

Power Distribution Redefined

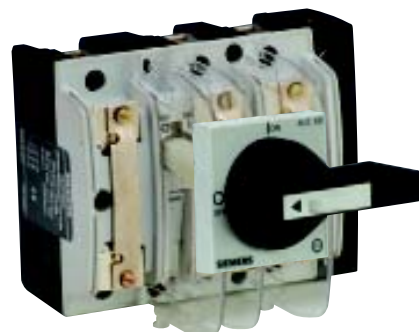
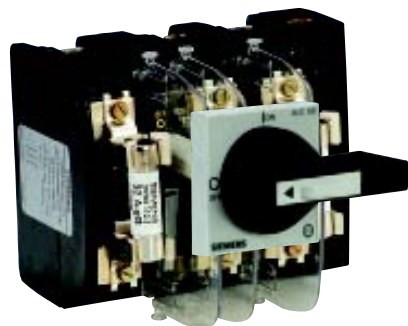


Superswitch

Answers for industry.

SIEMENS

Superswitch 3KL8/ 3KT8/ 3KA8



Highlights

- Switch Disconnecter fuse from 20A to 800A in 2P, 3P+N and 4P Versions.
- Switch Disconnecter available from 63A to 1600A.
- Motor duty as well as Power Distribution Switches.
- Suitable for applications up to 690V AC.
- 3KL8 Switches suitable for high temperature applications till 60°C.
- Isolable neutral as well as switched neutral pole.
- Increased safety through IP20 Fuse Covers and terminal cover.
- Suitable for Isolation as per IEC 60947.
- Unique Positive OFF indication to indicate the true position of contacts.
- Fuse monitoring provision via 3VU1340 fuse monitor.
- Type 2 Coordinated combination available for the entire range.
- Telescopic adjustable length shaft with rotary handle.

Application

- Siemens 3K Superswitch SDFs are used as short circuit, and overload protection device with fuses and main controls switches in industrial switchboards as well as residential and commercial buildings' switchboards.
- The switch is also available in Switch Disconnecter versions, it ensures making and breaking of the specified rated current under load and without load. At the same time, they are used for safety isolating function as isolation device in various low-voltage circuits.
- Superswitch conforms to IEC 60947-1, IEC 60947-3 and IS 13947-3. Superswitch has a very high life compared to the contemporary products offered today.
- Superswitch 3KL8 is applicable for protecting, switching Motor feeders particularly as the complete range is Type-2 Coordinated.



Superswitch 3KL8/ 3KT8/ 3KA8



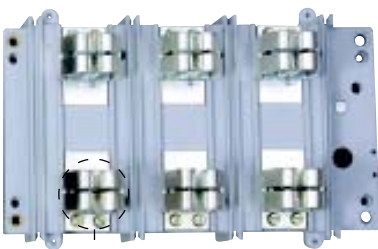
Moving Roller Contacts

Product Features

- The heart of Superswitch is the self cleaning moving roller contacts comprising multiple silver-plated copper rollers which are spring loaded and free to rotate around their axes and firmly anchored to the moving contact bridge. With each switching operation the roller contacts rotate around their axes and move along the knife type fixed contacts and share the switching current strength.
- High level of safety is offered by Superswitch towards the operating personnel with the Unique Positive OFF Indication. A GREEN indication flag is actuated directly with the physical movement of the contacts, and not with the position of the Operating handle which in some cases may give a false indication if contacts are welded inside. The sequence of switching operation with the position of the indicating flag is shown in diagrams below.
- **High Short Circuit Making and Withstand Capacity:**
Due to multiple rollers the sharing of current reduces electro-dynamic force and high closing speed ensures high making capacity. Parallel current paths in roller contacts ensure high short circuit withstand capacity.
- **High Short Circuit breaking Capacity:**
Due to sharing of Current strength by the parallel rollers, high breaking capacity is achieved corresponding to the AC23 utilization category at 550V AC.
- **High Electrical Life:**
Division of current loading leads to reduction of contact erosion and offers high Electrical life.



Positive OFF Indication



Lyra contacts



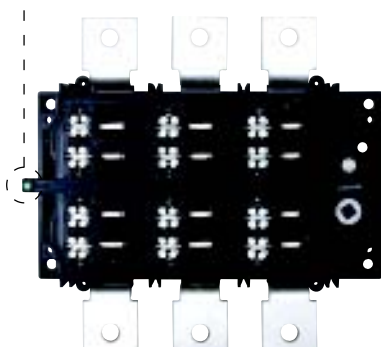
Moving contacts



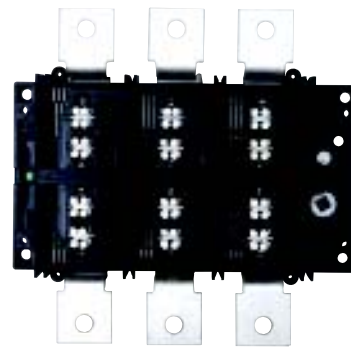
Fixed contacts



Positivem OFF indication

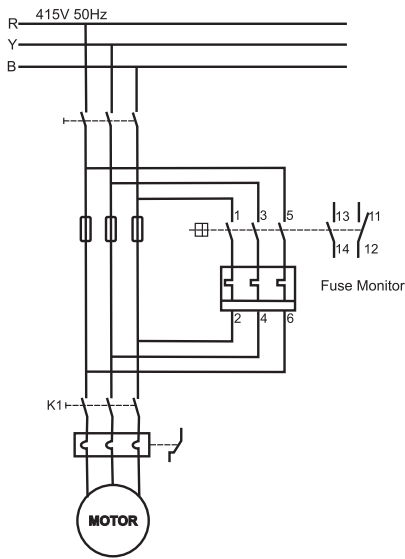


OFF position

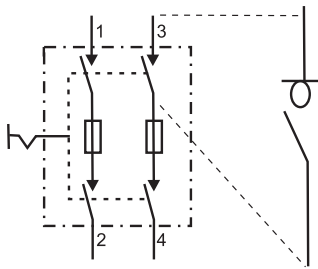


ON position

Superswitch 3KL8/ 3KT8/ 3KA8



Fuse Monitoring by 3VU1340..



Positive Isolation Feature

Product Features

▪ Fuse Monitoring System:

The motor protection circuit breaker type 3VU1340-1MS00 is offered with Superswitch for Fuse monitoring application.

The three poles of this Circuit Breaker is connected in parallel to the fuses. If any of the fuses blow, the Circuit Breaker gets actuated through its release and offers tripping signal through its auxiliary contacts. Thus the motor is not subjected to single phasing and costly motor burn-outs are prevented.

▪ Positive Isolation:

Superswitch satisfies the isolation requirements of IEC 60947/ IS 13947 standards. This is to ensure that the contacts inside the Switch are in physically isolated position when it is in the OFF position. This is tested as per IEC 60947-1/ IEC 60947-3/ IS 13947-3. Also in the OFF position the fuses and the lyra contacts are not live as they are isolated from both line as well as load side by the moving roller type contacts. (Please refer to the schematic on the left side).



Superswitch 3KL8 Switch Disconnecter Fuse

Siemens steered the concept of AC23A with Powerguard 3KL range of switches, which has become an industry norm now. Now, Superswitch 3KL8 Switch Disconnecter fuses are not only superior to Powerguard but also to most other SDFs available in the market. It offers superior quality, superior technical parameters, higher life in terms of switching cycles and much more.



Type2 Coordination
65kA

Highlights:

- Conforms to IS 13947-3, IEC 60947-3
- Range – 20A to 800A
- Suitable for application up to 690V AC
- Available in 2P, 3P+N and 4P(switched neutral) versions
- Utilization category AC23A at 550V AC
- Suitable for DC Application
- Suitable for Isolation
- IP20 Cover and terminal covers
- Type-2 coordinated combination available at $I_q = 65\text{kA}$
- Suitable for application up to 60°C

Application:

3KL8 Switch Disconnecter Fuses are suitable for diverse applications up to 690V AC, 50/60Hz in Motor feeders with Direct-on-line, Star-Delta, Soft starters, and VVVF Drive Applications. They are also suitable for wind-mill generators, capacitor switching feeders, motor control centres, and power control centres. 3KL8 switch disconnecter fuses are also available in special executions for operations in corrosive environments. Superswitch 3KL8 is also specially designed for higher ambient temperature applications and do not require any de-rating till 60°C .

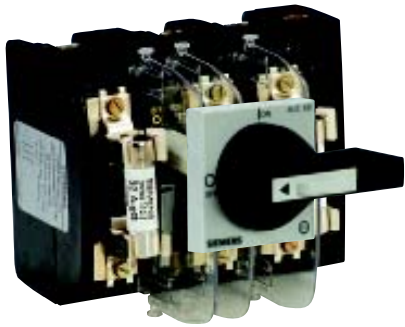
Benefits:

- Unique Positive off Isolation
- Suitable for all application for 2P, 3P+N, 4P applications
- Suitable for BS, DIN and cylindrical fuses
- Suitable for high temperature environments
- Very High Switching Life
- Type 2 coordinated for $I_q = 65\text{kA}$ for motor feeders
- Suitable for Padlocking, Castell Lock and Door Interlock
- Fully shrouded for safe operations

The Unique Positive Isolation indicator is actuated by the movements of the contacts, thus indicating the true position of the switch. This prevents any chance of false indication of isolation. The option of choice between switches suitable for DIN and BS types of fuses helps in optimizing the selection. The unique roller moving contact system provides high life to the switch. 3KL8 now offers Type-2 Coordination at 65kA which ensures high performance in systems with high fault level.



