### EDMM-20





# SMA Data Manager M

Full of Ideas. Full of Potential. Full of Energy.

ennexOS

#### Fast and easy to use

- Easy integration into new and existing systems
  Integrated inputs and outputs for digital and analog
- signals; no additional hardware required

#### Flexible and secure

- Option to connect up to 50 devices
- Enhanced cybersecurity
- Trusted platform module (TPM)
- Over-the-air updates

#### High performance

- More CPU power thanks to new processor
- Complies with international grid-integration requirements
- Combines energy generation, battery systems and e-mobility
- Energy management for battery systems

#### **Reliable and practical**

- Remote monitoring and parameterization possible
- Detailed analytics, error messages and reports through Sunny Portal powered by ennexOS

The SMA Data Manager M is the core element of decentralized commercial PV systems. Combined with Sunny Portal powered by ennexOS, it enables monitoring, management and grid-compliant power control at the point of interconnection.

A future-proof decision: The SMA Data Manager M supports up to 50 devices and provides inputs and outputs for digital and analog signals in order to ensure the necessary flexibility in meeting a wide range of different requirements. With a capacity of 2.5 MVA in closed-loop control mode or 7.5 MVA open-loop control mode and monitoring mode, the SMA Data Manager M is the ideal professional interface for electric utility companies, direct sellers, service technicians and PV system operators. Coordinated user interfaces and intuitive assistance functions simplify operation, parameterization and commissioning, making the SMA Data Manager M the preferred choice for PV application and installation.

## SMA DATA MANAGER M

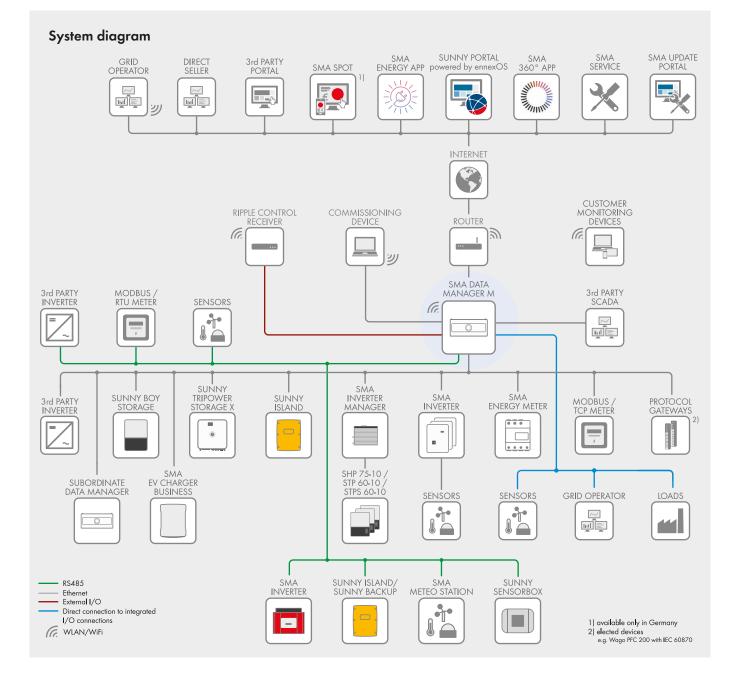
#### Professional monitoring and control for decentralized energy systems up to the megawatt range.

They are controlled through Sunny Portal powered by ennexOS, which enables the remote management of PV systems. You can manage multiple inverters with just one click, adjust parameters and monitor performance in real time. This saves time and minimizes costs. Centralized management for decentralized large-scale PV power plants is possible thanks to satellite-based data and cluster solutions with multiple data managers. Connectivity options include 2x Ethernet switched, 1x Ethernet, 2x RS-485 and Wi-Fi (for direct connection).

With expanded memory (e.g., for logging setpoint specifications) and over-the-air updates, the system is capable of responding flexibly to changing requirements.

#### Benefits at a glance:

- Centralized management for decentralized large-scale PV power plants thanks to satellite-based data and cluster solutions with multiple data managers
- Remote parameterization saves time and money
- Different energy management profiles for battery storage systems
- Automatic monitoring of PV components thanks to SMA Smart Connected



