

## EUROPEAN FEDERATION RADIO CONTROLLED AUTOMOBILES

**Samples of Motors included on this list have been checked for compliance to EFRA Rules for:-  
Brushless Motors:- Modified, & 'Spec.' 10.5T, 13.5T, 17.5T, 21.5T.  
Motors on this list, can be used at EFRA Sanctioned events (EC or GP), for: The Motor Class designated for the event.**

Whilst sample Motors submitted have been found to conform with EFRA rules, it is the responsibility of ALL competitors to ensure that the versions they use also comply with all EFRA rules and requirements.

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Brushless **'Spec.:** 10.5T Pages 5 to 10. 13.5T Pages 10 to 15. 17.5T Pages 15 to 20. 21.5T Pages 20 to 22.

Motor Builder	Type/Range	Illustration only	Notes	Approval Date
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### MODIFIED MOTORS

Motors below this level must comply with EFRA Rules App.4 :- 4.8 (including 01.03.21 amendment) requiring access to stator to allow measurement and visual appraisal of the laminates. Also 4.9 & 4.12 (including 01.03.21 amendment) which requires the Rotor to be marked with Name or Logo & Part # on shaft.

Reedy	Reedy Sonic M3		Sensored system. "Y" Wind. Black Alu. Cap & Sleeve, Alu. timing insert with 'R' logo. Adjustable sensor plate timing 0/+ 50 deg. Caps remove, some stators can be removed, some bonded. Wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # 275. Two stator designs. Optional Rotors: # 274 & # 276. #s:- 271, 272, 273, 286, 296.	19.10.15 04.04.16 15.05.17
Team Orion	ORION VST2 XLW (2015)		Sensored system. "Y" Wind. Black one-piece Can. Black all Aluminium End-Plate retained with five screws, fixed timing. Wind etched. One sensor plug. Rotor - ORI 41470	5.10.15

Motors below this level must comply with EFRA Rule - App.4, 4.8 & 4.9, which requires access to the stator to allow measurement and visual appraisal of the laminates.

Team Orion	VST2 Pro. LW (2014)		Sensored system. "Y" Wind. Grey one-piece Can. Black all Aluminium End-Plate retained with five screws, adjustable timing. Wind etched. Two sensor plugs. Nickel sintered rotor, 12.1 dia, 4.7 core.	30.3.15
EZpower	EZ Kicker		Sensored system. "Y" Wind. Gun-metal End-Plates & Sleeve. Adjustable red timing ring. Nickel sintered rotor with Red hollow balance ring marked EZ, 12.4 dia, 5.0 core. Caps & sleeve remove, has stator access.	2.3.15
nVision	nVision R540		Sensored system. "Y" Wind. All metal End-Bell ass. with separate timing ring. Adjustable timing +/- 10. Stator removes from sleeve. Nickel sintered rotor, no balance ring, 12.0 dia, 4.7 core. Caps & sleeve remove, has stator access.	15.12.14
Tianco	ORCA RX3		Sensored system. "Y" Wind. Black Can & E/Cap. Complete stator removes. Has stator access slots. ORCA RX3 & wind etched on End-Cap. End-Cap Alum., adjustable timing. 12.5mm Rotor black balance ring.	10.11.14
Team Powers	Actinium.		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. Gun-Metal stator sleeve. Nickel sintered rotor with no balance ring, 12.45 dia, 5.0 core. Adjustable sensor plate timing. Has stator access. Optional End-Plate TP-ATEB-001 allowed	20.10.14

Trinity	D4		Sensored system. "Y" Wind. Purple Alu. timing plate with TRINITY & 4 etched. Caps and sleeve dark gun-metal, all parts remove. Adjustable timing -10/+60. Has stator access. Nickel sintered rotor with one red balance ring, 12.5 dia, 5.0 core TEP1152. Option rotors: TEP1151, TEP1153.	29.09.14 05.12.16
King Golden	Speed Passion Competition V4.0		Sensored system. "Y" Wind. Red Mounting plate, Black/Red Alu. End-Plate ass. Black stator sleeve with wind etched. Nickel sintered rotor with one Red balance ring, 12.5 dia, 5.0 core. Adjustable timing 0 -40 deg. Has stator access.	15.9.14
Absima	Revenge V2		Sensored system. "Y" Wind. Black Alu. Caps & Grey Sleeve, Logo only on End-Plate. Sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind marked on stator. Only V2 version approved	30.6.14
SkyRC	Ares Pro.		Sensored system. "Y" Wind. Grey Alu. Caps & Sleeve, Alu. timing insert with Ares printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 5.0 core. Adjustable sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind etched on stator.	27.5.14
Reds Racing	VX		Sensored system. "Y" Wind. Red metal End-Plate at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates & has wind etched. Rotor with Red drilled balance ring # MSTE0013. Optional rotors:- # MSTE0012, MSTE0014.	05.05.14 06.07.16
G Force	G Force Super Sonic		Sensored system. "Y" Wind. Black Alu. Caps & Sleeve, Alu. timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 5 core. Adjustable sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind etched on stator.	21.4.14
Hacker	SKALAR 10		Sensored system. "Y" Wind. Black plastic timing plate, adjustable 0-45. Purple Can/Sleeve. Stator separates. Nickel sintered rotor with drilled balance ring.	17.3.14
Trinity	Trinity D3.5		Sensored system. "Y" Wind. Purple Aluminium End-Plates with TRINITY etched. Black stator sleeve with D3.5 & wind. Nickel sintered rotor with one red balance ring, 12.5 dia, 5.0 core. Adjustable sensor plate timing -30 + 40 deg. Has stator access	17.3.14
Hobbywing	Xerun V10		Sensored system. "Y" Wind. Black Alu. Can & End-Cap, moulded timing insert with logo printed. Nickel sintered rotor with one Alu. fan balance ring, 12.5 dia, 5.0 core. Adjustable sensor plate timing -20/+ 50 deg. Stator and wind visible via. sleeve slots.	3.3.14
Yokomo	YOKOMO 'M' Series		Sensored system. "Y" Wind. Black metal End-Bell at Term. End, with adjustable timing 0-50, spigoted into sleeve. Black Can/Sleeve. Stator separates. Nickel sintered rotor. 12.5 dia, 5.0 core.	21.10.13
Team Wave	Eclipse Mod.		Sensored system. "Y" Wind. Black Alum. End-Plates. Adj. timing. Black Alum. stator sleeve with wind etched. Nickel sintered rotor with one plain balance ring, 12.5 dia, 5.0 core, marked 125-MT. Stator visible via. Sleeve slots.	21.10.13
Muchmore	FLETA ZX		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing plate, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with drilled balance ring, shaft etched with rotor dia. Aluminium timing-plate MR-FZAT fitted to later versions.	24.06.13 05.08.14

Tianco	ORCA TX		Sensored system. "Y" Wind. Dull Grey Aluminium casings. Main sleeve removes, stator spigoted into fixed casing. Has stator access slots. ORCA TX & wind etched. End-Plate moulded, adjustable timing. Rotor no balance ring. Endplate OME111TX allowed. New sensor Ass. CAS-0220TX-30 fitted.	10.06.13 10.03.14 20.07.14
Team Orion	VST2 Pro. (2013)		Sensored system. "Y" Wind. Grey one-piece Can. Black all Aluminium End-Plate retained with five screws, adjustable timing. Wind etched. Two sensor plugs. Nickel sintered rotor, 12.1 dia, 4.5 core.	8.4.13
Vampire	Vampire V2 AB+		Sensored system. "Y" Wind. Stator removes from Al. Can. Black Al. ring retaining plastic timing plate. Wind etched. Nickel sintered rotor( Gold Col.) with two solid balance rings, 12.5 dia, 7.25 core. Plastic timing plate & retaining ring modified. All aluminium timing & end-plate Ass. fitted.	08.04.13 21.10.13 20.07.14
Tekin	Redline GEN2		Sensored system. "Y" Wind. Black Alum. End-Plates, not joined. Adj. timing. Machined Alum. Can with wind etched. Stator visible via. Sleeve holes. Nickel sintered rotor with one brass balance ring.	1.4.13
Reedy	Reedy Sonic Mach 2		Sensored system. "Y" Wind. Black metal End-Bell at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with drilled balance ring Part # 958. Optional rotors:- # 957, # 987.	25.3.13
Savox	Savox SX.1		Sensored system. "Y" Wind. Aluminium casings. Slot for stator access included. Main sleeve removes, stator spigoted into fixed casing. Savox X1 & wind etched. End-Plate moulded, adjustable timing. Rotor has 1 balance ring.	25.3.13
Motors below this level retain approval, although they were approved before implementation of EFRA Rule App.4, 4.8 & 4.9, (requiring access to stator for measurement and visual appraisal of laminates). Some motors do allow stator access.				
Horizon Hobby	Dynamite Platinum		Sensored system. "Y" Wind. Black Aluminium End-Plate at Term. End, with adjustable timing. Wind etched on Term. Sleeve, Stator mould & Stator Lams. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 5.0 core.	20.8.12
Ansmann	Xirius		Sensored system. "Y" Wind. Black Plastic Moulding at Term. End, with adjustable timing. Silver Can with silver end cover, 3mm slots in both parts. Wind etched on stator. Stator separates. Nickel sintered rotor with solid balance ring, 12.5 dia, 5.0 core.	14.5.12
Nosram	Pure 2 Evolution		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Nickel Sintered rotor. Rotor shaft, Black. Many rotor options. Grey stator moulding	16.4.12
Dualsky	Track & Field Z5		Sensored system. "Y" Wind. Silver Sleeve & Mounting-Plate. Z5, Wind, Track&Field etched on sleeve. Black Alu. End-Plate & retaining ring. Adjustable timing 7 - 27 deg. Nickel sintered rotor with no balance ring, 12.5 dia, 7.2 core.	2.4.12
LRP	X20 Modified		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Nickel Sintered rotor. Rotor shaft, Black. Many rotor options. Grey stator moulding	12.3.12

