

	P2		SK-PS10 Battery Calculation							
	Secondary Power Source Requirements									
	Standby Current (amps)			Secondary Alarm Current (amps)						
Device Type	Qty	X	Current Draw	=	Total	Qty	X	Current Draw	=	Total
SK-PS10 Power Module	1	X	0.1560	=	0.1560	1	X	0.1850	=	0.1850
NAC / Output # 1			0.0000	=	0.0000			1.1710	=	1.1710
NAC / Output # 2			0.0000	=	0.0000			1.4000	=	1.4000
NAC / Output # 3			0.0000	=	0.0000			1.4280	=	1.4280
NAC / Output # 4			0.0000	=	0.0000			0.8470	=	0.8470
NAC / Output # 5			0.0000	=	0.0000			0.7390	=	0.7390
NAC / Output # 6			0.0000	=	0.0000			0.7390	=	0.7390
NAC / Output # 7			0.0000	=	0.0000			0.0000	=	0.0000
Total Standby Load					0.1560	Total Alarm Load				
						6.5090				

	P2		SK-PS10 Battery Calculation							
	Note 1: You are fully responsible for verifying these calculations.									
	Note 2: You only need to make entries in the yellow cells									
Calculation in Total Sheet										
						Required Standby Time in Hours				
						24 Hours				
Standby Load Current (Amps)				0.1560 Amps		X	24	=	3.744 AH	
						Required Alarm Time in Hours				
						5 Minutes				
Alarm Load Current (Amps)				6.5090 Amps		X	0.084	=	0.547 AH	
						Total Current Load				
						4.29 AH				
*Multiply by the Derating Factor						1.2		=	x 1.20	
						Total Ampere Hours Required				
						5.15 AH				

Recommended Batteries: **BAT-1270 - 7AH Batteries**

* Derating Factor required to compensate for the non-linear discharge characteristic of a battery.

	P2		SK-PS10 Circuit Detail								
	NAC / Output # 1										
	Device	Qty	X	Non-Alarm Draw	=	Total	Qty	X	Alarm Draw	=	Total
P2WK @ 15 Candela	1	x	0.000000	=	0.000000	1	x	0.091000	=	0.091000	
HWL-LF	10	x	0.000000	=	0.000000	10	x	0.108000	=	1.080000	
		x	0.000000	=			x	0.000000	=		
		x	0.000000	=			x	0.000000	=		
		x	0.000000	=			x	0.000000	=		
		x	0.000000	=			x	0.000000	=		
		x	0.000000	=			x	0.000000	=		
		x	0.000000	=			x	0.000000	=		
		x	0.000000	=			x	0.000000	=		
		x	0.000000	=			x	0.000000	=		
Total Standby Load					0.000000	Total Alarm Load					
						1.171000					

NAC / Output # 2										
Device	Qty	X	Non-Alarm Draw	=	Total	Qty	X	Alarm Draw	=	Total
P2WK @ 15 Candela	1	x	0.000000	=	0.000000	1	x	0.091000	=	0.091000
P2WH-LF @ 185 Candela	2	x	0.000000	=	0.000000	2	x	0.417000	=	0.834000
SWL @ 15 Candela	1	x	0.000000	=	0.000000	1	x	0.043000	=	0.043000
HWL-LF	4	x	0.000000	=	0.000000	4	x	0.108000	=	0.432000
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
Total Standby Load					0.000000	Total Alarm Load				
						1.400000				

NAC / Output # 3										
Device	Qty	X	Non-Alarm Draw	=	Total	Qty	X	Alarm Draw	=	Total
P2WK @ 15 Candela	1	x	0.000000	=	0.000000	1	x	0.091000	=	0.091000
SWL @ 15 Candela	2	x	0.000000	=	0.000000	2	x	0.043000	=	0.086000
P2WH-LF @ 185 Candela	3	x	0.000000	=	0.000000	3	x	0.417000	=	1.251000
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	


	x	0.000000	=		x	0.000000	=		
	x	0.000000	=		x	0.000000	=		
Total Standby Load				0.000000	Total Alarm Load				1.428000


