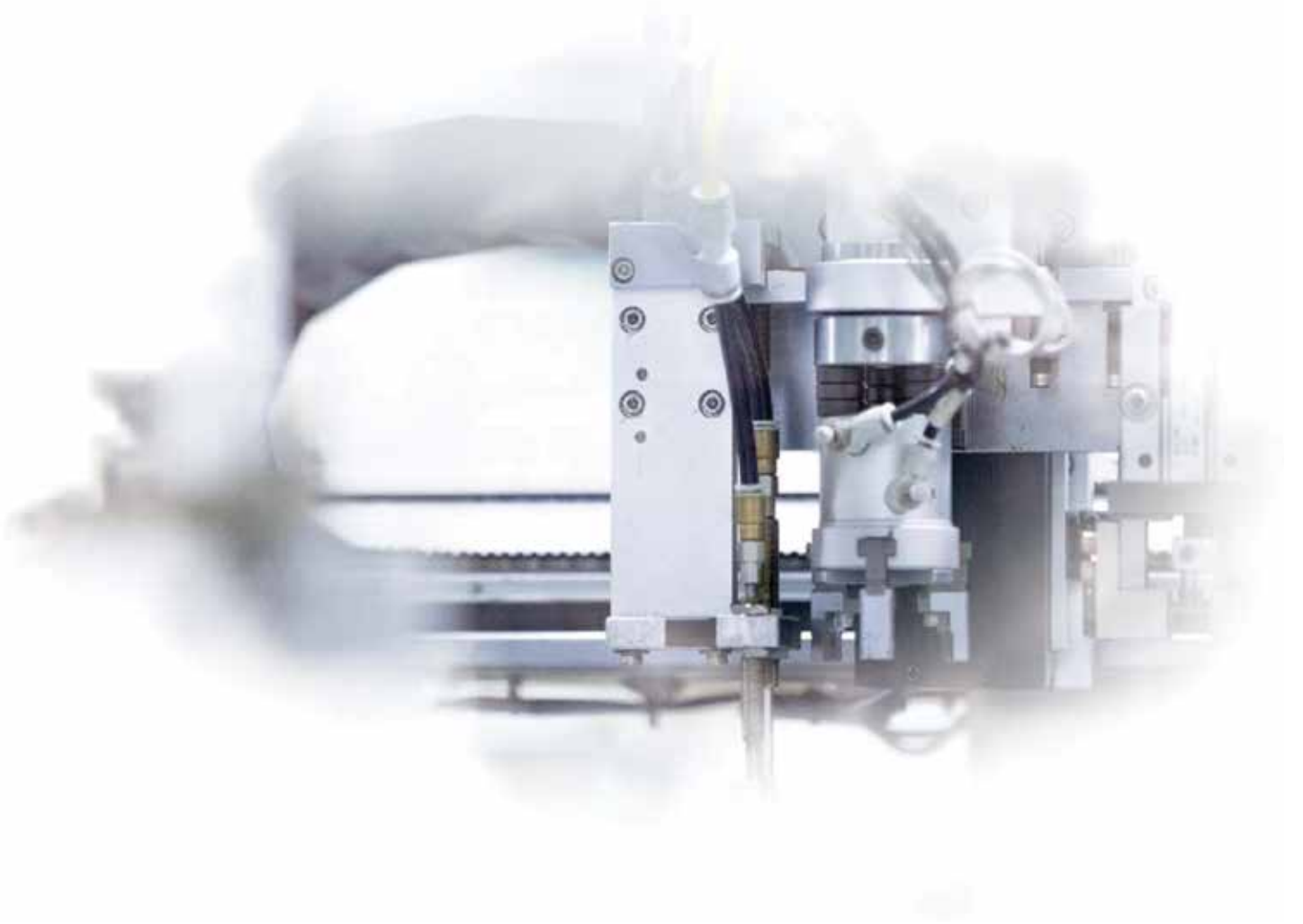




# Products Catalogue





# Leading The Future of Electrification

- A Global Heritage Brand with 130 Years of Product Innovation
- Perfect Products, Creative Services, and Competitive Price

## Since 1886, Westinghouse Has Brought The Best To Life.

Westinghouse remains a trusted name globally in consumer and industrial products. Built on a heritage of innovation and entrepreneurial spirit, Westinghouse products were the first to supply the United States with AC electric power, transmit a commercial radio broadcast and capture man's first step on the moon. Today, Westinghouse continues to grow its diverse portfolio with a wide range of product categories that include home appliances, consumer electronics, lighting and power generation.



# DUAL POWER AUTOMATIC TRANSFER SWITCH



## WRDQ3 Series

### Application

WRDQ3 Series dual power automatic transfer switch is design and manufactured by our company, is a special product developed as per to customers' requirements. This product has three functions of Auto Transfer with Auto Recovery, Auto Transfer without Auto Recovery and Grid-Generator Mode, monitoring the three phase voltage of two power sources at the same time, when any phase happened with over voltage, under voltage, phase missing, it can automatically transfer from the fault power source to normal power source. For the product with Grid-Generator model, it can also send Generator start signal. It is a widely used dual power transfer switch with perfect performance, reliable and highly automation. WRDQ3 Series Product including 4 series products of WRDQ3, WRDQ3NX, WRDQ3CM, WRDQ3NM.

This series auto transfer switch confirms to IEC60947-6-1 Standard.

### Model Meanings

WRD Q 3 □ □ □ □ - □ / □ □  
 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

①	Company code
②	Auto transfer switch
③	Design code
④	Structure type: C: can with DZ47, CM1. N: Can with DZ47, C65, CM1
⑤	Circuit breaker spec. X: Below 63A MCB M: Above 100A MCCB (have A, B, C, D four type controllers for option )
⑥	Controller Model: A: Basic type (only with auto change auto recovery integrated ATS) B: Intelligent type (Numerical indicate the voltage, Generator start, Fire linkage) C: Intelligent type (Same function as B type, but with LCD display ) D: Intelligent type (Same functions as B type, but with frequency indication and remote communication)
⑦	Frame class
⑧	Rated current of circuit breaker
⑨	Poles: 2, 3, 4
⑩	R: Auto change auto recovery S : Auto change no recovery F: Power grid – Generator

### Model Meanings

- Ambient Temperature: -5°C ~+50°C, and 24h average not more than +50°C;
- Atmospheric conditions: humidity not more than 50% at max. +50°C, higher humidity is allowed at lower temperature, at most wet month, the average max humidity is 90% at the average min temperature +35°C , and have considered the condensation on the product surface due to temperature variation.
- Altitude: Not more than 2000m;
- Pollution class: ambient pollution class 3.

# WRDQ3-63

## Application

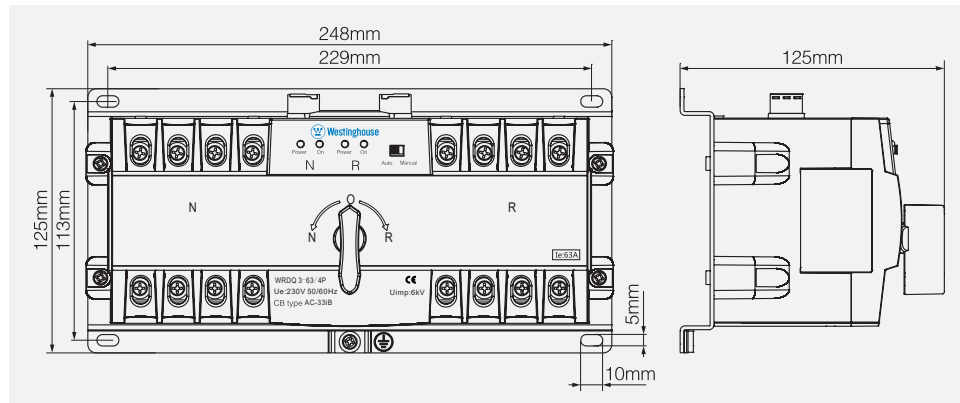


WRDQ3-63 is CB type dual power transfer switch, mainly apply to the two power systems with neutral line earthed and rated current below 63A, rated voltage 230V, 50/60Hz, transfer between two power sources when one power source fault, to ensure the power supply reliable and safety.

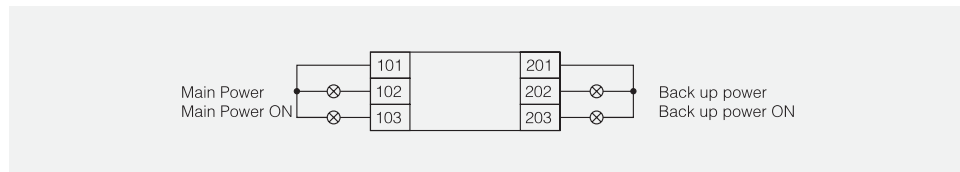
## Technical And Structure Features

WRDQ3-63 Series ATS usage category AC-33iB, electrical appliance grade CB class, its structure comprised with two MCB and accessories, mechanical interlock transmission mechanism, automatic controller, motor operation mechanism etc. Meanwhile the MCB inside the ATS have its original overl o a d and short circuit protection function, can also used as ON/OFF and protection of the main circuit.

## Outline and InstallationDimensions



## Terminal And Wiring Instruction



- 101~103 main power external indicator light
- Signal output (AC220V 0.5A)
- 101- indicator light common null line
- 102- main power signal output
- 103- main power ON signal output

- 201~203 backup power external indicator light
- Signal output (AC220V 0.5A)
- 201- indicator light common null line
- 202- backup power signal output
- 203- backup power ON signal output

## WRDQ3NX-A/B/C/D Series

### Application



The fully new designed WRDQ3NX-A/B/C/D series Auto transfer switch is based on deep development on power transfer switch, make new design to product structure, controller, executive unit, electromagnetic compatibility etc., completely overturned the traditional dual power auto transfer switch design concept. It is a one of the smallest ATS, compact construction, easy for installation; Modularized design, enhance the power supply continuity, energy saving effect is better than other similar product.

### Working Conditions

- Ambient Temperature:  $-5^{\circ}\text{C} \sim +50^{\circ}\text{C}$  , and 24h average not more than  $+50^{\circ}\text{C}$  ;
- Atmospheric conditions: humidity not more than 50% at max.  $+50^{\circ}\text{C}$  , higher humidity is allowed at lower temperature, at most wet month, the average max humidity is 90% at the average min temperature  $+35^{\circ}\text{C}$  , and have considered the condensation on the product surface due to temperature variation.
- Altitude: Not more than 2000m;
- Pollution class : ambient pollution class 3.

### Technical Features

The ATS according to the voltage status of the working power and the working model set by user, decide whether transfer from one power source to another power source. The function depends on the selected controller. The controller have A,B,C,D four types, the main functions and features as followings:

Features	Type	WRDQ3NX-A	WRDQ3NX-B	WRDQ3NX-C	WRDQ3NX-D
Operating power		AC150-265V 50/60Hz			
Installation mode		Integrated			
Working position		Two Position	Three Position	Two Position	Three Position
Operation mode		Auto and Manual	Auto and Manual	Auto and Manual	Auto and Manual
Generator control		No	5A relay contact point	No	5A relay contact point
Fire linkage		No	Passive contact input, With one no passive contact feedback contact	No	Passive contact input, With one no passive contact feedback contact
Transfer mode		Auto change auto recovery	Auto change auto recovery Auto change no auto recovery and Power Grid-Generator	Auto change auto recovery	Auto change auto recovery Auto change no auto recovery and Power Grid-Generator

## WRDQ3NX-A/B/C/D Series

Features	Type	WRDQ3NX-A	WRDQ3NX-B	WRDQ3NX-C	WRDQ3NX-D
Transfer delay		Fixed 0.2s	0~30s adjustable	Fixed 0.2s	0~30s adjustable
Recovery delay		Fixed 0.2s	0~30s adjustable	Fixed 0.2s	0~30s adjustable
Monitored phase		A, N phase monitoring		A, B, C, N Phase monitoring	
Under volt monitor		Yes			
Phase missing monitor		A, N		A, B, C, N	
Use category		AC-33iB (CB Class)			

### Basic Structure

WRDQ3NX-A/B/C/D series ATS is comprised with two MCB and accessories, mechanical interlock transmission mechanism, intelligent controller. It have A、B、C、D four type controller, A type is basic type, B is intelligent type, C/D is improved type, based on A/B type increased with three phase monitoring function, meanwhile the MCB inside the ATS have its original over load and short circuit protection function.



### Product Features

Product with modularized design, executive unit, transmission mechanism, control circuit completely independent, easy for replacement.

