



**中国汽车技术研究中心有限公司**  
China Automotive Technology and Research Center Co., Ltd.

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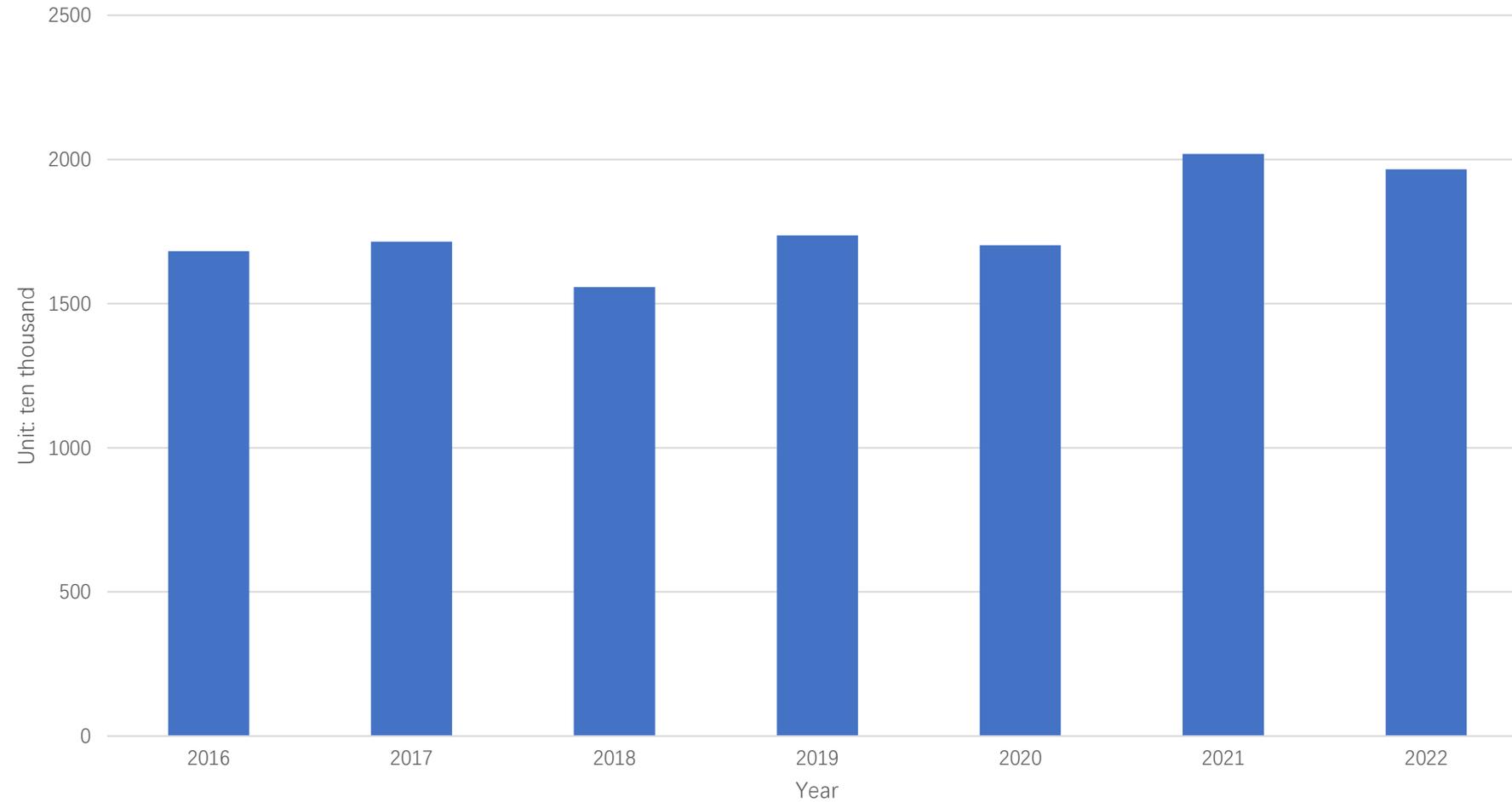
# **Introduction of the MC electrical brake technology and regulation applicability discussion**

