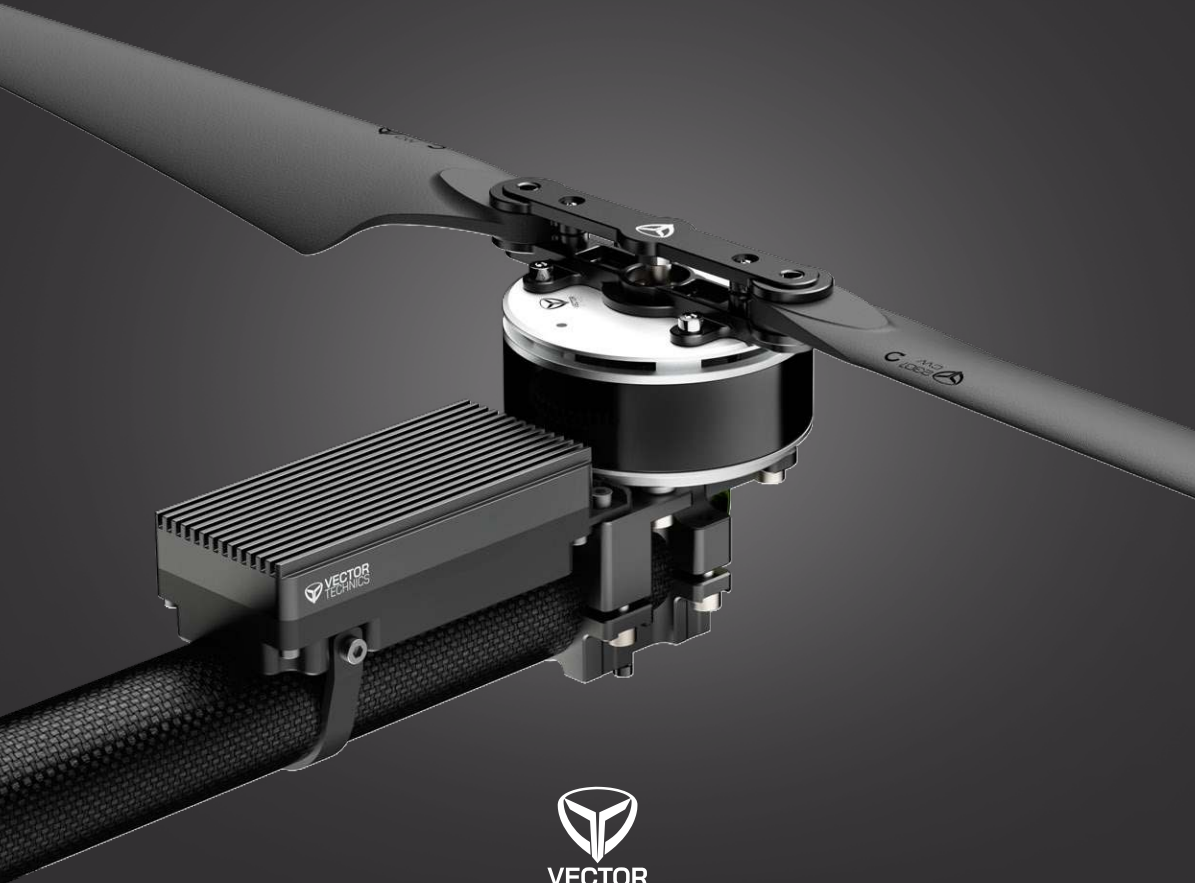


PRECISION IN MOTION

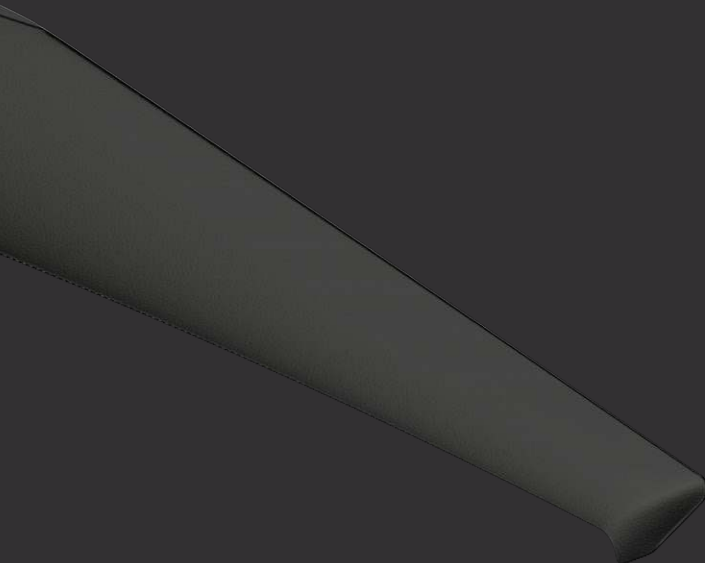
UAV PROPULSION &
POWER ELECTRONICS





At Vector Technics, we're at the forefront of innovation, committed to empowering visionaries and ensuring safety for tomorrow's world. Our core values of Integrity, Passion, and Commitment drive us to excel in the design and manufacturing of advanced UAV propulsion and power components. Our skilled team, supported by comprehensive in-house R&D, specializes in tackling complex challenges and delivering innovative solutions.

