bezel
Weight	Weight	Ped: 12.7 Kg, 28 lb. (fully loaded)
Power Requirements	Input Voltage	Autosense 90 to 265v @ 47 to 63 Hz
	Input Current Max	6.3A @ 115v
	VA Max	724va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1310 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	8% to 80% non-condensing

2.2.10 DELL PE800

	Specification	Measurement
Dimensions	Height	Ped: 17.28” (43.9cm)
	Width	Ped: 7.8” (19.8cm)
	Depth	Ped: 19.7” (50.0cm) with bezel
Weight	Weight	Ped: 19.0 Kg, 42 lb. (fully loaded)
Power Requirements	Input Voltage	Autosense 90 to 265v @ 47 to 63 Hz
	Input Current Max	1.4A @ 115v
	VA Max	161va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2275 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.11 DELL PE830

	Specification	Measurement
Dimensions	Height	43.9 cm (17.3 in.)
	Width	19.8 cm (7.8 in.)
	Depth	50.0 cm (19.7 in.)
Weight	Weight	19.1 kg (42 lb)
Power Requirements	Input Voltage	Autosense 90 to 265v @ 47 to 63 Hz
	Input Current Max	1.6A @ 115v
	VA Max	180va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	780 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.12 DELL PE840

	Specification	Measurement
Dimensions	Height	43.9 cm (17.3 in.)
	Width	19.8 cm (7.8 in.)
	Depth	50.0 cm (19.7 in.)
Weight	Weight	19.1 kg (42 lb)
Power Requirements	Input Voltage	Autosense 90 to 265v @ 47 to 63 Hz
	Input Current Max	1.7A @ 115v
	VA Max	200va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	700 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.13 DELL PE R200

	Specification	Measurement
Dimensions	Height	1.68” (4.2cm)
	Width	17.6” (44.6cm)
	Depth	22.7” (57.6cm) with bezel
Weight	Weight	11.8 Kg, 26 lb. (fully loaded)
Power Requirements	Input Voltage	Autosense 90 to 265v @ 47 to 63 Hz
	Input Current Max	1.35A @ 115v
	VA Max	200va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	700 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.14 DELL PE1400SC

	Specification	Measurement
Dimensions	Height	Ped: 45.9 cm (18.1 inches)
	Width	Ped: 21.6 cm (8.5 inches)
	Depth	Ped: 43.6 cm (17.6inches)
Weight	Weight	Ped: 16 Kg, 37 lb. (fully loaded)
Power Requirements	Input Voltage	Autoranging 90 to 265v @ 47 to 63 Hz
	Input Current Max	2.8A @ 115v
	VA Max	322 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	600 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	8% to 80% non-condensing

2.2.15 DELL PE1600SC

	Specification	Measurement
Dimensions	Height	Ped: 44.7 cm (17.6 inches)
	Width	Ped: 21.8 cm (8.6 inches)
	Depth	Ped: 57.41 cm (22.6 inches)
Weight	Weight	Ped: 30.4 kg (67 lb), (fully loaded)
Power Requirements	Input Voltage	100-120/200-240V VAC auto sensing
	Input Current Max	2.5A @ 115v
	VA Max	288 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	983 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing

2.2.16 DELL PE2400

	Specification	Measurement
Dimensions	Height	Ped: 43.9 cm (17.3 inches) Rack 6u, 26 cm (10.25 inches)
	Width	Ped: 26.1 cm (10.3 inches) Rack 43.2 cm (17 inches)
	Depth	Ped: 59.2 cm (23.3 inches) Rack 58.4 cm (23 inches)
Weight	Weight	24.9 kg (55 pounds fully loaded)
Power Requirements	Input Voltage	115 V at 60 Hz/230 V at 50 Hz
	Input Current Max	3.4 @ 115v
	VA Max	391 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1324 BTU/hr nominal
	Temperature	10 C to 35 C (50 F to 95 F)
	Humidity	8% to 85%, non-condensing

2.2.17 DELL PE2500

	Specification	Measurement
Dimensions	Height	Ped: 44.5 cm (17.5 inches) Rack: 5u, 21.7 cm (8.56 inches
	Width	Ped: 23.0 cm (9.05 inches Rack: 48.0 cm (18.9 inches)
	Depth	Ped: 62.3cm (24.5 inches) Rack: 62.3cm (24.5 inches)
Weight	Weight	40.9 kg (90 lb), (fully loaded)
Power Requirements	Input Voltage	90-240V, 47/63 Hz auto sensing
	Input Current Max	4.6A @ 115v
	VA Max	529 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1801 BTU/hr nominal
	Temperature	10° to 30° C (50° to 95° F)
	Humidity	8% to 80% non-condensing

