

Automatic Transfer Switches

Open transition transfer solutions from 63A to 630A



JTS RANGE

DESCRIPTION

Jubilee Transfer Switches combine reliability and flexibility in a small, economical package for transferring loads between a utility and a generator set, or between two generators.

The microprocessor control monitors the utility and the standby generator power. When utility power fails, or is unsatisfactory, the control starts the generator. When stable utility power returns, the switch automatically transfers the load back to the utility.

For generator to generator applications, the generator that is connected to the utility side of the control is the lead generator. If the lead generator goes down or is taken offline, the transfer switch starts the second generator and transfers the load.

The control can be programmed to alternate between the two gensets at a set interval, up to 300 hours. The fully integrated controller is designed for functionality, with LED indicators and digital push buttons for operator ease.

FEATURES

Microprocessor Control

Easy-to-use standard control. LED's displays transfer switch status and push buttons allow the operator to activate control test, exercise timing and transfer mode.

Advanced Transfer Switch

True transfer switch mechanism with Break-before-Make action.

Positive Interlocking

Mechanical and electrical interlocking prevent source-to-source connection through the power or control wiring.

Main Contacts

Silver alloy contacts with multi-leaf arc chutes are rated for 100% load interruption. They require no routine contact maintenance and provide 100% continuous current ratings.

Complete Product Line

Jubilee Energy offers a wide range of equipment, accessories and services to suit virtually any backup power application.

Warranty & Service

All Jubilee products are backed by a comprehensive warranty and worldwide network of distributors with factory-trained technicians.

SPECIFICATIONS

VOLTAGE RATING

Up to 480 VAC
50 Hz or 60 Hz

ARC INTERRUPTION

Multiple leaf arc chutes provide dependable arc interruption

NEUTRAL BAR

Full current-rated neutral bar as standard on enclosed 3-pole transfer switches

AUXILIARY CONTACTS

Two isolated contacts for each source
Switch position indicator
Contacts are normally open and close to indicate connection to the source
Wired to terminal block
Ease of access
5 amps continuous @ 100VAC
2.5 amps continuous @ 200VAC

OPERATING TEMPERATURE

-30°C (-22°F) to 60°C (140°F)

RATED LIMIT SHORT-CIRCUIT CURRENT

Rated at 100 kA

TOTAL TRANSFER TIME (source-to-source)

Not exceeding 0.45 secs with normal voltage applied to the load and without programmed transition enabled

MANUAL OPERATION HANDLE

Removable operating handle
Allows operation during servicing
Facilitate troubleshooting with sources of power disconnected

All switches meet IEC 60947-6-1 AC31B



All switches bear the CE mark



Transfer switches designed and manufactured in facilities certified to ISO9001



TRANSFER SWITCH MECHANISM

Permanent Magnet Motor Operation

A powerful, economical Permanent Magnet Motor operates Jubilee Transfer Switches.

Break-before-Make Action

Independent Break-before-Make action is used for 2-pole, 3-pole and 4-pole switches. On 4-pole switched neutral switches, this action prevents the objectionable ground currents and nuisance ground fault tripping that can result from overlapping designs.

Mechanical Interlocks

A mechanical interlock prevents simultaneous closing of normal and emergency contacts.

Electrical Interlocks

Electrical interlocks prevent simultaneous closing signals to normal and emergency contacts and interconnection of normal and emergency sources through the control wiring.

Safe Quiet Operation

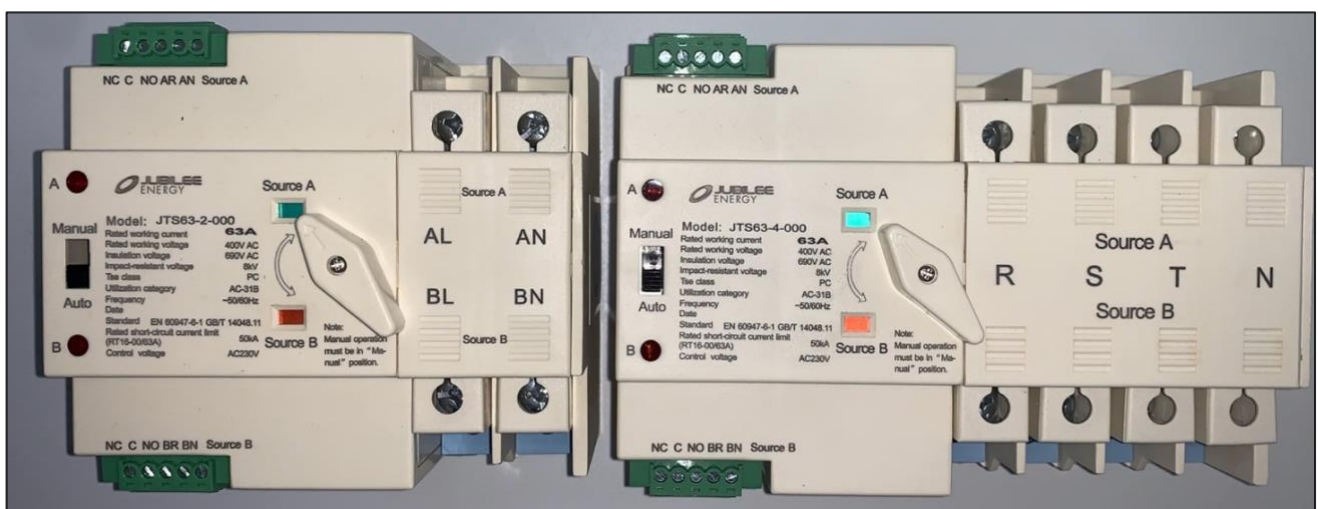
High-pressure silver alloy contacts resist burning and pitting. Contacts are mechanically held in both normal and emergency positions for reliable, quiet operation.

