TeSys Active
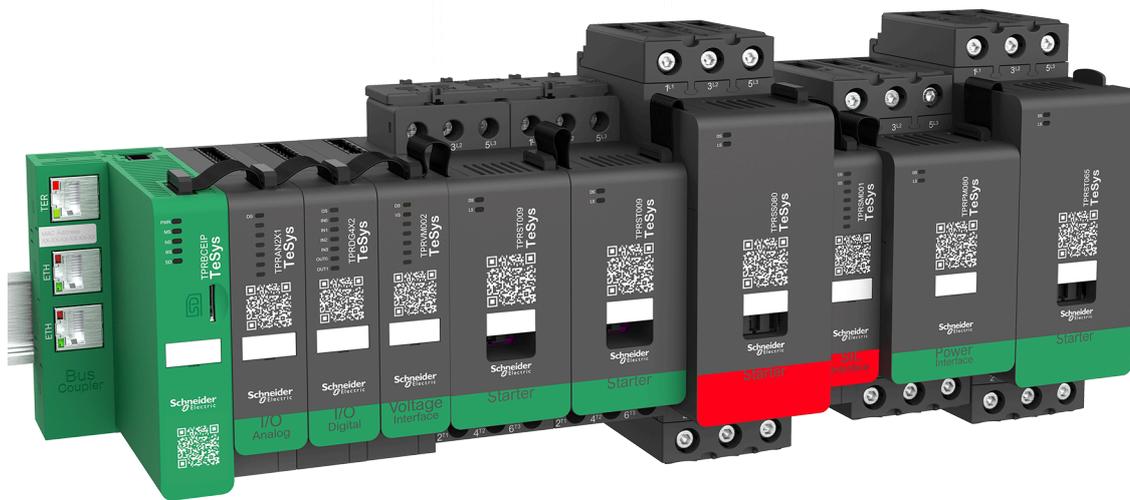
TeSys™ island – Digital Motor Management Solution

Firmware Release Notes

TeSys offers innovative and connected solutions for motor starters.

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Schneider Electric

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Introduction to TeSys island

TeSys Master Range

TeSys is an innovative motor control and management solution from the global market leader. TeSys offers connected, efficient products, and solutions for switching and protection of motors and electrical loads in compliance with all major global electrical standards.

TeSys island Overview

TeSys island delivers a connected and customized system for the direct control and management of low-voltage loads. The TeSys island optimizes availability of the physical modules with embedded pre-alarming management capabilities.

TeSys island targets performance and high performance machines with automation architectures based on high-speed networks connecting devices to a PLC. Machinery operating at high production rates must avoid unplanned production downtime, which can be extremely costly. TeSys island helps to reduce unplanned downtime with predictive maintenance so that repairs can be completed during a scheduled maintenance window.

TeSys island is fully integrated into the PLC programming environment using digital objects. TeSys island is fully integrated into the EcoStruxure portfolio that combines products and software packages into automation solutions for OEMs and machine builders. The system also supports integration into third-party PLC.

Firmware Release History

The following table provides the summary of each TeSys island firmware package and bus coupler version:

Date	SEDP package version	Bus coupler version	Notes
January 2026	TeSys island_003.003.005. sedp	003.003.005	Following features are updated: • Limit the device minor events to Avatar. • Adapt TeSys island for ATEX application.
June 2025	TeSys island_003.003.001. sedp	003.003.001	**IO Optimization** feature extension to EcoStruxure Machine Expert function blocks library.
April 2025	TeSys island_003.003.000. sedp	003.003.000	**IO Optimization** feature extension to EcoStruxure Automation Expert-Motion function blocks library.
December 2024	TeSys island_003.003.000. sedp	003.003.000	**IO Optimization** feature extension to EcoStruxure Control Expert function blocks library.