2.2.18 DELL PE2600

	Specification	Measurement
Dimensions	Height	Ped: 44.5 cm (17.5 inches) Rack: 21.7 cm (8.56 inches [5 U])
	Width	Ped: 23.0 cm (9.125 inches) Rack: 48.0 cm (18.9 inches)
	Depth	Ped: 62.5 cm (24.75 inches) Rack: 62.9 cm (24.75 inches)
Weight	Weight	40.9 kg (90 lb), (fully loaded)
Power Requirements	Input Voltage	100-120/200-240V VAC auto sensing
	Input Current Max	4.8A @ 115v
	VA Max	552 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2086 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing

2.2.19 DELL PE2650

	Specification	Measurement
Dimensions	Height	Rack: 8.56 cm (3.375 inches) 2U
	Width	Rack: 48.26 cm (19.0 inches)
	Depth	69.85 cm (27.5 inches)
Weight	Weight	maximum 25 kg (55 lbs)
Power Requirements	Input Voltage	100-120/200-240V VAC **Manual Select**
	Input Current Max	5A @ 115v
	VA Max	575 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	614 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing

2.2.20 DELL PE2800

	Specification	Measurement
Dimensions	Height	Ped: 44.7cm (17.58 inches)
	Width	Ped: 23.0 cm (9.05 inches)
	Depth	71.8 cm (28.28 inches)
Weight	Weight	maximum 49 kg (108 lbs) fully loaded
Power Requirements	Input Voltage	85-264V VAC Autosense
	Input Current Max	13.3A @ 115v
	VA Max	1200 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2697 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP)

2.2.21 DELL PE2850

	Specification	Measurement
Dimensions	Height	2U, 8.6 cm (3.38 inches)
	Width	44.7 cm (17.6 inches)
	Depth	68.1 cm (26.8 inches)
Weight	Weight	maximum 21.8 kg (48 lbs) fully loaded
Power Requirements	Input Voltage	85-264V VAC Autosense
	Input Current Max	10.1A @ 115v
	VA Max	1161 va
	Plugs	2x IEC320
Environmental (Operating)	Heat Dissipation	2064 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	1x 1Gb RJ45 Copper (Static IP) 1x 1Gb RJ45 Copper (not connected)

2.2.22 DELL PE2900

	Specification	Measurement
Dimensions	Height	Ped: 47.9cm (18.85 inches) Rack: 21.77 cm (8.57 in, 5U)
	Width	Ped: 22.7 cm (8.92 inches) Rack: 44.27 cm (17.43 in)
	Depth	Ped: 66.13 cm (26.0 inches without bezel) Rack: 66.13 cm (26.04 in without bezel)
Weight	Weight	maximum 49.9 kg (110 lbs) fully loaded
Power Requirements	Input Voltage	90-264V VAC Autosense
	Input Current Max	6.1A @ 115v
	VA Max	700 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1,750 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	2x 1Gb RJ45 Copper (Static IP)

2.2.23 DELL PE2950

	Specification	Measurement
Dimensions	Height	8.66 cm (3.4 inches, 2U)
	Width	44.7 cm (17.6 inches)
	Depth	75.7 cm (29.8 inches)
Weight	Weight	maximum 26.76 kg (59 lb) fully loaded
Power Requirements	Input Voltage	90-264V VAC Autosense
	Input Current Max	6.1A @ 115v
	VA Max	700 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1750 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	20% to 80% non-condensing
Network (See section 6.3)	General I/O	2x 1Gb RJ45 Copper (Static IP)

2.2.24 DELL PE4400

	Specification	Measurement
Dimensions	Height	Ped: 44 cm (17.5 inches) Rack: 7u, 30.5 cm (12 inches)
	Width	Ped: 30.5 cm (12 inches) Rack: 44 cm (17.5 inches)
	Depth	Ped: 71.1 cm (28 inches) Rack: 71.1 cm (28 inches)
Weight	Weight	52.2 kg (115 lb), (fully loaded)
Power Requirements	Input Voltage	100 to 240 V at 60 Hz/230 V at 50 Hz auto sensing
	Input Current Max	2.8A @ 115v
	VA Max	322 va
	Plugs	3x IEC320 (Non North America) 3x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1097 BTU/hr nominal
	Temperature	10 C to 35 C (50 F to 95 F)
	Humidity	8% to 80%, non-condensing

2.2.25 DELL PE4600

	Specification	Measurement
Dimensions	Height	Ped: 44.45 cm (17.5 inches) Rack: 27.43 cm (10.8 inches [6 U])
	Width	Ped: 31.14cm (12.26 inches) Rack: 48.0 cm (18.9 inches)
	Depth	Ped: 70. 08cm (27.59 inches) Rack: 70.08 cm (27.59 inches)
Weight	Weight	52.163 kg (115 lb), (fully loaded)
Power Requirements	Input Voltage	100 to 240 V at 60 Hz/230 V at 50 Hz auto sensing
	Input Current Max	6.5A @ 115v
	VA Max	747 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2566 BTU/hr nominal
	Temperature	10º C to 35º C (50º F to 95º F)
	Humidity	85% (non-condensing at 40ºC [104ºF])

