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:Cisco CRS Series

Power Consumption/Heat Dissipation Summary		
Slot	PLIM	MSC
Slot0	4x100GE-LO(200G)	CRS-MSC-400
Slot1	4x100GE-LO	CRS-MSC-B
Slot2	CRS1-SIP-800	CRS-MSC-200
Slot3	1-100GbE-DWDM	CRS-MSC-140
Slot4	CGSE	CRS-FP40
Slot5	CGSE+	CRS-FP200G
Slot6	20X10GBE-WL-XFP	CRS-FP-400
Slot7	1X100GBE	CRS-FP140
Slot8	--EMPTY-SLOT--	--EMPTY-SLOT--
Slot9	--EMPTY-SLOT--	--EMPTY-SLOT--
Slot10	--EMPTY-SLOT--	--EMPTY-SLOT--
Slot11	--EMPTY-SLOT--	--EMPTY-SLOT--
Slot12	--EMPTY-SLOT--	--EMPTY-SLOT--
Slot13	--EMPTY-SLOT--	--EMPTY-SLOT--
Slot14	--EMPTY-SLOT--	--EMPTY-SLOT--
Slot15	--EMPTY-SLOT--	--EMPTY-SLOT--
RP0	CRS-16-PRP-6G/12G	--EMPTY-SLOT--
RP1	CRS-16-PRP-6G/12G	--EMPTY-SLOT--

Power Supply Options		Percentage Of Power Used	
Five AC 3000W power supplies required with N+1 redundancy		63.14 % 	
Four AC 3000W power supplies required with NO redundancy		78.92 % 	
Total Output Current	**Total Output Power At 40C**	**Total Typical Output Power**	**Total Heat Dissipation At 40C**
43.85 Amps	**9471.00 Watts**	**7655.00 Watts**	**31978.43 BTU/Hr**

NOTE :

Total Output Current - Total Output Current (amperes) allocated to the line cards and powered devices in the chassis.

Total Output Power At 40C - Total output power (P-Output) that the systems require from the power supply. From the power supply perspective, this is the power out (P-output).

Total Typical Output Power - Power used at 27C ambient temperature with 50% linerate IMIX traffic.

Total Heat Dissipation At 40C - Heat dissipation is a direct function of power used. To get heat in BTU/hr, multiply the power draw in watts by 3.41. Example the power calculator says that a given system draws 2800W. This means the system dissipates (2800*3.41 -->9548 BTU/hr)of heat.

Percentage of Power Used is color-coded with green if the power consumption is up to 80 percent, orange if the power consumption is between 81 and 90 percent, and red if between 91 and 100 percent.

Quick Facts

Selected RSP/RP	CRS-16-LCC-B
Selected Supervisor Engine	CRS-16-PRP-6G/12G
Selected System Controller	SC-GE-22-B
Selected Voltage	240 Volts AC
Selected FanTray	CRS-16-LCC-FAN-TR
Chassis Slots	16
Power Supply Options	Five AC 3000W power supplies required with N+1 redundancy
	Four AC 3000W power supplies required with NO redundancy
	Six AC 2100W power supplies required with N+1 redundancy
	Five AC 2100W power supplies required with NO redundancy
Line Card Slots	16
Rack Units	48

