

AXM4

PRODUCT DATA SHEET

Overview

With unmatched continuous power and torque density, our next-generation axial flux technology is the best choice for the automotive, marine, heavy machinery, and aerospace EVs of the future.

Why Beyond Motors?

1 SUPERIOR STRENGTH AND DURABILITY

Engineered to cope with high mechanical loads and work in the most robust applications.

2 UNMATCHABLE CONTINUOUS POWER DENSITY

The best continuous power-to-weight ratio on the market.

3 PATENT PENDING WATER COOLING SYSTEM

High heat extraction from the motor enables high efficiency, high continuous power and torque.

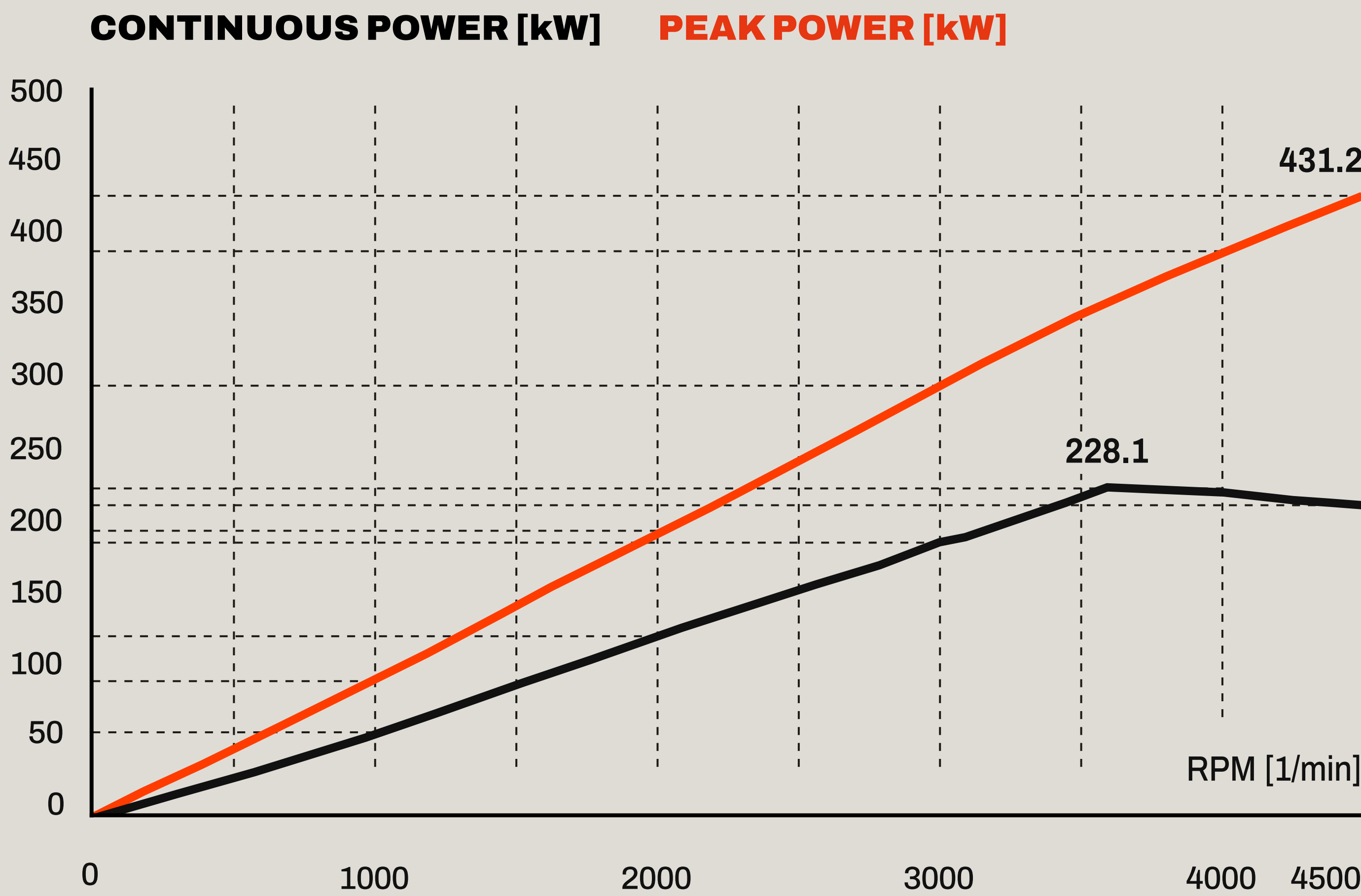
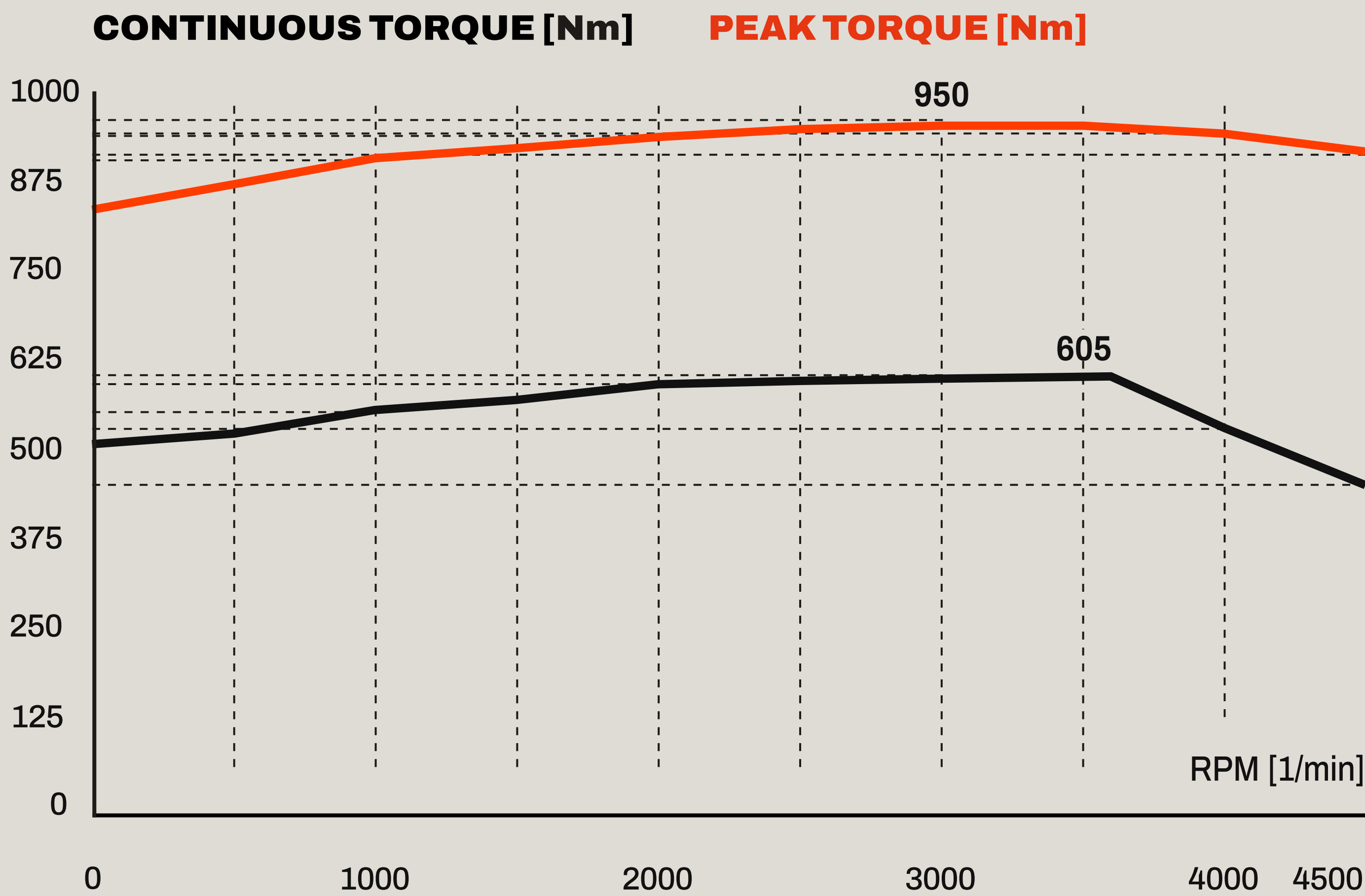
4 STACKABLE DESIGN FOR UP TO 3 FULL MOTORS

