

**iSTS**



**Static Transfer Switch**



**Catalogue  
2020**



# STATIC POWER

Static Power was formed in 2002 and is based in Melbourne, Australia. We serve clients in over 50 countries with 85% of our products heading overseas.



## **Our Mission**

Our mission is to lead in the manufacture of high-quality and reliable Static Transfer Switches, and to offer unique client focused solutions globally.

## **Static Transfer Switch Experts**

Our product range has grown to include unique rack mount, wall mount and freestanding models. Using our standard product models as a base, we engineer unique customisations so that complete integration compatibility can be achieved.

The design philosophy of our iSTS products emphasises ruggedness, practicality and reliability. We understand critical power and have equipped iSTS switches with the latest supervisory and data acquisition controls to enable easy and straight-forward integration and operation. We proudly design and manufacture the smallest footprint, highest-MTBF, fully featured products in their respective classes.

## **Quality Products**

We strive to provide the highest quality products that meet the requirements of local and international standards. Our units are manufactured to comply with all applicable STS standards; 62310-1, 2, & 3 safety and regulatory standards. Our units are tested to comply with CBEMA/ITIC & SEMI power quality standards.

Standards to which conformity is declared: CE, RCM, RoHS and UL & CSA capable.

## **Contact Us**

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# 19" RACK MOUNTED

With a MTBF in excess of 800,000 hours, Static Power's 19" rack iSTS are dedicated to applications requiring a high level of reliability.

All iSTS B models have an integrated maintenance bypass with hot socket field replaceable power module facilitating maintenance and reducing Time To Repair – MTTR – to a minimum.

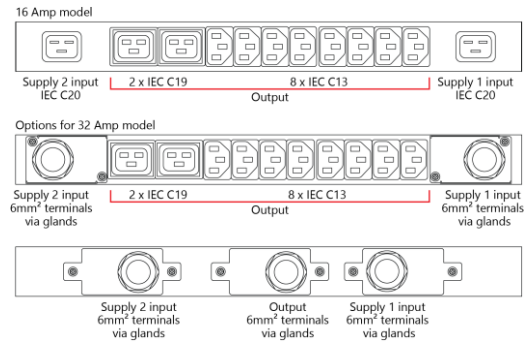
The true solid state iSTS A1 with its multiple inputs/output configurations replace advantageously inferior relay or hybrid ATS.

All our 19"rack iSTS are adaptable to particular applications or requirements.

## Key features:

- True solid state, Break-Before-Make transfer
- Transfer time: <1ms to ¼ cycle
- MTBF > 800,000h
- Hot socket replaceable power module\*
- Maintenance bypass\*
- Incoming source isolators
- HTTP, SNMP, MODBUS TCP, email and NTP\*\*

