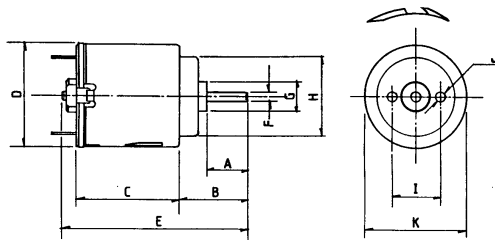


MINIATURE D.C. MOTORS

RE - 140 (3 POLE) & RE - 140/1



PT.NO. 457 RE 140 (WITH BRACKET).
 PT.NO. 719 RE 140 (WITHOUT BRACKET)
 PT.NO. 457 RE 140/1 (WITH BRACKET)
 PT.NO. 719 RE 140/1 (WITHOUT BRACKET)
 PT.NO. 724 MOTOR BRACKET (90° ONLY)



Weight 20g (approx)

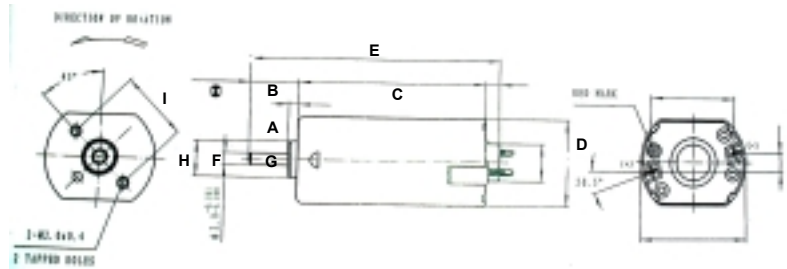
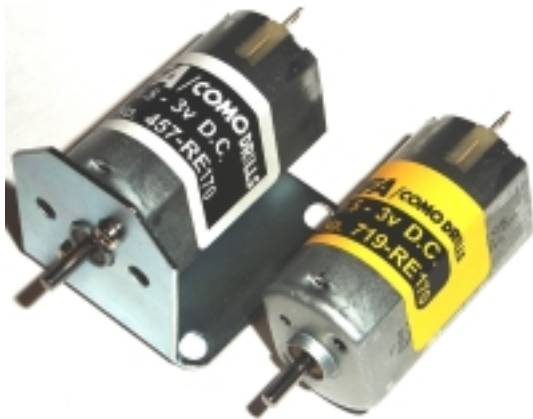
DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	8.3	14.0	21.0	21.0	38.0	2.0	6.15	16.0	10.0	2.0	20.15
DECIMAL INCHES	0.33	0.55	0.827	0.827	1.496	0.079	0.242	0.63	0.394	0.079	0.793

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 140	1.5 - 3.0	1.5v CONSTANT	8200	0.190	6250	0.62	0.089	6.4	0.400	44.2	0.375	27.0
RE - 140	1.5 - 3.0	3.0v CONSTANT	14000	0.230	11300	0.96	1.444	10.4	1.210	42.0	0.750	54.0
RE - 140/1	3.0 - 9.0	6v CONSTANT	9200	0.066	7071	0.219	0.11	8.1	0.589	44.79	0.48	35.1

Stall Current RE140 at 3v = 3.41A

RE - 170 (3 POLE)

PT.NO. 457 RE 170 (WITH BRACKET).
 PT.NO. 719 RE 170 (WITHOUT BRACKET)
 PT.NO. 724. MOTOR BRACKET (90o ONLY)



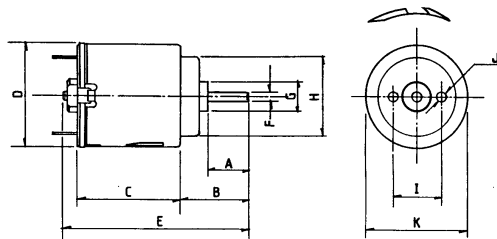
Weight 29g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	6.7	8.3	32.0	18.7	42.7	2.0	6.5	14.5	M2	12.0	45o
DECIMAL INCHES	0.26	0.33	1.26	0.74	1.68	0.08	0.24	0.57		0.47	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY					STALL TORQUE			
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE		
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm	
RE - 170	1.5 - 3.0	3.0v CONSTANT	10400	0.17	8870	1.03			27	2.47	79.9		184.0

