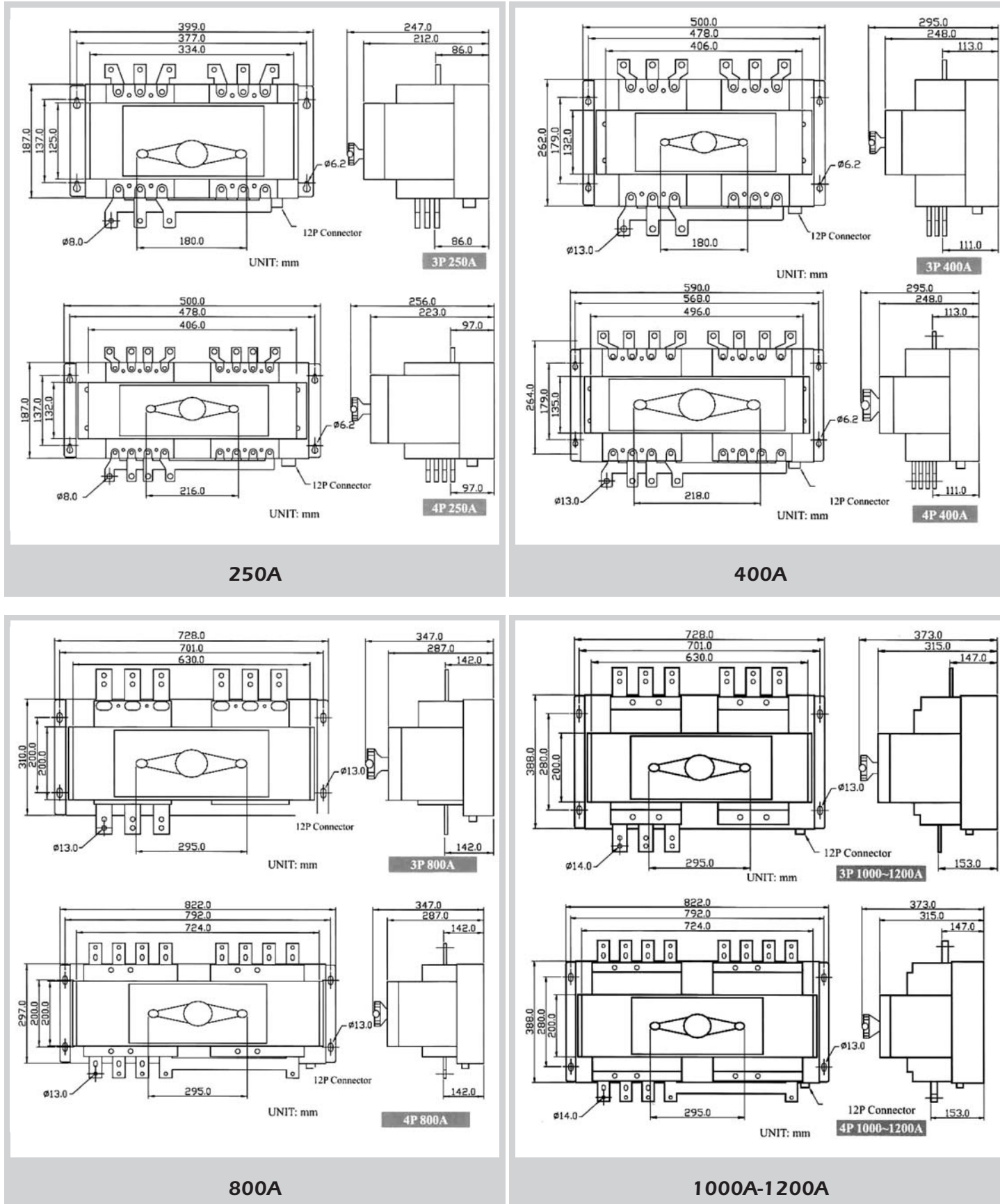


**Dimension Diagram**

- BTS



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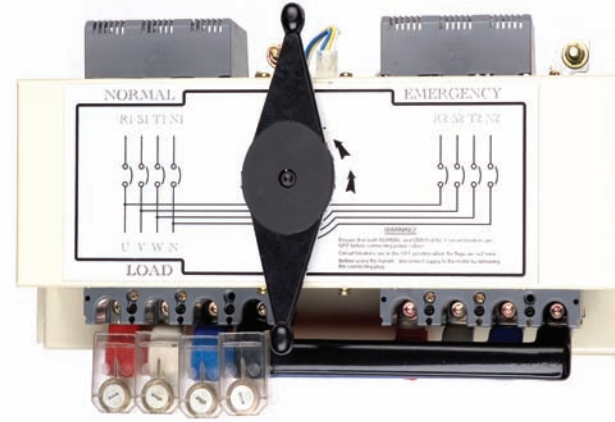
**BRIDEX**



**AUTOMATIC  
 TRANSFER  
 SYSTEM**



## AUTOMATIC TRANSFER SYSTEM



### Product Introduction

Bridex introduces Automatic Transfer System consisting BTS – MCCB type motorized transfer breaker, TSP-01 – ATS transformer module with multi-voltage plug-in connectors and the ATS-LS – programmable automatic transfer switch controller.

With this system, the user can choose various circuit breaker ratings and configurations upto 1200A, 3 or 4 poles, supported by a fully programmable controller with defined settings for specific control.

Bridex – local brand, global solutions.

### Basic Features

#### ATS-LS – Programmable automatic transfer switch (ATS) Controller

- Micro-processor based design
- Compact size with user friendly LED display
- Simple push button programming and operation
- Provides 3 or 1 phase voltage / frequency monitoring & protection for both normal and emergency sources
- Transfer fail alarm, pre-exerciser or pre-transfer signal output
- Remote engine start signal
- Built in weekly exerciser timer

- No generator battery connection needed
- 4 digit 7 segment LED display for programmable display with 3 phase voltage & frequency, internal program setting & status display & TDEN, TDEN & TDEC real time countdown display
- User friendly status LED display for display AUTO/TEST status, over/under voltage & frequency and display real time power loop
