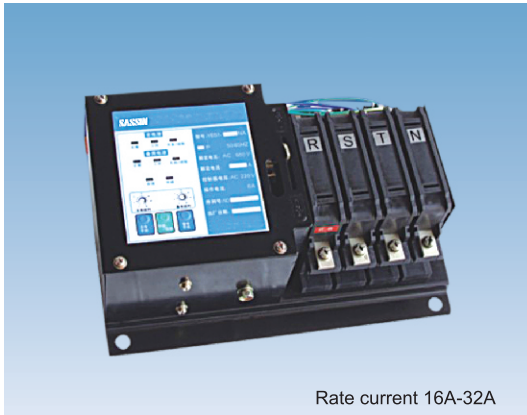


7

3SAQ3	ATS (Two Sections of Integral Type)	1
3SAQ3-NA	ATS (Range 32A~125A)	2
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3SAQ3 ATS(Two Sections of Integral Type)



Rate current 16A-32A

■ General

Since the products have self-input and self-recover, self-input without self-recover, utility-generator, three types of applications. Detecting the three-phase four wires of utility and the three-phase voltage of two sources at the same time. If the primary power fails, such as over voltage, under voltage or loss phase, it changes over from the abnormal power to the normal power automatically. The products system in utility-generator could send out a signal, It's perfect capability, reliability, flexibility, easy usage, wide range of dual-power products, up to the domestic level.

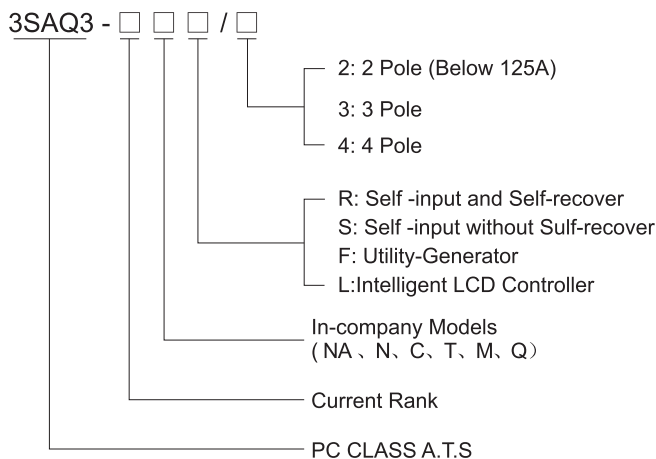
■ Application

3SAQ3 series automatic transfer switch (A.T.S) is applicable in AC 240/415V, and 50/60Hz emergency power supply system. If one source feed fails, the transfer switch automatically connects the load to the second source feed, without manual operation, ensuring the power supply reliable for user.

It's used in hospital, marketplace, bank, chemical industry, metallurgy, high building, military facilities and fire device, where disallow failure in power supply.

This product meets the IEC60947-6-1 Automatic Electrical Switch"standard.

■ Product Model and Classification (PC Class)



■ Characteristics

- Small volume, convenient installation.
- With the controller, the setting can transfer between the manual and automatic compatibility, the vote of self-input and self-recover, self-input without self-recover.
- Under voltage, over voltage, loss phase protection, complete functions.
- Reliable and safe interlock, running parameter could be adjusted.
- Rated voltage of 400V, rated current is 16A-3200A,
- Transfer speed is very quick, (the time is not more than 50ms), low malfunction, easy maintenance.

■ Structure and Characteristic

3SAQ3 ATS is composed of two section, the switch body and controller. Adopting the electromagnetic driver, the working power of controller transfer is based on the primary power and standby power, AC 220V power supply, without the additional source. Switch body have an electrical or mechanical switch instruction as an isolation indicator function.

■ Environment Conditions for Operation and Installation

Ambient temperature: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$, and average temperature below $+35^{\circ}\text{C}$ (except for special orders).
Elevation of installation site: $\leq 200\text{m}$
Pollution protection: grade 3.
Installation the vertical gradient: $\pm 22.5^{\circ}$
Flashover distance: 80mm for AC 380V, and 100mm for AC 660V.

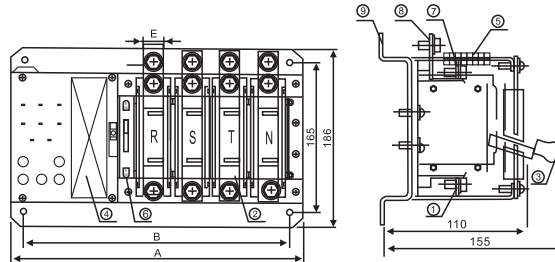
3SAQ3-NA ATS (Range 32A~125A)



Rate current 40A-32A

General

To meet consumer request, our company launch a switch with interior controller, consumer only connect the main loop to use the automatic transfer switch electric system. (only limit in 32A-125A)



1. Load Bus
2. Power Model
3. Control Handle
4. Brand
5. Connection Terminal
6. Transfer Mechanical of Power
7. Main Power Bus
8. Standby Power Bus
9. Base

Dimensions of (NA) Type A.T.S.

Number	Pole	3SAQ3-32NA	3SAQ3-125NA
A	2P	215	240
	3P	238	275
	4P	270	310
B	2P	190	210
	3P	215	245
	4P	245	290
E		12	20

Technical Characteristics

Model		3SAQ3-32NA			3SAQ3-40NA			3SAQ3-63NA			3SAQ3-125NA		
Rated Current(A)		25,32			40			63			125		
Operating Current(A)		3.5											
Max Instantaneous Current		5											
Service Life	Mechanical	8000											
	Electric	3000											
Pole		2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
Weight(kg)		4.2	4.7	5.2	5	5.5	6.5	5	5.5	6.5	5	5.5	6.5
Operating Cycle (s/times)		15											

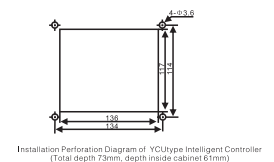
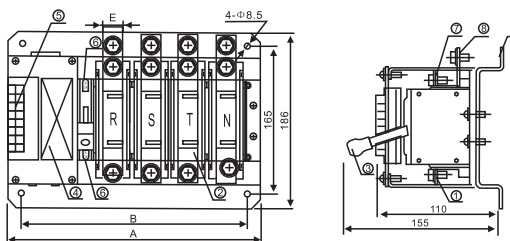
3SAQ3-N ATS(Two Sections of Fission Type)



Rate current 32A-125A

General

As the request of consumer, switch handle could be removable, The total height is only 110mm



1. Load Bus
2. Power Model
3. Control Handle
4. Brand
5. Connection Terminal
6. Transfer Mechanical of Power
7. Main Power Bus
8. Standby Power Bus
9. Base

Dimensions of (N) Type A.T.S.

Model	Pole	3SAQ3-32N	3SAQ3-10N	3SAQ3-10N	3SAQ3-10N
A	2P	173	195		
	3P	196	228		
	4P	227	266		
B	2P	155	176		
	3P	176	208		
	4P	207	246		
E		12	20		

Technical Characteristics

Model		3SAQ3-32NA				3SAQ3-40NA				3SAQ3-63NA				3SAQ3-125NA			
Rated Current(A)		25,32				40				63				125			
Operating Current(A)		3.5															
Max Instantaneous Current		5															
Service Life	Mechanical	8000															
	Electric	3000															
Pole		2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P				
Weight(kg)		3.2	3.7	4.2	4	4.5	5.5	4	4.5	5.5	4	4.5	5.5				
Operating Cycle (s/times)		15															

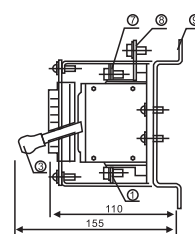
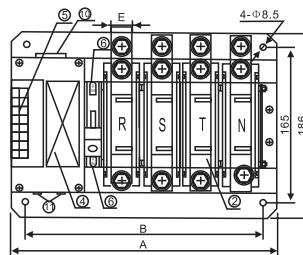
3SAQ3-C ATS(Type Two Sections)



Rate current 40A-125A

General

For easy installation to consumer,our company alter to special socket between the fission type ATS controller and switch body, the consumer may connect the main return way,then plug into the socket directly,leave out the trouble to connection.