We thrive on collaboration and innovation, aiming to set new industry standards with our pioneering solutions in UAV electric propulsion technology, including top-tier BLDC Motors, Electronic Speed Controllers (ESCs), Propellers and Power Distribution Units. At Vector Technics, we promise not just exceptional products, but a partnership that brings visionary ideas to life, ensuring quality, reliability, and groundbreaking performance. Welcome to the future of aerospace innovation.





CRAFTING THE EXTRAORDINARY
MOTOR



A LOOK INSIDE OUR TECHNOLOGY



TITANIUM SHAFT



CENTRIFUGAL COOLING



HIGH TEMPERATURE RATED MAGNETS



LITZ COPPER WINDING



0.2MM CRNGO STEEL STATOR



ARAMID BOUND STATOR



LOGLIFE BEARINGS



DUST RESISTANT MESH



MIL 810G SPEC



REPAIR FRIENDLY



FACTORY BALANCED

BLDC MOTOR

DEFY GRAVITY,
EFFORTLESSLY



VENUS 4006

380kV | 400 kV | 440 kV



LIGHT WEIGHT
67 GRAMS



MAX THRUST
2.2KG

P:W

BEST POWER TO
WEIGHT RATIO

VENUS 4006 SPECIFICATIONS

BLDC MOTOR

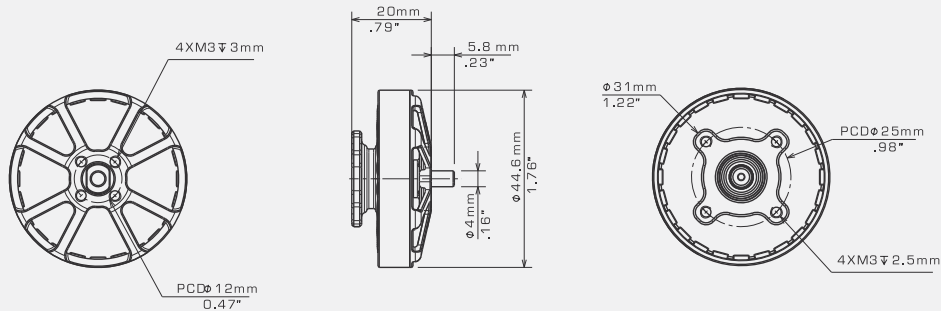
380 kV 400 kV 440 kV

KV	400 RPM/V
KT	0.030 Nm/A @ 4800 rpm
Max Continuous Current*	10 A (180 s)
Max Continuous Power*	250 W (180 s)
Power Density	2.72 W/g (Rated), 5.11 W/g (Max)
Voltage Range	24 V(6S LiHV)
Io (@48V)	0.7 A
Inductance	0.110 mH (≈0.03)
Resistance	0.23 Ω (≈0.03)
Stator Poles	18S
Magnetic Poles	24P
Bearings	Dual, 619/4-2RS
Shaft Diameter	ø4 mm
Motor Diameter	ø44.6mm
Motor Length	20mm
Motor Weight	67 grams
Mount Pattern @ 90 deg	4xM3 ∓2.5mm ø30mm

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING



BLDC MOTOR

PRECISION FLIGHT,
REDEFINED



TERRA 6015
170 kV | 340 kV


1000-HOUR
LIFETIME


MAX THRUST
10.2KG

P:W
BEST POWER TO
WEIGHT RATIO

TERRA 6015 SPECIFICATIONS

BLDC MOTOR

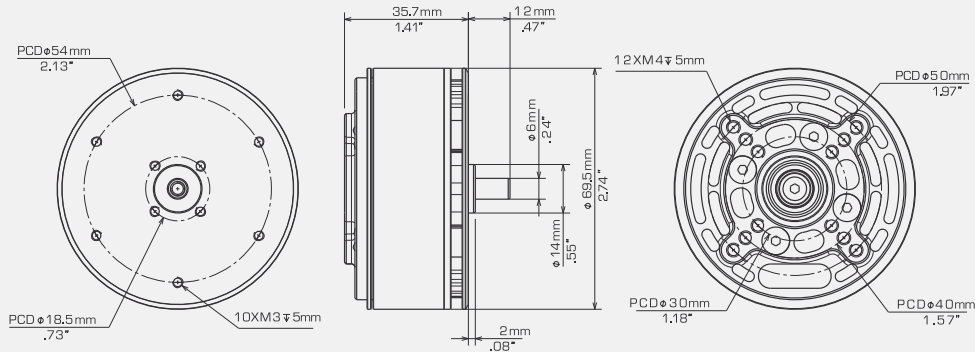
170 kV 340 kV

KV	170 RPM/V
KT	0.072 Nm/A @ 5184 rpm
Max Continuous Current*	35 A (180 s)
Max Continuous Power*	1634 W (180 s)
Power Density	4.3 W/g (Rated), 7.02 W/g (Maximum)
Voltage Range	44V to 52V (12S LiHV)
Io (@48V)	1.9 A
Inductance	0.079mH (≈0.03)
Resistance	0.08Ω (≈0.03)
Stator Poles	24S
Magnetic Poles	28P
Bearings	Triple, 626-2Z
Shaft Diameter	ø6mm
Motor Diameter	ø69.5mm
Motor Length	35.7 mm
Motor Weight	380g
Mount Pattern @ 90 deg	4xM4 ∇5mm ø30mm 4xM4 ∇5mm ø40mm 4xM4 ∇5mm ø50mm

