

winds.

## 1:10 BRUSHLESS MODIFIED MOTORS 2025 v1

### INTERNATIONAL FEDERATION OF MODEL AUTO RACING

Motors shown on this list are additional to those detailed on the original (word only) list dated 12th. July 2007.

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

NOTE: Only Rotors listed (below) can be used at IFMAR WC events. They may differ from Rotors listed by other organisations.

DISCLAIMER: "IFMAR shall not be liable for special, indirect or consequential damages, loss of profits, production or commercial loss in any way connected with the approved products on this list. As IFMAR has no control over use, set-up, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, set-up or assembly the user accepts all resulting liability".

### IFMAR PRODUCTS LIST -- 1:10 BRUSHLESS MODIFIED MOTORS. Issued: 24 June 2025.

NOTE: All Rotors (including Option Rotors) used in Motors added from 2021 onwards, MUST have the Rotor unique Part # on the external part of the shaft.

NOTES: Motors approved by IFMAR must comply with IFMAR Motor rules. The following to aid Tech. Officers:-

Rule 5 details the years when the continually changing requirement for stator access was implemented. From 2015: Rule 6.4 (e). Rotors must be identified with manufacturers name/logo and Part Number and from 2021 Rotors must have the 'listed' Part Number etched/stamped on the external area of the rotor shaft. From 2022: Rule 6.3 - No solid glue or filler can be added to the wires of the final winding assembly.

shaft. From 2022: Rule 6.3 - No solid glue or filler can be added to the wires of the final winding assembly.  Motors from previous years without these features retain approval.					
Manufacturer Type/Range	Illustration on	ly	Notes		
	R PRODUCTS LIST BRUS	SHLESS MODIFIE	ED MOTORS. Issued: 24 June 2025.		
Shenzhen Cayote Crest Modi All ½ Turn winds	Modi 6.5T		Must have inline 'cut-outs' in stator End-caps for stator measure & all laminates to be viewed. Sensored system. Stato open. Pinion Cap removes but not teminal ring. Wind on stator. Adjustable timing +20/+50 deg. All screws magnetic, Al.		
Shenzhen Cayote Crest Modi All 'zero' Turn winds	Modi B.OT		retaining housing, steel shielded magnetic bearings. Rotor with name, Part # on shaft: 3.5T & 4.0T CYEBR1001, 4.5T & 5.0T CYEBR1002, 5.5T - 9.5T CYEBR1003. All optional.		
Team Exalt Phoenix All ½ Turn winds	EXALT	EZALF	Sensored system. Black end-plate has Exalt & Phoenix printed Wind on stator. Adjustable timing 0-60 deg. All screws magnetic, Al. retaining housing, steel shielded magnetic		
Team Exalt Phoenix All 'zero' Turn winds	I S.OT		bearings. Rotor with name, Part # on shaft:- EXAM2402. Option rotor: EXAM2403.		
Team Powers Actinium V5M All Winds	Modify 4.5 TEAM POWERS		Sensored system. Stator open. Caps remove. Wind on stator. Adjustable timing 0/+60 deg. All screws magnetic, Al. retaining housing, steel shielded magnetic bearings. Rotor with name: Part # TP122G-S38 on shaft. Option rotor: TP121G-S2		
Ruddog RP543 All ½ Turn winds.	QUODOS RPS43	R	Sensored system. 4 side screws retain End-Cap. Timing insert with Ruddog. Adjustable timing 0/+60. Wind & RP543 on stator visible. Collector ring 4mm on 1/2 winds, 0.8mm on zero winds. All screws magnetic, Al. sensor housing, magnetic steel		
Ruddog RP543 All 'zero' Turn			shielded bearings. Stator bonded. Rotor with name, Part # on shaft: 3.5T - 5.5T RP-0808, 6.0T - 8.5T RP-0434. Either Optional.		

Reds Racing VX GEN4 MR Design All winds. Only Part #'s ending 'H' approved





Must have cut-outs in End-caps for stator measure. Sensored system. "Y" Wind. Red Al. timing plate. Adjustable timing 0-50. All screws magnetic, Al. sensor housing & retaining plate, magnetic steel shielded bearings.