RE - 260 (3 POLE)

PT.NO. 457 RE 260 (WITH BRACKET).
 PT.NO. 719 RE 260 (WITHOUT BRACKET)
 PT.NO. 724 MOTOR BRACKET (90o ONLY)



Weight 29g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	8.2	11.3	23.5	23.7	42.0	2.0	6.1	19.1	11.5	2.3	23.7
DECIMAL INCHES	0.32	0.44	0.93	0.93	1.65	0.079	0.24	0.75	0.45	0.09	0.93

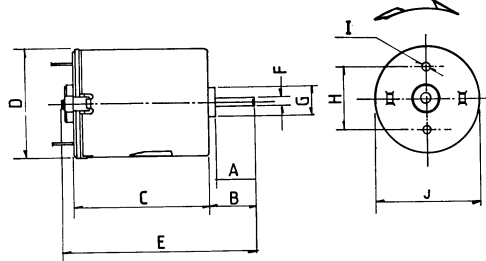
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY					STALL TORQUE			
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE		
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm	
RE - 260	3.0 - 6.0	3.0v CONSTANT	4242	0.042	3296	0.151			6.8	0.345	33.91		30.61
RE - 260	3.0 - 6.0	4.5v CONSTANT	6360	0.065	4942	0.227			10.2	0.518	50.84		45.9
RE - 260	3.0 - 6.0	6.0v CONSTANT	8478	0.087	6587	0.302			13.6		31.5		61.84

Stall Current RE260 at 4.5v = 0.79A

RE - 280 (3 POLE) & RE - 280/1 & RE-280/5



PT.NO. 457 RE 280 (WITH BRACKET)
 PT.NO. 457 RE 280/1 (WITH BRACKET)
 PT. NO. 457 RE 280/5 (WITH BRACKET)
 PT.NO. 719 RE 280 (WITHOUT BRACKET)
 PT.NO. 719 RE 280/1 (WITHOUT BRACKET)
 PT. NO. 719 RE 280/5 (WITHOUT BRACKET)
 PT.NO. 724 MOTOR BRACKET (90o ONLY)



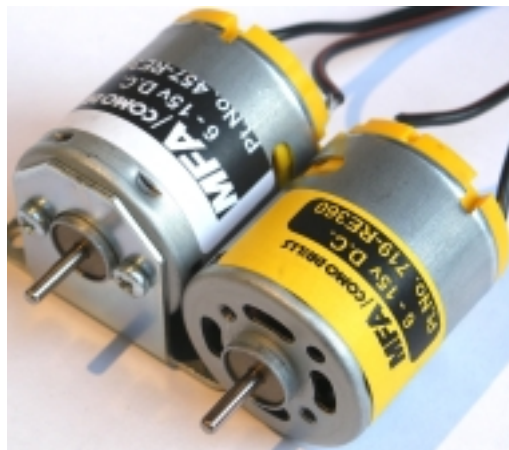
Weight 44g (approx)

	DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
RE 280, RE 280/1 RE 280/5	MILLIMETER	7.40	12.0	30.5	23.8	42.0	2.0	6.35	14.0	2.3	24.2	
	DECIMAL INCHES	0.41	0.472	1.201	0.937	1.65	0.078	0.250	0.551	0.090	0.953	

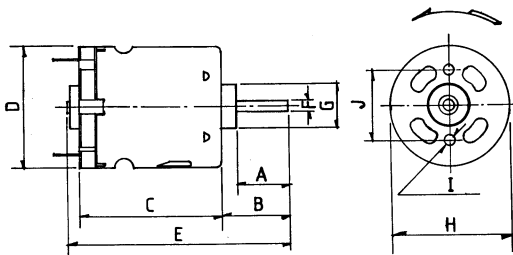
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 280	1.5 - 3.0	1.5v CONSTANT	4600	0.120	3750	0.53	0.160	11.53	0.44	56.2	0.86	62.0
RE - 280	1.5 - 3.0	3.0v CONSTANT	9200	0.155	7800	0.85	0.278	20.00	1.60	62.3	1.81	130.0
RE - 280/1	12 - 24	12v CONSTANT	8400	0.10	6300	0.30	0.347	25.00	1.62	44.87	1.389	100.0
RE - 280/5	3 - 6	6v CONSTANT	9280	0.108	7664	0.51	0.347	25.00	1.99	64.85	2.02	100.0