- 1.Load Bus
- 2.Power Model
- 3.Control Handle
- 4.Brand
- 5.Connection Terminal
- 6.Transfer Mechanical of Power
- 7.Main Power Bus
- 8.Standby Power Bus
- 9.Base
- 10.Connector socket of Controller
- 11.10A Fuse

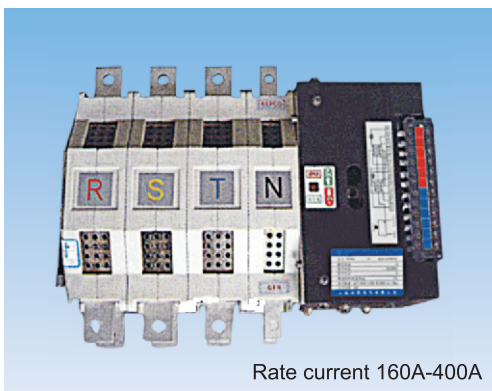
Dimensions of (C) Type A.T.S

Model	Pole	3SAQ3-32C	3SAQ3-40C	3SAQ3-63C	3SAQ3-125C
A	2P	175		195	
	3P	196		228	
	4P	227		266	
B	2P	155		176	
	3P	176		208	
	4P	207		246	
E		12		20	

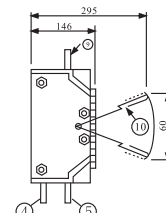
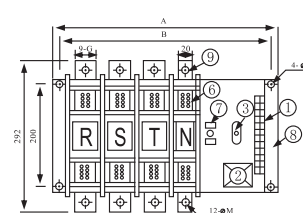
Technical Characteristics

Model		3SAQ3-32C				3SAQ3-40C				3SAQ3-63C				3SAQ3-125C			
Rated Current(A)		25,32				40				63				125			
Operating Current(A)		3.5															
Max Instantaneous Current		5															
Service Life	Mechanical	8000															
	Electric	3000															
Pole		2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P				
Weight(kg)		3.2	3.7	4.2	4	4.5	5.5	4	4.5	5.5	4	4.5	5.5				
Operating Cycle (s/times)		15															

3SAQ3-T ATS(Two Sections)



Rate current 160A-400A



- 1.Connection Terminal
- 2.Brand
- 3.Control Handle Faucet
- 4.Load Bus
- 5.Standby Power Bus
- 6.Arc Chute
- 7.Close-transition Indication of Primary and Standby Power
- 8.Base
- 9.Main Power Bus
- 10.Control handle (Removable)

Flashover Distance
220V 50mm
380V 80mm

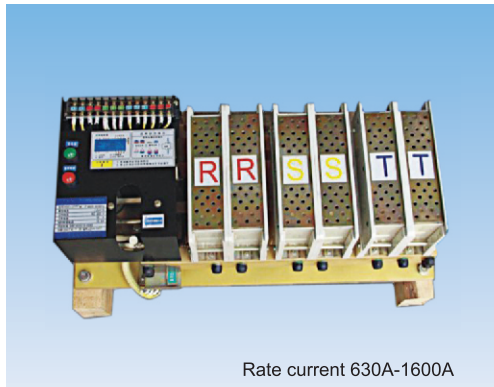
Dimensions of (T) Type A.T.S.

Model	Pole	3SAQ3 160T	3SAQ3 200T	3SAQ3 250T	3SAQ3 315T	3SAQ3 400T
A	3P	322			352	
	4P	372			402	
B	3P	302			332	
	4P	352			382	
G		20			30	
M		9			11	

Technical Characteristics

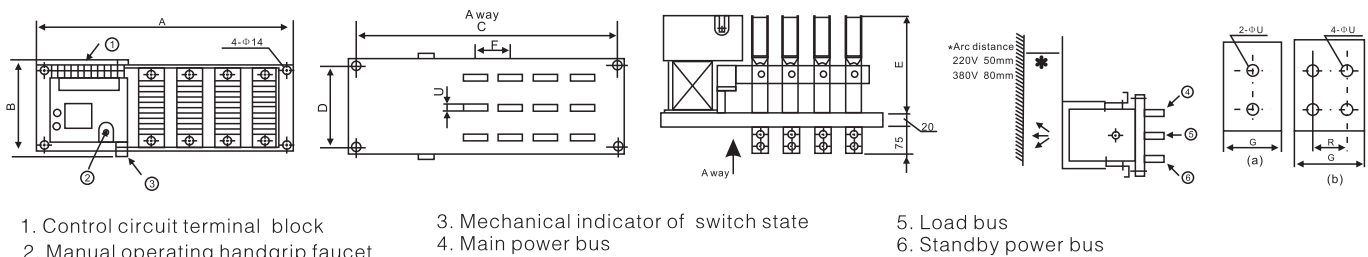
Model		3SAQ3 160T		3SAQ3 200T		3SAQ3 250T		3SAQ3 315T		3SAQ3 400T	
Rated Current(A)		160		200		250		315		400	
Operating Current(A)		7									
Max Instantaneas Current		35									
Service Life	Mechanical	6000									
	Electric	2000									
Pole		3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
Weight(kg)		16	18	18	19	18	20	18.5	20.5	19	21
Operating Cycle (s/times)		10									

3SAQ3-M Dual-Power Automatic Transfer Switch



Character

1. Closed-transition and Open-transition are both by one electromagnetic winding.
2. The structure is simple, convenient to examine and maintain.
3. It's a latest reliable sliding contact, with strong overload capacity.
4. Eliminate the superabundance electric parts, long service life.



Dimensions

Number	Pole	3SAQ3-630M	3SAQ3-800M	3SAQ3-1000M	3SAQ3-1250M	3SAQ3-1600M
A	3P	530				620
	4P	600				750
C	3P	490				580
	4P	560				710
B		280				
D		210				
E		245				
F		90	90	90	90	90
G		30(a)	30(a)	30(a)	30(a)	30(a)
R						40
U		12	14			

Technical Characteristics

Model		3SAQ3-630M		3SAQ3-800M		3SAQ3-1000M		3SAQ3-1250M		3SAQ3-1600M	
Rated current(A)		630		800		1000		1250		1600	
Operating Current(A)		16									
Max Instantaneous Current		15		18		20		25		32	
Service Life	Mechanical	2500									
	Electric	500									
Pole		3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
Weight(kg)		37	42.5	39	46	41	48	48	57	56	67
Operating Cycle(s/times)		15		20		25		25		25	

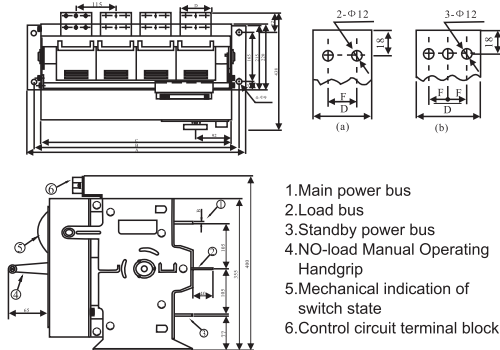
3SAQ3-Q ATS(Two Sections Type)



■ Dimensions (Q) Type A.T.S

Model	Pole	3SAQ3 630(Q)	3SAQ3 800(Q)	3SAQ3 1000(Q)	3SAQ3 1250(Q)	3SAQ3 1600(Q)	3SAQ3 2000(Q)	3SAQ3 2500(Q)	3SAQ3 3200(Q)
A	3P	445							
	4P	560							
B	3P	415							
	4P	530							
C	3P	385							
	4P	500							
C		45	45	50	60	80			
E		6	10				20	25	30
F		25(a)				25(b)			

■ Character



■ Technical Characteristics

Model		3SAQ3 (630Q)		3SAQ3 (800Q)		3SAQ3 (1000Q)		3SAQ3 (1250Q)		3SAQ3 (1600Q)		3SAQ3 (2000Q)		3SAQ3 (2500Q)		3SAQ3 (3200Q)	
Rated current(A)		630		800		1000		1250		1600		2000		2500		3200	
Rated voltage(V)		AC400V															
Operating Current(A)		16															
Rated Short Time withstand Current(KA)		50										65					
Service Life	Mechanical	3000															
	Electric	1000															
Pole		3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
Weight(kg)		39	44.5	40	47	41	48.5	42	50	45	54	58	68	59.5	70	61	72
Operating Cycle(s/times)		15		20		25		25		25		25		25		25	

3SAQ-A Intelligent Type Controller



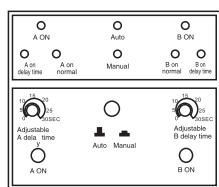
■ Controller Function

- Indicate connects into power supply stating;
- Indicate switch working stating;
- When one way power stop supplying,it switches to other power supply to the load automatically;
- When one source is failure like lose voltage,under voltage,loss phase protection and so on, it changeover to the second source automatically;
- Two ways power supply at the same time,It convert to the main power supply (self-input and self-recover type),the customer can choose the self-input without self-recover type or standby power priority type;
- Provide the compulsive and adjustable time in 30s;
- There are auto manual operate mode,can be compulsive to transfer by manual;

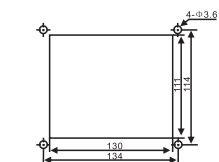
■ Terminal Connctors

M3	M4	L2	A2	B2	C2	N2	N1	C 1	B1	A1	L1	M2	M1
----	----	----	----	----	----	----	----	-----	----	----	----	----	----

- A1,B1,C1,N1 connect the main power in three phases and four wires.If is three phases and three wires, then N1 connects the earth;
- A2,B2,C2,N2 connect the standby power three phases and four wires.If is three phases and three wires,then N2 Connctets the earth;
- L1 across the switch internal assistant contact the main power A phase,as the main power indicate closed-transition;
- L2 across the internal of switch assistant contact the standby power A phase, as the standby power indicate closed-transition;
- e.M1,M2,M3,M4 as the capacity output terminal of the switch.