Reduced Wear

Contact wear is reduced by multiple leaf arc chutes that cool and quench the arcs. Barriers separate the phases to prevent interphase flashover. A transparent protective cover allows visual inspection.



63A 2 and 4 Pole din rail mounting ATS modules



ELECTRICAL PERFORMANCE

Fuses must protect the transfer switches listed. The following Withstand Current Ratings (WCR) are available when protecting the transfer switch with a fuse. Short circuit ratings are stated in symmetrical RMS amperes.

JTS 4-POLE MODEL NUMBERS

kVA	kW AC3	Amps AC3	Controlled by Generator	DSE330 (1ph)	DSE331 (3ph)	DSE334 (3ph)	DSE335 (3ph)
45	36	63	JTS63-4-000	JTS63-4-330	JTS63-4-331	JTS63-4-334	JTS63-4-335
72	57	100	JTS100-4-000	JTS100-4-330	JTS100-4-331	JTS100-4-334	JTS100-4-335
115	92	160	JTS160-4-000	JTS160-4-330	JTS160-4-331	JTS160-4-334	JTS160-4-335
180	144	250	JTS250-4-000	JTS250-4-330	JTS250-4-331	JTS250-4-334	JTS250-4-335
287	230	400	JTS400-4-000	JTS400-4-330	JTS400-4-331	JTS400-4-334	JTS400-4-335
452	361	630	JTS630-4-000	JTS630-4-330	JTS630-4-331	JTS630-4-334	JTS630-4-335

JTS 2-POLE MODEL NUMBERS

kVA	kW	Amps AC3	Control Voltage	Controlled by Generator
7.5	7.5	63	240	JTS63-2-000-240
12	12	100	240	JTS100-2-000-240
12	12	100	120	JTS100-2-000-120

kVA	kW	Amps AC3	Control Voltage	DSE327 (1ph)
10 - 45	8 - 36	63	240	JTS63-2-327

ENCLOSURES

Jubilee Transfer Switches and the control mechanisms are mounted in a key-locking enclosure. Enclosures meet IEC 60947-6-1 standard. Our 100-400 Amp switches are front connected.

Standard enclosure is Stove Enamel Grey, Orange is available as an option (Pantone colour code 152).

CONTROLLER INFORMATION SUITABLE FOR:

JTS63-2-327 (2 Pole)
 JTS63-4-327
 JTS100-4-327
 JTS160-4-327
 JTS250-4-327
 JTS400-4-327
 JTS630-4-327

DSE327

AUTO TRANSFER SWITCH CONTROL MODULE


KEY FEATURES

- LED indicators.
- Two precision time adjustable potentiometers.
- Source 1/Source 2 control.
- Configurable timers.
- Automatic switch-over between supplies.
- DIN rail mounting.

KEY BENEFITS

- Source 1/Source 2 control provides total flexibility for the application of the product.
- Fully automatic switch-over control minimises the effects caused by power disruptions.
- User friendly set-up.

SPECIFICATIONS
MAXIMUM OPERATING/STANDBY CURRENT

230 V (0327-01):
 Typical @ 230 V, 50 Hz
S1
 I RMS = 75 mA, Power = 0.9 W
S2
 I RMS = 50 mA, Power = 0.5 W

110 V (0327-02):
 Typical @ 110 V, 50 Hz
S1
 I RMS = 70 mA, Power = 0.8 W
S2
 I RMS = 50 mA, Power = 0.5 W

VOLT FREE OUTPUTS

START/RUN N/C
 5 A, 250 V AC
LOADING OUTPUT x2
 5 A, 250 V AC

S1 & S2

110 V (0327-02):
VOLTAGE RANGE
 110 V - 50Hz to 70 Hz
 85V to 150 V AC (L-N)

230 V (0327-01)
VOLTAGE RANGE
 230 V - 40Hz to 60 Hz
 180 V to 300 V AC (L-N)

DIMENSIONS

OVERALL
 72mm x 90.5 mm x 65 mm
 2.8" x 3.6" x 2.6"