\*Except iSTS A1 \*\*iSTS A1 optional



iSTS A1 – Inputs/Output configurations

## iSTS A1




- 1RU/19"
- 50/60Hz
- 1kA
- LAN
- By Pass
- Hot Socket

1 Ph **32A**

3 Ph

## iSTS B1




- 1RU/19"
- 50/60Hz
- 2kA
- LAN
- By Pass
- Hot Socket

1 Ph **32A**

3 Ph

## iSTS B2



- 2RU/19"
- 50/60Hz
- 2kA
- LAN
- By Pass
- Hot Socket

1 Ph **125A**

3 Ph **63A**





## iSTS B4



- 4RU/19"
- 50/60Hz
- 5kA
- LAN
- By Pass
- Hot Socket

1 Ph **250A**

3 Ph **160A**

				
	<b>iSTS A1</b>	<b>iSTS B1</b>	<b>iSTS B2</b>	<b>iSTS B4</b>
<b>Current rating</b>	16A and 32A		1Ph: 125A max 3Ph: 63A max	1Ph: 250A max 3Ph: 160A max
<b>Voltage rating</b>	115V or 230V, ±15%	All region-specific voltages selectable ±10%		
<b>Type</b>	1-Phase/2-Pole		1-Phase/2-Pole, 3-Phase/3-Pole or 3-Phase/4-Pole	
<b>Frequency</b>	50Hz and 60Hz, ±10% - Auto detection			
<b>Transfer type</b>	Break-Before-Make zero current transfer by Thyristors / SCR			
<b>Synchronous break time</b>	<1ms - asynchronous break time up to ¼ cycle			
<b>MTBF</b>	>1,000,000 hours	>800,000 hours		
<b>Maintenance bypass</b>	None	Cradle with 3-position overlapping, no-break CAM switch		
<b>Isolation</b>	Optional incoming source isolator switches, front mounted	Incoming sources isolator switches		
<b>Display</b>	Bi-colour LED mimic decal with load indication	Bi-colour LED mimic decal with graphic OLED display and information interface		
<b>Interface</b>	Preferred supply selection, Source transfer selection and Alarm cancel button			
<b>Contact</b>	One voltage free general alarm indicator, Form A or Form B - SPST	2 Self wetting transfer control inputs 5 Voltage free change-over status indicators, Form C		
<b>Ethernet</b>	LAN optional	HTTP, SNMP, MODBUS TCP, Email & NTP		
<b>Input options</b>	16A: IEC C20 sockets 32A: 6mm <sup>2</sup> terminals with glands	Fixed wiring to terminals up to 6mm <sup>2</sup> cables via glands	Fixed wiring to terminals up to 16mm <sup>2</sup> cables via glands	Fixed wiring to terminals up to 70mm <sup>2</sup> cables via glands
<b>Output options</b>	16A: 2 x IEC C19 + 8 x IEC C13 sockets 32A: 2 x IEC C19 + 8 x IEC C13 sockets or 6mm <sup>2</sup> terminals with glands	Fixed wiring to terminals up to 6mm <sup>2</sup> cables via glands	Fixed wiring to terminals up to 16mm <sup>2</sup> cables via glands	Fixed wiring to terminals up to 70mm <sup>2</sup> cables via glands
<b>Dimensions H x W x D</b>	16A: 1RU/19" - 44 x 483 x 285mm 32A: 1RU/19" - 44 x 483 x 307mm	1RU/19" - 44 x 483 x 510mm	2RU/19" - 88 x 483 x 460mm	4RU/19" - 177 x 483 x 650mm
<b>Weight</b>	5kg	11kg	15kg	38kg
<b>Temperature</b>	0 – 40°C	0 – 45°C		
<b>IP rating</b>	IP31			
<b>Detection</b>	Digital: <1ms			
<b>Asynchronous break time</b>	0ms, 10ms, 50ms or Vt proportional, 0° to 180°			
<b>Loading</b>	0 - 100% @40°C ambient	0 - 100% @45°C ambient		
<b>Device ratings</b>	80A <sub>RMS</sub> , 1400V 1kA for 1 cycle	150A <sub>RMS</sub> , 1400V 2kA 1 cycle	134A <sub>RMS</sub> , 1600V 2kA 1 cycle	250/300A <sub>RMS</sub> , 1400V 3.5kA/5kA 1 cycle
<b>Overload @40°C ambient</b>	40A for 30s 63A for 1s 115A for 0.1s	63A for 30s 100A for 1s 225A for 0.1s	125A for 30s 140A for 1s 250A for 0.1s	125% for 10min, 150% for 30s 200% for 1s, 300% for 0.1s 5kA for 1 cycle
<b>Fault current setting</b>	300% peak with load fault transfer inhibit	>350% peak with load fault transfer inhibit		
<b>Safe install environment</b>	20kA, 100A internally fused		20kA, 100A/200A internally fused	20kA, 300A internally fused
<b>Protection</b>	100A fuses - BS88/FE100		100A/200A fuses - BS88/FE100	300A fuses – aR-NGT00
<b>Power factor</b>	No practical limit			
<b>Max THDV</b>	10% - Max allowable source voltage distortion			
<b>Crest factor</b>	3 : 1	3.5 : 1		
<b>dV/dt max</b>	800V/µs			
<b>Cooling</b>	Passive		Redundant fans	
<b>Humidity @40°C ambient</b>	5 – 95% non-condensing			
<b>Regulatory approvals</b>	IEC 62310-1,2,3 - IEC 60950 - IEC 61000-6-1,2,3,4 – CE – RCM - UL Capable - RoHS			
<b>Standard warranty</b>	24 months onsite repair or replacement policy			