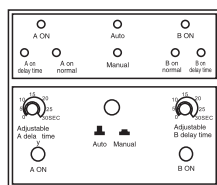


3SAQ -A Controller

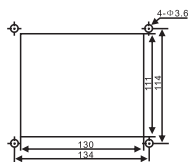


Installation Perforation Diagram of 3SAQ -A type Intelligent Controller
(Total depth 73mm, depth inside cabinet 61mm)

3SAQ-B Intelligent Type Controller



3SAQ- B Controller



Installation Perforation Diagram of 3SAQ – B
type Intelligent Controller
(Total depth 73mm, depth inside cabinet 61mm)

Functions

- Compatible with 3SAQ-A controller function;
- Add an over voltage detection function in two sources;
- Supply available generator sets start signal (send out 3s later when main power failure)
- Note:when you order,you should remark the Power Generator;

Main Character

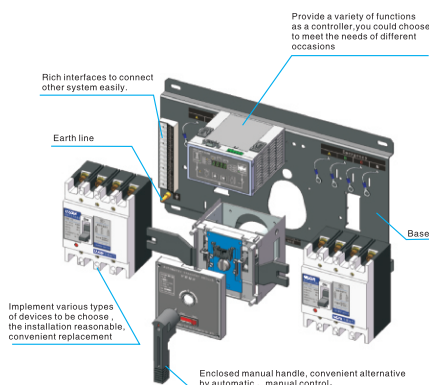
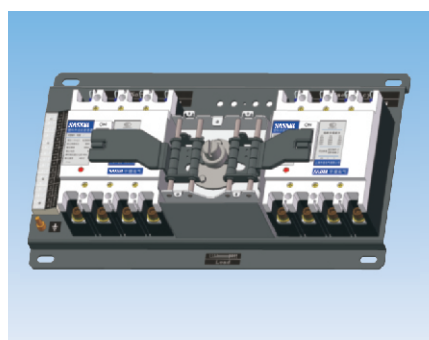
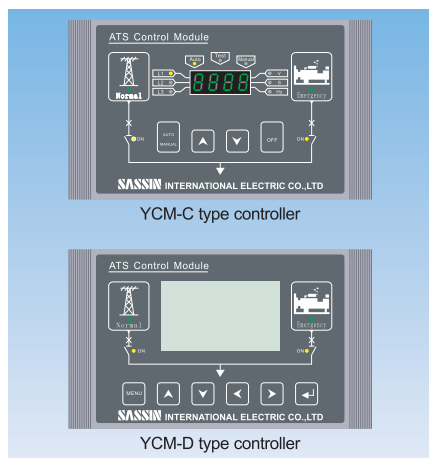
- Adopt a first break the close SCM program control;
- Logic Programming,electrical double chain;
- The bulk is small,and compact,placed on switchgear panel to facilitate observation,operation and run;
- Strong resistance to electromagnetic interference performance.

Sketch Map of Terminal Connectors

M3	M4	L2	A2	B2	C2	N2		F1	F	F2				N1	C1	B1	A1	L1	M2	M1
----	----	----	----	----	----	----	--	----	---	----	--	--	--	----	----	----	----	----	----	----

- A1,B1,C1,N1 connect the main power in three phases and four wires.If in three phases and three wires, then N1 connects the earth;
- A2,B2,C2,N2 connect the standby power three phases and four wires.If in three phases and three wires,then N2 Conncts the earth;
- L1 connects the main power A phase across the assitent contact inside of switch,for indicate closed-state of main power;
- L2 connects the main power A phase across the assitent contact inside of switch,for indicate closed-state of main power;
- M1,M2,M3,M4 as the capacity output terminal of the switch.
- F,F1,F2 as the generator output terminal of start signal,public-F,when the main power is common,F2,F close,F and F1 break off;
When the main power anomalies and standby power off, then F and F1 close after 3s ,Meanwhile F and F2 disconnected.

3SAQ2 ATS



General

3SQ2 series automatic transfer switch is a new generation of the latest development products, generally used to monitor the power supply circuits. When the power failure, it will changeover to backup power automatically to complete conversion of power supply system.

At present, in particular suited for the important electricity power places where disallow failure, in order to meet the needs of the scene. Automatic switch has self-input and self-recover, self - input without self - recover, utility to utility, utility - generators work with a variety of functions, the product applied in 240V,AC 50Hz, rated current from 10A to 1250A (CB class) automatically switch products.

Characteristics

3SQ2 Series intelligent dual power automatic switch is made up of two units in 3 pole and 4 pole of MCCB and (auxiliary contact, alarm contact) , the mechanical interlocking transmission, intelligent controller and other components. It has the integral style and split type with two kinds mechanism. Integral controller is equipped with a base and executing agencies; Split type is intelligent controller installed in the panel. User take the base by implementing agencies to install into the cabinet controller with about 2m long cables.

Reliable mechanical interlock between the two circuit breakers and electrical interlock device, Eliminate the two devices closing completely at the same time.

SCM intelligent controller used to control the core hardware is simple and powerful, expansion of convenience, high reliability.

It has a short circuit, over load protection functions, over voltage, under voltage, loss phase automatic transfer function and intelligent alarm function.

Automatic switching external parameters can be set free.

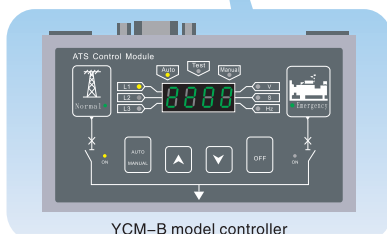
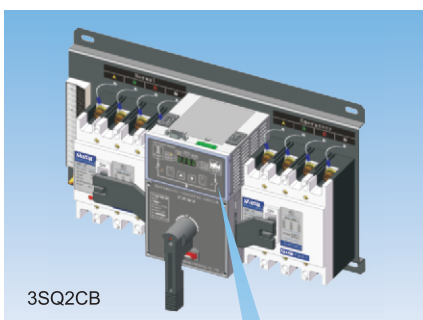
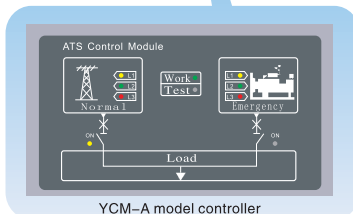
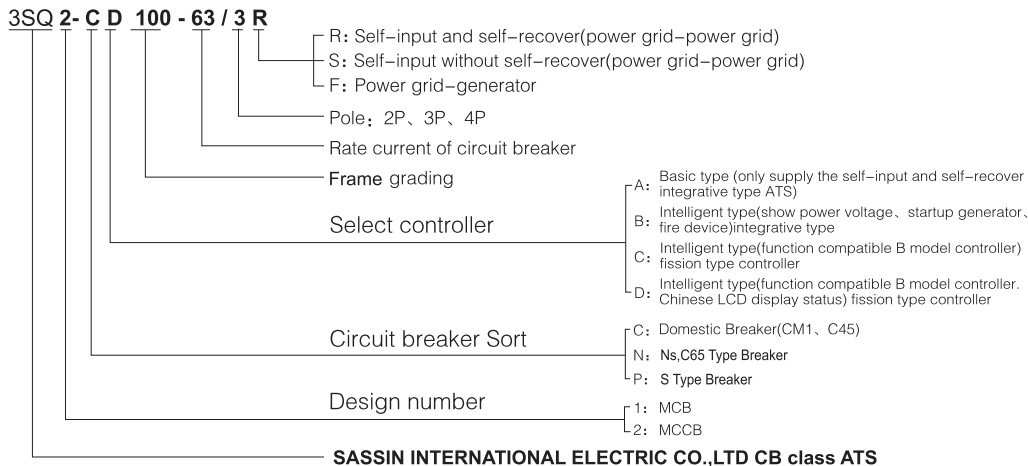
Operation of intelligent motor protection

The control circuit devices with fire, fire control center to a control signal into intelligent controller. Two sets circuit breaker will enter a stating of breaking.

There is a computer network interface for achieving remote control and remote telemetry functions.

3SQ2 ATS

■ Model and Classification



■ Model A Controller

A controller (basic type)and switch body install together, according to working voltage decide whether to work conversion normally.

■ Functions

- ◆ Alternative work by automatic and manual operation;
- ◆ Monitoring the two sources, whether loss phase, under voltage, loss voltage and such abnormal conditions, the indication show whether in located normal voltage;
- ◆ There is a team passive dry output contact for standby generators for start up and shut down;
- ◆ Conversion type is Self-input and self-recover;

■ Electric Characteristics

Rate working voltage: AC220V / 50Hz;
Transfer delay time: 0.5s;
Under voltage transfer value: 176V;
Under voltage return value: 187V.

■ B Model Controller

B model controller adopt microprocessor programmed control; link with switches body together cleverly, easy to operate, function is powerful, and increased C controller and D type LCD display fission controller on the basis of the B model controller.

■ Functions

- ◆ Accurately shows three phase voltage, frequency and switch state capacity in two sources;
- ◆ allows User to monitor the scene, the control center to amend the parameter of working status and transfer delay time;
- ◆ With RS485 communication interface with the remote control, telemetry, functions,and to achieve multi-machine network control functions;
- ◆ With programmable output port;
- ◆ Set arbitrarily self- input and self-recover. self - input without self - recover. power grid - generator models
- ◆ Fire Alarm- conversion of 0;
- ◆ Manual and automatic conversion mode alternative function;
- ◆ Under the power grid-generator model with start signal of generator;
- ◆ Conversion time can be arbitrarily set;
- ◆ With a strong anti-jamming capability, suitable for the strong electromagnetic interference using complex environment;

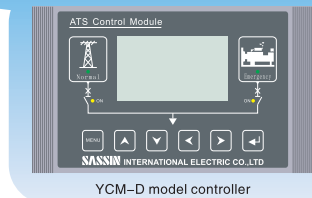
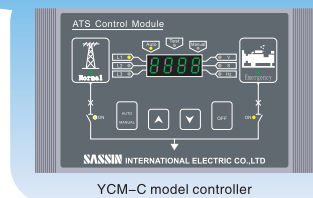
■ Electric Characteristics

Working voltage: AC220V / 50Hz;
Transfer delay time:0.5s-60s continuous adjustable;
Return delay time:0.5s-60s continuous adjustable;
Under voltage transfer value:75%Ue-85%Ue continuous adjustable;
Over voltage transfer value:115%U-130%Ue continuous adjustable;
Transfer time: not more than 2.5s

3SAQ2 ATS

■ Model C and Model D Controller

If the user require to conducting separate controller, choosing C or D model controller install to cabinet panel, through 2m serial data cable linked with B model controller on switch body in operations and display functions are in forbiding state (switch body display switches off automatically), external controller starting work, users could observe the ATS control of the switch running status through the external controller's operation interface while not need to.