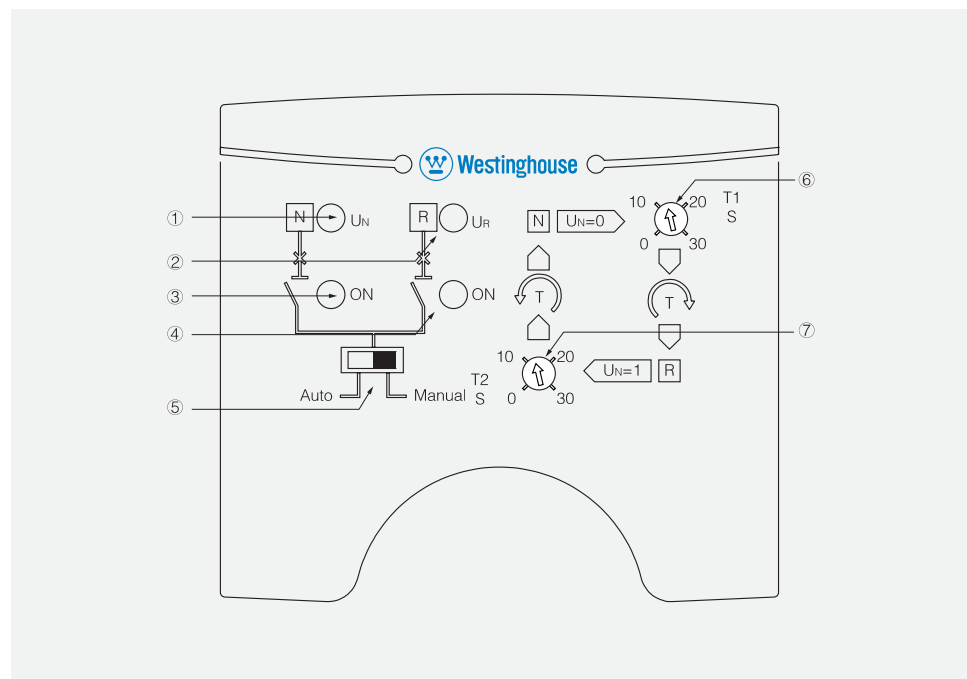
- ① : Mechanical transmission device adopt gear transmission, completely eliminate the possibility of closing at same time;
- ② : Compact appearance, it is one of the smallest product on the market;
- ③ : The control circuit layout adopt working power and sampling power separate with single chip control, to overcome the electromagnetic interference from the hardware construction;
- ④ : Working power voltage range: AC200-400V;
- ⑤ : Less power consumption, max. peak power loss 4.8W, only 20% of other similar products;
- ⑥ : Product have complete functions, with generator start, fire linkage, ON delay functions etc.;
- ⑦ : Modularized design, good components interchange performance, easy installation;
- ⑧ : Can use various executive circuit breaker;



## WRDQ3NX-A/B/C/D Series

### Control Panel Functions

- ① : Main power indicator light  
When main power voltage normal, this indicator lightens
- ② : Backup power indicator light  
When backup power normal, this indicator lightens
- ③ : Main power ON indicator light  
When switch on the main power position, this indicator lightens; when during the switch recovery delay status, this indicator flickering
- ④ : Backup power ON indicator light  
When switch on the backup power position, this indicator lightens; when during the transfer delay status, this indicator flickering.
- ⑤ : Auto/Manual transfer mode control switch  
When switch on left side is Auto transfer mode, on the right side is manual transfer mode
- ⑥ : Transfer delay time setting potentiometer ( Main power to backup power transfer delay time )(A/C type without, B/D type have)  
When ATS is on main power ON position, if main power fault and backup power normal, controller start the timing ( the time setting by transfer delay potentiometer), after the timing is over then controller start transfer to the backup power supply; When setting longer time delay can avoid switch transfer due to power grid instant voltage drop ( for example, there is a big size motor start in the same power grid, will cause the voltage drop in a short time period)
- ⑦ : Recovery time delay setting potentiometer ( Backup power to main power transfer delay time) (A/C type without, B/D type have)  
When ATS is on backup power ON position, if main power recovery and normal, controller start the timing ( the time setting by the recovery delay potentiometer), after the timing is over then controller start transfer to the main power supply



## WRDQ3NX-A/C Type Controller

### Basic Structure

This controller is a simple controller developed as per to market demand, have the features of simple operation, suitable functions and display intuitive etc.



### Characteristic

Modularized installation mode with main body.

A, C type controller all have under voltage and voltage missing monitor function.

A, C type controller all can arbitrary interchange with single phase and three phase circuit.

A, C type controller all have Auto/Manual two working mode.

### Technical Data

- Working voltage range: AC150~265V
- Ambient Temperature: -20°C ~+60°C
- Power consumption: ≤5W
- Transfer delay: 0.2s
- Recovery delay: 0.2s

## WRDQ3NX-B/D Type Controller

### Basic Structure

This controller is a multi-function electric monitor device, it is a collection of monitor, analysis, control, protection etc. many functions as a integration, widely used in highly automation genset control system and electric power automatic control system.



### Characteristic

Setting the controller working mode and transfer delay time through the pull switch.

Fire linkage control function: B type controller with a set of passive fire-fighting signal input terminal. The input signal using opto-coupler isolation, have strong anti-interference ability; And also have a set of passive feedback signal output terminals, can send the switching position back to fire-fighting control equipment.

Generator start/stop control function : Controller with a relay contact point to control the generator start and stop.

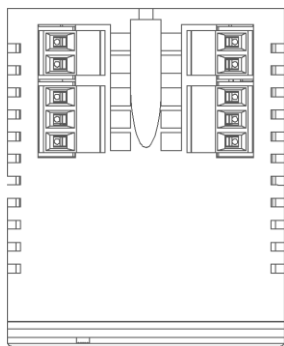
D type based on B type single phase voltage monitoring change as three phase monitoring.

### Technical Data

- Working voltage range: AC150~265V
- Ambient Temperature: -20°C ~+60°C
- Power consumption: ≤5W
- Transfer delay: 0s~30s adjustable
- Recovery delay: 0s~30s adjustable

## WRDQ3NX-A/B/C/D Series

### Terminal Wiring Instruction



① : 101、102 three pole switch main power common null line ( can connect to any one )

② : 201、202 three pole switch backup power common null line ( can connect to any one )

③ : 301~303 main power external indicator light signal output (AC220V 0.5A);

301-Indicator light common null line

302-Main power signal output

303-Main power ON signal output

④ : 401~403 backup power external indicator light signal output (AC220V 0.5A);

401-Indicator light common null line

402-backup power signal output

403-backup power ON signal output

⑤ : 501~503 Generator start control output terminals

When the backup power is Auto start generator, users can connecting the 501~503 terminals to the generator controller to achieve the generator auto start function, inside 501~503 terminal, there is a set of 3A passive relay contact point, 503 is the relay common terminal, 501 is relay NC point, 502 is relay NO point; When main power normal, 503 and 501 is closed, 503 and 502 open, if main power failure and backup power no electricity, 503 and 502 close, and meanwhile

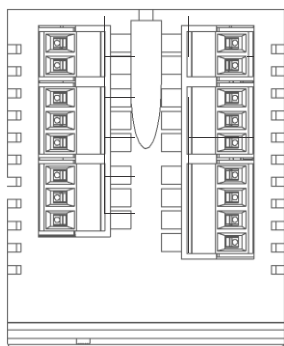
503 and 501 open to send the generator start signal, after generator start successfully, it auto transfer to the backup power supply, during the backup power supply normal and if main power recovery, then after the recovery delay control, it transfers to main power supply, main power circuit breaker ON, then after 3s delay 503 and 501 closed, 503 and 502 open to send generator stop signal.

⑥ : 601~604 fire linkage control terminals; These terminals are used for remote control of the switch off the power supply after the fire alarm.

601~602—Fire linkage control signal input terminal, this terminal external only connect to a set of NO passive contact point (if the signal from fire-fighting equipment is an active signal, must first pass through a small relay, then connect the relay NO point to controller, otherwise will burn the controller), when the external contact point closed, the controller immediately control the switch transfer to OFF position to switch off the load power supply, at same time through 603 and 604 terminal to send the signal back to fire-fighting control center;

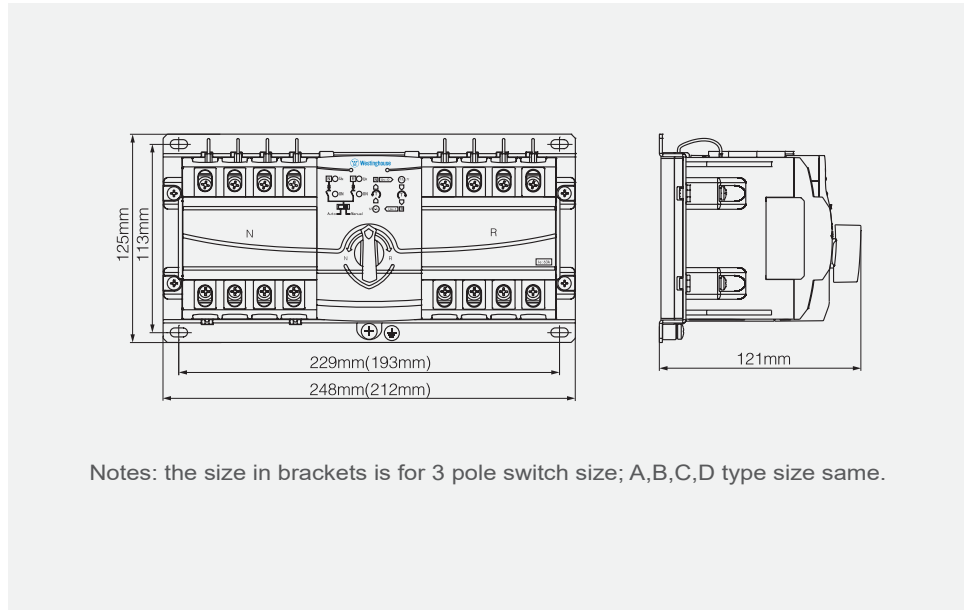
603~604—inside is a set of NO relay contact point, used for sending the fire-fighting movement signal back; When it is normal, the contact is NO status, when there is fire-fighting signal input to the controller, and the switch transfer to OFF position, the 603 and 604 closed.

Notes: when the fire linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then switching the Auto/Manual control switch one time, the ATS will recovery normal working.

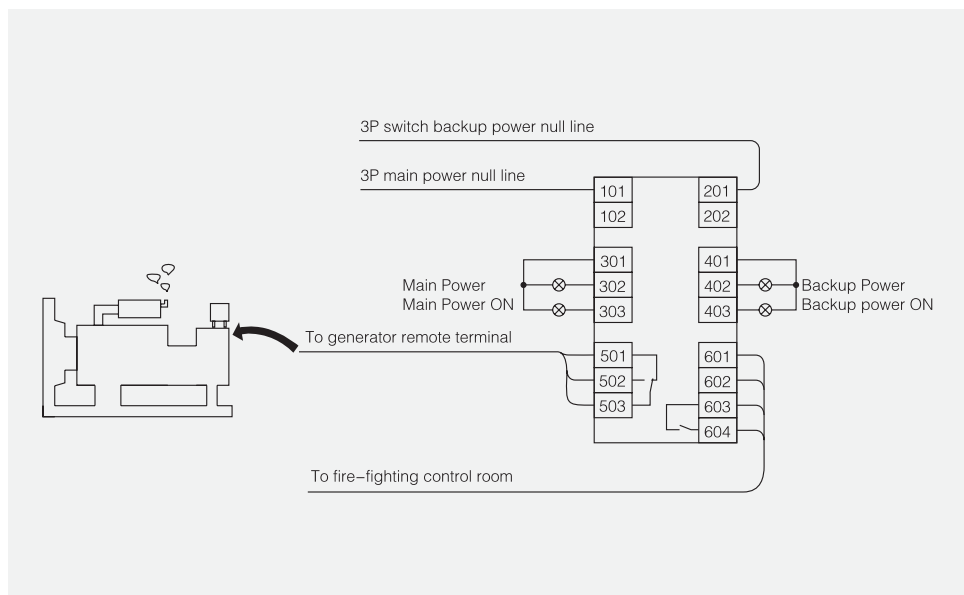


# WRDQ3NX-A/B/C/D Series

## Outline and Installation Dimensions(mm)



## Terminal Wiring



## WRDQ3CMA Series

### Application

WRDQ3CMA series intelligent dual power auto transfer switch (brief as ATS) suitable for emergency power supply system with rated AC voltage 400V, 50/60Hz. When one power source fault, can auto interchange from main power to backup power, no need manual operation, to protect the power supply stability. Mainly apply to the important place which not allow power cutoff such as Hospital, shopping mall, bank, chemical industry, metallurgy, high building, military facilities and firefighting etc.

### Structure Introduction

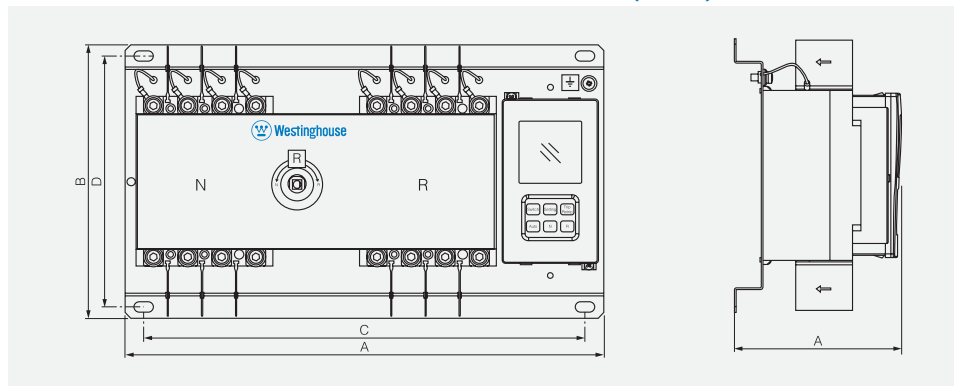
WRDQ3CMA Dual power auto transfer switch use category is AC-33iB, electrical appliance grade is CB class.

