

## Brushless 'Modified' Motors (All Winds). 2016 v6

## **EUROPEAN FEDERATION RADIO CONTROLLED AUTOMOBILES**

## Samples of Motors included on this list have been checked for compliance to EFRA 2016 Rules: For Brushless 'Modified' Motors.

Starting 01.06.16, only Motors included on this list, can be used at EFRA Sanctioned events (EC or GP), for:

The Motor Class designated for the event.

Whiist sample Motors submitted have been found to conform with EFRA 2016 rules for 'Modified' Brushless Motors, it is the responsibility of ALL competitors to ensure that the versions they use also comply with all EFRA rules and requirements.

Motor Builder	Type/ Range	Illustration only	Notes	Approval Date	
Motors below this level must comply with EFRA Rules :- App.3, 2.2 (9) which requires access to the stator to allow measurement and visual appraisal of the laminates. Also 2.2 (7), which requires the Rotor to be marked with Name or Logo & Part #.					
Orion	Vortex VST2 Pro. Mg. LW (2016)		Sensored system. Dark grey one-piece Can. End-Plate has Team Orion & wind marked, retained with five screws. Adjustable timing +/- 10. Two sensor plugs. Has stator access. Rotor with name & Part # ORI 41518 Option rotors: ORI 41470, 41472, 41473	24.10.16	
Tianco	ORCA RT	ÖÄCÄ 7	Sensored system. "Y" Wind. Black Can & E/Cap. Complete stator removes. Has stator access slots. ORCA RT & wind etched on End-Cap. End-Cap Alum., adjustable timing. Rotor with name, Part # ORR323M3. Option rotors: ORR423M0, ORR321M1, ORR325M5	08.08.16	
Corally	Dynospeed MODX 3.0	D D D D D D D D D D D D D D D D D D D	Sensored system, two ports. "Y" Wind. One end of stator visable but sleeve removes. Stator has EFRA & wind etched. Wind etched on End-Cap. End-Cap Alum., adjustable timing, no numbers. Fan on rotor.  Rotor with logo, Part # 61135	08.08.16	
Fenix	Fenix DFV2	FERIX BEVIALS	Sensored system. "Y" Wind. Black Alu. Can & End-Caps. Timing insert with Fenix DFV2 etched. Nickel sintered rotor with one Alu. bal. ring. Adjustable timing +20/+ 60 deg. Lams.visible. Rotor Part # AP67-B Option rotors: MF72, MF72-B	07.07.16	
Tesla	Tesla EP	A B B G	Sensored system. "Y" Wind. Blue Alu. Can & End-Caps. Timing insert with Tesla logo etched. Nickel sintered rotor with one Alu. bal. ring. Adjustable timing +20/+ 60 deg. Lams.visible. Rotor Part # TS-194036 or TS-194056	07.07.16 14.11.16	
Ruddog	Ruddog RP540	RUDDOG RP540	Sensored system. "Y" Wind. Silver Alu. Can & End-Caps. Timing insert with Ruddog etched. Nickel rotor with one Alu. bal. ring. Adjustable timing +20/+ 60 deg. Lams.visible with wind visable on stator. Rotor Part # RP-12.5-5	30.05.16	
Orion	Vortex VST2 Pro. V2 LW (2016)		Sensored system. "Y" Wind. Grey one-piece Can. Black all Aluminium End-Plate retained with five screws. Adjustable timing +/- 10. Wind etched. Two sensor plugs. Has stator access. Rotor with name & Part # ORI 41470. Option rotors: ORI 41472, 41473.	30.05.16	
Orion	Vortex VST2 Pro. V2 LW Ultra (2016)		Sensored system. "Y" Wind. Grey one-piece Can. Black all Aluminium End-Plate retained with five screws. Adjustable timing +/- 10. Wind etched. Two sensor plugs. Sensing magnets. Has stator access. Rotor has name & Part # ORI 41547. Option rotors: ORI 41548.	30.05.16	