Superswitch 3KT8 Switch Disconnecter Fuse



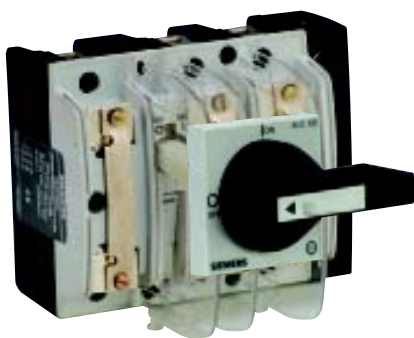
Highlights:

- Conforms to IS 13947-3, IEC 60947-3
- Range – 32A to 800A
- Intermediate rating of 50A, 80A and 500A
- Rated utilization category – AC22A at 440V AC
- Suitable for application up to 50°C
- Unique Positive Isolation Feature
- Unique Roller contact system

Application:

Though most of the SDF applications are for motor feeders, but SDFs are also widely used in Power Distribution applications comprising mixed loads like lighting, heating, switching of small motor loads etc. Unlike AC23A here, under emergency conditions the SDF is required to isolate or make abnormal current to the tune of $3xI_e$ at moderate Power Factor of 0.65. This requirement is classified as utilization category AC22A under IS13947-3/ IEC 60947. The Power distribution schemes for Industrial as well as Residential/ Commercial buildings can easily be differentiated based on this criterion of switching mixed load. Superswitch 3KT8 satisfies the typical power distribution system specification and thus can take care of diverse applications up to 440V, 50Hz AC systems such as heating, lighting distribution, switching of small motor loads etc. This intelligent selection makes it ideal for cost optimization.

Superswitch 3KA8 Switch Disconnecter



Highlights:

- Conforms to IS 13947-3, IEC 60947-3
- Range – 63A to 1600A
- Rated utilization category – AC23A at 550V AC
- Suitable for DC Application
- Suitable for application up to 60°C
- Unique Positive Isolation Feature
- Unique Roller contact system
- Very High switching Life

Application:

3KA8 Switch Disconnectors are designed to handle wide ranges of application up to 690V 50Hz AC. 3KA8 can be used as a Main Isolator Switch for Inductive Loads, small motor loads, mixed loads and Power distribution application for heating, lighting applications etc. This also can be used as an emergency switch as the same can be padlocked in off position, to facilitate safe working downstream in power-off condition. In series configuration, these Switches can also be used as Isolators in DC systems up to 440V.

Superswitch 3KL8 Switch Disconnecter Fuse



General Technical Information

Superswitch 3KL8 - Conforms to IEC 60947-3/ IS 13947-3		3KL811	3KL812	3KL815
No. of Poles		TPN/ FP		
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	690V	690V	690V
Rated insulation voltage U_i	V	800V	800V	800V
Rated impulse voltage U_{imp}	kV	6kV	6kV	6kV
Rated Operational Current I_e at AC23A @ 690V AC	A	20A	32A	63A
Rated Operational Current I_e at AC23A, @ 550V AC	A	20A	32A	63A
Mechanical endurance - no. of cycles		25000	25000	25000
Suitable for max. capacitor bank	kVAR	12	14	29
Rated Conditional S/C current (rms) with fuses @ 690V AC	kA	80kA	80kA	80kA
Rated Conditional S/C current (rms) with fuses @ 500V AC	kA	100kA	100kA	100kA
Degree of Protection (from front - panel door open)		IP20	IP20	IP20

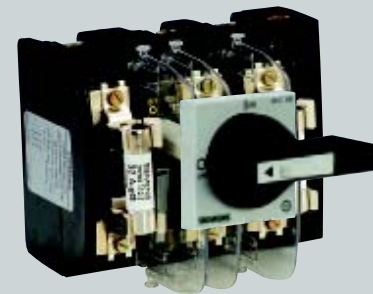
Superswitch 3KL8 - Conforms to IEC 60947-3/ IS 13947-3		3KL821	3KL822	3KL823
No. of Poles		DP/TPN/FP	DP/TPN/FP	DP/TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	690V	690V	690V
Rated insulation voltage U_i	V	1000V	1000V	1000V
Rated impulse voltage U_{imp}	kV	8kV	8kV	8kV
Rated Operational Current I_e at AC23A @ 690V AC	A	100A	125A	160A
Rated Operational Current I_e at AC23A, @ 550V AC	A	100A	125A	160A
Mechanical endurance - no. of cycles		25000	25000	25000
Suitable for max. capacitor bank	kVAR	46	58	58
Rated Conditional S/C current (rms) with fuses @ 690V AC	kA	80kA	80kA	80kA
Rated Conditional S/C current (rms) with fuses @ 500V AC	kA	100kA	100kA	100kA
Degree of Protection (from front - panel door open)		IP20	IP20	IP20

Superswitch 3KL8 - Conforms to IEC 60947-3/ IS 13947-3		3KL831	3KL832	3KL833
No. of Poles		DP/TPN/FP	DP/TPN/FP	DP/TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	690V	690V	690V
Rated insulation voltage U_i	V	1000V	1000V	1000V
Rated impulse voltage U_{imp}	kV	8kV	8kV	8kV
Rated Operational Current I_e at AC23A @ 690V AC	A	200A	250A	315A
Rated Operational Current I_e at AC23A, @ 550V AC	A	200A	250A	315A
Mechanical endurance - no. of cycles		20000	20000	20000
Suitable for max. capacitor bank	kVAR	95	116	145
Rated Conditional S/C current (rms) with fuses @ 690V AC	kA	80kA	80kA	80kA
Rated Conditional S/C current (rms) with fuses @ 500V AC	kA	100kA	100kA	100kA
Degree of Protection (from front - panel door open)		IP20	IP20	IP20

Superswitch 3KL8 - Conforms to IEC 60947-3/ IS 13947-3		3KL834	3KL841	3KL842	3KL843
No. of Poles		DP/TPN/FP	DP/TPN/FP	DP/TPN/FP	DP/TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	690V	690V	690V	690V
Rated insulation voltage U_i	V	1000V	1000V	1000V	1000V
Rated impulse voltage U_{imp}	kV	8kV	8kV	8kV	8kV
Rated Operational Current I_e at AC23A @ 690V AC	A	315A	500A	630A	710A
Rated Operational Current I_e at AC23A, @ 550V AC	A	400A	500A	630A	800A
Mechanical endurance - no. of cycles		20000	15000	15000	15000
Suitable for max. capacitor bank	kVAR	186	294	294	374
Rated Conditional S/C current (rms) with fuses @ 690V AC	kA	80kA	80kA	80kA	80kA
Rated Conditional S/C current (rms) with fuses @ 500V AC	kA	100kA	100kA	100kA	100kA
Degree of Protection (from front - panel door open)		IP20	IP20	IP20	IP20

Auxiliary Switch: General Data for 3KL8 Switch Disconnecter Fuse		3KL81/2/3/4
Rated Voltage AC 50Hz	V	500V
Rated Voltage DC	V	600V
Continuous Current	A	10A
Rated Operational Current I_e at AC12 @ 415V AC	A	10A
Rated Operational Current I_e at DC12 @ 110V DC	A	4A
Maximum Fuse rating for S/C Protection - delayed action cartridge type	A	10A

Superswitch 3KT8 Switch Disconnecter Fuse



General Technical Information

Superswitch 3KT8 - conforms to IEC60947-3/IS13947-3		3KT812	3KT816	3KT814
No. of Poles		TPN/ FP		
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	440V	440V	440V
Rated insulation voltage U_i	V	690V	690V	690V
Rated impulse voltage U_{imp}	kV	6kV	6kV	6kV
Rated Operational Current I_e at AC22A, @ 440V AC	A	32A	50A	80A
Mechanical endurance no. of operation		20000	20000	20000
Rated Conditional S/C Current (rms) with HRC Fuses @ 440V AC	kA	80kA	80kA	80kA
Max Fuse Rating	A	32A	50A	80A
Degree of Protection (from front - panel door open)*		IP20	IP20	IP20

Superswitch 3KT8 - conforms to IEC60947-3/IS13947-3		3KT821	3KT822	3KT823
No. of Poles		DP/TPN/FP	DP/TPN/FP	DP/TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	440V	440V	440V
Rated insulation voltage U_i	V	690V	690V	690V
Rated impulse voltage U_{imp}	kV	6kV	6kV	6kV
Rated Operational Current I_e at AC22A, @ 440V AC	A	100A	125A	160A
Mechanical endurance no. of operation		15000	15000	15000
Rated Conditional S/C Current (rms) with HRC Fuses @ 440V AC	kA	80	80	80
Max Fuse Rating	A	100	125	160
Degree of Protection (from front - panel door open)*		IP20	IP20	IP20

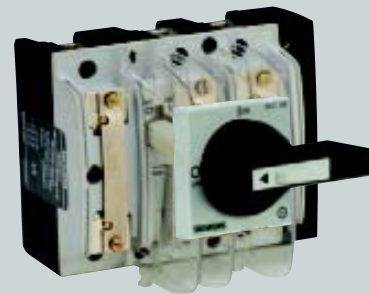
Superswitch 3KT8 - conforms to IEC60947-3/IS13947-3		3KT831	3KT832	3KT833
No. of Poles		DP/TPN/FP	DP/TPN/FP	DP/TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	440V	440V	440V
Rated insulation voltage U_i	V	690V	690V	690V
Rated impulse voltage U_{imp}	kV	6kV	6kV	6kV
Rated Operational Current I_e at AC22A, @ 440V AC	A	200A	250A	315A
Mechanical endurance no. of operation		15000	15000	15000
Rated Conditional S/C Current (rms) with HRC Fuses @ 440V AC	kA	80	80	80
Max Fuse Rating	A	200	250	315
Degree of Protection (from front - panel door open)*		IP20	IP20	IP20

Superswitch 3KT8 - conforms to IEC60947-3/IS13947-3		3KT834	3KT841	3KT842	3KT843
No. of Poles		DP/TPN/FP	DP/TPN/FP	DP/TPN/FP	DP/TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	440V	440V	440V	440V
Rated insulation voltage U_i	V	690V	690V	690V	690V
Rated impulse voltage U_{imp}	kV	6kV	6kV	6kV	6kV
Rated Operational Current I_e at AC22A, @ 440V AC	A	400A	500A	630A	800A
Mechanical endurance no. of operation		15000	10000	10000	10000
Rated Conditional S/C Current (rms) with HRC Fuses @ 440V AC	kA	80	80	80	80
Max Fuse Rating	A	400	440	630	800
Degree of Protection (from front - panel door open)*		IP20	IP20	IP20	IP20

Auxiliary Switch: General Data for 3KT8 Switch Disconnecter Fuse		3KT81/2/3/4	
Rated Voltage AC 50Hz	V	500V	
Rated Voltage DC	V	600V	
Continuous Current	A	10A	
Rated Operational Current I_e at AC12 @ 415V AC	A	10A	
Rated Operational Current I_e at DC12 @ 110V DC	A	4A	
Maximum Fuse rating for S/C Protection - delayed action cartridge type	A	10A	