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING



BLDC MOTOR

PRECISION FLIGHT,
REDEFINED



TERRA 6020
180Kv


1000-HOUR
LIFETIME


MAX THRUST
14KG

P:W
BEST POWER TO
WEIGHT RATIO

TERRA 6020 SPECIFICATIONS

BLDC MOTOR

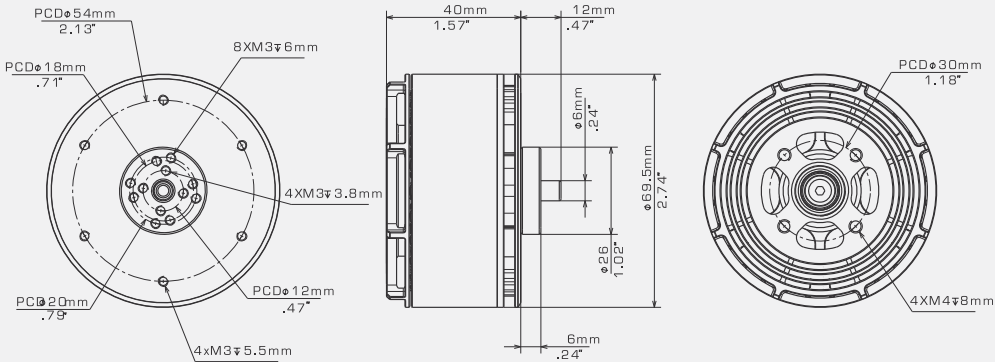
180 kV

KV	180 RPM/V
KT	0.068 Nm/A @ 5291 rpm
Max Continuous Current*	47 A (180 s)
Max Continuous Power*	2209 W (180 s)
Power Density	3.53 W/g (Rated), 6.863 W/g (Maximum)
Voltage Range	44V to 52V (12S LiHV)
Io (@48V)	2.5 A
Inductance	0.046mH (≈0.03)
Resistance	0.05Ω (≈0.03)
Stator Poles	24S
Magnetic Poles	28P
Bearings	Triple, 619/6-2Z
Shaft Diameter	ø6mm
Motor Diameter	ø69.5mm
Motor Length	40mm
Motor Weight	425 grams
Mount Pattern @ 90 deg	4xM4 ∇8mm ø30mm

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING



BLDC MOTOR

DEFY GRAVITY,
EFFORTLESSLY



NEPTUNE 8008
110 kV


LIGHT WEIGHT
210 GRAMS


MAX THRUST
6.8 KG

P:W
BEST POWER TO
WEIGHT RATIO

NEPTUNE 8008 SPECIFICATIONS

BLDC MOTOR

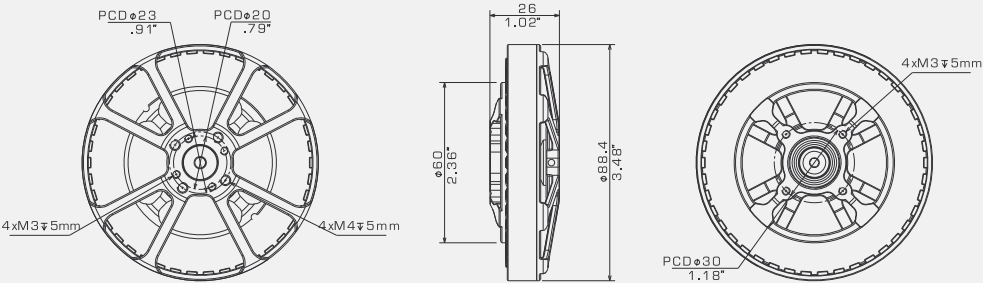
110 KV

KV	110 RPM/V
KT	0.118 Nm/A @ 2973 rpm
Max Continuous Current*	14 A (180 s)
Max Continuous Power*	666 W (180 s)
Power Density	3.8 W/g (Rated), 5.2 W/g (Maximum)
Voltage Range	44V to 52V (12S LiHV)
Io (@48V)	2.0 A
Inductance	0.129 mH (≈0.03)
Resistance	0.2 Ω (≈0.03)
Stator Poles	36S
Magnetic Poles	42P
Bearings	Dual, 619/8-2Z
Shaft Diameter	ø8 mm
Motor Diameter	ø88.4 mm
Motor Length	26 mm
Motor Weight	220 grams
Mount Pattern @ 90 deg	4xM3 ∓5mm ø30mm