WRDQ3CMA ATS comprised with two 3P or 4P MCCB and its accessories (Aux. contact, Alarm contact), Mechanical interlocking transmission mechanism, intelligent controller etc. With integral structure which the controller and executive unit installed at a same base;

The features:

- There is a reliable mechanical interlock device and electric interlock protection between two MCCB, completely avoid the possibility of two MCCB power ON at same time;
- Have short circuit, overload protection functions;

### Outline and Installation Dimensions(mm)



Type - Size	Ref. No	A		B		B		D		H
		3P	4P	3P	4P	3P	4P	3P	4P	
WRDQ3CMA-63	W605150	355	380	24	322	347	220	150		
WRDQ3CMA-100	W605151	390	420	24	357	387	220	150		
WRDQ3CMA-225	W605152	435	470	24	402	437	220	150		
WRDQ3CMA-400	W605153	565	615	33	505	555	300	200		
WRDQ3CMA-630	W605154	682	740	33	622	680	300	200		
WRDQ3CMA-800	W605155	720	790	35	665	735	320	200		

# WRDCM-A Economic Type Controller

## Summary

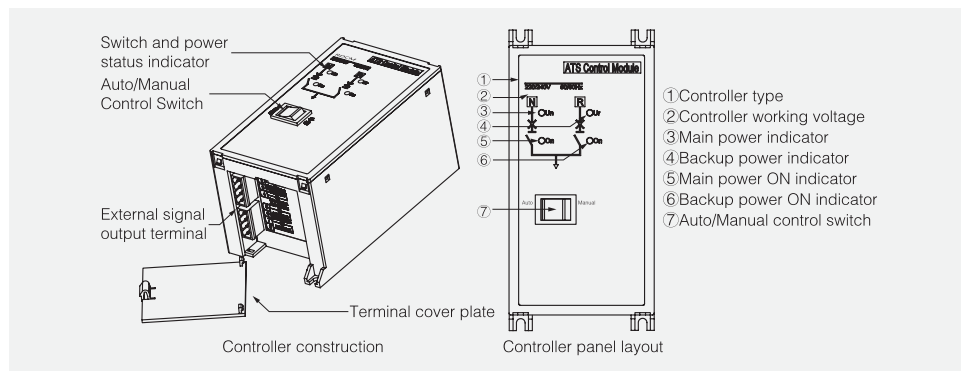
This controller is a simple controller we developed as per to market demand, have the features of simple operation, suitable functions and display intuitive etc., this controller have advantages of stable quality, reliable performance, high anti electromagnetic interference ability etc., widely used in various kind of severe environment with strong electromagnetic radiation and interference.



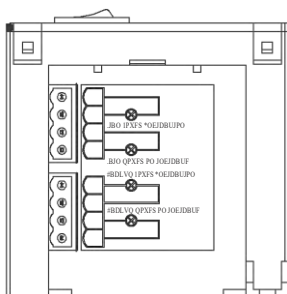
## Technical Data

Working Power	AC150-260V 50/60Hz	Installation Mode	Integral
Power Loss	≤20W	Working Position	Two positions
Ambient temp	-20°C ~+60°C	Operation mode	Auto and Manual
Transfer delay	Fixed 0.5s	Transfer mode	Auto change and Auto recovery
Recovery delay	Fixed 0.5s	Display mode	LED indicator

## Structure Features



## Terminals And Wiring Instruction



- ① : 1~4 Main power external indicator signal ( active AC220V/0.3A)
  - 1-Main power indicator live line
  - 2-Main power indicator null line
  - 3-Main power ON indicator live line
  - 4-Main power ON indicator null line
- ② : 5~8 Backup power external indicator signal (active AC 220V/0.3A)
  - 5-Backup power indicator live line
  - 6-Backup power indicator null line
  - 7-Backup power ON indicator live line
  - 8-Backup power ON indicator null line



## WRDQ3NM Series

### Application

WRDQ3NM Dual Power ATS is a fully new product of our company, by organizes top engineers in two years research and development, grand launch at the end of 2014, completely subvert the traditional dual power ATS design style, leading in the international industrial design concept in the design process, from the product structure, appearance, ergonomic, and control circuit etc., comprehensive improvement of the traditional ATS, so as to make it has the quality of international first-class products and with high competitive price.

WRDQ3NM series intelligent dual power auto transfer switch (brief as ATS) suitable for emergency power supply system with rated AC voltage 400V, 50/60Hz. When one power source fault, can auto interchange from main power to backup power, no need manual operation, to protect the power supply stability. Mainly apply to the important place which not allow power cutoff such as Hospital, shopping mall, bank, chemical industry, metallurgy, high building, military facilities and firefighting etc. Product accord with standard of IEC60947-6-1: 《Auto transfer switch》, 《Civil high building fire-fighting standard》, 《High building fire-fighting standard》, 《Civil building electric design standard》 etc.

### Working Conditions

- Ambient temperature:  $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$  ; 24hours average not more than  $+50^{\circ}\text{C}$  ;
- Atmospheric conditions: humidity not more than 50% at max.  $+50^{\circ}\text{C}$  , higher humidity is allowed at lower temperature, at most wet month, the average max humidity is 90% at the average min temperature  $+35^{\circ}\text{C}$  , and have considered the condensation on the product surface due to temperature variation.
- Altitude: Not more than 2000m;
- Pollution Class: The installation site environment pollution Class 3.

### Basic Structure

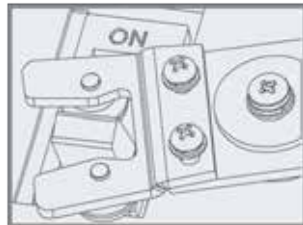
WRDQ3NM series intelligent ATS comprised with two 3P or 4P MCCB and its accessories (Aux. contact, Alarm contact), Mechanical interlocking transmission mechanism, intelligent controller etc. Have integral and split type two structures. Integral type is controller and executive unit installed at a same base; Split type is controller installed on the panel and the executive unit installed on the base inside the panel box, a 2m length signal cable connecting the controller with the executive unit.

The features:

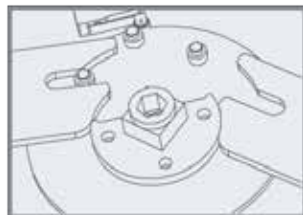
- There is a reliable mechanical interlock device and electric interlock protection between two MCCB, completely avoid the possibility of two MCCB closed at same time;
- Intelligentized controller adopt the single chip microcomputer (SCM) as the control core, simple hardware, strong functions, easy extension, high reliability;
- Intelligent controller circuit layout design adopts power sampling separate with SCM control, from the hardware to overcome the electromagnetic interference;

## WRDQ3NM Series

- With short circuit, overload protection functions, over-volt & under-volt phase missing auto transfer function and intelligent alarm function;
- Auto transfer data by external setting freely, with operation motor protect function;
- Signal connecting cable have passed FLUKE instrument channel test, anti near crosstalk, attenuation crosstalk and back wave loss, can meet the test criteria for permanent link;
- The ATS controller installation method provide customer with highly autonomy, split installation only needs simply connect the attached RJ45 signal cable to the corresponding terminal port;
- The controller part based on the previous similar product, have made enhancement process of the electronic components makes it more matching with the product operation.
- Product appearance lead in international design concept, more elegant and practical.
- Mechanism innovation made following improvements:



The push handle adopt adjustable slider structure design, have more wide circuit breakers ON/OFF travelling distance, make the production process more simple.



Optimized cam transmission mechanism design ensures the reliability of mechanical interlock and at same time makes the mechanical life more than 10000 times.



Adopt mechanical positioning detect structure, make the ATS switching more accuracy and reliable during fire linkage.



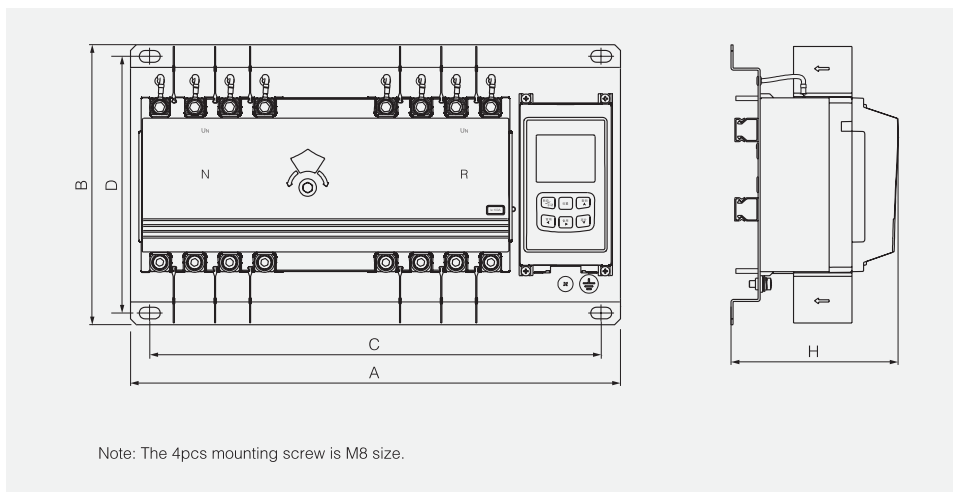
# WRDQ3NM Series

## Working Mode



- WRDQ3NM series intelligent dual power ATS have two working mode: Auto mode and Manual mode.
- Auto Mode: WRDQ3NM series ATS according to the controller functions have three modes: Auto change Auto recovery (R) Auto change no auto recovery (S) and Power Grid-Generator (F), the first two mode used in power grid-power grid system, the latter mode is used in power grid-generator system.
- Manual mode: manual mode has three working mode, main power, backup power and breaker trip modes. Under manual working mode, there will be no auto transfer function.
  - Main power mode: Forced disconnecting backup power, and turn ON the main power;
  - Backup power mode: Forced disconnecting the main power and turn ON the backup power;
  - Breaker trip mode: To disconnecting two power sources, also can switch on the fault tripped circuit breaker.

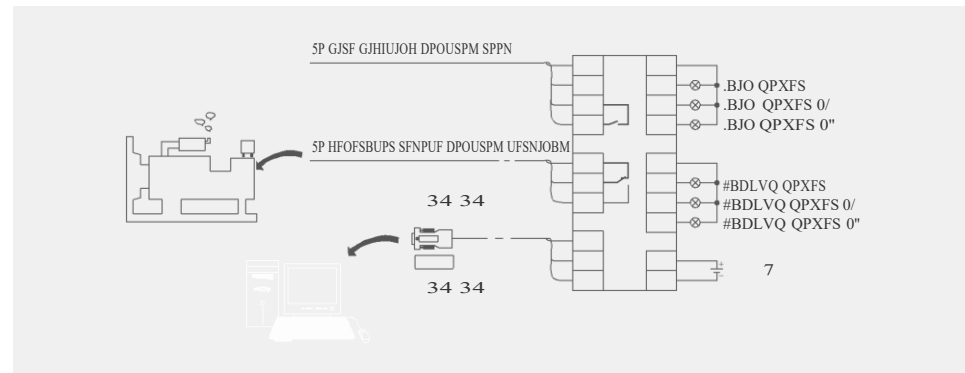
## Outline and Installation Dimensions(mm)



Type	Size	Ref. No	A		B	C		D	H
			3P	4P		3P	4P		
WRDQ3NMB-63		W605156	355	380	240	322	348	220	145
WRDQ3NMB-100		W605157	390	420	240	358	388	220	145
WRDQ3NMB-225		W605158	435	470	240	402	438	220	145
WRDQ3NMB-400		W605159	565	615	330	505	555	300	200
WRDQ3NMB-630		W605160	682	740	330	622	680	300	200
WRDQ3NMB-800		W605161	720	790	350	665	735	320	200
WRDQ3NMB-1250		W605162	730	800	390	685	755	367	252

# WRDQ3NM Series

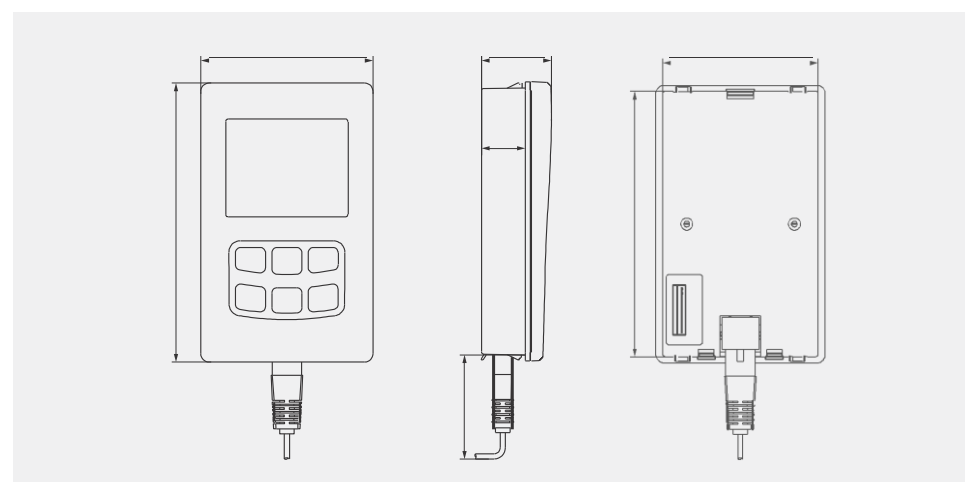
## Terminal Wiring



## Controller Features and Functions

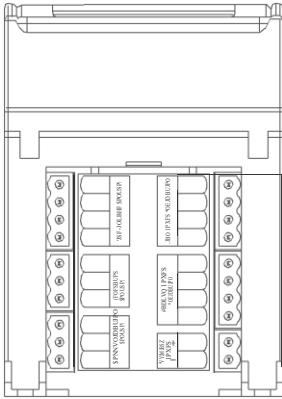
- This product adopts B type controller;
- Can set the controller working mode and transfer data by the control button;
- Through the display can directly read the measuring and control data, including the voltage and delay time etc.
- Fire linkage control function: controller with a set of passive fire-fighting signal input terminal. The input signal using opto-coupler isolation, have strong anti-interference ability; And also have a set of passive feedback signal output terminals, can send the switching position back to fire-fighting control equipment.
- Generator start/stop control function: Controller with a relay contact point to control the generator start and stop, and also can manually setting the generator start/stop delay time (need connect a aux. power with DC15-30V);
- Can remove the display panel and install on the switchgear panel, users can observe the ATS status without open the switchgear doors.