Team Epic	ReVtech R-Power		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, ReVtech painted. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one red balance ring, 12.5 dia, 5.0 core. Adjustable sensor plate timing. Mounting Plate with 3 x 5.9mm slots.	12.3.12
Thunder Power	Z3R-M		Sensored system. "Y" Wind. Black Plastic Moulding at Term. End, with adjustable timing. Red Can/Sleeve with silver end cover, 6mm slots in both parts from 02.12. Wind etched on stator. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 5.0 core.	17.10.11 12.03.12
Speed Passion	Competition 3.0 Std. Vers. 2012		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, SP etched. Gun-Metal stator sleeve with Wind & 3.0 etched. Black sintered rotor with one balance ring, 12.5 dia, 5.0 core. Adjustable timing 0 -10 deg.	26.3.12
	7.5T & 8.5T no Sleeve Vents.			12.3.12
Graupner	GM Brushless PRO. 2012 version.		Sensored system. "Y" Wind. Alum. Mounting-Plate with 3x5mm holes and 3 radiused slots. Plastic End-Cap with GM moulded. Adj. timing. Gun-Metal stator sleeve with Pt.# etched. Side entry sensor plug. Nickel rotor marked GM Race, 12.51 dia, 5.5 core.	31.12.11
Team Orion	VST Pro.		Sensored system. "Y" Wind. Grey one-piece Can. Grey End-Plate retained with four screws, adjustable timing. Wind etched. Nickel sintered rotor, 12.5 dia, 5.0 core. NOTE: Early versions without stator viewing slots are not approved.	22.8.11
Reedy	Reedy Sonic		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Black Can/Sleeve. Wind etched. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core. Later version has more timing graduations detailed & relocated pointer.	04.07.11 26.03.12
Speed Passion	Competition 3.0 MMM Version		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium Sleeve & End-Plates, SP etched. Sleeve with Wind & MMM etched. End-Plates with grooves. Red sensor board. Black sintered rotor with one balance ring, 12.5 dia, 5.0 core. Adjustable timing 11-20 deg.	4.7.11
Vampire	Vampire Type AB+		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Sensor plug horizontal. Gun-metal finish mounting plate and sleeve (9.5 has Black Mounting Plate). Wind etched. Nickel sintered rotor with no balance rings, 12.5 dia, 7.00 core.	06.06.11 12.03.12
Ansmann	Ansmann Xirius Pro		Sensored system. "Y" Wind. Black Aluminium End-Caps, Wind etched. Black loose stator sleeve. Nickel sintered rotor with no balance rings, 12.5 dia, 7.25 core. Fixed timing.	23.5.11
Viper	Viper VST		Sensored system. "Y" Wind. Red Aluminium End-Plates, VST & wind etched. Black grooved stator sleeve. Black sintered rotor with no balance rings, 12.25 dia, 7.35 core. Adjustable timing.	16.5.11
HPI	Flux Pro.		Sensored system. "Y" Wind. Black Aluminium End-Plates, HPI etched. Black stator sleeve with Wind etched. Nickel sintered rotor, 12.5 dia, 7.2 core. Adjustable timing. Optional rotors - 12.2, 12.8, (Nickel plated) 13.0, 13.5 (Copper finish). Optional rotor 107252 - Mag. & shaft Black.	28.03.11

Speed Passion	Competition 3.0 1Cell		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, SP etched. Gun-Metal stator sleeve with Wind & 1Cell etched. Black sintered rotor with one balance ring, 12.5 dia, 5.0 core. Adjustable timing 0 - 10 deg.	31.1.11
Tianco	ORCA RX2		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, ORCA RX2 etched. Gun-Metal stator sleeve with ORCA RX2 & Wind etched. Black sintered rotor with one balance ring, 12.5 dia, 5.0 core. Adjustable sensor plate timing. Mounting Plate with 3 x 6mm holes & chamfer. Op.Rotor 12.8 dia, 5.0 core.	31.01.11 31.12.11
Trinity	Trinity D3		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, Trinity etched. Black stator sleeve with D3 & Wind etched. Nickel sintered rotor with one balance ring, 12.5 dia, 5.0 core. Adjustable sensor plate timing.	31.1.11
Team Orion	Vortex Pro Race 2009		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium End-Plate with TOP etched. Dark Gun-Metal loose centre sleeve. Wind etched on Term sleeve. Mounting face with radial grooves, mounting screws on 25.0 & 25.4 pcd. Nickel sintered rotor, no fan. 12.5 dia. Adjustable timing.	23.11.09
Novak	Ballistic		Sensored system. "Y" Wind. Black Al. End-Plate with NOVAK etched. Copper colour loose centre sleeve. Nickel plated sintered rotor. 3/16 Bearing at Pinion end. Stator can be seperated. Adjustable timing. Vented End-Bells # 5925 approved.	01.06.09 18.06.12

## 10.5T MOTORS

Motors below this level must comply with EFRA Rules App.4 :- 4.8 (including 01.03.21 amendment) requiring access to stator to allow measurement and visual appraisal of the laminates. Also 4.9 & 4.16 (including 01.03.21 amendment) which requires the Rotor to be marked with Name or Logo & Part # on shaft.

**NOTE: ALL MOTORS SUBMITTED BEFORE 01.11.17, WERE HOMOLOGATED WITH MAGNETIC SCREWS AND STEEL SHIELDED BEARINGS FITTED.**

**Changing these items invalidates the Motor Part # stated and contravenes App.4 Rule 4.6.**

Team Epic	ReVtech 24K Pt # REV1800		Sensored system. "Y" Wind. End-Plate has Revtech etched. Stator sleeve with ReVtech & Wind etched. Adjustable sensor plate timing 0-60 deg. Has stator access. Wind stamped on lower collector ring & visible. Rotor with name & Part # TEP1112. Optional rotor # TEP1118	23.11.15 14.11.16
Reedy	Reedy Sonic M3 Part # 256		Sensored system. "Y" Wind. Black Alu. Cap & Sleeve, Alu. timing insert with 'R' logo. Adjustable sensor plate timing 0/+ 50 deg. Caps remove and stator can be removed, wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # 273. Optional Rotors #'s: 272, 286.	17.10.15 15.05.17

Motors below this level must comply with EFRA Rule - App.4, 4.8 & 4.9, which requires access to the stator to allow measurement and visual appraisal of the laminates.

King Golden	Speed Passion V4.0 10.5R #SP001230		Sensored system. "Y" Wind. Black End-Plates & Sleeve with wind etched. Nickel sintered rotor with one Purple balance ring, 12.5 dia, 7.1 core. Adjustable timing 0 -40 deg. Has stator access.	9.3.15
PRT Electronic	PRT AIR 10 Part # A10105		Sensored system. "Y" Wind. Black Alu. Caps & Sleeve, PRT on End-Plate. Nickel finish Rotor with Cyan Alu. balance ring, 12.5 dia, 7.2 core. Adjustable timing. Caps remove. Wind marked on sleeve. Has stator access. Rotor options:- PRT123RSHT Purple/Nickel. PRT125RS2 Grey/Nickel. PRT125RS Grey/Black. PRT123RS Purple/Black. Logo design updated.	19.01.15 14.08.15

Hirosaka	Hirosaka Part # HSK- PRO105T		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing insert. Adjustable timing 0-45. Black Can/Sleeve. Nickel sintered rotor with Purple balance ring, 12.3 dia, 7.1 core. Caps & sleeve remove, has stator access. Stator marked with wind.	15.12.14
EZpower	EZ Kicker EZBR210R		Sensored system. "Y" Wind. Gun-metal End-Plates & Sleeve. Adjustable red timing ring. Nickel sintered rotor with Red hollow balance ring marked EZ, 12.5 dia, 7.2 core. Caps & sleeve remove, has stator access.	17.11.14
Tianco	ORCA RX3 Part # OMR105X3		Sensored system. "Y" Wind. Black Can & E/Cap. Complete stator removes. Has stator access slots. ORCA RX3 & wind etched on End-Cap. End-Cap Alum., adjustable timing. Rotor with black balance ring 12.4 dia., 7.2 core. Rotor Part # OTR124ST	15.09.14 25.05.15
Trinity	D4 Part # TEP 1700		Sensored system. "Y" Wind. Purple Alu. timing plate with TRINITY & 4 etched. Caps and sleeve dark gun-metal, all parts remove. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing -10 + 60 deg. Has stator access. Optional rotor TEP 1112 approved	15.9.14
Absima	Revenge V2 Part # 2130019		Sensored system. "Y" Wind. Black Alu. Caps & Grey Sleeve, Logo only on End-Plate. Sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind marked on stator. Only V2 version approved	2.7.14
Reds Racing	VX Pt. # MTTE0005		Sensored system. "Y" Wind. Red metal End-Plate at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates & has wind etched. Rotor with Black drilled balance ring # MSTE0010. Optional rotor:- # MSTE0009, MSTE0016	27.05.14 06.07.16
G Force	G Force Super Sonic Pt # G0007		Sensored system. "Y" Wind. Black Alu. Caps & Sleeve, Alu. timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind etched on stator. Option rotor GF400003-54	17.04.14 27.07.15
Team Epic	ReVtech Killshot Pt # REV1600. (Std. Ver.)		Sensored system. "Y" Wind. End-Plate with Revtech etched. Stator sleeve with ReVtech & Wind painted, later versions not depicted with 't.'. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing 0-80 deg. Has stator access. Optional rotor TEP 1112 approved.	15.03.14 23.10.14
Hobbywing	Xerun V10 Pt. # 30401020046		Sensored system. "Y" Wind. Black Alu. Can & End-Cap, moulded timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing -20/+ 50 deg. Stator and wind visible via. sleeve slots. (NOTE: early versions may not comply with stator access requirements).	6.1.14
Mtroniks	MX-1 Pt. # MTMX105		Sensored system. "Y" Wind. Anodised Alum. End-Plates & Stator Sleeve, with wind printed. Fixed timing. Nickel sintered rotor with one hollow balance ring, 12.5 dia, 7.2 core. Stator visible via. Sleeve slots.	6.1.14
Muchmore	FLETA ZX Pt # MR-FZX105		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing plate, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with Blue drilled balance ring. Rotor 7.2 core, 12.3 dia. Optional rotor MRFZR12 allowed. Aluminium timing-plate MR-FZAT fitted to later versions.	29.07.13 05.08.14
Nosram	Pure 2 Evolution Spec. Racing Pt.# 91834		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Sintered rotor, coloured Black, with 1 balance ring. Grey stator moulding. Rotor shaft Black stamped 12.5-25. Slot for stator access. Optional Green rotor # 90639 approved.	08.07.13 28.12.15