■ C Model Controller Characteristics and Function

It's digital display and indication the switches of the voltage and frequency in two sources to show the status.

Press button to transfer and set parameters by manual.

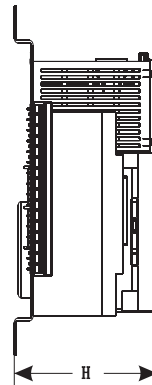
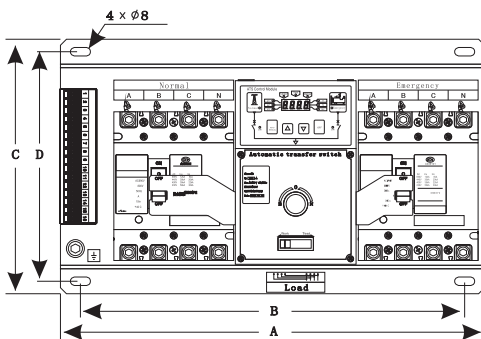
■ Model D Controller Character and Function

Using the dot-matrix LCD screen display and show the voltage, frequency of two sources;

Chinese display status, more intuitionistic, easy to use;

Press the key to operate by manual and set the parameters.

■ Outline and Dimensions

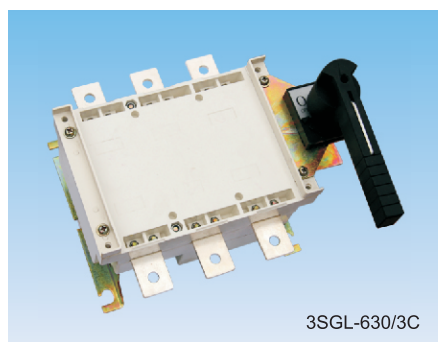
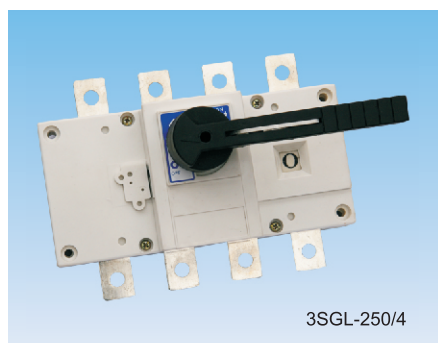


ATS Switch Body Feature Sketch

■ ATS Switch Body Dimension

Specification	A		B		C	D	H
	3P	4P	3P	4P			
3SQ1C-63	275	310	235	270	255	230	137
3SQ1N-63	275	310	235	270	255	230	137
3SQ1P-63	275	310	235	270	255	230	137
3SQ2C-63	295	345	255	305	255	230	137
3SQ2C-100	325	385	285	345	255	230	137
3SQ2C-225	355	425	315	385	255	230	137
3SQ2C-400	430	530	390	390	320	295	205
3SQ2C-630	434	625	465	585	320	295	205
3SQ2C-800	560	700	520	660	320	295	205
3SQ2N-250	345	415	305	375	255	230	137
3SQ2N-630	370	490	330	450	320	295	205
3SQ2P-125	295	345	355	305	225	230	151
3SQ2P-160	325	385	285	345	225	230	151
3SQ2P-250	355	425	315	385	225	230	151

3SGL Load Break Switches

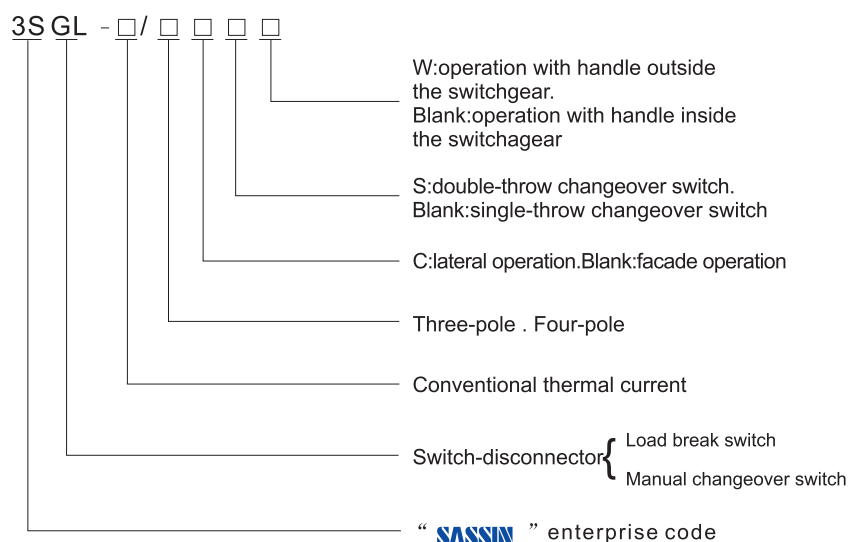


Application

3SGL switches is applicable for AC 50Hz, rated voltage AC 660V and below, DC 440V and below, rated current 3150 A.

It can be applied for manually infrequent making & breaking and disconnecting of the circuit. It can be only used for disconnecting power supply, and can't break the circuit on load if exceeds 1000A

Types and meanings



Primary technical parameter

Type	3SGL125~3SGL630							3SGL1000~3SGL3150						
Conventional thermal current(A)	125	160	200	250	315	400	630	1000	1250	1600	2000	2500	3150	
Rated current of fuse (A)	125	160	200	250	315	400	630	1000	1250	2×800	2×1000	2×1250		
Rated insulation voltage (V)	800							800						
Rated current (A)	380V AC21	125	160	200	250	315	400	630						
	380V AC20								1000	1250	1600	2000	2500	3150
	660V AC21	125	160	160	200	315	400	500						
	380V AC20								1000	1250	1600	2000	2500	3150
	220V DC21	125	160	200	250	315	400	630						
	220V DC20								1000	1250	1600	2000	2500	3150
	440V DC21	125	160	160	200	315	400	500						
	440V DC20								1000	1250	1600	2000	2500	3150
Operation force (N)	40~60		65~100		75~120			200~300						

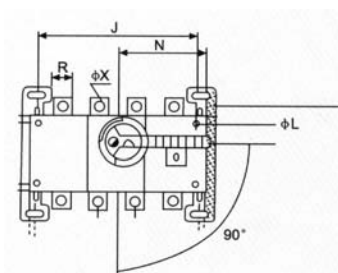
3SGL Load Break Switches



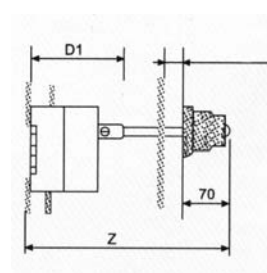
3SGL-250/3W

■ Mounting dimension

specification	3SGLXX 3SGL-XX/W Overall and mounting dimensions mm														
Current	A	B	C	D	E	φ L	J	D	N	P	R	U	φ X	Y	Z
125A/3	140	135	125	27	73	5.5	120	65	85	36	20	85	9	25	226
160A/3	140	135	125	27	73	5.5	120	65	85	36	20	85	9	25	226
125A/4	170	135	125	27	73	5.5	150	65	85	36	20	85	9	25	226
160A/4	170	135	125	27	73	5.5	150	65	85	36	20	85	9	25	226
200A/3	180	170	138	35	86	5.5	160	90	115	50	25	110	11	25	236
250A/3	180	170	138	35	86	5.5	160	90	115	50	25	110	11	25	236
200A/4	230	170	138	35	86	5.5	210	90	115	50	25	110	11	25	236
250A/4	230	170	138	35	86	5.5	210	90	115	50	25	110	11	25	236
315A/3	230	240	169	50	113	7	210	140	145	65	32	160	11	37	276
400A/3	230	240	169	50	113	7	210	140	145	65	32	160	11	37	276
630A/3	230	260	169	50	113	7	210	140	145	65	40	160	11	37	276
315A/4	290	240	169	50	113	7	270	140	145	65	32	160	11	37	276
400A/4	290	240	169	50	113	7	270	140	145	65	32	160	11	37	276
630A/4	290	260	169	50	113	7	270	140	145	65	32	160	13	37	276

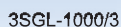


Installing underpan for outside operated

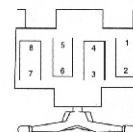
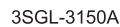