## Split Controller Outline and Mounting Size(mm)



## WRDQ3NM Series

### Terminal Wiring Instruction



- 101~104 Main power external indicator signal (Active AC220V/0.5A)
  - 101-Indicator common null line 102-Main power indicator signal output
  - 103-Main power ON signal output 104-Main power trip signal output
- 201~204 Backup power external indicator signal (Active AC220V/0.5A)
  - 201-Indicator common null line 202-Backup power indicator signal output
  - 203-Backup power ON signal output 204-Backup power trip signal output

- 301~302 Controller DC aux. power input (DC15V~30V/0.5A)

The main purpose to put an aux. power is to control the generator start delay time under the Power Grid-Generator mode, if without aux. power, the generator start delay time is 0s, if the generator starts delay function not needed, then no need to connect the aux. power.

- 401~404 Fire linkage control terminal; Used to remote control cutoff the ATS power supply after the fire alarm.

401, 402 Fire linkage control signal input terminal, this terminal external only connect to a set of NO passive contact point (if the signal from fire-fighting equipment is an active signal, must first pass through a small relay, then connect the relay NO point to controller, otherwise will burn the controller), when the external contact point closed, the controller immediately control the switch transfer to OFF position to switch off the load power supply, at same time through 403 and 404 terminal to send the signal back to fire-fighting control center;

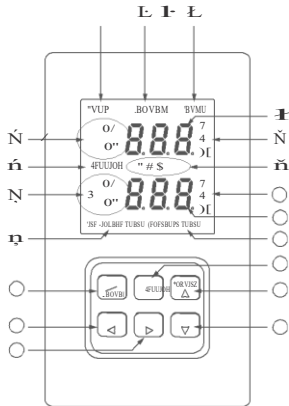
403, 404 Inside is a set of NO relay contact point, used for sending the fire-fighting movement signal back; when it is normal, the contact is NO status, when there is fire-fighting signal input to the controller, and the switch transfer to OFF position, the 403 and 404 closed. (Notes: when the fire linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then switching the Auto/Manual control switch one time, the ATS will recovery normal working)

- 501~503 Generator start control output terminals

When the backup power is Auto start generator, users can connecting the 501~503 terminals to the generator controller to achieve the generator auto start function, inside 501~503 terminal, there is a 3A passive relay contact point, 502 is the relay common terminal, 503 is relay NC point, 501 is relay NO point; Under Power grid-Generator mode and controller is auto mode, when main power normal, 502 and 501 is closed, 502 and 503 open, if main power failure and backup power no electricity, 502 and 503 closed after generator start delay time, and meanwhile 502 and 501 open to send the generator start signal, after generator start successfully, it auto transfer to the backup power supply, during the backup power supply normally and if main power recovery, then after the recovery delay time control, it transfer to main power supply, main power circuit breaker ON, then after generator stop delay time 502 and 501 closed, 502 and 503 open to send generator stop signal.

# WRDQ3NM Series

## Controller Panel Functions



- 1.Auto mode indication;
- 2.Manual mode indication;
3. Fault indication: When ATS is fault or load short circuit causes the circuit breaker trip, this indicator will lighten;
- 4.Main power voltage data indication zone: under working status, it displays the main power voltage and time delay, under setting status, it displays the item code;
- 5.Main power circuit breaker ON/OFF indicate;
- 7.Backup Power circuit breaker ON/OFF indicate;
- 8.Fire linkage function start indicate;
- 9.Main power voltage, time and frequency unit;
- 10.A, B, C phase indicate;
- 11.Backup power voltage, time and frequency unit;
- 12.Backup power voltage data indication zone:  
under working status, it displays the backup power voltage and time delay, under setting status, it displays the item code;
- 13.Generator start signal indicate;
- 14.Auto/Manual mode select button:  
under working status, it used to select the Auto and Manual mode, under the setting status it used as save and escape function;
- 15.Main power transfer button:  
under manual control mode and main power good, push this button will forced to transfer to main power; Under setting status, it used for up page button;
- 16.Backup power transfer button:  
under manual control mode and backup power good, push this button will forced to transfer to backup power; Under setting status, it used for down page button;
- 17.Trip button:  
under manual control mode if any one of the two power is good, push this button will change to OFF position; under setting status it is used for data reduce button;
- 18.Fault inquiry button:  
if the fault indicator is lighten on the display, through this button can check the fault code; under setting status, it is used for data increase button;
- 19.Setting button:  
push this button will enter the controller setting menu.



# DUAL POWER AUTOMATIC TRANSFER SWITCH



## WRDS2 Series

### Application



WRDS2 Series Auto transfer switch mainly used for electric distribution network or motor network with rated voltage 380V, 50Hz, DC rated voltage 220V, rated current 16A to 3200A, change over between main power and backup power system, power grid and genset. Meanwhile can be used as isolation of unfrequency making and breaking circuit.

It is widely used in the transmission and distribution system and automation system of the important place which not allow power cutoff such as firefighting, Hospital, Bank, high building etc.

WRDS2 Series ATS accord to the following standard:

International:

IEC60947-1(2001) 《Low voltage switchgear and controlgear, part one: General Rules》

IEC60947-3(2005) 《Low voltage switchgear and controlgear, switch, isolator and combined fuse switch etc.》

IEC60947-6-1 (2005) 《Low voltage switchgear and controlgear multi-function switch: auto transfer switch etc. 》

### Model Meanings

WR DS 2 - □ / □  
 ↓ ↓ ↓ ↓ ↓  
 ① ② ③ ④ ⑤

①	Company code
②	Dual power ATS
③	Design code
④	Rated Current
⑤	Poles (3, 4)

### Working Conditions

Ambient temperature: -20°C ~+50°C; 24hours average not more than +50°C ;

Atmospheric conditions: humidity not more than 50% at max.+50°C, higher humidity is allowed at lower temperature, at most wet month, the average max humidity is 90% at the average min temperature +35°C , and have considered the condensation on the product surface due to temperature variation;

Altitude: Not more than 2000m;

Pollution Class: The installation site environment pollution Class 3.

# WRDS2 Series

## Main Technical Parameters

WRDS2-100-3200A series Auto transfer switch electric properties and mechanical properties

Rated Thermal Current I <sub>th</sub>	100A						250A				630A		1000A		1600A		2000A	2500A	3200A	
	3Pole Ref.No	W605272	W605273	W605274	W605275	W605276	W605277	W605278	W605279	W605280	W605281	W605282	W605283	W605284	W605285	W605286	W605287	W605288	W605289	W605290
4Pole Ref.No	W605291	W605292	W605293	W605294	W605295	W605296	W605297	W605298	W605299	W605300	W605301	W605302	W605303	W605304	W605305	W605306	W605307	W605308	W605309	
Rated Current I <sub>n</sub> (A)	16	20	40	63	80	100	125	160	200	250	400	630	800	1000	1250	1600	2000	2500	3200	
Rated insulation voltage U <sub>i</sub> (V)	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	1000	1000	1000	
Dielectric strength (V)	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000	10000	10000	10000	10000	10000	
Rated impulse withstand voltage U <sub>imp</sub> KV (installation category)	8	8	8	8	8	8	8	8	8	8	12	12	12	12	12	12	12	12	12	
Rated Working current I <sub>e</sub> (A) AC-33iB	16	20	40	63	80	100	125	160	200	250	400	630	800	1000	1250	1600	2000	2500	3200	
Rated short time withstand current I <sub>cw</sub> (kA Rms)0.1S/1S	9/5	9/5	9/5	9/5	9/5	9/5	12/25	12/25	12/25	12/25	40/20	50/25	90/50	90/50	90/50	90/50	50	50	55	
Rated Breaking capacity (A Rms) AC-33iB 380V	128	160	320	500	640	800	1000	1280	1600	2000	3200	5000	6400	8000	10000	12800	16000	20000	25600	
Rated Making capacity (A Rms) AC-33iB 380V	160	200	400	630	800	1000	1250	1600	2000	2500	4000	6300	8000	10000	12500	16000	20000	25000	32000	
Transfer Time	I-0-II	0.5	0.5	0.5	0.5	0.5	1	1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	2.4	2.4	2.4	
	I-0-II (S)	0.5	0.5	0.5	0.5	0.5	1	1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	2.4	2.4	2.4	
	I-0 II-0(S)	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	1.6	
Weight (kg)	3Poles	4.15	4.15	4.25	4.35	4.45	4.45	8.2	8.2	10.4	10.4	17.8	19	28	31	31	34	-	-	-
	4Poles	4.2	4.2	4.3	4.4	4.5	4.5	8.7	8.7	11.3	11.3	20.2	22	32	36	36	40	95	98	135
Use category	AC-33iB(PC)																			



## WRDS2 Series

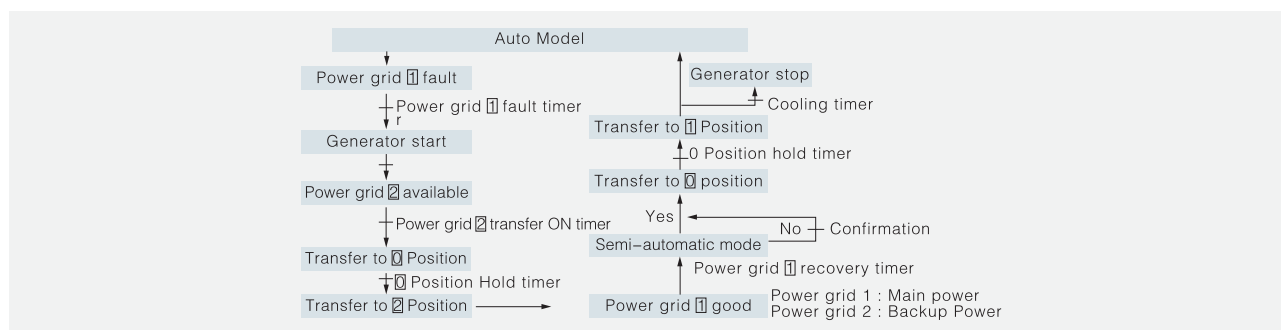
### Performance And Characteristic

- It adopted double complex contact/ horizontal pulling mechanism/micro motor energy pre storage and micro-computer control technology, basically come to Zero arc (no arcing chamber);
- Adopted reliable mechanical interlock and electric interlock, executive unit adopt independent load disconnect switch, it makes more reliable and safety;
- Adopt "Zero Position" technology, it can force to set to Zero Position under emergency situation (cut off two way power supply, meet the fire linkage requirements);
- Load disconnect switch change over adopt singleness motor drive, switch over smooth and reliable, no noise, little impact;
- The driving motor have instant current across only under the load disconnect switch change over, stable working status no need to provide the working current, outstanding energy saving;
- Executive load disconnect switch have mechanical interlock, make sure the Normal power and Reserve Power working reliable and no interference;
- Distinct ON and OFF position indicator, padlock function etc., make reliable and safe isolation between power supply and loading.
- High security, high automatization, high reliability, working life more than 8000 times;
- Electromechanical integration design, accuracy change over, flexible, smoothly, adopt international advanced logical control technology, high anti-interference ability, no interference outward.
- Have main power ON, backup power OFF; main power OFF, backup power ON; main and backup power OFF; three working mode (I-o-II);
- Easy installation, control circuit adopt plug type terminal connection;
- Four operating functions: Emergency manual, motor remote control, emergency OFF under auto control status, auto control operation.

### Basic Type Switch Control Characteristic

- Suitable for two way main and backup power system, auto change auto recovery;
- Can expand functions by outer connection;
- Auto, Remote, Manual control functions;
- Delay 0.5s signal detect, avoid miss actuation;
- Under Auto control status have "O" position remote control;
- Key switch select the operating mode;
- Can with RS-485 communication port ( optional), according to customer required.