Motor design offers a quick and simple solution to multiply the power up to 3 times with the same diameter.

Key Data Points

AXM4

Peak power	430 kW
Continuous power	230 kW
Peak torque	950 Nm
Continuous torque	600 Nm
Mass	48 kg
Stator cooling	Water cooling
Maximum speed	4500 RPM
Stacking option	Up to 3



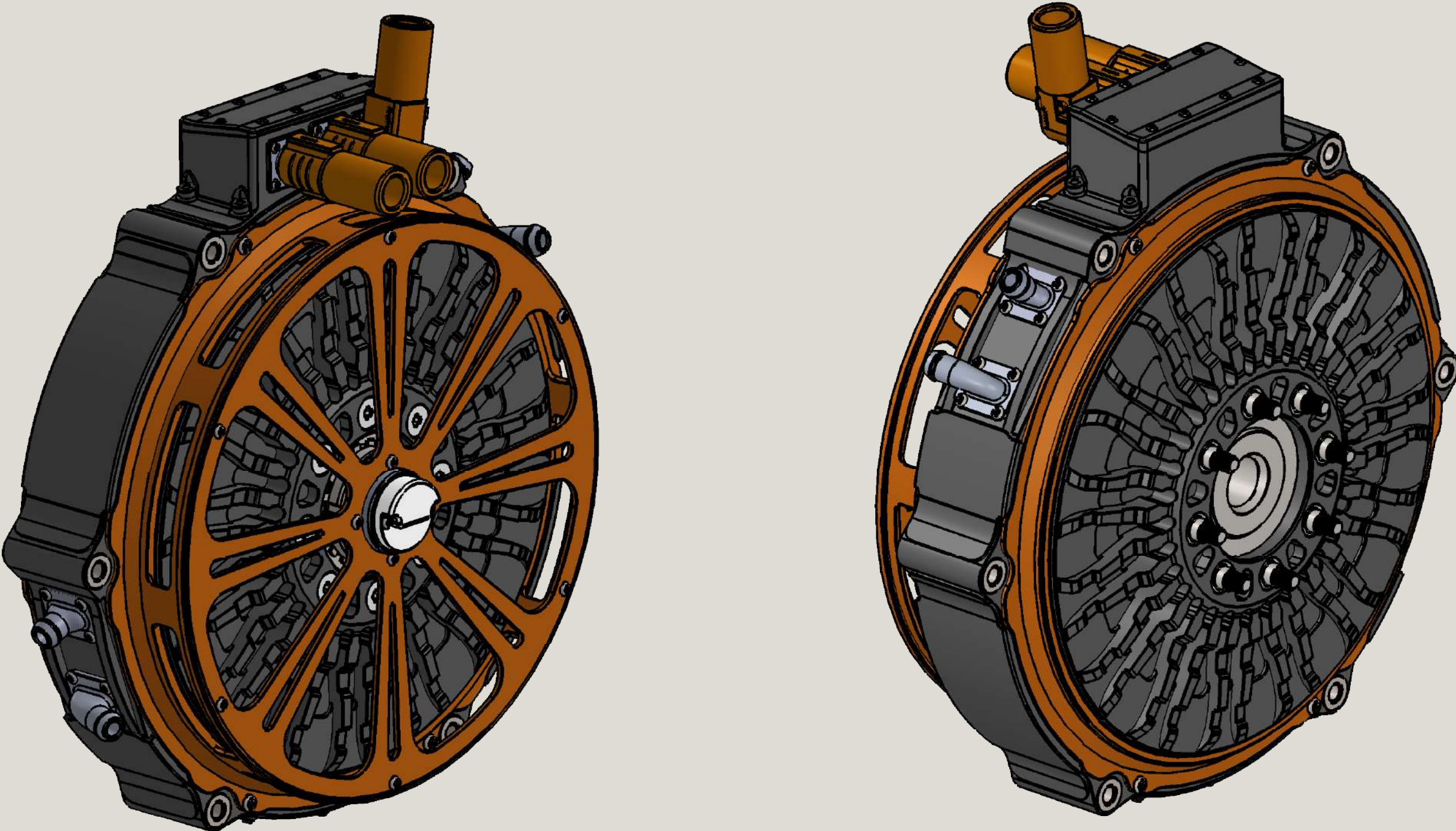
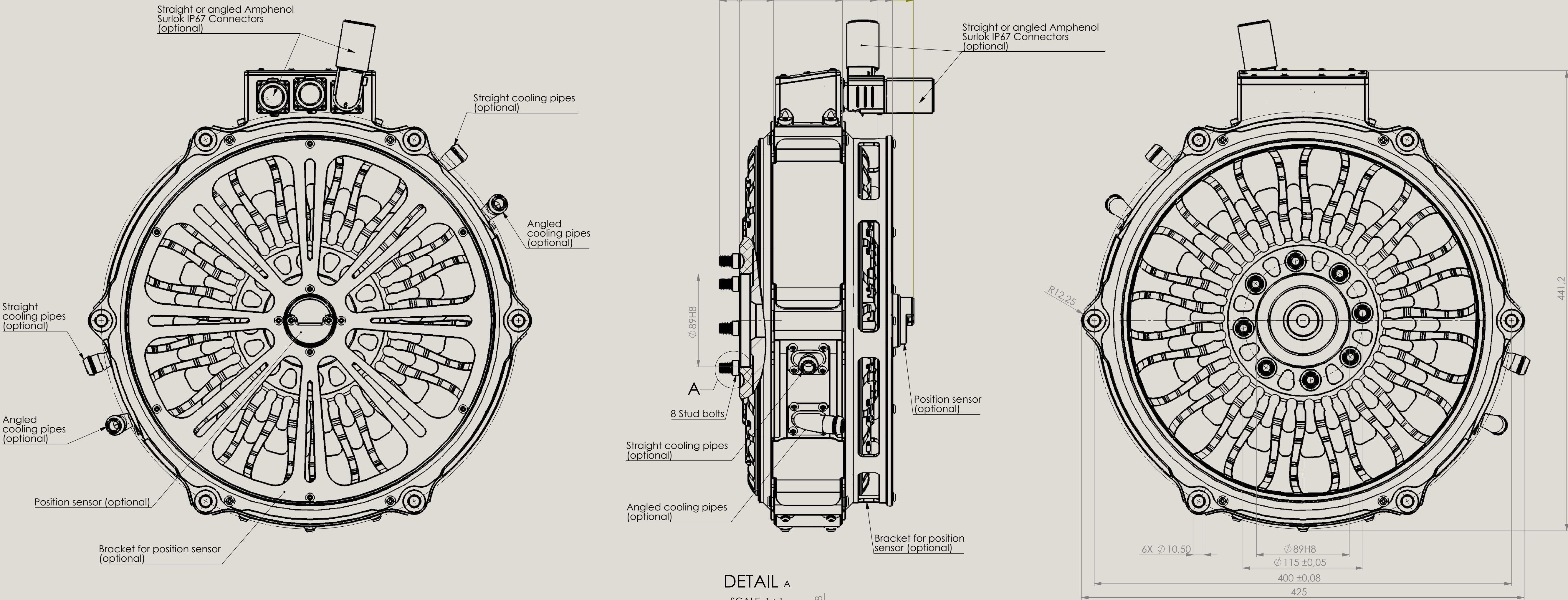
All motors can be made with redundancy option - 2xUVW phase connectors. Phase connectors can be cable lugs (standard option) or EMI IP67 Amphenol connectors (additional option).