AC23 ratings available on request * with terminal shroud

Superswitch 3KA8 Switch Disconnecter



General Technical Information

Superswitch 3KA8 - Conforms to IEC60947-3/ IS13947-3		3KA815	3KA821	3KA822	3KA823
No. of Poles		TPN	TPN/FP	TPN/FP	TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	690V	690V	690V	690V
Rated insulation voltage U_i	V	800V	1000V	1000V	1000V
Rated impulse voltage U_{imp}	kV	6kV	8kV	8kV	8kV
Rated uninterrupted current I_u	A	80A	100A	125A	160A
Rated Operational Current I_e at AC23A, @ 690V AC	A	63A	100A	125A	160A
Rated Operational Current I_e at AC21A, @ 500V AC	A	80A	125A	125A	160A
Rated Operational Current I_e at AC21A, AC22A @ 690V AC	A	80A	125A	125A	160A
Rated short time current kA (rms) for 1 sec		2kA	8kA	8kA	8kA
Mechanical endurance - no. of cycles		25000	25000	25000	25000
Rated Conditional S/C current (rms) with fuses @ 690V AC	kA	80kA	80kA	80kA	80kA
Rated Conditional S/C current (rms) with fuses @ 500V AC	kA	100kA	100kA	100kA	100kA

Superswitch 3KA8 - Conforms to IEC60947-3/ IS13947-3		3KA831	3KA832	3KA834	3KA835
No. of Poles		TPN/FP	TPN/FP	TPN/FP	TPN/FP
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	690V	690V	690V	690V
Rated insulation voltage U_i	V	1000V	1000V	1000V	1000V
Rated impulse voltage U_{imp}	kV	8kV	8kV	8kV	8kV
Rated uninterrupted current I_u	A	250A	315A	500A	630A
Rated Operational Current I_e at AC23A, @ 690V AC	A	200A	250A	400A	630A
Rated Operational Current I_e at AC21A, @ 500V AC	A	200A	250A	400A	630A
Rated Operational Current I_e at AC21A, AC22A @ 690V AC	A	200A	250A	400A	630A
Rated short time current kA (rms) for 1 sec		14kA	14kA	20kA	25kA
Mechanical endurance - no. of cycles		20000	20000	20000	15000
Rated Conditional S/C current (rms) with fuses @ 690V AC	kA	80kA	80kA	80kA	80kA
Rated Conditional S/C current (rms) with fuses @ 500V AC	kA	100kA	100kA	100kA	100kA

Superswitch 3KA8 - Conforms to IEC60947-3/ IS13947-3		3KA843	3KA844	3KA845	3KA846
No. of Poles		TPN/FP	TPN	TPN	TPN
Rated operational voltage U_e @ 50 Hz/60 Hz AC	V	690V	690V	690V	690V
Rated insulation voltage U_i	V	1000V	1000V	1000V	1000V
Rated impulse voltage U_{imp}	kV	8kV	8kV	8kV	8kV
Rated uninterrupted current I_u	A	800A	1000A	1200A	1600A
Rated Operational Current I_e at AC23A, @ 690V AC	A	800A	1000A	-	-
Rated Operational Current I_e at AC21A, @ 500V AC	A	800A	1000A	1200A	1600A
Rated Operational Current I_e at AC21A, AC22A @ 690V AC	A	800A	1000A	-	-
Rated short time current kA (rms) for 1 sec		50kA	50kA	50kA	50kA
Mechanical endurance - no. of cycles		5000	5000	5000	5000
Rated Conditional S/C current (rms) with fuses @ 690V AC	kA	80kA	80kA	80kA	80kA
Rated Conditional S/C current (rms) with fuses @ 500V AC	kA	100kA	100kA	100kA	100kA

Auxiliary Switch: General Data for 3KA8 Switch Disconnecter		3KA81/2/3/4
Rated Voltage AC 50Hz	V	500V
Rated Voltage DC	V	600V
Continuous Current	A	10A
Rated Operational Current I_e at AC12 @ 415V AC	A	10A
Rated Operational Current I_e at DC12 @ 110V DC	A	4A
Maximum Fuse rating for S/C Protection - delayed action cartridge type	A	10A

Superswitch 3KL8/ 3KT8/ 3KA8

Selection Guide: DC Applications

Rating	Type	Type of Connection	DC Rating
20A	3KL811	Two Poles in series	$I_e/DC23 @ 220V = 20A$
		Three Poles in series	$I_e/DC23 @ 440V = 20A$
32A	3KL812	Two Poles in series	$I_e/DC23 @ 220V = 32A$
		Three Poles in series	$I_e/DC23 @ 440V = 32A$
63A	3KL815	Two Poles in series	$I_e/DC23 @ 220V = 63A$
	3KA815	Three Poles in series	$I_e/DC23 @ 440V = 63A$
100A	3KL821	Two Poles in series	$I_e/DC23 @ 220V = 100A$
		Three Poles in series	$I_e/DC23 @ 440V = 100A$
	3KA821	Two Poles in series	$I_e/DC23 @ 220V = 125A$
		Three Poles in series	$I_e/DC23 @ 440V = 125A$
125A	3KL822	Two Poles in series	$I_e/DC23 @ 220V = 125A$
	3KA822	Three Poles in series	$I_e/DC23 @ 440V = 125A$
160A	3KL823	Two Poles in series	$I_e/DC23 @ 220V = 160A$
	3KA823	Three Poles in series	$I_e/DC23 @ 440V = 160A$
200A	3KL831	Two Poles in series	$I_e/DC22 @ 220V = 200A$
	3KA831	Two Poles in series	$I_e/DC22 @ 440V = 200A$
250A	3KL832	Two Poles in series	$I_e/DC22 @ 440V = 250A$
	3KA832	Two Poles in series	$I_e/DC22 @ 440V = 250A$
315A	3KL833	Two Poles in series	$I_e/DC22 @ 440V = 250A$
400A	3KL834	Two Poles in series	$I_e/DC22 @ 440V = 250A$
	3KA834		
500A	3KL841	Two Poles in series	$I_e/DC22 @ 440V = 500A$
630A	3KL842	Two Poles in series	$I_e/DC22 @ 440V = 630A$
	3KA835	Two Poles in series	$I_e/DC22 @ 440V = 250A$
800A	3KL843	Two Poles in series	$I_e/DC22 @ 440V = 630A$
	3KA843	Two Poles in series	$I_e/DC22 @ 440V = 630A$
1000A	3KA844	Two Poles in series	$I_e/DC22 @ 440V = 630A$

Utilisation Categories**

- AC20 Connecting & disconnecting load under no-load
- AC21 Switching of resistive loads with moderate overloads
- AC22 Switching of mixed resistive and inductive loads including moderate overload
- AC23 Switching of Motor or other highly inductive loads
- DC20 Connecting & disconnecting load under no-load
- DC21 Switching of resistive loads with moderate overloads
- DC22 Switching of mixed resistive and inductive loads including moderate overload (eg: shunt motors)
- DC23 Switching of highly inductive loads (eg. Series motors)

**To be suffixed with A (Frequent operation) or B (Infrequent Operation)

Superswitch 3KL8/ 3KT8/ 3KA8

General Ordering Information

3KL8 SDF (TPN)			
I _e @ 690V 50HzAC	Order Code		
20A [#]	3KL81113H	_ _	0
32A	3KL81213H	_ _	0
63A	3KL81513H	_ _	0
100A	3KL82113H	_ _	0
125A	3KL82213H	_ _	0
160A	3KL82313H	_ _	0
200A	3KL83113U	_ _	0
250A	3KL83213U	_ _	0
315A	3KL83313U	_ _	0
400A [§]	3KL83413U	_ _	0
500A	3KL84113U	_ _	0
630A	3KL84213U	_ _	0
800A [§]	3KL84313U	_ _	0
		A	DIN Fuse
		J	BS Fuse
		C	NFC Fuse ¹⁾
		0	Open Execution
		1	Sheet Steel Housing

1) 3KL8111/3KL8121/3KL8151

3KT8 SDF (TPN)			
I _e @ 440V 50Hz AC	MLFB		
32A	3KT81213H	_	00
50A	3KT81413H	_	00
80A	3KT81613H	_	00
100A	3KT82113H	_	00
125A	3KT82213H	_	00
160A	3KT82313H	_	00
200A	3KT83113U	_	00
250A	3KT83213U	_	00
315A	3KT83313U	_	00
400A	3KT83413U	_	00
500A	3KT84113U	_	00
630A	3KT84213U	_	00
800A	3KT84313U	_	00
		A	DIN Fuse
		J	BS Fuse
		C	NFC Fuse ²⁾

2) 3KL8111/3KL8141

3KL8/ 3KT8 2Pole SDF			
I _e @ 440V 50Hz AC	MLFB		
100A	3K	_	82112HA00
125A	3K	_	82212HA00
160A	3K	_	82312HA00
200A	3K	_	83112UA00
250A	3K	_	83212UA00
315A	3K	_	83312UA00
400A ^{&}	3K	_	83412UA00
500A	3K	_	84112UA00
630A	3K	_	84212UA00
800A ^{&}	3K	_	84312UA00
	L	➤	3KL
	T	➤	3KT

3KA Switch Disconnectors (TPN)	
I _e @ 440V 50Hz AC	MLFB
63A	3KA81513HE00
100A	3KA82113HE00
125A	3KA82213HE00
160A	3KA82313HE00
200A	3KA83113UE00
250A	3KA83213UE00
400A [§]	3KA83413UE00
630A	3KA83513UE00
800A [§]	3KA84313UE00
1000A	3KA84413UE00
1200A [@]	3KA84513UE00
1600A [@]	3KA84613UE00

§ Rating AC23A @ 550V, This can be utilized to AC23B @ 690V.

AC22A = 32A, AC23A = 20A.

@ Rating AC21 at 500V, 50Hz AC

& Rating AC23A @ 550V, This can be utilized to AC23B @ 690V.

