

Reflex Drive

RD S-Series ESC 25A - Product Specification



TRAPEZOIDAL TECHNOLOGY



Startup
Protection



Stuck Rotor
Protection

Product Description:

RD S-Series ESC 25 is an advanced Electronic Speed Controller (ESC) designed for high-performance applications. **Made in India**, this model significantly enhances thermal and current handling capabilities.

Technical Specification

S. No.	Parameter	Value	Remarks
1.	Input Voltage	2~6S LiPo	-
2.	Continuous Current	20A(With Active Cooling for 5 minutes)	Tested in 12.5 m/s continuous airflow and 30°C ambient Temperature
3.	BEC Output Voltage	No	-
4.	Operating Ambient Temperature	(-20°C) ~(+ 65°C)	-
5.	Standby current (24V)	≤ 40mA	-
6.	PWM Range(Can be Calibrated)	1100us ~ 1900us	Calibration Enable
7.	Recommended Throttle refresh frequency	50Hz	-
8.	Throttle I/P mode	PWM & Dshot300	-
9.	Over Temperature Protection	No	-
10.	Overcurrent Protection	No	-
11.	Stuck Rotor Protection	Yes	-
12.	Waterproof Rating	No	-
13.	Startup Protection	Yes	-
14.	Invert Motor Spin	Yes	Configured using RD GUI
15.	Telemetry	No	-
16.	Braking Feature	No	-