Specifications are subject to change without notice



Learn more about 19" rack iSTS

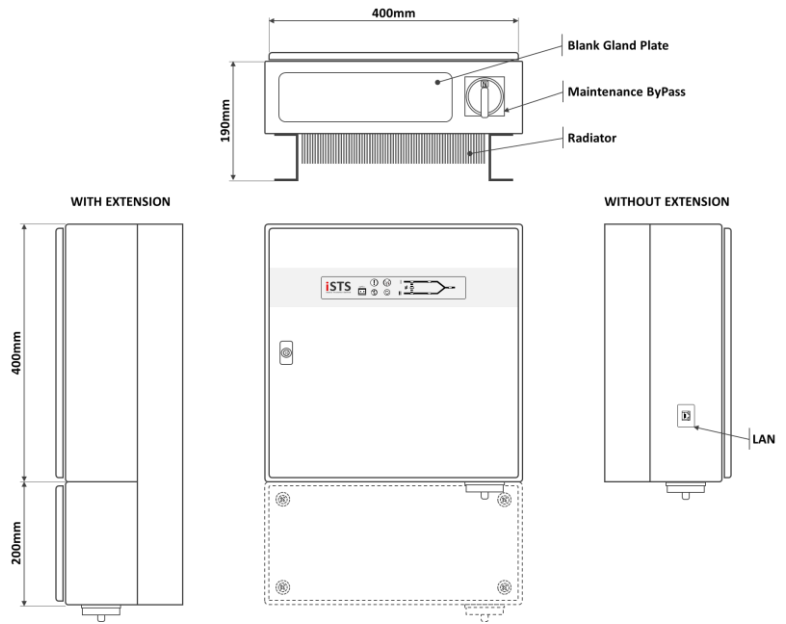
# iSTS Model F

## The IP54, naturally cooled wall mounted iSTS

Superior in performance and ruggedness, the iSTS Model F are designed for tough environments where power availability is essential.

### Key features

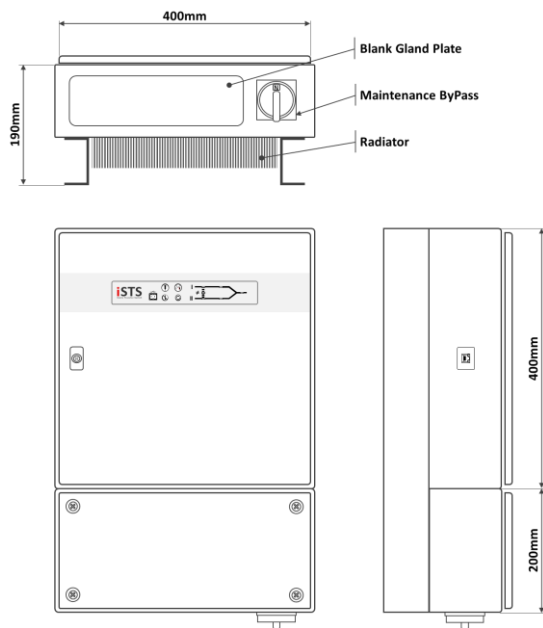
- Wall mounted
- IP54 – 45/55°C ambient
- Passive Cooling (No fans)
- Single phase, 3-phase/3 or 4-pole
- Built-in transient voltage protection
- UPS Eco-Mode compatible
- Safe asynchronous source transfers
- Very high MTBF (>800,000 hours)
- Manual and automatic transfers selection
- Maintenance Bypass pad-lockable
- Preferred source selection
- Visual and sound alarms
- Bi-colour LED mimic
- 5 off Voltage free alarm contacts
- Remote transfer inputs
- Australian designed & manufactured