Extended Data Sheet

AXM4

Winding type	HIGH Voltage (850Vdc)	MEDIUM Voltage (750Vdc)	LOW Voltage (550Vdc)
Peak power	300kW	430 kW	430 kW
Continuous power	230 kW	230 kW	230 kW
Peak torque	950 Nm	950 Nm	950 Nm
Continuous torque	600 Nm	600 Nm	600 Nm
Maximum motor speed	4500 RPM	4500 RPM	4500 RPM
Continuous motor speed	3600 RPM	3600 RPM	3600 RPM
Weight	48 kg	48 kg	48 kg
Kv at no load	5.6	8	10.5
Kv at continuous torque	4.35	6.15	8.25
Kv at peak torque	3.85	5.55	7.3
Torque constant	2,07 Nm/Arms	1,45 Nm/Arms	1,1 Nm/Arms
Motor type	3-phase AC PM Nm/Arms	3-phase AC PM Nm/Arms	3-phase AC PM Nm/Arms

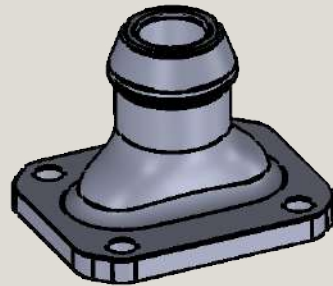




Amphenol EMC IP67 straight connectors



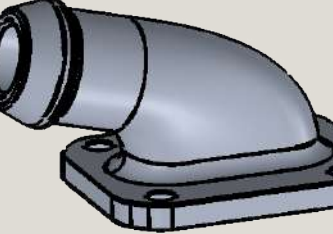
Straight cooling pipe

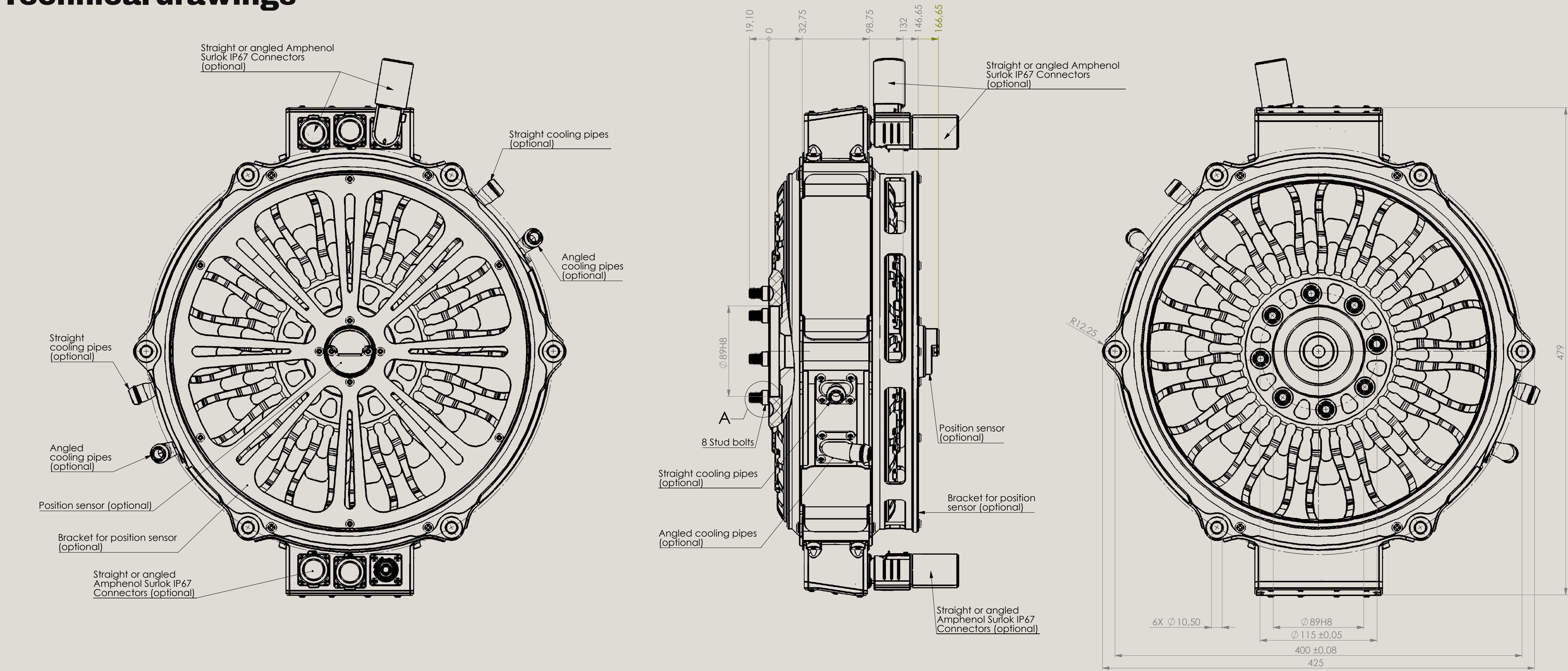


Amphenol EMC IP67 angled connectors