Team Wave	Eclipse # TW2011-105		Sensored system. "Y" Wind. Black Alum. End-Plates. Adj. timing. Black Alum. stator sleeve with wind etched. Nickel sintered rotor with one plain balance ring, 12.5 dia, 7.17 core, marked 125-R. Stator visible via. Sleeve slots.	24.6.13
Tianco	ORCA TX Pt. # OTM 105TX		Sensored system. "Y" Wind. Dull Grey Aluminium casings. Main sleeve removes. Has stator access slots. ORCA TX & wind etched. End-Plate moulded, adjustable timing. 12.5mm Rotor no balance ring, shaft marked 125S-N. Option 123S-N. 12.3mm. Option EndPlate OME111TX allowed. New sensor Ass. CAS-0220TX-30 fitted.	17.06.13 10.03.14 20.07.14
Corally	Corally Pro Silver 10.5T 399105		Sensored system. "Y" Wind. Plain Alum. End-Plates. Adj. timing. Plain Alum. stator sleeve with wind etched. Nickel sintered rotor with one Black balance ring, 12.4 dia, 7.18 core. Stator visible via. Sleeve slots. Also supplied with all Red S/Print decal.	17.6.13
LRP	X20 10.5T Spec. # 50834		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Sintered rotor, coloured Black, with 1 balance ring. Grey stator moulding. Rotor shaft Black stamped 12.5-25. Slot for stator access. Optional Green rotor # 50639 approved.	22.04.13 28.12.15
Tekin	Redline GEN2 10.5T # TT2399		Sensored system. "Y" Wind. Black Alum. End-Plates, not joined. Adj. timing. Alum. Can with wind etched. Stator visible via. Sleeve holes. Nickel sintered rotor with one brass balance ring. Rotor 7.14 core, 12.5 dia..	1.4.13
Reedy	Reedy Sonic Mach 2 # 234		Sensored system. "Y" Wind. Black metal End-Bell at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core # 956. Optional rotors:- # 954, # 955.	25.3.13
Savox	Savox SX.1 # SAV-BLH3650 991740		Sensored system. "Y" Wind. Aluminium casings. Slot for stator access included. Main sleeve removes, stator spigoted into fixed casing. Saxox X1 & wind etched. End-Plate moulded, adjustable timing. Rotor has no balance ring.	25.3.13
Team Orion	VST2 Pro Stock 10.5. # ORI 28250		Sensored system. "Y" Wind. Grey one-piece Can. Black Aluminium End-Plate retained with five screws, adjustable moulded timing plate. Wind etched. Nickel sintered rotor, 12.5 dia, 7.1 core, no balance rings. Optional 12.4 dia, 7.2 core.	15.2.13
Motors below this level were checked before the implementation of EFRA Rule - App.4, 4.8 & 4.9, which requires access to stator to allow measurement and visual appraisal of the stator laminates. (Some versions do allow stator access).				
Horizon Hobby	Dynamite Platinum 10.5T # DYP 1010		Sensored system. "Y" Wind. Black Aluminium End-Plate at Term. End, with adjustable timing. Wind etched on Term. Sleeve, Stator mould & Stator Lams. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core.	20.8.12
Hobbywing	Xerun Pt. # 90040091		Sensored system. "Y" Wind. Polished Aluminium End-Plates, Hobbywing etched. Fixed timing. Blue stator sleeve with 10.5T & Pt.# etched. Sleeve & EndPlates also Gunmetal colour. Side entry sensor plug. Nickel sintered rotor, 12.4 dia, 7.2 core. Rotor with one balancing ring.	13.8.12
Orion	Vortex VST Pro Stock 10.5. # ORI 28233		Sensored system. "Y" Wind. Grey one-piece Can. Grey End-Plate retained with four screws, adjustable timing. Wind etched. Nickel sintered rotor, 12.5 dia, 7.2 core, no balance rings.	16.4.12

Dualsky	Track & Field Z5 10.5T Pt # 53649		Sensored system. "Y" Wind. Silver Sleeve & Mounting-Plate. Z5, 10.5T, Track&Field etched on sleeve. Black Alu. End-Plate & retaining ring. Adjustable timing 7 - 27 deg. Nickel sintered rotor with no balance ring, 12.5 dia, 7.2 core.	16.4.12
Team Epic	ReVtech R-Power Pt # REV1050		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, ReVtech painted. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.45 dia, 7.2 core. Adjustable sensor plate timing. Mounting Plate with 3 x 5.9mm slots.	12.3.12
Vampire	Vampire Type AB+ Bloodline Pt. # VR-3105		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Sensor plug horizontal. Light-Red End plates. Wind etched. Nickel sintered rotor with no balance rings, 12.5 dia, 7.21 core.	12.3.12
Graupner	GM Brushless PRO. Pt. # 97410. 2012 version.		Sensored system. "Y" Wind. Alum. Mounting-Plate with 3x5mm holes and 3 radiused slots. Plastic End-Cap with GM moulded. Adj. timing. Gun-Metal stator sleeve with Wind & Pt.# etched. Side entry sensor plug. Nickel rotor marked GM Stock, 12.51 dia, 7.24 core.	31.12.11
Thunder Power	Z3R-S Part # TPM-540A105		Sensored system. "Y" Wind. Black Plastic Moulding at Term. End, with adjustable timing. Red Can/Sleeve with silver end cover. Wind etched on stator. Stator separates. Nickel sintered rotor with drilled red balance ring, 12.25 dia, 7.2 core. Optional Rotors:- Blue or Green balance ring.	17.10.11. 16.04.12.
Reedy	Reedy Sonic Pt. # 943		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Black Can/Sleeve. Wind etched. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core. Later version has more timing graduations detailed & relocated pointer.	04.07.11 09.04.12
Speed Passion	Competition 3.0 MMM Version Pt.# SP000037		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium Sleeve & End-Plates, SP etched. Sleeve with Wind & MMM etched. End-Plates with grooves. Red sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.2 core. Adjustable timing 11-20 deg.	4.7.11
Team Powers	Plutonium Pt.# TP-BLM- 105100PL		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. Gun-Metal stator sleeve with 10.5T etched. Nickel sintered rotor with no balance ring, 12.32 dia, 7.28 core. Adjustable sensor plate timing.	16.5.11
Viper	Viper VST Pt. # 8VST 105001		Sensored system. "Y" Wind. Red Aluminium End-Plates, VST & 10.5T etched. Black grooved stator sleeve. Black sintered rotor with no balance rings, 12.5 dia, 7.35 core. Adjustable timing.	16.5.11
HPI	Flux Pro. Pt. # 101731		Sensored system. "Y" Wind. Black Aluminium End-Plates, HPI etched. Black stator sleeve with Wind etched. Nickel sintered rotor, 12.5 dia, 7.2 core. Adjustable timing. Optional rotor - 12.2 dia, 7.2 core, Nickel plt Optional rotor 107252 - Mag. & shaft Black.	28.03.11 07.05.12
PRT	PRT Limited Edition. Pt.# PRT 2011 105HT DTM		Sensored system. "Y" Wind. Black Aluminium End-Plates, PRT etched. Black stator sleeve with 10.5T etched. Black sintered rotor 12.4 dia, 7.20 core. Optional rotor 12.25 dia., 7.20 core Rotor with one balancing ring. Adjustable timing.	9.2.11
Graupner	GM Brushless PRO. Pt.# 97350 2011 version.		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Gun-Metal stator sleeve with S10.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.4 dia, 7.22 core. Rotor with one balancing ring.	31.1.11

Speed Passion	3.0 - 10.5R Pt.# SP1C105V3 1Cell		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, SP & 10.5T etched. Gun-Metal stator sleeve with SP10.5T & 1Cell etched. Black sensor board. Black sintered rotor with one balance ring, 12.2 dia, 7.21 core. Adjustable timing 0-10.	31.1.11
Tianco	ORCA RX2 Pt. # OBM105X2		Sensored system. "Y" Wind. Gun-Metal End-Plates, RX2 & 10.5T etched. Gun-Metal sleeve with RX2 & 10.5T etched. Black rotor, one balance ring, 12.2 dia, 7.22 core. Adjustable sensor plate timing. Optional rotor OMA123PX 12.2mm nickel. Mounting Plate 3 x 6mm holes & chamfer.	31.01.11 31.12.11
Trinity	Trinity D3 Pt. # TEP1050		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, Trinity etched. Black stator sleeve with D3 & 10.5T etched. Nickel sintered rotor with one balance ring, 12.3 dia, 7.22 core. Adjustable sensor plate timing.	31.1.11
Dualsky	Track & Field. Pt. # 53352		Sensored system. "Y" Wind. Aluminium End-Plates plus Blue ring. Track & Field moulded on timing plate. Adjustable timing on sensor mounting. Stator sleeve with 10.5 etched. Nickel plated sintered rotor, 12.4 dia, 7.20 core with 21mm Al. fan.	14.6.10
Team Powers	Team Powers Brushless 10.5 Turns Pt. # TPBLM 105100		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. 5 outer timing threads, 3 sensor mount threads. Black & Gold stator sleeves with 10.5T etched. Nickel plated sintered rotor, 12.3 dia, 7.22 core. No balancing rings.	12.4.10
Graupner	GM Brushless PRO. Pt.# 97290 2010 version.		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Gun-Metal stator sleeve with S10.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.3 dia, 7.22 core. Rotor with one balancing ring.	1.2.10
LRP	X12 Vector Stock Spec. Pt.# 50832		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Sleeve etched "10.5 Turns". Black Sintered rotor, 12.5 dia, 7.1 core. Rotor shaft, Black. Manufacturers 'grooved' Al. End-Bell with name engraved allowed at terminal end. Optional green rotor 50639 12.2, 7.1 core. Later versions have rotor shaft stamped.	23.11.09 31.01.11 28.05.12
Nosram	Pure Evolution Spec. Racing Version. Pt.# 91831		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Sleeve etched "10.5 Turns". Black Sintered rotor, 12.5 dia, 7.1 core. Rotor shaft, Black. Manufacturers 'grooved' Al. End-Bell with name engraved allowed at terminal end. Optional green rotor 90639 12.2, 7.1 core. Later versions have rotor shaft stamped.	23.11.09 31.01.11 28.05.12
Speed Passion	3.0 - 10.5R Pt.# SP138105V3		Sensored system. "Y" Wind. Light Gun-Metal Aluminium End-Plates, SP & 10.5T etched. Light Gun-Metal stator sleeve with SP10.5T etched. Black sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.22 core. Adjustable timing 0-10.	5.10.09
Novak	Ballistic Pt. # 3610		Sensored system. "Y" Wind. Black Al. End-Plate with NOVAK etched. Stator sleeve with 10.5T label. Nickel plated sintered rotor, 12.3 dia, 7.22 core. 3/16 Bearing at Pinion end. Blue plastic denoting 10.5. Adjustable timing. Vented End-bells # 5925 approved.	07.09.09 18.06.12
WAVE	WAVE Linear Pt.# TW2001-105		Sensored system. "Y" Wind. Black Aluminium End-Plates with SP etched under label. Black stator sleeve with 10.5T etched. Black sintered rotor, 12.3 dia, 7.22 core. Rotor with one balancing ring.	16.3.09

