

Vans RV-10 OM-ELA (ELECTRICAL LOAD ANALYSIS)																	Emergency			
Alternator 1: 60 AMP					IFR NIGHT CONDITIONS w. Pitot Heat ON				VFR DAY	VFR DAY	VFR DAY	VFR DAY	IFR *	DUAL ALTERNATOR FAILURE						
Alternator 2: 30 AMP					TYPICAL Draw				ESS BUS	ESS BUS	ESS BUS	ESS BUS	ESS BUS	ESS BUS & LOAD SHEDDING						
Battery: Concord 25RG-XC battery (24 A hrs)									TAXI	TAKE OFF	CRUISE	LANDING	CRUISE	MAIN BAT 24 Ah (75% Capacity)						
E-BUS DIODE: 60A Perihellion Deuce					TOTAL AMPS:				42.7	47.9	36.7	47.9	16.6	21.8	17.3	21.8	28.8	34.4		
					NORMAL OPS		ALT-1 + ALT-2 Capacity (90Amp):		47.4%	53.2%	40.8%	53.2%					* Pitot Heat ON			
					ALT-2 INOP		Remaining ALT-1 (60Amp):		71.1%	79.8%	61.2%	79.8%	ESS BUS ONLY							
					ALT-1 INOP		Remaining ALT-2 (30Amp):		142.3%	79.8%	61.2%	159.7%	55.2%	72.6%	57.6%	72.6%	96.0%	Time remaining:		
BATTERY BUS					MAX Draw		TYPICAL Draw		OPERATING										0:31	
					TOTAL Peak DRAW ALL BUSES:		81.45		49.98											
Solenoids		estimate	2	2	Continuous	2	2	2	2	1	1	1	1	1						
ELT		?																		
PIEZZO KPI-G4020L-K7531		STALL WARN 100db	0.10	0.10	Intermittent															
ESSENTIAL BUS					33.99		19.76													
LR3C-14		Alternator 2 Linear regulator	2.00	2.00	Continuous	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00						
PFD GDU 46x		DISPLAY UNIT 1	2.00	1.25	Continuous	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25		2.00	
GAD27		ELECTRONIC ADAPTER UI	0.20	0.20	Continuous	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		0.20	
GEA24		ENGINE INDICATION SYST	0.43	0.22	Continuous	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22		0.43	
GSU25		ADAHRS	0.25	0.10	Continuous	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10		0.25	
GMU 11		MAGNETOMETER	0.10	0.10	Continuous	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10		0.10	
SUREFLY SIM (Ignition)		ELECTRONIC MAG	1.20	1.20	Continuous	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20		1.20	
0.80 0.4% PITCH TRIM Motor (only active when		GAD27 INPUT / OUTPUT			Intermittent															
0.80 0.4% ROLL TRIM Motor (only active when		GAD27 INPUT / OUTPUT			Intermittent															
GSU28 Pitch Servo		AP SERVO+Trim Motor	2.80	0.36	Intermittent		0.36	0.36	0.36		0.36	0.36	0.36	0.36	0.36	0.36	0.36		LOAD SHED	
GSU28 Roll Servo		AP SERVO+Trim Motor	2.80	0.36	Intermittent		0.36	0.36	0.36		0.36	0.36	0.36	0.36	0.36	0.36	0.36		LOAD SHED	
AVMAP EKPV (typical consumption)		BACKUP EFIS	0.71	0.67	Continuous	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57		0.71	
NS90 +SUNTAIL AEROLEDS		Nav Lts	1.20	1.20	Continuous	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20		1.20	
AVEO DOME LED		DOME LIGHT	0.20	0.20	Continuous	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		0.20	
AVEO EYBEAM MINI		Map Reading Light (1pc) Pkik	0.20	0.20	Continuous	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		0.20	
Carling BACKLIGHT (20mA(0.02A) -		LED (12 switches per 2LEDs	0.48	0.48	Continuous	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30		0.48	
Compass (estimate)		LED	0.02	0.02	Continuous	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02		0.02	
NS90 +SUNTAIL AEROLEDS		Strobe	9.40	3.30	Continuous	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30		3.30	
ANDAIR PX375-TC		ELECTRIC FUEL PUMP	6.00	4.50	Continuous		4.50		4.50		4.50		4.50		4.50		4.50		4.50	
Vans Flap Motor Servo		FLAP MOTOR	4.00	3.40	Intermittent															
SUB BUS																				
AVIONICS 1 (AVIOX 1)					(20A switch controlled)		11.63		4.71											
GMC507		AUTOPILOT PANEL	0.20	0.20	Continuous	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		0.20	
GTN35R		TXPD ADS-B OUT	0.86	0.57	Continuous	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57		0.86	
GTN650		NAV connector	1.16	0.60	Continuous	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60		1.16	
GTN650		MAIN connector	2.80	1.60	Continuous	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60		2.80	
GTN650		COM connector	4.02	0.45	Continuous (RX)	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45		4.02	
GAD29		ARINC ADAPTER	0.20	0.10	Continuous	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10		0.20	
GMA 345		AUDIO PANEL	2.39	1.19	Continuous	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19		2.39	
MAIN BUS					22.38		16.98													
LR3C-14		Alternator 2 Linear regulator	2.00	2.00	Continuous	2.00	2.00	2.00	2.00	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
AVEO EYBEAM MINI		Map Reading Light (2 pcs)	0.40	0.40	Continuous	0.40	0.40	0.40	0.40	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
BAJA SQUADRON PRO		Landing Lts	6.66	6.66	Continuous	6.66	6.66		6.66	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
Arclic Fan F8		Defrost Fans 0.16A each	0.32	0.32	Continuous	0.32	0.32	0.32	0.32	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
GLARE S. LTS STRIP		LED (0.2A)	0.20	0.20	Continuous	0.20	0.20	0.20	0.20	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
GAP26		Pitot Heat Regulated	12.00	7.00	Continuous	7.00	7.00	7.00	7.00	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		7.00				7.00	
RUDDER TRIM SERVO		GAD27 INPUT / OUTPUT	0.80	0.40	Intermittent															
SUB BUS																				
AVIONICS 2 (AVIOX 2)					(20A switch controlled)		13.45		8.63											
GNC255A		COM connector (TX conside	4.20	0.59	Continuous (RX)	0.59	0.59	0.59	0.59	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
GNC255A		NAV connector	1.16	0.60	Continuous	0.60	0.60	0.60	0.60	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
POWER FLARM		ADS-B IN and FLARM	1.32	1.32	Continuous	1.32	1.32	1.32	1.32	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
KING KN63+KD1573		DME	1.37	1.37	Continuous	1.37	1.37	1.37	1.37	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
MFD GDU 46x		DISPLAY UNIT 2	2.00	1.25	Continuous	1.25	1.25	1.25	1.25	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	
3x USB CHARGER TA102		TRUE BLUE POWER	3.40	3.40	Continuous	3.40	3.40	3.40	3.40	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED	LOAD SHED		LOAD SHED	