WEIGHT

0.3 kg

OPERATING TEMPERATURE RANGE

-30°C to +70°C

STORAGE TEMPERATURE RANGE

-40°C to +80°C

CONTROLLER INFORMATION SUITABLE FOR:

JTS63-4-330
 JTS100-4-330
 JTS160-4-330
 JTS250-4-330
 JTS400-4-330
 JTS630-4-330

DSE330

AUTO TRANSFER SWITCH CONTROL MODULE

FEATURES

KEY FEATURES

- Configurable inputs (2)
- Configurable outputs (6)
- Icon or English text display
- LED indicator
- Front panel/PC configuration
- Source 1/Source 2 control
- Configurable timers
- Start inhibit
- Load inhibit
- Manual restore to S1
- Supports multiple topologies
- Automatic switch-over between supplies
- Rotary ATS configuration
- Single event scheduler
- Single phase display

KEY BENEFITS

- Source 1/Source 2 provides total flexibility for the application of the product
- Icon and English text display for use across global markets
- Fully automatic and switch-over control minimises the effects of power disruptions
- User friendly set-up and button layout
- DSE Configuration Suite PC Software compatibility for remote control and monitoring

SPECIFICATION

DC SUPPLY
CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

CRANKING DROPOUTS
Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT
61 mA at 12 V, 62 mA at 24 V

MAXIMUM STANDBY CURRENT
50 mA at 12 V, 51 mA at 24 V

OUTPUTS
AUXILIARY OUTPUTS A,B,C,D,E & F
2 A DC at supply voltage

S1 & S2
VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

DIMENSIONS
OVERALL
98 mm x 79 mm x 40 mm
3.9" x 3.1" x 1.6"

PANEL CUT-OUT
80 mm x 68 mm
3.1" x 2.7"

MAXIMUM PANEL THICKNESS
8 mm
0.3"

CONTROLLER INFORMATION SUITABLE FOR:

JTS63-4-331
JTS100-4-331
JTS160-4-331
JTS250-4-331
JTS400-4-331
JTS630-4-331

DSE331 AUTO TRANSFER SWITCH CONTROL MODULE

FEATURES



KEY FEATURES

- Configurable inputs (4)
- Configurable volt-free outputs (4)
- Configurable DC outputs (4)
- Check sync feature
- Icon or English text display
- LED indicator
- Front panel/PC configuration
- Remote monitoring
- Source 1/Source 2 control
- Configurable timers
- Start inhibit
- Load inhibit
- Manual restore to S1
- Supports multiple topologies
- Automatic switch-over between supplies
- Rotary ATS configuration
- Single event scheduler
- 3-phase display

KEY BENEFITS

- Source 1/Source 2 provides total flexibility for the application of the product
- Icon and English text display for use across global markets
- Fully automatic and switch-over control minimises the effects of power disruptions
- User friendly set-up and button layout
- 3 phase display and check sync provide enhanced module functionality
- DSE Configuration Suite PC Software compatibility for remote control and monitoring

SPECIFICATION

DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

CRANKING DROPOUTS

Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT

168 mA at 12 V, 60 mA at 24 V

MAXIMUM STANDBY CURRENT

39 mA at 12 V, 20 mA at 24 V

OUTPUTS

OUTPUT A & B

Normally open volt-free output
8 A DC at 35 V DC

OUTPUT C & D

Changeover volt-free output
8 A DC at 35 V DC

AUXILIARY OUTPUT E, F, G & H

2 A DC at supply voltage

S1 & S2

VOLTAGE RANGE

15 V to 333 V AC (L-N)

FREQUENCY RANGE

3.5 Hz to 75 Hz

DIMENSIONS

OVERALL

180 mm x 116 mm x 42 mm
7.1" x 4.6" x 1.7"

PANEL CUT-OUT

154 mm x 98 mm
6" x 3.9"

MAXIMUM PANEL THICKNESS

8 mm
0.3"

OPERATING TEMPERATURE RANGE

-30°C to +70°C

STORAGE TEMPERATURE RANGE

-40°C to +80°C

CONTROLLER INFORMATION SUITABLE FOR:

JTS63-4-334
JTS100-4-334
JTS160-4-334
JTS250-4-334
JTS400-4-334
JTS630-4-334

DSE334 AUTO TRANSFER SWITCH CONTROL MODULE

FEATURES



KEY FEATURES

- Volt-free relays
- Supports many topologies
- Automatic switch-over between supplies
- Check sync feature
- Real-time clock
- 10 configurable inputs
- 5 configurable outputs
- Event log (10)
- Configurable timers
- Automatic shutdown or warning when fault conditions are detected