Date	SEDP package version	Bus coupler version	Notes
April 2024	TeSys island_003.002.000. sedp	003.002.000	Following features are updated: • Configurable **Fallback Mode** • Korean language support • Avatar trip status for **IO PORT ASSIGNMENT** • Configurable communication loss timeout for **Fieldbus Protocol**
August 2023	TeSys island_003.001.001. sedp	003.001.001	Korean language support.
June 2023	TeSys island_003.000.002. sedp	003.000.002	**Power Interface with IO** avatar is enabled for **IO Optimization**.
February 2023	TeSys island_003.000.001. sedp	003.000.001	Following features are updated: • **IO Optimization** • Local control for safe category avatars • Local Trip Reset for individual avatars
September 2021	TeSys island_002.300.006. sedp	002.300	Release with Dahlander and few security improvements.
May 2020	TeSys island_002.200.008. sedp	02.0200	Release with extended local control modes and their integration into EcoStruxure Machine Expert software.
February 2020	TeSys island_002.100.016. sedp	02.0100	Patch of firmware version 2.1.0.13 with Achilles certification.
January 2020	TeSys island_002.100.013. sedp	02.0100	Release of **PROFINET** and **PROFIBUS-DP** communication and new avatars. The firmware version is not compatible with EcoStruxure Machine Expert library.
June 2019	TeSys island_001.100.013. sedp	01.0100	Initial release

Bus Coupler Firmware

The bus coupler firmware can be updated on the following TeSys island bus couplers:

- **TPRBCEIP** (**Ethernet/IP** or **Modbus TCP**)
- **TPRBCPFN (PROFINET)**
- **TPRBCPFB (PROFIBUS-DP)**

Firmware Update Policy

Firmware update is recommended to benefit from the latest features and potential bug fixes. It is recommended not to update the firmware to the latest version, if the latest features are not required for your application and no bug fixes are provided.

Use this release note to determine whether an update to the latest version of the TeSys island firmware is relevant for your application.

Bus Coupler Firmware Update Procedure

The bus coupler firmware can be updated by using the Device Type Manager (DTM) library or micro SD card. For procedure to update the bus coupler firmware using micro SD card, refer to TeSys island – System, Installation, and Operation Guide.

Perform the below procedure to update the bus coupler firmware using DTM library:

1. Update the TeSys island DTM Library to version 3.0.2.
2. Click **Load from Device** on SoMove (FDT container) to connect the DTM library with TeSys island module.
3. Perform the firmware update through DTM library.
4. Disconnect the TeSys island module.

    NOTE: Power cycle the bus coupler to apply the firmware update.

5. Click **Store to Device** on SoMove to connect with TeSys island module.

    Result:

    - The new DTM library version is configured to the bus coupler.
    - The system is ready to operate with the latest firmware and DTM library.

Firmware Versions

Version 003.003.005

New Features

- **Minor Faults Scope Refined**: Minor faults are limited to individual avatars and do not affect the entire system.
- **ATEX Adaptation Configuration**: ATEX adaptation settings can be enabled which disables protection settings such as thermal overload, current phase loss, and motor overheat at the island level.

Bugs Fixed

VIM Phase Sequence information is displayed incorrectly in Operation and Maintenance Tool (OMT).

Version 003.003.001

New Features

IO Optimization feature extension to EcoStruxure Machine Expert function blocks library.

Bugs Fixed

- The function blocks (system energy basic, system power basic, and system voltage enhanced) reset pins are failing to execute for EcoStruxure Automation Expert-Motion and Machine Expert.
- Voltage Interface Module (VIM) Phase Sequence information is not correctly displayed in DTM interface.

Known Issues

VIM Phase Sequence information is displayed incorrectly in Operation and Maintenance Tool (OMT).

Version 003.003.000

New Features

IO Optimization feature extension to EcoStruxure Control Expert and EcoStruxure Automation Expert-Motion function blocks library.

Bugs Fixed

- Incorrect asset data (running hours) is displayed in SoMove and Operation and maintenance tool after firmware upgrade.
- When a firmware upgrade or downgrade occurs, the correct firmware version information is not updated in the audit log.

Known Issues

The function blocks (system energy basic, system power basic, and system voltage enhanced) reset pins are failing to execute for EcoStruxure Automation Expert-Motion.

Workaround: Energy parameters can be reset using DTM interface under system avatar's Energy Monitoring view.

Version 003.002.000

New Features

- Configurable **Fallback Mode**

  For starters and IO module outputs, the fallback position can be configured for each avatar except **Power Interface** avatar.
- Korean language support

  Korean language is supported in SoMove and Operation and Maintenance Tool (OMT).
- Avatar trip status for **IO PORT ASSIGNMENT**

  IO PORT ASSIGNMENT table lists avatar trip status and individual trip status, which can be assigned to digital outputs.
- Configurable communication loss time-out for **Fieldbus Protocol**

  Communication loss time-out can be configured for the **Fieldbus Protocol**.