Stall Current RE280 at 1.5v = 2.41A

RE - 360 (3 POLE) & RE - 360/1



Pt. No. 457 RE 360 (with Bracket)
 Pt. No. 719 RE 360 (without Bracket)
 Pt. No. 457 RE 360/1 (with bracket)
 Pt. No. 719 RE 360/1 (without bracket)
 Pt. No. 725 Motor Bracket (90o only)



Weight 51g (approx)

	DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
	MILLIMETER	8.2	11.5	32.5	27.63	47.0	2.305	10.0	27.5	M2.6	16.0	
	DECIMAL INCHES	0.323	0.453	1.28	1.088	1.85	0.091	0.394	1.083		0.63	

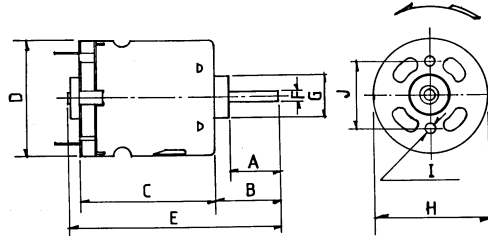
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	g - cm	W	%	oz - in	g - cm	
RE - 360	6 - 15	12v CONSTANT	11370	0.151	9511	0.77		58.8	5.75	61.94		360.0

Stall Current RE360 at 12v = 3.95A

RE - 380 (3 POLE)



Pt. No. 457 RE 380 (with Bracket)
 Pt. No. 719 RE 380 (without Bracket)
 Pt. No. 725 Motor Bracket (90o only)



Weight 69g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	12.5	16.0	38.0	27.7	57.0	2.30	10.0	27.5	M2.6	16.0	
DECIMAL INCHES	0.492	0.630	1.496	1.091	2.244	0.091	0.394	1.083		0.630	

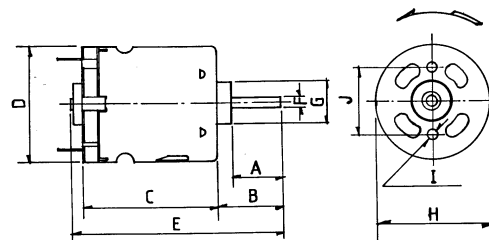
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 380	3.0 - 7.2	7.2v CONSTANT	26000	1.000	19000	4.41	5.000	375.00	19.68	62.0	30.000	594.8

Stall Current RE380 at 7.2v = 25.19A

RE - 385 (5 POLE)



Pt. No. 457 RE 385 (with Bracket)
 Pt. No. 719 RE 385 (without Bracket)
 Pt. No. 725 Motor Bracket (90o only)



Weight 66g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	11.5	15.0	38.0	27.7	56.0	2.305	10.0	27.5	M2.6	16.0	
DECIMAL INCHES	0.453	0.591	1.496	1.091	2.205	0.091	0.394	1.083		0.630	

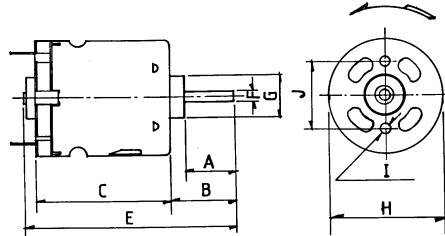
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 385	6.0 - 15.0	12v CONSTANT	11646	0.18	9869	0.99		78.4	7.98	66.1		513.5

Stall Current RE385 at 12v = 4.62A

RE - 385LN (5 POLE). NOISE ATTENUATED



Pt. No. 457 RE 385LN (with Bracket)
 Pt. No. 719 RE 385LN (without Bracket)
 Pt. No. 725 Motor Bracket (90o only)