For the 15th meeting of WP.29/GRVA

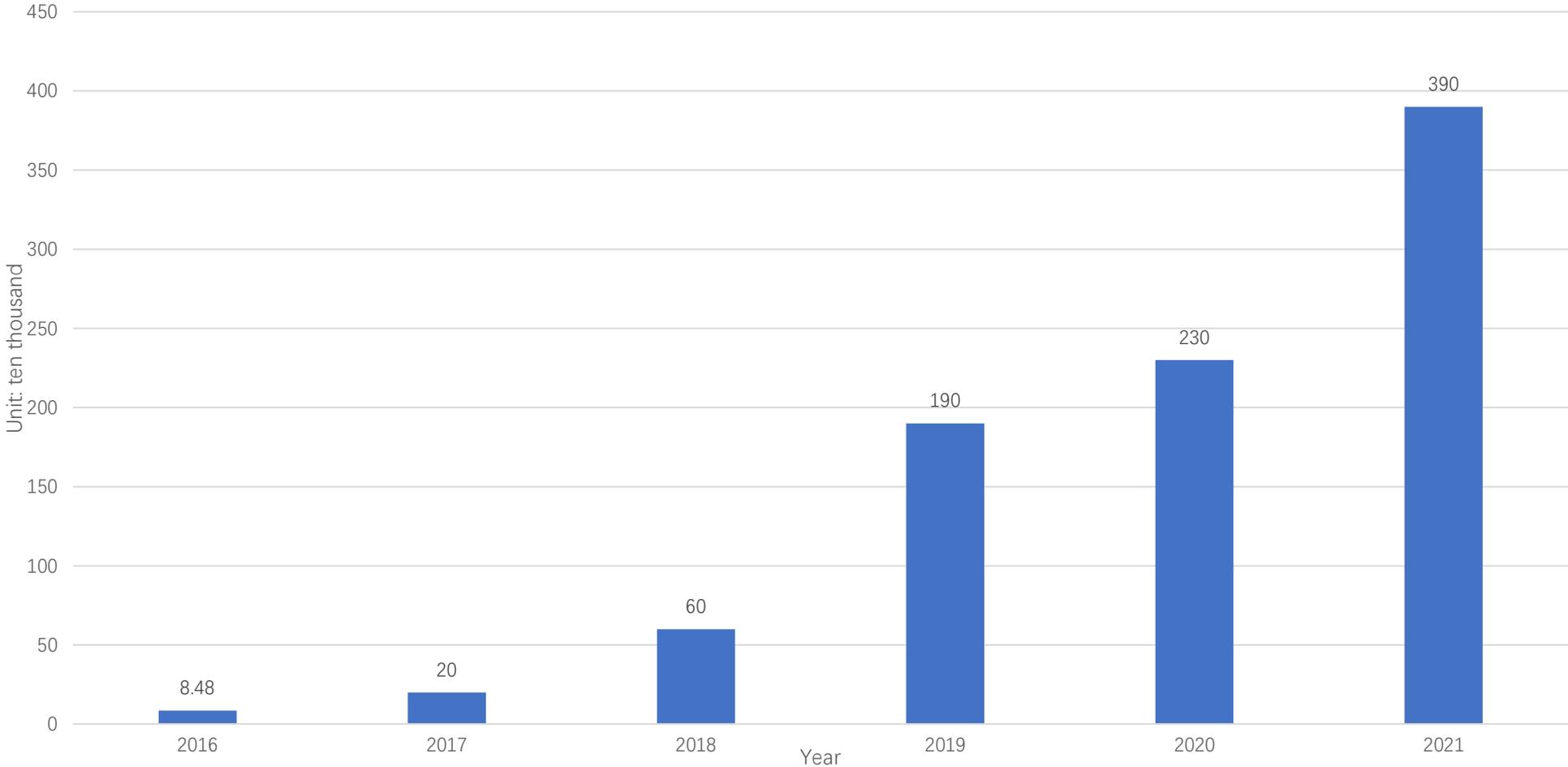
# Motorcycles (MC) in China



MC annual yield (2016-2022)

