

NOVA 15-50-B4 P30 WK iMST 80-240

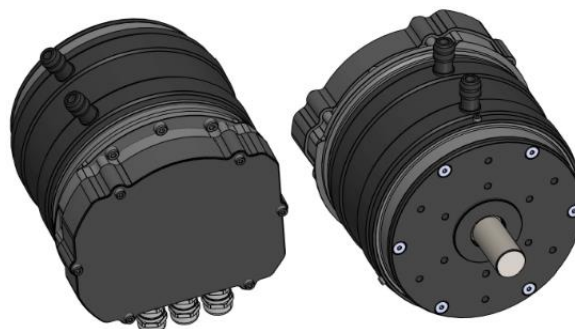
Inrunner BLDC motor with closed housing

Overview

The NOVA 15 Water-Cooled ("WK") with integrated electronic speed controller MST 80-240 ("iMST 80-240") is from our family of super rugged inrunner BLDC motors and has been specifically designed for the most demanding applications.

Features

- Super robust housing for mission critical applications in the harshest environments
- Position and temperature sensors included in standard
- Integrated Plettenberg ESC (MST 80-240)



Specifications Motor

Peak output power	15	kW
Peak torque	40	Nm
Max. speed	8,000	rpm
Voltage range	15-80	V
Speed constant (kV)	99	rpm/V
Diameter (ex. water inlet)	140	mm
Length	127.5	mm
Weight	3,600	g
Protection class	IP54	
Mounting	Front	
Cooling	Water cooled	
Ambient Temperature range	-20 to +60	°C
Max. temperature of stator (as measured by sensor)	+100	°C
Position sensor types	Hall effect sensor with UVW-commutation signals	
Temperature sensor	NTC 47 kΩ	
Number of poles	30	
Number of windings	4	
Recommendations for water cooling	Flow of 7 liters-per-minute at max. 40°C inlet temp.; coolant pressure shall not exceed 2 bar/ 29 PSI.	

Specifications Integrated MST 80-240¹

Continuous power	17.6	kW
Electric RPM limit	240,000	1/min
Voltage range	15-80	V
Continuous current	220 A (at 25°C ambient temperature)	
	175 A (at 50°C ambient temperature)	
	125 A (at 75°C ambient temperature)	
Maximum current	400 A (max. 2 seconds)	
Interfaces	RS232 plus either CAN bus 2.0A or PWM or analog (please provide preference upon placing order)	
	DC power cable length	300 ²
Control cable length	500	mm

Notes:

¹ Please refer to MST operating manual for more details.

² For extension of DC power cable the **cable extension kit with capacitor** is required. The total length of all battery connection cables (positive and negative together) must not exceed 1 meter. Please refer to MST operating manual for more details.

Complementary Products

- Cable extension kit with matching capacitor (2000 mm)



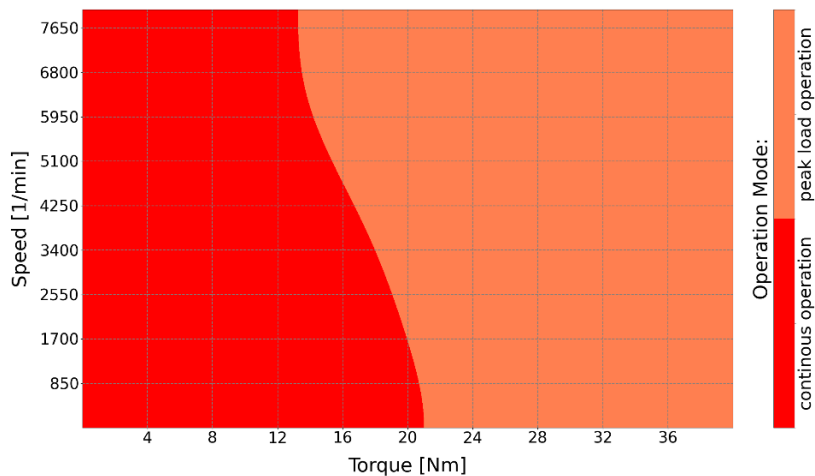
NOVA Series



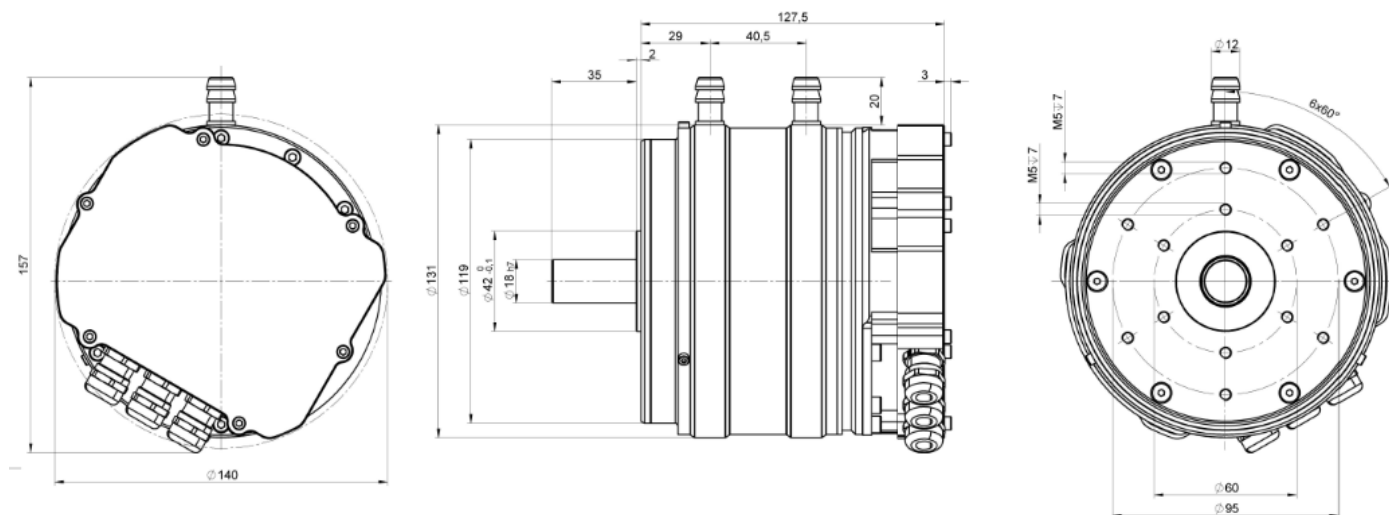
NOVA 15-50-B4 P30 WK iMST 80-240

Inrunner BLDC motor with closed housing

Heatmap



Technical Drawing



Plettenberg Elektromotoren GmbH & Co. KG
Rostocker Straße 30
34225 Baunatal, Germany
T: +49 (0) 56 01 97 96-0
www.plettenbergmotors.com / sales@plettenbergmotors.com
© 2024 Plettenberg Elektromotoren GmbH & Co. KG. All rights reserved.