Superswitch 3KL8/ 3KT8/ 3KA8

Fuse Selection Guide

I _e	SDF Type	DIN Fuse Size	DIN Fuse Type	BS Fuse Size	BS Fuse Type	NFC Fuse Size
20A	3KL8111	00/000	3NA78	A2/A3	TSA/TIA	14X51
32A	3KL8121	00/000	3NA78	A2/A3	TSA/TIA	14X51
	3KT8121	00/000	3NA78	A2/ A3	TSA/TIA/TIS	14X51
50A	3KT8141	00/000	3NA78	A3	TSA/TIA/TIS	14X51
63A	3KL8151	00/000	3NA78	A3	TIS/TSS	14X51
80A	3KT8161	00/000	3NA78	A3	TSDS/TIS/TSS	–
100A	3KL8211	00/000	3NA78	A4	TCP	–
	3KT8211					
125A	3KL8221	00/000	3NA78	A4	TCP/TSFP	–
	3KT8221					
160A	3KL8231	00/000	3NA78	A4	TCP/TSFP	–
	3KT8231					
200A	3KL8311	1 - 2	3NA71, 72	B2/B3/B4	TSF/TF	–
	3KT8311					
250A	3KL8321	1 - 2	3NA71, 72	B2/B3/B4	TSF/TF/TKF/TSK	–
	3KT8321					
315A	3KL8331	1 - 2	3NA72	B2/B3/B4	TSF/TF/TKF/TSK	–
	3KT8331					
400A	3KL8341	1 - 2	3NA72	B2/B3/B4	TSF/TF/TKF/TSK/TMF	–
	3KT8341					
500A	3KL8411	3	3NA33	C1/C2/C3	TTM	–
	3KT8411					
630A	3KL8421	3	3NA33	C1/C2/C3	TTM	–
	3KT8421					
800A	3KL8431	3	3NA33	C1/C2/C3	TSLS	–
	3KT8431					

DIN Type Fuse

Short data description : 3NA7 LV HRC Fuses

Standards	IS 13703 Part 2 Section 1(1993); IEC 269
Dimensions	IS 13703; IEC 269
Operating class	gG
Rated Voltage	AC 500V / DC 440V upto 630A (DC 250V for size 00) AC 690V/DC 440V (DC 250V for size 00)
Rated Current Range	2 to 800A: (500 Vac) 800A@415V. 40 to 500 A (690 Vac)
Rated Breaking Capacity	AC 120kA / DC 25kA
Mounting position	as desired but preferably vertical
Resistance to climate	-30° C to +50° C at 95% relative humidity

LV HRC Fuses

During installations, when the conventional HRC Fuses are mounted on the fuse bases or Switch Disconnecter Fuse Units in panels as in Fuse Rails above certain height, it is very difficult to identify the status of the fuse link whether healthy or blown. This necessitates requirement of additional front indication.

The combination indicator Fuse has two indicators as against one indicator in conventional fuses. One indicator is on top cover plate similar to conventional fuses and other indicator is at the centre of the

ceramic body of the fuse link. This helps in clear identification of status of fuse even from front side.

3NA7 LV HRC Fuses are available in 5 different sizes from 2 to 800A. The main part of the LV HRC fuses is the fuse element of high-grade copper. The important factors are the resistance value per meter, the material thickness and the dimensional accuracy. Three criteria decisive in the production of the fuse elements are:

- Accurate cutting and punching
- Precise application of the solder deposit
- Accurate and concentric insertion of the fuse-element in the fuse body.

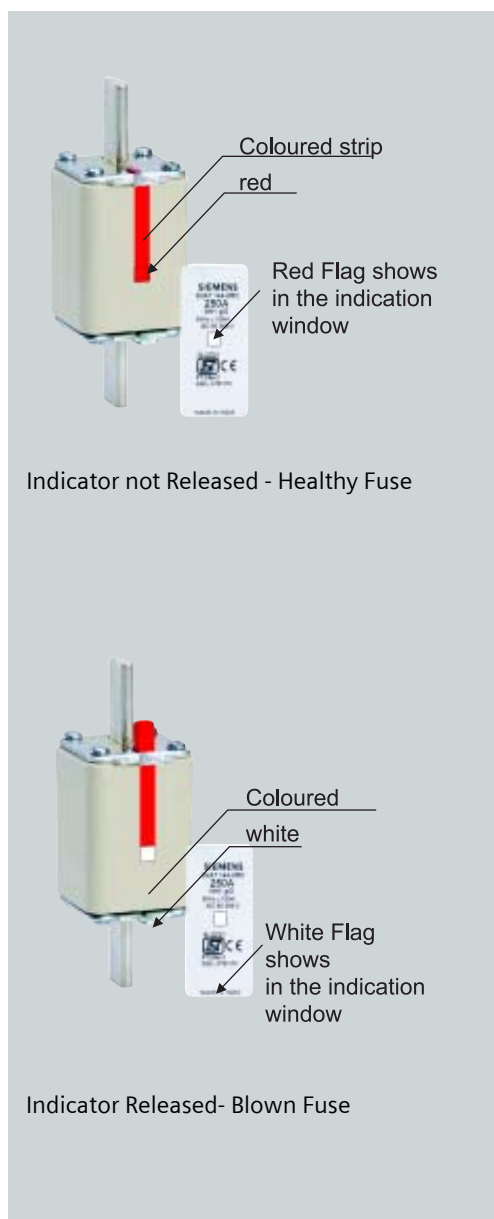
Where several fuse elements are involved, these are fitted exactly parallel to each other in the fuse body. This ensures adequate cooling of the individual arcs. The precision of the parallel arrangement can be verified by observing the beads of molten metal after the fuse has switched off a short circuit. The fuse-element must not be too close to the wall of the fuse body as otherwise there is no protective layer of sand. If the arc were to touch the wall of the fuse body, the fuse might burst or blow.

The fuse elements of 3 NA7 fuses are of operating class gG and of copper. The use of silver-plated or pure silver fuse-elements is not required for physical reasons.

Oxidation, also called scalling of copper, which reduces the cross-section of the fuse-element, occurs only at a temperature of approx. 350° C. In the time/current range within which a fuse operates, however, only temperatures of 180° C to 240° C are attained. Hence safe tripping is ensured with this fuse element.

Advantages

- Consistently high quality LVHRC fuses
- Least stresses to downstream equipments during short circuit due to lower let through current
- Low power losses resulting in high economy and minimal heating.
- Safe and reliable breaking capacity from the smallest and dangerous overload current upto the largest short-circuit current.
- Finely graded selectivity level for the optim use of cable cross sections
- High resistance to ageing thus avoids unnecessary operational faults
- Constant characteristics even under different temperature conditions



LV HRC Fuses




DIN Type Fuse

Selection & Ordering Data

LV HRC fuses : 500V AC

LV HRC fuse links

- According to IEC 60269/IS 13703
- Rated voltage: 500 V AC / 415 VAC for 800 A
- Rated voltage (DC): 440 V DC, upto 630A (250 V for size 000/00)
- Utilization Category gG
- Rated breaking capacity : 120 kA (AC), 25 kA (DC)

	Size	Rating A	Order	Watt Loss	Let Through Energy (I ² T)	
	000	2	3NA7 802-ORC	1.3	9	
		4	3NA7 804-ORC	0.9	27	
		6	3NA7 801-ORC	1.3	150	
		10	3NA7 803-ORC	1	370	
	000	16	3NA7 805-ORC	1.7	1,000	
		20	3NA7 807-ORC	2	1,900	
		25	3NA7 810-ORC	2.3	3,300	
		32	3NA7 812-ORC	2.6	6,400	
	000	40	3NA7 817-ORC	3.1	12,100	
		50	3NA7 820-ORC	3.8	16,000	
		63	3NA7 822-ORC	4.6	26,500	
		000	80	3NA7 824-ORC	5.8	43,000
00	100		3NA7 830-ORC	6.6	80,000	
	00	125	3NA7 832-ORC	8.9	130,000	
00		160	3NA7 836-ORC	11.3	223,000	
		1	50	3NA7 120-ORC	4.6	6,800
63			3NA7 122-ORC	6	9,800	
80			3NA7 124-ORC	7.5	16,000	
100			3NA7 130-ORC	8.9	30,600	
125			3NA7 132-ORC	10.7	50,000	
160			3NA7 136-ORC	13.9	85,000	
1		200	3NA7 140-ORC	15	135,000	
		224	3NA7 142-ORC	16.1	170,000	
		250	3NA7 144-ORC	17.3	230,000	
		2	200	3NA7 240-ORC	14.9	135,000
			250	3NA7 244-ORC	17.9	230,000
		2	315	3NA7 252-ORC	21.4	433,000
400	3NA7 260-ORC		27.5	676,000		
	3	315	3NA3 352-ORC	21.4	433,000	
		400	3NA3 360-ORC	27.5	676,000	
		500	3NA3 365-ORC	36.5	1,270,000	
		630	3NA3 372-ORC	44	2,700,000	
		*800	3NA3 375-4RC	51.9	2,740,000	

* 800A fuses - Rated Voltage at 415V AC.

BS Type Fuse



General

Siemens low voltage HRC fuses of BS type have been developed for industrial applications. Due to the special design, they provide high rupturing capacity combined with low temperature rise under normal load conditions. The quick acting characteristics of the fuses ensure that under the worst fault conditions, cut off occurs before the peak value of fault current is reached. This ultimately reduces the electromagnetic stress and fire risk, thus avoiding premature failure of the downstream equipment.

Construction

The fuse links consist of one or more elements contained in ceramic barrel of exceptional strength and filled by carefully graded, chemically purified silica quartz sand. The end of cartridges are closed by electro-tinned/ silver plated end caps which are forced on to the ground barrel under pressure, thus entirely eliminating the use of cement with its attendant disadvantages.

The fuse elements are made of pure copper/ silver composite type and manufactured to very close tolerance to ensure that the characteristics of the fuses are consistent. All fuse links are manufactured under strict quality control and tested as per relevant standards.

Applications

The fuses are ideally suited for general industrial applications as well as protection of lighting and heating circuits.

