

TUNDRA ELECTRICAL LOAD ANALYSIS

ITEM	STANDARD FLIGHT OPERATION			AUX ALT ONLY		Comments / Specification Source
	MAIN	ESSENTIAL	BATTERY	ESSENTIAL	BATTERY	
Battery Contactor / Main Voltage Regulator / Overvoltage Monitor	4.0					Regulator insignificant 3.5A L-60 field current B&C support Estimate 0.5A for contactor, depending which one used
Essential Bus Relay / SD-8 Relay / Regulator / Overvoltage Module				0.3		160mA per relay
Ignition P-Mag Left						1.0A below idle speed
Ignition P-Mag Right						1.0A below idle speed
Fuel Pump						Estimate 0.7A Assume pump does not run in cruise
Courtesy Lights / Accessories	0.5					ESTIMATE
EFIS 1 Dynon Skyview		3.5		0.0		Skyview Installation Manual F plus 1.5A when charging battery
EFIS 2 Dynon Skyview	3.5					As above
Transponder/ADDS-B – Dynon Skyview XPNDR-261	0.4					Skyview Installation Manual F
Auto Pilot Servos (2)	3.0					Dynon Installation Manual 01.A disengaged 1.11A holding max torque 2.03 moving max torque Assume 1.5A x two servos
Com1 / NAV 1 / GPS 1 GNS 430W		2.0		2.0		Main P4001 = 1.60 amps typical / 2.5A max @14VDC. COM P4002 = RX: 4mA typical / 15mA max. TX: 3.25A typical / 6.0 A max. Used 1.6 x 125% factor = 2.0 amps continuous load (typical). GNS-430w install manual rev G.pdf, Electrical Load Analysis section 3.12
Com 2 / NAV 2 SL-30 Comm	0.8					NAV = 325mA typical / 500mA max @13.75V COMM RX = 270mA typical / 2A max at 13.75V COMM TX = 2.1A typical / 3.2A max at 13.75V Apollo SL30 Installation Manual.pdf Specifications Section 3
GPS 2 Garmin Aera 560	1.0					Estimate, not published, Garmin Support has no numbers
Audio Panel		0.4		0.4		ESTIMATE
Avionics Fan	0.5					Estimate
Landing Gear Indicator		0.3		0.3		Estimate for 4 indicator lights
Low Voltage Alert Indicator			0.2		0.2	ESTIMATE
Panel Lighting		2.0		2.0		ESTIMATE
Landing Lights XeVision XV-46-SL PAR 46 / XV1A-50 Ballast	5.5					4.6A steady state each of two. Assume 60% during pulsing
Taxi Lights						9.8A during taxi
Nav Lights / Beacon	1.0					Aveo AveoFlash LP LSA 0.27A position Aveo Red Baron XP 0.75A
Strobe Lights	0.4					AveoFlash LP LSA 0.44A Strobe
Pitot heat	5.0					7.2A max. Intermittenwhen operational
Landing Gear Pump / Relays						Pump motor 15-20A depending on load, relay 160mA
ELT / CO Detector	0.1					ESTIMATE
TOTALS	25.7	8.2	0.2	5.0	0.2	
ALTERNATOR LOAD		34.1		5.2		