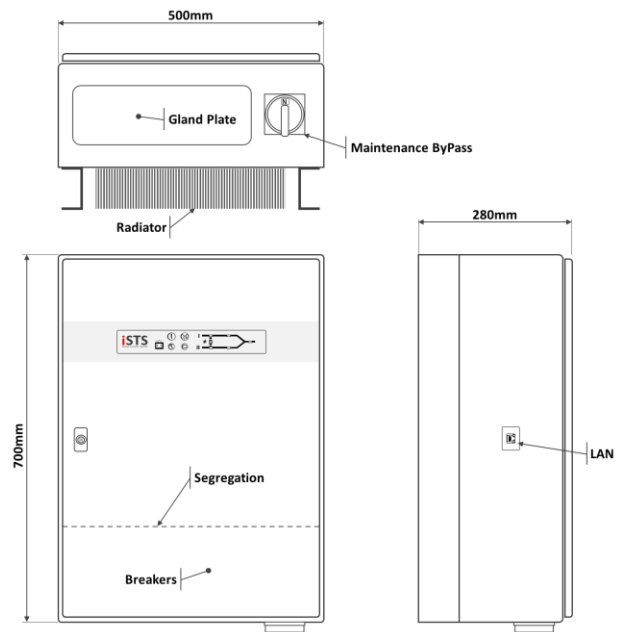
**iSTS F1**

### Available options




- Ethernet module for LAN/TCP, Modbus & SNMP
- Stainless steel enclosure



**iSTS F3**



**iSTS F4**

			
	<b>iSTS F1</b>	<b>iSTS F3</b>	<b>iSTS F4</b>
<b>Current rating</b>	1Ph: Up to 32A	1Ph: 125A 3Ph: 63A	1Ph: 250A 3ph: 125A
<b>Voltage rating</b>	115V or 230V, ±10%	All region-specific voltages selectable ±10%	
<b>Type</b>	Single phase	Single phase, 3-Phase/3-Pole or 3-Phase/4-Pole	
<b>Frequency</b>	50Hz and 60Hz, ±10% - Auto detection		
<b>Transfer type</b>	Break-Before-Make zero current transfer by Thyristors / SCR		
<b>Synchronous break time</b>	Synchronous break time up to ¼ cycle		
<b>MTBF</b>	>800,000 hours		
<b>Maintenance bypass</b>	3 Positions CAM Switch - Lockable		
<b>Isolation</b>	Inputs and output breakers <i>Optional</i>	Inputs and output breakers	
<b>Display</b>	Bi-colour LED mimic decal		
<b>Interface</b>	Preferred supply selection, Source transfer selection and Alarm cancel buttons		
<b>Contact</b>	One voltage free general alarm indicator	5 voltage free alarm indicator	
<b>Ethernet</b>	LAN - Optional		
<b>Inputs/Output</b>	M8 bolted terminals		M8/M10 bolted terminals
<b>Dimensions &amp; Weight</b>	<i>Without extension:</i> W400 x D190 x H400mm – 12kg <i>With extension:</i> W400 x D190 x H600mm – 15kg	W400 x D190 x H600mm – 34kg	W500 x D280 x H700mm – 47kg
<b>Temperature</b>	0 – 55°C		0 – 45°C
<b>IP rating</b>	IP54		
<b>Detection</b>	Digital: <1ms		
<b>Asynchronous break time</b>	Vt proportional up to 12ms, 0° to 180°		
<b>Loading</b>	0.5A - 100% @55°C ambient	0 - 100% @55°C ambient	0 - 100% @45°C ambient
<b>Device ratings</b>	150 <sub>A</sub> RMS, 1400V, 2kA for 1 cycle	132 <sub>A</sub> RMS, 1600V, 2kA for 1 cycle	300 <sub>A</sub> RMS, 1600V, 5kA for 1 cycle
<b>Overload @45/55°C ambient</b>	200% for 30s 300% for 1s 2kA for 1 cycle	400% for 0.1s	125% for 10min    200% for 1s 150% for 30s    300% for 0.1s 5kA for 1 cycle
<b>Fault current setting</b>	300% peak with load fault transfer inhibit		
<b>Safe install environment</b>	20kA, 300A internally fused		
<b>Protection</b>	100A fuses - BS88/FE100		300A fuses – aR-NGT00
<b>Power factor</b>	No practical limit		
<b>Max THDV</b>	10% - Max allowable source voltage distortion		
<b>Crest factor</b>	3 : 1		
<b>dV/dt max</b>	800V/µs		1000V/µs
<b>Cooling</b>	Passive		
<b>Humidity @40°C ambient</b>	5 – 95% non-condensing		
<b>Regulatory approvals</b>	IEC 62310-1,2,3 - IEC 60950 - IEC 61000-6-1,2,3,4 – CE – RCM - UL Capable - RoHS		
<b>Standard warranty</b>	24 months offsite repair or replacement policy		

Specifications are subject to change without notice



Learn more about iSTS Model F

# WALL MOUNTED

With a MTBF in excess of 800,000 hours, Static Power’s wall mount iSTS are dedicated to applications requiring a high level of reliability.

The iSTS W and iSTS B4w are fused for fault current up to 5kA. iSTS C and iSTS Hw are designed fuseless for fault current up to 20kA

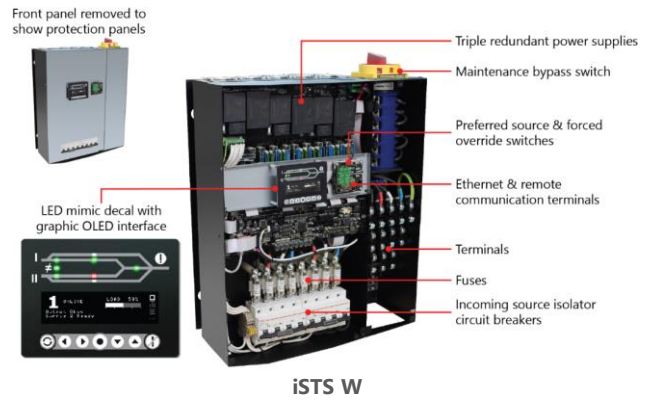
The iSTS B4w integrates a hot socket field replaceable power module facilitating maintenance and reducing Time To Repair – MTTR - at its minimum.

All our wall mount iSTS are adaptable to particular applications or requirements.