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING



BLDC MOTOR

PRECISION IN
EVERY REVOLUTION



NEPTUNE 8015
100 kV | 170kV



NEPTUNE 8015 SPECIFICATIONS

BLDC MOTOR

100 kV

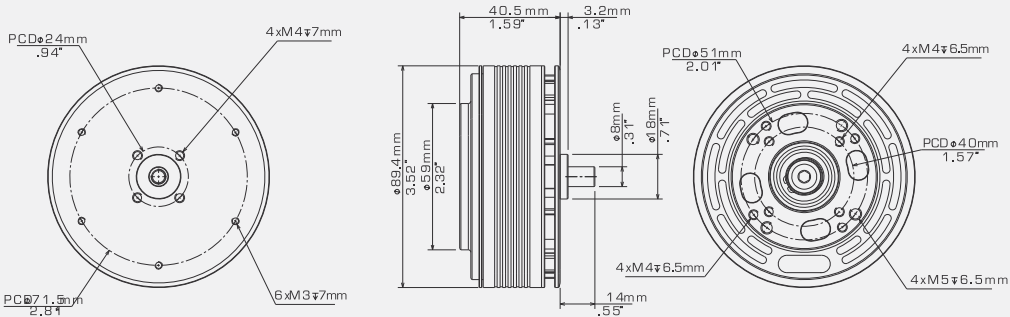
170 kV

KV	100 RPM/V
KT	0.125 Nm/A @ 2938 rpm
Max Continuous Current*	40 A (180 s)
Max Continuous Power*	1891 W (180 s)
Power Density	2.38 W/g (Rated), 3.52 W/g (Maximum)
Voltage Range	44V to 52V (12S LiHV)
Io (@48V)	2 A
Inductance	0.075mH (≈0.03)
Resistance	0.09 Ω (≈0.03)
Stator Poles	36S
Magnetic Poles	40P
Bearings	Dual, 6001-2RSL
Shaft Diameter	ø8 mm
Motor Diameter	ø89.4 mm
Motor Length	40.5mm
Motor Weight	594 grams
Mount Pattern @ 90 deg	4xM4 ▽6.5mm ø40mm 4xM4 ▽6.5mm ø51mm 4xM5 ▽6.5mm ø51mm

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING



BLDC MOTOR

PRECISION IN
EVERY REVOLUTION



NEPTUNE 8020
80 kV | 100 kV | 120 kV | 150 kV


1000-HOUR
LIFETIME


MAX THRUST
14KG

P:W
BEST POWER TO
WEIGHT RATIO


MIL
8100
CERTIFIED

NEPTUNE 8020 SPECIFICATIONS

BLDC MOTOR

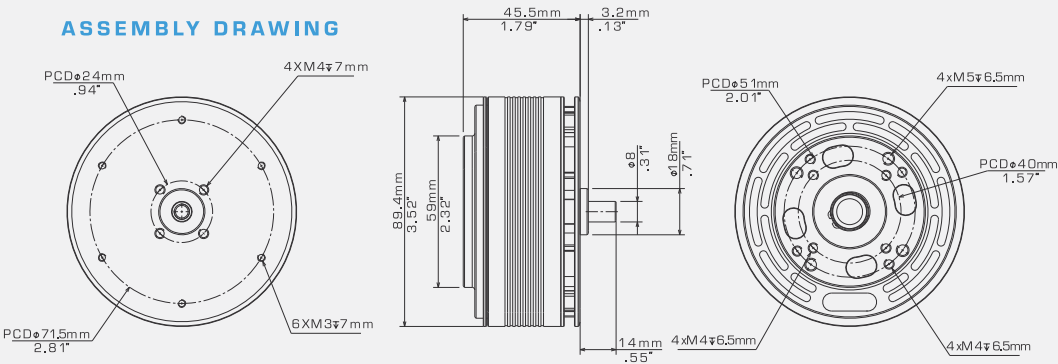
80 kV 100 kV 120 kV 150 kV

KV	100 RPM/V
KT	0.124 Nm/A @ 3000 rpm
Max Continuous Current*	40 A (180 s)
Max Continuous Power*	1900 W (180 s)
Power Density	2.70 W/g (Rated),3.81 W/g (Maximum)
Voltage Range	44V to 52V (12S LiHV)
Io (@48V)	2.1 A
Inductance	0.054 mH (≈0.03)
Resistance	0.07 Ω (≈0.03)
Stator Poles	36S
Magnetic Poles	40P
Bearings	Dual, 6001-2RSL
Shaft Diameter	ø8 mm
Motor Diameter	ø89.4 mm
Motor Length	45.5mm
Motor Weight	713 grams
Mount Pattern @ 90 deg	4xM4 ▾6.5mm ø40mm 4xM4 ▾6.5mm ø51mm 4xM5 ▾6.5mm ø51mm