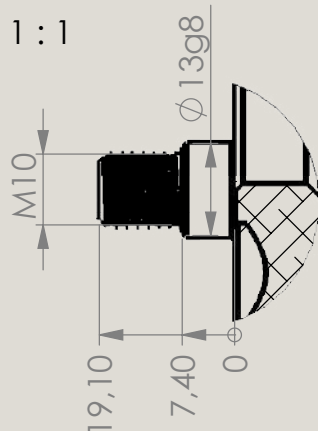


Angled cooling pipe

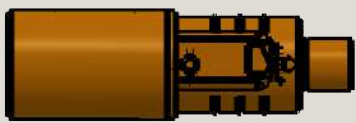




DETAIL A
SCALE 1 : 1



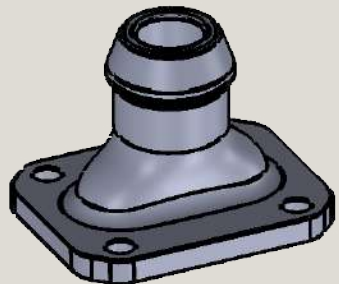
Amphenol EMC IP67 straight connectors



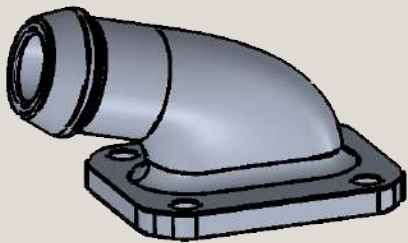
Amphenol EMC IP67 angled connectors



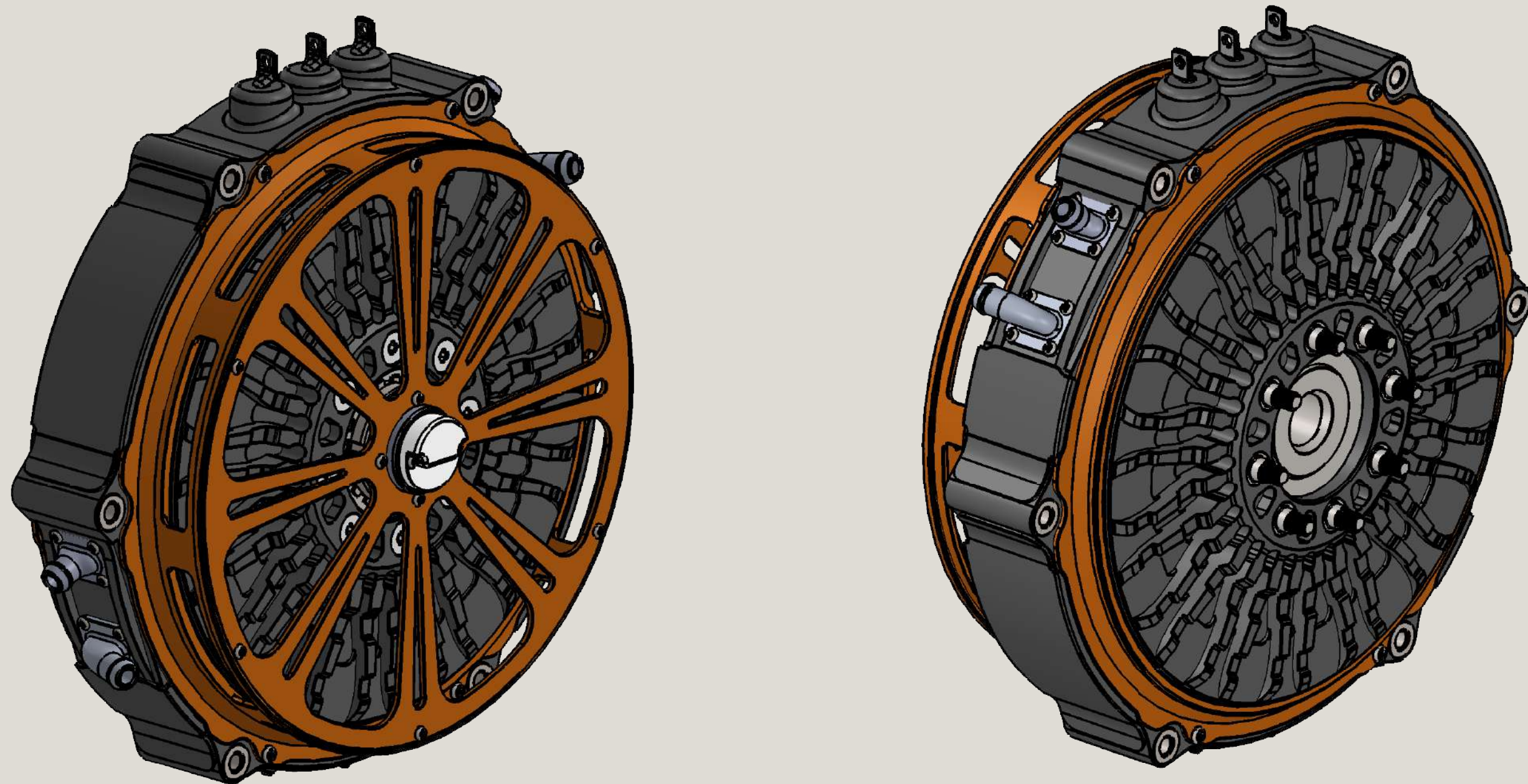
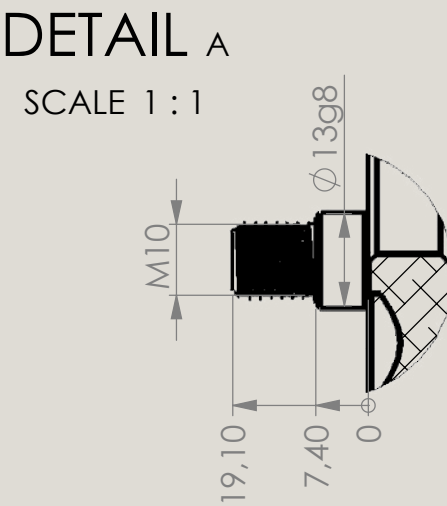
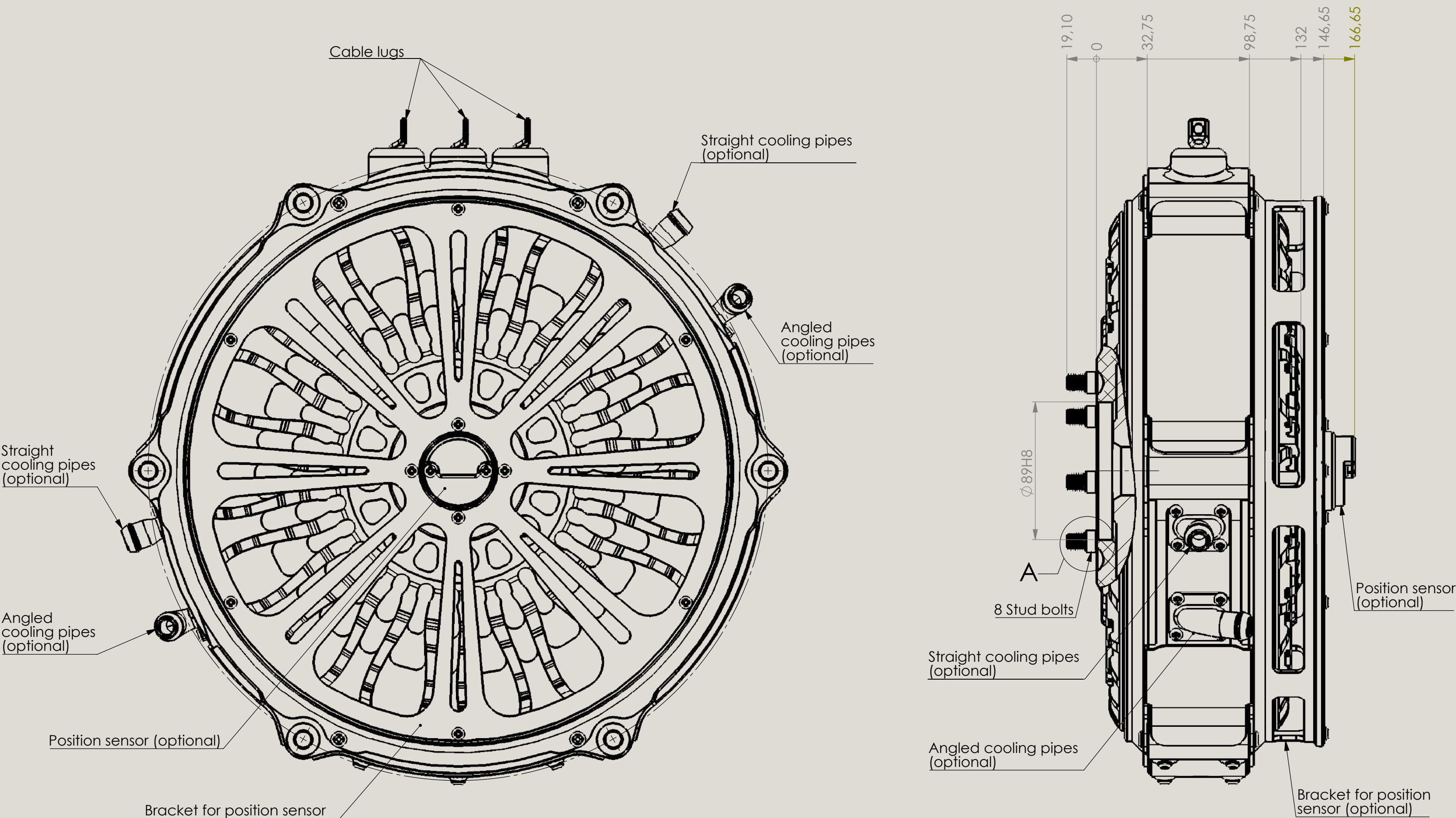
Straight cooling pipe



