

# DS100RT / DS200RT

## 6-10kVA / 10-20kVA

**Rack and Tower Design**

**IGBT Rectifier**

**DSP Control**



DS Power 200 RT Online UPS has DSP technology that can operate in a wide variety of electrical environments. Its compact design allows Rack and Tower operation with a reversible display for flexibility. With DSP control, efficiency, reliability and functionality have been increased to levels that could not be reached with the old analog technology. It offers solutions for your long-term applications with high charging current and parallel battery connection outputs. It is offered with 10-15-20KVA options.

## GENERAL SPECIFICATIONS

- DSP control technology and fully digital structure
- IGBT technology and high efficiency
- Design that allows the use of Racks and Towers
- Suitable for parallel operation
- High input power factor
- $\pm 340\text{VDC}$  battery voltage
- High output efficiency up to 93%
- Selectable input/output voltage/frequency range
- Maintenance bypass switch
- High charging current capacity
- LCD Panel and mimic led diagram
- Reversible display
- Conforms to IEC EN62040
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advanced control at the input
- 3 level battery protection
- Heat compensated charging
- Output current limitation
- Output DC leakage protection
- Output short circuit and overload protection
- External REPO input
- 128 events memory (5.000 alarm)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- 1 RS232 serial port and standard dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features
- User and central service password-protected security
- 2 years warranty

## TECHNICAL SPECIFICATIONS

MODEL	DS106RT	DS110RT
Power (kVA)	6	10
<b>INPUT</b>		
Voltage	220/230 VAC 3P + N + G $\pm$ %15 (%100 yükte)	
Frequency	50Hz / 60Hz, $\pm$ %10	
Power factor (%100 load)	$\geq$ 0.96	
THDI (*)	$\leq$ %5	
By-pass voltage	220/230 VAC 1 Phase+ N, $\pm$ 10	
Bypass Frequency	50Hz $\pm$ %5	
Protection	Fuses, High Voltage (Surge Arrester) Protection, Voltage and Frequency tolerance, Input power limitation, Phase reverse protection	
<b>OUTPUT</b>		
Power (kW)	5.4	9.0
Power factor	0.9	
Voltage	220/230 VAC 1P + N, $\pm$ %1	
Frequency	50Hz / 60Hz	
Frequency tolerance	Synchronized to the network: $\pm$ 2% / Free operation: $\pm$ 0.1%	
Efficiency (%100 load)	up to 93%	
Crest factor	3:1	
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass	
Other protections	Intelligent short circuit protection, Voltage tolerance protection, DC balance, Regenerative load, Current limiting protections	
Voltage THD	$\leq$ %2 (%100 linear load)	
<b>BATTERIES</b>		
Type	Maintenance-free dry type	
Number of batteries	20 piece (20-28 adjustable)	
Charge voltage	$\pm$ 270 VDC	
End of discharge voltage	$\pm$ 210 VDC	
Charging Current (Independent of output load)	2A DC	3A DC
Battery cabinet	External	
External Battery Inputs	Standard (Up to 4 pcs-Socket Type)	
Battery ambient temperature	25°C	
Protections	3-level alarm, Battery fuses, Charging current limitation (standard) Heat compensated battery charging system (optional)	
Battery testing	Standard (Automatic or Manual)	
<b>GENERAL</b>		
Standards	EN62040-1, EN62040-2, EN62040-3	
User interface	User Interface 2x16 lines LCD panel, Mimic led panel, 5 vector buttons, Buzzer	
Indicators	Phase-N voltage, Phase-Phase voltage, Current, Power, Crest Factor, Frequency, PF,	
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter	
Communication	RS232 serial port, 4 standard NO/NC dry contacts	
Inputs	EPO (emergency shutdown) input	
Software	Standard T-Mon UPS Management software (3 users + 1 server management)	
Alarm recording	Standard: time & date 128 events (5000 Alarms)	
Protector	Power module over-heat protection, Over-current, Heat high alarm	
Temperature range	0°C - 40°C	
Protection degree	IP20	
Power Connections	Klemens	
Insurance and Breakers	Inlet, Outlet, Battery and Maintenance Bypass Insurance (Standard)	
Relative humidity	90% max. (non-condensing)	
Altitude	<2000m. above sea level (at nominal power)	
Acoustic level	< 55 dBA	
Weight (kg)	34	36
Dimensions (mm) HxWxD	585x215x775	
<b>OPTIONS</b>		
Different input / output voltage	Please ask	
Transformer	Galvanic isolation transformer at the input & output	
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 10-50-100-200 clients	
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer	
Parallel operation	2 Pcs (Please ask)	
(*) Depends on Input/Output voltage conditions and power		