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Input Voltage         10 V to 30 V Dc           Power commission         Typically B W           Ambient conditions during operation         Restricted dass 307 reg. [IC600721-33           Environment         -20 °C to +60 °C           Maximum operation         5% to 90%           Degree of protection according to IEC 60529         IP20 (NEMA 1)           General data         720 °C to +60 °C           Weight         214 mm / 90 mm / 68 mm           Mounting location         Indoors           Mounting location         Indoors           Mounting location         10 to 30 000 reconstruct           Mounting location         10 to 30 27 g mm / 68 mm           Mounting location         10 to 30 27 g mm / 90 mm / 68 mm           Mounting tope         2 yeers           Cartificatis and opprovals (more available on request)         2 yeers           Accessories (optional)         Poents Contact,           Fip hal (ably / bourly)         10 yeer 200 V AC, output 24 V DC / 2.5 A,           SMA order number: I2(2179:00.01         SMA order number: I2(2179:00.01           SMA order number: I2(2179:00.01         Indetto 30 retaction gen	Voltage supply	
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General data         216 mm / 90 mm / 68 mm           Dimensions (W/H/D)         216 mm / 90 mm / 68 mm           Weight         372 g           Mounting bocation         Toophatroll mounting/ voll mounting / voll	Maximum operating altitude above MSL	0 m to 3,000 m (≥70 kPa)
Weight     3/2 g       Mounting location     Indoors       Mounting type     Top-hat roll mounting / voll mounting       Status display     LEDs for system and communication status       Equipment     2 years       Warrany     2 years       Certificates and approvals (more available on request)     www.SMA Solar.com       Accessories (optional)     Phoenix Contact,       Top-hat roll power supply unit     Phoenix Contact,       Top-hat roll power supply unit     SMA order number: CICON-PWRSUPPRY       External IO system     0/0       Communication / protocols     11/2 / 00,011       Chertine constraints     -/ 0       SMA brack - J SMA Data     0/0       Chertine constraintsioning of connected devices     0       Salstant for local commissioning of connected devices     0       Assistant for parameterization of SMA devices locally and with Sunny Portal     0       Update     0     0       Selfupdate via WebUI     0     0       Selfupdate ind connection of a grid-connection of sMA Data     0       Selfupdate ind connection of SMA Data     0       Chertine Modus/TCP (action Sunspec)     0       Selfupdate ind connected via Speedwire     0       Selfupdate ind connected via Speedwire     0       Selfupdate ind connected speedwire devices in SMA Data		IP20 (NEMA 1)
Mounting location         Indexis           Mounting type         Top-hat roll mounting / wall mounting           Status display         LEDs for system and communication status           Equipment         2 years           Cartificates and approvals (more available on request)         www.SMA-Solar.com           Accessories (optional)         Phoenix Contact, and approvals (more available on request)           Top-hat roll power supply unit         Phoenix Contact, and approvals (more available on request)           External IO system         Phoenix Contact, and approvals (more available on request)           External IO system         SMA order number: CICON-PW82NE/PPY           External IO system         Induct on the contact, and and order number: CICON-PW82NE/PPY           External IO system         -/ •           Wrif access to customer network / to direct communication         -/ •           Wrif access to customer network / to direct communication         -/ •           Status disputs/RTU Modbus/RTU Modbus/RTC Plas Sunspec)         -           Server: Macbus/RCP         -           Commissioning         -           Server: Macbus/RCP         -           Commissioning of connected devices         -           Assistant for local commissioning of connected devices         -           Selfupdate via VebUI         -	Dimensions (W/H/D)	216 mm / 90 mm / 68 mm
Mounting type       Top-hat roll mounting / wall mounting         Status display       LEDs for system and communication status         Warranty       2 years         Certificates and approvals (more available on request)       www.SMA.Solar.com         Accessories (optional)       Phoenix Contact, and www.SMA.Solar.com         External IO system       'Dol V AC: to 240 V AC: output: 24 V D C / 2.5 A, SMA order number: CLCON+WKSUPPY         External IO system       'Dol V AC: to 240 V AC: output: 24 V D C / 2.5 A, SMA order number: CLCON+WKSUPPY         Status (Status (St	Weight	372 g