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING



BLDC MOTOR

LIFT THE UNLIFTABLE,
DOMINATE THE SKIES



JUPITER 14015
80kV | 100kV



JUPITER 14015 SPECIFICATIONS

BLDC MOTOR

80 kV

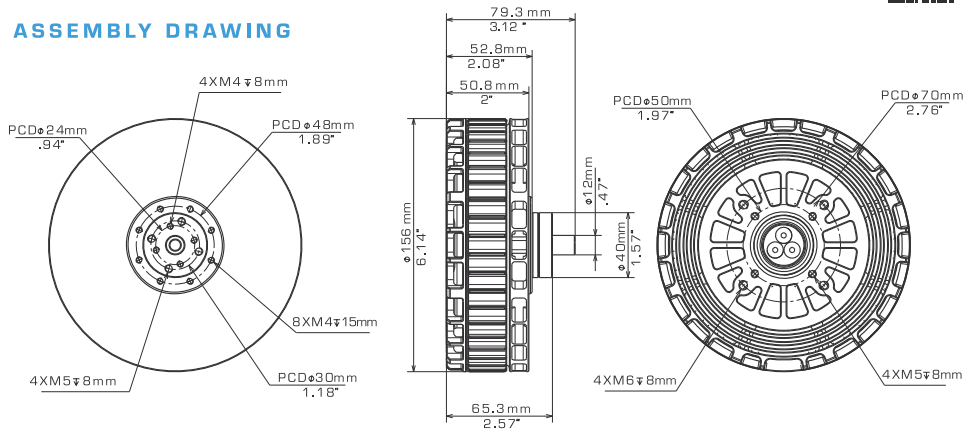
100 kV

KV	80 RPM/V
KT	0.185 Nm/A @ 1913 rpm
Max Continuous Current*	81 A (180 s)
Max Continuous Power*	3933 W (180 s)
Power Density	2.25 W/g (Rated), 3.07 W/g (Maximum)
Voltage Range	12S to 24S
Io (@48V)	7.0 A
Inductance	0.030 mH (≈0.03)
Resistance	0.03 Ω (≈0.03)
Stator Poles	36S
Magnetic Poles	42P
Bearings	Dual, 61904 -2RZ
Shaft Diameter	ø12 mm
Motor Diameter	ø156 mm
Motor Length	52.8 mm
Motor Weight	1750 grams
Mount Pattern @ 90 deg	4xM5 ∓8mm ø50mm 4xM6 ∓8mm ø70mm

Scan the QR Code for specifications, variants, and test results in detail.

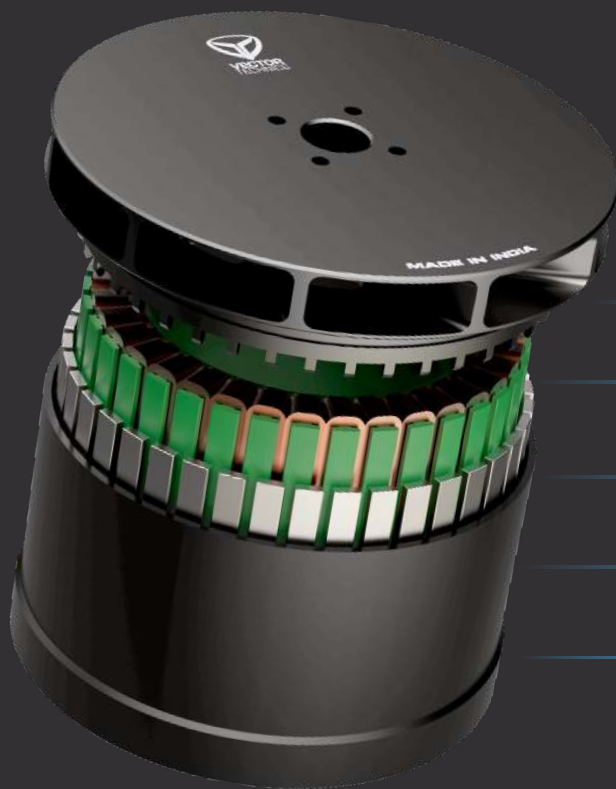


ASSEMBLY DRAWING



CRAFTING THE EXTRAORDINARY

STARTER GENERATOR



A LOOK INSIDE OUR TECHNOLOGY



CENTRIFUGAL COOLING



ARAMID BOUND STATOR COIL



0.2MM CRNGO STEEL STATOR



HIGH TEMPERATURE MAGNETS



LOW DC RIPPLE (36S 40P)



REDUNDANT WINDING



UNIVERSAL
COMPATIBILITY



REPAIR
FRIENDLY



EFFICIENT
COOLING

STARTER GENERATOR

ENERGY TO ASCEND,
RELIABILITY TO ENDURE



GENERATOR
5KW | 2.5KW


1000-HOUR
LIFETIME

P : W
BEST POWER TO
WEIGHT RATIO


MIL
CERTIFIED

8040 SPECIFICATIONS

STARTER GENERATOR

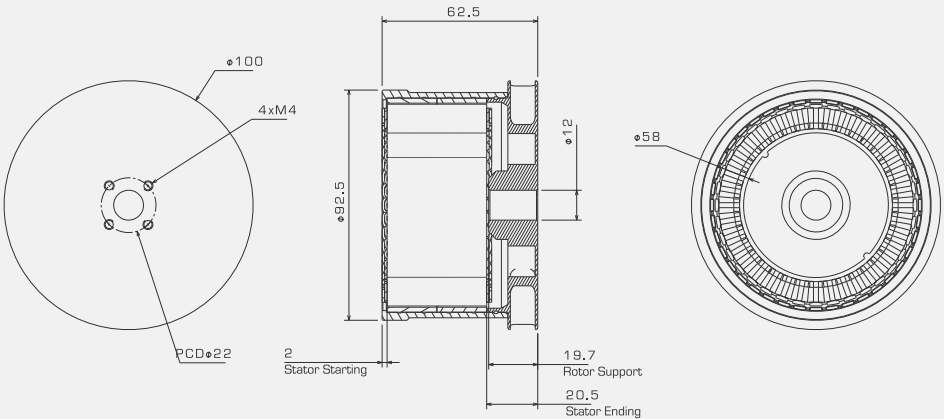
5000 W 2500 W

KV	120 RPM/V (Loaded) 75 RPM/V (No load)
KT	0.011 Nm/A @ 5118 rpm
Max Continuous Current*	100 A (180 s)
Max Continuous Power*	5000 W (180 s)
Power Density	4.681 W/g (Rated), 5.149 W/g (Maximum)
Voltage Range	40V to 55 V depends on rpm and current draw
Io (@48V)	N/A
Inductance	0.11 mH (≈0.03)
Resistance	0.10 Ω (≈0.03)
Stator Poles	36S
Magnetic Poles	40P
Weight	1070 grams