Rotor with name & Part # on shaft MSTE 0019.

Option rotor: MSTE0036

## 2024 IFMAR PRODUCTS LIST -- BRUSHLESS MODIFIED MOTORS. Issued: 19 July 2024.

Muchmore Fleta ZX V3 All winds.







Sensored system. Stator open, Caps remove. Adjustable timing 0/+50 deg. All screws magnetic, Al. retaining housing, steel shielded magnetic bearings. MUST have slots in both End-Caps for stator measuring.

Rotor with: Muchmore, Part # on shaft:-3.5T-5.0T MR-FZRST, 5.5T-9.5T MR-FZR01. Either rotor allowed in all winds. Option rotor: MR-FZRSTTI

United Sino Enterprises ORCA Modtreme3 All ½ Turn winds.









Sensored system. Stator bonded, but has access holes. Wind printed on stator. Adj. timing 5/60. All screws magnetic, Al. retaining housing, steel shielded magnetic bearings. Rotor with: ORCA & Part # RT18M121245 on shaft. Option rotors: RT23OM12335, RT20MM12324 on shaft.

### 2023 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 14 July 2023.

Hoomark Zombie EVO II All winds





Sensored system. Stator open, Caps remove. Adjustable timing 0/+60 deg. Body screws non-magnetic, timing screws magnetic, Al. retaining housing, steel shielded magnetic bearings. Rotor with: Zombie on magnet.

Rotor with: Name & Part # M-TZ-50121 on shaft.

Rotor with: Name & Part # M-TZ-50121 on shaft.
Option rotors:- M-TZ-50125, M-TZ-50123, M-TZ-725125

Ruddog RP542 All winds





Sensored system. 4 side screws retain End-Cap.
Timing insert with Ruddog. Adjustable timing 0/+60. Wind & RP542 on stator visible. 3mm colector ring. All screws magnetic, Al. sensor housing, magnetic steel shielded bearings. Stator bonded.
Rotor with: Name & Part #:- RP-0434 on shaft.

Team Powers Actinium V5.0





Sensored system. Black Al. one piece Can.

4 full length slots. Team Powers on End-Cap. Wind on stator. Adjustable timing 0-60.

All 6 c/sk screws magnetic, Al. sensor housing, steel shielded bearings.

Rotor with: Name & Part # TP123G-S35 on shaft. Option rotor: TP121G-S2

### 2022 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 01 June 2022.

No new Motors added to the Homologation List for 2021 & 2022. All events were cancelled.

Only Optional Rotors added to a 2019 Homologated Motor.

### 2020 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 03 April 2020.

ASSOCIATED REEDY Sonic, M4







M4 - Winds 3.5T & 4.0T:-Laminates 0.35mm. Rotor in Sample :-# 27450 12.0 x 5mm.

M4 - Winds 4.5T to 9.5T:-Laminates 0.30mm. Rotor in sample:-#27448 12.5 x 5mm.

Optional rotors all winds:-Either of above plus:-# 27447 12.5 x 7.2mm. # 27449 13.0 x 5.0mm. # 27460 12.3 x 5.0mm.