## Key features:

- True solid state, Break-Before-Make transfer
- Transfer time: <1ms to ¼ cycle
- MTBF > 800,000h
- Fault current up to 20kA
- Maintenance bypass
- Incoming sources and output isolators
- Hot socket replaceable power module\*
- HTTP, SNMP, MODBUS TCP, email and NTP

*\*for iSTS B4w only*



## iSTS W



- Fuse
- 50/60Hz
- 2kA
- LAN
- By Pass
- Hot Socket

1 Ph	160A
3 Ph	100A

## iSTS B4w



- Fuse
- 50/60Hz
- 5kA
- LAN
- By Pass
- Hot Socket

1 Ph	250A
3 Ph	160A

## iSTS C



- Fuseless
- 50/60Hz
- 20kA
- LAN
- By Pass
- Hot Socket

1 Ph	250A
3 Ph	160A

## iSTS Hw



- Fuseless
- 50/60Hz
- 20kA
- LAN
- By Pass
- Hot Socket

1 Ph	400A
3 Ph	250A



				
	<b>iSTS W</b>	<b>iSTS B4W</b>	<b>iSTS C</b>	<b>iSTS Hw</b>
<b>Current rating</b>	1Ph: 160A max 3Ph: 100A max	1Ph: 250A max 3Ph: 160A max	1Ph: 250A max 3Ph: 160A max	1Ph: 400A max 3Ph: 250A max
<b>Voltage rating</b>	All region-specific voltages selectable $\pm 10\%$			
<b>Type</b>	1-Phase/2-Pole, 3-Phase/3-Pole or 3-Phase/4-Pole			
<b>Frequency</b>	50Hz and 60Hz, $\pm 10\%$ - Auto detection			
<b>Transfer type</b>	Break-Before-Make zero current transfer by Thyristors / SCR			
<b>Synchronous break time</b>	<1ms - synchronous break time up to $\frac{1}{4}$ cycle			
<b>MTBF</b>	>800,000 hours			
<b>Maintenance bypass</b>	3-position overlapping, no-break CAM switch	3-position overlapping, no-break CAM switch with hot socket field replaceable power module	5 Mechanically interlocked circuit breakers	
<b>Isolation</b>	Incoming source isolator switches		Incoming sources and output isolator switches	
<b>Display</b>	Bi-colour LED mimic decal with graphic OLED display and information interface			
<b>Interface</b>	Preferred supply selection, Source transfer selection and Alarm cancel button			
<b>Contact</b>	2 Self wetting transfer control inputs and 5 Voltage free change-over status indicators, Form C			
<b>Ethernet</b>	HTTP, SNMP, MODBUS TCP, Email & NTP			
<b>Connexions</b>	Fixed wiring to terminals up to 70mm <sup>2</sup> cables via glands		Fixed wiring to terminals up to 95mm <sup>2</sup> cables via glands	
<b>Dimensions H x W x D</b>	550 x 460 x 260mm	650 x 483 x 177mm	800 x 600 x 400mm	1200 x 600 x 300mm
<b>Weight</b>	25kg	38kg	60kg - 97kg	75kg - 165kg
<b>Temperature</b>	0 – 45°C			
<b>IP rating</b>	IP20	IP21		
<b>Detection</b>	Digital: <1ms			
<b>Asynchronous break time</b>	0ms, 10ms, 50ms or Vt proportional, 0° to 180°			
<b>Loading</b>	0 - 100% @45°C ambient			
<b>Device ratings</b>	134A <sub>RMS</sub> , 1400V, 2kA for 1 cycle 125A for 30s 140A for 1s, 250A for 0.1s 2kA for 1 cycle	250/300A <sub>RMS</sub> , 1400V, 3.5/5kA 1 cycle 125% for 10min, 150% for 30s 200% for 1s, 300% for 0.1s 5kA for 1 cycle	1250A <sub>RMS</sub> , 1800V, 20kA 1 cycle	
<b>Overload @40°C ambient</b>	125% for 10min, 150% for 30s, 1kA for 1s, 20kA for 1 cycle			
<b>Fault current setting</b>	>350% peak with load fault transfer inhibit			
<b>Safe install environment</b>	20kA, 100/200A internally fused	20kA, 300A internally fused	20kA for 1 cycle - Fuseless design	
<b>Protection</b>	100A/200A fuses – FE/FEE BS88	300A fuses – aR-NGT00	Circuit breakers	
<b>Power factor</b>	No practical limit			
<b>Max THDV</b>	10% - Max allowable source voltage distortion			
<b>Crest factor</b>	3.5 : 1			
<b>dV/dt max</b>	800V/ $\mu$ s			
<b>Cooling</b>	Redundant fans			
<b>Humidity @40°C ambient</b>	5 – 95% non-condensing			
<b>Regulatory approvals</b>	IEC 62310-1,2,3 - IEC 60950 - IEC 61000-6-1,2,3,4 – CE – RCM - UL Capable - RoHS			
<b>Standard warranty</b>	24 months onsite repair or replacement policy			

Specifications are subject to change without notice



Learn more about Wall mount iSTS

# FREE STANDING

With a MTBF in excess of 800,000 hours, Static Power's free standing iSTS are dedicated to applications requiring a high level of reliability.