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING

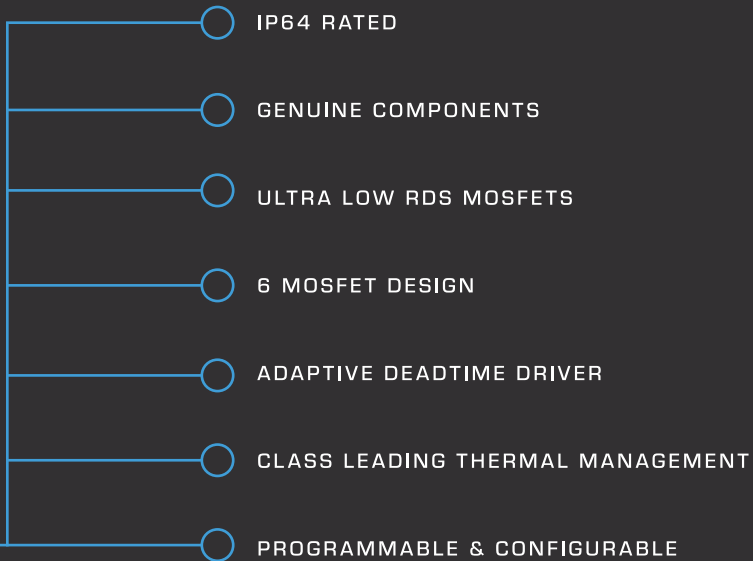


CRAFTING THE EXTRAORDINARY

ELECTRONIC SPEED CONTROLLER



A LOOK INSIDE OUR TECHNOLOGY



MIL 810G SPEC



REPAIR FRIENDLY



ROHS COMPLIANT

ELECTRONIC SPEED CONTROLLER

SEAMLESS SYNC,
EFFORTLESS ASCENT



60A | 80A


LIGHT WEIGHT
127 GRAMS


MIL
CERTIFIED


ROHS
COMPLIANT


IP64
RATED

SPECIFICATIONS

ELECTRONIC SPEED CONTROLLER

- 60 A
- 80 A

Refresh Rate	50-500 Hz	50-500 Hz
Maximum Peak Current	85A (5 sec)	120A (5 sec)
Maximum Peak Power	3000 W	4000 W
Maximum Continuous Current*	60A (180 sec)	80A (180 sec)
Maximum Continuous Power*	2600 W	3500W
Maximum Temperature*	100°C	100°C
Voltage Range	(22.2-44.8) 6S-12S	(22.2-44.8) 6S-12S
Internal BEC	None	None
Maximum RPM	250000	250000
PWM Rate	Auto Recognition Algorithm	Auto Recognition Algorithm
Advance Timing	15° - 30°	15° - 30°
ESC Size	44 mm (W) x 75 mm (L)	44 mm (W) x 75 mm (L)
ESC Weight	127 grams	127 grams
Power Leads	Direct Leg Solder	Direct Leg Solder
Motor Leads	Direct Leg Solder	Direct Leg Solder
ESC Control Lead	2 Pin Breg Pins	2 Pin Breg Pins
ESC Programming Lead	3 Pin Breg Pins	3 Pin Breg Pins
Power Connects	Direct Leg Solder	Direct Leg Solder
Motor Connects	Direct Leg Solder	Direct Leg Solder

Scan the QR Code for specifications, variants, and test results in detail.