125A~630
Outside operated

■ 1000A~1600A Overall and Mounting Dimensions



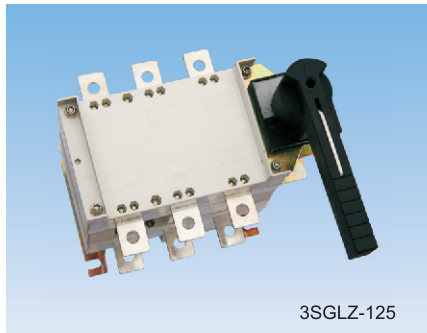
3SGL-2000/4



7-12

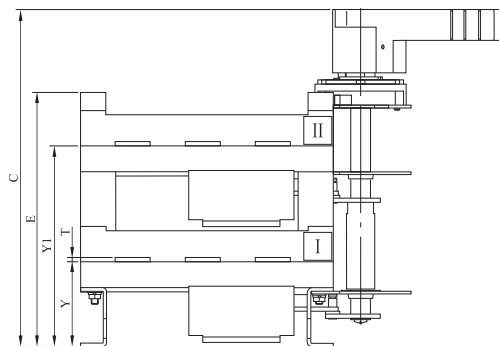
3SGLZ Manual Changeover Switch (Range 125A~1600A)

Overall and Mounting Dimensions(125A-630A)

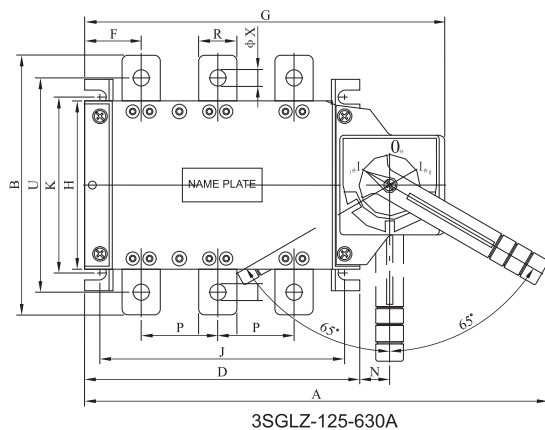
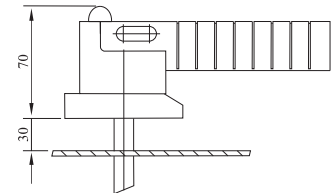


3SGLZ-125

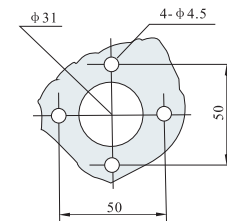
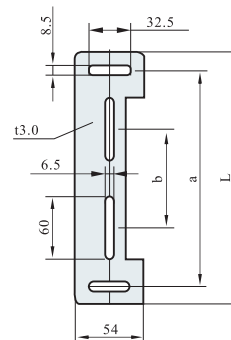
INSIDE PANEL OPERATION



HANDLE FOR OUTSIDE PANEL INSTALLATION



3SGLZ-125-630A



MOUNTING DIMENSION FOR OUTSIDE PANEL
HANDLE BASE OF BELOW 630A

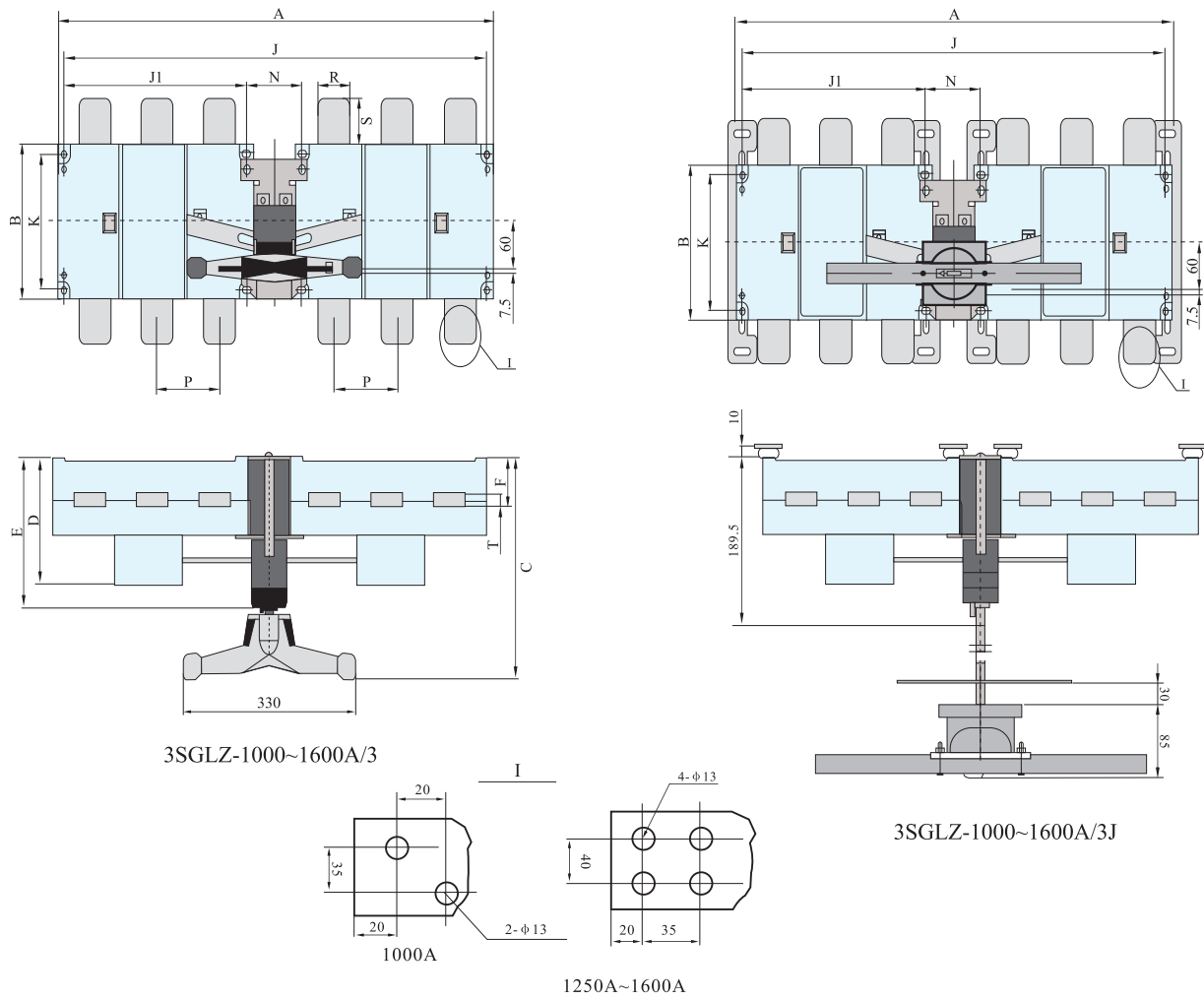
INSTALLATION BASE FOR 630A AND
BELOW

SPECIFICATION	BASE DIMENSION		
	L	a	b
3SGLZ-125~160	218	190	85
3SGLZ-200~250	245	220	110
3SGLZ-315~630	270	240	135

MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	N	P	R	T	U	φ X	Y	Y1
3SGLZ-125/3	267	135	220	140	152	30	195	85	120	95	7	20	36	20	3.5	115	9	52	124
3SGLZ-125/4	297	135	220	170	152	30	225	85	150	95	7	20	36	20	3.5	115	9	52	124
3SGLZ-160/3	267	135	220	140	152	30	195	85	120	95	7	20	36	20	3.5	115	9	52	124
3SGLZ-160/4	297	135	220	170	152	30	225	85	150	95	7	20	36	20	3.5	115	9	52	124
3SGLZ-200/3	308	170	240	180	180	37	235	110	160	115	9	20	50	25	3.5	140	11	60	142
3SGLZ-200/4	358	170	240	230	180	37	285	110	210	115	9	20	50	25	3.5	140	11	60	142
3SGLZ-250/3	308	170	240	180	180	37	235	110	160	115	9	20	50	25	3.5	140	11	60	142
3SGLZ-250/4	358	170	240	230	180	37	285	110	210	115	9	20	50	25	3.5	140	11	60	142
3SGLZ-315/3	420	240	330	230	244	48	300	160	210	180	10	35	65	32	5	206	11	80	194
3SGLZ-315/4	480	240	330	290	244	48	360	160	270	180	10	35	65	32	5	206	11	80	194
3SGLZ-400/3	420	240	330	230	244	48	300	160	210	180	10	35	65	32	5	206	11	80	194
3SGLZ-400/4	480	240	330	290	244	48	360	160	270	180	10	35	65	32	5	206	11	80	194
3SGLZ-500/3	420	260	330	230	244	48	300	160	210	180	10	35	65	40	6	220	13	80	194
3SGLZ-500/4	480	260	330	290	244	48	360	160	270	180	10	35	65	40	6	220	13	80	194
3SGLZ-630/3	420	260	330	230	244	48	300	160	210	180	10	35	65	40	6	220	13	80	194
3SGLZ-630/4	480	260	330	290	244	48	360	160	270	180	10	35	65	40	6	220	13	80	194

3SGLZ Manual Changeover Switch (Range 125A~1600A)