ASSOCIATED REEDY Sonic. M4 6.5T - 1S Pt. # 27443 Twin lines around wind #	SONIC			M4 - Wind 6.5T 27443:- Laminates 0.30mm. Rotor in Sample :- # 27460 12.3 x 5mm. Optional rotors :- # 27447 12.5 x 7.2mm. # 27448 12.5 x 5.0mm. # 27449 13.0 x 5.0mm. # 27450 12.0 x 5.0mm.
FREEMAX TECHNOLOGY Arrowmax Dash R-Tune V3	Dash B. TUNEVB		Dash	Rotor in Samples :- DA-730010. 12.3 x 5.0 mm Optional :- DA-730009. 12.15 x 5.0 mm
REDS RACING VX3	8.5T VX3		P. C.	Rotor in Samples :- MSTE 0019. 12.5 x 5.0 mm Optional :- None submitted
SURPASS HOBBY ROCKET-RC	Parker Andrew Modern Mo		SURPASS	Rotor in Samples :- C52123. 12.3 x 5.0 mm Optional :- C53125. 12.5 x 5.0 mm
TEKIN Redline G4	G4 MODIFIED			Rotor in Samples :- TT 2777. 12.4 x 5.2 mm Optional :- None submitted
YOKOMO Racing Performer M4 Series			YOKÔMO RP	Rotor in samples:- RP-056 12.5 x 5mm Options:- RP-057 12.5 x 7.2 mm RP-058 12.3 x 5mm RP-059 12.3 x 7.2mm RP-060 12.2 x 5mm RP-061 12.2 x 7.2mm RP-062 13.0 x 5mm RP-063 13.0 x 5mm RP-064 12.0 x 5mm RP-064 12.0 x 5mm RP-065 12.0 x 7.2mm
FREEMAX TECHNOLOGY Arrowmax Dash R-Tune V2	IFMAR PRODUCTS LIST		B C NAME OF THE PARTY OF THE PA	Rotor in samples:- DA730010 Black Ring Optionals:- None submitted
MACLAN MRR V2m	IFMAR PRODUCTS LIST	BRUSHLESS MC	TORS: Issued:	Rotor in samples:- MCL4174 Purple Ring Optionals:- MCL4187 Black Ring
MUCHMORE Fleta ZX V2	E HETAZZZA			Rotor in samples:- MR-FZR01 Al. s/c Ring Optionals:- MR-FZR03 Gold Ring MR-FZR07 Dk. Grey Ring

RC CONCEPT **ECR 10** 







Rotor in samples:-50125 Black Ring Optionals:-None submitted

**UNITED SINO ENTERPRISES ORCA** Modtreme







Rotor in samples:-RT18M121245. Shaft M121. Optional rotors:-Submitted 2022 ORR323M3. Shaft M3. RT20M123245. Shaft M123. RT20MM12324. Shaft MM123.

#### 2018 IFMAR PRODUCTS LIST --**BRUSHLESS MOTORS: Issued:** 01 May 2018.

**TRINITY** Monster Horsepower







Rotor in samples:-TEP1153 Green Ring Optionals:-

TEP1151 Blue Ring TEP1152 Red Ring TEP1154 Black Ring

3.5T - 5.0T Open **End-Caps** 

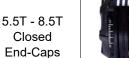






Timing Adj.: 20-50 deg.

**HOBBYWING** Xerun V10 G3









Rotor in samples:-

Shaft Code: 3 5T ·-30820019 5-12.1-A 4.5T & 5.0T :-30820017 5-12.3-B 5.5T - 8.5T :-

5-12.5-A

30820020 Optionals:-Any above, plus 30820401 30820402

5-12.5-T-B 5-12.3-T-B 30820418 1-BESB

**ARROWMAX** DASH R-Tune







Rotor in Samples :-4.5T: Shaft Code: DA730001 RL125

Other Winds: DA730002. RS125

Optionals :-DA730003 RSS125 DA730004 RSS123 DA730005 RS121 DA730006 RS123 DA730007

RL121

### 2017 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 25 May 2017

PRT Elec. PRT AIRs Pro.







Rotor in Samples :-PRT 125HT. 12.5 x 5mm Optional:-PRT 12HT. 12.0 x 5mm

YOKOMO Racing Performer M3 Series







RP-056 12.5 x 5mm Options:-RP-057 12.5 x 7.2 mm RP-058 12.3 x 5mm

Rotor in samples:-

RP-059 12.3 x 7.2mm RP-060 12.2 x 5mm RP-061 12.2 x 7.2mm RP-062 13.0 x 5mm RP-063 13.0 x 7.2mm RP-064 12.0 x 5mm