PROPELLERS

PRECISION IN EVERY TURN,



CFRP 2308



LIGHT WEIGHT
& EFFICIENT



MAX THRUST
12KG



FOLDABLE &
RUGGED

PROPELLERS

EFFICIENCY IN EVERY FLIGHT



CFRP 3010



LIGHT WEIGHT
& EFFICIENT



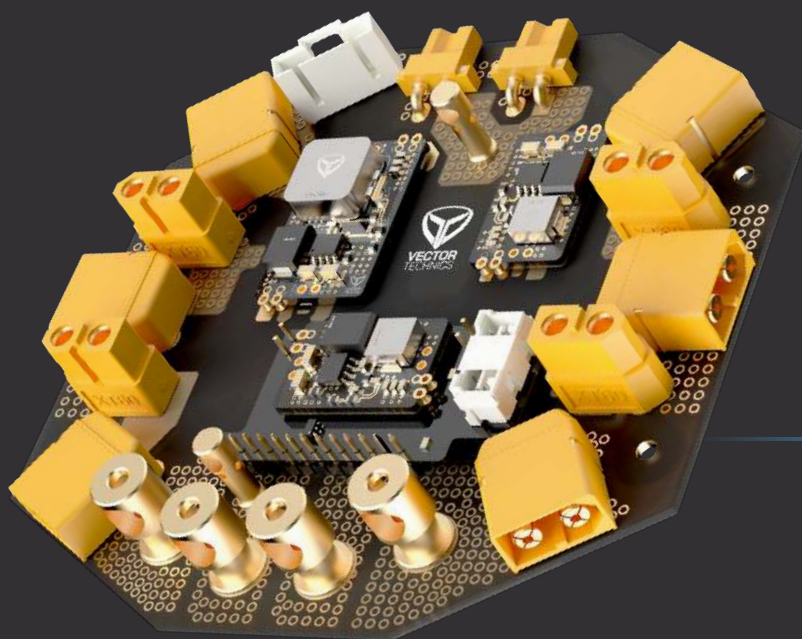
MAX THRUST
16KG



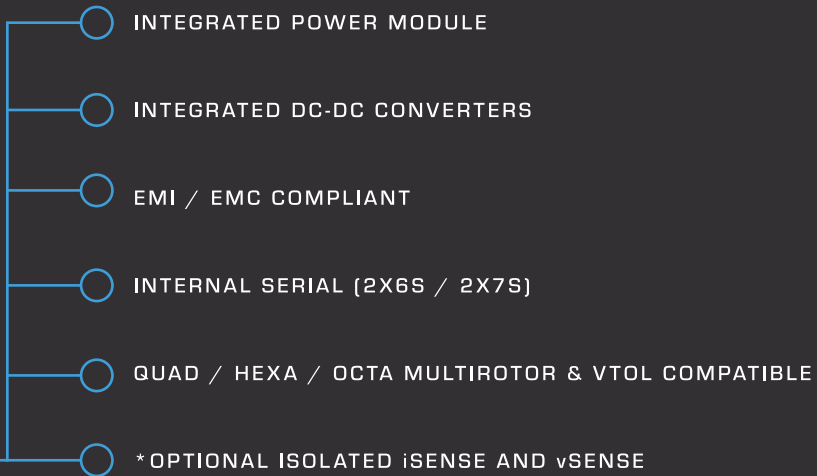
FOLDABLE &
RUGGED

CRAFTING THE EXTRAORDINARY

POWER DISTRIBUTION BOARD



A LOOK INSIDE OUR TECHNOLOGY



LIGHT WEIGHT



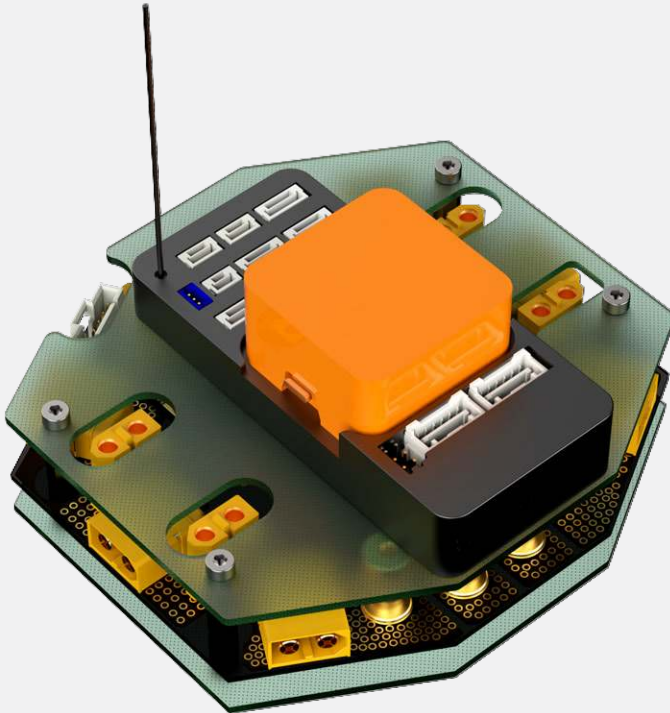
PLUG N PLAY



ROHS COMPLIANT

POWER DISTRIBUTION BOARD

PRECISION POWER FLOW,
UNLEASHED POTENTIAL



FLIGHTCORE™


LIGHT WEIGHT
156 GRAMS


PLUG & PLAY

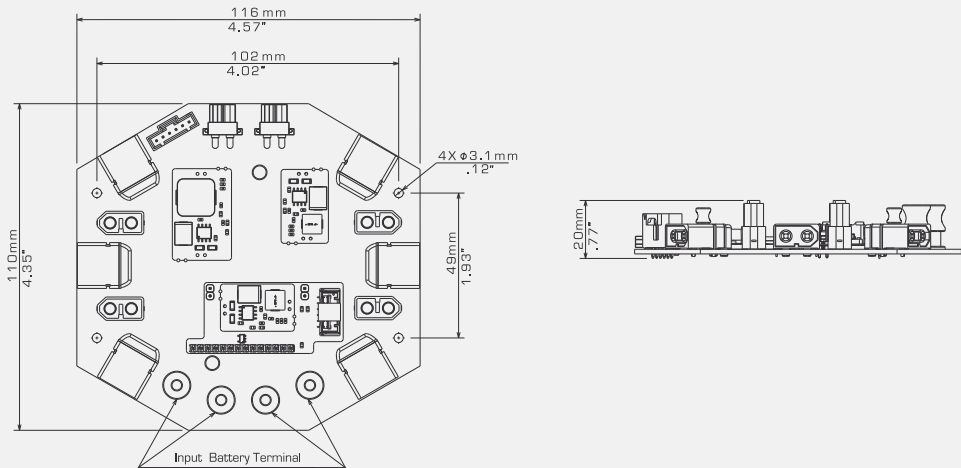

ROHM
COMPLIANT

Voltage Range	6S LiPo - 14S LiPo
Max Continuous Current (Motor Outputs)	60A Per Output
Max Continuous Current (Auxiliary Outputs)	60A Per Output
Max Continuous Current 6s (Auxiliary Outputs)	30A Per Output
Weight (With All Modules)	156 grams
Pcb Layers	4 Layers
Max Temperature	180°C
Motor Outputs	XT60 Connectors
Auxiliary / Payload Outputs	XT60 Connectors
Payload Outputs	XT30 Connectors
Size (Without Shielding)	110mm x 116mmx 25mm
Mounting	102mm x 49mm

Scan the QR Code for specifications, variants, and test results in detail.