- All phase voltage & frequency monitoring for
  - Over voltage adjustment range 110-550VAC
  - Under voltage adjustment range 80-470VAC
  - Over frequency adjustment range 51-70 Hz
  - Under frequency adjustment range 45-59 Hz
- Adjustable timers
  - Time delay normal to emergency
    - TDNE - 0-300 sec
  - Time delay engine start
    - TDES - 0-30 sec
  - Time delay emergency to normal
    - TDEN - 0-300 sec
  - Time delay engine cool-down
    - TDEC - 0-60 sec
  - Pre-transfer signal output - 0-99 sec
  - Pre-exerciser signal output - 0-99 sec
  - Engine exerciser test period - 0-60 min

#### BTS – MCCB type transfer switch

- High short circuit breaking capacity
- Incorporating over-current protective device (OCPD)
- Complies with IEC 60947-6-1 requirements for automatic transfer switch
- Molded case circuit breaker with built in auxiliary limit switch
- Reliable motor-operated transfer mechanism
- Moulded insulated operating handle
- PVC-coated busbar > 3kV AC insulation
- Standard with mechanical interlock
- Includes plug-in connector, for simple hook up to controller

#### TSP-01 – ATS transformer module with multi-voltage plug-in connectors

- Use in system voltage from 100-600VAC
- Simplifies all ATS wiring
- Connects to BTS & ATS-LS by plug in connectors
- Select voltage directly by plug in connectors
- Save labour cost by easy assembly & maintenance
- Circuits are finger safe with high voltage fuses & epoxy protection
- Built in 3 phase fuses to protect normal & emergency circuit in ATS-LS & TSP-01
- Provides alarm signals & engine start contacts

