

TOSHIBA

BLDC: Brushless Motor

Proposal for Electric Motor Applications

~ Motor Driver ICs ~

Toshiba Electronic Devices & Storage Corporation

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Focused Application

Self-detection & No need adjustment are Keywords for next field.

HA

A/C, Washing Machines, Refrigerator, Cleaner etc..



OA

IJP/LBP/MFP, Scanner etc..



Industrial

ATM, Vending Machine, Amusement, Surveillance Camera, Robotics etc..



Fan

Server fan, Blower, Ventilation fan, Ceiling fan etc..



Battery Solution

DSC, Toy, Electric lock, 5V USB or Battery powered instruments etc..



Value provided

Toshiba's unique technologies and broad product portfolio provide outstanding capabilities for your Motor applications.

1 40 years' experience

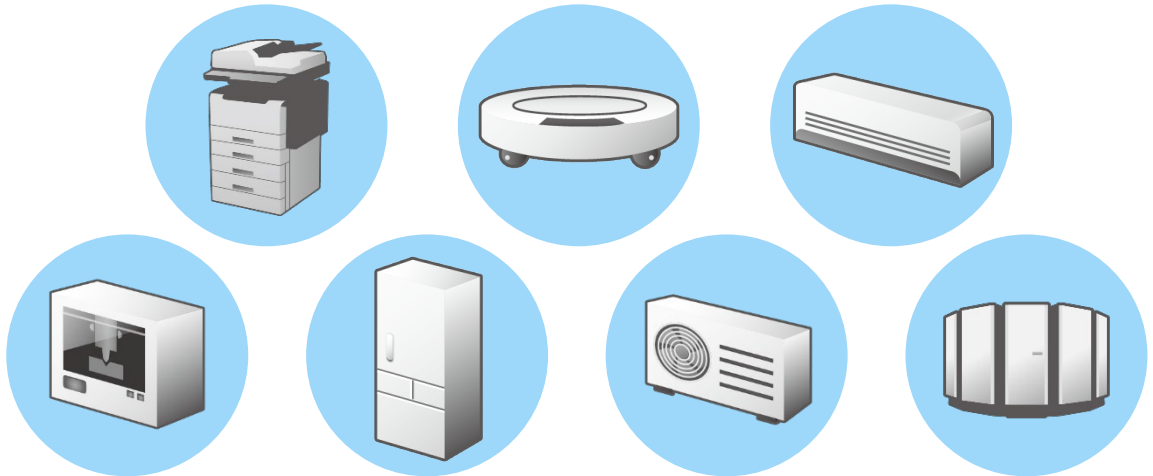
- More than 40 years' experience in the semiconductor market for home appliances, axial fans, and industrial equipment

2 Broad product portfolio (190 products)

- Solutions for many applications through a broad portfolio of Motor controllers and drivers

3 Unique technologies

- Real-time adjustment
Automatic optimization of Motor drive
→ Intelligent Phase Control
Active Gain Control



Customer value / Social subject contribution

- Efficient and stable Motor control
- Environmental protection
- Improvement of device performance and reduction in power consumption

Product lineup

- Products with Active Gain Control
TB67S249 (4.5 A), TB67S279 (2 A), TB67S289 (3 A):
Available (stepping Motor drivers)
TB67S128: Available (128-step stepping Motor driver)
- Products with Intelligent Phase Control
TC78B016: Available (40 V, 3 A driver)
TC78B041: Available (18 V, 20 mA controller)

BLDC Motor drive technology : Intelligent Phase Control



Value provided

One-time adjustment provides highest efficiency over wide rotational speed range.

1 Highest efficiency over wide rotational speed range

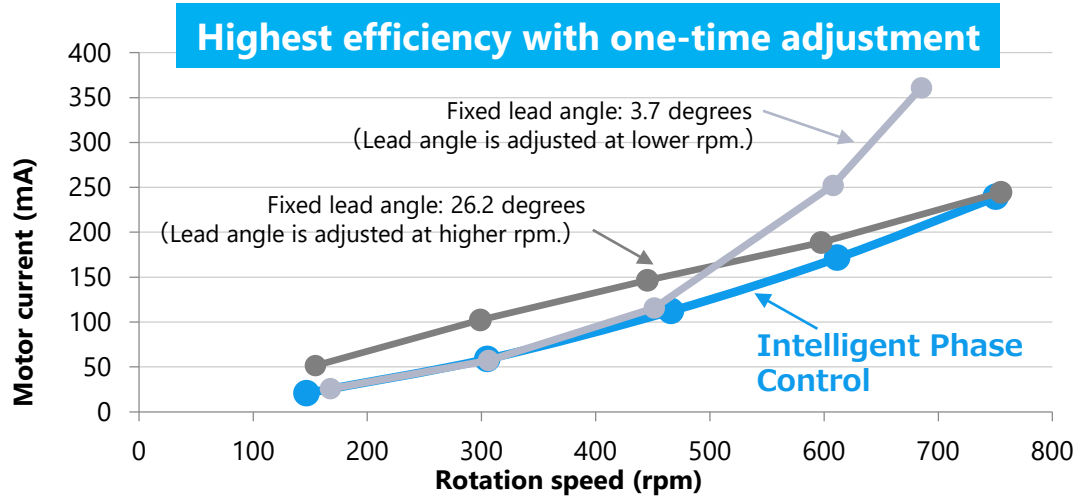
Automatically aligns Phases of voltage and current to achieve the highest efficiency