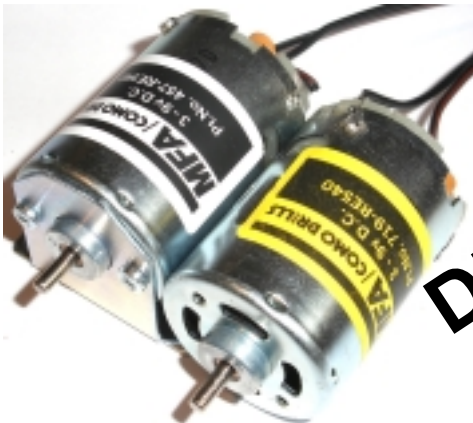
Weight 110g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	6	8.5	46.5		57.3	2.3	10.0	29	M 3	16.0	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 385LN	6.0 - 12.0	12v CONSTANT	7300	0.15	5950	0.9		110	7	65		660

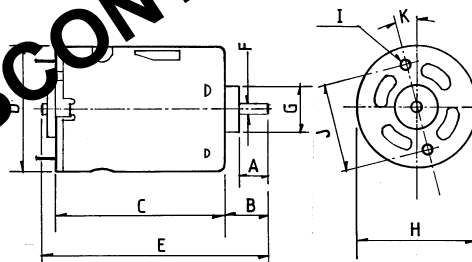
Stall Current RE385 at 12v = 4.62A

RE - 540 (3 POLE)



Pt. No. 457 RE 540 (with Bracket)
 Pt. No. 719 RE 540 (without Bracket)
 Pt. No. 726 Motor Bracket (90o only)

DISCONTINUED



Weight 148g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	8.5	13.0	50.0	35.8	67.0	3.175	13.0	35.7	M3	25.0	
DECIMAL INCHES	0.335	0.512	1.969	1.409	2.638	0.125	0.512	1.406		0.984	

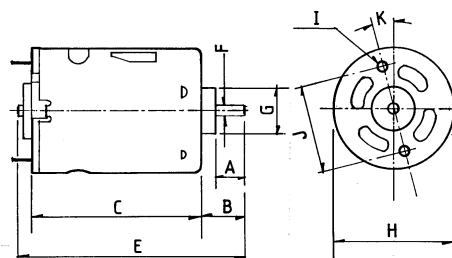
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 540	3.0 - 9.0	3.6v CONSTANT	8400	0.80	8350	5.71	1.87	135	11.6	56.4	10.8	780
RE - 540	3.0 - 9.0	6.0v CONSTANT	14000	1.00	10800	7.10	3.5	254	28.1	66.0	26.4	1900

Stall Current RE540 at 6v = 28.87A

RE - 540LN (3 POLE). NOISE ATTENUATED



Pt. No. 457 RE 540LN (with Bracket)
 Pt. No. 719 RE 540LN (without Bracket)
 Pt. No. 726 Motor Bracket (90o only)



Weight 212g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	5.5	9.75	57.1		69.2	3.0	14.0	37	M3	25.0	

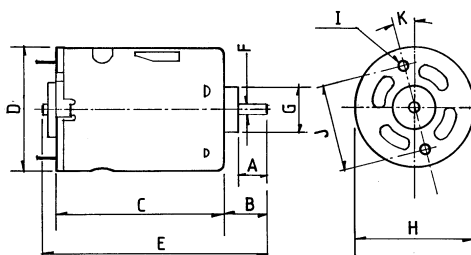
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY					STALL TORQUE		
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 540LN	6.0 - 12.0	12v CONSTANT	6000	0.25	4930	1.6		250	12.8	67		1500

Stall Current RE540 at 6v = 28.87A

RE - 540/1 (3 POLE)



Pt. No. 457 RE 540/1 (with Bracket)
 Pt. No. 719 RE 540/1 (without Bracket)
 Pt. No. 726 Motor Bracket (90o only)



24 volt versions are available for this range of motors. Performance data is similar to 12 volt versions. This version also has an extended 10mm rear shaft to accommodate motor encoders.

