

XL FEG Beam Current and Spot size information (> Version 5.2)

These values are theoretical and should only be used as a guideline.

To be more accurate current and spotsizes should be measured on individual users instruments.

Beam Current*:

Spotsize	30kV	20kV	10kV	5kV	2kV	1kV	500V
1	21 pA	13 pA	8 pA	5 pA	2.5 pA	pA	0.7 pA
2	44 pA	40 pA	33 pA	25 pA	13 pA	7 pA	4 pA
3	154 pA	148 pA	130 pA	98 pA	53 pA	30 pA	16 pA
4	625 pA	617 pA	538 pA	398 pA	211 pA	116 pA	62 pA
5	2.41 nA	2.39 nA	2.11 nA	1.57 nA	840 pA	pA464	249 pA
6	9.54 nA	9.45 nA	8.37 nA	6.27 nA	3.37 nA	1.86 nA	1 nA
7	36.9 nA	36.5 nA	32.4 nA	24.3 nA	13.1 nA	7.24 nA	3.89 nA

*Final Lens Aperture =30µm

Spotsizes:

Spotsize	30kV	20kV	10kV	5kV	2kV	1kV	500V
1	0.4 nm	0.4 nm	0.4 nm	0.5 nm	0.5 nm	0.5 nm	0.6 nm
2	0.6 nm	0.7 nm	0.8 nm	1.0 nm	1.2 nm	1.3 nm	1.3 nm
3	1.0 nm	1.3 nm	1.7 nm	2.1 nm	2.4 nm	2.5 nm	2.6 nm
4	2.1 nm	2.6 nm	3.4 nm	4.1 nm	4.8 nm	5.0 nm	5.2 nm
5	4.1 nm	5.0 nm	6.7 nm	8.2 nm	9.5 nm	10.0 nm	10.4 nm
6	8.2 nm	10.0 nm	13.4 nm	16.4 nm	19.0 nm	20.0 nm	20.7 nm
7	16.0 nm	19.6 nm	26.3 nm	32.3 nm	37.4 nm	39.4 nm	40.9 nm