

Wittman Tailwind W10

C-GVDZ

Electrical Load Analysis

Main Alt = Plane Power AL 12-E160/B

Standby Alt = B&C SD-8

Battery: ODS-AGM16L (PC-680)

Main Bus

Device	Model	Amps	Circuit Protection	Preflight	Start	Taxi	TO / Climb	VFR Cruise	VFR Night Cruise	VFR Night Approach	IFR Cruise	IFR Night Approach	Taxi In
Dynon 7" Panel	D800	2.10	5A	0.00	0.00	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
Servo (x2) 0.01 amp at idle	SV-32	2.60	5A	0.00	0.00	0.00	0.00	2.60	2.60	2.60	2.60	2.60	0.00
Pitot Heat Dynon	100667-000	10.00	15A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	10.00	0.00
Dynon ADSB In	ADSB-472	0.10	1A	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Landing Lights	AeroSun Lite x2	2.00	5A	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	0.00
Nav / Strobe lights	5.6A/5.4A	11.00	15A	0.00	0.00	5.60	11.00	11.00	11.00	11.00	5.60	5.60	5.60
Panel LED strip		0.56	2A Combined	0.00	0.00	0.00	0.00	0.00	0.56	0.56	0.00	0.56	0.00
Map Light		0.02		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Defog Fans		0.50		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.50
Garmin Audio	GMA 240	2.20	5A	0.00	0.00	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Garmin Nav/Com (note: max condition only when TX)	SL30 (.27A nav/2.1A Tx)	2.37	5A	0.00	0.00	0.27	2.37	2.37	2.37	2.37	2.37	2.37	0.27
Total Main Bus		33.45		0	0	10.27	17.77	20.37	20.93	22.93	24.97	28.03	10.77

Endurance Bus

Device	Model	Amps	Circuit Protection	Preflight	Start	Taxi	TO / Climb	VFR Cruise	VFR Night Cruise	VFR Night Approach	IFR Cruise	IFR Night Approach	Taxi In
Garmin GPS/Nav	GNS 430	1.60	5A	0.00	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
Garmin Com Transmit (.004A Rx / 3.25 Tx)	GNS 430	3.25	10A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.25	3.25	0.00
Dynon 10" Panel	D1100	2.40	5A	0.00	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Dynon ADAHRS (x2)	200/201	0.20	N/A	0.00	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Dynon GPS Antenna	GPS-250	0.10	N/A	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Dynon Transponder .15 amp idle	XPNDR-261	0.34	5A	0.00	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Dynon ARINC	ARINC-429	0.10	N/A	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Dynon Knob Panel		0.07	N/A	0.00	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Dynon Autopilot Panel		0.05	N/A	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dynon engine monitor	EMS-220	0.11	N/A	0.00	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
P-Mag (x2) (power consumed only at startup)	Emag	0.50	3A (ea)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fuel Boost Pump		6.00	10A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Endurance Bus		14.72		0	6.02	5.02	5.02	5.02	5.02	5.02	8.27	8.27	5.02
Total Main + Endurance busses		49.17		1	7.02	16.29	23.79	26.39	26.95	28.95	34.24	37.3	16.79

Battery Bus

Device	Model	Amps	Circuit Protection	Preflight	Start	Taxi	TO / Climb	VFR Cruise	VFR Night Cruise	VFR Night Approach	IFR Cruise	IFR Night Approach	Taxi In
Battery Contactor (fuse on switch wires)	WR 70-11226	1.00	2A	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
USB Socket (assume tablet connected)	(depends on what's connected)	3.10	5A	0.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00	2.00	0.00
Dome Light (LED)		0.04	1A	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACK ELT		Negligible	Connect to main alt feed side of battery contactor										
Total Battery Bus		4.14		0.04	1	1	1	3	3	3	3	3	1
Max Total Power Consumption		52.31		0.04	7.02	16.29	23.79	28.39	28.95	30.95	36.24	39.3	16.79