Bugs Fixed

Positive Temperature Coefficient (PTC) Binary as Process Variable (PV) input.

Version 003.001.001

New Features

Korean language support.

KC (Korean Certification) will be applicable to the below commercial references:

In scope	
TPRBCEIP	Ethernet/IP bus coupler
TPRBCPFN	PROFINET bus coupler
TPRDG4X2	Digital I/O module
TPRST009	9 A standard starter

In scope	
TPRST025	25 A standard starter
TPRST038	38 A standard starter
TPRST065	65 A standard starter
TPRST080	80 A standard starter
TPRVM001	Voltage interface module
TPRAN2X1	Analog I/O module

Out of scope	
TPRBCPFB	PROFIBUS bus coupler
TPRPM009	9 A Power inteface module
TPRPM038	38 A Power inteface module
TPRPM080	80 A Power inteface module
TPRSM001	SIL interface module
TPRSS009	9 A SIL starter
TPRSS025	25 A SIL starter
TPRSS038	38 A SIL starter
TPRSS065	65 A SIL starter
TPRSS080	80 A SIL starter

Version 003.000.002

NOTE: If firmware upgrade is to be done from 001.100.013/002.100.016 to 003.000.002, then it has to be performed twice:

1. Perform an upgrade from 001.100.013/002.100.016 to 002.200.008/ 002.300.006.
2. Perform an upgrade from 002.200.008/002.300.006 to 003.000.002.

New Features

- **Power Interface With IO** avatar in **IO Optimization**

   IO Optimization feature allows users to share their I/O devices between different avatars and optimize them to reduce the number of I/O devices required per TeSys island.

   User may also utilize **Device Optimization** feature which will permanently remove free AIOM/DIOM devices from the TeSys island configuration.

- FLA can be configured through **Modbus TCP** registers.

   NOTE: The default I/O ports assigned for PIM with I/O avatar cannot be removed or optimized.

Bugs Fixed

When the emergency push button is pressed, all of the modules will not have power in TeSys island.

Known Issues

- In **IO PORT ASSSIGNMENT**, if analog input type is different from analog output type and when analog input is connected to analog output, avatar device event occurs.

  Workaround: Use same type of analog input and analog output.

- Communication cannot be established between Ecostruxure Control Expert and TeSys island, if there are 15 or more avatars in an TeSys island configuration.

Version 003.000.001

NOTE: If firmware upgrade is to be done from 001.100.013/002.100.016 to 003.000.001, then it has to be performed twice:

1. Perform an upgrade from 001.100.013/002.100.016 to 002.200.008/ 002.300.006.
2. Perform an upgrade from 002.200.008/002.300.006 to 003.000.001.

New Features

- **IO Optimization**

  IO Optimization feature allows users to share their I/O devices between different avatars and optimize them to reduce the number of I/O devices required per TeSys island.

  User may also utilize **Device Optimization** feature which will permanently remove free AIOM/DIOM devices from the TeSys island configuration.

- Local Control

  Local control functionality is extended to the safe category avatars.

- Local Trip Reset

  Introduces the functionality to reset the trips locally at individual avatar level. Resetting trips at TeSys island level through remote is still available through the control panel as before.

- Firmware version

  Firmware version for the bus coupler is matched with SEDP package version.

Bugs Fixed

- Local mode status has not worked for **Conveyor One Direction - SIL Stop, W. Cat 1/2** and **Conveyor Two Directions - SIL Stop, W. Cat 1/2**.
- **Load from Device** does not work when there are more than 16 SIL starters in the configuration.

Known Issues

- If analog input type is different from analog output type and when analog input is connected to analog output, avatar device event happens.

  Workaround: Use same type of analog input and analog output.

- AIOM output value not matching with analog input value, when I/O is looped and output type is selected as (4...20) mA.

  Workaround: Use output type as 0...20 mA instead of 4...20 mA.

- This release is not applicable for SIL starters.

Version 002.300.006

New Features

- Dahlander control mode is added when **Dahlander Control Enabled** is selected as **Yes**.
- **Certificate Manager** is added to configure the security certificate to the TeSys island module.
- Cybersecurity improvements.
- When bus coupler is in fallback IP, there will be no duplicate IP address check.