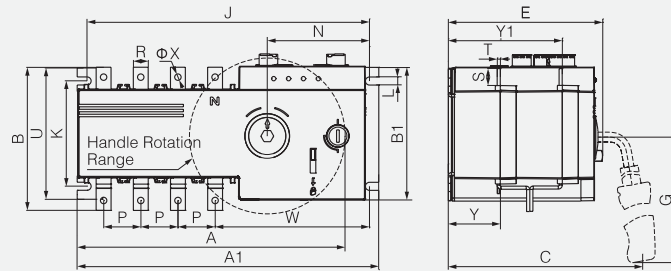
### ATS Working Flow



# WRDS2 Series

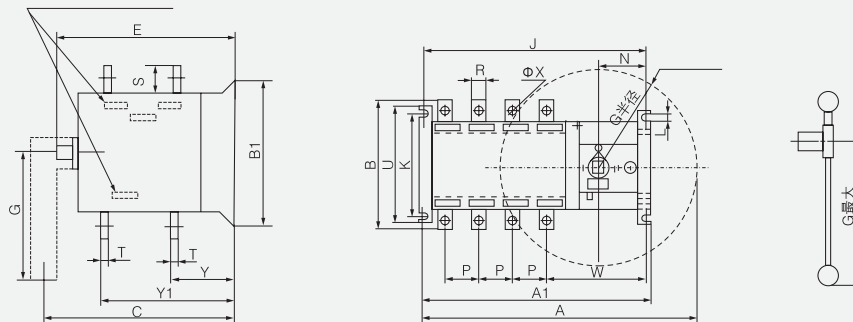
## WRDS2-100 - 1600A Auto Transfer Switch

- WRDS2-16A~630A outline and mounting size



Specification	Outline and mounting size (mm)																			
In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	W	ΦX	Y	Y1
100A	330	244	115	107	182	125	174	228	85	6.5	83	30	12	18	(2.5)5	99	125	5.2	42	92
250A	436	436	178	134	240	198	174	344	108	7	99	50	24	30	(3.5)7	148	173	11	72	157
630A	502	433	260	222	282	244	174	416	176	9	101	65	40	50	(5)10	222	185	12	83	193

- WDS2 -800A-1600A outline and mounting size



Specification	Outline and mounting size (mm)																			
In	A	A1	B	B1	C	E	G	J	K	L	N	P	R	S	T	U	W	ΦX	Y	Y1
800A/3	871.5	524	340	250	387	319.5	448	499	212	11	88	120	60	69	8	250	198.5	12.5	84	252
800A/4	975.5	637.5	340	250	387	319.5	448	612.5	212	13	88	120	60	69	8	250	207	12.5	107	252
1000A/3	871.5	524	340	250	387	319.5	448	499	212	13	88	120	60	69	8	250	198.5	12.5	107	252
1000A/4	975.5	637.5	340	250	387	319.5	448	612.5	212	13	88	120	60	69	8	250	207	12.5	107	252
1250A/3	871.5	524	369	250	387	319.5	448	499	212	13	88	120	60	69	8	250	198.5	13	107	252
1250A/4	975.5	637.5	369	250	387	319.5	448	612.5	212	13	88	120	60	69	8	250	207	13	107	252
1600A/3	871.5	524	376	250	387	319.5	448	499	212	13	88	120	60	69	10	250	198.5	13	109	253.5
1600A/4	975.5	637.5	376	250	387	319.5	448	612.5	212	13	88	120	60	69	10	250	207	13	109	253.5

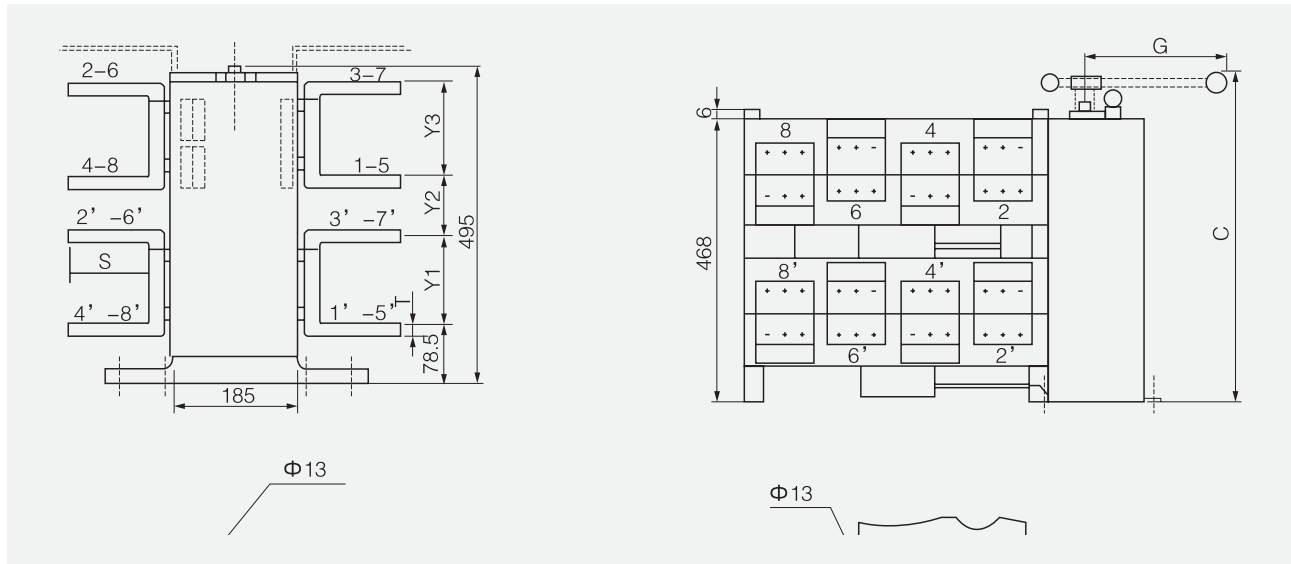
# WRDS2 Series

## WRDS2-2000-3200A Outline and Installation Size

- WRDS2-2000-3200A outline and installation size

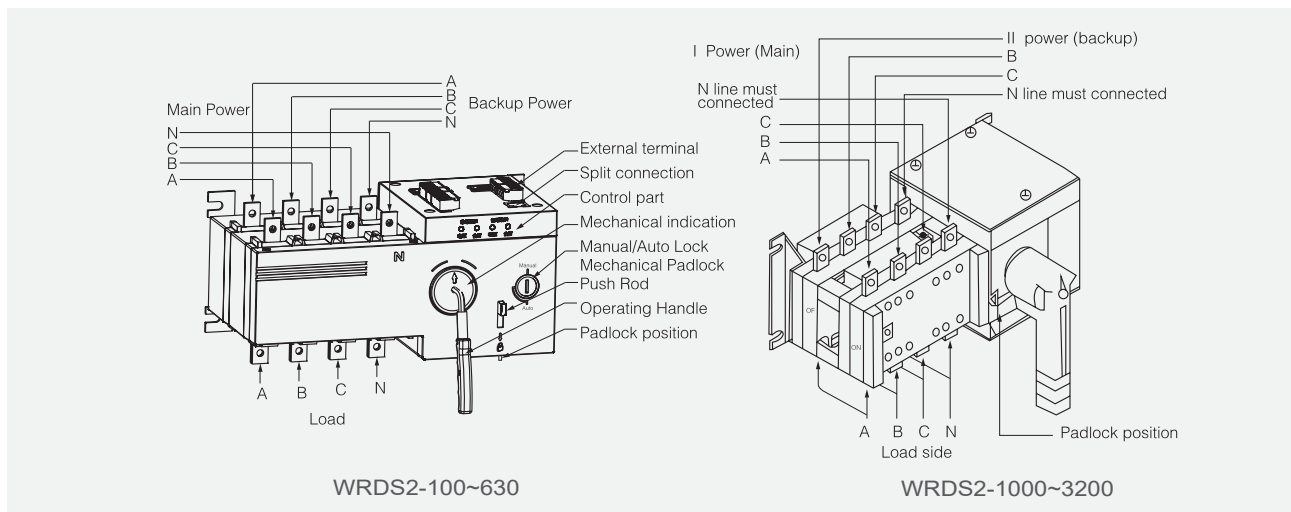
2

DUAL POWER (ATS)



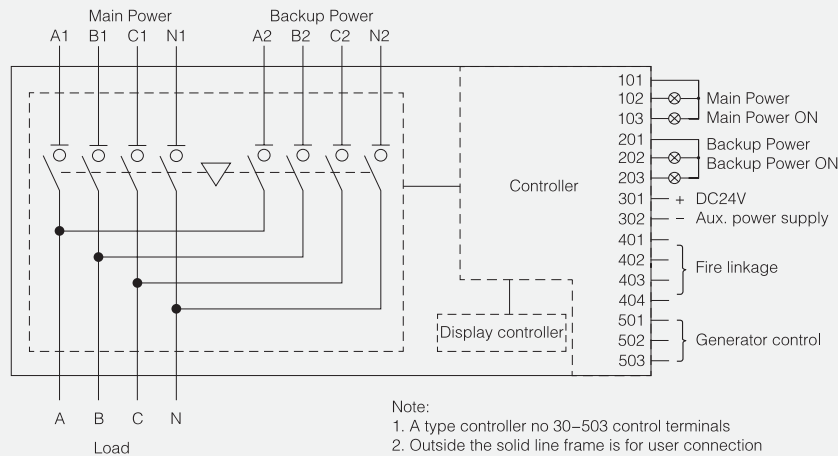
Spec	Size						Switch Installation						Terminal								
	A	A1	B	C	E	G	H	J	K	L	N	O	P	R	S	T	U	V	Y	Y1	Y3
2000A	1007	633	455	562	495	470	53	467	220	11	84.5	524	120	80	80	10	250	33	147	84	147
2500A	1007	633	455	562	495	470	28	467	220	11	84.5	524	120	80	100	10	250	13	152	79	152
3200A	1007	633	505	562	495	470	28	467	220	11	84.5	524	120	100	100	14	250	13	152	79	152

## Wiring Instruction

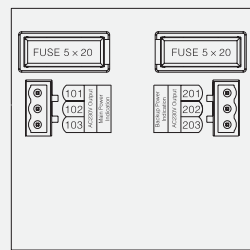


# WRDS2 Series

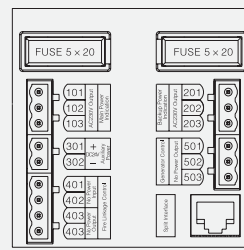
## WRDS2-100-630A Auto Transfer Switch Control And Operation (Suitable For Rated Current 16A~630A)



Note:  
1. A type controller no 30-503 control terminals  
2. Outside the solid line frame is for user connection



A type Controller



B Type Controller

101~103 : main power external indicator signal ( Active AC230V/0.5A)

101- Indicator common null line 102- Main power indicator signal output 103- Main power ON signal output

201~203 : Backup power external indicator signal (Active AC230V/0.5A)

201- Indicator common null line 202- Backup power indicator signal output 203- Backup power ON signal output

301~302 : DC 24V aux. power input for generator start

301- DC24V positive input 302-DC24V negative input

401,404 : Fire linkage control signal input and feedback signal output

401,402 : Fire linkage control signal passive input, if the signal from fire-fighting equipment is an active signal, must first connect to a small relay, then connect the relay NO point to 401,402, after NO contact closed ATS transfer to OFF position.

403,404 : Feedback signal for ATS transfer to OFF position cutoff the load power supply

Notes: when the fire linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then switching the Auto/Manual control switch one time, the ATS will recovery normal working

501~503 : Generator start control signal output

When the backup power is Auto start generator, users can connecting the 501~503 terminals to the generator controller to achieve the generator auto start function, inside 501~503 terminal, is a set of passive relay contact point, 502 is the relay common terminal, 503 is relay NC point, 501 is relay NO point; when main power normal, 501 and 502 is closed, and 501 open, if main power failure 501 and 502 open, meanwhile 503 and 502 closed, to send generator start signal.

# WRDS2 Series

## WRDS2-1000-1600A Auto Transfer Switch Control And Operation (Suitable For Rated Current 800A ~1600A)

2

DUAL POWER (ATS)

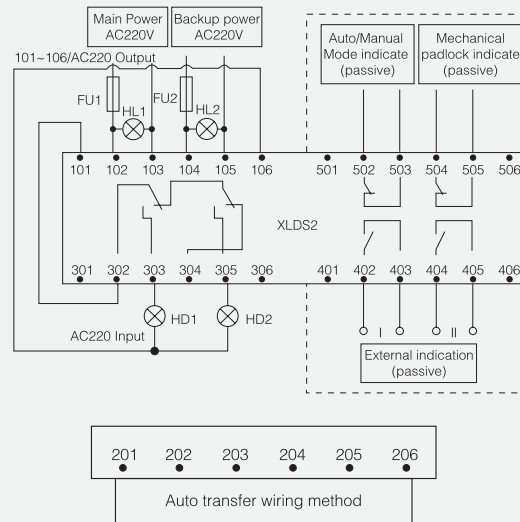
- Basic type terminals

Output connection	Interior	Connector terminal color
AC200V — 101 I AC200V — 102 — 103 — 104 II Ac200 — 105 — 106 0 —	Interior output Second power	
Common Point — 201 — 202 Position I — 203 Position 0 — 204 Position II — 205 — 206	Command /Auto selection Control	
Common point — 301 — 302 Position I — 303 Position 0 — 304 Position II — 305 — 306	Position indicate	
— 401 — 402 — 403 Position I — 404 — 405 Position II — 406	The 1 break Aux. contact	
"Manual" contact open — 501 "Auto" contact closed — 502 "Padlock" contact open — 503 "No padlock" contact closed — 504 Mode — 505 Padlock — 506	Indicate Auto/Manual Mode and padlock	
Main power ON Contact open — 601 Main power fault contact closed — 602 Genset start — 603 — 604 — 605 — 606	(Special use for genset) Control	

# WRDS2 Series

## Automatic Wiring Method (Suitable For Rated Current 800~3200A)

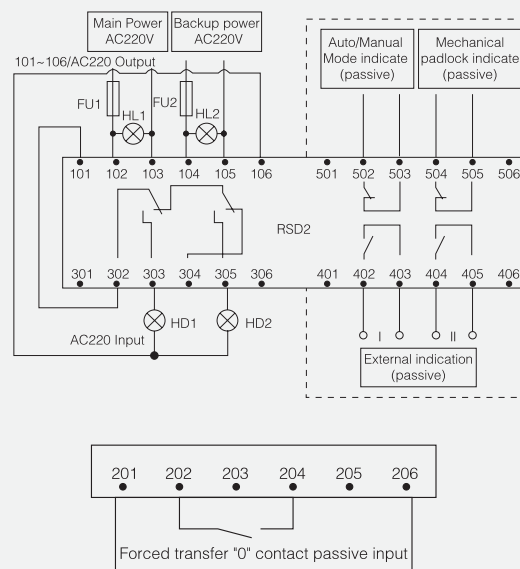
- HL1 Main power good indication;
- HL2 Backup power good indication;
- HD1 Main Power ON indication;
- HD2 Backup power ON indication;
- FU1/U2 is 2A fuse.
- 101-106, 201-206, 301-306 is WRDS2 switch terminal.
- 401-406, 501-506 optional switch terminal for up 630A rating.