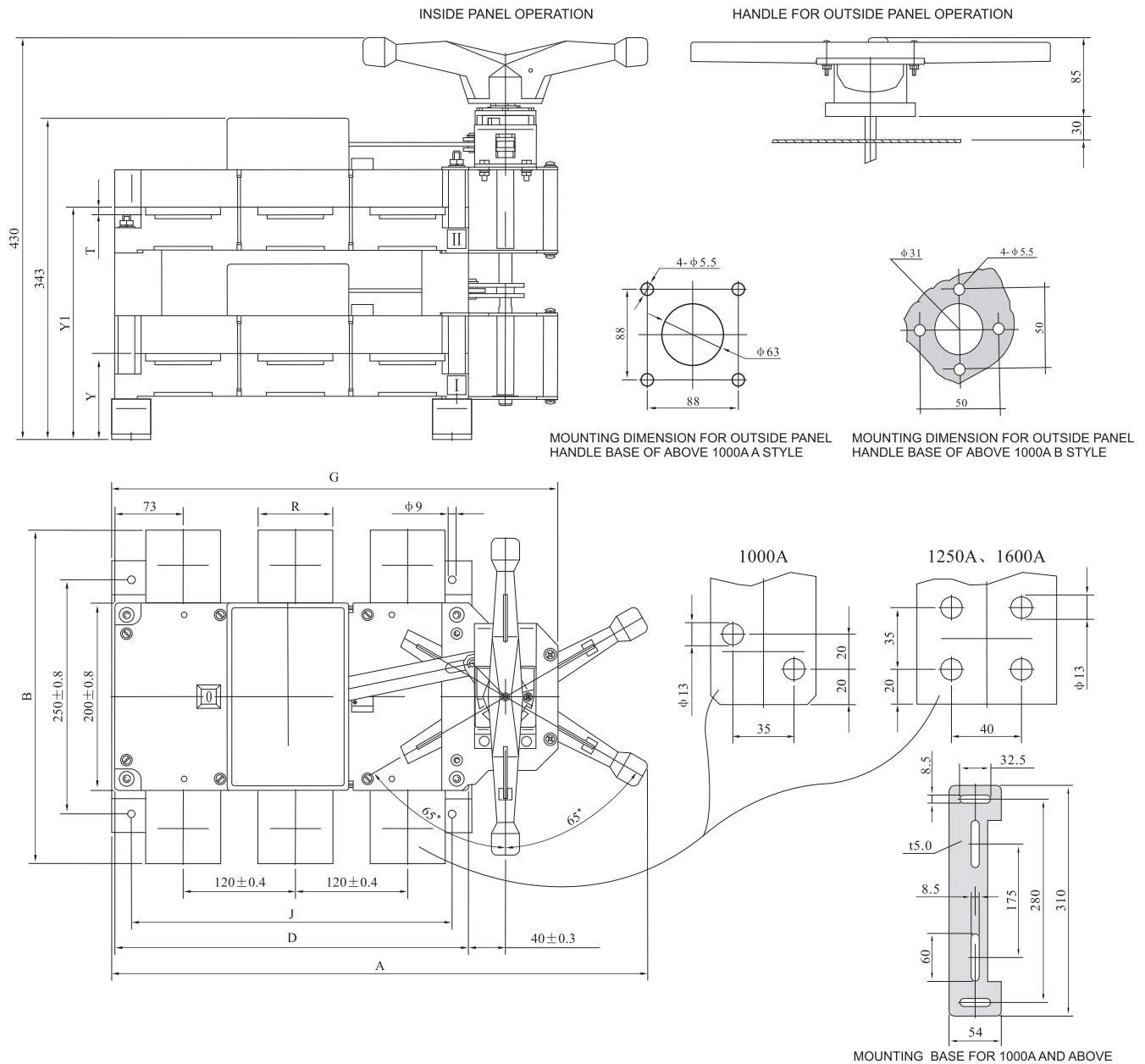
LEFT-RIGHT OPERATION STYLE



SPECIFICATION	DIMENSION DATA													
	A	B	C	D	E	F	J	J1	K	N	P	R	S	T
3SGLZ-1000/3	836	200	242	140	168	48	811	353	175	105	120	60	56	8
3SGLZ-1000/4	1076	200	242	140	168	48	1051	473	175	105	120	60	56	8
3SGLZ-1250/3	836	200	242	140	168	48	811	353	175	105	120	80	78	8
3SGLZ-1250/4	1076	200	242	140	168	48	1051	473	175	105	120	80	78	8
3SGLZ-1600/3	836	200	242	140	168	49	811	353	175	105	120	80	78	10
3SGLZ-1600/4	1076	200	242	140	168	49	1051	473	175	105	120	80	78	10

3SGLZ Manual Changeover Switch (Range 125A~1600A)

UP-DOWN OPERATION STYLE



MODEL NO.	A	B	D	G	J	R	T	Y	Y1
3SGLZ-1000/3	578	312	378	476	343	60	8	92	248
3SGLZ-1000/4	698	312	498	596	463	60	8	92	248
3SGLZ-1250/3	578	356	378	476	343	80	8	92	248
3SGLZ-1250/4	698	356	498	596	463	80	8	92	248
3SGLZ-1600/3	578	356	378	476	343	80	10	93	249
3SGLZ-1600/4	698	356	498	596	463	80	10	93	249

3SGLZ Manual Changeover Switch (Range 125A~1600A)

3SGLZ Manual Changeover Switch

General description

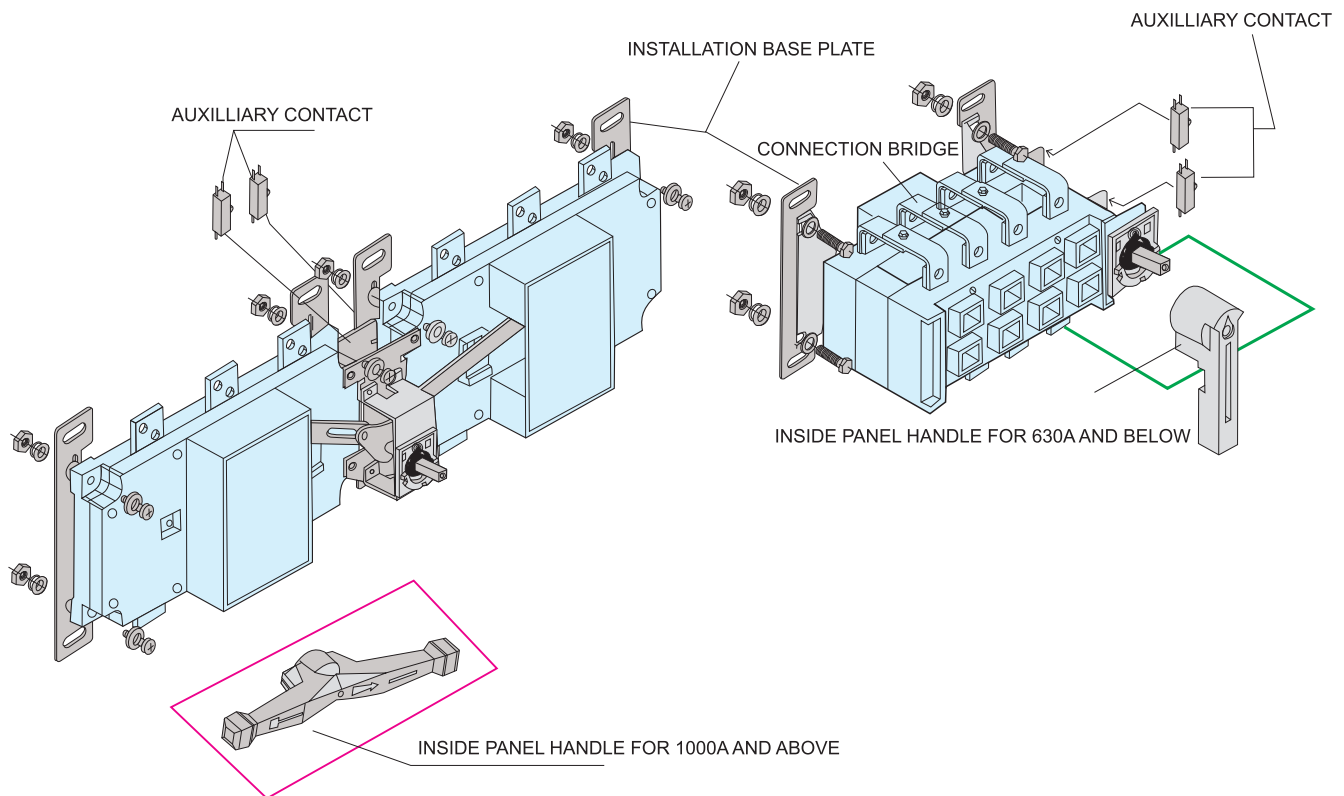
- Suitable for use as motor disconnects or industrial control panel disconnects on service entrance equipment, panel boards, switchboards, industrial control equipment, motor control centers, etc. and are ampere rated.
- Tested in accordance to IEC 947-1 and 3, IEC 664, IEC 269, and IEC 204

Feature

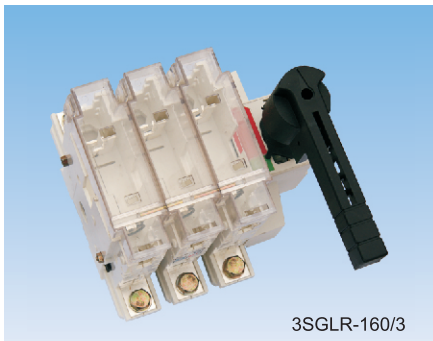
- The switch has 2 version operating handle, i.e.
Handle inside switchgear,
Handle outside switchgear, by add a long operating shaft
- Pole option: 3, 3+N, 4 pole
- A watch window could be installed to check internal contact status,
- The switch has identical electrical and mechanical performance to 3SGL Load Breaker Switch
- A bridge connecting terminal could be supplied to connect in and out terminal