Bugs Fixed

- Transition between states did not reset avatar logic inputs.
- Dynamic Host Configuration Protocol (DHCP) caused major fault or failure in Ethernet service if routed through another TeSys island module.
- Bus coupler did not go into power failure mode when powered by 12 V signal.
- Voltage asset information from Voltage Interface Module (VIM) had incorrect scaling.
- DTM accessories were not correct for size three starters (displayed the size of 1 kits).
- Total active power and total reactive power for system avatar include avatars without Energy Monitoring Enabled.
- Detected frequency based on the A-C voltage instead of A-N voltage when configured for single-phase.

Known Issues

- Local mode status has not worked for **Conveyor One Direction - SIL Stop, W. Cat 1/2** and **Conveyor Two Directions - SIL Stop, W. Cat 1/2**.
- **Load from Device** does not work when there are more than 16 SIL starters in the configuration.

  This issue exists in all the previous TeSys island firmware packages.

  Workaround: Save the configurations in SoMove or EcoStruxure Machine Expert software and connect to the device without using **Load from Device**.

Version 002.200.008

New Features

- Option **Local Control Mode** which includes Process Variable (PV) switches or inputs, Manual Mode Override, and Bypass mode is added through Digital I/O Module (DIOM) to six load avatars.

- Function block libraries are updated for the EcoStruxure™ Machine Expert software.

- Custom avatar function is added to save the configurations of customized avatar for re-use in individual DTM libraries.

- Factory Reset command is added to reset the TeSys island module in any of its operational state.

- *Dynamic Port Mapping guide* is added to ease the wiring of digital and analog I/O modules in DTM and OMT.

- IP Allowlisting is enabled for **Modbus TCP** and EtherNet/IP traffic.

- Predictive Alarms (PA) are added to associate process variable with an alarm signal to send a text-based alert.

- New heartbeat 1098 register is integrated for manual **Modbus TCP** protocol (communication loss).

Bugs Fixed

- PROFIBUS Node ID set in the DTM was not registered in bus coupler.

- Upstream voltage function was not calibrated by the voltage setting for the TeSys avatar in the DTM. This calibration would prevent the false positives when an upstream circuit breaker is open.

- Enhanced security features of webserver.

Known Issues

Function	Comment or Workaround
Achilles certification is not applicable for the firmware version 002.200.008	Previous firmware version 2.1.0.16 with Achilles certification is available. There are no substantive changes affecting the Achilles performance in the firmware version 2.2.0.8, just the certification process was not run.
Mismatch General Station Description (GSD) file	Bus coupler (**TPRBCPFB**) goes into non-operational state due to mismatch of GSD file versions. Recover the bus coupler with power cycle and update the TIA portal with the latest GSD file.
MAC address	No MAC address printed on the face of bus coupler (**TPRBCPFB**). MAC address can be located on sticker on the back of bus coupler or can be accessed through network discovery.
Bus coupler goes into minor event (non-operational) state if firmware download process is interrupted by communication loss with PC	Use only SoMove software to download firmware. If the device is unresponsive due to the communication loss during firmware update, then a power cycle will reset the bus coupler and firmware download can be attempted again.
Undercurrent alarm occurs when motor is turned off	When motor is turned off, this results in an undercurrent alarm if the alarm is enabled. Thus the undercurrent alarm counter will be higher than expected.
Opening the OMT through Google Chrome browser on iPad device does not download the system logs NOTE: This issue is known issue for Apple iOS.	Use different platforms such as iPhone, PC, and so on to open the OMT.
If network name is changed after boot, the network name used in DPWS response is not updated until power cycle	Power cycle will fix. NOTE: The updated network name is used in all other protocols (namely DHCP) immediately. The DPWS is the only affected protocol.

Configuration Software

Following are the compatible software and DTM library required to configure and use the TeSys island module:

- SoMove software v2.9.7 or later
- EcoStruxure Control Expert v15.0 SP1 or later
- TeSys island DTM Library v1.0.1401 or later
- EcoStruxure Automation Expert - Motion v24.1.0.0
- EcoStruxure Machine Expert v1.1 or later
- TIA portal v15 or later
- RS5000 v30 or later

   NOTE: For software configuration, refer to the compatibility table in section

Compatibility

The following table shows the compatibility of digital tools with TeSys island module in active releases.

