



# STATYS

32 to 1800 A

## ULTIMATE

Fault tolerant power  
without compromise



# OBJECTIVES

The aim of these specifications is to provide:

- the information required to choose the right Static Transfer System (STS) for a specific application.
- the information required to prepare the system and installation site.

The specifications are intended for:

- installation engineers.
- design engineers.
- engineering consultants.

# INSTALLATION REQUIREMENTS AND PROTECTION

Connection to the mains power supply and to the load(s) must be made using cables of suitable size, in accordance with current standards. If not already present, an electrical control station which can isolate the network upstream of the STATYS must be installed. This electrical control station must be equipped with a circuit breaker of an appropriate rating for the power draw at full load.

If an RCD is required a selective B-type should be used. It must be coordinate with residual current circuit breakers downstream of the STATYS connected to the STATYS output.

Potential dispersion of current from utilities downstream of the STS should be added to that discharged from the STATYS, and it should also be noted that current peaks are also reached, albeit very briefly, during transitory phases.

If an external manual bypass is required, only the model supplied by the manufacturer must be installed. For the Integrable Chassis version, STATYS is able to manage the PDU's switches (input/output/maintenances bypasses) in order to protect against users miss-operation.

For detailed information, see the installation and operating manual.

# 1. ARCHITECTURE

## 1.1 RANGE

STATYS is a range of high performing STS designed to protect critical and sensitive appliances applications in the IT, telecom and industrial fields, such as enterprise servers, storage systems, networking equipment, telecommunications systems, diagnostic/medical devices and industrial applications.

Models															
	1-phase (A)		3-phase (A)												
	32	63	63	100	200	300	400	600	630	800	1000	1250	1400	1600	1800
19" RACK	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-
Integrable Chassis (OEM)	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Cabinet	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-

Matrix table for model and A current rating

Each range has been specifically designed to meet the demands of loads in specific application contexts, in order to optimise the features of the product and to facilitate its integration within the system.

## 2. FLEXIBILITY

### 2.1 CURRENTS FROM 32 TO 1800 A

Dimensions						
Model		Range	Width (mm)	Depth (mm)	Height (mm)	
1 phase	19" Rack	32/63 A	483 (19")	747 <sup>(1)</sup>	89 (2U)	
		63/100 A		648 <sup>(1)</sup>	400 (9U)	
3 phases	Integrable Chassis (OEM)	200 A	400	586	765	
		300/400 A	600			
		600/630 A	800			
		800/1000 A	1000	950 <sup>(1)</sup>		1930
		1250/1800 A	910	815		1955
	Cabinet	200 A	500	600 <sup>(1)</sup>	1930	
		300/400 A	700			
		600/630 A	900			
800/1000 A		1400	950 <sup>(1)</sup>	1930		
1250/1600 A		2010	815	1955		

(1) Depth does not include handles (+40 mm)

The equipment has been designed with a minimum direct and indirect footprint (the actual space occupied by the unit and the space required around it for maintenance, ventilation and access to the operating mechanisms and communication devices).

Please contact us for any other requirement.

### 2.2 NEUTRAL MANAGEMENT

STATYS is well adapted to all electrical environments.

For single-phase units, STATYS is available in 2-pole switching.

For three-phase units, it is available in 3 or 4-poles switching.

Built with fully rated thyristors, STATYS forces a short "make before break" neutral switching principle in order to keep the load reference and reduce the transfer time.

### 2.3 TRANSFORMER MANAGEMENT

In case of downstream transformer and asynchronous power, STATYS handles source switching which prevents untimely protection tripping, thanks to the ATSM system

## 3. STANDARD AND OPTIONS

### 3.1 STANDARD INTERNAL REDUNDANT DESIGN

- Individual driver per SCR paths, with dedicated local power supplies,
- Redundant cooling with fan failure monitoring,
- Real-time SCR fault sensing,
- Separation of main functions to prevent internal fault propagation,
- Robust internal field communication bus,
- Internal monitoring of sensors to ensure maximum system reliability,
- 24/7/365 real-time remote monitoring.

### 3.2 OPTIONAL REDUNDANCY (IN STANDARD FOR STATYS ABOVE 800A)

- Redundant control system, using two microprocessor control boards,
- Redundant power supplies of the control boards,
- Dedicated Redundant power supplies for SCR driver boards

### 3.3 COMPACT DESIGN

- Small footprint and compact units,
- Adjacent or back to back mounting,
- Front access for easy maintenance procedures,
- Compact Hot Swap 19" rack system.

### 3.4 STANDARD FEATURES

- Smart commutation system configurable according to the load.
- Synchronised and non-synchronised sources management (fully settable transfer modes).
- Fuse-free or fuse-protected design.
- Output fault management.
- Double maintenance bypass (rack and cabinet versions).
- Neutral oversizing for non-linear loads compatibility.

### 3.5 STANDARD COMMUNICATION FEATURES

- Ethernet network connection (WEB interface, SNMP and e-mail).
- I/O dry contacts interfaces.
- Flexible Com Slots.
- LCD and 7" Color Touchscreen.
- Full digital configuration and setting.

### 3.6 ADITIONAL OPTIONS

- Additional dry contacts interface board.
- MODBUS RTU.
- Profibus interface.
- Automatic maintenance bypass interlock.
- Voltage adaptation.

### 3.7 REMOTE MONITORING SERVICE

- SoLink, remote monitoring service that connects your UPS to your Critical Power specialist 24/7.