Pt. No's
 457RE540124V
 719RE540124V

Weight 146g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	9.0	13.5	50.0	35.8	68.0	3.175	13.0	35.7	M3	25.0	
DECIMAL INCHES	0.354	0.531	1.969	1.409	2.67	0.125	0.512	1.406		0.984	

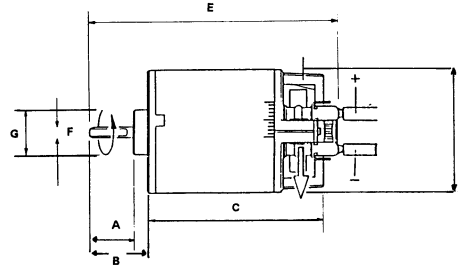
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY					STALL TORQUE		
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE - 540/1	4.5 - 15.0v	6.0v CONSTANT	7500	0.45	6180	2.1	1.64	118.2	7.49	59.4	9.31	670
		12.0v CONSTANT	15800	0.52	13360	2.85	2.14	154.4	21.2	61.9	13.9	1000

Stall Current RE540/1 at 6v = 8.24A

RE - 700 (3 POLE) Ball raced motor



Pt. No. 457 RE 700 (with Bracket)
 Pt. No. 719 RE 700 (without Bracket)
 Pt. No. 726 Motor Bracket (90o only)



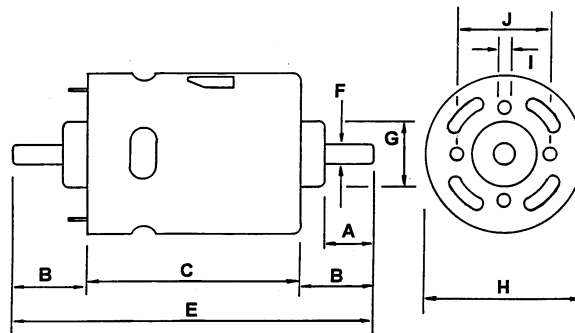
Weight 178g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	12.45	16.45	50.0	36.6	70.0	3.165	13.0	36.6	M2.5x5	24.0	
DECIMAL INCHES											

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	g - cm	W	%	oz - in	g - cm
RE700	6.0 - 8.4v	7.2v constant	22500	2.4	15600	10.3			65	75.0		

RE - 800 (3 POLE)

Pt. No. 457 RE 800 (with Bracket)
 Pt. No. 719 RE 800 (without Bracket)
 Pt. No. 1114/2 Motor Bracket (90o only)



Weight 595g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	13.2	20.5	69.0		110.0	6.35	21.75	51.8	M5	32.0	
DECIMAL INCHES	0.520	0.810	2.720		4.330	0.250	0.860	2.040		1.260	

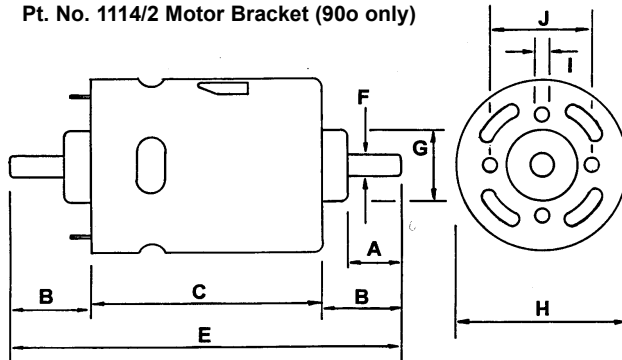
MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	mN-m	W	%	oz - in	mN-m
RE - 800	12.0v	12.0v CONSTANT	5167	1.058	4289	5.28		82.08	36.88	58.2		482.8

Stall Current RE800 at 12v = 25.86A

RE - 850 (3 POLE)



Pt. No. 457 RE 850 (with Bracket)
 Pt. No. 719 RE 850 (without Bracket)
 Pt. No. 1114/2 Motor Bracket (90o only)



Weight 595g (approx)

DIMENSIONS	A	B	C	D	E	F	G	H	I	J	K
MILLIMETER	13.2	20.5	69.0		110.0	6.350	21.75	51.8	M5	32.0	
DECIMAL INCHES	0.520	0.810	2.720		4.330	0.250	0.860	2.040		1.260	

MODEL	VOLTAGE		NO LOAD		AT MAXIMUM EFFICIENCY						STALL TORQUE	
	OPERATING RANGE	NOMINAL	SPEED	CURRENT	SPEED	CURRENT	TORQUE		OUTPUT	EFF	STALL TORQUE	
			R.P.M.	A	R.P.M.	A	oz - in	mN-m	W	%	oz - in	mN-m
RE - 850	12.0v	12.0v CONSTANT	9778	1.90	8311	10.82		92.13	80.16	61.74		614

Stall Current RE850 at 12v = 61.34A