Configuration/Programming software		TeSys island firmware version									
		TeSys-island_001.10-0.0013.sedp	TeSys-island_002.1-00.01-6.sedp	TeSys-island_002.-200.-008.sedp	TeSys-island_002.-300.-006.sedp	TeSys-island_003.-000.-002.sedp	TeSys-island_003.-001.-001.sedp	TeSys-island_003.-002.-000.sedp	TeSys-island_003.0-03.00-0.sedp	TeSys-island_003.0-03.00-1.sedp	TeSys-island_003.0-03.00-5.sedp
DTM (SoMove or any FDT container)	DTM v1.0.1401	✔	X	X	X	X	X	X	X	X	X
	DTM v1.1.0	✔	X	X	X	X	X	X	X	X	X
	DTM v2.1.1	✔	✔	X	X	X	X	X	X	X	X
	NOTE: DTM v2.1.1 is compatible when using Modbus TCP or EtherNet/IP and for previously existing device and load avatars only.										
	DTM v2.2.0 or DTM v2.2.1 (equivalent)	X	X	✔	✔	X	X	X	X	X	X
	DTM v2.3.0	X	X	X	✔	X	X	X	X	X	X
	DTM v2.4.0	X	X	X	X	X	X	X	X	X	X
	DTM v2.4.1	X	X	X	X	✔	✔	X	X	X	X
	DTM v2.4.2	X	X	X	X	X	✔	X	X	X	X
	DTM v2.4.3	X	X	X	X	X	X	✔	X	X	X
	DTM v2.4.4	X	X	X	X	X	X	✔	X	X	X
	DTM v3.0.0	X	X	X	X	X	X	X	✔	✔	X
	DTM v3.0.1	X	X	X	X	X	X	X	✔	✔	X
	DTM v3.0.2	X	X	X	X	X	X	X	X	X	✔
EcoStruxure Machine Expert	EcoStruxure Machine Expert v1.1 or v1.2 Function block library: 1.0.15.0 Device description: • **Modbus TCP**: 1.1.0.0 • **Ethernet/IP**: 1.1.0.0	✔	X	X	X	X	X	X	X	X	X
	EcoStruxure Machine Expert v1.2.3 or later Function block library: 2.0.2.0 Device description: • **Modbus TCP**: 1.1.6 • **Ethernet/IP**: 1.1.7	X	X	✔	✔	**✔	**✔	X	X	X	X
	EcoStruxure Machine Expert v2.2.2 Function block library: 3.0.0.0 Device description: • **Modbus TCP**: 1.0.1.0 • **Ethernet/IP**: 1.0.2.11	X	X	X	X	X	X	*✔	X	X	X
	EcoStruxure Machine Expert v2.3 Function block library: 4.0.6.0	X	X	X	X	X	X	X	X	✔	***✔

Configuration/Programming software		TeSys island firmware version									
		TeSys-island_001.10-0.0013.sedp	TeSys-island_002.1-00.01-6.sedp	TeSys-island_002.-200.-008.sedp	TeSys-island_002.-300.-006.sedp	TeSys-island_003.-000.-002.sedp	TeSys-island_003.-001.-001.sedp	TeSys-island_003.-002.-000.sedp	TeSys-island_003.0-03.00-0.sedp	TeSys-island_003.0-03.00-1.sedp	TeSys-island_003.0-03.00-5.sedp
	Device description: • **Modbus TCP**: 1.0.1.0 • **Ethernet/IP**: 1.0.2.11										
	NOTE: 1. *If the default IO port assignment is changed or local control is used for safe category avatars, then the function blocks in EcoStruxure Machine Expert are not compatible. 2. **Function blocks library for PLCs with Machine Expert on Modbus TCP protocol is not compatible. 3. ***All new parameters (ATEX configuration status and minor event status for all avatars) will be not be available in Control Function Blocks. **Workaround**: Use the Schneider Electric Machine Expert Modbus TCP PLCs as a third party PLC.										
EcoStruxure Automation Expert-Motion	EcoStruxure Automation Expert-Motion vM_24.1.0.0 Function block library: 4.0.5.0 Device description: • **Modbus TCP**: 1.0.1.0 • **Ethernet/IP**: 1.0.2.11	X	X	X	X	X	X	X	✓	✓	*✓
	NOTE: *All new parameters (ATEX configuration status and minor event status for all avatars) will be not be available in Control Function Blocks.										
EcoStruxure Control Expert V15.0 SP1	EcoStruxure Control Expert–TeSys island Library PSx DTM Library v3.14.54 PLC M580 - CPU firmware 3.20	X	X	✓	✓	*✓	*✓	*✓	X	X	X
	NOTE: *EcoStruxure Control Expert is not compatible, if there is change in the **IO PORT ASSIGNMENT**.										
EcoStruxure Control Expert V16.0 or later	EcoStruxure Control Expert–TeSys island Library v2.2 PSx DTM Library v3.19.24107 PLC M580 - CPU firmware 3.20	X	X	X	X	X	X	X	✓	✓	*✓
	NOTE: *All new parameters (ATEX configuration status and minor event status for all avatars) will be not be available in Control Function Blocks.										
Studio 5000 V30 or later	NA	NA	NA	✓	✓	*✓	*✓	*✓	X	X	X
	NOTE: Ensure that the export of L5X file is done with the compatible version of DTM. **NOTE:** *When PIM with IO avatar is used with TeSys island, then the function blocks are not compatible with RS5000.										
TIA Portal V15 or later	Library: TeSysisland_TIAV15_V2.1.1.zal15 GSD: SCHE1135.GSD (revision 1.0) GSDML: GSDML-V2.35-SchneiderElectric-TeSysisland-20200202.xml	X	✓	X	X	X	X	X	X	X	X