RP-065 12.0 x 7.2mm

**MACLAN MRR** 







Rotor in Samples :-MCL 4077. 12.5 x 5mm Optional :-MCL 4078. 12.5 x 5mm MCL 4079. 13.0 x 5mm MCL 4075 12.5 x 7.2mm

MCL 4076 12.5 x 7.2mm MCL 4093 12.5 x 7.2mm

LRP XTEC X22.	12.5977			Rotor in samples:- 520502 12.5 x 5 mm Optional:- 520503 12.1 x 5mm 520504 12.3 x 5mm 520505 12.7 x 5mm 520506 13.0 x 5mm
LRP XTEC X22.		XTEC O	XTED	Optional End-Plate. Black - # 520500 Blue - # 520501
HOBBYWING Xerun V10 G2				14.11.16. Optional End-Cap Ass. Timing +30/+60. Part # 30820054
201	6 IFMAR PRODUCTS LIST	BRUSHLESS MC	TORS: Issued:	05 May 2016
TIANCO ORCA RT	ÖŘČÁ HT SERIES 4.5T	6	ORCA	Rotor in Samples :- ORR323M3. 12.3 x 5 mm Options -update 30.12.16 ORR423M0. 12.0 x 5 mm ORR321M1. 12.0 x 5 mm ORR233ML. 12.3 x 5mm ORR238ML. 12.3 x 5mm ORR253ML. 12.5 x 5mm ORR258ML. 12.5 x 5mm
REEDY Sonic. M3				Two stator designs. Rotor in Samples:- # 274 12.3 x 5mm. # 275 12.5 x 5mm. Optional rotors:- # 276 13.0 x 5mm. Added 2017:- # 271 12.0 x 7.2mm. # 272 12.2 x 7.2mm. # 273 12.5 x 7.2mm. # 286 12.3 x 7.2mm. # 296 12.0 x 5mm.
ORION Vortex VST2 Pro. V2 LW (2016)			7.0	Rotor in Samples :- ORI41470. 12.1 x 4.7mm Optional :- ORI41472. 12.5 x 4.7mm ORI41473. 12.5 x 4.7mm
ORION Vortex VST2 Pro. V2 LW ULTRA (2016)			THE STATE OF	Rotor in Samples :- ORI41547. 12.1 x 4.7mm Optional :- ORI41548. 12.1 x 4.7mm
ORION Vortex VST2 Pro. V2 XLW (2016)			The district of the second of	Rotor in Samples :- ORI41470. 12.1 x 4.7mm Optional :- ORI41472. 12.5 x 4.7mm ORI41473. 12.5 x 4.7mm
ORION Vortex VST2 Pro. V2 XLW ULTRA (2016)			OTHER STORY	Rotor in Samples :- ORI41547. 12.1 x 4.7mm Optional :- ORI41548. 12.1 x 4.7m

TEKIN Redline Gen 3	ENS. 5.5T		TEKIN G3 0	Rotor in Samples :- Tek. 2723. 13.0 x 7.2 mm Tek. 2721. 12.5 x 7.2 mm Optional :- Tek. 2724 13.0 x 5 mm Tek. 2719 12.3 x 7.2 mm Tek. 2722 12.5 x 7.2 mm
HOBBYWING Xerun V10 G2	C STATE OF THE SENSORED MICHIPAL MICHIP			Rotor in Samples :- 30820002. 12.3 x 5 mm Optional :- 30820006. 12.5 x 5 mm 30820008. 13.0 x 5 mm 30820010. 12.3 x 5 mm 30820012. 12.1 x 5 mm 30820013. 12.5 x 5 mm
201	5 IFMAR PRODUCTS LIST	BRUSHLESS MC	TORS: Issued:	25 Aug. 2015
YOKOMO Race Performer M2	Racing Performer		YOKOMO	Rotor in Samples :- RP-021. 12.5 x 5 mm Optional :- RP-022. 12.5 x 7.2 mm RP-023. 12.3 x 5 mm RP-024. 12.3 x 7.2 mm RP-025. 14.0 x 5 mm RP-026. 13.5 x 5 mm RP-027. 12.0 X 7.2 mm
SUNRAY TECHNOLOGY Trion TricoRoll MM	8.57 TRUCK MOTES MOTES (A)		TRIGHT	Rotor in Samples :- TB 1443. 12.5 x 5 mm Optional :- TB 1444. 12.75 x 5 mm MR-FZR06. 12.80 x 5 mm
SCORPION POWER RS-3420	928 RS-3420-7.5R		SCORPION X	Rotor in Samples :- 975. 12.5 x 4 mm Optional :- 976. 12.3 x 4 mm 977. 12.0 x 4 mm
VAMPIRE AB+ V2			A CE	20.07.14: Updated all aluminium timing & endplate Ass. fitted.
MUCMORE FLETA ZX. Optional tuning part.			(English )	05.08.14. Aluminium timing-plate MR- FZAT fitted.
2014	FIFMAR PRODUCTS LIST	BRUSHLESS MO	TORS: Issued:	20 June 2014
TEAM POWERS Actinium			Team Palling	Rotor in Samples :- 12.5 x 5 mm.
TRINITY D3.5			O TRINITY O	Rotor in Samples :- 12.5 x 5 mm.