ØAbove 1000A, the switch has 2 versions of designs, i.e. (Please check below graph)

- Up-down design
- Left-right design



3SGLR Fuse Combination Switches



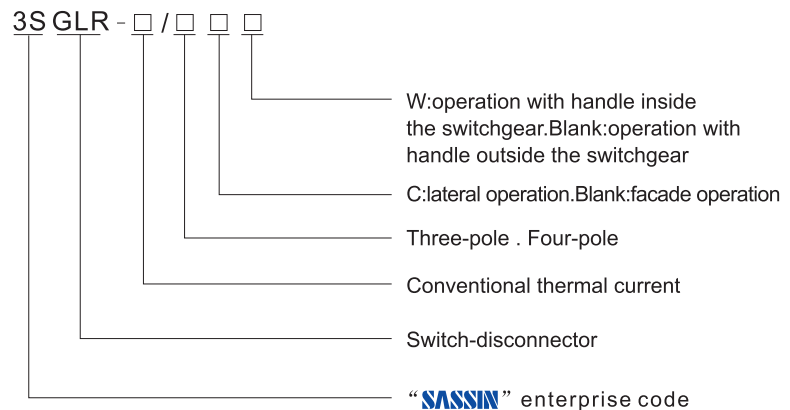
3SGLR-160/3

■ Applicable range

3SGLR series switch-disconnector fuse is applicable in the circuit of AC50Hz, rated voltage AC 660V and below, DC440V and below, rated current up to 630A,

In the power distribution system of industrial enterprises, it is mainly used in distributor circuit and motor circuit with high short-circuit current for infrequent manual making and breaking and disconnecting the power supply, however, it is not suitable for starting and breaking of single motor.

■ Types and meanings



■ Normal working and installation conditions

1. Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, the average temperature shall not exceed 35°C in 24 hours
2. Altitude: Shall not exceed 2000m.
3. Pollution condition: Grade 3
4. Humidity: The relative humidity shall not exceed 50% when the environmental temperature is $+40^{\circ}\text{C}$ in installing place; And the relative humidity may be higher at the lower temperature condition. The maximum humidity can up to 90% at $+20^{\circ}\text{C}$.
5. The product shall be installed in the place without rain and snow, remarkable shake and quiver.
6. The switch shall be installed vertically.

■ Structure and Features

The switch adopts full-enclosed structure of reliable thermal characteristic to ensure reliable operation. Each phase has two groups of contact system with double breaking points, these two groups of contacts are serially connected, which has improved its current breaking capability, and ensures the reliability of power supply disconnecting. Manual rotated operation mechanism has energy storage spring, so the active contact can operate swiftly with no relation with operation speed.

3SGLR Fuse Combination Switches



Primary parameters

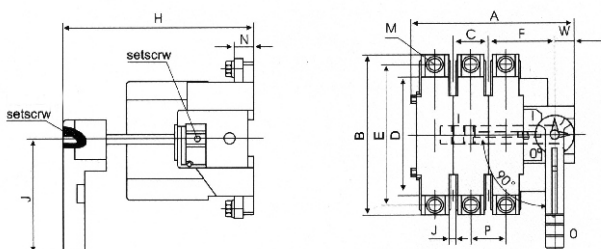
Conventional thermal current		160		250		400		630
Rated current of fuse A		125	160	200	250	315	400	630
Rated insulation voltage V		V690 ⁽¹⁾						800
Rated current	380V AC21	125	160	200	250	315	400	630
	380V AC22	125	160	200	250	315	400	630
	660V AC21	100 ⁽¹⁾	100 ⁽¹⁾	200 ⁽¹⁾	250 ⁽¹⁾	315 ⁽¹⁾	315 ⁽¹⁾	425
	660V AC22	100 ⁽¹⁾	100 ⁽¹⁾	200 ⁽¹⁾	250 ⁽¹⁾	315 ⁽¹⁾	315 ⁽¹⁾	425
	220V DC21	125	160	200 ⁽¹⁾	250	315	400	630
	220V DC22	125	160	200	200	250	400	630
	440V DC20	100 ⁽²⁾	100 ⁽²⁾	200 ⁽²⁾	250 ⁽²⁾	315 ⁽²⁾	315 ⁽²⁾	425
	440V DC21	125	160	200	250	315	400	630
Operation force (N)		65~100		80~120		100~150		230
Fuse size		00		1		2		3

※Remark: With terminal shield
Two phases serially connected according to the phase character

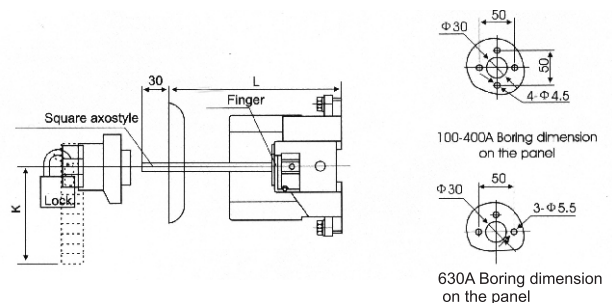
Overall and Mounting Dimensions

Specification	Overall and Mounting Dimensions														
	A	B	C	D	E	F	H	I	J	L	M	N	W	P	K
160/3	165	162	36	120	142	67.5	190	5.5	115	205~325	8	19	21	36	126
160/4	202	162	36	120	142	67.5	190	5.5	115	205~325	8	19	21	36	126
250/3	240	195	60	160	166	91.5	210	5.5	145	205~325	10	19	21	60	126
250/4	300	195	60	160	166	91.5	210	5.5	145	205~325	10	19	21	60	126
400/3	280	205	66	170	176	122	210	5.5	145	205~325	10	25	21	66	126
400/4	346	205	66	170	176	122	210	5.5	145	205~325	10	25	21	66	126
630/3	346	300	250	250	268	39	350	φ 9	190	330~440	12	72	37	80	190
630/4	426	300	250	250	268	39	350	φ 9	190	330~440	12	72	37	80	190

Facade operation inside the switchgear



Facade operation outside the switchgear



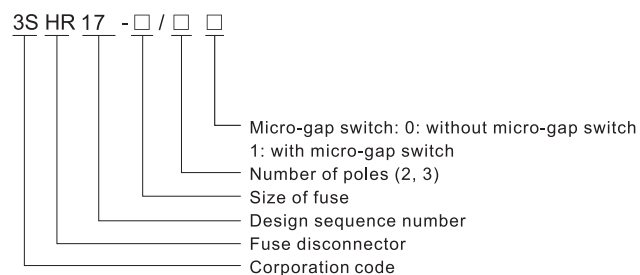
3SHR17 Fuse Switch-Disconnecter(IEC60947-3)



■ Applicable range

3SHR17 Series fuse switch-disconnector is a new product developed by our company. Its rated insulation voltage up to 800V, rated operational voltage up to 690V, rated operational current up to 630A, rated frequency 50Hz in the distribution circuit and motor circuit which has high short-circuit current as the power switch, isolating switch, emergency switch as well as circuit protection, but normally it is not used to make and break a single motor directly.

■ Type Designation



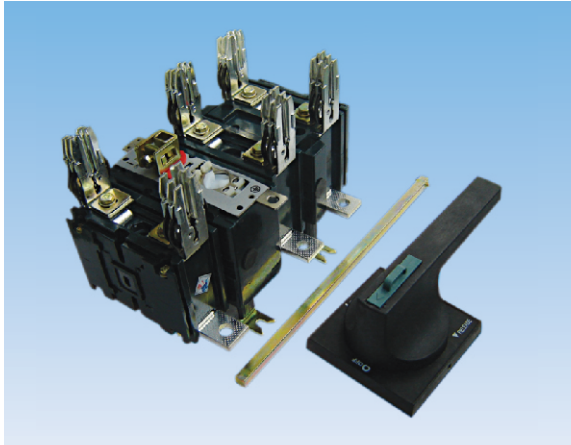
■ Features

1. Novel and elegant appearance; exquisite manufacturing;
2. Flexible and reliable operation;

■ Technical Data

Size of matched fuse	00	1	2	3
Number of poles	3/4	3/4	3/4	3/4
Frequency	AC 50Hz	AC 50Hz	AC 50Hz	AC 50Hz
Rated voltage (V)	690 500 400	690 500 400	690 500 400	690 500 400
Rated insulation voltage (V)	800	800	800	800
Rated operational current (A)	160	250	400	630
Conventional thermal current (A)	160	250	400	630
Utilization category	AC-21B(690V)	AC-21B(690V)	AC-21B(690V)	AC-21B(690V)
	AC-22B(500V)	AC-22B(500V)	AC-22B(500V)	AC-22B(500V)
	AC-23B(400V)	AC-23B(400V)	AC-23B(400V)	AC-23B(400V)
Rated making capacity (A)	725V 240A	725V 375A	725V 600A	725V 945A
	525V 480A	525V 750A	525V 1200A	525V 1890A
	420V 1600A	420V 2500A	420V 4000A	420V 6300A
Rated breaking capacity	725V 240A	725V 375A	725V 600A	725V 945A
	525V 480A	525V 750A	525V 1200A	525V 1890A
	420V 1280A	420V 2000A	420V 3200A	420V 5040A
Rated short-circuit current (kA)	50 120 120	50 120 120	50 120 120	50 120 120
Power consumption of fuse (W)	12	23	34	48