Configuration/Programming software		TeSys island firmware version									
		TeSys-island_001.10-0.0013.sedp	TeSys-island_002.1-00.01-6.sedp	TeSys-island_002.-200.-008.sedp	TeSys-island_002.-300.-006.sedp	TeSys-island_003.-000.-002.sedp	TeSys-island_003.-001.-001.sedp	TeSys-island_003.-002.-000.sedp	TeSys-island_003.0-03.00-0.sedp	TeSys-island_003.0-03.00-1.sedp	TeSys-island_003.0-03.00-5.sedp
	NOTE: Ensure that the export of AML file is done with the compatible version of DTM.										
	Library: TeSysIsland_TIAV15_V2.2.0.zal15 GSD: SCHE1135.GSD (revision 2.0) GSDML: GSDML-V2.35-SchneiderElectric-TeSysisland-20200404.xml **NOTE:** Ensure that the export of AML file is done with the compatible version of DTM.	X	X	✓	✓	*✓	*✓	*✓	X	X	X
	NOTE: *When PIM with IO avatar is used with TeSys island, then the function blocks are not compatible with TIA portal.										

Related Documents

Document title	Document number
TeSys island – System, Installation, and Operation Guide	DOCA0270EN
TeSys island – Quick Start Guide for EcoStruxure Control Expert Classic	DOCA0236EN
TeSys island – DTM Library Read Me	DOCA0238EN
TeSys island – Firmware Release Notes	DOCA0224EN
TeSys island – DTM Release Notes	DOCA0239EN
TeSys island – Functional Safety Guide	8536IB1904EN
TeSys island – Third Party Function Block Guide	8536IB1905EN
TeSys island – EtherNet/IP™ – Quick Start and Function Block Library Guide	DOCA0271EN
TeSys island – DTM Online Help Guide	8536IB1907
TeSys island – PROFINET and PROFIBUS – Quick Start and Function Block Library Guide	DOCA0272EN
TeSys island – Product Environmental Profile	ENVPEP1904009
TeSys island – Product End of Life Instructions	ENVEOLI1904009
TeSys island, Bus Coupler TPRBCEIP – Instruction Sheet	MFR44097
TeSys island, Bus Coupler TPRBCPFN – Instruction Sheet	MFR44098
TeSys island, Bus Coupler TPRBCPFB – Instruction Sheet	GDE55148
TeSys island, Starters and Power Interface Modules, Size 1 and 2 – Instruction Sheet	MFR77070
TeSys island, Starters and Power Interface Modules, Size 3 – Instruction Sheet	MFR77085
TeSys island, Input/Output Modules – Instruction Sheet	MFR44099
TeSys island, SIL Interface and Voltage Interface Modules – Instruction Sheet	MFR44100
TeSys island – ATEX Adaptation Guide	DOCA0452EN

As standards, specifications, and design change from time to time, please ask for confirmation
of the information given in this publication.

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