Status display       LEDs for system and communication status         Equipment       2 years         Certificates and approvals (more available on request)       www.SMA-Solar.com         Accessories (optional)       Phoenix Contact, input: 100 V AC to 240 V AC, output: 24 V DC / 2.5 A, SMA order number: LCC/NPWSUPPIY         External IC system       SMA order number: LCC/NPWSUPPIY         External IC system       •/ • •         Communication / protocols       •/ •         FIP push (daily / hourly)       • / •         Wi-fi access to customer network / to direct communication       - / •         SMA Data2 / SMA Data       • / •         Eheirymx for Danfoss for TIX & FIX       •         Cermissioning       •         Assistant for local commissioning of connected via Speedwire       •         Selfupdate and connected Speedwire devices via SMA Update Portal       •         Selfupdate and connected Speedwire devices via SMA Update Portal       •         GateAloop control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Selfupdate and connected Speedwire meter measurement at the point of interconnection       •         Selfupdate and connected Speedwire measurement at the point of interconnection       •         Direct selling via MA SPCT (Peramary)       •         Closed-loop control of a peri-loop contro	Mounting location	Indoors
Equipment         Control           Warranty         2 years           Certificates and approvals (more available on request)         www.SMA.Solar.com           Accessories (optional)         Phoenix Contact, input: 100 V AC to 240 V AC; output: 24 V DC / 2.5 A, SMA order number: 124 179-00.01           External IC system         Colocy (14 G DV/s et pup: 24 V DC / 2.5 A, SMA order number: 124 179-00.01           Communication / protocols         -/-           FIP push (daily / hourly)         -/-           SMA bad2+ / SMA Data         -/-           SMA bad2+ / SMA Data         -/-           Stree: Modusty/TCP         -           Clene: Modbus/TCP (data Sunspec)         -           Server: Modusty/TCP         -           Assistant for local commissioning of connected devices         -           Satistuation of SMA prodet sconnected via Speedwire         -           Remote parameterization of SMA prodet sconnected via Speedwire         -           Satistuation for local connected Speedwire devices via SMA Update Portal         -           Satistuation of a grid-connecter free configuration of a grid-connecter free configuration of a grid-connecter via SMA Data Mupdate Portal         -           Satistuation of a grid-connection meter (measurement at the point of interconnection)         -         -           Dipdets         -         -	Mounting type	Top-hat rail mounting / wall mounting
Warranty       2 years         Certificates and approvals (more available on request)       www.SMA-Solar.com         Accessories (optional)       Wow.SMA-Solar.com         Top-hat roil power supply unit       Phoenix Contact, input: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, SMA order number: CICONPWRSUPPLY         External IO system       SMA order number: CICONPWRSUPPLY         iologik E1214 (6 DI/6 relay outputs), SMA order number: 124179-00.01       -/ •         TP push (dir) / houry)       -/ •         Wi-Fi access to customer network / to direct communication       - / •         SMA Data2+ / SMA Data       - / •         Eherlynk for Danfoss for TU & FLX       •         Client: Modbus/RU, Modbus/TCP (also Sunspec)       •         Server: Modbus/RU, Modbus/TCP       •         Commissioning       •         Assistant for local commeted devices       •         Selfupdate via WebUI       •         Selfupdate via WebUI       •         Selfupdate ord control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Grid Management Services       •         Closed-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Grid Management Services       •       •         Closead-loop control of other SMA Data Managers (EDMM-20) as subordinat	Status display	LEDs for system and communication status
Cartificates and approvals (more available on request)       www.SMA-Solar.com         Accessories (optional)       Phoenix Contact,         Top-hot rail power supply unit       input: 100 V AC; oz 240 V AC; output: 24 V DC / 2.5 A,         SMA order number: CLCON-WYRSUPPY       SMA order number: CLCON-WYRSUPPY         External IO system       0/0 V AC; output: 24 V DC / 2.5 A,         SMA order number: CLCON-WYRSUPPY       SMA order number: 124179-00.01         Communication / protocols       -/ •         FIP push (daily / houry)       •/ •         WiFi access to customer network / to direct communication       -/ •         SMA Data       -/ •         Etherlynx for Danfoss for TIX & FLX       •         Client: Modbus/TCP       •         Server: Modbus/TCP       •         Asistant for local commissioning of connected devices       •         Asistant for local commissioning of connected devices       •         Self-update via WebUI       •         Self-update via WebUI       •         Self-update via WebUI       •         Self-update via dupon-loop control of other SMA Data Managers (EDMA-20) as subordinate devices       •         Closed-loop control and open-loop control of active and reactive power       •       •         Closed-loop control and open-loop control of active and reactiv	Equipment	
Accessories (optional)       Phoenix Contact, input: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 100 VAC to 240 VAC; output: 24 VDC / 2.5 A, isput: 124 VD	Warranty	2 years