The iSTS H, K and G are fuseless designed for fault current up to 36kA in standard.

All our free standing iSTS are adaptable to particular applications or requirements.

## iSTS H



- Fuseless
- 50/60Hz
- 20kA
- LAN
- By Pass

1 Ph	400A
3 Ph	250A

## iSTS K



- Fuseless
- 50/60Hz
- 28kA
- LAN
- By Pass

1 Ph	630A
3 Ph	630A

## iSTS G



- Fuseless
- 50/60Hz
- 36kA
- LAN
- By Pass

1 Ph	630A
3 Ph	1600A

### Key features:

- True solid state, Break-Before-Make transfer
- Transfer time: <1ms to ¼ cycle
- MTBF > 800,000h
- Fault current up to 36kA
- Maintenance bypass mechanically interlocked
- Incoming sources and output isolators
- HTTP, SNMP, MODBUS TCP, email and NTP

### Adaptable:

- Fault current
- Cable entry
- Corrosion and Ingress Protection
- ...





**iSTS H**



**iSTS K**



**iSTS G**

<b>Current rating</b>	1Ph: 400A max 3Ph: 250A max	1Ph: 630A max 3Ph: 630A max	1Ph: 630A max 3Ph: 1600A max
<b>Voltage rating</b>	All region-specific voltages selectable $\pm 10\%$		
<b>Frequency</b>	50Hz and 60Hz, $\pm 10\%$ - Auto detection		
<b>Type</b>	1-Phase/2-Pole, 3-Phase/3-Pole or 3-Phase/4-Pole		
<b>Transfer type</b>	Break-Before-Make zero current transfer by Thyristors / SCR		
<b>Synchronous break time</b>	<1ms - synchronous break time up to $\frac{1}{4}$ cycle		
<b>MTBF</b>	>800,000 hours		
<b>Maintenance bypass</b>	5 Mechanically interlocked circuit breakers		
<b>Isolation</b>	Incoming sources and output isolator switches		
<b>Display</b>	Bi-colour LED mimic decal with graphic backlit LCD display and information interface	Fully featured colour 7" display and information interface	
<b>Interface</b>	Preferred supply selection, Source transfer selection and Alarm cancel button		
<b>Contact</b>	2 Self wetting transfer control inputs and 5 Voltage free change-over status indicators, Form C		
<b>Ethernet</b>	HTTP, SNMP, MODBUS TCP, Email & NTP		
<b>Connexions</b>	Terminals M8/M10 via gland plate	Terminals M10 via gland plate	Terminals M12/M16 via gland plate
<b>Dimensions H x W x D</b>	1300 x 600 x 300mm	1900 x 800 x 400mm	1900 x 1400 x 600mm
<b>Weight</b>	75kg - 165kg	195kg - 295kg	295kg - 490kg
<b>Temperature</b>	0 – 45°C		
<b>IP rating</b>	IP21	IP31	IP21
<b>Detection</b>	Digital: <1ms		
<b>Asynchronous break time</b>	0ms, 10ms, 50ms or Vt proportional, 0° to 180°		
<b>Loading</b>	0 - 100% @45°C ambient		
<b>Device ratings</b>	1250 <sub>A<sub>RMS</sub></sub> @20kA for 1 cycle	1800 <sub>A<sub>RMS</sub></sub> @28kA for 1 cycle	2650 <sub>A<sub>RMS</sub></sub> @36kA for 1 cycle
<b>Overload @40°C ambient</b>	125% for 10min, 150% for 30s 1kA for 1s, 5kA for 0.1s 20kA for 1 cycle	125% for 10min, 150% for 30s 4kA for 1s, 8kA for 0.1s 28kA for 1 cycle	125% for 10min, 150% for 30s 5kA for 1s, 10kA for 0.1s 36kA for 1 cycle
<b>Fault current setting</b>	>350% peak with load fault transfer inhibit		
<b>Safe install environment</b>	20kA for 1 cycle - Fuseless design	28kA for 1 cycle - Fuseless design	36kA for 1 cycle - Fuseless design
<b>Protection</b>	Circuit breakers		
<b>Power factor</b>	No practical limit		
<b>Max THDV</b>	10% - Max allowable source voltage distortion		
<b>Crest factor</b>	3.5 : 1		
<b>dV/dt max</b>	800V/ $\mu$ s		
<b>Cooling</b>	Redundant fans		
<b>Humidity @40°C ambient</b>	5 – 95% non-condensing		
<b>Regulatory approvals</b>	IEC 62310-1,2,3 - IEC 60950 - IEC 61000-6-1,2,3,4 – CE – RCM - UL Capable - RoHS		
<b>Standard warranty</b>	24 months offsite repair or replacement policy		