Short Data Description

BS Fuses - Type 3NW

Rated Voltage	:	415V AC, 240V DC
Rated Current	:	2A to 800A
Rated short circuit breaking capacity	:	80kA (AC), 40kA (DC)
Utilization Category	:	gG
Fusing Factor	:	1.6
Fuse fixing arrangement	:	Blade Tag, Offset Tag, Centre Tag
Relevant Standards	:	IS13703-2 (1993), BS 88 Part 1 & 2 (1988), IEC 60269 -2-1(1987)

Power Dissipation Chart

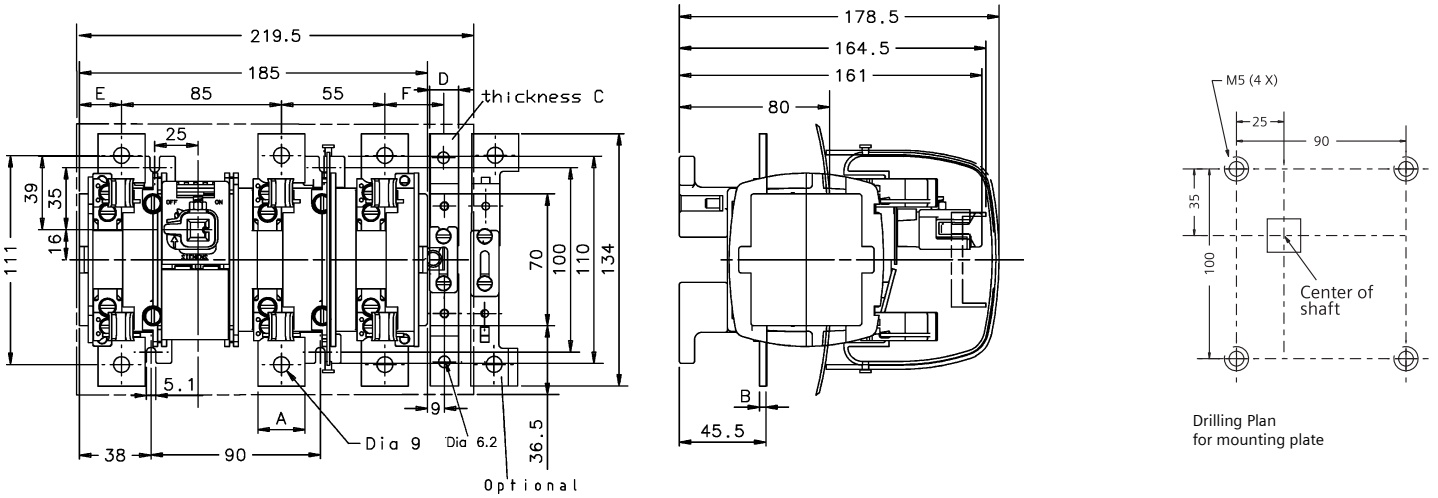
Type	Rated Current (A)	Type Reference	Rated Power Dissipation (Watts)
Offset Tag	2	3NW TIA2	1.5
	4	3NW TIA4	2.7
	6	3NW TIA6	3.3
	10	3NW TIA10	2.8
	16	3NW TIA16	3.3
	20	3NW TIA20	3.1
	25	3NW TIA25	3.6
Offset Tag	32	3NW TIA32	3.8
	6	3NW TSA6	1.8
	10	3NW TSA10	2.1
	16	3NW TSA16	1.8
	20	3NW TSA20	1.8
	25	3NW TSA25	2.0
	32	3NW TSA32	2.9
Offset Tag	40	3NW TIS40	4.7
	50	3NW TIS50	4.9
	63	3NW TIS63	5.6
Offset Tag	36	3NW TSS36	4.4
	40	3NW TSS40	4.7
	50	3NW TSS50	4.9
	63	3NW TSS63	5.6
Offset Tag	80	3NW TCP80	7.2
	100	3NW TCP100	8.2
Offset Tag	80	3NW TSDS80	7.2
	100	3NW TSDS100	8.5
Offset Tag	125	3NW TFP125	11.0
	160	3NW TFP160	13.0
	200	3NW TFP200	14.0
Offset Tag	125	3NW TFP125	10.0
	160	3NW TFP160	13.9
	200	3NW TFP200	16.0

Type	Rated Current (A)	Type Reference	Rated Power Dissipation (Watts)
Centre Tag	80	3NW TSDC80	7.2
	100	3NW TSDC100	8.5
Centre Tag	80	3NW TC80	7.2
	100	3NW TC100	8.2
Centre Tag	125	3NW TF125	10.0
	160	3NW TF160	13.0
	200	3NW TF200	16.0
Centre Tag	125	3NW TFS125	11.0
	160	3NW TFS160	13.0
	200	3NW TFS200	14.0
Centre Tag	250	3NW TKF250	19.0
	315	3NW TKF315	25.0
Centre Tag	250	3NW TSK250	18.0
	315	3NW TSK315	22.0
Centre Tag	355	3NW TSMS355	24.0
	400	3NW TSMS400	29.0
Centre Tag	355	3NW TMF355	24.0
	400	3NW TMF400	29.0
Centre Tag	450	3NW TSTS450	31.0
	500	3NW TSTS500	39.0
Centre Tag	500	3NW TTM500	38.0
	630	3NW TTM630	50.0
Centre Tag	560	3NW TSL560	38.0
	630	3NW TSL630	44.0
	800	3NW TSL800	68.0
	710	3NW TLM710	53.0
Centre Tag	800	3NW TLM800	64.0

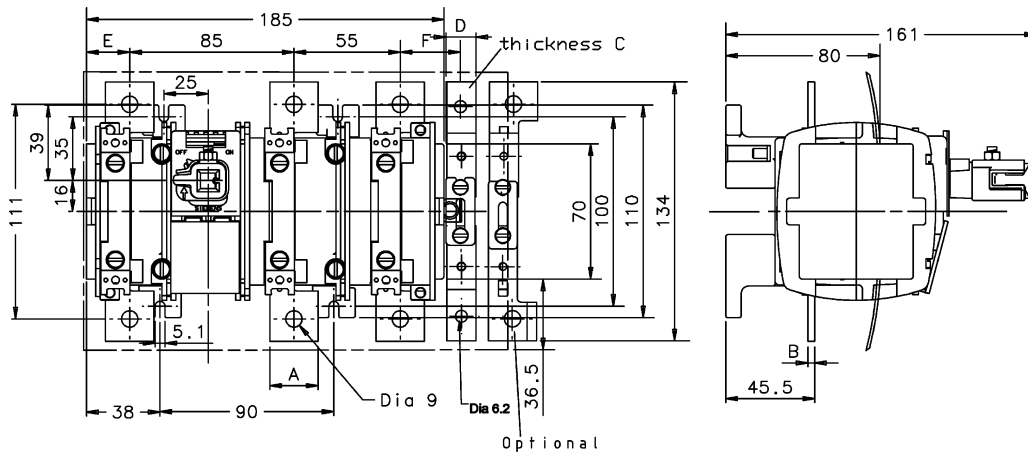


Dimension Details: Superswitch 3KL8/ 3KT8/ 3KA8 - Size 2

3KL82/ 3KT82

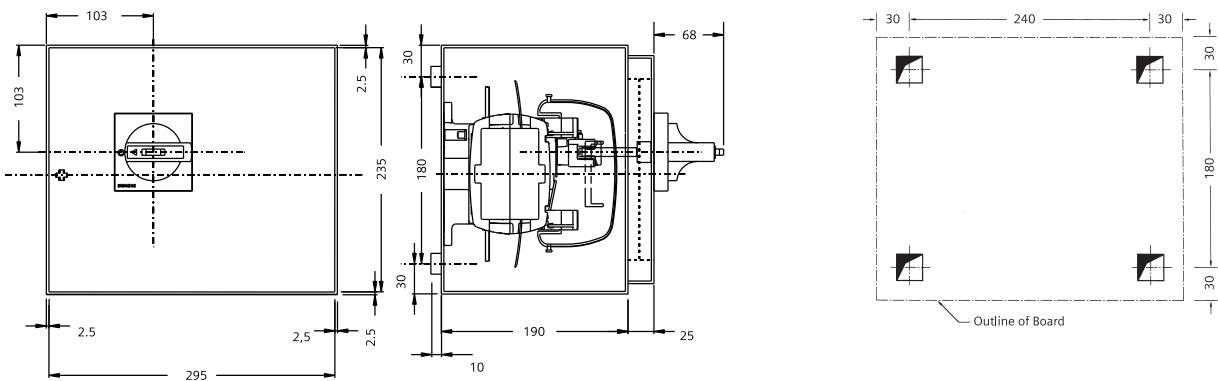


3KA82



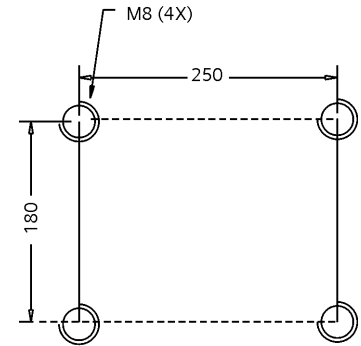
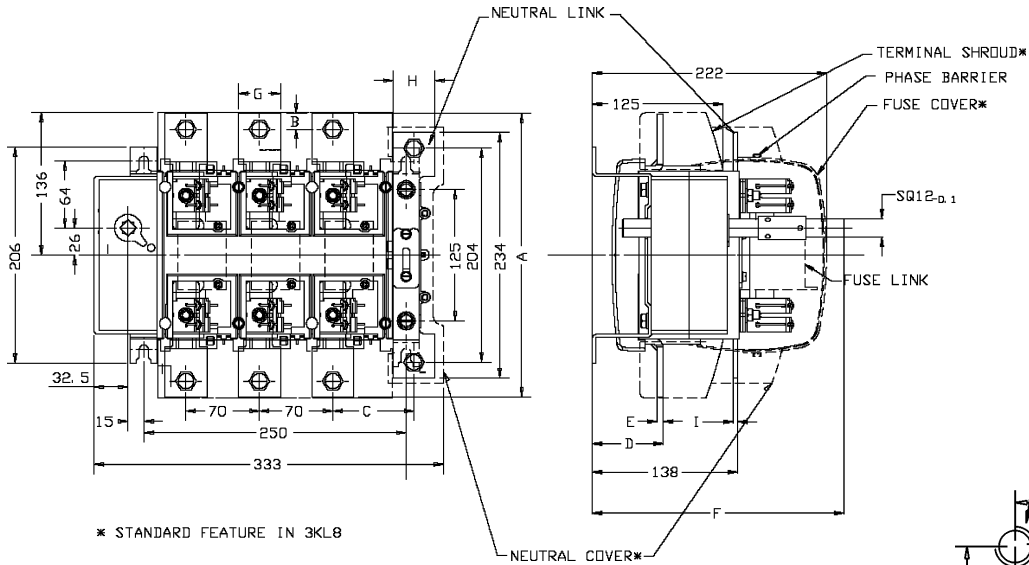
Type	MLFB Structure	A	B	C	D	E	F
50% Neutral							
3KL821/22, 3KA821/22; 3KT821/22 (50% TPN)	3K□□2□□ - 3□□□□	20	3	2	15	17	32
3KL823, 3KA823; 3KT823 (50% TPN)	3K□□2□□ - 3□□□□	25	3	3	15	19.5	32