2  
DUAL POWER (ATS)

## Auto+Forced Change "0" Position ( For Rated Current 800~3200A ) ( Fire-Fighting Dual Power Source Off) Wiring Drawing

- HL1 Main power good indication;
- HL2 Backup power good indication;
- HD1 Main Power ON indication;
- HD2 Backup power ON indication;
- FU1/U2 is 2A fuse.
- 101-106, 201-206, 301-306 is WRDS2 switch terminal.
- 401-406, 501-506 optional switch terminal for up 630A rating.





## WRDS3 Series

### Application

WRDS3 Series PC class dual power Auto transfer switch, mainly used in two way power supply system with rated voltage below 400V, AC 50/60Hz, rated current up to 630A, when one power supply abnormal, then it transfer between two power supply system, to ensure the power supply reliability and safety.

The ATS have " Main Power", "Backup Power" and "Two way OFF" positions, with higher breaking and making capacity, it not only can meet normal load transfer, but also can meet high inductive impedance or big motor load transfer, meanwhile due to have high short time withstand current capacity, no need special SPCD, doesn't affect the selective of inside circuit, meanwhile it also can meet the application at big capacity power supply side.

《Low voltage switch equipment and control equipment Part 6-1: multi-functional transfer switch equipment》 Standard.

### Model Meanings

WR DS 3 - 125 C 4P  
 ↓ ↓ ↓ ↓ ↓ ↓  
 ① ② ③ ④ ⑤ ⑥

①	Company code
②	PC class auto transfer switch equipment
③	Design code
④	Rated working current
⑤	Controller type A: Basic type Single phase monitor B: Standard type three phase monitor+fire-fighting ,generator control C: Intelligent type three phase monitor+fire-fighting,generator control+LCD display D: Intelligent type three phase monitor+fire-fighting, generator control+split LCD display
⑥	Poles (3P,4P)

### Working Conditions

- Ambient temperature: -20°C ~+50°C ; 24hours average not more than +50°C ;
- Atmospheric conditions: humidity not more than 50% at max. +50 °C , higher humidity is allowed at lower temperature, at most wet month, the average max humidity is 90% at the average min temperature +35°C , and have considered the condensation on the product surface due to temperature variation;
- Altitude: Not more than 2000m;
- Pollution Class: The installation site environment pollution Class 3.

# WRDS3 Series

## Technical Data

Type	WRDS3-125	WRDS3-250	WRDS3-630
3 Pole Ref.No	W605310	W605311	W605312
4 Pole Ref.No	W605313	W605314	W605315
Poles	3/4	3/4	3/4
Rated Working current (A) Ie	16-125	140-250	315-630
Rated working voltage (V) Ue	400	400	400
Rated insulation voltage (V)Ui	800	800	800
Rated impulse withstand voltage (KV) Uimp	8	8	8
Use category	AC-33B	AC-33B	AC-33B
Rated short time withstand current(KA, rms)Icw	10kA(200mS)	10kA(200mS)	25kA(200mS)
Rated short circuit Making capacity (KA peak)Icm	20kA	30kA	50kA
Rated limit short circuit current (KA)Iq	120kA	120kA	120kA
Rated control power supply voltage (V) Us	230V/50Hz	230V/50Hz	230V/50Hz
Contact transfer time (s)	1.5	1.8	2
Operation cycles	no electricify	8500	7000
	with electricify	1500	1000
	Total	10000	8000
Outline size (mm) WxDxH	245×130×122	295×175×175	430×272×228
Weight (kg)	5	10	20

## ATS Functions List

Type	A type controller	B type controller	C type controller	D type controller
Control power voltage	AC 230V/50Hz			
Auto transfer	Auto transfer and auto recovery	Auto transfer auto recovery, auto transfer no auto recovery, power grid-generator		
Manual transfer	Manual main power, manual backup power, manual OFF			
Isolation lock	Off position have isolation function, also can padlock locked			
Generator control	-	Generator start and stop		
Fire linkage	-	with passive fire linkage signal to switch OFF the device, with one set passive NO feedback contact		
Display mode	Mechanical indication: device ON/OFF status, operating mode LED: device ON/OFF status, power status		Mechanical indication: device ON/OFF status, operating mode LED: device ON/OFF status, power status LCD: device ON/OFF status, power status, data setting	
Setting mode	-		Key-press operation, Chinese/English display interface, can set the working mode, low-voltage value, over-voltage value, delay time, auto transfer mode etc.	
Power monitoring	A phase voltage missing monitor	ABC three phase over-voltage 265V ABC three phase low-voltage 187V ABC three phase voltage missing monitor	ABC three phase over-voltage (240-290V adjustable) ABC three phase low-voltage (150-200V adjustable) ABC three phase voltage missing monitor	
Delay time	-		Transfer delay (0-300s adjustable) Recovery delay (0-300s adjustable) Generator start, stop delay (0-300s adjustable)	
Mounting mode	Integrated mounting		Split mounting	

Note: B type controller if need auto transfer no recovery mode, please specify when ordering.

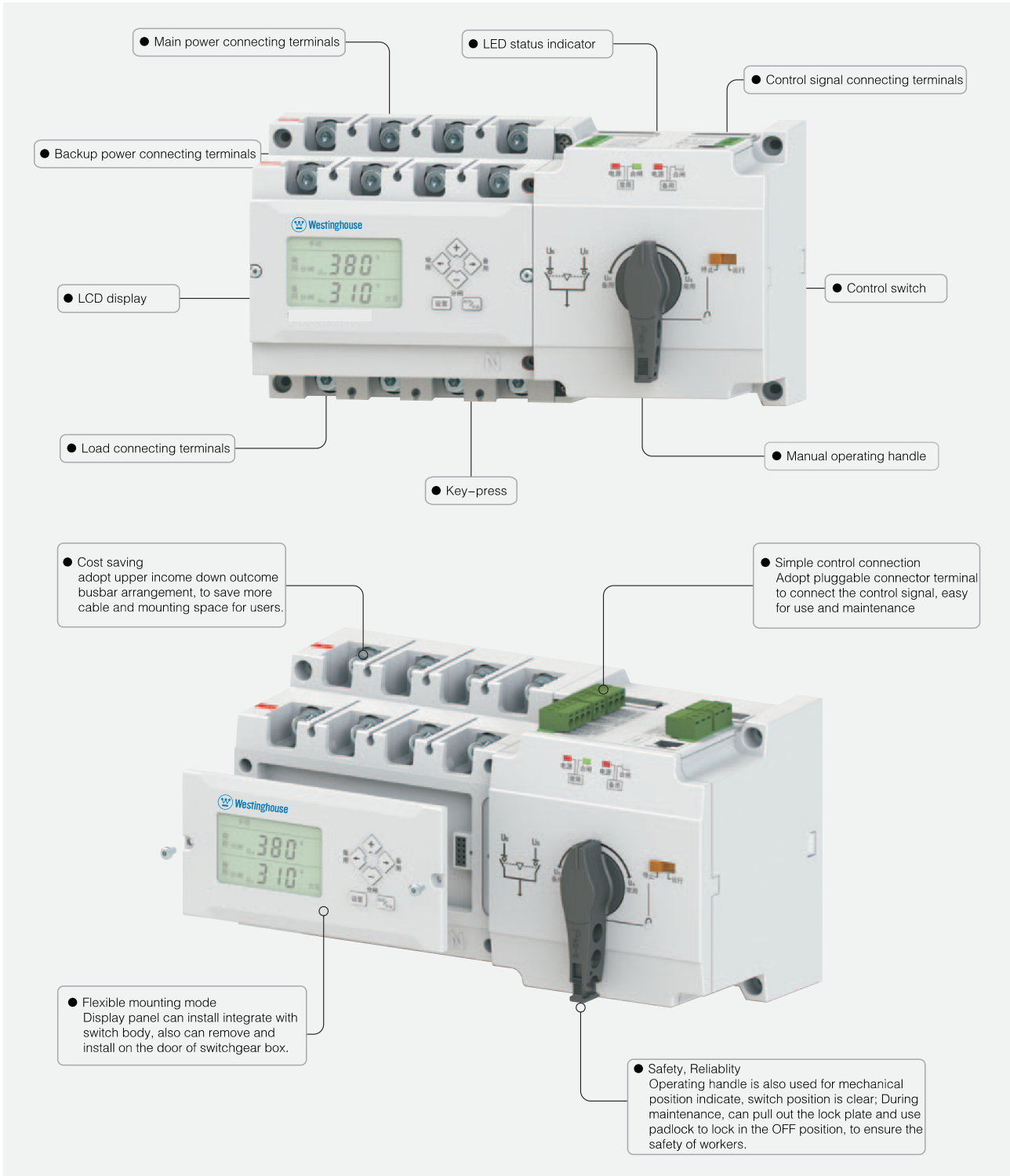


# WRDS3 Series

## Product Structure

2

DUAL POWER (ATS)



# WRDS3 Series

## Product Features

- High short time withstand capacity, high short circuit making capacity  
Adopt high density silver alloy contact, can withstand thousands operating cycles and no burning loss, no pit or no melting. No need daily contact maintenance, 100% rated current continues load. Contact system adopt bridge type double break rotating insert structure, reach high short time withstand capacity and high short circuit making capacity, no need special SCPO, no affect the selective of circuit, meanwhile also can meet the application in the big capacity power supply system.
- 10Ie making and breaking capacity, match the AC-33B use category  
Optimized magnetic blow-out arc extinguish system, easily reach 10Ie making and breaking capacity, match AC-33B use category and also match the load property of AC typical application , have wide application range.
- Stacking structure, small volume  
Main, backup power switch part adopt modularize design, stacking arrangement, make the product volume more smaller than other similar products.
- Three position with isolation lock  
With “Main power position”, “OFF position”, “Backup power position” three working position, can used for fire linkage and high inductive impedance load; OFF position with isolation lock function, can meet the isolation requirement during th load side maintenance.
- Display controller can integrated installation, also can split installation  
Display controller and transfer controller split set up, display controller can install on the switch body panel ( Integrated type), also can install separately on the door panel of switchgear box (split type), convenient for user to check and control of the ATS status.
- Multi-functions, different modes  
Controller have under-voltage, over-voltage, phase missing automatic transfer function and motor-driven forced transfer function, Auto mode have auto transfer with auto recovery and auto transfer without recovery two modes, to fit with different location; Have fire linkage function, to cutoff the load power under emergency situation.

## Controller Functions

- Under-voltage detection  
Controller makes under-voltage detection for main power and backup power, when the under-voltage is detected with the power supply, it will start the auto transfer function to transfer to another power supply. When the power supply voltage is detected recovered to acceptable range (Recovery value), controller will decide whether make transfer according to the settled transfer mode and can set transfer delay time.
- Over-voltage detection  
Controller makes over-voltage detection for main power and backup power, when the over-voltage is detected with the power supply, it will start the auto transfer function to transfer to another power supply. When the power supply voltage is detected recovered to acceptable range (Recovery value), controller will decide whether make transfer according to the settled transfer mode and also can set transfer delay time.
- Transfer delay  
When the main power is confirmed abnormal and backup normal, transfer delay start delay counting, after time delay is over then transfer from the main power to backup power. This time delay can wait to confirm whether the main power is short time abnormal, also can avoid switch frequently transfer.
- Recovery delay  
Recovery delay is after backup power supply, and main power is confirmed available, then start delay counting, when delay time is over then transfer from the backup power to main power. This delay time can wait the main power supply output stable before it supply to the load.
- Generator start delay  
Generator start delay can avoid starting genset due to short time power off. When main power fault then start delay counting, and after the delay time is over then send generator start signal.  
(Note: when the main power suddenly cutoff and genset didn't start, under this situation it can't delay due to no power supply to the controller, if need to use this function have to connect a DC24V aux. power supply to the controller to achieve the time delay function)
- Generator stop delay  
Generator stop delay can remain the generator in hot backup status after it stop power supply to the load, avoid the genset restarting due to main power in short time recovery. When transfer from the backup power to main power supply then start the delay counting, after delay time counting is over then controller send genset stop signal.