2.2.26 DELL PE6400

	Specification	Measurement
Dimensions	Height	Ped: 44.5 cm (17.5 inches) Rack: 7u, 30.5 cm (12 inches)
	Width	Ped: 30.5 cm (12.0 inches) Rack: 44.5 cm (17.5 inches)
	Depth	Ped: 71.1 cm (28.0 inches) Rack: 71.1 cm (28.0 inches)
Weight	Weight	50 kg (110 lb), (fully loaded)
Power Requirements	Input Voltage	115 V at 60 Hz/230 V at 50 Hz
	Input Current Max	3.3A @ 115v
	VA Max	379 va
	Plugs	3x IEC320 (Non North America) 3x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1290 BTU/hr nominal
	Temperature	10 C to 35 C (50 F to 95 F)
	Humidity	8% to 85%, non-condensing

2.3 Data General (EMC) Servers

2.3.1 DG Aviion AV2200

	Specification	Measurement
Dimensions	Height	Ped: 49.02 cm (19.3 in.)
	Width	Ped: 21.08 cm (8.3 in.)
	Depth	Ped: 44.96 cm (17.7 in.)
Weight	Weight	Ped: 15.3 kg (38 pounds)
Power Requirements	Input Voltage	115/230V (60/50 Hz) Auto Sensing
	Input Current Max	max 10 A @ 115 v
	VA Max	1200 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	900 BTU/hr nominal
	Temperature	5^{o} to 35^{o} C (41^{o} to 95^{o} F)
	Humidity	95 percent RH @ 30^{o} C non-condensing

2.3.2 DG Aviion AV2300

	Specification	Measurement
Dimensions	Height	Ped: 49 cm (19.4 inches)
	Width	Ped: 21.0 cm (8.3 inches)
	Depth	Ped: 45 cm (17.7 inches)
Weight	Weight	Ped: 19 kg (41 pounds)
Power Requirements	Input Voltage	100-120/200-240V VAC auto sensing
	Input Current Max	4.6 A @ 115 v
	VA Max	529 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1798 BTUs/hr
	Temperature	10 C to 35 C (50 F to 95 F)
	Humidity	95% at 30 C, non-condensing

2.3.3 DG Aviion AV2600

	Specification	Measurement
Dimensions	Height	Ped: 51.4 cm (20.25 inches)
	Width	Ped: 43.6 cm (17.15 inches)
	Depth	Ped: 51.1 cm (20.13 inches)
Weight	Weight	29 kg (63 pounds)
Power Requirements	Input Voltage	115 - 250 Vac 50/60 Hz Switch Selectable
	Input Current Max	max 9.5 A @ 115 Vac
	VA Max	1092 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	990 BTUs/hr
	Temperature	10ºC to 35ºC (41ºF to 95ºF)
	Humidity	20% to 85% non-condensing @ 35^{o}C (95^{o}F)

2.3.4 DG Aviion AV2700

	Specification	Measurement
Dimensions	Height	Ped: 62.23 cm (24.5 inches) Rack: 13.34 cm (5.25 in.) (3U)
	Width	Ped: 19.69 cm (7.75 inches) Rack: 48.26 cm (19 in.)
	Depth	Ped: 69.95 cm (26.75 inches) Rack: 71.12 cm (28 in.)
Weight	Weight	45 kg (99 pounds)
Power Requirements	Input Voltage	100-120V or 200-240V, 60/50Hz Switch Selectable
	Input Current Max	10A @ 115vac
	VA Max	1150 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2,212 BTU/hr
	Temperature	10ºC to 35ºC (50ºF to 95ºF)
	Humidity	20% to 80% non-condensing @ 35^{o}C (95^{o}F)

2.3.5 DG Aviion AV3700

	Specification	Measurement
Dimensions	Height	Ped: 45.87 cm (18.06 inches) Rack: 31.12 cm (12.25 inches) (7U)
	Width	Ped: 31.12 cm (12.25 inches) Rack: 48.26 cm (19 inches)
	Depth	Ped: 64.14 cm (25.25 inches) Rack: 64.14 cm (25.25 inches)
Weight	Weight	45 kg (100 pounds)
Power Requirements	Input Voltage	100-120/200-240V (60/50 Hz) Auto Sensing
	Input Current Max	7.6A @ 115vac
	VA Max	874 va
	Plugs	3x IEC320 (Non North America) 3x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	5200 BTUs/hr
	Temperature	10 C to 35 C (50 F to 95 F)
	Humidity	95% at 30 C, non-condensing

2.3.6 DG Aviion AV3704R (Rackmount)

	Specification	Measurement
Dimensions	Height	Rack: 17.78 cm (7 inches)
	Width	Rack: 48.26 cm (19 inches)
	Depth	Rack: 73.66 cm (29 inches)
Weight	Weight	Rack: 30.9 kg (68 pounds)
Power Requirements	Input Voltage	100-120/200-240V (60/50 Hz) Auto Sensing
	Input Current Max	7.6A @ 115vac
	VA Max	874 va
	Plugs	3x IEC320 (Non North America) 3x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2971 BTUs/hr
	Temperature	10 C to 35 C (50 F to 95 F)
	Humidity	95% at 30 C, non-condensing