Graupner	GM Brushless PRO. Pt.# 97290		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium End-Plates, GM-Racing etched. Dark Gun-Metal stator sleeve with S10.5T & Pt.# etched. Black sintered rotor, 12.3 dia, 7.22 core. Rotor with one balancing ring.	2.3.09
Tekin	Tekin Redline 10.5T Spec. Pt. # TT2253 (Etched Can)		Sensored system. "Y" Wind. Red Aluminium mounting plate. Black moulded End-Bell with Tekin. Grooved Al. bonded stator sleeve with 10.5T etched. Nickle plated sintered rotor, 12.5 dia, 7.26 core. No balance rings.	15.12.08
Speed Passion	Speed Passion Stock Pt. # SPF105		Sensored system. "Y" Wind. Black Aluminium End-Plates with SP 10.5T. Black stator sleeve with 10.5T engraved. Black sintered rotor, 12.3 dia, 7.25 core. Rotor with one balancing ring.	8.9.08
LRP	Vector X11 Stock Spec. Pt. # 50830		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Blue anodised ring. Chamfered mounting face. Sleeve etched "10.5 Turns". Sintered rotor, 12.3 dia, 7.35 core. Rotor shaft, Black.	09.06.08
			Manufacturers 'slotted' End Plates (std. & thin versions) allowed at pinion end. Manufacturers later 'grooved' Al. End Plate with name engraved allowed at terminal end.	19.07.08
Novak	SS Pro. Pt. # 3410		Sensored system. "Y" Wind. Black moulded End-Bell with NOVAK. Blue plastic ring. Mounting face with or without chamfer. Stator marked "10.5 Turns".	14.04.08
			Nickle Plt. Sintered rotor, 12.3 dia, 7.25 core. Rotor shaft with plain bevel at pinion end.	28.04.08
Nosram	Spec.' Storm Evolution Pt. # 91830		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Blue anodised ring. Chamfered mounting face. Sleeve etched "10.5 Turns". Sintered rotor, 12.3 dia, 7.35 core. Rotor shaft, Black.	07.04.08.
			Manufacturers 'slotted' End Plates (std. & thin versions) allowed at pinion end. Manufacturers later 'grooved' Al. End Plate with name engraved allowed at terminal end.	19.07.08.

### 13.5T MOTORS

Motors below this level must comply with EFRA Rules App.4 :- 4.8 (including 01.03.21 amendment) requiring access to stator to allow measurement and visual appraisal of the laminates. Also 4.9 & 4.16 (including 01.03.21 amendment) which requires the Rotor to be marked with Name or Logo & Part # on shaft.

**NOTE: ALL MOTORS SUBMITTED BEFORE 01.11.17, WERE HOMOLOGATED WITH MAGNETIC SCREWS AND STEEL SHIELDED BEARINGS FITTED.**

**Changing these items invalidates the Motor Part # stated and contravenes App.4 Rule 4.6.**

Turnigy	Trackstar V2 Pt # 80134		Sensored system. "Y" Wind. Stator slides from sleeve. Sleeve with wind etched. Adjustable sensor plate timing 0-50 deg. Has stator access. Wind etched on stator. Rotor with name, sizes & Part #. Rotor Part # 919000281	23.11.15
Team Epic	ReVtech 24K Pt # REV1801		Sensored system. "Y" Wind. End-Plate has Revtech etched. Stator sleeve with ReVtech & Wind etched. Adjustable sensor plate timing 0-60 deg. Has stator access. Wind stamped on lower collector ring & visible. Rotor with name & Part # TEP1112.	23.11.15
			Optional rotor # TEP1118.	14.11.16
Reedy	Reedy Sonic M3 Part # 255		Sensored system. "Y" Wind. Black Alu. Cap & Sleeve, Alu. timing insert with 'R' logo. Adjustable sensor plate timing 0/+ 50 deg. Caps remove and stator can be removed, wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # 273.	17.10.15
			Optional Rotors #s: 272, 286.	15.05.17

Reedy	Reedy Sonic M3 - SS 1S Part # 270		Sensored system. "Y" Wind. Black Alu. Cap & Sleeve, Alu. timing insert with 'R' logo. Adjustable sensor plate timing 0/+ 50 deg. Caps remove and stator can be removed, wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # 272. Optional Rotors #'s: 273, 286.	17.10.15 15.05.17
G Force	G Force Super Extreme Pt # G0150		Sensored system. "Y" Wind. Red Alu. Cap & Sleeve, Alu. timing insert with G logo. Adjustable sensor plate timing 0/+ 60 deg. Caps & sleeve remove, wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # GF400003-54 Option rotor G0045	27.7.15
Motors below this level must comply with EFRA Rule - App.4, 4.8 & 4.9, which requires access to the stator to allow measurement and visual appraisal of the laminates.				
King Golden	Speed Passion V4.0 13.5R #SP001231		Sensored system. "Y" Wind. Black End-Plates & Sleeve with wind etched. Nickel sintered rotor with one Purple balance ring, 12.5 dia, 7.1 core. Adjustable timing 0 -40 deg. Has stator access.	9.3.15
PRT Electronic	PRT AIR 10 Part # A10135		Sensored system. "Y" Wind. Black Alu. Caps & Sleeve, PRT on End-Plate. Nickel finish Rotor with Cyan Alu. balance ring, 12.5 dia, 7.2 core. Adjustable timing. Caps remove. Wind marked on sleeve. Has stator access. Rotor options:- PRT123RSHT Purple/Nickel. PRT125RS2 Grey/Nickel. PRT125RS Grey/Black. PRT123RS Purple/Black. Logo design updated.	19.01.15 14.08.15
Hirosaka	Hirosaka Part # HSK- PRO135T		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing insert. Adjustable timing 0-45. Black Can/Sleeve. Nickel sintered rotor with Purple balance ring, 12.3 dia, 7.1 core. Caps & sleeve remove, has stator access. Stator marked with wind	15.12.14
EZpower	EZ Kicker EZBR213R		Sensored system. "Y" Wind. Gun-metal End-Plates & Sleeve. Adjustable red timing ring. Nickel sintered rotor with Red hollow balance ring marked EZ, 12.5 dia, 7.2 core. Caps & sleeve remove, has stator access.	17.11.14
Wurks	Wurks Part # R1-135-125-V7		Sensored system. "Y" Wind. End-Plate with R1 Wurks etched. Stator sleeve with Wind painted. Nickel sintered rotor painted Black, no balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing 0-60 deg. Has stator access. Single collector ring at 'pinion' end of stator. <b>Motors with Twin collector rings and/or epoxy filled windings not approved.</b>	27.10.14. 16.12.15 26.10.16
Tianco	ORCA RX3 Part # OMR135X3		Sensored system. "Y" Wind. Black Can & E/Cap. Complete stator removes. Has stator access slots. ORCA RX3 & wind etched on End-Cap. End-Cap Alum., adjustable timing. Rotor with black balance ring 12.4 dia., 7.2 core. Rotor Part # OTR124ST.	20.10.14 25.05.15
Team Powers	Actinium Pt. # TPBLM 135100 ACT		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. Gun-Metal stator sleeve with 13.5T etched. Nickel sintered rotor with no balance ring, 12.45 dia, 7.23 core. Has stator access. Optional End-Plate TP-ATEB-001 allowed. Optional Rotor # TP125G-R.	20.10.14 18.01.16
Trinity	D4 Part # TEP 1701		Sensored system. "Y" Wind. Purple Alu. timing plate with TRINITY & 4 etched. Caps and sleeve dark gun-metal, all parts remove. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing -10 + 60 deg. Has stator access. Optional rotor TEP 1112 approved	29.9.14
Absima	Revenge V2 Part # 2130020		Sensored system. "Y" Wind. Black Alu. Caps & Grey Sleeve, Logo only on End-Plate. Sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind marked on stator. Only V2 version approved	30.6.14