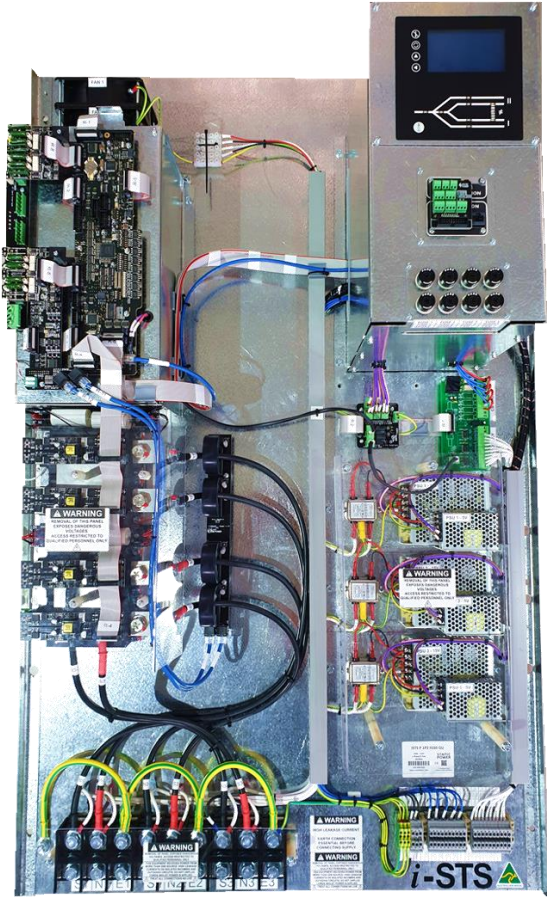
Specifications are subject to change without notice



Learn more about Free Standing iSTS

# PANEL MOUNT

Static Power's panel mount iSTS are dedicated to applications requiring a high level of reliability. iSTS P is designed to be integrated in 3rd party switchboard or enclosure and is adaptable to all specific requirements. Contact us for more information on iSTS P.



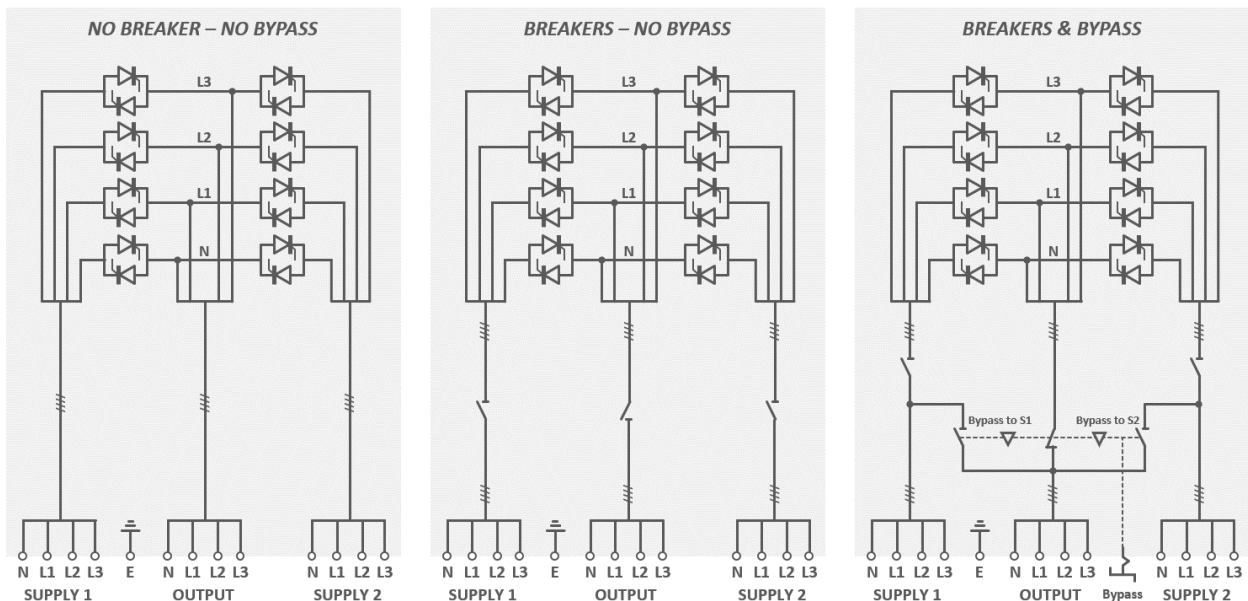
## Key features:

- True solid state, Break-Before-Make transfer
- Transfer time: <1ms to ¼ cycle
- Single or Multi-feeds
- Adaptable dimensions
- Adaptable Inputs/output connexions
- w/o protections or Customer's preferred
- Automation



## Breakers & Maintenance Bypass:

iSTS P can be provided with out without Breakers and/or Maintenance Bypass





Designed for rail mounted applications, the iSTS model R avoids critical manufacturing and IT equipment power supply disruptions by transparently changing to a secondary source in case of failure of the preferred. Typical applications: PLCs, CNCs, Robotics, BMS, Workshop IT, Engineering and office work stations, warehouses.



## Features

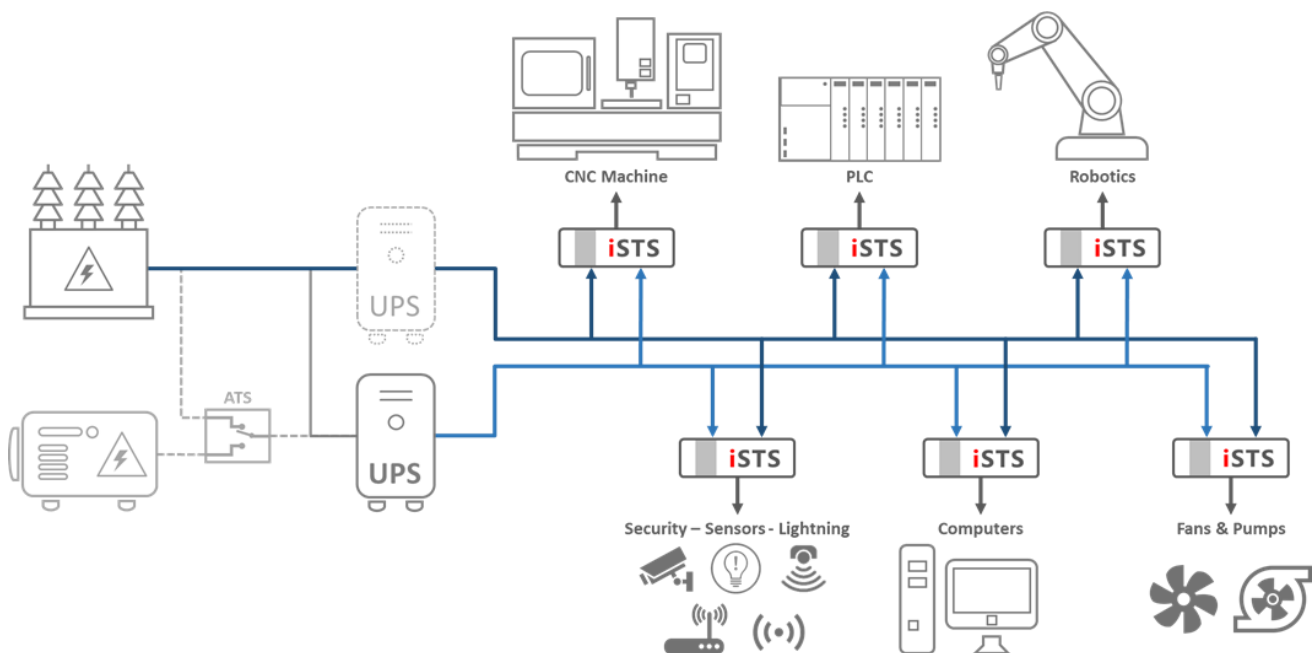
- Rail mounted
- 1-phase, 2-pole, 16A
- Built-in transient voltage protection
- Very high MTBF (>500,000 hours)
- RCD site compatibility
- Safe asynchronous source transfers
- Manual and automatic transfers selection
- Preferred source selection
- Visual and sound alarms
- Bi-colour LED mimic and load indicator
- One voltage free general alarm contact

## For Building

The iSTS R can be installed in a floor/office switch board to replace individual UPSs not always reliable and difficult to maintain.

## For Industry – Manufacturing - Warehousing

Typically used in a Industry 4.0 environment, the iSTS R will guarantee a continuous power supply to all PLC, CNC and controls in the workshop



## Contact us

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