NAC / Output # 4									
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total		
P2WK @ 15 Candela	1	x	0.000000	= 0.000000	1	x 0.091000	= 0.091000		
HWL-LF	7	x	0.000000	= 0.000000	7	x 0.108000	= 0.756000		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
Total Standby Load				0.000000	Total Alarm Load				0.847000


NAC / Output # 5									
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total		
HWL-LF	6	x	0.000000	= 0.000000	6	x 0.108000	= 0.648000		
P2WK @ 15 Candela	1	x	0.000000	= 0.000000	1	x 0.091000	= 0.091000		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
Total Standby Load				0.000000	Total Alarm Load				0.739000

NAC / Output # 6									
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total		
HWL-LF	6	x	0.000000	= 0.000000	6	x 0.108000	= 0.648000		
P2WK @ 15 Candela	1	x	0.000000	= 0.000000	1	x 0.091000	= 0.091000		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
Total Standby Load				0.000000	Total Alarm Load				0.739000

NAC / Output # 7									
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
		x	0.000000	=		x 0.000000	=		
Total Standby Load				0.000000	Total Alarm Load				0.000000


	P2	SK-PS10 EOL Voltage Drop					
	Starting Voltage	20.4 Volts					
	Minimum Voltage @ EOL	16 Volts					
	Voltage Drop Warning %	10.00%					
	Current Draw	Wire Type	Resistance	Length	Qual Resist	Voltage @ EOL	Percent Drop
Circuit Name	Amps	AWG	Ohms/1000 ft.	Feet (One Way)	Ohms	Volts	Percent
NAC / Output # 1	1.171	#14 Solid	3.07	100	0.61	19.68	3.52%
NAC / Output # 2	1.400	#14 Solid	3.07	100	0.61	19.54	4.21%
NAC / Output # 3	1.428	#14 Solid	3.07	100	0.61	19.52	4.30%
NAC / Output # 4	0.847	#14 Solid	3.07	100	0.61	19.88	2.55%
NAC / Output # 5	0.739	#14 Solid	3.07	125	0.77	19.83	2.78%
NAC / Output # 6	0.739	#14 Solid	3.07	125	0.77	19.83	2.78%
NAC / Output # 7	0.000	#14 Solid	3.07	0	0.00	20.40	0.00%

	P3		SK-PS10 Battery Calculation							
	Secondary Power Source Requirements									
	Standby Current (amps)			Secondary Alarm Current (amps)						
Device Type	Qty	X	Current Draw	=	Total	Qty	X	Current Draw	=	Total
SK-PS10 Power Module	1	X	0.1560	=	0.1560	1	X	0.1850	=	0.1850
NAC / Output # 1			0.0000	=	0.0000			0.8470	=	0.8470
NAC / Output # 2			0.0000	=	0.0000			0.8470	=	0.8470
NAC / Output # 3			0.0000	=	0.0000			0.5230	=	0.5230
NAC / Output # 4			0.0000	=	0.0000			0.5230	=	0.5230
NAC / Output # 5			0.0000	=	0.0000			0.5230	=	0.5230
NAC / Output # 6			0.0000	=	0.0000			0.1990	=	0.1990
NAC / Output # 7			0.0000	=	0.0000			0.0000	=	0.0000
Total Standby Load					0.1560	Total Alarm Load				
						3.6470				

	P3		SK-PS10 Battery Calculation							
	Note 1: You are fully responsible for verifying these calculations.									
	Note 2: You only need to make entries in the yellow cells									
Calculation in Total Sheet										
						Required Standby Time in Hours				
						24 Hours				
Standby Load Current (Amps)				0.1560 Amps		X	24	=	3.744 AH	
						Required Alarm Time in Hours				
						5 Minutes				
Alarm Load Current (Amps)				3.6470 Amps		X	0.084	=	0.306 AH	
						Total Current Load				
						4.05 AH				
						*Multiply by the Derating Factor				
						1.2				
						x 1.20				
						Total Ampere Hours Required				
						4.86 AH				

Recommended Batteries: **BAT-1270 - 7AH Batteries**

* Derating Factor required to compensate for the non-linear discharge characteristic of a battery.