Reds Racing	VX Part # MTTE 0006		Sensored system. "Y" Wind. Red metal End-Plate at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates & has wind etched. Rotor with Black drilled balance ring MSTE0010. Optional rotors:- # MSTE0009, MSTE0016	05.05.14 06.07.16
G Force	G Force Super Sonic Pt # G0008		Sensored system. "Y" Wind. Black Alu. Caps & Sleeve, Alu. timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind etched on stator. Option rotor G0045	07.04.14 27.07.15
Hobbywing	Xerun V10 Pt. # 30401020047		Sensored system. "Y" Wind. Black Alu. Can & End-Cap, moulded timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing - 20/+ 50 deg. Stator and wind visible via. sleeve slots.	3.3.14
Team Epic	ReVtech Killshot Pt # REV1601T		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, Revtech etched. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing 0-80 deg. Has stator access. Optional rotor TEP 1112 approved.	09.12.13 07.04.14
Team Epic	ReVtech Killshot Pt # REV1601R		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, Revtech etched. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing 0-80 deg. Has stator access. Optional rotor TEP 1112 approved.	09.12.13 07.04.14
Novak	Vulcan Pt. # 3643		Sensored system. "Y" Wind. Black Al. End-Plate with NOVAK etched. Stator sleeve with 13.5T label. 3/16 Bearing at Pinion end. Red plastic denoting 13.5. Adjustable timing. Nickel sint. Rotor Pt.# 5941 12.3, 7.1 core. Optional rotor Pt.# 5955 12.5 dia.	09.09.13 21.10.13
Mtroniks	MX-1 Pt. # MTMX135		Sensored system. "Y" Wind. Anodised Alum. End-Plates & Stator Sleeve, with wind printed. Fixed timing. Nickel sintered rotor with one hollow balance ring, 12.5 dia, 7.2 core. Stator visible via. Sleeve slots.	5.8.13
Muchmore	FLETA ZX Pt # MR-FZX135		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing plate, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with Blue drilled balance ring. Rotor 7.2 core, 12.3 dia. Optional rotor MRFZR12 allowed. Aluminium timing-plate MR-FZAT fitted to later versions.	29.07.13 14.05.14 05.08.14
Nosram	Pure 2 Evolution Spec. Racing Pt.# 91844		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Sintered rotor, coloured Black, with 1 balance ring. Grey stator moulding. Rotor shaft Black stamped 12.5-25. Slot for stator access. Optional Green rotor # 90639 approved	08.07.13 28.12.15
Corally	Corally Pro Silver 13.5T 399135		Sensored system. "Y" Wind. Plain Alum. End-Plates. Adj. timing. Plain Alum. stator sleeve with wind etched. Nickel sintered rotor with one Black balance ring, 12.4 dia, 7.18 core. Stator visible via. Sleeve slots. All red S/Print decal also OK.	17.6.13
Tianco	ORCA TX Pt. # OTM 135TX		Sensored system. "Y" Wind. Dull Grey Aluminium casings. Main sleeve removes. Has stator access slots. ORCA TX & wind etched. End-Plate moulded, adjustable timing. 12.5mm Rotor no balance ring, shaft marked 125S-N. Option rotor 123S-N. 12.3mm. Option EndPlate OME111TX allowed. New sensor Ass. CAS-0220TX-30 fitted.	10.06.13 10.03.14 20.07.14
LRP	X20 13.5T Spec. # 50844		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Sintered rotor, coloured Black, with 1 balance ring. Grey stator moulding. Rotor shaft Black stamped 12.5-25. Slot for stator access. Optional Green rotor # 50639 approved.	22.04.13 28.12.15



Tekin	Redline GEN2 # TT2406 & TT2407		Sensored system. "Y" Wind. Black Alum. End-Plates, not joined. Adj. timing. Alum. Can with wind etched. Stator visible via. Sleeve holes. Nickel sintered rotor with one brass balance ring. Rotor 7.14 core. 2406=12.25 dia. 2407=12.5 dia.	1.4.13
Team Wave	Eclipse # TW2011-135		Sensored system. "Y" Wind. Black Alum. End-Plates. Adj. timing. Black Alum. stator sleeve with wind etched. Nickel sintered rotor with one plain balance ring, 12.5 dia, 7.17 core, marked 125-R. Stator visible via. Sleeve slots.	1.4.13
Reedy	Reedy Sonic Mach 2 # 233		Sensored system. "Y" Wind. Black metal End-Bell at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core # 956. Optional rotors:- # 954, # 955.	25.3.13
Savox	Savox SX.1 # SAV- BLH3650 991757		Sensored system. "Y" Wind. Aluminium casings. Slot for stator access included. Main sleeve removes, stator spigoted into fixed casing. Saxox X1 & wind etched. End-Plate moulded, adjustable timing. Rotor has no balance ring.	25.3.13
Team Orion	VST2 Pro Stock 13.5. # ORI 28251		Sensored system. "Y" Wind. Grey one-piece Can. Black Aluminium End-Plate retained with five screws, adjustable moulded timing plate. Wind etched. Nickel sintered rotor, 12.5 dia, 7.1 core, no balance rings. Optional 12.4 dia, 7.2 core.	25.3.13
Motors below this level retain approval, although they were approved before implementation of EFRA Rule App.4, 4.8 & 4.9, (requiring access to stator for measurement and visual appraisal of laminates). Some motors do allow stator access.				
Horizon Hobby	Dynamite Platinum 13.5T # DYP 1013		Sensored system. "Y" Wind. Black Aluminium End-Plate at Term. End, with adjustable timing. Wind etched on Term. Sleeve, Stator mould & Stator Lams. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core.	20.8.12
Dualsky	Track & Field Z5 13.5T Pt # 53651		Sensored system. "Y" Wind. Silver Sleeve & Mounting-Plate. Z5, 13.5T, Track&Field etched on sleeve. Black Alu. End-Plate & retaining ring. Adjustable timing. Nickel sintered rotor with no balance ring, 12.5 dia, 7.2 core.	11.6.12
Team Epic	ReVtech R-Power Pt # REV1051		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, ReVtech painted. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.45 dia, 7.2 core. Adjustable sensor plate timing. Mounting Plate with 3 x 5.9mm slots.	12.3.12
Vampire	Vampire Type AB+ Bloodline Pt. # VR-3135		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Sensor plug horizontal. Purple End plates. Wind etched. Nickel sintered rotor with no balance rings, 12.5 dia, 7.21 core.	12.3.12
Graupner	GM Brushless PRO. Pt. # 97413. 2012 version.		Sensored system. "Y" Wind. Alum. Mounting-Plate with 3x5mm holes and 3 radiused slots. Plastic End-Cap with GM moulded. Adj. timing. Gun-Metal stator sleeve with Wind & Pt.# etched. Side entry sensor plug. Nickel rotor marked GM Stock, 12.51 dia, 7.24 core.	31.12.11
Tekin	Tekin Redline 13.5T Spec. Pt. # TT2252 (Etched Can)		Sensored system. "Y" Wind. Red Aluminium mounting plate. Black moulded End-Bell with Tekin. Grooved Al. bonded stator sleeve with 13.5T etched. Nickel plated sintered rotor, 12.5 dia, 7.1 core. No balance rings.	17.10.11

Thunder Power	Z3R-S Part # TPM-540A135		Sensored system. "Y" Wind. Black Plastic Moulding at Term. End, with adjustable timing. Red Can/Sleeve with silver end cover. Wind etched on stator. Stator separates. Nickel sintered rotor with drilled red balance ring, 12.25 dia, 7.2 core. Optional rotors: - Blue or Green balance ring.	17.10.11 16.04.12
Reedy	Reedy Sonic Pt. # 942		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Black Can/Sleeve. Wind etched. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core. Later version has more timing graduations detailed & relocated pointer.	04.07.11 09.04.12
Speed Passion	Competition 3.0 MMM Version Pt.# SP000038		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium Sleeve & End-Plates, SP etched. Sleeve with Wind & MMM etched. End-Plates with grooves. Red sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.2 core. Adjustable timing 11-20 deg.	4.7.11
Viper	Viper VST Pt. # 8VST 135001		Sensored system. "Y" Wind. Red Aluminium End-Plates, VST & 13.5T etched. Black grooved stator sleeve. Black sintered rotor with no balance rings, 12.5 dia, 7.35 core. Adjustable timing.	16.5.11
Novak	Ballistic Pt. # 3613		Sensored system. "Y" Wind. Black Al. End-Plate with NOVAK etched. Stator sleeve with 13.5T label. Ring etched. Nickel plated sintered rotor, 12.3 dia, 7.12 core. Red plastic denoting 13.5. Adjustable timing. Vented End-Bells # 5925 approved.	11.04.11 18.06.12
Team Powers	Plutonium  Pt.# TP-BLM- 135100PL		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. Gun-Metal stator sleeve with 13.5T etched. Nickel sintered rotor with no balance ring, 12.23 dia, 7.24 core. Adjustable sensor plate timing. Optional End-Plate TP-ATEB-001 allowed.	11.04.11 20.10.14
HPI	Flux Pro. Pt. # 101732		Sensored system. "Y" Wind. Black Aluminium End-Plates, HPI etched. Black stator sleeve with Wind etched. Nickel sintered rotor, 12.5 dia, 7.2 core. Adjustable timing. Optional rotor - 12.2 dia, 7.2 core, Nickel plt. Optional rotor 107252 - Mag. & Shaft Black.	28.03.11 07.05.12
Hobbywing	Xerun  Pt. # 90040120		Sensored system. "Y" Wind. Polished Aluminium End-Plates, Hobbywing etched. Fixed timing. Blue stator sleeve with 13.5T & Pt.# etched. Sleeve & EndPlates also Gunmetal colour. Side entry sensor plug. Nickel sintered rotor, 12.4 dia, 7.2 core. Rotor with one balancing ring.	12.2.11
Graupner	GM Brushless PRO. Pt.# 97353 2011 version.		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Gun-Metal stator sleeve with S13.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.4 dia, 7.21 core. Rotor with one balancing ring.	31.1.11
Tianco	ORCA RX2 Pt. # OBM135X2		Sensored system. "Y" Wind. Gun-Metal End-Plates, RX2 & 13.5T etched. Gun-Metal sleeve with RX2 & 13.5T etched. Black rotor, one balance ring, 12.2 dia, 7.23 core. Optional rotor OMA123PX 12.2mm nickel. Adjustable sensor plate timing. Mounting Plate 3 x 6mm holes & chamfer.	31.01.11 31.12.11
Trinity	Trinity D3 Pt. # TEP1051		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, Trinity etched. Black stator sleeve with D3 & 13.5T etched. Nickel sintered rotor with one balance ring, 12.25 dia, 7.21 core. Adjustable sensor plate timing.	31.1.11
Team Powers	Team Powers Brushless 13.5 Turns Pt. # TPBLM 135100		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. 5 outer timing threads, 3 sensor mount threads. Black & Gold stator sleeves with 13.5T etched. Nickel plated sintered rotor, 12.3 dia, 7.24 core. No balancing rings.	10.10.10



