

**Alon A-2 Serial Number A-218 N5618F  
Aircraft Electrical Load Analysis**

BUS	Circuit Protector Rating (Amps)	Circuit Protector Type	Connected Loads	Load Daytime Normal (Amps)	Load Daytime Max (Amps)	Load Nighttime Normal (Amps)	Load Nighttime Max (Amps)	Measured or From Data
<b>Avionics Bus</b>	0.25	Fuse	Intercom	0.02	0.02	0.02	0.02	Measured
	10.00	CB	NavCom	0.84	4.57	0.84	4.57	Measured
	5.00	CB	Xpdr	1.01	1.80	1.01	1.80	M Normal, D Max
			Encoder (Enc 1.4 A Max, 0.35 A after 3 min)	0.23	1.40	0.23	1.40	M Normal, D Max
	3.00	CB	Loran	1.11	1.11	1.11	1.11	Measured
<b>Instrument Bus</b>	5.00	CB	Hour Meter	0.55	0.55	0.55	0.55	Measured (Does not include Starter Contactor Load)
			Volt Meter					
			Starter Contactor (Load only on start. Not Included)					
	3.00	CB	Carb Air Temp Gauge					
	5.00	CB	Turn & Bank					
<b>Main Bus</b>	10.00	CB Switch	Landing Light	0.00	0.00	0.00	6.80	Measured
	10.00	CB Switch	Taxi Light	0.00	0.00	0.00	6.80	Measured
	10.00	CB Switch	Nav Lights (3 ea)	0.00	0.00	3.59	3.59	Measured
	10.00	CB Switch	Rotating Beacon	1.25	1.25	1.25	1.25	Measured
	5.00	CB Switch	Panel Lights - Supplies pwr only to AK-551 Dimmer	0.00	0.00	2.85	2.85	Calculated
			AK-551 Supplies power to:	--	--	--	--	
			Compass Light	--	--	--	--	
			Xpdr Lights	--	--	--	--	
			NavCom Lights	--	--	--	--	
			Engine Instrument Internal Lights	--	--	--	--	
			New Post Lights, 22 each at 0.08 A each	--	--	--	--	
	5.00	CB Switch	Map Light	0.00	0.00	0.00	1.18	Measured
	10.00	Cigar Lighter	Cigar Lighter - Supplies pwr to GPS & ATD	--	--	--	--	
			GPS Plug-In	0.11	0.11	0.11	0.11	Measured
			ATD Plug-In	0.13	0.13	0.13	0.13	Measured
<b>Master Switch</b>	3.00	Fuse	Clock	0.0005	0.0005	0.0005	0.0005	Data
		<b>Total</b>		<b>5.2505</b>	<b>10.9405</b>	<b>11.6905</b>	<b>32.1605</b>	Calculated
	<b>35.00</b>	<b>Generator</b>	Generator is Rated for 35 Amps at 12 Volts					
		<b>Spare Capacity (Amps)</b>	(Generator Rated Amps - Load Total Amps)	<b>29.7495</b>	<b>24.0595</b>	<b>23.3095</b>	<b>2.8395</b>	Calculated
		<b>% of Generator Capacity</b>	(Load Total Amps/ Generator Rated Amps)	<b>15%</b>	<b>31%</b>	<b>33%</b>	<b>92%</b>	Calculated

Worst case with all lights on and COMM & XPDR both transmitting shows  
SOP is to never operate both the Landing Light and Taxi Light at the same time.  
With only one 6.8 Amp light turned on at once, the Nighttime Max changes to

**32.16** Amps, or **92%** percent.

**25.36** Amps, or **72%** percent.

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