Orion	Vortex VST2 Pro. V2 XLW (2016)		Sensored system. "Y" Wind. Black sleeve with removable Alu. End-Plates, all retained with long screws. Adjustable timing +/-10. Wind etched. Two sensor plug. Rotor has name & part # ORI 41470. Option rotors: ORI 41472, 41473.	30.05.16
Orion	Vortex VST2 Pro. V2 XLW ULTRA (2016)		Sensored system. "Y" Wind. Black sleeve with removable Alu. End-Plates, all retained with long screws. Adjustable timing +/-10. Wind etched. Two sensor plug. Sensing magnets. Rotor has name & Part # ORI 41547. Option rotors: ORI 41548.	30.05.16
Tekin	Redline Gen3	CENE \$ 5.5T	Sensored system. "Y" Wind. Black Alum. Timing plate 2.5mm above red ring Adj. timing 0/60. Machined Alum. Can with wind printed. Stator visable via. slots. Rotor with one brass balance ring Part # 2721 or 2723.  Option rotor 2724	16.05.16
Turnigy	Trackstar V2	The state of the s	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 # 919000280.  Optional rotors 282, 283, 284	16.05.16
RC Concept	EC		Sensored system. "Y" Wind. End-caps and sleeve remove. Sleeve with wind etched. Adjustable sensor plate timing 0/45 deg. Has stator access. Wind & EFRA painted on stator. Rotor with name & sizes printed. Part # 50125 on shaft.	04.04.16
Team Epic	ReVtech 24K	24K	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 # TEP1153.	01.02.16
Hobbywing	Xerun V10 G2	C PROPER AS T SENSORED MODIFED	Sensored system. "Y" Wind. Black Alu. Can & End-Cap, moulded timing insert with logo moulded. Nickel sintered rotor with one Alu. bal. ring. Adjustable timing +20/+ 50 deg. Stator and wind visible. Rotor Part # 30820002.  Optional rotors: 3082 0006, 0008, 0010, 0012, 0013.  Option End-Cap, timing +30/+60, Part # 30820054	18.01.16 02.05.16 21.11.16
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.	19.10.15 04.04.16
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.3, 2.2(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	MEKER RACING BRUSHBERD	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 seperate 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	CONCERNA AVORDO	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	TENNITY	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 red balance ring, 12.5 dia, 5.0 core. Adjustable sensor timing -10 + 60 deg. Has stator access.	29.9.14
King Golden	Speed Passion Competition V4.0	PRINCE PRINCE OF COMPETITION  B.SR	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.	S PRO 6.5	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	S.ST FREITH	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	C B I	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	SKALAP10	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	MODIFIED	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	C LING ALSO NO SECURED	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	A SERIES Performer	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.	GELIPSE Friedricker Berlin	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 visable via. Sleeve slots.	21.10.13	
Muchmore	FLETA ZX	4.5 FLETAX	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	ORCA TX SERVES 4.5T	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+	LES TYPE AD-	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 visable via. Sleeve holes. Nickel sintered rotor with one brass balance ring.	1.4.13	
Reedy	Reedy Sonic Mach 2	5 6.0 SONICA	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	A.5 TORNS ROBINIES	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 1 balance ring.	25.3.13	
Motors below this level retain approval, although they were approved before implementation of EFRA Rule App.3, 2.2(9), (requiring access to the stator for measurement and visual appraisal of laminates). Some motors do allow stator access.					
Horizon Hobby	Dynamite Platinium		Sensored system. "Y" Wind. Black Alluminium 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	and manufully	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	MODIFIED 12	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	Re Vicechi I	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	THURDER &	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 7.5T & 8.5T		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
	no Sleeve Vents.			12.3.12
Graupner	GM Brushless PRO. 2012 version.	ZAOS SESTINATION OF SESTIMATION OF S	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.	S.ST VST PRO SINGLE IT COMPAGE OF	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	9.5 Example	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	100 PM	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	That had a day and a day a	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.	SST 8ST	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	<i>5</i> , 30	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	ORCA'  CELAMBINA	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	CONTRACTOR	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	WATER STATE OVAL BAGING	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
Paul Worsley. (EFRA Motor Homologation Officer) 21.11.16.				