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## TMdrive-Guardian™ Wins Frost & Sullivan's 2020 New Product Innovation Award

TMEIC addresses key customer challenges such as the high operational costs of drive cooling mechanisms

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**Roanoke, Virginia, (April 8, 2020)** - Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC) announces the TMdrive-Guardian™ (Guardian) Outdoor Enclosure for Medium Voltage Drives has won the 2020 New Product Innovation Award for its thermal management solution for MV drives. The Guardian comprises an indoor electric drive with a NEMA-3R rated enclosure that allows users to deploy the drive outdoors, close to the motor it controls. This design helps save installation costs by lowering cabling between the motor and the drive.

"Through its unique heat dissipation design, Guardian's MV drive cabinet eliminates the need for an HVAC system to manage the waste heat from the drive; thereby, drastically minimizing operational expenditure. The design of the drive enclosure has been adopted from TMEIC's solar inverters, which are largely deployed outdoors," said Krishna Raman Industry Analyst. "TMEIC is one of the few manufacturers that provides outdoor MV drives and is the sole solution provider that supplies MV drives with their own enclosures. This makes Guardian the only NEMA-3R rated solution in which the MV drive is protected from harsh outdoor conditions in the temperature range of -40 degrees C to +50 degrees C."

By placing the drives in a separate enclosure away from the control room, it offers an additional, distinctive layer of safety for the operator. Its in-built intelligence within the enclosure control unit monitors critical conditional parameters such as the temperature of the enclosure, temperature of the transformer, and relative humidity. Based on these three inputs, the controller regulates the exhaust air flow. Similarly, the drive has a control unit to monitor parameters such as temperature of the power semiconductor device, temperature of the transformer, and current drawn by the blower fans. These data sets can be utilized to auto-adjust the air flow mechanism or to identify underlying faults.

All of this data can be made available on the local area network (LAN) at the customer site using standard communication protocols such as ModBus, Ethernet Global Data (EGD), and Transmission Control Protocol/Internet Protocol, (TCP/IP). Users can also collect and analyze the data to implement Industrial Internet of Things (IIoT) environments, making Guardian future-proof.

"Earning this award is a major milestone for TMEIC's research and development team, said Dale Guidry, CEO of TMEIC Corporation. "We designed and built the Guardian to ensure our drives continue to perform above and beyond the competition. The Guardian cuts operation and installation costs and saves energy, lowering total cost of ownership and contributing to our customers' success."

[Click here for the full press release, and the Frost & Sullivan award write-up](#)

### **About Frost & Sullivan**

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**Media Inquiries: Michael Cooper, Marketing Director, [Michael.Cooper@tmeic.com](mailto:Michael.Cooper@tmeic.com)**

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### **About Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC)**

Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC) was formed in 2003 following the merger of the industrial systems departments of Toshiba Corporation and Mitsubishi Electric Corporation. TMEIC manufactures and sells variable frequency drives, motors, photovoltaic inverters, and advanced automation systems for a range of industrial applications. We drive industry.

#### *The North American operation –*

TMEIC Corporation, headquartered in Roanoke, VA, designs, develops and engineers advanced automation, large AC and DC motors, photovoltaic inverters, and variable frequency drive systems. TMEIC Corporation specializes in Renewable Energy, Metals, Material Handling, Oil & Gas, Mining, Paper, Testing and other industrial markets worldwide. We drive industry. [www.tmeic.com](http://www.tmeic.com)

TMEIC Corporation, 2060 Cook Dr., Salem, VA 24153, USA  
Tel: +1 540 283-2000



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