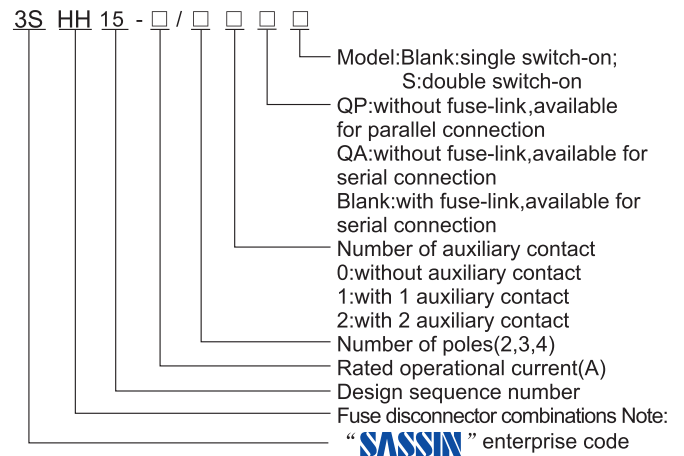
3SHH15 Fuse Disconnecter Combination



Application

Application: For use as a main or general switch for infrequent manual operation of power distribution circuits with high short-circuit current. It is suitable for installation in advanced low-voltage withdrawable switchboard. Standard: IEC60947-3:2001.

Type Designation



For utilization of the fuse disconnector combinations, the users should prepare RT16(NT) series fuse.

Technical Data

Technical data of HH15 series fuse disconnector combinations

Specification		3SHH15-63	3SHH15-125	3SHH15-160	3SHH15-250	3SHH15-400	3SHH15-630
Number of poles		3	3	3	3	3	3
Rated insulation voltage Ue(V)		Ue=380V, Ui=660V; Ue=660, Ui=1000V					AC 380, 660
Rated operational voltage Ue(V)		AC 380, 660	AC 380, 660	AC 380, 660	AC 380, 660	AC 380, 660	AC 380, 660
Conventional thermal current Ith (A)		63	125	160	250	400	630
Rated operational current (Ie)(A)	380V: AC-23B(A)	63	125	160	250	400	630
	660V: AC-23B(A)	63	100	100	200	315	425
Rated ultimate short-circuit current 380V		50/100	50/100	50/100	50/100	50/100	50/100
Rated ultimate short-circuit current 660V		50	50	50	50	50	50
Mechanical life (operations)		1500	1500	12000	12000	12000	3000
Electrical life (operations)		1000	1000	300	300	300	200
Rated current 380V/660V		63/63	125/100	160/160	250/200	400/315	630/425
Model of fuse	380V	RT16, RT20, NT0 0			RT16, RT20, NT 1	RT16, RT20 NT 2	RT16, RT20, NT 3
	660V	RT16, NT00	RT16, NT00	RT16, NT1	RT16, NT1	RT16, NT 2	RT16, NT3
Operating torque (N • m)		7.5	7.5	16	16	16	30
Conventional thermal current of auxiliary contacts		5	5	5	5	5	5

3SHH15 Fuse Disconnecter Combination

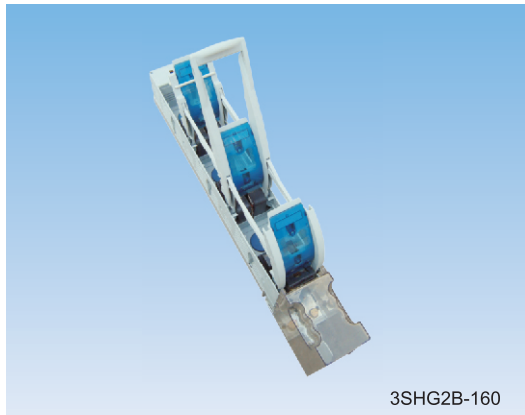
■ Properties of 3SHH15-□ / QA switch disconnecter

Specification		125	160	200	400	630	1000
No. of poles		3	3	3	3	3	3
Rated insulation voltage (V)		Ue=380V, Ui=660V; Ue=660, Ui=1000V					
Rated operational voltage (V)		AC380、660	AC380、660	AC380、660	AC380、660	AC380、660	AC380、660
Conventional thermal current (A)		125	160	200	400	630	1000
Rated operational current (A)	380V、AC-23B	125	160	200	400	630	1000
	660V、AC-22B	125	160	160	315	425	800
	660V、AC-21B	125	160	200	400	630	1000
Rated short-circuit making capacity (kA)		20	20	20	50	50	50
Rated short time withstand current (RMS)		1.5	1.92	2.4	4.8	7.56	12
Mechanical life (operations)		15000	15000	15000	12000	12000	3000
Electrical life (operations)		1000	1000	1000	300	300	150
Operating torque		7.5	7.5	7.5	16	16	30
Conventional thermal current of auxiliary contacts Ith380VAC-15(A)		5	5	5	5	5	5

■ Properties of 3SHH15-□ / QA switch disconnecter

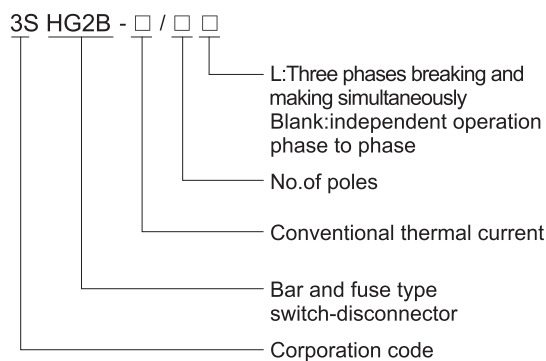
Specification		250	630	1000	1250	1600	2500	3150
Number of poles		3	3	3	3	3	3	3
Rated insulation voltage (V)		Ue=380V, Ui=660V; Ue=660, Ui=1000V						
Rated operational voltage (V)		AC 380、660	AC 380、660	AC 380、660	AC 380、660	AC 380、660	AC 380、660	AC 380、660
Conventional thermal current (A)		250	630	1000	1250	1600	2500	3150
Rated operational current (A)	380V、AC-23B	250	630	1000	1250	1600	2500	3150
	660V、AC-22B	250	630	630	800	800		
	660V、AC-21B	250	630	1000	1250	1470	2500	2500
Rated short-circuit making capacity (kA)		39	60	60	85	19.2	130	130
Rated short time withstand current (RMS)		3	7.56	12	15	50	30	37.8
Mechanical life (operations)		15000	1200	12000	1000	1000	300	300
Electrical life (operations)		1000	200	150	100	100	100	100
Operating torque		7.5	16	16	30	30	70	70
Conventional thermal current of auxiliary contacts		5	5	5	5		5	5

3SHG2B Bar And Fuse Type Switch-Disconnecter



3SHG2B-160

Type Designation



Normal working and installation conditions

1. Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, the average temperature shall not exceed 35°C in 24 hours.
2. Altitude: Shall not exceed 2000m.
3. Pollution condition: Grade 3
4. Humidity: The relative humidity shall not exceed 50% when the environmental temperature is $+40^{\circ}\text{C}$ in installing place; And the relative humidity may be higher at the lower temperature condition. The maximum humidity can up to 90% at $+20^{\circ}\text{C}$.
5. The product shall be installed in the place without rain and snow, without remarkable shake and quiver.
6. The switch shall be installed vertically.

Applicable range

3SHG2B serie bar and fuse type switch disconnector is applicable in the circuit of rated voltage AC 660V and below, rated current AC 160A-630A, rated frequency of 50Hz.

In the power distribution system of industrial enterprises, it is mainly used in distributor circuit and motor circuit with high short-circuit current for infrequency manual making and breaking and disconnecting the power supply. However, it is not suitable for starting and breaking of single motor.

Structure and feature

The switch is consisted of underpan, base, cover, handle and shield. NT series fuse link is installed in the cover to act as knife of active contact; the handle moves fan-shapely based on the pivot of underpan, makes the cover and fuse make and break together, it is with enough space and remarkable disconnection point which meets the requirement of disconnector switch. And it is convenient to dismount the base and underpan, which is easy to mount the base to the busbar safely and reliably. There is arc extinguisher on the underpan, which ensures breaking capability of the switch.

Structure and feature

Conventional thermal current		160	250	400	630
Rate insulation voltage		800			
Rated current	380V AC20	160	250	400	630
	380V AC21	160	250	400	630
	380V AC22	160	250	400	630
	660V AC20	160	250	400	630
	660V AC21	100	200	315	425
	660V AC22	100	160	315	315
Size		00	1	2	3
Fuse	380V Rated current of fuse (Breaking capacity)	20、25、31、35、40、50、63、80、100、125、160 ($\geq 100\text{kA}$)	80、100、125、160、200、224、250 ($\geq 100\text{kA}$)	125、160、200、224、250、300、315、355、400 ($\geq 100\text{kA}$)	315、335、400、425、500、630 ($\geq 100\text{kA}$)
	660V Rated current of fuse (Breaking capacity)	20、25、31、35、40、50、63、80、100 ($\geq 50\text{kA}$)	80、100、125、160、200 ($\geq 50\text{kA}$)	123、160、200、224、250、300、315 ($\geq 50\text{kA}$)	315、355、400、425 ($\geq 50\text{kA}$)