Dimension Details for SDF in Enclosure



Dimension Details: Superswitch 3KL8/ 3KT8/ 3KA8 - Size 3

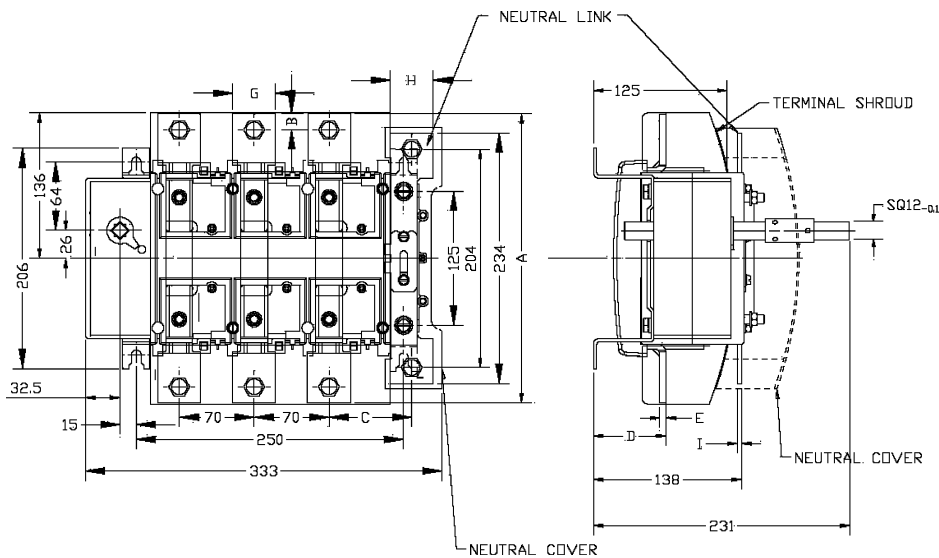
3KL83/ 3KT83



Drilling Plan for mounting plate

50% Neutral										
Type	MLFB Structure	A	B	C	D	E	F	G	H	I
3KL831/2/3	3K□□3□□3□□□□	234	12.5	72	79	4	285	30	30	3
3KL834	3K□□3□□3□□□□	270	15	77	68	6	285	40	30	3
3KT831/2/3	3K□□3□□3□□□□	234	12.5	72	79	4	231	30	30	3
3KT834	3K□□3□□3□□□□	254	15	72	79	4	231	40	30	3

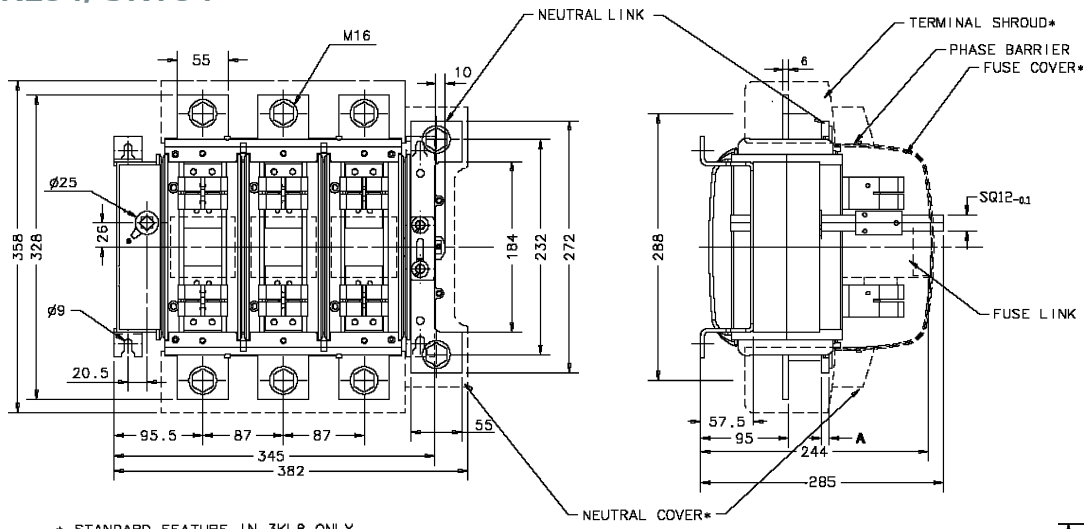
3KA83



50% Neutral										
Type	MLFB Structure	A	B	C	D	E	F	G	H	I
3KA831/2	3K□□3□□3□□□□	234	12.5	72	79	4	-	30	30	3
3KA834	3K□□3□□3□□□□	254	15	72	79	4	-	40	30	3
3KA835	3K□□3□□3□□□□	270	15	72	68	6	-	40	30	4

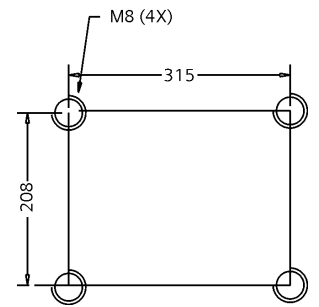
Dimension Details: Superswitch 3KL8/ 3KT8/ 3KA8 - Size 4

3KL84/ 3KT84



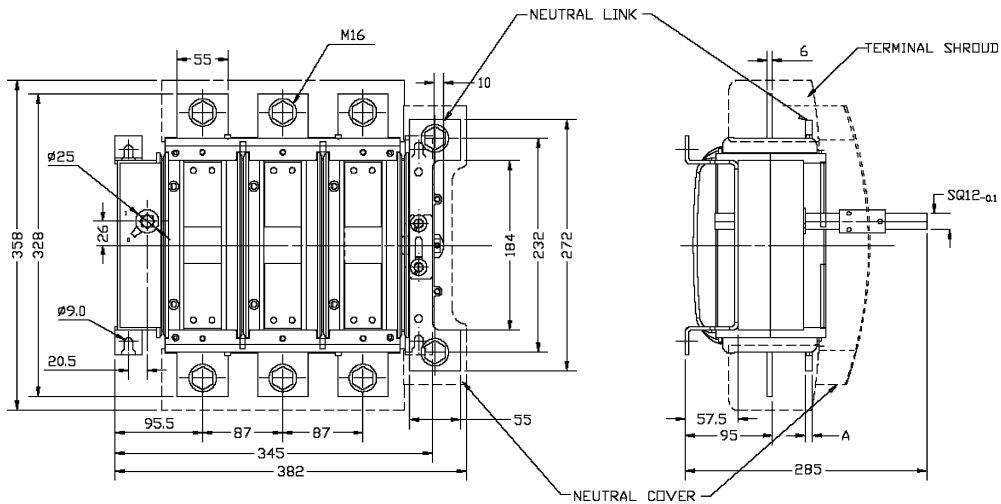
* STANDARD FEATURE IN 3KL8 ONLY

50% Neutral		
Type	MLFB Structure	A
3KL841/2/3	3K□□4□□3□□□□	5
3KT841/2/3	3K□□4□□3□□□□	5



Drilling Plan for mounting plate

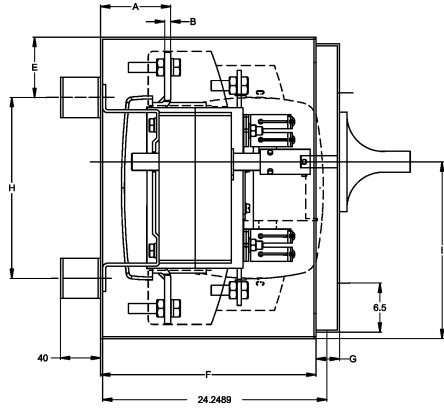
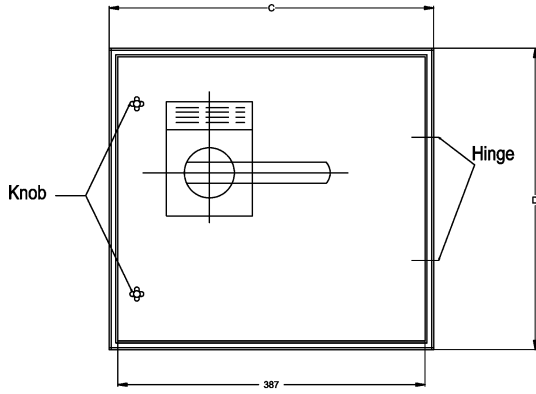
3KA843/4



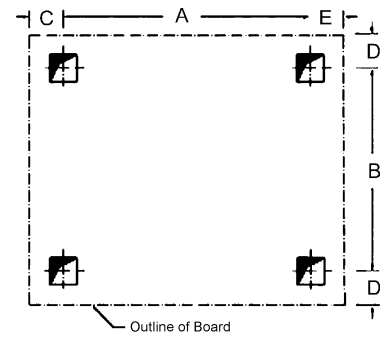
50% Neutral		
Type	MLFB Structure	A
3KA843/4	3K□□4□□3□□□□	5

Dimension Details: Superswitch 3KL8/ 3KT8/ 3KA8

Dimension Details for SDF in Enclosure 3KL831/2/3/4, 3KL841/2/3

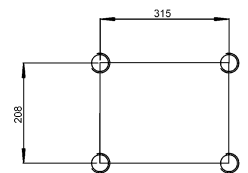
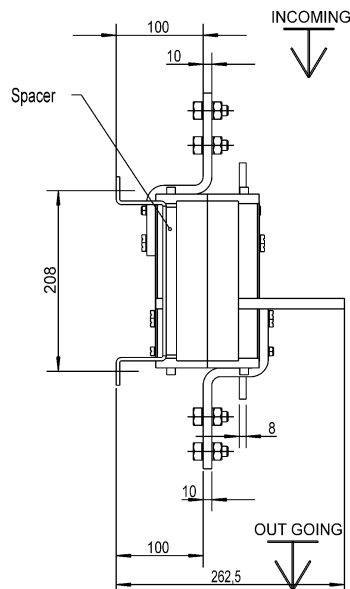
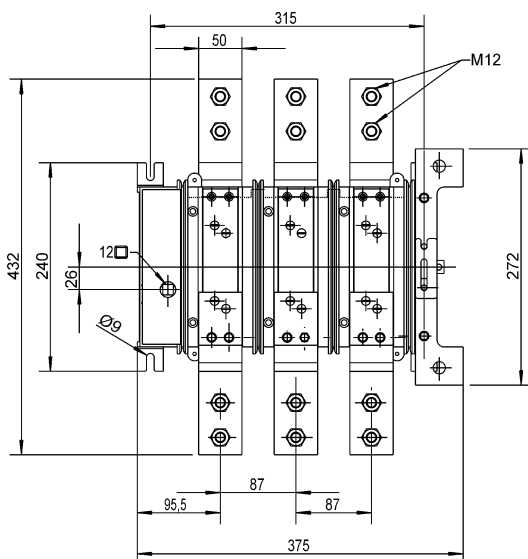