2 Adjustment is unnecessary to achieve optimum drive.

One-time adjustment optimizes Motor control over wide rotational speed range.

3 Low noise

Three-Phase sine-wave drive provides quiet and smooth Motor rotation.



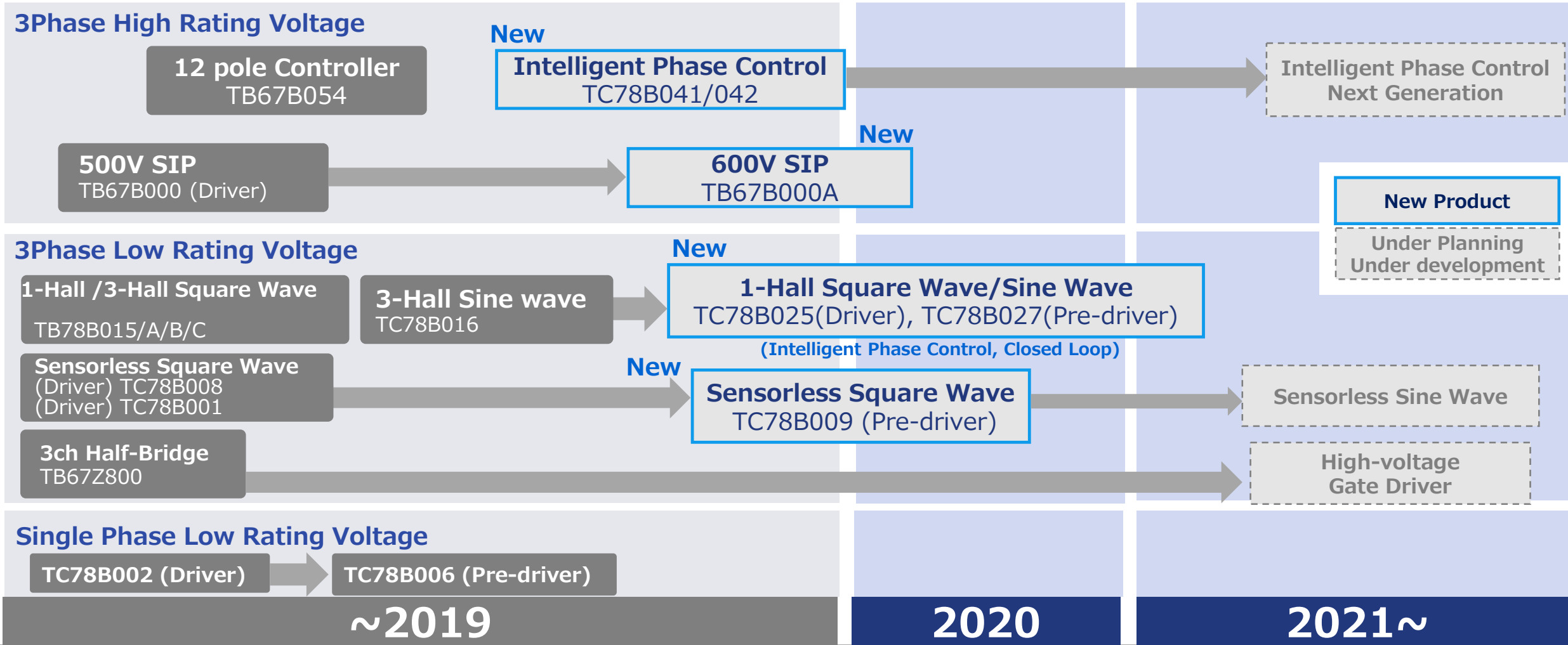
Customer value / Social subject contribution

- Efficient and stable Motor control
- Environmental protection
- Improvement of device performance and reduction in power consumption

Product lineup

- Products with Intelligent Phase Control
 - TC78B016FTG: Available (40 V, 3 A BLDC driver)
 - TC78B041FNG: Available (18 V, 20 mA BLDC controller)

Intelligent Phase Control & Closed loop for 3 Phase BLDC



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will always be a driving force to change the world*

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