# 4. SPECIFICATIONS

## 4.1 INSTALLATION PARAMETERS

1 phase:

Installation parameters			
Model		32	63
Phase in/out		1/1	1/1
Rated power (A)		32	63
Maximum current on neutral <sup>(2)</sup>		32	63
Crest factor		< 3.5	
Minimum air flow (m <sup>3</sup> /h)		26	
Sound level (dBA)		< 45	
Dissipation at rated load <sup>(1)</sup>	(W)	80	184
	kcal/h	69	160
	BTU/h	272	628
Dimensions Rack	W (mm)	483	
	D (mm)	747	
	H (mm)	89	
Weight (kg)		26	

(1) Worst case:

- 4 pole switching
- cabinet version with internal input protection
- 4 wires
- no linear load

(2) Contact us for higher neutral sizing

3 phases:

Installation parameters														
Model	63	100	200	300	400	600	630	800	1000	1250	1400	1600	1800	
Phase in/out	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3
Rated power (A)	63	100	200	300	400	600	630	800	1000	1250	1400	1600	1800	
Maximum current on neutral <sup>(2)</sup>	126	173	340	630		1000	1000	800	1000	1600			1800	
Crest factor	< 3.5		< 3.5				< 3.3	< 2.1	< 1.7	< 1.7				
Minimum air flow (m <sup>3</sup> /h)	60		553	642		627	627	1950			3000			
Sound level (dBA)	< 45		60	56		54	54	61			84			
Dissipation at rated load <sup>(1)</sup> CABINET or Rack	(W)	340	540	1330	1690	2530	3730	3917	4272	5597	6705	7238	7905	-
	kcal/h	293	464	1147	1457	2181	3216	3377	3674	4813	5765	6224	6797	
	BTU/h	1160	1843	4538	5766	8632	12727	13364	14536	19042	22829	24647	26916	
Dissipation at rated load <sup>(1)</sup> OEM	(W)			1090	1430	1990	3020	3171	4133	5380	6705	7238	7905	8971
	kcal/h	-		940	1233	1716	2603	2734	3554	4626	5765	6224	6797	7714
	BTU/h			3722	4883	6795	10308	10824	14074	18319	22829	24647	26916	30547
Dimensions Rack	W (mm)	483												
	D (mm)	648												
	H (mm)	400												
Dimensions OEM	W (mm)			400	600	800	1000	910						
	D (mm)	-		586				995			815			
	H (mm)			765				1930			1955			
Dimensions CABINET	W (mm)			500	700	900	1400	2010						
	D (mm)	-		600				995			815			
	H (mm)			1930						1955				
Weight (kg)	Rack	58												
	OEM	-		70	105	130	495	570						
	Cabinet	-		195	270	345	685	1200			-			

## 4.2 ELECTRICAL CHARACTERISTICS

Electrical characteristics - Operating range			
Model	RACK 32/63 A	RACK 63/100 A	CABINET / OEM
Rated mains supply voltage <sup>(1)</sup>	120 to 127 V / 220 to 240 V / 254 V (ph+N or ph+ph)	208 to 220 V / 380 to 415 V (3ph+N or 3ph)	
RMS voltage tolerance	±10% (configurable)		
Tolerance to fast transients	±25% (configurable)		
Rated Frequency	50/60 Hz		
Frequency tolerance	±5% (configurable)		
Admitted Power Factor	no restriction		
Admitted overload	110% for 60 minutes, 150% for 2 minutes <sup>(2)</sup>		

(1) Consult us for other voltage requirements.

(2) for 630A model only : 105% 60min 150% 1min

Electrical characteristics - Environment			
Model	RACK 32-63	RACK 63-100	CABINET / OEM
Storage temperature	-25 to +70 °C (-13 to +158 °F)		
Working temperature	from 0°C up to 40°C (32°F up to 104°F) up to 50 °C with derating		
Maximum relative humidity (non-condensing)	95%		
Maximum altitude without derating	1000 m (3300 ft)		
Degree of protection	IP30		IP20 (cabinet), IP20 C (OEM)
Colour	Dark grey, door: light grey		
Performance	up to 99%		
Leakage current	<10mA	<10mA	<30mA

# 5. REFERENCE STANDARDS AND DIRECTIVES

## 5.1 OVERVIEW

The equipment, installed, used and serviced in accordance with its intended use, its regulations and standards, its manufacturer instructions and rules, is in compliance with the relevant Union harmonisation legislation:

### **LVD 2014 / 35 / EU**

DIRECTIVE 2014/35/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014, on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits.

### **EMC 2014 / 30 / EU**

DIRECTIVE 2014/30/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014, on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.

### **RoHS 2011/65/EU**

Directive 2011/65 of the European parliament and of the council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment

## 5.2 STANDARDS

### 5.2.1 SAFETY

EN 62310-1 Static transfer systems (STS) – General and safety requirements

IEC 62310-1 Static transfer systems (STS) – General and safety requirements

### 5.2.2 ELECTROMAGNETIC COMPATIBILITY

EN 62310-2 Static transfer systems (STS) – Electromagnetic compatibility (EMC) requirements

IEC 62310-2 Static transfer systems (STS) – Electromagnetic compatibility (EMC) requirements

## 5.3 SYSTEM AND INSTALLATION GUIDELINES

When carrying out electrical installation, all the above standards must be observed. All national and international standards ( e.g IEC60364 )applicable to the specific electrical installation must be observed. For further information refer to 'Technical specifications' chapter in the user manual.