# WRDS3 Series

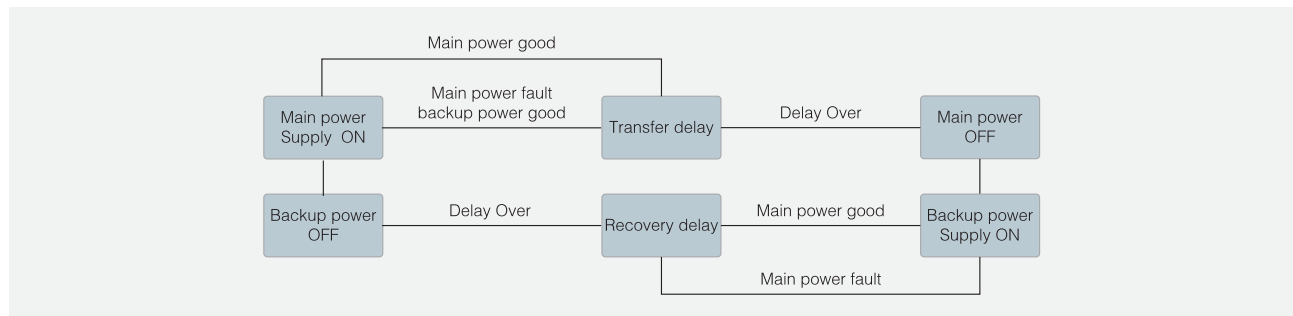
- Transfer mode

Controller provides different transfer mode function according to the power supply property

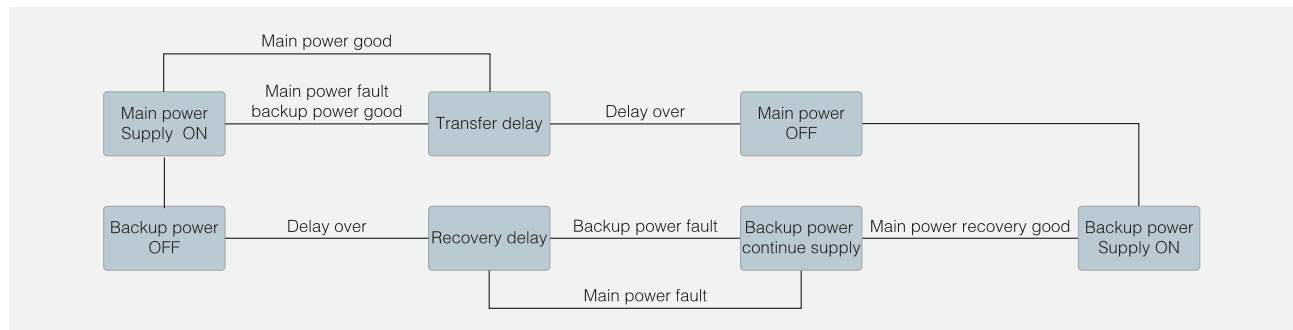
1 : Power grid - Power grid:

At the application of power grid - power grid, ATS can provide auto transfer with auto recovery and auto transfer no auto recovery two transfer mode.

Power grid - power grid auto transfer with auto recovery mode

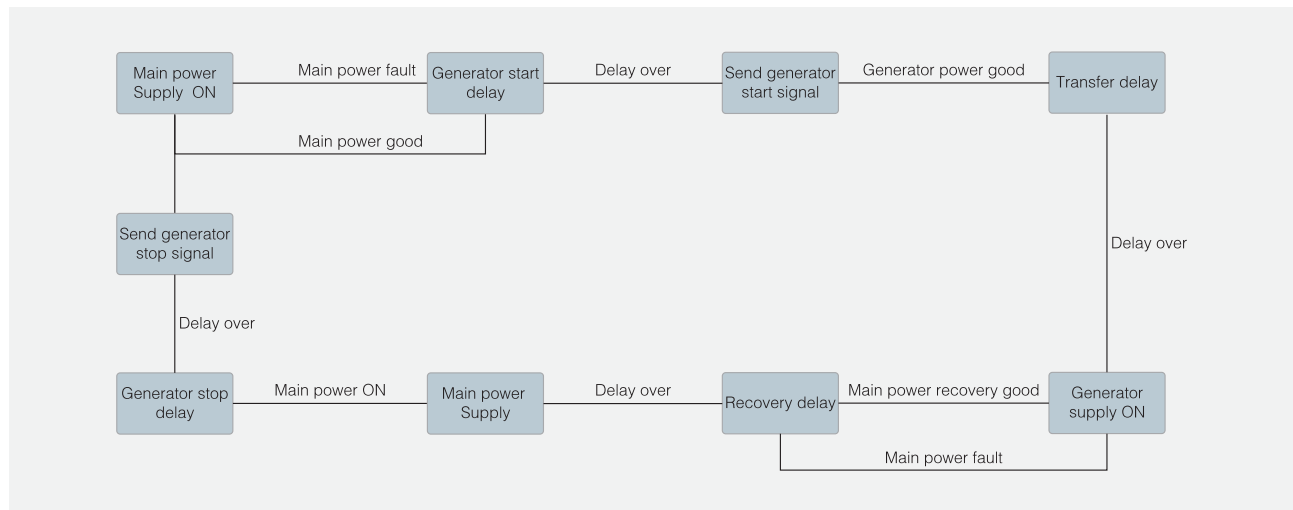


Power grid - power grid auto transfer no auto recovery mode



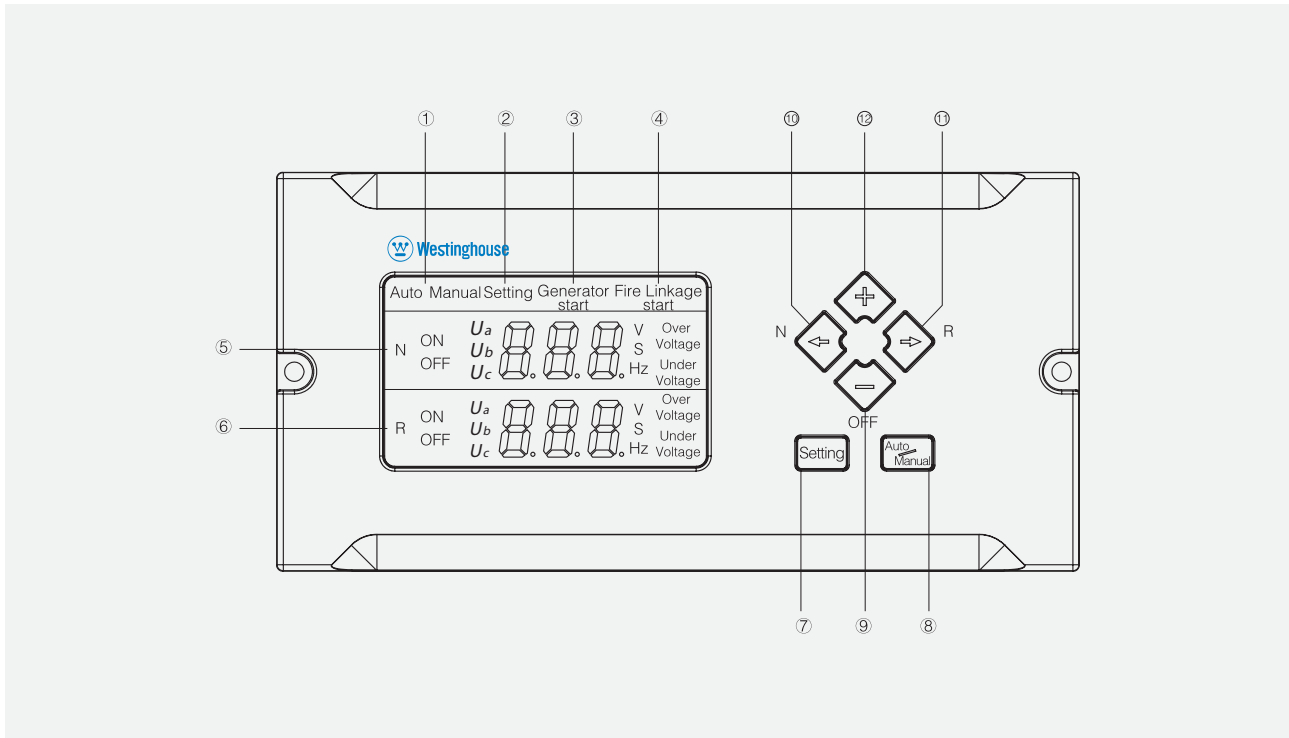
2 : Power grid - generator mode

Transfer between power grid - generator



# WRDS3 Series

## Display Panel

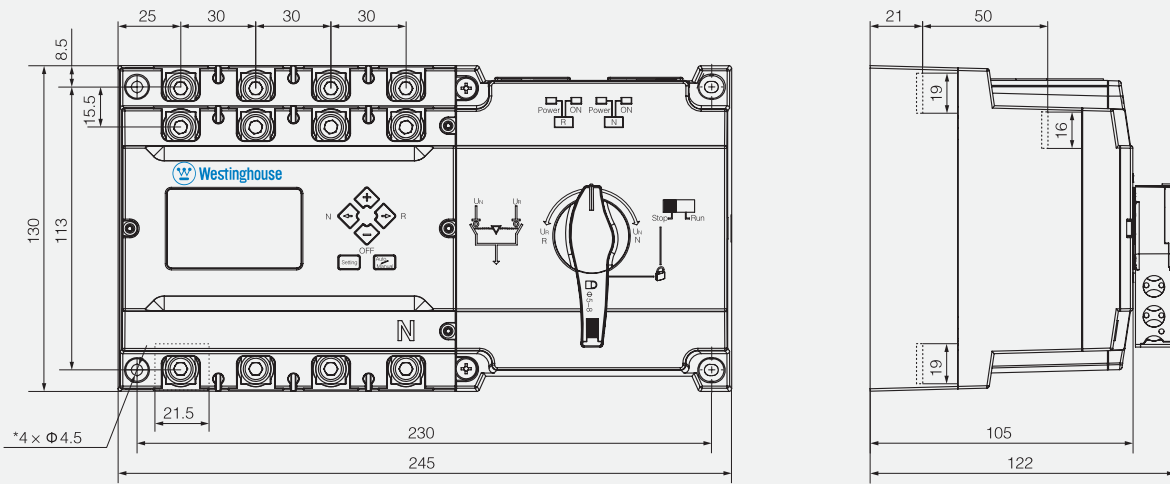


- 1: Auto、Manual working mode indicate;
- 2: Setting status indication;
- 3: Generator start signal indicate;
- 4: Fire linkage function status indicate;
- 5: Main power status data indication zone: during working status display main power voltage data and transfer delay time, during setting status display setting item code;
- 6: Backup power status data indication zone: during working status display backup power voltage data and recovery delay time, during setting status display setting item code;
- 7: Setting button: press this button will enter into controller setting menu;
- 8: Auto/Manual transfer mode selection button: under working status it used to select the Auto and Manual transfer mode, under the setting status it used as save and escape function;
- 9: Trip button: under manual control mode if any one of the two power is good, push this button will change to OFF position; under setting status it is used for data decrease button;
- 10: Main power transfer button: under manual control mode and main power good, push this button will forced to transfer to main power; Under setting status , it used for up page button;
- 11: Backup power transfer button: under manual control mode and backup power good, push this button will forced to transfer to backup power; Under setting status , it used for down page button;
- 12: + Button: under setting status this button is used as data increase button;

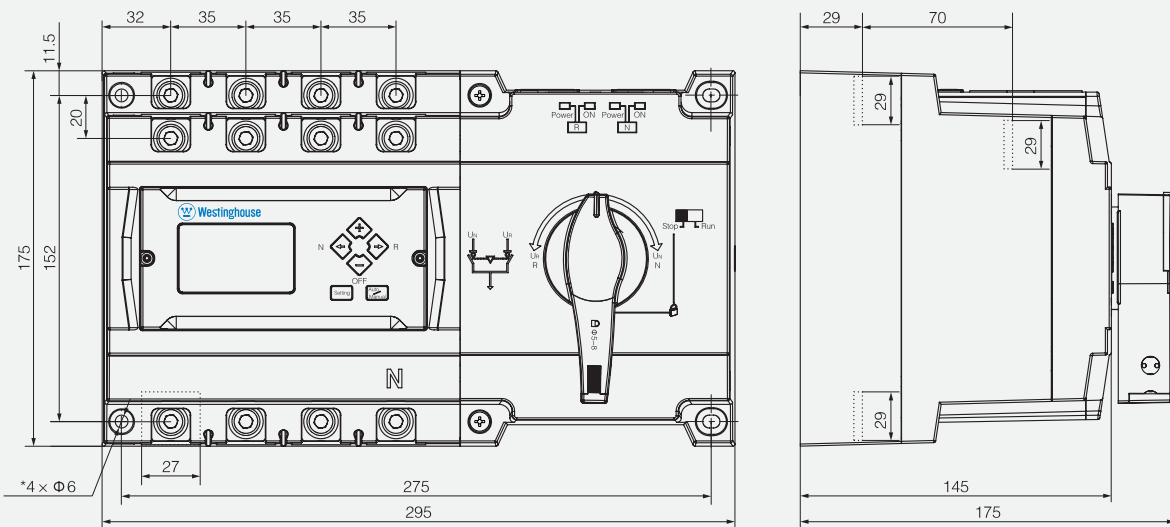
## WRDS3 Series

### Outline And Mounting Size (mm)

- WRDS3-125 (3P,4P outline and mounting size same)