Graupner	GM Brushless PRO. Pt.# 97294 2010 version.		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Gun-Metal stator sleeve with S13.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.3 dia, 7.22 core. Rotor with one balancing ring.	1.2.10
LRP	X12 Vector Stock Spec. Pt.# 50842		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Sleeve etched "13.5 Turns". Black Sintered rotor, 12.5 dia, 7.1 core. Rotor shaft, Black. Manufacturers 'grooved' Al. End-Bell with name engraved allowed at terminal end. Optional green rotor 50639 12.2, 7.1 core Later versions have rotor shaft stamped.	23.11.09  31.01.11 28.05.12
Nosram	Pure Evolution Spec. Racing Version. Pt.# 91841		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Sleeve etched "13.5 Turns". Black Sintered rotor, 12.5 dia, 7.1 core. Rotor shaft, Black. Manufacturers 'grooved' Al. End-Bell with name engraved allowed at terminal end. Optional green rotor 90639 12.2, 7.1 core Later versions have rotor shaft stamped.	23.11.09  31.01.11 28.05.12
LRP	Vector X11 Stock Spec. Pt. # 50840		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Red anodised ring. Chamfered mounting face. Sleeve etched "13.5 Turns". Sintered rotor, 12.3 dia, 7.35 core. Rotor shaft, Black. Manufacturers 'slotted' End Plates (std. & thin versions) allowed at pinion end. Manufacturers later 'grooved' Al. End Plate with name engraved allowed at terminal end.	5.10.09
Speed Passion	3.0 - 13.5R Pt.# SP138135V3		Sensored system. "Y" Wind. Light Gun-Metal Aluminium End-Plates, SP & 13.5T etched. Light Gun-Metal stator sleeve with SP13.5T etched. Black sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.22 core. Adjustable timing 0-10.	5.10.09
GM	Brushless PRO. Pt.# 97294		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium End-Plates, GM-Racing etched. Dark Gun-Metal stator sleeve with S13.5T & Pt.# etched. Black sintered rotor, 12.3 dia, 7.2 core. Rotor with one balancing ring.	5.10.09
Nosram	Spec.' Storm Evolution Pt. No. 91840		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Red anodised ring. Chamfered mounting face. Sleeve etched "13.5 Turns". Sintered rotor, 12.3 dia, 7.35 core. Rotor shaft, Black. Manufacturers 'slotted' End Plates (std. & thin versions) allowed at pinion end. Manufacturers later 'grooved' Al. End Plate with name engraved allowed at terminal end.	1.12.08
<b>17.5T MOTORS</b>				
Motors below this level must comply with EFRA Rules App.4 :- 4.8 (including 01.03.21 amendment) requiring access to stator to allow measurement and visual appraisal of the laminates. Also 4.9 & 4.16 (including 01.03.21 amendment) which requires the Rotor to be marked with Name or Logo & Part # on shaft.				
<b>NOTE: ALL MOTORS SUBMITTED BEFORE 01.11.17, WERE HOMOLOGATED WITH MAGNETIC SCREWS AND STEEL SHIELDED BEARINGS FITTED.</b>				
<b>Changing these items invalidates the Motor Part # stated and contravenes App.4 Rule 4.6.</b>				
Team Epic	ReVtech 24K Pt # REV1802		Sensored system. "Y" Wind. End-Plate has Revtech etched. Stator sleeve with ReVtech & Wind etched. Adjustable sensor plate timing 0-60 deg. Has stator access. Wind stamped on lower collector ring & visible. Rotor with name & Part # TEP1112. Optional rotor # TEP1118.	23.11.15  14.11.16
Reedy	Reedy Sonic M3 Part # 254		Sensored system. "Y" Wind. Black Alu. Cap & Sleeve, Alu. timing insert with 'R' logo. Adjustable sensor plate timing 0/+ 50 deg. Caps remove and stator can be removed, wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # 273. Optional Rotors #s: 272, 286.	19.10.15  15.05.17

Reedy	Reedy Sonic M3 - SS 1S Part # 269		Sensored system. "Y" Wind. Black Alu. Cap & Sleeve, Alu. timing insert with 'R' logo. Adjustable sensor plate timing 0/+ 50 deg. Caps remove and stator can be removed, wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # 272. Optional Rotors #'s: 273, 286.	19.10.15 15.05.17
G Force	G Force Super Extreme Pt # G0151		Sensored system. "Y" Wind. Red Alu. Cap & Sleeve, Alu. timing insert with G logo. Adjustable sensor plate timing 0/+ 60 deg. Caps & sleeve remove, wind etched on stator. Nickel sintered rotor with one Alu. balance ring. Rotor Part # GF400003-55 Optional rotor G0045	27.7.15
Motors below this level must comply with EFRA Rule - App.4, 4.8 & 4.9, which requires access to the stator to allow measurement and visual appraisal of the laminates.				
King Golden	Speed Passion V4.0 17.5R #SP001232		Sensored system. "Y" Wind. Black End-Plates & Sleeve with wind etched. Nickel sintered rotor with one Purple balance ring, 12.5 dia, 7.1 core. Adjustable timing 0 -40 deg. Has stator access.	9.3.15
EZpower	EZBR217R		Sensored system. "Y" Wind. Gun-metal End-Plates & Sleeve. Adjustable red timing ring. Nickel sintered rotor with Red hollow balance ring marked EZ, 12.5 dia, 7.2 core. Caps & sleeve remove, has stator access.	2.3.15
Hirosaka	Hirosaka Part # HSK-PRO175T		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing insert. Adjustable timing 0-45. Black Can/Sleeve. Nickel sintered rotor with Purple balance ring, 12.3 dia, 7.1 core. Caps & sleeve remove, has stator access & wind marked..	9.2.15
Tianco	ORCA RX3 Part # OMR175X3		Sensored system. "Y" Wind. Black Can & E/Cap. Complete stator removes. Has stator access slots. ORCA RX3 & wind etched on End-Cap. End-Cap Alum., adjustable timing. Rotor with black balance ring 12.4 dia., 7.2 core. Part # OTR124ST	10.11.14 25.05.15
Trinity	D4 Part # TEP 1702		Sensored system. "Y" Wind. Purple Alu. timing plate with TRINITY & 4 etched. Caps and sleeve dark gun-metal, all parts remove. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing -10 + 60 deg. Has stator access. Optional rotor TEP 1112 approved	29.9.14
Absima	Revenge V2 Part # 2130021		Sensored system. "Y" Wind. Black Alu. Caps & Grey Sleeve, Logo only on End-Plate. Sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind marked on stator. Only V2 version approved	30.6.14
Team Powers	Actinium Pt. # TPBLM 175100 ACT		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. Gun-Metal stator sleeve with 17.5T etched. Nickel sintered rotor with no balance ring, 12.45 dia, 7.24 core. Adjustable sensor plate timing. Optional End-Plate TP-ATEB-001 allowed. Optional Rotor # TP125G-R	27.05.14 20.10.14 18.01.16
Reds Racing	VX Part # MTTE 0007		Sensored system. "Y" Wind. Red metal End-Plate at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates & has wind etched. Rotor with Black drilled balance ring MSTE0010. Optional rotors:- # MSTE0009, MSTE0016	05.05.14 06.07.16
G Force	G Force Super Sonic Pt # G0009		Sensored system. "Y" Wind. Black Alu. Caps & Sleeve, Alu. timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing 0/+ 40 deg. Caps & sleeve remove, wind etched on stator. Option rotor GF400003-55	07.04.14 27.07.15

Hobbywing	Xerun V10 Pt. # 30401020048		Sensored system. "Y" Wind. Black Alu. Can & End-Cap, moulded timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing - 20/+ 50 deg. Stator and wind visible via. sleeve slots.	3.3.14
Novak	Vulcan Pt. # 3647		Sensored system. "Y" Wind. Black Al. End-Plate with NOVAK etched. Stator sleeve with 17.5T label. 3/16 Bearing at Pinion end. Yell. plastic denoting 17.5. Adjustable timing. Nickel sint. Rotor Pt.# 5955 12.5, 7.1 core. Optional rotor Pt.# 5941 12.3 dia.	09.09.13 21.10.13
Mtroniks	MX-1 Pt. # MTMX175		Sensored system. "Y" Wind. Anodised Alum. End-Plates & Stator Sleeve, with wind printed. Fixed timing. Nickel sintered rotor with one hollow balance ring, 12.5 dia, 7.2 core. Stator visable via. Sleeve slots.	5.8.13
Muchmore	FLETA ZX Pt # MR-FZX175		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing plate, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with Green drilled balance ring. Rotor 7.2 core, 12.5 dia. Optional rotor MRFZR11 allowed. Aluminium timing-plate MR-FZAT fitted to later versions.	29.07.13 14.05.14 05.08.14
Nosram	Pure 2 Evolution Spec. Racing Pt.# 91854		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Sintered rotor, coloured Black, with 1 balance ring. Grey stator moulding. Rotor shaft Black stamped 12.5-25. Slot for stator access. Optional Green rotor # 90639 approved.	08.07.13 28.12.15
Team Epic	ReVtech Killshot Pt # REV1602R		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, Killshot painted. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing. Has stator access. Optional rotor TEP 1112 approved	08.07.13 07.04.14
Team Epic	ReVtech Killshot Pt # REV1602T		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, Killshot painted. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing. Has stator access. Optional rotor TEP 1112 approved.	08.07.13 07.04.17
Corally	Corally Pro Silver 17.5T 399175		Sensored system. "Y" Wind. Plain Alum. End-Plates. Adj. timing. Plain Alum. stator sleeve with wind etched. Nickel sintered rotor with one Black balance ring, 12.3 dia, 7.18 core. Stator visable via. Sleeve slots.	17.6.13
Tianco	ORCA TX Pt. # OTM 175TX		Sensored system. "Y" Wind. Dull Grey Aluminium casings. Main sleeve removes. Has stator access slots. ORCA TX & wind etched. End-Plate moulded, adjustable timing. 12.5mm Rotor no balance ring, shaft marked 125S-N. Option 123S-N. 12.3mm. Option EndPlate OME111TX allowed. New sensor Ass. CAS-0220TX-30 fitted.	10.06.13 10.03.14 20.07.14.
LRP	X20 17.5T Spec. # 50854		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Sintered rotor, coloured Black, with 1 balance ring. Grey stator moulding. Rotor shaft Black stamped 12.5-25. Slot for stator access. Optional Green rotor # 50639 approved.	22.04.13 28.12.15
Reedy	Reedy Sonic Mach 2 # 232		Sensored system. "Y" Wind. Black metal End-Bell at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core # 956. Optional rotors:- # 954, # 955.	8.4.13