Top-hat rail power supply unit       Phoenix Contoct.         Top-hat rail power supply unit       input: 100 V AC; output: 24 V DC / 2.5.A, SMA order number: CLCONPWRSUPPIY         External IO system       iologik E1214 (6 DI//o relay outputs), SMA order number: CLCONPWRSUPPIY         External IO system       •/•         Communication / protocols       •/•         FIP push (daily / hourly)       •/•         Wi-Fi access to custome network / to direct communication       -/•         SMA Data2+ / SMA Data       •/•         Eihertymx for Danfoss for TIX & FLX       •         Client: Modbus/TUC (also Sunspec)       •         Server: Modbus/TCP       •         Commissioning       •         Assistant for parameterization of SMA products connected via Speedwire       •         Self-update via WebUI       •         Self-update via WebUI       •         Self-update via WebUI       •         Self-update via WebUI       •         Self-update via Open-ope control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Self-update and connected Speedwire devices or and Aunagers (EDMM-20) as subordinate devices       •         Open-loop control of other SMA Data Managers	Certificates and approvals (more available on request)	www.SMA-Solar.com
External IC system       SMA order number: CICONPEWRSUPPIY         External IC system       iclogik E1214 (6 DI/6 relay outputs), SMA order number: 124179-00.01         Communication / protocols <ul> <li>FTP push (daily / hourly)</li> <li>(-</li> </ul> FTP push (daily / hourly)         (-         (-               WFit access to customer network / to direct communication         -/<-	Accessories (optional)	Phoenix Contact,
Communication / protocols       SMA order number: 124179-00.01         Communication / protocols       ()         FTP push (daily / hourly)       ()         Wi-Fi access to customer network / to direct communication       -/ ()         SMA Dato2+ / SMA Data       ()         Ethertynx for Danfoss for TLX & FLX       ()         Client: Modbus/TCP       ()         Commissioning       ()         Assistant for local commissioning of connected devices       ()         Assistant for local commissioning of connected devices       ()         Remote parameterization of SMA products connected via Speedwire       ()         Remote parameterization of SMA devices locally and with Sunny Portal       ()         Updates       ()       ()         Self-update via WebUI       ()       ()         Self-update and connected Speedwire devices via SMA Update Portal       ()       ()         Grid Management Services       ()       ()       ()         Closed-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       ()       ()         I'ret configuration of a grid-connection meter (measurement at the point of interconnection)       ()       ()         Direct selling via Modbus/TCP (additional VPN router may be required)       ()       ()       () <td< td=""><td></td><td>SMA order number: CLCON-PWRSUPPLY</td></td<>		SMA order number: CLCON-PWRSUPPLY
FIP push (daily / hourly) <ul> <li>/ •</li> <li>WiFi access to customer network / to direct communication</li> <li>/ / •</li> <li>SMA Data 2+ / SMA Data</li> <li>(-/ •</li> <li>(-/ •</li></ul>		
Wi-Fi access to customer network / to direct communication       -/•         SMA Data2+ / SMA Data       •/•         EtherLytnx for Danfoss for TLX & FLX       •         Client: Modbus/RTU, Modbus/TCP (also Sunspec)       •         Server: Modbus/RTU, Modbus/TCP       •         Commissioning       •         Assistant for local commissioning of connected devices       •         Assistant for parameterization of SMA products connected via Speedwire       •         Remote parameterization of SMA devices locally and with Sunny Portal       •         Updates       •         Self-update via WebUI       •         Self-update and connected Speedwire devices via SMA Update Portal       •         Grid Management Services       •         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Free configuration of a grid-connection meter (measurement at the point of interconnection)       •         Direct selling via Modbus/TCP (additional VPN router may be required)       •         Various options for open-loop and closed-loop control of active and reactive power       •         Manual specifications or specifications transferred via Modbus/TCP       •         Specifications via analog and digital inputs       •         Open-loop and closed-loop active power control (digital in	•	
SMA Data2+ / SMA Data       / •         EtherLynx for Danfoss for TLX & FLX       •         Client: Modbus/TCP (also Sunspec)       •         Server: Modbus/TCP       •         Commissioning       •         Assistant for local commissioning of connected devices       •         Assistant for local commissioning of connected via Speedwire       •         Remote parameterization of SMA products connected via Speedwire       •         Remote parameterization of SMA devices locally and with Sunny Portal       •         Updates       •         Self-update via WebUI       •         Self-update and connected Speedwire devices via SMA Update Portal       •         Grid Management Services       •         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Free configuration of a grid-connection meter (measurement at the point of interconnection)       •         Direct selling via Modbus/TCP (additional VPN router may be required)       •         Various options for open-loop and closed-loop control of active and reactive power       •         Manual specifications or specifications transferred via Modbus/TCP       •         Specifications via analog and digital inputs       •         Open-loop and closed-loop active power control (digital inputs)       •		-
