

Rapid Shutdown Device (RSD) with Power Optimization & Panel-Level Monitoring

- Panel-level monitoring ready for installation validation, service troubleshooting & performance tracking
- NEC 2017 690.12, NEC 2020 690.12 and CSA C22.1 Rule 64-218 rapid shutdown compliant
- Photovoltaic Rapid Shutdown System (PVRSS) certified with industry-leading PV inverters
- Effortless plug and play installation – no finicky network setup required
- Advanced solid-state design architecture



Entelligent NMax RSD with Optimization

- Microprocessor-controlled real-time response management
- Industry-leading pass-through efficiency of 99.8%
- Maximum power point tracking (MPPT) optimization of PV modules only when necessary
- Unique health condition monitoring diagnostics
- Higher efficiency, lower operating temperatures, greater reliability



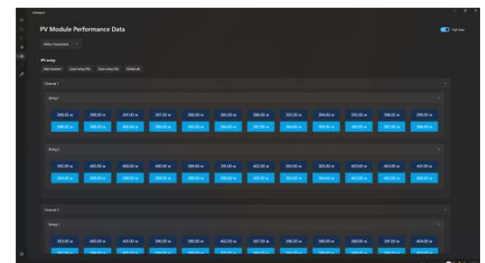
RSTAE

Entelligent NMax Rapid Shutdown Transmitter

- Compatible with Entelligent NMax RSDs with Optimization and other SunSpec™ Certified devices
- Bi-directional power line communication (PLC) provides both RSD permission-to-operate (PTO) & panel-level monitoring data
- Unique coupling transformer architecture reduces cross-talk and false arc-fault detection
- SunSpec Modbus RS-485 output
- DIN rail PV inverter wire box (RSTAI) and weatherproof external wall-mount (RSTAE) configurations

Entelligent NMax Dashboard Application

- Windows® PC compatible
- On-site connectivity via USB dongle
- Facilitates firmware upgrades to connected Entelligent NMax RSDs with Optimization
- Monitors input and output voltage & current, operating mode, internal temperature, health status and others



Specifications

Entelligent NMax RSD with Optimization

Model Number	M900A1	M900B1	M500A1	M500B1
Electrical				
Maximum Input Voltage	80 V	100 V*	80 V	60 V
Maximum Output Voltage	80 V	100 V*	80 V	60 V
Maximum Current	12.5 A	14 A	14 A	12.5 A
Maximum Power	900 W	900 W	500 W	500 W
Maximum Power Consumption	1.8 W	2.2 W	1.0 W	0.8 W
Mechanical				
Dimensions (without cable)	112 x 118 x 46 mm	112 x 118 x 46 mm	112 x 118 x 28 mm	112 x 118 x 28 mm
Weight	700 g	700 g	620 g	620 g
Cable Length	Input Cable: 0.12 m		Output Cable: 1 m	
Cable	12 AWG			
Enclosure Rating	NEMA Type 6P / IP 68			
Features				
Power Optimization	Yes (MPPT)			
Communication Signal	Power Line Communication (PLC)			
Operating Ambient Temperature Range	-40 °C to +85 °C (-40 °F to +185 °F)			
Maximum # Per PV String*	30	30	30	30
Maximum # of PV Modules Per Device*	2	2	1	1
Over-Temperature Protection	Yes	Yes	Yes	Yes
Standards Compliance				
Photovoltaic Rapid Shutdown System	NEC 2017 (690.12), NEC 2020 (690.12), CSA C22.1 No. 64-218			
Safety Compliance	UL 1741, CSA 22.2 No. 107.1			
EMC Compliance	FCC Part 15 Class B; IEC 61000-6-2; IEC 61000-6-3			
Others	SunSpec™ RSD Certified			
Panel-Level Data Communicated				
PV Module-Monitoring* Data: (via connected Entelligent NMax RST)	Voltage Input Voltage Output	Current Input Current Output	Internal Temperature Status Errors	Firmware Version Serial Number
	Operational Mode (Passthrough / Optimization / Stand-By)			
Model Number by Connector Type				
Staubli MC4	M900A1-M4	M900B1-M4	M500A1-M4	M500B1-M4
MC4 Compatible (Friends PV5e)	M900A1-F4	M900B1-F4	M500A1-F4	M500B1-F4



M900A1/ M900B1

Entelligent NMax Rapid Shutdown Transmitter



RSTAI

Model Number	RSTAE-4C4S	RSTAI-4C1S
Mounting Configuration	Weatherproof Box (Wall Mount)	PV Inverter Wiring Box (DIN Rail Mount)
Electrical		
Maximum PV System Voltage	600 Vdc	600 Vdc
Number of PV String Inputs	4	4
Input Device Voltage	85-264 Vac	12 Vdc
Input Device Current	300 mA	300 mA
Mechanical		
Dimensions	260 x 160 x 100 mm	96 x 46.5 x 40 mm
Weight	1.4 kg	140 g
Enclosure Rating	NEMA Type 6P / IP 68	N/A
PV String Connection	Terminal	Wago 221-613 connector
Features		
Operating Ambient Temperature Range	-40°C to +65°C -40°F to +150°F	-40°C to +85°C -40°F to +185°F
Communication Signal	Power Line Communication (PLC)	
Number of PV String Inputs	4	
Maximum # of RSDs per string*	256*	
Output Data Port	RS 485 MODBUS	
Standards Compliance		
Photovoltaic Rapid Shutdown System	NEC 2017 (690.12), NEC 2020 (690.12), CSA C22.1 No. 64-218	
Safety Compliance	UL 1741, CSA 22.2 No. 107.1	
EMC Compliance	FCC Part 15 Class B	
Others	SunSpec™ RSD Certified	

*subject to applicable standards compliance limitations

*when installed with an Entelligent NMax Rapid Shutdown Transmitter (RST)