2.4 DEC Servers

2.4.1 DIGITAL Alpha Station 500 Desktop

	Specification	Measurement
Dimensions	Height	13.0 cm (5.12 inches)
	Width	44.6 cm (17.6inches)
	Depth	48.4 cm (19.1 inches)
Weight	Weight	14.5 kg (32 pounds) maximum
Power Requirements	Input Voltage	90-128 or 190-256 Vac, 47-63 Hz Switch Selectable
	Input Current Max	5.0A @ 115vac
	VA Max	575 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	960 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	10% to 90% non-condensing

2.4.2 DIGITAL DPW533 Pedestal System

	Specification	Measurement
Dimensions	Height	46 cm (18.1 inches)
	Width	35.8 cm (14.1 inches)
	Depth	58.6 cm (23.1 inches)
Weight	Weight	39 kg (86 pounds) maximum
Power Requirements	Input Voltage	90-128 or 180-256 Vac, 49-61 Hz Switch Selectable
	Input Current Max	9.2A @ 115vac
	VA Max	1058 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	4097 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	10% to 90% non-condensing

2.4.3 DIGITAL Server 2100/2100A Rack

	Specification	Measurement
Dimensions	Height	70 cm (27.6 inches)
	Width	43 cm (16.9 inches)
	Depth	18 cm (31.9 inches)
Weight	Weight	100 kg (220 pounds) maximum
Power Requirements	Input Voltage	88-132 or 180-264 Vac, 47-63 Hz Switch Selectable
	Input Current Max	8.5A @ 115vac
	VA Max	978 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	3005 BTU/hour
	Temperature	10ºC to 35ºC (50ºF to 95ºF)
	Humidity	20% to 80% non-condensing

2.4.4 DEC AlphaServer 4000 Rack

	Specification	Measurement
Dimensions	Height	110 cm (43.31 inches)
	Width	60 cm (23.60 inches)
	Depth	86 cm (33.86 inches)
Weight	Weight	200 kg (440 pounds) approximate
Power Requirements	Input Voltage	100-120 or 220-240 Vac, 47-63 Hz Switch Selectable
	Input Current Max	10.0A @ 115vac
	VA Max	1150 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	3005 BTU/hour
	Temperature	10ºC to 35ºC (50ºF to 95ºF)
	Humidity	20% to 80% non-condensing

2.4.5 DIGITAL Server 5000 Pedestal

	Specification	Measurement
Dimensions	Height	46 cm (18.1 inches)
	Width	35.8 cm (14.1 inches)
	Depth	58.6 cm (23.1 inches)
Weight	Weight	51 kg (113 pounds) maximum
Power Requirements	Input Voltage	90-128 or 180-256 Vac, 59-61 Hz Switch Selectable
	Input Current Max	9.2A @ 115vac
	VA Max	1058 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	4097 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	10% to 90% non-condensing

3. RAIDs

3.1 Creo AE-S SCSI RAID

	Specification	Measurement
Dimensions (tower)	Height	Ped: 19 inches Rack: 5.25 inches
	Width	Ped: 8 inches Rack: 19 inches
	Depth	Ped: 21 cm inches Rack: 21 cm inches
Weight	Weight	Ped: 24.1 kg (53 lbs) Rack 20.9 kg (46 lbs)
Network	Management	10BaseT - RJ45
Power Requirements	Input Voltage	100 - 250 47-63 Hz Auto Sensing
	Input Current Max	4A @ 115vac
	VA Max	460 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America) Plug 1 should go to UPS, plug 2 should go to wall. Separate circuits, same phase.
Environmental (Operating)	Heat Dissipation	1560 BTU/hour
	Temperature	0ºC to 40ºC (32ºF to 104ºF)
	Humidity	10% to 90% non-condensing

3.2 Clariion SCSI RAIDs

All Clariion SCSI Raids are plugged into the same UPS as the Server if possible. Ensure there is enough available VA in the UPS to support the additional load.

3.2.1 Clariion 7 Bay SCSI RAID

	Specification	Measurement
Dimensions	Height	Ped: 44.5 cm (19.5 inches)
	Width	Ped: 17.8 cm (7.0 inches)
	Depth	Ped: 45.7 cm (19.0 inches)
Weight	Weight	29.5 kg (65 pounds) max with 7 drives
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	3 A max @ 115 V
	VA Max	345 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1024 BTU/hour
	Temperature	10ºC to 38ºC (50ºF to 100ºF)
	Humidity	20% to 80% non-condensing

3.2.2 Clariion 10 Bay SCSI RAID

	Specification	Measurement
Dimensions	Height	Ped: 63 cm (24.8 inches)
	Width	Ped: 26.7 cm (10.5 inches)
	Depth	Ped: 76.2 cm (30.0 inches)
Weight	Weight	78.8 kg (175 pounds) max with 10 drives
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	6 A max @ 115 V
	VA Max	690 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1963 BTU/hour
	Temperature	10ºC to 38ºC (50ºF to 100ºF)
	Humidity	20% to 80% non-condensing