Team Wave	Eclipse # TW2011-175		Sensored system. "Y" Wind. Black Alum. End-Plates. Adj. timing. Black Alum. stator sleeve with wind etched. Nickel sintered rotor with one plain balance ring, 12.5 dia, 7.17 core, marked 125-R. Stator visible via. Sleeve slots.	8.4.13
Tekin	Redline GEN2 17.5T # TT2404 & TT2405		Sensored system. "Y" Wind. Black Alum. End-Plates, not joined. Adj. timing. Alum. Can with wind etched. Stator visible via. Sleeve holes. Nickel sintered rotor with one brass balance ring. Rotor 7.14 core. 2404=12.25 dia. 2405=12.5 dia.	1.4.13
Savox	Savox SX.1 # SAV- BLH3650 991764		Sensored system. "Y" Wind. Aluminium casings. Slot for stator access included. Main sleeve removes, stator spigoted into fixed casing. Savox X1 & wind etched. End-Plate moulded, adjustable timing. Rotor has no balance ring.	25.3.13
Team Orion	VST2 Pro Stock 17.5. # ORI 28252		Sensored system. "Y" Wind. Grey one-piece Can. Black Aluminium End-Plate retained with five screws, adjustable moulded timing plate. Wind etched. Nickel sintered rotor, 12.5 dia, 7.1 core, no balance rings. Optional 12.4 dia, 7.2 core.	25.3.13
Motors below this level retain approval, although they were approved before implementation of EFRA Rule App.4, 4.8 & 4.9, (requiring access to stator for measurement and visual appraisal of laminates). Some motors do allow stator access.				
Horizon Hobby	Dynamite Platinum 17.5T # DYP 1017		Sensored system. "Y" Wind. Black Aluminium End-Plate at Term. End, with adjustable timing. Wind etched on Term. Sleeve, Stator mould & Stator Lams. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core.	20.8.12
Hobbywing	Xerun Pt. # 90040141		Sensored system. "Y" Wind. Polished Aluminium End-Plates, Hobbywing etched. Fixed timing. Blue stator sleeve with 17.5T & Pt.# etched. Sleeve & EndPlates also Gunmetal colour. Side entry sensor plug. Nickel sintered rotor, 12.4 dia, 7.2 core. Rotor with one balancing ring.	13.8.12
Reedy	Reedy Sonic Pt. # 941		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Black Can/Sleeve. Wind etched. Stator separates. Nickel sintered rotor with drilled balance ring, 12.5 dia, 7.2 core. Later version has more timing graduations detailed & relocated pointer.	14.5.12
Team Epic	ReVtech R-Power Pt # REV1052		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, ReVtech painted. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.45 dia, 7.2 core. Adjustable sensor plate timing. Mounting Plate with 3 x 5.9mm slots.	12.3.12
Vampire	Vampire Type AB+ Bloodline Pt. # VR-3175		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Sensor plug horizontal. Blue End plates. Wind etched. Nickel sintered rotor with no balance rings, 12.5 dia, 7.21 core.	12.3.12
Graupner	GM Brushless PRO. Pt. # 97417. 2012 version.		Sensored system. "Y" Wind. Alum. Mounting-Plate with 3x5mm holes and 3 radiused slots. Plastic End-Cap with GM moulded. Adj. timing. Gun-Metal stator sleeve with Wind & Pt.# etched. Side entry sensor plug. Nickel rotor marked GM Stock, 12.51 dia, 7.24 core.	31.12.11
Thunder Power	Z3R-S Part # TPM-540A175		Sensored system. "Y" Wind. Black Plastic Moulding at Term. End, with adjustable timing. Red Can/Sleeve with silver end cover. Wind etched on stator. Stator separates. Nickel sintered rotor with drilled red balance ring, 12.25 dia, 7.2 core. Optional Rotors:- Blue or Green balance ring.	17.10.11. 16.04.12.

Speed Passion	Competition 3.0 MMM Version Pt.# SP000039		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium Sleeve & End-Plates, SP etched. Sleeve with Wind etched. End-Plates with grooves. Red sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.2 core. Adjustable timing 11-20 deg.	4.7.11
Trinity	Trinity D3 Pt. # TEP1053		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, Trinity etched. Black stator sleeve with D3 & 17.5T etched. Nickel sintered rotor with one balance ring, 12.25 dia, 7.21 core. Adjustable sensor plate timing.	16.5.11
Viper	Viper VST Pt. # 8VST 175001		Sensored system. "Y" Wind. Red Aluminium End-Plates, VST & 17.5T etched. Black grooved stator sleeve. Black sintered rotor with no balance rings, 12.5 dia, 7.35 core. Adjustable timing.	16.5.11
Novak	Ballistic Pt. # 3617		Sensored system. "Y" Wind. Black Al. End-Plate with NOVAK etched. Stator sleeve with 17.5T label. Ring etched. Nickel plated sintered rotor, 12.3 dia, 7.12 core. Yellow plastic denoting 17.5. Adjustable timing. Vented End-Bells # 5925 approved.	11.04.11 18.06.12
Tekin	Tekin Redline 17.5T Spec. Pt. # TT2251 (Etched Can)		Sensored system. "Y" Wind. Red Aluminium mounting plate. Black moulded End-Bell with Tekin. Grooved Al. bonded stator sleeve with 17.5T etched. Nickel plated sintered rotor, 12.4 dia, 7.11 core. No balance rings.	11.4.11
HPI	Flux Pro. Pt. # 101733		Sensored system. "Y" Wind. Black Aluminium End-Plates, HPI etched. Black stator sleeve with Wind etched. Nickel sintered rotor, 12.5 dia, 7.2 core. Adjustable timing. Optional rotor - 12.2 dia, 7.2 core, Nickel plt. Optional rotor 107252 - Mag. & shaft Black.	28.03.11 07.05.12
Team Powers	Plutonium Pt.# TP-BLM-175100PL		Sensored system. "Y" Wind. Black Aluminium End-Plates, Team Powers etched. Gun-Metal stator sleeve with 17.5T etched. Nickel sintered rotor with no balance ring, 12.26 dia, 7.24 core. Adjustable sensor plate timing. Optional End-Plate TP-ATEB-001 allowed.	12.02.11 20.10.14
Graupner	GM Brushless PRO. Pt.# 97357 2011 version.		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Gun-Metal stator sleeve with S17.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.4 dia, 7.21 core. Rotor with one balancing ring.	31.1.11
Tianco	ORCA RX2 Pt. # OBM175X2		Sensored system. "Y" Wind. Gun-Metal End-Plates, RX2 & 17.5T etched. Gun-Metal sleeve with RX2 & 17.5T etched. Black rotor, one balance ring, 12.2 dia, 7.20 core. Optional rotor OMA123PX 12.2mm nickel. Adjustable sensor plate timing. Mounting Plate 3 x 6mm holes & chamfer.	31.01.11 31.12.11
Graupner	Brushless PRO. Pt. # 97297		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Dark Gun-Metal stator sleeve with S17.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.3 dia, 7.2 core. Rotor with one balancing ring.	21.12.09
LRP	X12 Vector Stock Spec. Pt.# 50852		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Sleeve etched "17.5 Turns". Black Sintered rotor, 12.5 dia, 7.1 core. Rotor shaft, Black. Manufacturers 'grooved' Al. End-Bell with name engraved allowed at terminal end. Optional green rotor 50639 12.2, 7.1 core. Later versions have rotor shaft stamped.	23.11.09 31.01.11 28.05.12


LRP	Vector X11 Stock Spec. Pt. # 50850		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Gold anodised ring. Chamfered mounting face. Sleeve etched "17.5 Turns". Sintered rotor, 12.3 dia, 7.35 core. Rotor shaft, Black. Manufacturers 'slotted' End Plates (std. & thin versions) allowed at pinion end. Manufacturers later 'grooved' Al. End Plate with name engraved allowed at terminal end.	5.10.09
Speed Passion	3.0 - 17.5R Pt.# SP138175V3		Sensored system. "Y" Wind. Light Gun-Metal Aluminium End-Plates, SP & 17.5T etched. Light Gun-Metal stator sleeve with SP17.5T etched. Black sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.22 core. Adjustable timing 0-10.	5.10.09

## 21.5T MOTORS

Motors below this level must comply with EFRA Rules App.4 :- 4.8 (including 01.03.21 amendment) requiring access to stator to allow measurement and visual appraisal of the laminates. Also 4.9 & 4.16 (including 01.03.21 amendment) which requires the Rotor to be marked with Name or Logo & Part # on shaft.

