# **Cisco Power Calculator - Power Results**



Disclaimer: The Cisco Power Calculator is intended to be an educational resource and a starting point in planning your power requirement; it is not a final recommendation from Cisco. This tool does not check for software compatibility. To determine the power requirements and software most appropriate for your company we suggest you work with a Cisco representative, Cisco channel partner or a solutions provider.

#### **Product Family: Catalyst 6800**

Power Consumption/Heat Dissipation Summary						
Slot	Line Card	Optional DFC Power Over Ethernet Ca				
1	C6880-X-16P10G					
2	C6880-X-16P10G					
3	C6880-X-16P10G					
4	C6880-X-16P10G					
5	WS-C6880-X					
Minimum Power Supply		Percentage Of Power Used				
One C6880-X-3KW-AC in Combined Mode		64.67 %				
First Alternative	e Power Supply	Percentage of Power used				
Two C6880-X-3KW-AC in Redundant Mode		64.67 %				
Total Output Current(@50V)	Total Output Power	Total Typical Output Power	Total Heat Dissipation			
38.80 Amps	1940.00 Watts	1552.00 Watts	7794.23 BTU/Hr			

Quick Facts		
	Selected Chassis	WS-C6880-X
	Selected Supervisor Engine	WS-C6880-X
	Selected Voltage	200-240 Volts AC
	Selected FanTray	WS-C6880-X-FAN
	Chassis Slots	5
	Power Supply Options	One C6880-X-3KW-AC in Combined Mode
		Two C6880-X-3KW-AC in Redundant Mode
		One C6880-X-3KW-AC in Redundant Mode
		Two C6880-X-3KW-AC in Combined Mode
	Line Card Slots	4
	Rack Units	5

## **WARNING:**

Combined mode does not provide power supply redundancy. In combined mode, if one of the power supplies fails, the system will power down modules until the system power allocation is under the power budget of the remaining power supply

Power Supply Details							
Minimum Power Supply	Percentage of Power used	Total Output Current(@50V) for This PSU(A)	Total Output Current(@50V) Used (A)	Total Output Current(@50V) Remaining (A)			
One C6880-X-3KW-AC in Combined Mode	64.67 %	60.00	38.80	21.20			
Other Power Supply Options	Percentage of Power used	Total Output Current(@50V) for This PSU(A)	Total Output Current(@50V) Used (A)	Total Output Current(@50V) Remaining (A)			
Two C6880-X-3KW-AC in Redundant Mode	64.67 %	60.00	38.80	21.20			
One C6880-X-3KW-AC in Redundant Mode	64.67 %	60.00	38.80	21.20			
Two C6880-X-3KW-AC in Combined Mode	38.80 %	100.00	38.80	61.20			

Configuration Details							
Slot	Line Card	Output Current(@42V) (A)	Output Power (W)	Typical Power Used (W)	Heat Dissipation (BTU/Hr)		
FAN1	WS-C6880-X-FAN	4.00	200.00	160.00	803.52		
1	C6880-X-16P10G	6.40	320.00	256.00	1285.65		
2	C6880-X-16P10G	6.40	320.00	256.00	1285.65		
3	C6880-X-16P10G	6.40	320.00	256.00	1285.65		
4	C6880-X-16P10G	6.40	320.00	256.00	1285.65		
5	WS-C6880-X	9.20	460.00	368.00	1848.12		
		Output Current(@42V) (A)	Output Power (W)	Typical Power Used (W)	Heat Dissipation (BTU/Hr)		
	Total	38.80	1940.00	1552.00	7794.23		

## PLEASE REFER TO THE NOTES PAGE FOR IMPORTANT INFORMATION:

#### NOTE:

- The Catalyst 6880 backplane power connectors for the linecards, fan trays and Supervisors operate at 50V. The power supplies take the power from the source and convert it into a 50V feed for these power connectors.
- Output Power is the amount of power delivered from the Power Supply to the Catalyst 6880. To figure Input Power, divide output power by .85 (typical efficiency of the power supplies).
- Output Power and Heat Dissipation numbers computed by the Cisco Power Calculator are maximum values and can be used for facility power and cooling capacity planning. These figure are not indicative of the actual power draw or heat dissipation. Typical power draw is about 20% lower than the maximum value shown. Also note that most of power allocated for PoE devices is dissipated at the end points.
- Output from the Cisco Power Calculator may not match the output from "show power" or certain "show energywise" commands due to the way the system dynamically allocates power for PoE device bootup. This dynamically allocated power will not affect the overall selection of the proper power supply by the Cisco Power Calculator.
- The Power Calculator attempts to provide the power budget rules employed in the latest software releases. It
  does not account for changes in the power management software made in previous versions. Please consult
  the power management section of the Release Notes for a history of changes to the software power
  management operation.