### Selection Guide

#### Basic Transfer Switch - MCCB Type Transfer Switch

Product Code	Pole	Rated Current (A)				AC Rated Breaking Capacity Sym. r.m.s. (kA) IEC60947-2 Icu/Ics					
		Ambient Temperature 40 deg C				240/240V	380/415V	440/460V	480V	500V	600V
*B-BTS 250 3/3	3P/3P	125	160	200	250	50	35	35	30	22	18
B-BTS 250 3/4	3P/4P	125	160	200	250	50	35	35	30	22	18
B-BTS 250 4/4	4P/4P	125	160	200	250	50	35	35	30	22	18
*B-BTS 400 3/3	3P/3P	250	300	350	400	85	50	50	35	35	30
B-BTS 400 3/4	3P/4P	250	300	350	400	85	50	50	35	35	30
B-BTS 400 4/4	4P/4P	250	300	350	400	85	50	50	35	35	30
*B-BTS 800 3/3	3P/3P	600	630	700	800	100	50	50	35	35	30
B-BTS 800 3/4	3P/4P	600	630	700	800	100	50	50	35	35	30
B-BTS 800 4/4	4P/4P	600	630	700	800	100	50	50	35	35	30
*B-BTS 1000 3/3	3P/3P	Adjustable (0.5-0.6-0.7-0.9-0.9-1.0)xIn				100	65	65	50	50	45
B-BTS 1000 3/4	3P/4P	Adjustable (0.5-0.6-0.7-0.9-0.9-1.0)xIn				100	65	65	50	50	45
B-BTS 1000 4/4	4P/4P	Adjustable (0.5-0.6-0.7-0.9-0.9-1.0)xIn				100	65	65	50	50	45
*B-BTS 1200 3/3	3P/3P	Adjustable (0.5-0.6-0.7-0.9-0.9-1.0)xIn				100	65	65	50	50	45
B-BTS 1200 3/4	3P/4P	Adjustable (0.5-0.6-0.7-0.9-0.9-1.0)xIn				100	65	65	50	50	45
B-BTS 1200 4/4	4P/4P	Adjustable (0.5-0.6-0.7-0.9-0.9-1.0)xIn				100	65	65	50	50	45

\* wider range using electronic type MCCB

Note : - Higher fault level MCCB available at extra cost  
 - Standard supply includes a handle and commoning busbars  
 - All BTS units are pre-wired to plugs and sockets

#### Accessories - Programmable Automatic Transfer Switch Controller

Product code	Description
B-ATS-LS	Programmable Automatic Transfer Switch Controller
B-TPS 01-F*	Transformer module ( see details accessories - ATS Transformer Module)
B-ATS 040	Harness BTS/TPS 01w/- 12 way Canon plugs 400mm long
B-ATS 074	Harness ATS LS / TPS 01

#### Accessories - ATS Transformer Module

Product Code	Fuse			Connector		
	Function	Current	Capacity	Type	Function	Capacity
B-TPS-01-F1	Protect normal power circuit	6.3A	50kA @ 500VAC	Remote start	Remote engine start	250VAC /7A
B-TPS-01-F2				Programmable output	Programmable alarm signal output	120VAC/0.5A
B-TPS-01-F3				TB2	Connect to ATS-01	300VAC /15A
B-TPS-01-F4	Protect emergency power circuit	6.3A	50kA @ 500VAC	CN2	Connect to BTS	600VAC/8A
B-TPS-01-F5				CN3-CN4	Connect to transformer	600VAC/8A
B-TPS-01-F6				CN5-CN6		

#### Ordering Information

BTS+ATS-LS = Intelligence Automatic Transfer System  
 Note: for Automatic Control use 1pc ATS LS, TSP 01, ATS 074, ATS 040.

ATS 093 is a special loom made up to plug into the 12 pin Canon Plug so that the user could connect custom made logic control to our BTS. Earlier versions of BTS were wired to terminals not plugs and sockets as they are now.

