

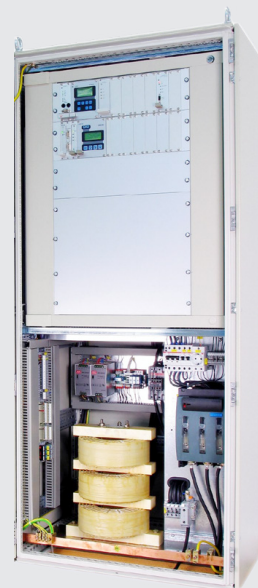
## RTS600

# Ripple Control Transmitter for Medium Voltage Injections

The RTS600 demonstrates the consistent and high-performance evolution of the reliable RTS ripple control series

The RTS600 combines proven functionality with new technical components as well as user-friendly and user-supportive features.

The modular systems architecture enables individual customer fit.



**RTS600**  
with Adaptation Circuit for  
Parallel Coupling



Intelligent RTS-Control for  
seamless and sustainable  
operations



Efficient  
Commissioning



Overload Protected via  
electronic current limiter

## Significant Performance Features

- The highest possible operational safety and compliance
- Output voltage, and thus level on the grid, configurable by parameter
- Optionally possible to extend the voltage control to complete voltage regulation. This automatically adapts the audio frequency level to various power grid conditions.
- Control of up to 3 couplings possible
- Output frequency configurable by parameter, with two frequencies preselectable
- Short circuit and overload protection via electronic current limiter
- Synchronous operation of multiple transmitter installation possible by setting phase offset relative to a pilot frequency
- Logs for 20 failure status entries, with logging of date, time, error number, and error description
- Warning buffer for 20 entries, with logging of date, time, number, and description of warning
- The configured transmission frequency is available for use as an analog signal for measurement purposes and to synchronize with a second transmitter.
- A universal transmitter interface enables voltage-free connection of conventional control signals and messages.

## General Features

The transmitter has been designed especially for the injection of audio frequency signals into the medium voltage level. By using the latest generation of IGBTs in the power stage and highly integrated microprocessor technology in the control unit, along with ISO 9001:2015 - compliant production, the highest degree of reliability and operational safety is achieved.

The transmitter works optimally with all couplings on the market. Adaptation to the individual coupling variant is done by setting parameters. Power variants up to 400 kVA are available.

An important advantage of the RTS600 transmitter generation is its outstanding ease of maintenance. If necessary, the error buffer (up to 20 entries), the warning buffer (up to 20 entries), and the measured value buffer (150 lines of data) can be displayed and processed using the RTSSet software.

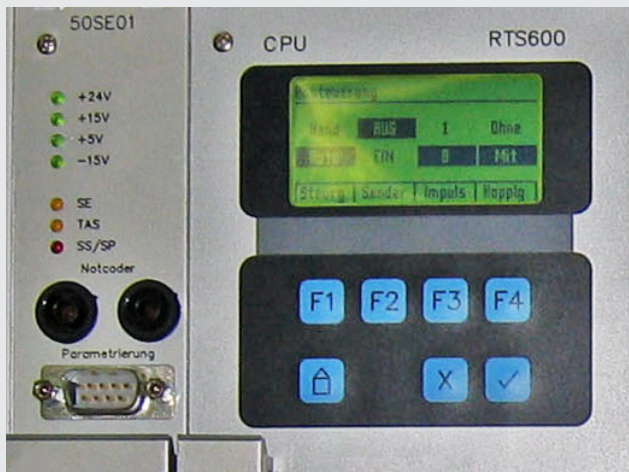
An integrated communications interface enables both remote parameterization and operation and remote diagnosis and maintenance. In case of failure, an alert message can be sent to the on-call service personnel and/or the LMS service team. An exact analysis of the error can then also quickly be initiated over the communications interface.

The RTSSet software enables fast commissioning and clear diagnostics, for which it uses the measurement data stored in the transmitter. Complete parameter sets can be uploaded or downloaded.

All basic functions can also be performed easily without a PC, using a multilanguage display and a keypad.

The standard transmitter rack is used to control the power stage, and is ready for the installation of extensions (such as audio frequency evaluator, voice frequency channel or modem, GPS, etc.) and for the integration of an additional rack with the LCU610 local control unit.

## Extension Options Systems Management



RTS600 – CPU

- RTSSet software for parameter setting, operation, and diagnostics
- Modem interface for remote parameter setting, remote operation, and diagnostics
- SMS interface for notification in case of error
- Emergency code function with 10 freely definable telegrams
- Measurement value buffer for 150 entries
- Voltage control (selection of preset target values using digital inputs or via parameter)
- Voltage regulation
- Operating hour counter
- Power-on time monitoring
- Processing and forwarding of notifications and analog actual values
- Chopper for systems with high reverse energy
- Different cabinet heights, sockets, different cabinet colors
- Service Level agreements

**RTSSet software required**

## Technical Data

Subject to changes

Maximum Nominal Power (Pulse Power)	80 kVA, 120 kVA, 200 kVA, 400 kVA
Duty Ratio / Power-On Time	20 % for ¼ h or 6 % continuous
Input Voltage	380 V, 400 V und 415 V, +10 % - -10 %, 48 - 63 Hz
Nominal Input Current	3 x 120 A, 3 x 180 A, 3 x 300 A, 3 x 600 A
Nominal Output Voltage	3-phase, at least 95% of input voltage at maximum target voltage value; lower output voltage can be configured by parameter
Audio Frequency Range	110 Hz - 1350 Hz
Frequency Accuracy	+/- 0,01%
Power Factor	90° ind - 90° kap
Efficiency	> 95%
Type of Cooling	Air cooled
Intake Air Temperature	0 - +40°C
Protection Class	IP 20 according DIN 40 050 and IEC 144
Humidity Class	F according DIN 40 040
Cabinet Dimensions	1800 x 800 x 600 mm (HxWxD) standard cabinet up to 200 kVA (aother dimensions upon request) 2200 x 800 x 800 mm (HxWxD) for 400 kVA
Cabinet Color	RAL 7035
Connection Matching Circuit	Connection matching circuit for parallel couplings and serial couplings are generally integrated into the cabinet



Local Control Unit LMC610

### Option: Local Control Unit LMC610

The 19"-frame of the transmitter can be used to house a local control unit with the necessary communication modules as a subordinate control unit. A GPS receiver can be integrated for phase synchronization of the transmitter and for time synchronization of the control unit.