Angled cooling pipe



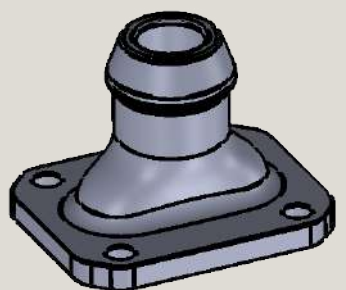
BEYOND MOTORS
AXM4
2xUVW



Amphenol EMC IP67 straight connectors



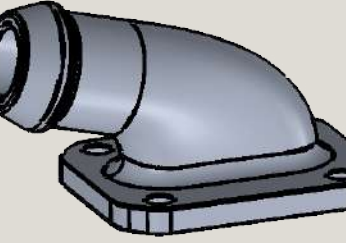
Straight cooling pipe



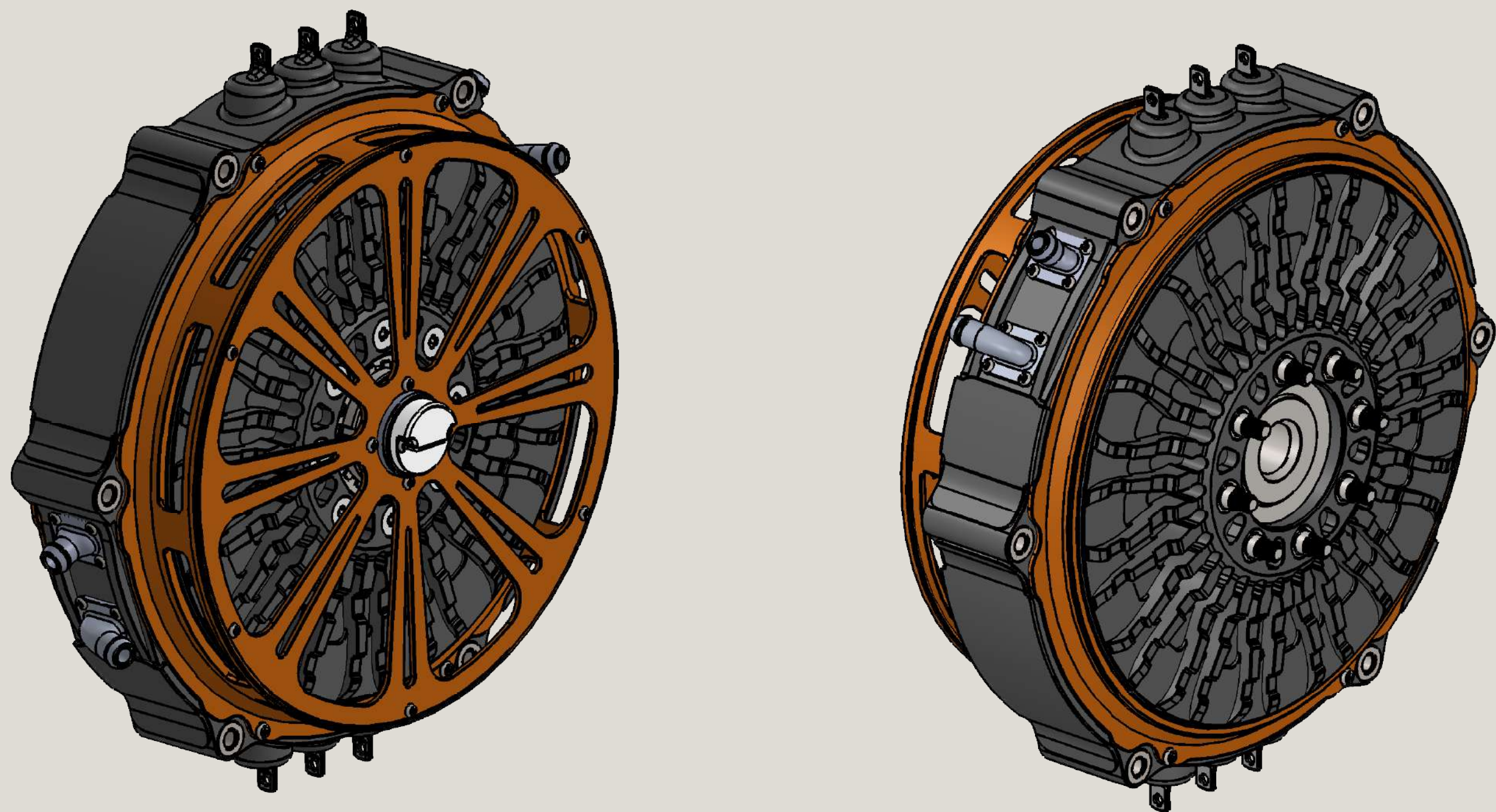
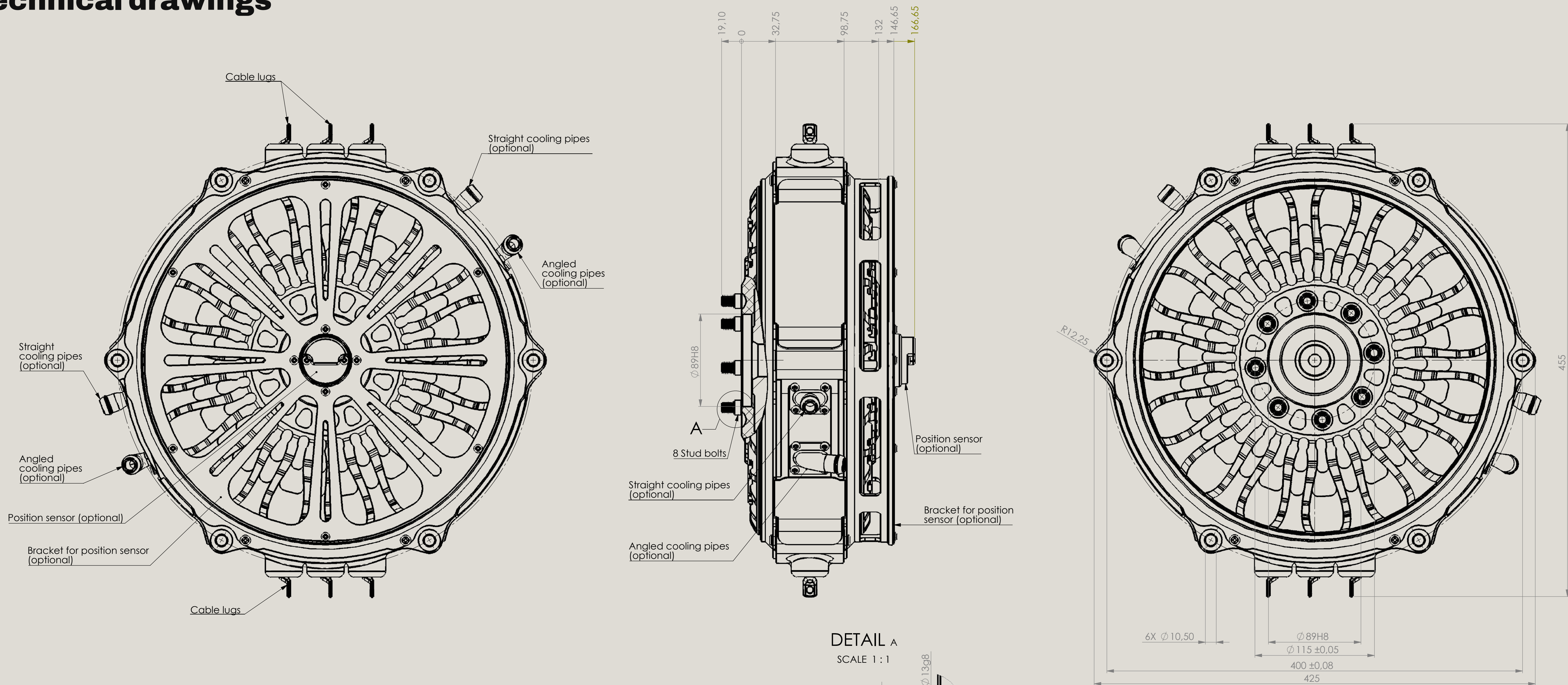
Amphenol EMC IP67 angled connectors