SKYRC Ares Pro.	C B C B C B C B C B C B C B C B C B C B	SKYRC 3	Rotor in Samples :- 12.5 x 5 mm.
LIPOTECH XR Vario		LIPOTECH	Rotor in Samples :- 12.5 x 5 mm. 12.5 x 7.2 mm.
GFORCE Gforce Super Sonic	Signal Si	7	Rotor in Samples :- 12.5 x 5 mm.
ORION VST2 Pro. (2014)		ALST ATTENDED	Approved 2013, revised stator option.  Rotor in Samples :- 12.1 x 4.76 mm.  Optional :-
ORION VST2 Pro. Light-Weight (2014)		The ones	12.4 x 5 mm. 12.9 x 5 mm.  LW version has two stator options.
TIANCO ORCA RX3	ESCHOLOGICAL AND	ORCA -	Rotor in Samples :- 12.5 x 5 mm. 12.4 X 5 mm.
KING GOLDEN Speed Passion 4.0	WORLD CHAMP BOOK COMPETITION  B.SR	B C C C C C C C C C C C C C C C C C C C	Rotor in Samples :-
Optional Part Colours	WORLD CHAMPERS AS LONG TO THE STATE OF THE S		12.5 x 5 mm.
SPEED ENERGY SE Race Spec.		SE O	Rotor in Samples :- 12.5 x 5 mm. Optional :- 12.24 x 5 mm.
HACKER Skalar 10	SKALATION -	Hacker	Rotor in Samples :- 12.5 x 5 mm. Optional :- 12.24 x 5 mm. 13.0 x 5 mm.

HOBBYWING Xerun V10	C JIJO KARANA ALS TENSORED MOOFIES		Aminimis	Rotor in Samples :- 12.5 x 5 mm.
TIANCO ORCA TX Optional Tuning			ZXV ORCA	Optional End-Plate. # OME111TX. 20.07.14 New sensor Ass.
Parts.	2 IEMAD DOODLICTS LIST	PRIISHI ESS MC	TOPS: Jaguard	CAS-0220TX-30 fitted.
201	3 IFMAR PRODUCTS LIST	BRUSHLESS IVIC	TORS: Issueu.	
REEDY Sonic. MACH 2	7.5 <b>SONIC</b>		R.	Rotor in Samples :- # 958 12.50 mm. Optional rotors :- # 957 12.20 mm. # 987 13.00 mm.
TRICORE SAVOX X.1	4.5 TURNS NOSIFIED A.1			Approved in 2011. Resubmitted with stator access. Optional rotors:- A35, A36, A37, A38.
VAMPIRE AB+ V2	AMPINE MIGHT STOPE AB:		ALERIAN CO.	Rotor in sample :- 12.50 mm dia. Gold finish. 21.10.13: Retaining Ring & Timing Plate modified.
TIANCO ORCA TX	A SEE A.57			Rotor in sample:- 125M-H 12.5 mm. Optional :- 125M-SH
TEKIN Redline Gen2			A B C	Rotor in Samples :- 13 x 5.2 mm. 13 x 7.2 mm.
ORION VST2 Pro.				Rotor in Samples :- 12.1 x 4.76 mm. Optional :- 12.5 x 7.1 mm.
YOKOMO 'M' Series	A SERIES Pacing Performer		YOKOMO	Rotor in Samples :- 12.5 x 5 mm.
MUCMORE FLETA ZX	IFMAR PRODUCTS LIST E			Rotor in Samples :- 12.5 x 5 mm.