Etherlynx for Danfoss for TLX & FLX       ●         Client: Modbus/RTU, Modbus/TCP (also Sunspec)       ●         Server: Modbus/TCP       ●         Commissioning       ●         Assistant for local commissioning of connected devices       ●         Assistant for parameterization of SMA products connected via Speedwire       ●         Remote parameterization of SMA devices locally and with Sunny Portal       ●         Updates       ●         Self-update via WebUI       ●         Self-update via WebUI       ●         Self-update and connected Speedwire devices via SMA Update Portal       ●         Grid Management Services       ●         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       ●         vices       ●         Free configuration of a grid-connection meter (measurement at the point of interconnection)       ●         Direct selling via Modbus/TCP (additional VPN router may be required)       ●         Various options for open-loop and closed-loop control of active and reactive power       ●         Manual specifications via analog and digital inputs       ●         Open-loop and closed-loop active power control (digital inputs)       ●         Open-loop and closed-loop active power control (digital inputs)       ●         Open-loop		
Client: Modbus/RTU, Modbus/TCP (also Sunspec)       ●         Server: Modbus/TCP       ●         Commissioning       ●         Assistant for local commissioning of connected devices       ●         Assistant for parameterization of SMA products connected via Speedwire       ●         Remote parameterization of SMA devices locally and with Sunny Portal       ●         Updates       ●         Self-update via WebUI       ●         Self-update and connected Speedwire devices via SMA Update Portal       ●         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       ●         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices of a grid-connection meter (measurement at the point of interconnection)       ●         Direct selling via Modbus/TCP (additional VPN router may be required)       ●       ●         Various options for open-loop and closed-loop control of a crice and reactive power       ●       ●         Manual specifications or specifications transferred via Modbus/TCP       ●       ●         Specifications via analog and digital inputs       ●       ●         Open-loop and closed-loop active power control (digital inputs)       ●       ●         Open-loop and closed-loop active power control (digital inputs)       ●       ●         Open-		•/•
Server: Modbus/TCP       ●         Commissioning       ●         Assistant for local commissioning of connected devices       ●         Assistant for parameterization of SMA products connected via Speedwire       ●         Remote parameterization of SMA devices locally and with Sunny Portal       ●         Updates       ●         Self-update via WebUI       ●         Self-update and connected Speedwire devices via SMA Update Portal       ●         Grid Management Services       ●         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       ●         Free configuration of a grid-connection meter (measurement at the point of interconnection)       ●         Direct selling via SMA SPOT (Germany)       ●         Direct selling via Madbus/TCP (additional VPN router may be required)       ●         Various options for open-loop and closed-loop control of active and reactive power       ●         Manual specifications or specifications transferred via Modbus/TCP       ●         Specifications via analog and digital inputs       ●         Open-loop and closed-loop active power control (digital inputs)       ●         Open-loop active power control (P(f))       in the SMA inverter		•
Commissioning         Assistant for local commissioning of connected devices       ●         Assistant for parameterization of SMA products connected via Speedwire       ●         Remote parameterization of SMA devices locally and with Sunny Portal       ●         Updates       ●         Self-update via WebUI       ●         Self-update and connected Speedwire devices via SMA Update Portal       ●         Grid Management Services       ●         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       ●         Free configuration of a grid-connection meter (measurement at the point of interconnection)       ●         Direct selling via SMA SPOT (Germany)       ●         Direct selling via Modbus/TCP (additional VPN router may be required)       ●         Various options for open-loop and closed-loop control of ad reactive power       ●         Manual specifications or specifications transferred via Modbus/TCP       ●         Specifications via analog and digital inputs       ●         Open-loop and closed-loop active power control (digital inputs)       ●         Open-loop and closed-loop active power control (digital inputs)       ●         Open-loop and closed-loop active power control (digital inputs)       ●		•
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Remote parameterization of SMA devices locally and with Sunny Portal <ul> <li>Updates</li> <li>Self-update via WebUI</li> <li>Self-update and connected Speedwire devices via SMA Update Portal</li> <li>Grid Management Services</li> <li>Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices</li> <li>Free configuration of a grid-connection meter (measurement at the point of interconnection)</li> <li>Direct selling via SMA SPOT (Germany)</li> <li>Direct selling via Modbus/TCP (additional VPN router may be required)</li> <li>Various options for open-loop and closed-loop control of active and reactive power</li> <li>Manual specifications or specifications transferred via Modbus/TCP</li> <li>Specifications via analog and digital inputs</li> <li>Open-loop and closed-loop active power control (digital inputs)</li> <li>Closed-loop active power control (P[f])</li> </ul>	•	•
