



ULT Frameless Direct Drive Motors

5915 Jetton Lane, Loomis CA 95650
P 916-652-3118 F 916-652-3171

update 8-08

Model Number	R	L	Ke	Kt	Km	Thermal Res.	Torque in Air	Current	Stator OD	Stator Length	Rotor ID	Rotor Length	Back Iron ID	Poles	Weight	Inertia w/o BI	Thermal Res.	Torque Housed	Current	Notes
ULT Series	ohm	mh	v/krpm	oz-in/a	oz-in/w1/2	degC/watt	oz-in cont.	amp	inch	inch	inch	inch	inch		ounce	lb-in-sec ²	housed degC/w	housed oz-in	housed amp	
ULT-44-A-10-A-N-001	10.00	1.1	3.2	4.3	1.4	13	4	0.8	1.700	0.410	1.260	0.265	1.000	12	1.2	0.000011	4.5	6	1.4	external halls
ULT-63-A-8-A-N-001	0.98	0.1	1.9	2.6	2.6	8	9	3.4	2.500	0.310	1.700	0.200	1.500	12	1.4	0.00007	2.5	16	6.1	external halls
ULT-63-A-8-C-N-001	10.60	1.3	5.5	7.4	2.3	8	8	1.0	2.500	0.310	1.700	0.200	1.500	12	1.4	0.00007	2.5	14	1.8	external halls
ULT-63-B-18-B-N-001	7.50	1.2	10.7	14.4	5.3	6	20	1.4	2.500	0.730	1.700	0.580	1.500	12	3.4	0.00021	2.5	32	2.2	external halls
ULT-63-C-18-A-N-001	1.70	0.2	4.8	6.4	4.9	6	19	3.0	2.500	0.730	1.700	0.580	1.500	12	3.4	0.00021	2.5	30	4.6	external halls
ULT-63-B-55-A-N-001	3.40	7.0	21.5	29.0	15.7	4.5	70	2.4	2.500	2.180	0.945	1.400	N/A	8	N/A	0.000131	2.5	94	3.3	external halls
ULT-91-A-60-A-N-000	0.04	0.1	6.7	9.1	43.7	4.5	195	21.6	3.600	2.390	1.800	1.614	N/A	20	N/A	0.00106	1.5	338	37.4	external halls
ULT-100-A-15-A-X-001	3.75	6.8	17.5	23.6	12.2	4.5	55	2.3	4.000	0.650	1.900	0.400	1.700	16	13.8	0.000135	1.5	95	4.0	Internal halls
ULT-100-A-15-B-X-001	2.80	4.0	12.7	17.1	10.2	4.5	46	2.7	4.000	0.650	1.900	0.400	1.700	16	13.8	0.000135	1.5	79	4.6	Internal halls
ULT-100-A-15-C-X-001	0.70	1.4	8.0	10.8	12.9	4.5	58	5.3	4.000	0.650	1.900	0.400	1.700	16	13.8	0.000135	1.5	100	9.3	Internal halls
ULT-100-A-24-A-X-001	3.30	9.7	29.0	39.2	21.6	3.6	108	2.8	4.000	0.950	1.900	0.787	1.700	16	20.4	0.000265	1.5	167	4.3	Internal halls
ULT-100-A-24-B-X-001	2.00	5.0	22.5	30.4	21.5	3.6	107	3.5	4.000	0.950	1.900	0.787	1.700	16	20.4	0.000265	1.5	166	5.5	Internal halls
ULT-100-A-24-C-X-001	1.10	3.2	16.7	22.5	21.5	3.6	107	4.8	4.000	0.850	1.900	0.787	1.700	16	20.4	0.000265	1.5	167	7.4	Internal halls
ULT-100-A-43-A-H-001	2.50	7.4	39.0	52.7	33.3	3	182	3.5	4.000	1.700	1.900	1.200	1.700	16	40.8	0.00053	1.5	258	4.9	Internal halls
ULT-127-A-19-A-X-001	2.50	5.0	32.5	43.9	27.7	2.2	177	4.0	5.125	0.760	3.440	0.460	3.250	24	20.0	0.0028	1.0	263	6.0	Internal halls
ULT-127-B-19-A-H-001	2.50	5.0	52.0	70.2	44.4	2.2	284	4.0	5.125	0.760	3.440	0.800	3.250	24	20.8	0.0033	0.8	471	6.7	Internal halls
ULT-127-A-19-B-X-001	0.68	1.3	25.0	33.8	40.9	1.8	289	8.6	5.125	0.760	3.440	0.800	3.250	24	20.8	0.0033	0.8	448	13.3	Internal halls
ULT-127-A-30-A-X-001	2.50	6.5	60.0	81.0	51.2	1.8	362	4.5	5.125	1.200	3.440	0.800	3.252	24	27.7	0.0025	0.8	561	6.9	Internal halls
ULT-127-A-30-C-X-001	0.07	0.1	8.5	11.5	43.4	1.8	307	26.7	5.125	1.200	3.440	0.800	3.252	24	27.7	0.0025	0.8	460	40.1	Internal halls
ULT-127-A-30-D-X-001	0.36	0.8	23.2	31.3	52.2	1.8	369	11.8	5.125	1.200	3.440	0.800	3.250	24	27.7	0.0025	0.8	554	17.7	Internal halls
ULT-127-A-45-A-X-001	2.00	5.2	81.0	109.4	77.3	1.5	599	5.5	5.125	1.900	3.440	1.600	3.250	24	38.5	0.005	0.8	847	7.7	Internal halls
ULT-127-A-45-B-X-001	3.60	9.0	96.6	130.4	68.7	1.5	532	4.1	5.125	1.630	3.440	1.600	3.250	24	38.5	0.005	0.8	729	5.6	Internal halls
ULT-165-A-12-A-X-001	13.70	13.3	57.0	77.0	20.8	1.3	173	2.2	6.500	0.472	4.700	0.224	4.410	36	14.5	0.0013	0.8	228	3.0	Internal halls
ULT-165-A-12-B-X-001	3.70	3.5	28.5	38.5	20.0	1.3	166	4.3	6.500	0.472	4.700	0.224	4.410	36	14.5	0.0013	0.8	212	5.5	Internal halls
ULT-165-A-12-C-X-001	56.00	70.0	114.0	153.9	20.6	1.3	171	1.1	6.500	0.472	4.700	0.224	4.410	36	14.5	0.0013	0.8	218	1.4	Internal halls
ULT-165-A-12-D-X-001	0.20	0.2	6.6	8.9	19.9	1.4	160	17.9	6.500	0.472	4.700	0.224	4.410	36	14.5	0.0016	0.8	218	24.5	Internal halls
ULT-165-A-18-B-X-001	2.40	6.0	57.0	77.0	49.7	1.2	430	5.6	6.500	0.750	4.700	0.448	4.300	36	33.5	0.003	0.8	544	7.1	Internal halls
ULT-165-A-38-A-X-001	3.00	6.9	109.0	147.2	85.0	1.2	736	5.0	6.500	1.500	4.700	1.125	4.300	36	52.5	0.008	0.8	931	6.3	Internal halls
ULT-165-A-38-B-X-001	1.50	3.2	75.7	102.2	83.4	1.2	723	7.1	6.500	1.500	4.700	1.125	4.300	36	52.5	0.008	0.8	885	8.7	Internal halls
ULT-165-A-50-A-X-001	3.60	8.0	150.0	202.5	106.7	1.0	1013	5.0	6.500	1.960	4.700	1.700	4.300	36	70.0	0.0122	0.8	1169	5.8	Internal halls