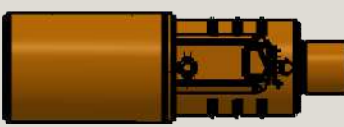
Angled cooling pipe



BEYOND MOTORS
AXM4
Cable lugs



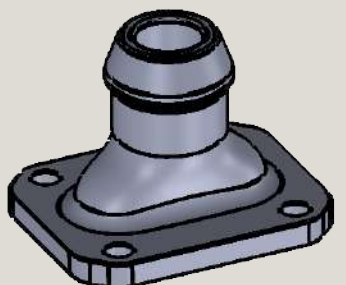
Amphenol EMC IP67 straight connectors



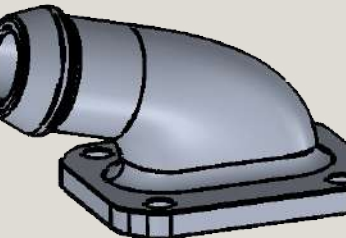
Amphenol EMC IP67 angled connectors



Straight cooling pipe



Angled cooling pipe



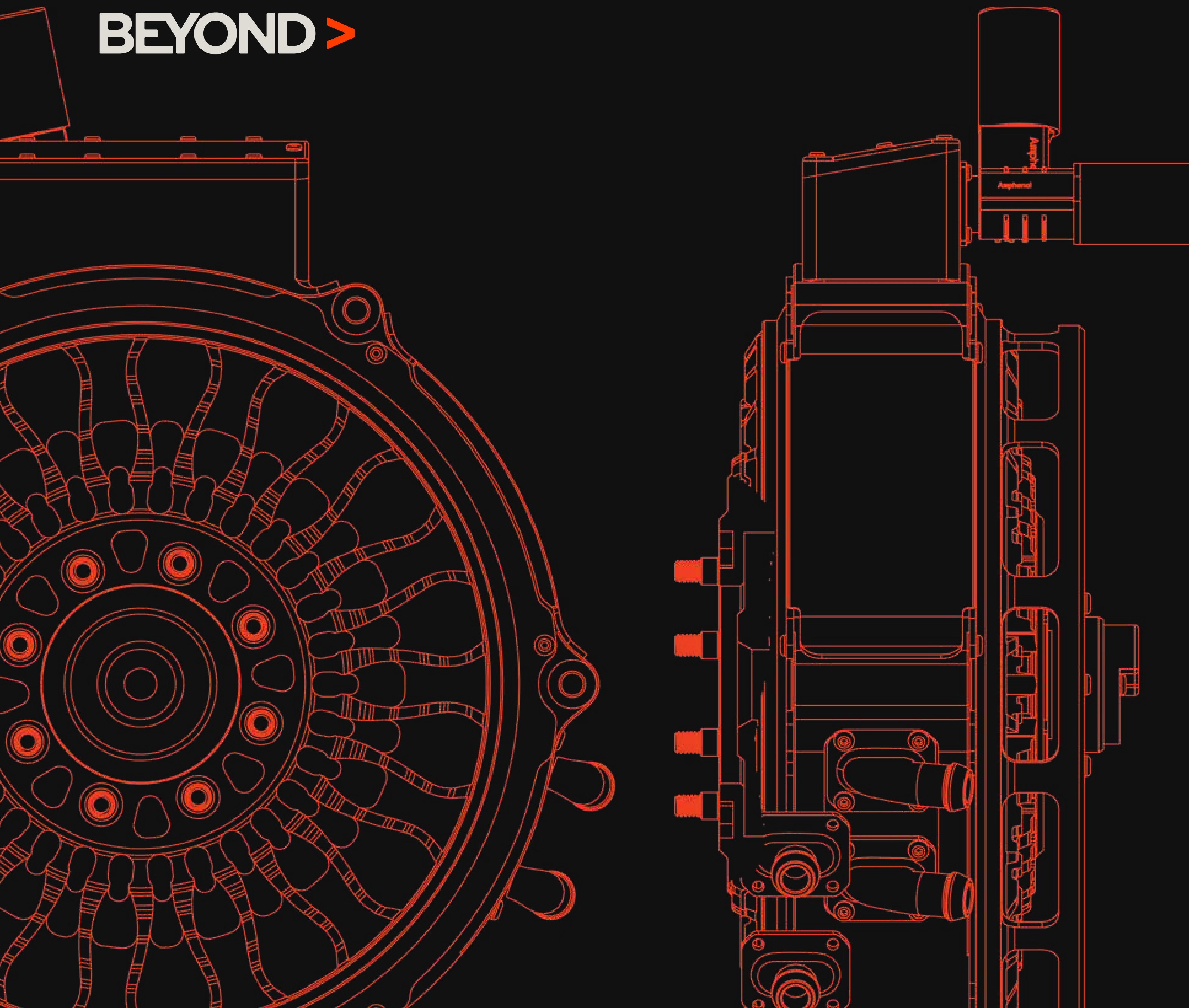
NEED MORE INFORMATION?

For additional product information or other questions, please contact us at info@beyondmotors.io or schedule a call with us through the [following link](#).

BEYONDMOTORS.IO

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BEYOND >



Other Models

AXM2

P_{peak} **130 kW**

P_{cont} **75 kW**

Mass **14,5 kg**

[See full Data Sheet →](#)



AXM3

P_{peak} **220 kW**

P_{cont} **130 kW**

Mass **27 kg**

[See full Data Sheet →](#)



ENERGISING THE FUTURE