3.2.3 Clariion 20 Bay SCSI RAID

	Specification	Measurement
Dimensions	Height	Ped: 63 cm (24.8 inches)
	Width	Ped: 35.6 cm (14.0 inches)
	Depth	Ped: 76.2 cm (30.0 inches)
Weight	Weight	95.5 kg (190 pounds) max with 20 drives
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	9 A max @ 115 V
	VA Max	1035 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	3000 BTU/hour
	Temperature	10ºC to 38ºC (50ºF to 100ºF)
	Humidity	20% to 80% non-condensing

3.2.4 Clariion 30 Bay RAID

	Specification	Measurement
Dimensions	Height	Ped: 63.73 cm (24.7 inches)
	Width	Ped: 52.18 cm (20.5 inches)
	Depth	Ped: 74.92 cm (29.5 inches)
Weight	Weight	130 kg (288 pounds) max with 30 drives
Power Requirements	Input Voltage	**180 - 264** Vac 47 to 63 Hz
	Input Current Max	5 A max @ 200 V
	VA Max	1000 va
	Plugs	1x IEC320 (All World)
Environmental (Operating)	Heat Dissipation	3500 BTU/hour
	Temperature	10ºC to 38ºC (50ºF to 100ºF)
	Humidity	20% to 80% non-condensing

3.3 Clariion Fibre RAIDs

All Clariion Fibre Raids and expansion cabs have 2 plugs. One plug from each RAID / Expansion Cab should be plugged into a UPS, the other plug from each RAID / Expansion Cab should plug directly into the wall. The circuit for the Wall and the UPS should be different. Ensure there is enough available VA in the UPS to support the additional load.

If you have a Rackmount Clariion for North America then a “NEMA L6-30P” receptacle and a "NEMA L14-30P plug. - 120V/240V 3-Wire, 30A each phase" must be installed.

If this is a Rackmount Clariion and is European / Australian then the customer must make provisions to have the UPS HardWired into a 220/240v 30A line. A receptacle for an “IEC 309 32A/250V plug - 240V single phase, 30A” must also be supplied.

3.3.1 Clariion FC5000 Fibre Expansion Cab (DAE)

	Specification	Measurement
Dimensions	Height	Ped: 68 cm. (26.8 in.) Rack: 15.4 cm (6.07 inches) (3.5u)
	Width	Ped: 25.9 cm (10.2 inches) Rack: 44.5 cm (17.5 inches)
	Depth	Ped: 74.7 cm (29.4 inches) Rack: 62.9 cm (24.7 inches)
Weight	Weight	Ped: 29.5 kg (65 pounds) Rack: 38.6 kg (85 pounds)
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	3.5 A max @ 115 V
	VA Max	400 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1360 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	20% to 80% non-condensing

3.3.2 Clariion FC5200 Fibre RAID (DPE)

	Specification	Measurement
Dimensions	Height	Ped: 68 cm. (26.8 in.) Rack: 15.4 cm (6.07 inches) (3.5u)
	Width	Ped: 25.9 cm (10.2 inches) Rack: 44.5 cm (17.5 inches)
	Depth	Ped: 74.7 cm (29.4 inches) Rack: 62.9 cm (24.7 inches)
Weight	Weight	Ped: 29.5 kg (65 pounds) Rack: 38.6 kg (85 pounds)
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	3.5 A max @ 115 V
	VA Max	400 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1360 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	20% to 80% non-condensing

3.3.3 Clariion FC5300 Fibre RAID (DPE)

	Specification	Measurement
Dimensions	Height	Ped: 68 cm. (26.8 in.) Rack: 15.4 cm (6.07 inches) (3.5u)
	Width	Ped: 25.9 cm (10.2 inches) Rack: 44.5 cm (17.5 inches)
	Depth	Ped: 74.7 cm (29.4 inches) Rack: 62.9 cm (24.7 inches)
Weight	Weight	Ped: 29.5 kg (65 pounds) Rack: 38.6 kg (85 pounds)
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	3.5 A max @ 115 V
	VA Max	400 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1360 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	20% to 80% non-condensing

3.3.4 Clariion FC4500 Fibre RAID

The FC4500 Pedestal comes as a 20 slot unit combining a DPE + DAE + SPS unit. The Rack version (10 slot) of this RAID comes with a DPE and SPS unit only.

	Specification	Measurement
Dimensions	Height	Ped: 68 cm. (26.8 in.) Rack: 33 cm (13 inches) (7.5 u)
	Width	Ped: 52.2 cm (20.6inches) Rack: 44.5 cm (17.5 inches)
	Depth	Ped: 74.7 cm (29.4 inches) Rack: 62.9 cm (24.2 inches)
Weight	Weight	Ped: 148 kg (325 pounds) Rack: 52 kg (115 pounds)
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	Ped: 10.5 A max @ 115 V Rack: 6.7A max @ 115 V
	VA Max	Ped: 1200 va Rack: 800 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	Ped: 3750 BTU/hour Rack: 2390 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	20% to 80% non-condensing

3.3.5 Clariion FC5700 Fibre RAID

The FC5700 Pedestal comes as a 20 slot unit combining a DPE + DAE + SPS unit. The Rack version (10 slot) of this RAID comes with a DPE and SPS unit only.