Type of SDF	A	B	C	D	E	F	G	H	I	J
3KL831/2	80	4	425	300	60	215	26.5	180	176	6.5
3KL834	75	6	425	300	60	215	26.5	180	176	6.5
3KL842	95	6	425	395	96	262	25	208	223.5	2.5

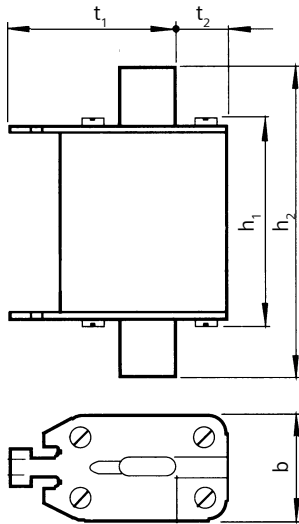


Type of SDF	A	B	C	D	E
3KL831/2/3/4	250	180	15	60	40
3KL841/2/3	315	208	40	96	40

3KA845/6



Dimensional Drawing: DIN Fuse



Sizes	Rating	MLFB	b	h_1	h_2	t_1	t_2
000	2A - 100A	3NA78...	21	54	80	45	8
00	125A - 160A	3NA78...	30	54	80	45	14
1	50A - 160A	3NA71...	30	75	137	50	15
1	200A - 250A	3NA71...	47	75	137	51	9
2	200A - 250A	3NA72...	47	75	151	58	10
2	315A - 400A	3NA72...	58	74	151	59	13
3	315A - 800A	3NA33...	71.2	74	151	69.5	12.8

Utilization category as per VDE 0636/IEC 60269

Semiconductor aR, gR, gS

Cable & Conductor gG

Switchgear / Motor aM

1st letter

a = Partial range of protection (accompanied fuses)

g = Complete range protection (general purpose fuses)

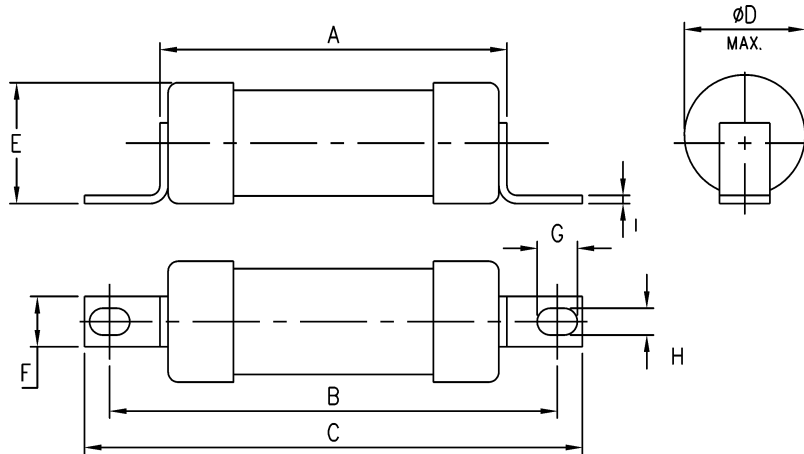
2nd letter

G(-L) = Cable & conductor protection (general purpose fuses)

M = Switchgear / Motor protection (Motor Circuit Protection)

R, S = Semiconductor protection

Dimensional Drawing: BS Fuse



Type Reference	Current Rating Range Amps.	A	B	C	D	E	F	G	H	I	Refer Figure
Off-Set Tag	3NW TIA	2-32	53.00	73.00	85.00	22.00	22.10	9.20	7.90	5.40	1.00
	3NW TSA	6-32	35.50	73.50	85.00	13.70	14.00	8.70	8.00	5.50	1.20
	3NW TIS	40-63	54.50	73.50	87.00	21.00	22.50	12.70	8.00	5.50	1.20
	3NW TSS	36-63	54.50	73.50	87.00	21.00	22.50	12.70	8.00	5.50	1.20
	3NW TCP	80-100	66.00	94.00	111.00	35.50	37.00	20.00	10.30	8.70	2.64
	3NW TSDS	80-100	54.50	73.00	95.00	21.00	22.50	12.70	8.00	5.50	1.20
	3NW TSFP	125-200	47.00	94.00	110.00	31.00	29.50	19.00	10.00	9.00	3.20
	3NW TFP	125-200	66.00	94.00	111.00	38.00	38.00	19.00	10.00	8.50	2.64

Note: For dimensions of other ratings and types of BS fuses suitable for Superswitch; please refer to the BS Fuse Datasheet.

Fuse protected selection type 2, Iq = 65kA, IS13947-4-1



- The selection is valid only for complete Siemens combinations i.e. SDF + DIN Fuse + Contactor + Birelay (+ timer).
- **In case this combination is changed to accommodate another brand/rating of SDF/DIN Fuse/Contactor/BMR, it shall be the responsibility of the person making such a change to assure type 2 performance.**
- Selection is for **normal starting** conditions with starting time ≤ 6 seconds. For **heavy starting** applications, please **consult Siemens**.
- At 60°C service temperature the bi-relay has to be derated. The bi-relay can be used upto the maximum current setting indicated. For example - A bi-relay with setting 32-50A, at 60°C can be used only upto 47A. This however does not mean that at 60°C, the 50A setting corresponds to 47A. It means that, the bi-relay should not be set beyond 47A.
- **The electronic star-delta timer type 3RP should be used in star-delta feeders.**
- SDF: Switch Disconnecter Fuse. All contactors are with 2NO + 2NC. All fuses are proper DIN HRC type.
- Tested Type 2 combinations
- Low LCC = Low Life Cycle Cost

Direct-on-line feeder, for Low LCC

SL Motor kW/HP 415V, 3ph, 50Hz	Motor I _L Amp	SDF		HRC Fuse		Contactor		Bi-Relay		Bi-Relay	
		Type	Rating	Type 3NA7	Amp	Type	Amp	Type (50°C)	Set-Range Amp	Type (60°C)	Available Set- Range Amp
0.37/0.5	1	3KL811	20	3NA7804	4	3TF30	9	3UA5000-0K	0.8 - 1.25	3UA5000-0K	0.8 - 1.17
0.55/0.75	1.3	3KL811	20	3NA7804	4	3TF30	9	3UA5000-1A	1 - 1.6	3UA5000-1A	1 - 1.5
0.75/1	1.9	3KL811	20	3NA7801	6	3TF30	9	3UA5000-1B	1.25 - 2	3UA5000-1C	1.6 - 2.3
1.1/1.5	2.6	3KL811	20	3NA7801	6	3TF30	9	3UA5000-1D	2 - 3.2	3UA5000-1D	2 - 3
1.5/2	3.7	3KL811	20	3NA7803	10	3TF30	9	3UA5000-1E	2.5 - 4	3UA5000-1E	2.5 - 3.7
2.2/3	4.8	3KL811	20	3NA7805	16	3TF30	9	3UA5000-1F	3.2 - 5	3UA5000-1G	4 - 5.9
3.7/5	7.8	3KL811	20	3NA7807	20	3TF30	9	3UA5000-1H	5 - 8	3UA5000-1J	6.3 - 9.4
5.5/7.5	11.2	3KL812	32	3NA7810	25	3TF31	12	3UA5000-1K	8 - 12.5	3UA5000-1K	8 - 11.7
7.5/10	16	3KL812	32	3NA7812	32	3TF32	16	3UA5200-2A	10 - 16	3UA5200-2B	12.5 - 18.7
9.3/12.5	19	3KL815	63	3NA7820	50	3TF34	32	3UA5500-2B	12.5 - 20	3UA5500-2C	16 - 23.4
11/15	20.8	3KL815	63	3NA7820	50	3TF34	32	3UA5500-2C	16 - 25	3UA5500-2C	16 - 23.4
15/20	28	3KL815	63	3NA7822	63	3TF34	32	3UA5500-2D	20 - 32	3UA5500-2D	20 - 30
18.5/25	34	3KL815	63	3NA7822	63	3TF35	38	3UA5500-2Q	25 - 36	3UA5500-2R	32 - 37.4
22/30	40	3KL821	100	3NA7824	80	3TF46	45	3UA5800-2FZ1	32 - 50	3UA5800-2FZ1	32 - 47
30/40	53	3KL821	100	3NA7830	100	3TF47	63	3UA5800-2TZ1	40 - 57	3UA5800-2PZ1	50 - 59
37/50	65	3KL822	125	3NA7832	125	3TF477	70	3UA5800-2VZ2	57 - 70	3UA5800-2VZ2	57 - 65.5
45/60	78	3KL822	125	3NA7832	125	3TF49	85	3UA5800-8YZ1	70 - 95	3UA5800-8YZ1	70 - 88.9
55/75	96	3KL823	160	3NA7836	160	3TF50	110	3UA5830-5C	85 - 105	3UA5830-5C	85 - 98.2
75/100	131	3KL831	200	3NA7140	200	3TF51	140	3UA6230-5A	85 - 135	3UA6230-5B	115 - 168
90/125	156	3KL832	250	3NA7144	250	3TF52	170	3UA6230-5B	115 - 180	3UA6230-5B	115 - 168
110/150	189	3KL832	250	3NA7144	250	3TF53	205	3UA6230-5C	160 - 250	3UA6230-5C	160 - 234
132/180	227	3KL833	315	3NA7252	315	3TF54	250	3UA6230-5C	160 - 250	3UA6230-5C	160 - 234
160/215	271	3KL834	400	3NA7260	400	3TF55	300	3UA6230-5D	200 - 320	3UA6230-5D	200 - 299
200/270	339	3KL841	500	3NA7365	500	3TF56	400	3UA6230-5E	250 - 400	3UA6230-5E	250 - 374
250/335	398	3KL841	500	3NA7365	500	3TF57	475	3UA6830-3F	320 - 500	3UA6830-3F	320 - 468