Configuration Details							
Slot	Line Card	Output Current (A)	Typical Output Power (W)	Power Used At 40C (W)	Heat Dissipation At 40C(BTU/Hr)	Power Used At MAX(50C/55C) (W)	Heat Dissipation At MAX(50C/55C)(BTU/Hr)
SYSTEM-FAN	CRS-16-LCC-FAN-TR	0.00	744.0	1426.00	4862.66	1426.00	4862.66
SYSTEM-FAN	CRS-16-LCC-FAN-TR	0.00	744.0	1426.00	4862.66	1426.00	4862.66
SWITCH-FAB	CRS-16-FC400/S	0.00	120.0	130.00	443.30	136.00	463.76
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SWITCH-FAB	CRS-16-FC400/S	0.00	120.0	130.00	443.30	136.00	463.76
SWITCH-FAB	CRS-16-FC400/S	0.00	120.0	130.00	443.30	136.00	463.76
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SWITCH-FAB	CRS-16-FC400/S	0.00	120.0	130.00	443.30	136.00	463.76
SWITCH-FAB	CRS-16-FC400/S	0.00	120.0	130.00	443.30	136.00	463.76
SWITCH-FAB	CRS-16-FC400/S	0.00	120.0	130.00	443.30	136.00	463.76
PLIM0	4x100GE-LO(200G)	0.00	54.0	54.00	184.14	54.00	184.14
MSC0	CRS-MSC-400	0.00	550.0	650.00	2216.50	680.00	2318.80
PLIM1	4x100GE-LO	0.00	104.0	105.00	358.05	110.00	375.10
MSC1	CRS-MSC-B	0.00	375.0	375.00	1278.75	375.00	1278.75
PLIM2	CRS1-SIP-800	0.00	150.0	150.00	511.50	150.00	511.50
MSC2	CRS-MSC-200	0.00	350.0	400.00	1364.00	420.00	1432.20
PLIM3	1-100GbE-DWDM	0.00	185.0	185.00	630.85	185.00	630.85
MSC3	CRS-MSC-140	0.00	450.0	450.00	1534.50	450.00	1534.50
PLIM4	CGSE	0.00	195.0	195.00	664.95	195.00	664.95
MSC4	CRS-FP40	0.00	375.0	375.00	1278.75	375.00	1278.75
PLIM5	CGSE+	0.00	180.0	180.00	613.80	180.00	613.80
MSC5	CRS-FP200G	0.00	350.0	400.00	1364.00	420.00	1432.20
PLIM6	20X10GBE-WL-XFP	0.00	135.0	144.00	491.04	150.00	511.50
MSC6	CRS-FP-400	0.00	550.0	650.00	2216.50	680.00	2318.80
PLIM7	1X100GBE	0.00	134.0	156.00	531.96	163.00	555.83
MSC7	CRS-FP140	0.00	450.0	450.00	1534.50	450.00	1534.50
PLIM8	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC8	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00

PLIM9	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC9	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
PLIM10	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC10	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
PLIM11	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC11	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
PLIM12	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC12	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
PLIM13	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC13	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
PLIM14	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC14	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
PLIM15	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
MSC15	--EMPTY-SLOT--	0.00	0.00	0.00	0.00	0.00	0.00
RP0	CRS-16-PRP-6G/12G	0.00	225.0	225.00	767.25	225.00	767.25
RP1	CRS-16-PRP-6G/12G	0.00	225.0	225.00	767.25	225.00	767.25
System Controller	SC-GE-22-B	0.00	105.00	85.0	398.42	105.00	358.05
Red System Controller	-- Reserved Power --	0.00	105.00	85.0	--	--	--
		Output Current (A)	Typical Output Power (W)	Power Used At 40C(W)	Heat Dissipation At 40C(BTU/Hr)	Power Used At MAX(50C/55C) (W)	Heat Dissipation At MAX(50C/55C) (BTU/Hr)
	Total	**43.85**	**7655.00**	**9471.00**	**31978.43**	**9637.00**	**32862.17**

Power Supply Details At 40C				
Power Supply Options	Percentage of Power used	Total Output Current for This PSU(A)	Total Output Current Used (A)	Total Output Current Remaining (A)
Five AC 3000W power supplies required with N+1 redundancy	63.14 % 	69.44	43.85	25.60
Four AC 3000W power supplies required with NO redundancy	78.92 % 	55.56	43.85	11.71
Six AC 2100W power supplies required with N+1 redundancy	75.17 % 	58.33	43.85	14.49
Five AC 2100W power supplies required with NO redundancy	90.20 % 	48.61	43.85	4.76

NOTE :

Output Power is the amount of power delivered from the Power Supply to the CRS series router. To figure Input Power, divide output power by 0.9 (conservative 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 figures are not indicative of the actual power draw or heat dissipation. Typical power draw is about 30% lower than the maximum value shown.