	Specification	Measurement
Dimensions	Height	Ped: 68 cm. (26.8 in.) Rack: 33 cm (13 inches) (7.5 u)
	Width	Ped: 52.2 cm (20.6inches) Rack: 44.5 cm (17.5 inches)
	Depth	Ped: 74.7 cm (29.4 inches) Rack: 62.9 cm (24.2 inches)
Weight	Weight	Ped: 148 kg (325 pounds) Rack: 52 kg (115 pounds)
Power Requirements	Input Voltage	90 - 264 Vac 47 to 63 Hz Auto Sensing
	Input Current Max	Ped: 10.5 A max @ 115 V Rack: 6.7A max @ 115 V
	VA Max	Ped: 1200 va Rack: 800 va
	Plugs	2x IEC320 (Non North America) 2x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	Ped: 3750 BTU/hour Rack: 2390 BTU/hour
	Temperature	10ºC to 40ºC (50ºF to 104ºF)
	Humidity	20% to 80% non-condensing

4. TAPE DRIVES / LIBRARIES

4.1 Sony Drives / Libraries

4.1.1 Sony SDX-D700C - AIT-3 External Drive

	Specification	Measurement
Dimensions	Height	18.9 cm (7.44inches)
	Width	5.8 cm (2.28inches)
	Depth	26.2 cm (10.31inches)
Weight	Weight	2.2 kg (4 lb 14 oz)
Power Requirements		AC 100 to 200 V / 220 to 240 V
Power Requirements	Input Voltage	AC 100 to 200 V / 220 to 240 V Auto Sensing
	Input Current Max	1.2 A max @ 115 V
	VA Max	138 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	63 BTU/hour
	Temperature	5ºC to 40ºC (40ºF to 104ºF)
	Humidity	30% to 80% non-condensing

4.1.2 Sony TSL-SA500C/TB - AIT-2 External Autoloader

	Specification	Measurement
Dimensions	Height	10.9 cm (4.29 inches)
	Width	21.1 cm (13inches)
	Depth	29.6 cm (11.65 inches)
Weight	Weight	5.5 kg (12 lb 2 oz)
Power Requirements	Input Voltage	AC 100 to 200 V / 220 to 240 V Auto Sensing
	Input Current Max	1.2 A max @ 115 V
	VA Max	138 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	90 BTU/hour
	Temperature	5ºC to 40ºC (40ºF to 104ºF)
	Humidity	30% to 80% non-condensing

4.2 IBM Drives

4.2.1 IBM 3580 - LTO3 External Drive (supplied by Qualstar)

	Specification	Measurement
Dimensions	Height	12cm (4.75 inches)
	Width	25cm (9.85 inches)
	Depth	29.2cm (11.5 inches)
Weight	Weight	6.45kg (14.2 lb)
Power Requirements	Input Voltage	100–240 VAC, 50–60 Hz
	Input Current Max	1 A
	VA Max	120 VA
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	
	Temperature	10ºC to 38ºC (50ºF to 100ºF)
	Humidity	20% to 80% non-condensing

4.3 Qualstar Libraries

4.3.1 Qualstar TLS-82xx – LTO3 Tape Library

	Specification	Measurement
Dimensions	Height	91cm (36 inches)
	Width	33cm (13 inches)
	Depth	63cm (25 inches)
Weight	Weight	40kg (89 lb)
Power Requirements	Input Voltage	100–120, 220–240 VAC, 48–62 Hz Auto Sensing
	Input Current Max	3.4 A @ 110V
	VA Max	370 VA
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	921 BTU/hr
	Temperature	10°C to 38°C (50°F to 100°F)
	Humidity	20% to 80% non-condensing

4.3.2 Qualstar TLS-84xx – LTO3 Tape Library

	Specification	Measurement
Dimensions	Height	114 cm (45 inches)
	Width	48 cm (19 inches)
	Depth	77 cm (30 inches)
Weight	Weight	69kg (153 lbs)
Power Requirements	Input Voltage	AC 100–120, 220–240 VAC, 48–62 Hz Auto Sensing
	Input Current Max	4.7 A @ 110 V
	VA Max	515 VA
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1280 BTU/hour
	Temperature	10ºC to 38ºC (50ºF to 100ºF)
	Humidity	20% to 80% non-condensing

4.3.3 Qualstar TLS-4000 (4212/4222) - AIT-2/3 Series Tape Libraries

	Specification	Measurement
Dimensions	Height	58 cm (23 inches)
	Width	33 cm (13inches)
	Depth	54 cm (21.3inches)
Weight	Weight	27kg (60lbs)
Power Requirements	Input Voltage	AC 100 - 120 V / 220 - 240 V 48-62 Hz Auto Sensing
	Input Current Max	2.0 A max @ 115 V
	VA Max	230 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	782 BTU/hour
	Temperature	5ºC to 40ºC (40ºF to 104ºF)
	Humidity	30% to 80% non-condensing