THUNDER POWER RC Z3R	THUMPRY POWER !			Later version has: 6mm slots  Optional Rotors :- AMR-Z3RM Purple AMRS-Z3RM Gold AHT-Z3RS Green AST-Z3RS Blue ASR-Z3RS Red  Early version has: 4mm slots
LRP Vector X20.	MODIFIED 1			Optional Rotors :- 50632 12 mm 50633 12.5 mm 50634 13 mm 50635 12.45 mm -50636 12 mm
NOSRAM Pure 2	HUSDON LIAS TORM	i i i		50637 12.5 mm (kit) 50638 13 mm 50639 12.25 mm (Also Nosram versions, with alternative Part #'s)
KING GOLDEN Speed passion 3.0 (Normal)			S P P 5.5T 10°C	Optional Rotors :- RM 13801 Blue.
7.5T & 8.5T no Vent Holes	Special Branch B		S PC 8.5T	RM 13802 Purple. RM 13802NA Purple RM 13803 Red (Kit) RM 13803NA Red RM 13804 Gold RM 13805 Green
KING GOLDEN Speed passion 3.0 1 CELL.	5,70		S P A 7.5T	RM 13806 Orange  NA = Silver Edition
KING GOLDEN Speed passion 3.0 MMM.			S P A 11 3.5T 1	All above available with Stock shaft size using #RS
REEDY Sonic.	4.5 <b>SONIC.</b>		S veinness of the second	Rotor in sample :- 12.50 mm dia.
TIANCO ORCA RX2	ORCA CC2/M		ORCA ORCA	Optional Rotors :- Red 12.5 mm dia Gold 12.8 mm dia.

**DUALSKY** Track & Field Z5







Rotor in sample :-12.50 mm dia.

## 2011 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 05 April 2011

TRICORE SAVOX Z1







Rotor in sample :-12.30 mm. dia.

ORION Vortex Race (2010 Ver.)







Rotor in sample :-12.50 mm. dia.

KING GOLDEN Speed Passion 3.0







RM13806



Motor can have stator ID of 14.8mm or 15.8mm

13.0mm "

## 2010 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 23 March 2010

LIPOTECH Lipotech XR







Alternative Rotors :-12.30 mm. dia. 12.50 mm. " 13.00 mm. " 13.50 mm. "

**GM RACING** (Graupner) **Brushless PRO** 2010 Version







Motor also supplied with Black Finish. Alternative Rotors supplied:-12.00 mm. dia. 12.50 mm. "

YOKOMO







Rotor in sample :-13.50 mm. dia.

LRP Vector X12. Tuning parts.





Alternative Rotors :-12.00 mm. dia. # 50636. 12.45 mm. " # 50637. 13.00 mm. " # 50634. 13.00 mm. " # 50638.

### 2009 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 09 June 2009

**ORION** Vortex 2008 Race







Novak **Ballistic** Brushless







# 2008 IFMAR PRODUCTS LIST -- BRUSHLESS MOTORS: Issued: 04 Nov. 2008

APO **Team Powers** 







ORION Vortex 2008 Race







LRP Vector X12







**GM RACING** (Graupner) Brushless PRO







**TRINITY** 







Also with Black finish.

KING GOLDEN Speed Passion Competition 2.0











KING GOLDEN Speed Passion Competition 2.0



P. Worsley. 24.06.25. (for IFMAR)