Updates         Self-update via WebUI         Self-update and connected Speedwire devices via SMA Update Portal         Grid Management Services         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices         Free configuration of a grid-connection meter (measurement at the point of interconnection)         Direct selling via SMA SPOT (Germany)         Direct selling via Modbus/TCP (additional VPN router may be required)         Various options for open-loop and closed-loop control of active and reactive power         Manual specifications or specifications transferred via Modbus/TCP         Specifications via analog and digital inputs         Open-loop and closed-loop active power control (digital inputs)         Closed-loop active power control (P[f])		•
Self-update via WebUI <ul> <li>Self-update and connected Speedwire devices via SMA Update Portal</li> <li>Grid Management Services</li> <li>Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices</li> <li>Free configuration of a grid-connection meter (measurement at the point of interconnection)</li> <li>Direct selling via SMA SPOT (Germany)</li> <li>Direct selling via Modbus/TCP (additional VPN router may be required)</li> <li>Various options for open-loop and closed-loop control of active and reactive power</li> <li>Manual specifications or specifications transferred via Modbus/TCP</li> <li>Specifications via analog and digital inputs</li> <li>Open-loop and closed-loop active power control (digital inputs)</li> <li>Closed-loop active power control (P[f])</li> </ul>	, , ,	•
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Grid Management Services         Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices <ul> <li>Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices</li> <li>Free configuration of a grid-connection meter (measurement at the point of interconnection)</li> <li>Direct selling via SMA SPOT (Germany)</li> <li>Direct selling via Modbus/TCP (additional VPN router may be required)</li> <li>Various options for open-loop and closed-loop control of active and reactive power</li> <li>Manual specifications or specifications transferred via Modbus/TCP</li> <li>Specifications via analog and digital inputs</li> <li>Open-loop and closed-loop active power control (digital inputs)</li> <li>Closed-loop active power control (P[f])</li> </ul> <ul> <li>Manual specifications control (P[f])</li> </ul>		•
Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate devices       •         Free configuration of a grid-connection meter (measurement at the point of interconnection)       •         Direct selling via SMA SPOT (Germany)       •         Direct selling via Modbus/TCP (additional VPN router may be required)       •         Various options for open-loop and closed-loop control of active and reactive power       •         Manual specifications or specifications transferred via Modbus/TCP       •         Specifications via analog and digital inputs       •         Open-loop and closed-loop active power control (digital inputs)       •         Closed-loop active power control (P[f])       in the SMA inverter		•
Free configuration of a grid-connection meter (measurement at the point of interconnection) <ul> <li></li></ul>	Closed-loop control and open-loop control of other SMA Data Managers (EDMM-20) as subordinate	•
Direct selling via SMA SPOT (Germany) <ul> <li>Direct selling via Modbus/TCP (additional VPN router may be required)</li> <li>Various options for open-loop and closed-loop control of active and reactive power</li> <li>Manual specifications or specifications transferred via Modbus/TCP</li> <li>Specifications via analog and digital inputs</li> <li>Open-loop and closed-loop active power control (digital inputs)</li> <li>Closed-loop active power control (P(f))</li> <li>in the SMA inverter</li> </ul>		•
Direct selling via Modbus/TCP (additional VPN router may be required) <ul> <li></li></ul>		•
Various options for open-loop and closed-loop control of active and reactive power <ul> <li>Manual specifications or specifications transferred via Modbus/TCP</li> <li>Specifications via analog and digital inputs</li> <li>Open-loop and closed-loop active power control (digital inputs)</li> <li>Closed-loop active power control (P(f))</li> <li>in the SMA inverter</li> </ul>		•
Manual specifications or specifications transferred via Modbus/TCP <ul> <li>Specifications via analog and digital inputs</li> <li>Open-loop and closed-loop active power control (digital inputs)</li> <li>Closed-loop active power control (P(f))</li> <li>in the SMA inverter</li> </ul>		•
Specifications via analog and digital inputs•Open-loop and closed-loop active power control (digital inputs)•Closed-loop active power control (P(f))in the SMA inverter		•
Open-loop and closed-loop active power control (digital inputs)       •         Closed-loop active power control (P(f))       in the SMA inverter		•
Closed-loop active power control (P(f)) in the SMA inverter		•
		in the SMA inverter
Fast shutdown via the digital input $ullet$		- -