4.3.4 Qualstar TLS-4000 - (4480) AIT-3 Tape Library

	Specification	Measurement
Dimensions	Height	96 cm (38 inches)
	Width	35 cm (13.7 inches)
	Depth	57 cm (22.3 inches)
Weight	Weight	40kg (89lbs)
Power Requirements	Input Voltage	AC 100 - 120 V / 220 - 240 V 48-62 Hz Auto Sensing
	Input Current Max	2.3 A max @ 115 V
	VA Max	264 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	899 BTU/hour
	Temperature	5ºC to 40ºC (40ºF to 104ºF)
	Humidity	30% to 80% non-condensing

4.3.5 Qualstar TLS-4000 - (412120) AIT-3 Tape Library

	Specification	Measurement
Dimensions	Height	132 cm (52 inches)
	Width	57 cm (30 inches)
	Depth	64 cm (25 inches)
Weight	Weight	103 kg (220 lbs)
Power Requirements	Input Voltage	AC 100 - 120 V / 220 - 240 V 48-62 Hz Auto Sensing
	Input Current Max	5.21 A max @ 115 V
	VA Max	600 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2034 BTU/hour
	Temperature	5ºC to 40ºC (40ºF to 104ºF)
	Humidity	30% to 80% non-condensing

4.3.6 Qualstar TLS-4000 - (412180) AIT-3 Tape Library

	Specification	Measurement
Dimensions	Height	132 cm (52 inches)
	Width	57 cm (30 inches)
	Depth	64 cm (25 inches)
Weight	Weight	103 kg (220 lbs)
Power Requirements	Input Voltage	AC 100 - 120 V / 220 - 240 V 48-62 Hz Auto Sensing
	Input Current Max	5.21 A max @ 115 V
	VA Max	600 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	2034 BTU/hour
	Temperature	5ºC to 40ºC (40ºF to 104ºF)
	Humidity	30% to 80% non-condensing

4.4 ATL (Quantum) Libraries

4.4.1 ATL ACL 520 (2/28, 2/52, 4/52) Tape Library

	Specification	Measurement
Dimensions	Height	109.2 cm (43.0 inches)
	Width	58.4 cm (23.0 inches)
	Depth	81.3 cm (32.0 inches)
Weight	Weight	152 kg (335 pounds)
Power Requirements	Input Voltage	90 - 132 Vac or 180 - 264 Vac 47-63 Hz Switch Selectable
	Input Current Max	3.5 A max @ 115 V
	VA Max	400 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	1368 BTU/hour
	Temperature	10ºC to 32ºC (50ºF to 90ºF)
	Humidity	20% to 80% non-condensing

4.4.2 ATL ACL 2640 (3/264) Tape Library

	Specification	Measurement
Dimensions	Height	201 cm (79 inches)
	Width	102 cm (40 inches)
	Depth	119 cm (47 inches)
Weight	Weight	420 kg (932 pounds)
Power Requirements	Input Voltage	90 - 132 Vac or 180 - 264 Vac 47-63 Hz Switch Selectable
	Input Current Max	10 A max @ 115 V
	VA Max	1150 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	3910 BTU/hour
	Temperature	10ºC to 32ºC (50ºF to 90ºF)
	Humidity	30% to 85% non-condensing

4.4.3 ATL P1000 Tape Library

	Specification	Measurement
Dimensions	Height	53 cm (21.0 inches)
	Width	45 cm (17.5 inches)
	Depth	71 cm (28.0 inches)
Weight	Weight	46 kg (101 pounds)
Power Requirements	Input Voltage	90 - 132 Vac or 180 - 264 Vac 47-63 Hz Switch Selectable
	Input Current Max	3.74 A max @ 115 V
	VA Max	430 va
	Plugs	1x IEC320 (Non North America) 1x NEMA 5-15p (North America)
Environmental (Operating)	Heat Dissipation	615 BTU/hour
	Temperature	15ºC to 32ºC (50ºF to 90ºF)
	Humidity	20% to 80% non-condensing

5. UPS

5.1 Smart UPS Specs – From Vendor Web Page

TrippLite: http://tripplite.com/

APC: http://www.apcc.com/products/smart-ups/index.cfm

Please go to the above link and click on the appropriate UPS to obtain its specifications. For information about electrical plugs for UPSs, see section 5.3 Electrical

5.2 Rackmount Servers

Mid-Range and High-Volume Rack Systems - Consolidated 3000VA UPS, Rack height 2 or 3U.

5.3 Electrical

Note: All outlets should be dedicated circuits with an isolated ground.