- PC configuration
- Front panel configuration
- LED indicators
- Back-lit 4-line text LCD display
- External mains (utility) or genset failure inputs
- Auto start inhibit
- Load inhibit
- Manual restore to S1
- Optional current monitoring

KEY BENEFITS

- Source 1/Source 2 configuration provides total flexibility for the application of the product
- Real-time clock provides accurate event information for easy maintenance diagnostics
- User-friendly set-up and button layout
- Fully automatic and switch-over control minimises the effects of power disruptions

SPECIFICATION

DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

CRANKING DROPOUTS

Able to survive 0 V for 50 ms, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT

292 mA at 12 V, 167 mA at 24 V

MAXIMUM STANDBY CURRENT

101 mA at 12 V, 66 mA at 24 V

MAINS (UTILITY)

VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

OUTPUTS

OUTPUT A (MAINS/UTILITY/S1)

Normally closed volt-free output
8 A AC at 250 V AC

OUTPUT B (GENERATOR/S2)

Normally open volt-free output
8 A AC at 250 V AC

OUTPUT C (START AND RUN)

Normally closed volt-free output
8 A DC at 35 V DC (UL Rating 30 V)

OUTPUT D

Changeover volt-free output
8 A AC at 250 V AC

OUTPUT E

Normally open volt-free output
8 A AC at 250 V AC

GENERATOR

VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

DIMENSIONS

OVERALL
215 mm x 158 mm x 42 mm
8.5" x 6.2" x 1.6"

PANEL CUT-OUT
182 mm x 137 mm
7.2" x 5.4"

MAXIMUM PANEL THICKNESS
8 mm
0.3"

OPERATING TEMPERATURE RANGE
-30°C to +70°C

STORAGE TEMPERATURE RANGE
-40°C to +80°C

CONTROLLER INFORMATION SUITABLE FOR:

JTS63-4-335
JTS100-4-335
JTS160-4-335
JTS250-4-335
JTS400-4-335
JTS630-4-335

DSE335

AUTO TRANSFER SWITCH CONTROL MODULE

FEATURES

KEY FEATURES

- Configurable inputs (12)
- Configurable volt-free outputs (6)
- Configurable DC outputs (6)
- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- LED and LCD alarm indication
- Check sync feature
- Remote monitoring
- Source 1/Source 2 control
- Start inhibit
- Load inhibit
- Manual restore to S1
- Supports multiple topologies
- Automatic switch-over between supplies
- Rotary ATS configuration
- Configurable timers and alarms
- Multiple date and time scheduler
- Power monitoring (kW h, kV Ar, kV A h, kV Ar h)
- Load switching (load shedding outputs)
- USB connectivity

KEY BENEFITS

- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- User selectable RS232 and RS485 communications
- Configurable Gencomm pages
- SMS messaging (additional external modem required)
- Additional display screens to help with modem diagnostics
- DSENet® expansion compatible
- Integral PLC editor
- Source 1/Source 2 provides total flexibility for the application of the product
- Fully automatic and switch-over control minimises the effects of power disruptions
- User friendly set-up and button layout
- 3 phase display and check sync provide enhanced module functionality

- DSE Configuration Suite PC Software compatability for remote control and monitoring
- 132 x 64 pixel ratio display for clarity
- Real-time clock provides accurate event logging
- Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
- Modules can be integrated into building management systems (BMS)
- Increased input and output expansion capability via DSENet®
- Licence-free PC software
- IP65 rating (with supplied gasket) offers increased resistance to water ingress
- PLC editor allows user configurable functions to meet specific application requirements

SPECIFICATION
DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous

CRANKING DROPOUTS

Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT

480 mA at 12 V, 360 mA at 24 V

MAXIMUM STANDBY CURRENT

126 mA at 12 V, 96 mA at 24 V

S1

VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

OUTPUTS
OUTPUTS A & E

Normally closed volt-free output
8 A AC at 250 V AC

OUTPUTS B & F

Normally open volt-free output
8 A AC at 250 V AC

OUTPUT C & D

Changeover volt-free output
8 A AC at 250 V AC

AUXILIARY OUTPUTS G,H,I,J,K & L
2 A DC at supply voltage

S2

VOLTAGE RANGE
15 V to 333 V AC (L-N)

FREQUENCY RANGE
3.5 Hz to 75 Hz

DIMENSIONS

OVERALL
240 mm x 181 mm x 42 mm
9.4" x 7.1" x 1.6"

PANEL CUT-OUT
220 mm x 160 mm
8.7" x 6.3"

MAXIMUM PANEL THICKNESS
8 mm
0.3"

OPERATING TEMPERATURE RANGE
-30°C to +70°C

STORAGE TEMPERATURE RANGE
-40°C to +80°C