Parameterization         Remote parameterization of connected SMA products locally and via Sumy Portal powered by ennexOS       •         Parameter adjustment between SMA devices connected via Speedwire (local and remote)       •         Energy management       •         Self-consumption control using battery systems (combined with SBS2.5, SBS3.7-6.0, Sumy Island)       •         Self-consumption control using battery systems (combined with STPS60-10, STPS X)       •         Peak load shaving (combined with SBS3.7-6.0)       •         Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10)       •         Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10)       •         Threshold-based switching of digital outputs       •         Monitoring EV Charger Business energy and performance values       •         System and device monitoring       •         Comprehensive visualization of power and energy values, status and events       •         Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M       •         Parameterization       •         Remote parameterization of Data Manager and suitable connected devices       •         System and device monitoring analysis       •         Comprehensive visualization of power and energy values, status and events       •         Eneregy m	Technical data	SMA DATA MANAGER M	
Parameter adjustment between SMA devices connected via Speedwire (local and remote) Energy management Self-consumption control using battery systems (combined with SBS2.5, SBS3.7-6,0, Sunny Island) Self-consumption control using battery systems (combined with STPS60-10, STPS X) Peak load shaving (combined with STPS60-10, STPS X) Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10, STPS X) Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10) Threshold-based switching of digital outputs Monitoring EV Charger Business energy and performance values System and device monitoring Comprehensive visualization of power and energy values, status and events Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M Parameterization Remote parameterization of Data Manager and suitable connected devices System and device monitoring, analysis Comprehensive visualization of power and energy values, status and events Energy monitoring of a large number of systems in one user account Energy balance visualization of all data channels of systems and devices Manual data recording for virtual generators, grid-supplied power and grid feed-in, consumers by means of additional energy meters Manual data recording for virtual generators, grid-supplied power plant] Maauud data recording for virtual denergy patiens (PV inverter, combined heat and power plant, gos meter, dise generator, hydroelectric power plant] Maauud data recording for virtual denergy planters Experimg Alter is naces of communication for performance evaluation (for select countries) Reporting Alter is naces of antomusice sharpe by ennexOS (e.g., battery SoC) Service	Parameterization		
Energy management         Self-consumption control using battery systems (combined with SBS2.5, SBS3.7-6.0, Sunny Island)       ●         Self-consumption control using battery systems (combined with STP560-10, STPS X)       ●         Peak load shaving (combined with STP560-10, STPS X)       ●         Optimization of battery systems with timeof-use electricity tariff (combined with SB53.7-6.0)       ●         Optimization of battery systems with timeof-use electricity tariff (combined with STP560-10)       ●         Threshold-based switching of digital outputs       ●         Monitoring EV Charger Business energy and performance values       System and device monitoring         Comprehensive visualization of power and energy values, status and events       ●         Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M       ●         Parameterization       ●         Comprehensive visualization of power and energy values, status and events       ●         Energy monitoring of a large number of systems in one user account       ●         Energy balance visualization of power ond energy meters (PV inverter, combined heat and power bland involues of virtual generators from energy meters (PV inverter, combined heat and power plant)       ●         Manuel data recording for virtual generators from energy meters (PV inverter, combined heat and power plant, gas meter, diesel generator, hydroelectric power plant)       ●         Manuel data recording for virtual gen	Remote parameterization of connected SMA products locally and via Sunny Portal powered by ennexOS	•	
Self-consumption control using battery systems (combined with SBS2.5, SBS3.7-6,0, Sunny Island) Self-consumption control using battery systems (combined with STPS60-10, STPS X) Peak load shaving (combined with STPS60-10, STPS X) Optimization of battery systems with time-of-use electricity tariff (combined with SBS3.7-6,0) Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10) Threshold-based switching of digital outputs Monitoring EV Charger Business energy and performance values System and device monitoring Comprehensive visualization of power and energy values, status and events Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M Parameterization Remote parameterization of Data Manager and suitable connected devices System and device monitoring, analysis Comprehensive visualization of power and energy values, status and events Energy balance visualization of power and energy values, status and events Energy balance visualization of power and energy values, status and events Energy balance visualization of power and energy values, status and events Energy balance visualization of power and energy values, status and events Energy balance visualization (different generators, grid-supplied power and grid feed-in, consumers by means of additional energy meters) Manual data recording for virtual generators from energy meters (PV inverter, combined heat and power plant, gas meter, dised generator, hydroelectic power plant) Measured value evaluation of all data channels of systems and devices Automatic inverter comparison with delfs Satellike-based meteorological data for performance evaluation (for select countries) Reporting Alerts in case of communication faults between Sunny Portal powered by ennexOS and the system Preconfigured reports by e-mail via Sunny Portal powered by ennexOS and the system Preconfigured reports by e-mail via Sunny Portal powered by ennexOS and the system Preconfigured reports by e-mail via Sunny Portal p	Parameter adjustment between SMA devices connected via Speedwire (local and remote)	•	