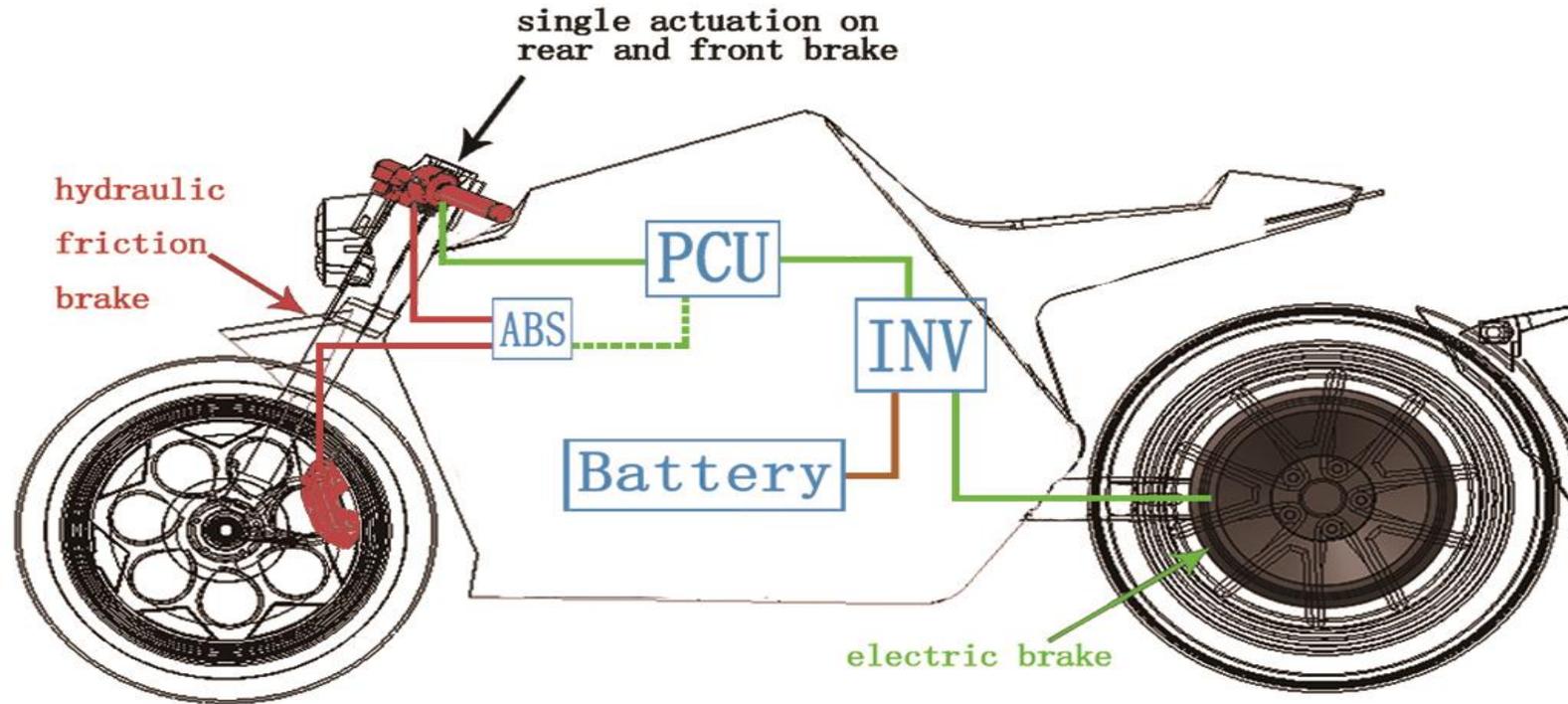


E-MC annual yield in China (2016-2021)



- 1) Zero emission
- 2) Low noise
- 3) High energy efficiency
- 4) New technology applied(Integrated rim motor, Electrical brake, etc.)

# Electrical Brake system principle introduction



- GB 20073-2008 《Performance and measurement method for braking of motorcycles and mopeds》
- GTR 3 Global technical regulation No. 3 MOTORCYCLE BRAKE SYSTEMS
- UN R78 Concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations\*

1. Test based on: UN R78/05.

2. Items done:

- Dry stop with single brake control action:complied;
- Dry stop with all service brake controls actuated;
- High speed test:complied;
- Partial failure, for split service brake system:complied;
- ABS: complied

1. Definition of “brake system”
2. Partial failure test
3. Wet brake test
4. Heat fade test

**Thank you for your attention!**

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