### Specifications

#### ATS-LS

Input control voltage	: 16- 250 VAC 50/60 Hz
Voltage measurement range	: 80 – 550 VAC 50/60 Hz
Frequency measurement range	: 45 – 70 Hz
Generator start relay	: 7A @ 250 VAC max
Transfer to normal relay	: 7A @ 250 VAC max
Transfer to standby relay	: 7A @ 250 VAC max
Alarm output auxiliary relay	: 0.5A @ 120 VAC 1.0A @ 24 VDC
Operating temperature	: -20 to 70 deg C
Storage temperature	: -35 to 85 deg C
Operating humidity	: <95 % relative humidity

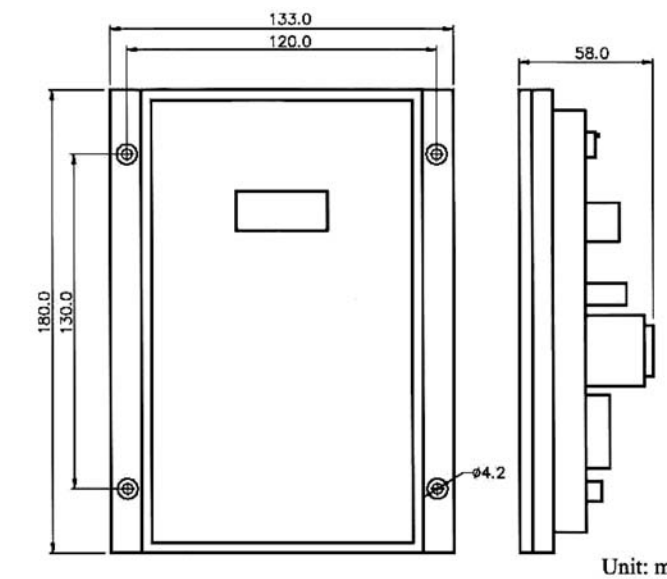
#### TSP-01

Rated capacity	: 105VA
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Plug-in connectors	Range	Universal Voltages
100-120VAC	+/-10%	100, 110, 120V
200-240VAC	+/-10%	200, 220, 240V
380-420VAC	+/-10%	380, 400, 415V
440-480VAC	+/-10%	440, 460, 480V

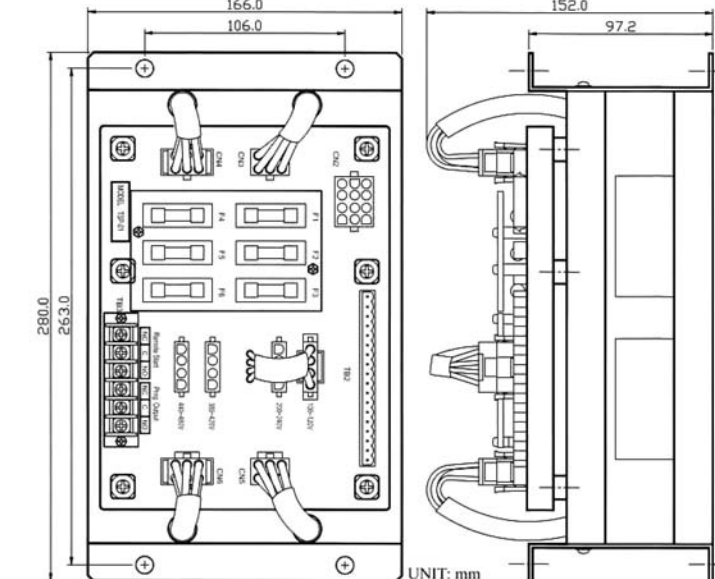
### Dimension Diagram

#### ATS-LS



Panel cutout 112.0+/- 0.5mm X 167+/- 0.5mm

#### TSP-01



Dimensions 280 (L) X 166 (W) X 152 (H)mm  
 Weight 5.5kg+/- 2%