Self-consumption control using battery systems (combined with STPS60-10, STPS X) Peak load shaving (combined with STPS60-10, STPS X) Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10) Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10) Threshold-based switching of digital outputs Monitoring EV Charger Business energy and performance values System and device monitoring Comprehensive visualization of power and energy values, status and events Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M Parameterization Remote parameterization of Data Manager and suitable connected devices System and device monitoring, analysis Comprehensive visualization of power and energy values, status and events Energy monitoring of using analysis Comprehensive visualization of power and energy values, status and events Energy monitoring of using under of systems in one user account Energy balance visualization of power and energy wales, status and events Energy monitoring of altere conting stress from energy meters (PV inverter, combined heat and power plant, gas meter, diesel generator, hydroelectric power plant) Measured value evaluation of alter data channels of systems and devices Automatic inverter comparison with alerts Statellite-based meteorological data for performance evaluation (for select countries) Reporting Alerts in case of communication faults between Sunny Portal powered by ennexOS and the system Preconfigured reports by e-mail via Sunny Portal powered by ennexOS and the system Alerts in case of communication four powered by ennexOS (e.g., battery SoC) Service	Energy management		
Peak load shaving (combined with SB\$3.7.6.0)       •         Peak load shaving (combined with SP\$50-10, STPS X)       •         Optimization of battery systems with time-of-use electricity tariff (combined with SB\$3.7.6.0)       •         Optimization of battery systems with time-of-use electricity tariff (combined with SP\$60-10)       •         Threshold-based switching of digital outputs       •         Monitoring EV Charger Business energy and performance values       •         System and device monitoring       •         Comprehensive visualization of power and energy values, status and events       •         Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M       •         Parameterization       •         Remote parameterization of Data Manager and suitable connected devices       •         System and device monitoring, analysis       •         Comprehensive visualization of power and energy values, status and events       •         Energy monitoring of a large number of systems in one user account       •         Energy balance visualization (different generators, grid-supplied power and grid feed-in, consumers by means of additional energy meters)       •         Manual data recording for virtual generator, grid-supplied power and devices       •         Automatic inverter comparison with alerts       •         Satellife-based meteorological data for performance evaluat	Self-consumption control using battery systems (combined with SBS2.5, SBS3.7-6.0, Sunny Island)	•	
Peak load shaving (combined with STPS 60-10, STPS X)       •         Optimization of battery systems with time-of-use electricity tariff (combined with SBS3.7-6.0)       •         Optimization of battery systems with time-of-use electricity tariff (combined with STPS 60-10)       •         Threshold-based switching of digital outputs       •         Monitoring EV Charger Business energy and performance values       •         System and device monitoring       •         Comprehensive visualization of power and energy values, status and events       •         Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M       •         Parameterization       •         Remote parameterization of Data Manager and suitable connected devices       •         System and device monitoring, analysis       •         Comprehensive visualization of power and energy values, status and events       •         Energy balance visualization of a large number of systems in one user account       •         Energy balance visualization (different generators, grid-supplied power and grid feed-in, consumers by means of additional energy meters)       •         Manual data recording for virtual generators from energy meters (PV inverter, combined heat and power plant, gas meter, diesel generator, hydroelectric power plant)       •         Measured value evaluation of all data channels of systems and devices       •       •         Satelli	Self-consumption control using battery systems (combined with STPS60-10, STPS X)	•	
Optimization of battery systems with time-of-use electricity tariff (combined with SBS3.7-6.0)       •         Optimization of battery systems with time-of-use electricity tariff (combined with STPS60-10)       •         Threshold-based switching of digital outputs       •         Monitoring EV Charger Business energy and performance values       •         System and device monitoring       •         Comprehensive visualization of power and energy values, status and events       •         Sunny Portal powered by ennexOS in conjunction with SMA Data Manager M         Parameterization       •         Remote parameterization of Data Manager and suitable connected devices       •         System and device monitoring, analysis       •         Comprehensive visualization of power and energy values, status and events       •         Energy monitoring of a large number of systems in one user account       •         Energy balance visualization (different generators, grid-supplied power and grid feed-in, consumers by means of additional energy meters.)       •         Manual data recording for virtual generators from energy meters (PV inverter, combined heat and power plant, gas meter, diesel generator, hydroelectric power plant)       •         Measured value evoluation of all data channels of systems and devices       •       •         Automatic inverter comparison with alerts       •       •         Satellite-based meteorologica	Peak load shaving (combined with SBS3.7-6.0)	•	
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Direct selling via SMA SPOT (Germany)	•	•	
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Use of SMA Energy app	6, TT		
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Type designation and SMA material number EDMM-20	Type designation and SMA material number	EDMM-20	

• Standard features Optional – Not available Version: 05/2024 (Subject to changes)