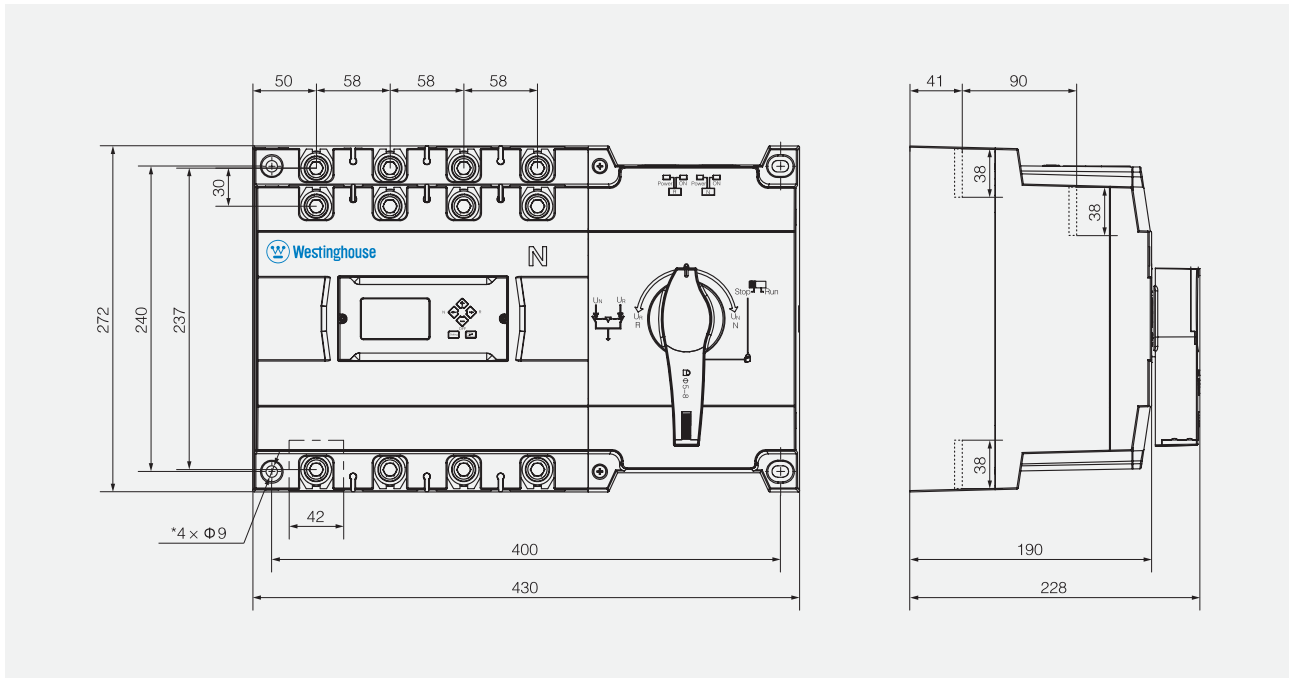
- WRDS3-250 (3P,4P outline and mounting size same)



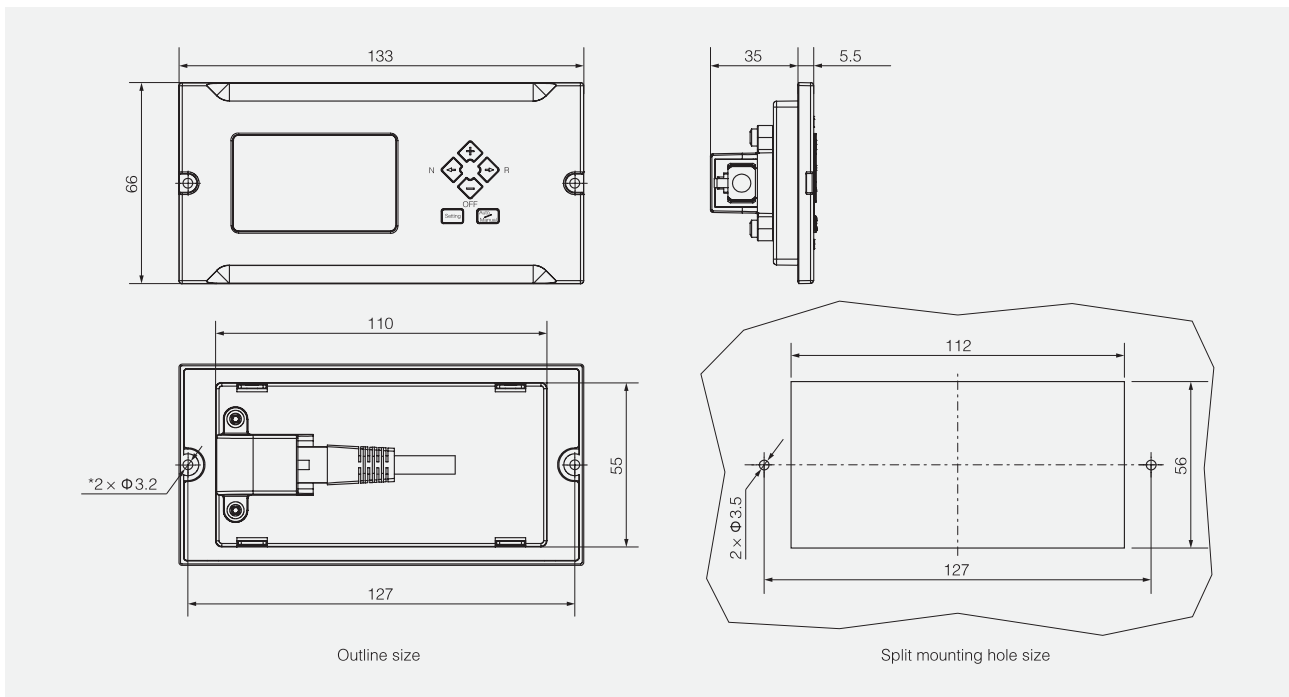
# WRDS3 Series

## Outline and Mounting Size (mm)

- WRDS3-630 (3P,4P outline and mounting size same)

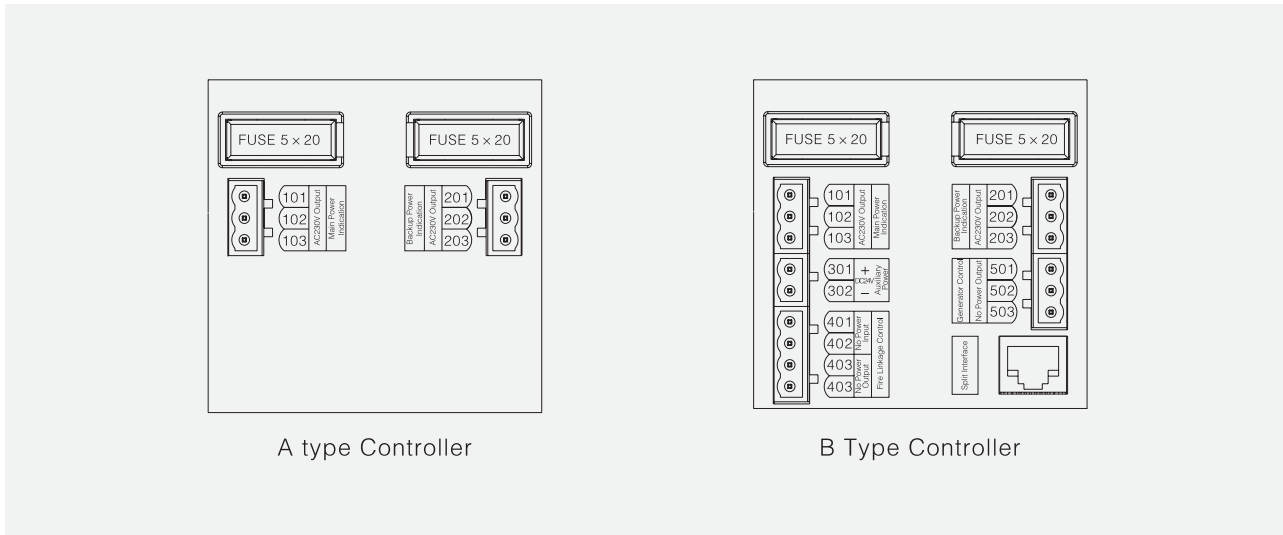


- Display controller outline and split mounting hole size



# WRDS3 Series

## Controller Terminal and Wiring Instruction



A type Controller

B Type Controller

- 101~103 main power external indicator signal (Active AC230V/0.5A)  
101- Indicator common null line 102- Main power indicator signal output 103- Main power ON signal output
- 201~203 Backup power external indicator signal (Active AC230V/0.5A)  
201- Indicator common null line 202- Backup power indicator signal output 203- Backup power ON signal output
- 301~302 aux. power input (DC15V- 24V/0.5A)

The purpose to put an aux. power is to control the generator start delay time under the Power grid-Generator mode, if without aux. power, the generator start delay time is 0s, if the generator start delay function not needed, then no need to connect the aux. power .

- 401~404 Fire linkage control terminals

401,402 Fire linkage control signal input, this terminal external only can connect to a set of NO passive contact (if the signal from fire-fighting equipment is an active signal, must first connect through a small relay, then connect the relay NO point to controller) after NO contact closed ATS immediately transfer to OFF position and cutoff the power supply.

403,404 Inside is a set of NO relay contact point, used for sending the fire-fighting movement signal back; when it is normal, the contact is NO status, when there is fire-fighting signal input to the controller, and the switch transfer to OFF position, the 403 and 404 closed. (Notes: when the fire linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then switching the Auto/Manual control switch one time, the ATS will recovery normal working)

- 501~503: Generator start control signal output

When the backup power is Auto start generator, users can connecting the 501~503 terminals to the generator controller to achieve the generator auto start function, inside 501~503 terminal, is a set of passive relay contact point, 502 is the relay common terminal, 503 is relay NC point, 501 is relay NO point;

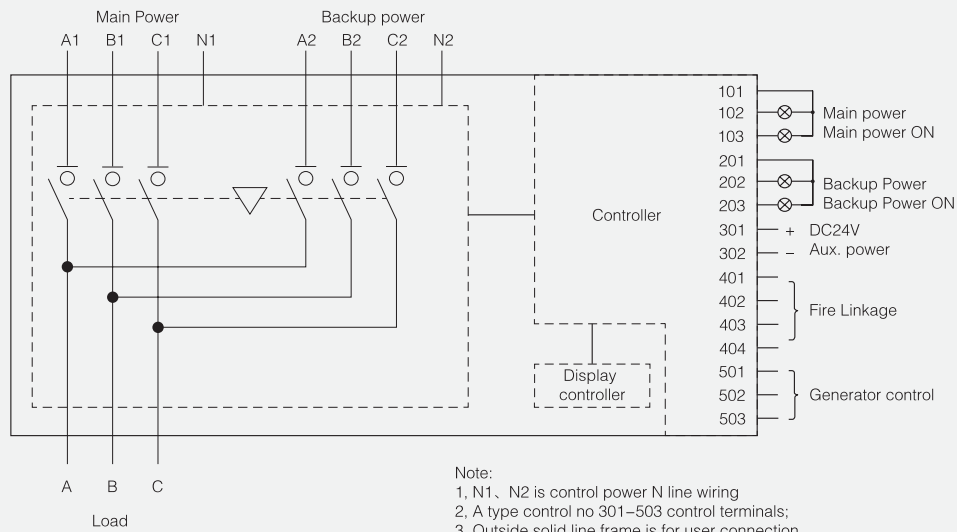
Under power grid- generator mode and auto transfer mode, when main power normal, 502 and 501 is closed, 502 and 503 open, if main power failure and backup power no power, 502 and 503 closed after generator start delay time, meanwhile 502 and 501 open to send generator start signal, after generator start successfully ATS auto transfer to backup power supply, if main power recovery good, then controller after recovery delay time to control the switch transfer to main power supply, after main power ON, 502 and 501 closed after generator stop delay time, 502 and 503 open to send generator stop signal.

# WRDS3 Series

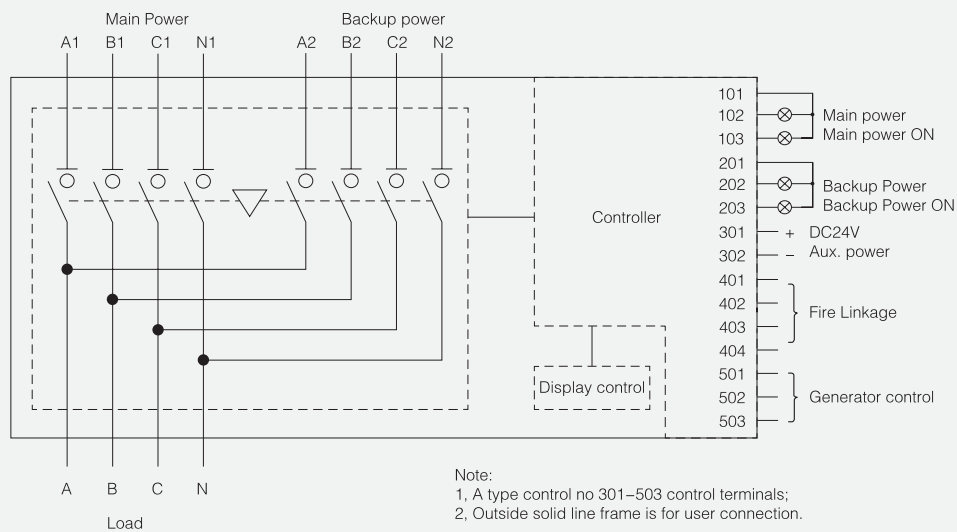
## 3P Product Wiring

2

DUAL POWER (ATS)



## 4P Product Wiring







**USA:** Westinghouse  
20 Stanwix Street | Pittsburgh | PA | 15222

**Poland :** Westinghouse LV MV Product sp. z o.o.  
Warsaw, Rondo ONZ 1, 12 floor, 00-124 Warsaw, Poland

**Malaysia :** Westinghouse Lv Mv Product Sdn. Bhd.  
Seberang Perai Selatan 14110 Simpang Ampat  
Pulau Penang, Malaysia

**[WWW.westinghouselvmv.com](http://WWW.westinghouselvmv.com)**  
**Email: [info@westinghouselvmv.com](mailto:info@westinghouselvmv.com)**