UPS Type				Plug Type		
Vendor	**Model**	**VA Rating**	**North American**	**Europe**	**Asia**	**Australia**
APC	SmartUPS	1000VA	125V 15A nema 5-15P	230V 10A iec320 c14	100V nema 5-15P	240V 10A iec320 c14
APC	SmartUPS	1400VA	125V 15A nema 5-15P	230V 10A iec320 c14	100V nema 5-15P	240V 10A iec320 c14
APC	SmartUPS	2200VA	125V 20A nema 5-20P	230V 10A iec320 c14	100V nema 5-20P	240V 16A iec320 c20
APC	SmartUPS	3000VA	125V 30A nema 5L-30P	230V 16A iec320 c30 BS1363/A CEE 7/7	100V nema 5L-30P	240V 20A iec320 c30 BS1363/A CEE 7/7
TrippLite	Smart	1050VA	125V 15A nema 5-15	not supported	not supported	not supported
TrippLite	Smart	1500VA	125V 15A nema 5-15	230V 10A iec320 c14 CEE 7/7	not supported	not supported
TrippLite	Smart	2200VA	not supported	240V 16A iec320 c20 BS1363/A CEE 7/7	not supported	240V 16A iec320 c20 BS1363/A CEE 7/7
TrippLite	Smart	3000VA	125V 30A nema 5-30	240V 16A iec320 c20 BS1363/A CEE 7/7	not supported	240V 16A iec320 c20 BS1363/A CEE 7/7

6. SITE REQUIREMENTS

6.1 Determining the Size of UPS needed

To determine which UPS is needed for your solution you should refer to each server and peripheral that is to be connected, and sum their VA.
The devices total VA draw must be less then 80% of the VA capacity of the UPS.

For example: If you were connecting a PE2600, PE2800 and an ATL P1000 your device draw will be:

Device total draw: 552va (PE2600) 1200va (PE2800) + 430va (P1000) = 2182va

UPS max load capacity:

APC 2200va = 80% * 2200va = 1760va max.

APC 3000va = 80% * 3000va = 2400va max

From the above example we see that even though the total draw capacity is less then 2200va we can not use the 2200va UPS. We see that the 3000va UPS has a little room to spare so we should spec the 3000va UPS for this solution.

6.2 Environmental

6.2.1 Dust Free Environment

You must make sure the equipment will be installed in a dust free environment, since dust particles can penetrate air vents and settle on heat sensitive components inside your computer system, forming a harmful, insulating layer which can raise the operating temperature above prescribed limits. This can lead to costly service bills for cleaning and repairs, if necessary.

6.2.2 Static-Free Environment

Static is often regarded like a computer virus where the infection can remain idle for sometime until it is time for it to launch itself into the destruction of its carrier. The only difference here is that static is not infectious like viruses, but can cause many problems since it may not destroy immediately, it can rather depreciate the quality of the electronic components.

6.2.3 Humidity Levels

The room where the equipment will be installed must not have a condensing humidity level of more than specified in the tables shown above. (20% to 80%). High levels of condensing humidity could cause short circuits on the PCB(s) resulting in serious damage, which can be quite expensive to repair.

6.2.4 Footprint and Service Clearances

Clearance is required for two main reasons;

To allow for proper ventilation so that the heat from the electronic components can find its way out of the machine with the help of the cooling fans. The quicker heat dissipates from electronic components the better it is in terms of performance, stability and a longer operational life.

Also to make room for easy access during future maintenance it is important that we leave enough clearance around each of the machines.

6.2.5 Shipping and Delivery

The system is delivered in a large box, properly padded to avoid damage to any of the components. If upon opening the box you notice any damage to any of the equipment please contact the Creo shipping department at once, while keeping the shipping details handy.

6.3 Network

To connect the Server to the network you need to have a standard Cat 5 network cable that is functional and you need the System Administrator to provide you with details on the Server's IP address, Subnet mask, default gateway, WINS and DNS parameters.

The following optional network cards are available: 100 Base-T, Gigabit (Copper and Optical), FDDI or CDDI.

\Signaling Method	Creo PN	Mfg/OEM	Cable	Connector
Ethernet 100 Base-T	10-3140	DEC	Category 5	RJ-45
Ethernet 100 Base-T	94-3117	Intel / Dell	Category 5	RJ-45
FDDI	10-3100	DEC	Multi-Mode fiber	SC
CDDI	10-1220	DEC	Category 5	RJ-45
Gigabit Copper	94-3221	Intel / Dell	Category 5	RJ-45
Gigabit Optical (End of life)	94-3105 94-3121	Packet Engines Intel / Dell	Multimode Multimode	SC SC
Gigabit Optical	609-00248	Intel / Dell	Multimode	LC

6.4 Telephone Link

An external dedicated analog phone line must be provided for the Server. A modem supplied with the system will be connected to the phone line to enable Field Service to diagnose and repair software problems. An RJ-11 phone jack is required within **15** feet of the server.

6.5 Overall Check

If all the previous steps were met and the site has been confirmed to meet with the requirements, you can then proceed with the installation as outlined in the Workflow Systems Site Installation document.