## TECHNICAL SPECIFICATIONS

MODEL	DS210RT	DS215RT	DS220RT
Power (kVA)	10	15	20
<b>INPUT</b>			
Voltage	380/400 VAC 3P + N + G $\pm$ %15 (%100 load)		
Frequency	50Hz / 60Hz, $\pm$ %10		
Power factor (%100 load)	$\geq$ 0.96		
THDI (*)	$\leq$ %25		
By-pass voltage	220/230 VAC 1 Phase + N, $\pm$ 10		
Bypass Frequency	50Hz $\pm$ %5		
Protection	Fuses, High Voltage (Surge Arrester) Protection, Voltage and Frequency tolerance, Input power limitation, Phase reverse protection		
<b>OUTPUT</b>			
Power (kW)	9	13.5	18
Power factor	0.9		
Voltage	220/230V VAC 1P + N, $\pm$ %1		
Frequency	50Hz / 60Hz		
Frequency tolerance	Synchronized to the network: $\pm$ 2% / Free operation: $\pm$ 0.1%		
Efficiency (%100 load)	up to 93%		
Crest factor	3:1		
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass		
Other protections	Intelligent short circuit protection, Voltage tolerance protection, DC balance, Regenerative load, Current limiting protections		
Voltage THD	$\leq$ %2 (%100 linear load)		
<b>BATTERIES</b>			
Type	Maintenance-free dry type		
Number of batteries	20 piece (20-28 adjustable)		
Charge voltage	270 VDC		
End of discharge voltage	210 VDC		
Charging Current (Independent of output load)	3A DC	4A DC	5A DC
Battery cabinet	External		
External Battery Inputs	Standard (Up to 4 pcs-Socket Type)		
Battery ambient temperature	25°C		
Protections	3-level alarm, Battery fuses, Charging current limitation (standard) Heat compensated battery charging system (optional)		
Battery testing	Standard (Automatic or Manual)		
<b>GENERAL</b>			
Standards	EN62040-1, EN62040-2, EN62040-3		
User interface	User Interface 2x16 lines LCD panel, Mimic led panel, 5 vector buttons, Buzzer		
Indicators	Phase-N voltage, Phase-Phase voltage, Current, Power, Crest Factor, Frequency, PF,		
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter		
Communication	RS232 serial port, 4 standard NO/NC dry contacts		
Inputs	EPO (emergency shutdown) input		
Software	Standard T-Mon UPS Management software (3 users + 1 server management)		
Alarm recording	Standard: time & date 128 events (5000 Alarms)		
Protector	Power module over-heat protection, Over-current, Heat high alarm		
Temperature range	0°C - 40°C		
Protection degree	IP20		
Power Connections	Klemens		
Insurance and Breakers	Inlet, Outlet, Battery and Maintenance Bypass Insurance (Standard)		
Relative humidity	90% max. (non-condensing)		
Altitude	<2000m. above sea level (at nominal power)		
Acoustic level	< 55 dBA		
Weight (kg)	36	48	56
Dimensions (mm) HxWxD	133x430x685		
<b>OPTIONS</b>			
Different input / output voltage	Please ask		
Transformer	Galvanic isolation transformer at the input & output		
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 10-50-100-200 clients		
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer		
Parallel operation	2 Pcs		
(*) Depends on Input/Output voltage conditions and power			