Power Supplies and Inlet Adapters

– **R0X35A: 1800W Power Supply with C16 Inlet adapter**

  – 1,800W output @ 200-240V AC input

  – 1,100W output @ 110-127V AC input

  – C16 inlet connector for C15 power cord deployments

  – 80 PLUS Platinum-rated efficiency

– **R0X36A: 3000W Power Supply with C20 Inlet adapter**

  – 3,000W output @ 200-240V AC input

  – 1,500W output @ 110-127V AC input

  – C20 inlet connector for C19 power cord deployments

  – 80 PLUS Platinum-rated efficiency

– PSUs and Inlet adapters are designed to operate as a pair

– Each combination maximizes its power cord capacity

– Mixing PSUs and Inlets is supported but not recommended

Aruba 6400 System Power: Capacity

– Up to four power supplies provide a single power source for switch electronics and Power over Ethernet

– Total System Power is a function of

  – Type of Power Supply

  – Number of installed Power Supplies

  – Input AC voltage

Total System Power				
# of Power Supplies	Using R0X36A 3,000W Power Supplies		Using R0X35A 1,800W Power Supplies	
	110-127V AC input	200-240V AC input	110-127V AC input	200-240V AC input
1	1,500 W	3,000 W	1,100 W	1,800 W
2	2,970 W	5,940 W	2,178 W	3,564 W
3	4,440 W	8,880 W	3,256 W	5,328 W
4	5,910 W	11,820 W	4,334 W	7,092 W

98% sharing efficiency for system configurations with two or more PSUs

– Total Usable Power is a function of the system redundancy configuration

  – N+N redundancy: switch holds one-half of total system power in reserve, not allocated for use

  – N+1 redundancy: switch holds one power supply worth of power in reserve, not allocated for use

  – Non-Redundant: switch allocates 100% of total system power for use, no power held in reserve

System Power: Budget and Allocation

– Total usable power is allocated based on a priority scheme

1. Allocate power for the base switch first

2. Allocate power for installed line cards, starting with slot 3

3. Remaining usable power is allocated for PoE based on user-assigned port priority

6400 Hardware	Power Budget
Aruba 6405 base switch: 7-slot chassis, two fan trays, two management modules	645 W
Aruba 6410 base switch:12-slot chassis, four fan trays, two management modules	1194 W
Aruba 6400 48-port 1GbE Class 4 PoE line card[1]	113 W
Aruba 6400 48-port 1GbE Class 4 PoE and 4-port SFP56 line card[1]	121 W
Aruba 6400 48-port 1GbE Class 6 PoE and 4-port SFP56 line card[1]	121 W
Aruba 6400 48-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 line card[1]	249 W
Aruba 6400 24-port 10GBASE-T and 4-port SFP56 line card[1]	240 W
Aruba 6400 24-port SFP+ and 4-port SFP56 line card[1]	156 W
Aruba 6400 48-port 10/25GbE SFP28 line card[1]	408 W
Aruba 6400 12-port 40/100GbE QSFP28 line card[1]	338 W

1   Determine total system power

2   Determine total usable power for switch redundancy configuration

3   Allocate power for base switch

4   Allocate power for installed line cards

5   Remaining power available for Power over Ethernet use

System Power: Budget and Allocation

1	Determine total system power	11,820W
2	Determine total usable power for switch redundancy configuration	8,880W
3	Allocate power for base switch	645W
4	Allocate power for installed line cards	408+249+249+121+121 =1,793W
5	Remaining power available for Power over Ethernet use	8,880 - 1,793 – 645 = **6,442W**

Scenario: 6405 switch configured with:

– Four R0X36A 3000 W PSUs @ 220V AC (645 W)

– System configured for N+1 redundant power mode

– Slot 1: Management Module

– Slot 2: Management Module

– Slot 3: 48p 10/25GbE (408 W)

– Slot 4: 48p Smart Rate 5GbE + 4p SFP56 (249 W)

– Slot 5: 48p Smart Rate 5GbE + 4p SFP56 (249 W)

– Slot 6: 48p 1GbE Class 4 PoE (121 W)

– Slot 7: 48p 1GbE Class 4 PoE (121 W)