

## Maximum Speed of Controllers

All brushless speed controllers (ESC's) have a maximum RPM limit that they can drive motors at. This is also called the "Commutation Speed", "Electrical Speed" or "Maximum RPM Rating".

Here is a list of some ESC's showing their limits.

Brand / Model	2-Pole	4-Pole	6-Pole	8-Pole	10-Pole	12-Pole	14-Pole	Source of info
Castle Creations 35/45/60/80	360 000	180 000	120 000	90 000	72 000	60 000	51 429	CC on RCGroups
TowerPro	300 000	150 000	100 000	75 000	60 000	50 000	42 857	RCGroups
BP Hobbies	280 000	140 000	93 333	70 000	56 000	46 667	40 000	BP Hobbies website
YGE	240 000	120 000	80 000	60 000	48 000	40 000	34 286	effektmodell.de
Purple Power	240 000	120 000	80 000	60 000	48 000	40 000	34 286	purplepower.co.uk
World Models	210 000	105 000	70 000	52 500	42 000	35 000	30 000	Flyingsites Review
Exceed-RC - Volcano Series	210 000	105 000	70 000	52 500	42 000	35 000	30 000	Nitromodels website
Raiden	210 000	105 000	70 000	52 500	42 000	35 000	30 000	Raidentech website
DualSky	210 000	105 000	70 000	52 500	42 000	35 000	30 000	Modelflight website
Hobbywing Sword/Guard/Pentium	210 000	105 000	70 000	52 500	42 000	35 000	30 000	User Manual
Emax	210 000	105 000	70 000	52 500	42 000	35 000	30 000	User Manual
Leton	210 000	105 000	70 000	52 500	42 000	35 000	30 000	User Manual
Airboss	200 000	100 000	66 667	50 000	40 000	33 333	28 571	User Manual
Castle Creations Phoenix HV	200 000	100 000	66 667	50 000	40 000	33 333	28 571	RCGroups
Extreme Flight "Torque"	200 000	100 000	66 667	50 000	40 000	33 333	28 571	
Thunder Power "RC Smart"	200 000	100 000	66 667	50 000	40 000	33 333	28 571	
AirBoss	200 000	100 000	66 667	50 000	40 000	33 333	28 571	rcworldofplanes.net
Jeti 70A Opto	195 000	97 500	65 000	48 750	39 000	32 500	27 857	Tested by Christo
Castle Creations Phoenix	192 000	96 000	64 000	48 000	38 400	32 000	27 429	RCGroups
AirPower	190 000	95 000	63 333	47 500	38 000	31 667	27 143	
Align	190 000	95 000	63 333	47 500	38 000	31 667	27 143	
Redcon	190 000	95 000	63 333	47 500	38 000	31 667	27 143	
Align	190 000	95 000	63 333	47 500	38 000	31 667	27 143	User Manual
Kontronik Jazz	175 000	87 500	58 333	43 750	35 000	29 167	25 000	Tested by Powercroco
Hyperion Titan	172 620	86 310	57 540	43 155	34 524	28 770	24 660	Hyperion Datasheet
MGM Compro - 12018-3-Heli ESC	170 000	85 000	56 667	42 500	34 000	28 333	24 286	PDF manual
Castle Creations 10/25	150 000	75 000	50 000	37 500	30 000	25 000	21 429	CC on RCGroups
Dreamfly Melody	150 000	75 000	50 000	37 500	30 000	25 000	21 429	
Hacker	150 000	75 000	50 000	37 500	30 000	25 000	21 429	
Kontronik Power Jazz 63V	150 000	75 000	50 000	37 500	30 000	25 000	21 429	Kontronik Forum
TMM	150 000	75 000	50 000	37 500	30 000	25 000	21 429	
Schulze Future	120 000	60 000	40 000	30 000	24 000	20 000	17 143	Schulze website
Suppo	140 000	70 000	46 667	35 000	28 000	23 333	20 000	Suppo website
Kontronik Smile	100 000	50 000	33 333	25 000	20 000	16 667	14 286	Manual
BK Warrior	80 000	40 000	26 667	20 000	16 000	13 333	11 429	PDF manual
Elf Hobby	50 000	25 000	16 667	12 500	10 000	8 333	7 143	Ehirobo User Manual

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