

# TDLiD Next-Generation Battery Pack vs. Indonesian E-Motorcycle Market Leaders

High Performance · Long Lifecycle · Premium Cell Technology

TDL Energy Indonesia

# Market Background – Indonesian E-Motorcycle Battery Market

- Rapid growth driven by government electrification policy
  - Market dominated by cost-driven, China-cell-based batteries
  - Key pain points:
    - ✓ Short battery lifespan
    - ✓ Weak high-current performance
    - ✓ Poor low-temperature & long-term reliability
- Market requires a shift from “Low Cost” to “Total Value”

# Comparison Scope – Selected Market Players

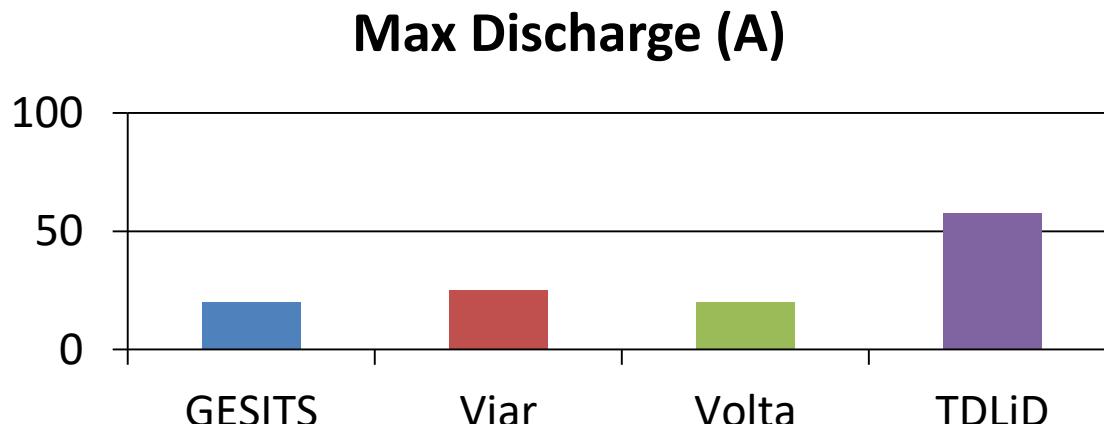
Category	Company	Market Position
Competitor A	GESITS	National brand, mass-market
Competitor B	Viar	Commercial & fleet-oriented
Competitor C	Volta	Battery swap focused
Our Product	TDLiD	Premium performance segment

# Battery Cell Technology Comparison

Item	GESITS	Viar	Volta	TDLiD
Cell Manufacturer	China-based	China-based	China-based	LG Energy Solution
Cell Type	18650 / LFP	18650	18650	21700 (INR21700M50 LT)
Energy Density	Medium	Medium	Low	High
Quality Consistency	Variable	Variable	Variable	Automotive-grade

# Electrical Performance Comparison

Item	GESITS	Viar	Volta	TDLiD
Nominal Voltage	~72V	~72V	~72V	73.8V
Capacity Options	~20Ah	20–25Ah	~20Ah	19.7Ah / 28.8Ah
Max Cont. Discharge	Limited	Limited	Limited	Up to 57.6A
Charging Time	4–6 hrs	~5 hrs	~5 hrs	3–4 hrs



# Environmental & Reliability Performance

Item	GESITS	Viar	Volta	TDLiD
Charge Temp	0~40°C	0~40°C	0~40°C	0~45°C
Discharge Temp	-5~45°C	0~45°C	0~45°C	-20~55°C
Humidity	N/S	N/S	N/S	25–75%

# Lifecycle & Cost Efficiency

Item	GESITS	Viar	Volta	TDLiD
Cycle Life	600–800	~800	~800	1000
Capacity Retention	~70%	~75%	~75%	≥80%
Test Condition	N/D	Partial	Partial	Clearly specified

# Practical Value for OEM & Fleet Operators

- Longer replacement cycle → Lower TCO
  - Higher power output → Better acceleration & payload
  - Stable performance → Reduced warranty claims
  - Flexible design → OEM / ODM ready
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- Lifespan | ↘ Power | ✖ Reliability | 🚛 OEM Ready

# TDLiD Product Line Overview

Model	Voltage	Capacity	Weight	Typical Range
TDLiD 72V20Ah	73.8V	19.7Ah	7.7kg	~43 km
TDLiD 72V30Ah	73.8V	28.8Ah	11.04kg	~63 km

# Final Conclusion

- TDLiD battery packs outperform existing Indonesian market solutions
- in power, durability, and lifecycle value.
- Key Takeaways:
- Premium LG 21700 cells
- Superior discharge & thermal performance
- Proven 1000-cycle durability
- Ideal platform for next-generation electric motorcycles

# Closing

- TDLiD — Powering the Next Generation of Electric Mobility in Indonesia
- Contact: TDL Energy Indonesia