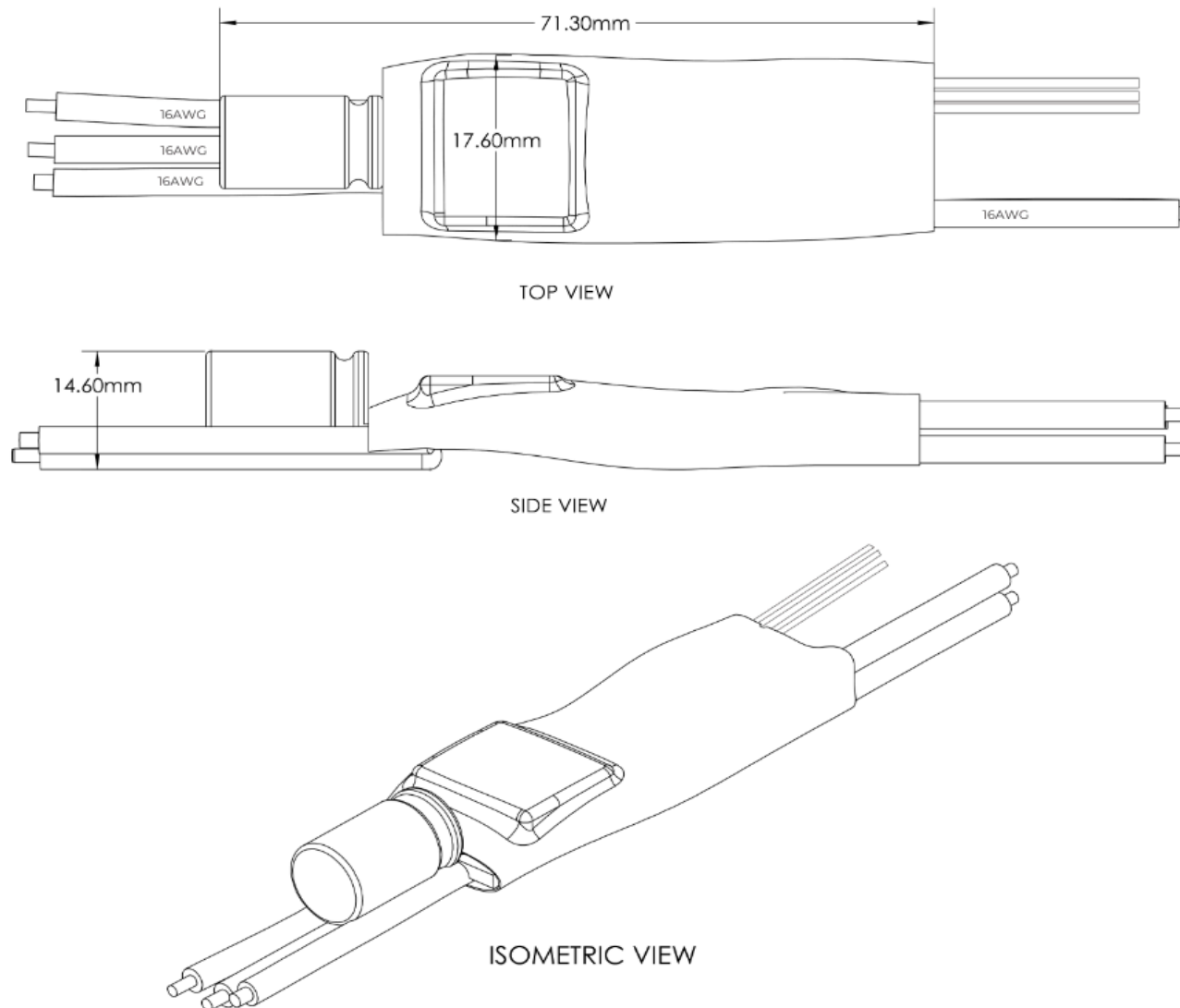
Wire and Enclosure Specification

Seq.	Item	Wire colors / Size	Length	Remarks
1	Input cables	Silicone wires-red/black- 16AWG	10cm	±1cm
2	Output cables	Silicone wires-black(x3) - 16AWG	12cm	±1cm
3	Signal wires	Silicone wires - black , white(2P) 2P-JR Connector	25cm	±1cm
4	Enclosure	No		Heat Shrink

Dimensions & Weight

Seq.	Item	Requirement	Remarks
1	Length	71.30mm	±1mm
2	Width	17.60mm	±1mm
3	Height	14.60mm	±1mm
4	Weight(Incl. ESC with wire)	26g	±1g

Technical Drawing:



Performance test

ESC : S-series 25A

Motor : RDMI 5008

Propeller : 1760 RD

Voltage : 24V SMPS

Motor kv : 340KV

Throttle %	Servo	Time(sec)	Voltage (V)	MRP	Current (A)	Power (W)	Temperature ESC(°C)	Max temperature (°C)
0.00%	1050	0	24.05	0	0	0	30.2°C	Max temperature after turn off the Power supply ECS:65.3°C
5.60%	1100	5	24.05	739	0.22	739	30.2°C	
11.10%	1150	10	24.03	1086	0.44	1086	30.3°C	
16.70%	1200	15	24	1427	0.86	1427	30.4°C	
22.20%	1250	20	23.96	1756	1.4	1756	30.6°C	
27.80%	1300	25	23.91	2065	2.1	2065	30.6°C	
33.30%	1350	30	23.82	2338	3.11	2338	30.7°C	
38.90%	1400	35	23.75	2618	4.29	2618	30.8°C	
44.40%	1450	40	23.66	2887	5.7	2887	30.9°C	
50.00%	1500	45	23.48	3139	7.39	3139	30.1°C	
55.60%	1550	50	23.36	3356	9.15	3356	30.6°C	
61.10%	1600	55	23.24	3562	11.12	3562	32.°C	
66.70%	1650	60	23.11	3744	13.15	3744	34.3°C	
72.20%	1700	65	22.95	3926	15.35	3926	35.8°C	
77.80%	1750	70	22.76	4103	17.76	4103	39.1°C	

83.30%	1800	75	22.55	4278	20.22	4278	40.6°C	
88.90%	1850	80	22.36	4425	22.88	4425	43.4°C	
94.40%	1900	85	22.1	4572	25.72	4572	46.6°C	
100.00%	1950	90	221.7	4761	30.17	4761	50.3°C	