**NOTE: ALL MOTORS SUBMITTED BEFORE 01.11.17, WERE HOMOLOGATED WITH MAGNETIC SCREWS AND STEEL SHIELDED BEARINGS FITTED.**

**Changing these items invalidates the Motor Part # stated and contravenes App.4 Rule 4.6.**

Team Epic	ReVtech 24K Pt # REV1803		Sensored system. "Y" Wind. End-Plate has Revtech etched. Stator sleeve with ReVtech & Wind etched. Adjustable sensor plate timing 0-60 deg. Has stator access. Wind stamped on lower collector ring & visible. Rotor with name & Part # TEP1112. Optional rotor # TEP1118.	23.11.15 14.11.16
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Motors below this level must comply with EFRA Rule - App.4, 4.8 & 4.9, which requires access to the stator to allow measurement and visual appraisal of the laminates.

King Golden	Speed Passion V4.0 21.5R #SP001233		Sensored system. "Y" Wind. Black End-Plates & Sleeve with wind etched. Nickel sintered rotor with one Purple balance ring, 12.5 dia, 7.1 core. Adjustable timing 0 -40 deg. Has stator access.	9.3.15
Tianco	ORCA RX3 Part # OMR215X3		Sensored system. "Y" Wind. Black Can & E/Cap. Complete stator removes. Has stator access slots. ORCA RX3 & wind etched on End-Cap. End-Cap Alum., adjustable timing. Rotor with black balance ring 12.4 dia., 7.2 core. Part # OTR124ST	10.11.14 25.05.15
Wurks	Wurks Part # R1-215-125-V7		Sensored system. "Y" Wind. End-Plate with R1 Wurks etched. Stator sleeve with Wind painted. Nickel sintered rotor painted Black, no balance ring, 12.4 dia, 7.2 core. Adjustable sensor plate timing 0-60 deg. Has stator access. Single collector ring at 'pinion' end of stator. <b>Motors with Twin collector rings and/or epoxy filled windings not approved.</b>	27.10.14 16.12.15. 26.10.16
Reds Racing	VX Part # MTTE 0008		Sensored system. "Y" Wind. Red metal End-Plate at Term. End, with adjustable timing 0-45. Black Can/Sleeve. Stator separates & has wind etched. Rotor with Black drilled balance ring MSTE0010. Optional rotors:- # MSTE0009, MSTE0016	19.05.14 06.07.16
Team Epic	ReVtech Killshot Pt # REV1603R		Sensored system. "Y" Wind. Copper colour Aluminium End-Plates, Revtech etched. Blue stator sleeve with ReVtech & Wind painted. Nickel sintered rotor with one purple balance ring, 12.3 dia, 7.2 core. Adjustable sensor plate timing 0-80 deg. Has stator access. Optional rotor TEP 1112 approved.	17.03.14 07.04.14
Hobbywing	Xerun V10 Pt. # 30401020049		Sensored system. "Y" Wind. Black Alu. Can & End-Cap, moulded timing insert with logo printed. Nickel sintered rotor with one Alu. balance ring, 12.5 dia, 7.2 core. Adjustable sensor plate timing - 20/+ 50 deg. Stator and wind visible via. sleeve slots.	3.3.14

Muchmore	FLETA ZX Pt # MR-FZX215		Sensored system. "Y" Wind. Black metal End-Bell with plastic timing plate, with adjustable timing 0-45. Black Can/Sleeve. Stator separates. Nickel sintered rotor with Green drilled balance ring. Rotor 7.2 core, 12.5 dia. Optional rotor MRFZR11 allowed. Aluminium timing-plate MR-FZAT fitted to later versions.	29.07.13  14.05.14 05.08.14
Team Wave	Eclipse # TW2011-215		Sensored system. "Y" Wind. Black Alum. End-Plates. Adj. timing. Black Alum. stator sleeve with wind etched. Nickel sintered rotor with one plain balance ring, 12.5 dia, 7.17 core, marked 125-R. Stator visible via. Sleeve slots.	24.6.13
Corally	Corally Pro Silver 21.5T 399215		Sensored system. "Y" Wind. Plain Alum. End-Plates. Adj. timing. Plain Alum. stator sleeve with wind etched. Nickel sintered rotor with one Black balance ring, 12.3 dia, 7.18 core. Stator visible via. Sleeve slots.	17.6.13
Tianco	ORCA TX Pt. # OTM 215TX		Sensored system. "Y" Wind. Dull Grey Aluminium casings. Main sleeve removes. Has stator access slots. ORCA TX & wind etched. End-Plate moulded, adjustable timing. 12.5mm Rotor no balance ring, shaft marked 125S-N. Option 123S-N. 12.3mm. Option EndPlate OME111TX allowed. New sensor Ass. CAS-0220TX-30 fitted.	10.06.13  10.03.14 20.07.14.
LRP	X20 21.5T Spec. # 50864		Sensored system. "Y" Wind. Black moulded End-Bell with XTEC. Fixed End-Sleeve etched with wind. Sintered rotor, coloured Black, with 1 balance ring. Grey stator moulding. Rotor shaft Black stamped 12.5-25. Slot for stator access. Optional Green rotor # 50639 approved.	22.04.13  28.12.15
Tekin	Redline GEN2 21.5T # TT2402 & TT2403		Sensored system. "Y" Wind. Black Alum. End-Plates, not joined. Adj. timing. Alum. Can with wind etched. Stator visible via. Sleeve holes. Nickel sintered rotor with one brass balance ring. Rotor 7.14 core. 2402=12.25 dia. 2403=12.5 dia.	1.4.13
Team Orion	VST2 Pro Stock 21.5. # ORI 28253		Sensored system. "Y" Wind. Grey one-piece Can. Black Aluminium End-Plate retained with five screws, adjustable moulded timing plate. Wind etched. Nickel sintered rotor, 12.5 dia, 7.1 core, no balance rings. Optional 12.4 dia, 7.2 core.	25.3.13
Motors below this level retain approval, although they were approved before implementation of EFRA Rule App.4, 4.8 & 4.9, (requiring access to stator for measurement and visual appraisal of laminates). Some motors do allow stator access.				
Hobbywing	Xerun Pt. # 90040151		Sensored system. "Y" Wind. Polished Aluminium End-Plates, Hobbywing etched. Fixed timing. Blue stator sleeve with 21.5T & Pt.# etched. Sleeve & EndPlates also Gunmetal colour. Side entry sensor plug. Nickel sintered rotor, 12.4 dia, 7.2 core. Rotor with one balancing ring.	13.8.12
Vampire	Vampire Type AB+ Bloodline Pt. # VR-3215		Sensored system. "Y" Wind. Black Plastic End-Plate at Term. End, with adjustable timing. Sensor plug horizontal. Green End plates. Wind etched. Nickel sintered rotor with no balance rings, 12.5 dia, 7.21 core.	12.3.12
Graupner	GM Brushless PRO. Pt. # 97421. 2012 version.		Sensored system. "Y" Wind. Alum. Mounting-Plate with 3x5mm holes and 3 radiused slots. Plastic End-Cap with GM moulded. Adj. timing. Gun-Metal stator sleeve with Wind & Pt.# etched. Side entry sensor plug. Nickel rotor marked GM Stock, 12.51 dia, 7.24 core.	31.12.11
Thunder Power	Z3R-S Part # TPM-540A215		Sensored system. "Y" Wind. Black Plastic Moulding at Term. End, with adjustable timing. Red Can/Sleeve with silver end cover. Wind etched on stator. Stator separates. Nickel sintered rotor with drilled red balance ring, 12.25 dia, 7.2 core. Optional Rotors:- Blue or Green balance ring.	17.10.11.  16.04.12

Speed Passion	Competition 3.0 MMM Version Pt.# SP000040		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium Sleeve & End-Plates, SP etched. Sleeve with Wind & MMM etched. End-Plates with grooves. Red sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.2 core. Adjustable timing 11-20 deg.	4.7.11
Viper	Viper VST Pt. # 8VST 215001		Sensored system. "Y" Wind. Red Aluminium End-Plates, VST & 21.5T etched. Black grooved stator sleeve. Black sintered rotor with no balance rings, 12.5 dia, 7.35 core. Adjustable timing.	16.5.11
Tekin	Tekin Redline 21.5T Spec. Pt. # TT2250 (Etched Can)		Sensored system. "Y" Wind. Red Aluminium mounting plate. Black moulded End-Bell with Tekin. Grooved Al. bonded stator sleeve with 21.5T etched. Nickle plated sintered rotor, 12.4 dia, 7.11 core. No balance rings.	11.4.11
HPI	Flux Pro. Pt. # 101734		Sensored system. "Y" Wind. Black Aluminium End-Plates, HPI etched. Black stator sleeve with Wind etched. Nickel sintered rotor, 12.5 dia, 7.2 core. Adjustable timing. Optional rotor - 12.2 dia, 7.2 core, Nickel plt. Optional rotor 107252 - Mag & shaft Black.	28.03.11 07.05.12
Graupner	GM Brushless PRO. Pt.# 97361 2011 version.		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Gun-Metal stator sleeve with S21.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.4 dia, 7.21 core. Rotor with one balancing ring.	31.1.11
Trinity	Trinity D3 Pt. # TEP1057		Sensored system. "Y" Wind. Gun-Metal Aluminium End-Plates, Trinity etched. Black stator sleeve with D3 & 21.5T etched. Nickel sintered rotor with one balance ring, 12.25 dia, 7.20 core. Adjustable sensor plate timing.	31.1.11
Graupner	Brushless PRO. Pt. # 97301		Sensored system. "Y" Wind. Dark Gun-Metal Aluminium End-Plates, GM-Racing etched. 5 timing threads. Dark Gun-Metal stator sleeve with S21.5T & Pt.# etched. Side entry sensor plug. Black sintered rotor, 12.3 dia, 7.2 core. Rotor with one balancing ring.	21.12.09
Speed Passion	3.0 - 21.5R Pt.# SP138215V3		Sensored system. "Y" Wind. Light Gun-Metal Aluminium End-Plates, SP & 21.5T etched. Light Gun-Metal stator sleeve with SP21.5T etched. Black sensor board. Black sintered rotor with one balance ring, 12.3 dia, 7.22 core. Adjustable timing 0-10.	12.10.09

Paul Worsley. (EFRA Brushless Motor Homologation Officer). Last update 25.08.24.