ULT High Output	R	L	Ke	Kt	Km	Thermal Res.	Torque	Current	Stator OD	Stator Length	Rotor ID	Rotor Length	Poles	Weight	Inertia	Thermal Res	Torque	Current	Notes	
ULT-29-H-19-A-X-000	18	9.5	10.4	14.0	3.3	8	11	0.8	1.15	0.74	0.255	0.63	8	n/a	n/a	3.5	17	1.2	no hall device option	
ULT-56-H-33-A-X-001	1.25	2.3	10.4	14.0	12.6	6.5	47	3.3	2.2	1.32	0.74	0.66	8	n/a	0.00002	2.5	75	5.4	external halls	
ULT-56-H-47-A-X-001	0.1	0.4	5.0	6.8	19.5	6.5	73	10.7	2.200	1.750	0.740	1.100	8	11.2	0.000041	2.5	117	17.3	external halls	
ULT-56-H-47-B-X-001	0.6	0.8	10.0	13.5	18.0	6.5	67	5.0	2.200	1.750	0.740	1.100	8	11.2	0.000041	2.5	108	8.0	external halls	
ULT-56-H-47-C-X-001	0.1	0.1	4.8	6.5	22.8	6.5	85	13.2	2.200	1.750	0.740	1.100	9	11.2	0.000041	3.5	116	17.9	external halls	
ULT-63-H-8-A-X-001	9.1	1.0	6.6	8.9	3.0	6.5	11	1.2	2.500	0.330	1.300	0.250	12	1.4	0.00009	3.5	15	1.7	external halls	
ULT-63-H-18-A-X-001	1.3	0.2	5.7	7.4	6.6	5.0	28	3.8	2.500	0.730	1.300	0.619	12	3.4	0.00018	3.5	34	4.5	external halls	
ULT-63-H-24-A-X-000	1.8	4.1	13.9	18.8	14.2	4.0	67	3.6	2.500	1.000	0.825	0.600	8	n/a	0.00018	3.5	72	3.8	external halls	
ULT-63-H-57-A-X-000	5.4	11.0	31.5	42.5	18.3	4.0	87	2.0	2.495	2.220	0.750	1.450	8	n/a	0.00018	3.5	93	2.2	external halls	
ULT-114-H-36-A-X-001	33.0	70.0	283.0	382.1	66.5	2.0	446	1.2	4.500	1.440	2.100	1.000	16	39.4	0.000544	1.0	631	1.7	external halls	
ULT-114-H-71-A-X-001	4.500	2.800	2.100	2.100					4.500	2.800	2.100	2.100								
ULT-114-H-20-A-X-001	7.4	11.0	60.6	81.8	30.1	2.3	188	2.3	4.500	0.798	2.100	0.472	16	21.0	0.0003	1.0	285	3.5	external halls	
ULT-127-H-66-A-X-001	5.0	22.0	235.0	317.3	141.9	1.2	1229	3.9	5.000	2.625	2.100	2.400	12	n/a	n/a	0.8	1505	4.7	external halls	
ULT-165-H-38-A-X-000	1.5	2.0	115.0	155.3	126.8	1.2	1098	7.1	6.500	1.500	4.750	1.230	32	52.5	0.018	0.8	1345	8.7	Internal halls	
ULT-220-H-66-A-X-000	1.0	1.4	140.0	189.0	187.1	1.0	1775	9.4	8.750	2.600	5.992	1.480	24	n/a	n/a	0.6	2292	12.1	external halls	
ULT-220-H-27-A-X-000	1.2	1.9	30.8	41.6	38.8	1.0	368	8.8	8.750	1.075	5.992	0.645	24	n/a	n/a	0.6	475	11.4	external halls	
ULT-230-H-32-A-X-000	0.6	1.4	119.0	160.7	207.4	0.8	2272	14.1	9.055	1.250	6.300	0.866	32	N/A	0.069	0.5	2783	17.3	external halls	
ULT-230-H-85-A-X-001	1.2	2.9	260.0	351.0	320.4	0.7	3633	10.4	9.055	3.340	5.300	1.772	20	N/A	0.241	0.5	4299	12.2	external halls	
ULT-230-H-170-A-X-001	0.3	1.0	245.0	330.8	648.7	0.7	7355	22.2	9.055	6.690	5.300	5.110	20	823.0	0.44	0.5	8703	26.3	external halls	
ULT-355-H-45-A-X-000	0.7	5.0	190.0	256.5	318.1	0.5	4268	16.6	13.960	1.700	8.260	0.780	40	N/A	0.186	0.5	4268	16.6	Internal halls	
ULT-434-H-92-A-X-000	1.3	6.5	470.0	634.5	556.5	0.5	7466	11.8	17.100	3.600	13.000	2.000	24	n/a	n/a	0.5	7466	11.8	external halls	
ULT-533-H-50-A-N-000	19.5	95.0	2700.0	3645.0	825.4	0.5	11074	3.0	25.000	1.900	17.000	0.960	60	n/a	n/a	0.5	11074	3.0	external halls	

