

## **Results and Benefits**

The benefits received by the Electricity Generating Authority of Thailand (EGAT) include:

- 1. Increased revenue to EGAT's subsidiaries: 263.73 million THB
- 2. Dividends received by EGAT: 9.6 million THB
- 3. License fees received by EGAT: 9.8 million THB
- 4. Valuation of EGAT's Know-How: 82 million THB
- 5. Support EGAT's policy as a driving force for achieving its strategic goals
- The benefits to the nation include:
  - 1.Response to government policy by supporting the development of infrastructure for electric vehicle and charging stations across the country
  - 2. Development of Know-How in charger technology, with national ownership of the intellectual property
  - 3. Promoting Carbon Neutrality
  - 4. Reduction in imports and capital outflow
  - 5. Domestic production by Thai workers, creating jobs and distributing income among the local population

## Award

- Excellence Prize, EGAT Invention and Innovation contest 2024
- LabelNo.5 2024

# <u>Thai Petty</u> <u>Patent</u>

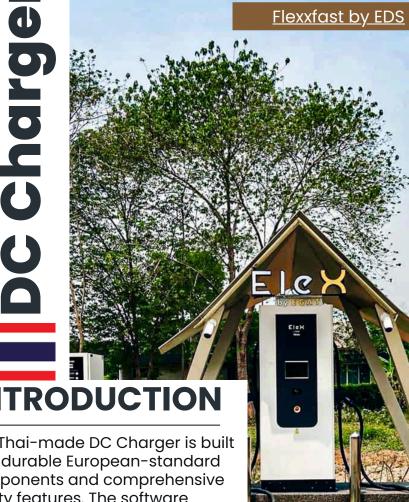
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**MR. SUKRIT JAIDEE** MR. KITSANU BUNJONGJIT **MR. SAROD TREESAKON** MR. PHAKPHUM KUANGOEN MS. CHONNIPA KWANJARU MR. KRIENGSAK FUNGYAI



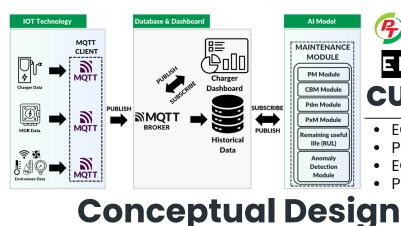
+66811454333 Electricity Generating Authority of Thailand Sukrit.jai@egat.co.th



INTRODUCTION

The Thai-made DC Charger is built with durable European-standard components and comprehensive safety features. The software supports IEC 61851-1, 23, and OCPP communication, with an analytic platform for performance monitoring to ensure efficiency and reliability.

To address the growth of electric vehicles, support EGAT's expertise and strategic goals, align with the government's 30/30 policy, and seize business opportunities, we have developed this innovation.





PTG ENERGY PCL

PRIVATE CUSTOMER

EGCO GROUP

• EGAT

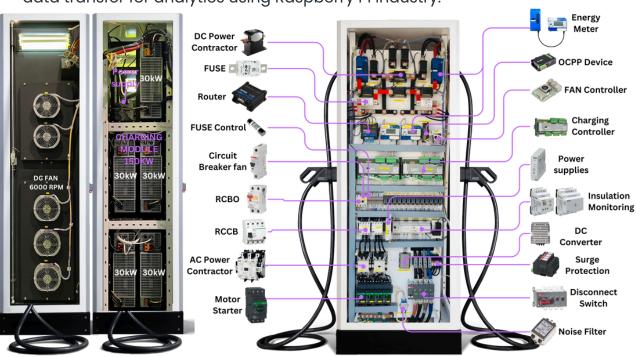
### Implementation and Usage

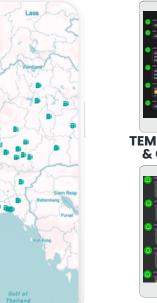
November 2024, we have installed 220 chargers nationwide, with power capacities of 60kW, 120kW, 150kW, and 180kW.

Made in Thailand

The DC Charger consists of four key components:

- Protection Equipment: Includes FUSE, RCBO, RCCB, AC Contactor, Motor Starter, Insulation Monitoring, Surge Protection, and Circuit Breaker.
- Control Devices: Utilizes PLC for power control, Raspberry Pi Industry for OCPP server communication, and Raspberry Pi 5 for fan speed control and power quality monitoring.
- Control Software: Supports dynamic charging and full safety interlock.
- OCPP Software: Ensures reliable server communication and data transfer for analytics using Raspberry Pi Industry.







**MDB** 

**NOTIFICATION** 

FAN PCB



#### **TEMPERATURE MONITORING**



#### STATION MONITORING

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**CHARGING MONITORING**