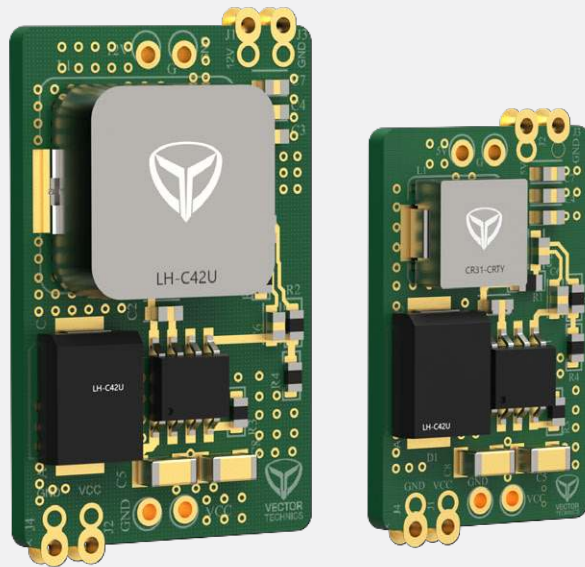


ASSEMBLY DRAWING



DC-DC CONVERTERS

OPTIMIZE POWER,
MAXIMIZE POTENTIAL



VOLTROX

12V | 8.3V | 5V



LIGHT WEIGHT



ROHS COMPLIANT

SPECIFICATIONS

DC-DC CONVERTERS

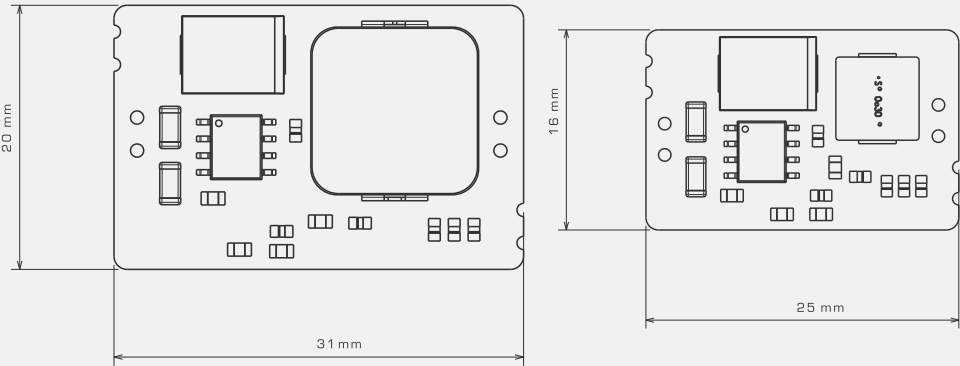
- 12 V
- 8.3 V
- 5V

Voltage Range	15-100V	15-100V
Full Load Current (@48v)	1.10A	0.47A
Under Voltage Shutdown	13.2V or less	13.2V or less
Short Circuit Current	110mA	110mA
Nominal Voltage	12V	5V
Current Range	0-2A (Nominal) 3.4A (Max)	0-2A (Nominal) 3.4A (Max)
Power Dissipation	43.2W	18W
Accuracy	±2% of VNom	±2% of VNom
Ripple And Noise	80-120mVp-p	80-120mVp-p
Over Current Protection	Yes	Yes
Over Temperature Shutdown	After +130°C	After +130°C
Efficiency (%)	86-89%	86-89%
Transient Response	75µsec	75µsec
Operating Temperature Range	-40 to +125°C	-40 to +125°C
Safety & EMI	Compliant	Compliant

Scan the QR Code for specifications, variants, and test results in detail.



ASSEMBLY DRAWING



DESIGNED
FOR YOU



CUSTOM SOLUTIONS, ENHANCED FLIGHT

At Vector Technics, we specialize in creating propulsion and power electronics that are as unique as the projects they power. Our philosophy? Custom solutions bring out the best in your UAVs, enhancing performance, efficiency, and reliability far beyond what standard offerings can achieve.

Choosing custom solutions means partnering with a team dedicated to understanding your project's specific demands. It's about leveraging our expertise to deliver components that not only fit your needs perfectly but also push the boundaries of what's possible in UAV technology.

WHY REACH OUT TO US?

Because your vision deserves more than a one-size-fits-all approach. Our technical solution experts are renowned for their rapid response and deep industry knowledge, ensuring your project benefits from the latest innovations and a tailor-made approach from the get-go.

INTERESTED IN SEEING HOW WE CAN ELEVATE YOUR UAV PROJECT?

Contact us at business@vectortechnics.com

“

Together, we can achieve extraordinary flight performance that sets your project apart with vector technics, it's not just about reaching new heights — *It's about redefining them.*





Designed, Developed & Manufactured at :

VECTOR TECHNICS PRIVATE LIMITED

Plot No.: 62, Sy No.: 376.A, Prashant Nagar,
Rajiv Gandhi Nagar, IDA Kukatpally, Hyderabad,
Telangana 500037- India.

+91 40 29330019
business@vectortechnics.com

Follow us on:  



www.vectortechnics.com

