

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)