	P3		SK-PS10 Circuit Detail							
	NAC / Output # 1									
	Device	Qty	X	Non-Alarm Draw	=	Total	Qty	X	Alarm Draw	=
P2WK @ 15 Candela	1	x	0.000000	=	0.000000	1	x	0.091000	=	0.091000
HWL-LF	7	x	0.000000	=	0.000000	7	x	0.108000	=	0.756000
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
Total Standby Load					0.000000	Total Alarm Load				
						0.847000				

NAC / Output # 2										
Device	Qty	X	Non-Alarm Draw	=	Total	Qty	X	Alarm Draw	=	Total
P2WK @ 15 Candela	1	x	0.000000	=	0.000000	1	x	0.091000	=	0.091000
HWL-LF	7	x	0.000000	=	0.000000	7	x	0.108000	=	0.756000
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
Total Standby Load					0.000000	Total Alarm Load				
						0.847000				

NAC / Output # 3										
Device	Qty	X	Non-Alarm Draw	=	Total	Qty	X	Alarm Draw	=	Total
P2WK @ 15 Candela	1	x	0.000000	=	0.000000	1	x	0.091000	=	0.091000
HWL-LF	4	x	0.000000	=	0.000000	4	x	0.108000	=	0.432000
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
		x	0.000000	=			x	0.000000	=	
Total Standby Load					0.000000	Total Alarm Load				
						0.847000				


	x	0.000000	=		x	0.000000	=	
	x	0.000000	=		x	0.000000	=	
Total Standby Load				0.000000	Total Alarm Load			0.523000

NAC / Output # 4							
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total
P2WK @ 15 Candela	1	x	0.000000	= 0.000000	1	x 0.091000	= 0.091000
HWL-LF	4	x	0.000000	= 0.000000	4	x 0.108000	= 0.432000
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
Total Standby Load			0.000000	Total Alarm Load			0.523000

NAC / Output # 5							
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total
P2WK @ 15 Candela	1	x	0.000000	= 0.000000	1	x 0.091000	= 0.091000
HWL-LF	4	x	0.000000	= 0.000000	4	x 0.108000	= 0.432000
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
Total Standby Load			0.000000	Total Alarm Load			0.523000

NAC / Output # 6							
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total
P2WK @ 15 Candela	1	x	0.000000	= 0.000000	1	x 0.091000	= 0.091000
HWL-LF	1	x	0.000000	= 0.000000	1	x 0.108000	= 0.108000
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
Total Standby Load			0.000000	Total Alarm Load			0.199000

NAC / Output # 7							
Device	Qty		Non-Alarm Draw	Total	Qty	Alarm Draw	Total
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
		x	0.000000	=		x 0.000000	=
Total Standby Load			0.000000	Total Alarm Load			0.000000

	P3	SK-PS10 EOL Voltage Drop					
	Starting Voltage	20.4 Volts					
	Minimum Voltage @ EOL	16 Volts					
	Voltage Drop Warning %	10.00%					
	Current Draw	Wire Type	Resistance	Length	Qual Resist	Voltage @ EOL	Percent Drop
Circuit Name	Amps	AWG	Ohms/1000 ft.	Feet (One Way)	Ohms	Volts	Percent
NAC / Output # 1	0.847	#14 Solid	3.07	125	0.77	19.75	3.19%
NAC / Output # 2	0.847	#14 Solid	3.07	125	0.77	19.75	3.19%
NAC / Output # 3	0.523	#14 Solid	3.07	125	0.77	20.00	1.97%
NAC / Output # 4	0.523	#14 Solid	3.07	125	0.77	20.00	1.97%
NAC / Output # 5	0.523	#14 Solid	3.07	125	0.77	20.00	1.97%
NAC / Output # 6	0.199	#14 Solid	3.07	125	0.77	20.25	0.75%
NAC / Output # 7	0.000	#14 Solid	3.07	0	0.00	20.40	0.00%