ULT Slotless	R	L	Ke	Kt	Km	Thermal Res.	Torque	Current	Stator OD	Stator Length	Rotor ID	Rotor Length	Poles	Weight	Inertia	Thermal Res	Torque	Current	Notes
ULT-29-S-21-A-X-000	19.2	0.8	8	10.8	2.5	8	8	0.8	1.14	0.84	0.25	0.63	8	n/a	n/a	4	12	1.1	external halls
ULT-53-S-20-A-X-001	2.7	0.1	4.1	5.535	3.4	8	11	2.0	2.08	0.798	1.4	0.6	12	n/a	0.000038	2.5	20	3.7	external halls
ULT-165-S-24-A-X-000	6.7	0.85	71	95.85	37.0	2.5	222	2.3	6.49	0.958	5.55	0.5	48	n/a	0.013	1.5	287	3.0	external halls
ULT-165-S-62-A-X-000	5.6	0.65	122	164.7	69.6	1.5	539	3.3	6.49	2.45	5.55	2	48	n/a	0.055	1.25	591	3.6	external halls
ULT-240-S-24-A-X-000	4.5	0.6	74	99.9	47.1	1.5	365	3.7	8.75	0.95	7.5	0.65	64	n/a	0.045	1	447	4.5	external halls

- Notes:
- Applimotion not responsible for typos in data, always check with factory for actual motor drawings before designing.
 - Inertia parameters are estimates based on density and dimensions
 - On motors with external hall device option, all versions may not be released and available on the shelf
 - All ULT High Output and Slotless motors include a back iron. Rotor ID is same as back iron ID.
 - Overall length of the motor doesn't change for motors with internal hall device option if it is selected