Summary of Power and energy information. 2/1/2017

Models	Peak power during on time			Energy during pulse		Average Power(20Hz for -70 and 10Hz for -30) Burst mod		
	Typ ship	Min Ship	Max@Ship	Typ ship	Min Ship	Typ ship	Min Ship	Typ BM (60Hz)
HeAg 70	130mW	100mW	170mW	10uJ	8uJ	200uW	140uW	170uW
HeAg30	35mW	20mW	45mW	2.8uJ	2uJ	20uW	15uW	75uW
NeCu70	1000mW	600mW	1200mW	27uJ	18uJ	600uW	450uW	900uW
NeCu30	300mW	275mW	400mW	13uJ	8uJ	150uW	80uW	450uW

These tables are summaries of actual/typical lasers being shipped.

NeCu30

Settings	Reading	Current	Buss V	SetRepRt	Pulse W uS	uJ	Output mW	Ave Power @ 5Hz		Ave Power @ 10Hz		Ave Power @40Hz	
Nominal	**1.17**	**20**	**400**	5Hz	40	13.00	464.3	65.0	uW	130.0	uW	520.0	uW
Other	**0.8**	**16**	**385**	5Hz	40	8.20	292.9	41.0	uW	82.0	uW	328.0	uW
	1	**18**	**395**	5Hz	40	9.10	325.0	45.5	uW	91.0	uW	364.0	uW
	1.5	**22**	**405**	5Hz	40	14.00	500.0	70.0	uW	140.0	uW	560.0	uW
	1.8	**25**	**420**	5Hz	40	16.00	571.4	80.0	uW	160.0	uW	640.0	uW
												0.0	

Note the laser is CW in nature so the pulse is actually squarish
Note the actual laser pulse is ~ 12uS shorter than the Input Pulse width time to build up laser medium)
Average power would be Output Power of the pulse Times the Dutycycle(DC)
ie. If the Rep Rate is 5Hz and the PW is (40uS-12us) then the DC would be 5*.000028=0.014%
Then you can calculate the Average power directly AP=DC*Peakavepower

NeCu70

Settings	Reading	Current	Buss V	SetRepRt	Pulse W uS	uJ	Output mW	Ave Power @ 10Hz		Ave Power @ 20Hz		Ave Power @40Hz	
Nominal	**1.17**	**30**	**400**	20Hz	40	24.50	875.0	245.0	uW	490.0	uW	980.0	uW
Other	**>1.2**	**35**	**405**	20Hz	40	27.50	982.1	275.0	uW	550.0	uW	1100.0	uW
	>1.2	**40**	**415**	20Hz	40	30.10	1075.0	301.0	uW	602.0	uW	1204.0	uW
	0.82	**25**	**370**	20Hz	40	19.20	685.7	192.0	uW	384.0	uW	768.0	uW
												0.0	uW

Note the laser is CW in nature so the pulse is actually squarish
Note the actual laser pulse is ~ 12uS shorter than the Input Pulse width time to build up laser medium)
Average power would be Output Power of the pulse Times the Dutycycle(DC)
ie. If the Rep Rate is 20Hz and the PW is (40uS-12us) then the DC would be 20*.000028=0.046%
Then you can calculate the Average power directly AP=DC*Peakavepower

HeAg70

Settings	Reading	Current	Buss V	SetRepRt	Pulse W uS	uJ	Output mW	Ave Power @ 10Hz		Ave Power @ 20Hz		Ave Power @40Hz	
Nominal	**0.7**	**15**	**420**	20Hz	100	8.90	118.7	89.0	uW	178.0	uW	356.0	uW
Other	**0.82**	**23**	**445**	20Hz	100	10.40	138.7	104.0	uW	208.0	uW	416.0	uW
	0.79	**20**	**430**	20Hz	100	9.90	132.0	99.0	uW	198.0	uW	396.0	uW
	0.52	**10**	**395**	20Hz	100	5.50	73.3	55.0	uW	110.0	uW	220.0	uW

Note the laser is CW in nature so the pulse is actually squarish
Note the actual laser pulse is ~ 25uS shorter than the Input Pulse width time to build up laser medium)
Average power would be Output Power of the pulse Times the Dutycycle(DC)
ie. If the Rep Rate is 20Hz and the PW is (100uS-25us) then the DC would be 20*.000075=0.15%
Then you can calculate the Average power directly AP=DC*Peakavepower

HeAg30

Settings	Reading	Current	Buss V	SetRepRt	Pulse W uS	uJ	Output mW	Ave Power @ 5Hz		Ave Power @ 10Hz		Ave Power @40Hz	
Nominal	1	10	380	5Hz	100	2.5	33.3	25.0	uW	50.0	uW	100.0	uW
Other	0.38	6	345	5Hz	100	1.5	20.0	15.0	uW	30.0	uW	60.0	uW
	0.53	8	355	5Hz	100	2.1	28.0	21.0	uW	42.0	uW	84.0	uW
	0.6	9	375	5Hz	100	2.35	31.3	23.5	uW	47.0	uW	94.0	uW
	0.69	11	390	5Hz	100	2.54	33.9	25.4	uW	50.8	uW	101.6	uW

Note the laser is CW in nature so the pulse is actually squarish
Note the actual laser pulse is ~ 25uS shorter than the Input Pulse width time to build up laser medium)
Average power would be Output Power of the pulse Times the Dutycycle(DC)
ie. If the Rep Rate is 10Hz and the PW is (100uS-25us) then the DC would be 5*.000075=0.0375%
Then you can calculate the Average power directly AP=DC*Peakavepower