



AHC SL IPD Concept

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AHC SL

IPD (Improved Performance Drive) Concept

- IPD Concept = AHC Generation Update (SOP 2026/2027) @ Updated on Product Roadmap

- Technical description**

Replace AHC-S → AHC-XS & AHC-L → AHC-S with below concepts

Pole housing length new XS 68 mm , existed Short type S 75 mm & existed Long type L 90 mm

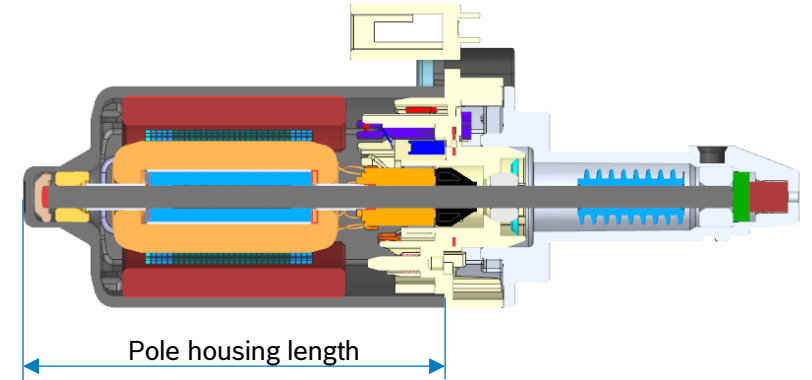
- ✓ Reduction of airgap
- ✓ Change in armature lamination geometry
- ✓ Change magnet grade & geometry

- Advantage**

- ✓ Cost, weight & packaging reduction

- Disadvantage**

- ✓ Changes in production line necessary (to be evaluated)
- ✓ Might have negative effects on NVH



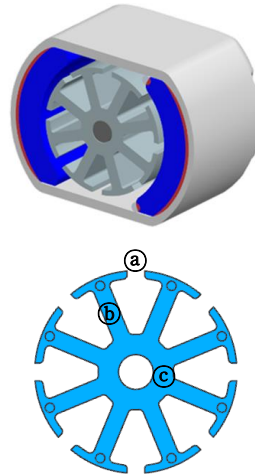
Pole housing	Current	New
Length	Short 75 mm	XShort 68mm
	Long 90 mm	Short 75 mm

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What change

- ✓ Pole housing - Length ↓ & Thickness ?
- ✓ Magnet - Geometry of 2nd radius (SLP-geometry)
Grade 6 → 6+ (or 9)
Airgap 0.6196 → 0.4196mm
Length ? & Thickness ?
- ✓ Armature lamination - Geometry
Stack length ↓
Material ? Thickness ?
- ✓ Armature shaft - Length ↓
- ✓ EP Coating – Length ↓
- ✓ Winding - Copper weight ↓



Type	Head geometry	① Slot open	② Teeth width	③ Yoke thickness	Yoke geometry
Current		2.0	2.1	2.5	
New		1.8	2.3	2.124	