ATM-021 ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS

Supply Voltage	+35V / +5.25V
Inhibit, F1 and F0 Input Voltage	-0.5V to+5.2V
Operating Ambient Temperature (T_A)	-40℃to+85℃
Storage Temperature	-40℃to+100℃
Lead Temperature (Soldering, 10 sec max.)	+300℃

FUNCTIONAL SPECIFICATIONS

Typical at: TA=+25℃,Vin=+24.0Vdc, Load=1400Ω resistive, Cin=330μF, OAC not connected.

Parameters	Conditions	Min	Typ	Max	Units
Supply (+24Vin)					
Supply Voltage		19.2	24.0	30.0	Vdc
Supply Voltage Ripple	100-120Hz, 19.2≦Vin≦30.0Vdc			1.5	Vp-p
Current Consumption					
Average Current	Device Inhibited			24	mA
	No Load		85		mA
	Load=1400Ω, @ Vin=19.2Vdc			370	mA
Peak Current	Load=1400Ω, @ Vin=19.2Vdc			700	mA
Suppply (+5Vin)					
Supply Voltage		4.75	5.00	5.25	Vdc
Input Current	@Continuous			35	mA
	@Surge of 200nsec every 3 μsec			110	mA
Efficiency		64	72		%
Output					
Power	Continuous Loading	0		5	VA
Power Factor		0.7			|cos p|
Output Voltage	OAC not connected , Pout=3V_A	70	75	82	Vrms
Output Frequency	According to F0,F1 setting (Refer to Page 1)		16.7, 20, 25,50		Hz
Frequency Accuracy	19.2≦Vin≦30.0Vdc,0≦Pout≦4VA,-40℃≦T_A≦+85℃			±3	%
THD	19.2≦Vin≦30.0Vdc,0≦Pout≦4VA,-40℃≦T_A≦+85℃			5	%
Inhibit Control Input					
Disable Voltage V_{IH}		3.5	5	5.2	Vdc
Enable Voltage V_{IL}		-0.5	0	1.0	Vdc
I_{in} Source	V_{IL} = 0V			50	μA
I_{in} Sink	V_{IH} = 5V			700	μA
F0,F1 Control Input *					
V_{IH}		3.5		5.2	Vdc
V_{IL}		-0.5		1.0	Vdc
I_{in} Source	V_{IL} = 0V			700	μA
Timing					
Inhibit Response					
Time to Turn-On		30		50	ms
Time to Turn-Off				35	ms
Overload Protection Response					
Time to Turn-Off	Output Overloaded	200	600	800	ms
Time to Turn-On	Load reverts to Normal;0≦Pout≦4VA		5		s
General					
Insulation	500Vdc Input to Output	40			MΩ
Switching Frequency			94		kHz
Environment					
Ambient Temperature (T_A)					
Without Derating		-40		+50	℃
With Derating	From +50℃ output derated by 0.1W/℃	-40		+85	℃
Sync Output Timing					
SYNC Pulse Width	Output Frequency=16.7, 20, 25 Hz	4.5		5.5	ms
	Output Frequency=50 Hz	3.6		4.4	ms
OHD Output Timing					
Off-Hook Response Time	Output Overloaded			40	ms
OHD,Sync Output	Referenced to GND Terminal				
V_{OH}	Output Source Current 2mA	4.2		5.3	Vdc
V_{OL}	Output Sink Current 2mA	0		0.8	Vdc
V_{OL}	Output Sink Current 5mA	0		1.2	Vdc

*** DO NOT CHANGE THE FREQUENCY SETUP WHILE THE RING GENERATOR OUTPUT IS ENABLED.**