Star-Delta feeder, for Low LCC

SL Motor kW/HP 415V, 3ph, 50Hz	Motor		SDF		HRC Fuses		Contactor Line/Delta		Contactor Star		Bi-Relay		Bi-Relay		Timer
	I _L Amp	I _{ph} Amp	Type	Rating	Type 3NA7	Amp	Type	Amp	Type	Amp	Type (50°C)	Set-Range Amp	Type (60°C)	Available Set-Range Amp	Type
2.2/3	4.8	2.8	3KL811	20	3NA7801	6	3TF30	9	3TF30	9	3UA5000-1D	2-3.2	3UA5000-1D	2-3	3RP15
3.7/5	7.8	4.5	3KL811	20	3NA7803	10	3TF30	9	3TF30	9	3UA5000-1F	3.2-5	3UA5000-1F	3.2-4.7	3RP15
5.5/7.5	11.2	6.5	3KL811	20	3NA7805	16	3TF30	9	3TF30	9	3UA5000-1H	5-8	3UA5000-1H	5-7.5	3RP15
7.5/10	16	9.2	3KL811	20	3NA7807	20	3TF31	12	3TF30	9	3UA5000-1J	6.3-10	3UA5000-1J	6.3-9.4	3RP15
9.3/12.5	19	11	3KL812	32	3NA7810	25	3TF31	12	3TF30	9	3UA5000-1K	8-12.5	3UA5000-1K	8-11.7	3RP15
11/15	20.8	12	3KL812	32	3NA7810	25	3TF31	12	3TF30	9	3UA5000-1K	8-12.5	3UA5000-2S	10-13.6	3RP15
15/20	28	16.2	3KL812	32	3NA7812	32	3TF33	22	3TF32	16	3UA5200-2B	12.5-20	3UA5200-2B	12.5-18.7	3RP15
18.5/25	34	19.7	3KL815	63	3NA7820	50	3TF34	32	3TF34	32	3UA5500-2B	12.5-20	3UA5500-2C	16-23.4	3RP15
22/30	40	23.2	3KL815	63	3NA7820	50	3TF34	32	3TF34	32	3UA5500-2C	16-25	3UA5500-2D	22-30	3RP15
30/40	53	30.6	3KL815	63	3NA7822	63	3TF34	32	3TF34	32	3UA5500-2D	20-32	3UA5500-2Q	25-33.7	3RP15
37/50	65	37.5	3KL821	100	3NA7824	80	3TF35	38	3TF34	32	3UA5500-2R	32-40	3UA5500-8M	36-45	3RP15
45/60	78	45	3KL821	100	3NA7830	100	3TF46	45	3TF34	32	3UA5800-2FZ1	32-50	3UA5800-2FZ1	32-47	3RP15
55/75	96	55.4	3KL821	100	3NA7830	100	3TF47	63	3TF34	32	3UA5800-2TZ1	40-57	3UA5800-2PZ1	50-59	3RP15
75/100	131	75.6	3KL823	160	3NA7836	160	3TF49	85	3TF47	63	3UA5800-8YZ1	70-95	3UA5800-8YZ1	70-88.9	3RP15
90/125	156	90.1	3KL823	160	3NA7836	160	3TF50	110	3TF47	63	3UA5830-5B	70-95	3UA5830-5C	85-98.2	3RP15
110/150	189	109	3KL831	200	3NA7140	200	3TF50	110	3TF50	110	3UA5830-5D	95-120	3UA5830-5D	95-112	3RP15
132/180	227	131.1	3KL832	250	3NA7144	250	3TF51	140	3TF50	110	3UA6230-5B	115-180	3UA6230-5B	115-168	3RP15
160/215	271	156.5	3KL833	315	3NA7252	315	3TF52	170	3TF50	110	3UA6230-5B	115-180	3UA6230-5B	115-168	3RP15
200/270	339	195.7	3KL834	400	3NA7260	400	3TF54	250	3TF52	170	3UA6230-5C	160-250	3UA6230-5C	160-234	3RP15
250/335	398	229.8	3KL841	500	3NA7260	400	3TF54	250	3TF54	250	3UA6230-5C	160-250	3UA6230-5D	200-299	3RP15

Your partners

Sales offices:

Ahmedabad

3rd Floor, Prerna Arbour
Girish Cold Drinks Cross Roads, Off. C. G. Road
Ahmedabad - 380009
☎ : +91 79 40207600
Fax: +91 79 40207699

Bangalore

1st Floor, Jyothimahal, #49, St. Marks Road
Bangalore - 560001
☎ : +91 80 22042000
Fax: +91 80 22224131

Chandigarh

SCO 189 - 191, 3rd Floor, Sector 17C
Chandigarh - 160017
☎ : +91 172 4690300
Fax: +91 172 4690399

Territory managers :

Aurangabad

A9, Yogeshwari Vrundavan
Nr. Malhar Chowk, Garkheda Parisar, Prema Nagar
Aurangabad - 431210, Maharashtra
Mobile: +91 9766316446
E-mail: santosh.rajhans@siemens.com

Bareilly

Bareilly - 243001, Uttar Pradesh
Mobile: +91 9415012500
E-mail: saket.dwivedi@siemens.com
Mobile: +91 9897070133
E-mail: naveen.khare@siemens.com

Baroda

1st Floor, Vaniiya Bhavan, Race Course Road
Baroda - 390007, Gujarat
☎ : +91 265 2325810/12, 6692110
Mobile: +91 9825506963
E-mail: ankur.chokshi@siemens.com

Belgaum

H.No.713, Narvekar Lane, Shahpur
Belgaum - 590003, Karnataka
☎ & Fax: +91 831 2495156
Mobile: +91 9740277991
E-mail: anand.gawade@siemens.com

Bhilai

C/o Mr. S.H Siddiqui
Sector-1, Street-9, Quarter No 1A
Bhilai - 490001, Chhattisgarh
Mobile: +91 9826127525
E-mail: sandeep.barde@siemens.com

Bhubaneswar

109, Harapriya Apartment, Vivekananda Marg
Bhubaneswar - 751002, Orissa
☎ : +91 674 2430734
Mobile: +91 9937009749
E-mail: anirban.aditya@siemens.com
Mobile: +91 9937097504
E-mail: sumit.sengupta@siemens.com

Calicut

Dist : Kozhikode, Calicut - 673001, Kerala
Mobile: +91 9895052944
E-mail: sreekanth.p@siemens.com

Cochin

KG Oxford Busiesss Centre
39/4609, Third Floor, SreekanthRoad, Ravipuram
Cochin - 682016, Kerala
☎ : +91 484 4028611, 22
Fax: +91 484 2380201
Mobile: +91 9744511109
E-mail: sajeen.s@siemens.com

Deharadun

122, Vihar Lane No 1, Ajabpur Kalan
Deharadun - 248001, Uttaranchal
Mobile: +91 9760033117
E-mail: manish.bajpai@siemens.com

Durgapur

4/6, Matangini Hazra Bithi, Ground Floor, City center
Durgapur - 713216, West Bengal
☎ : +91 343 2605286
Mobile: +91 9830185007
E-mail: sourav.paul@siemens.com

Chennai

4, Mahatma Gandhi Road, Chennai - 600034
☎ : +91 44 28334000
Fax: +91 44 28334088

Coimbatore

7th Floor, East Wing, Global Towers
1057, Avinashi Road, Coimbatore - 641018
☎ : +91 422 4336300
Fax: +91 422 4336310

Hyderabad

5-9-19, Lakshmi Narsinh Estate, 4th Floor
Secretariat Road, Opp. Secretariat, Saifabad
Hyderabad - 500004
☎ : +91 40 23482500
Fax: +91 40 23243145

Faridabad

House No 237, Sector-B
Faridabad - 121006, Haryana
Mobile: +91 987396350
E-mail: ramit.mehra@siemens.com

Gurgaon

117-C, First Floor, Sector-30, Behind Jalvayu Vihar
Gurgaon - 122001, Haryana
Mobile: +91 9971091588
E-mail: siemens.ggn@gmail.com

Guwahati

G1, Hill View Apartment, Navagraha Path
Chenikuthi Hill Side, Guwahati - 781003, Assam
☎ : +91 361 2663988
Mobile: +91 9864037562
E-mail: sourav.bhattacharya@siemens.com
Mobile: +91 9864110684
E-mail: biplab.datta@siemens.com

Hardwar

758, 1st Floor, Model Colony, Awas Vikas, Jwalapur
Hardwar - 249407, Uttarakhand
Mobile: +91 9897070133
Fax: +91 1334 265491
E-mail: naveen.khare@siemens.com

Indore

Indore - 452001, Madhya Pradesh
Mobile: +91 9823011883
E-mail: vineet.saxena@siemens.com

Jaipur

6, Park Street, Opp Pink City Petrol Pump, M.L.Road
Jaipur - 302006, Rajasthan
☎ : +91 141 2370274 / 2377956
Fax: +91 141 2370482
Mobile: +91 9829244313
E-mail: peeyush.gupta@siemens.com

Jalandar

H.No 448R, First Floor, Pushpa Niwas
Near Geeta Mandir, Model Town
Jalandar - 144001, Punjab
Mobile: +91 9779194445
E-mail: sunil.singla@siemens.com

Jamshedpur

823, Udaigiri, Vijaya Heritage, Uliyan, Kadma
Jamshedpur - 831005, Jharkhand
☎ : +91 657 6451637
Mobile: +91 9934311352
E-mail: shaibal.parial@siemens.com

Jodhpur

371, Gauri House, Kamala Nehru Nagar
Near SBI Bank, Jodhpur - 342008, Rajasthan
Mobile: +91 9828327200
E-mail: naveen.sahariya@siemens.com

Kanpur

106, Agarwal Aparment
Near Hari Har Dham Mandir, Shyam Nagar
Kanpur - 208013, Uttar Pradesh
☎ & Fax: +91 512 2423348
Mobile: +91 9839102434
E-mail: atul.shukla@siemens.com

Kolkata

43 Shanti Palli, R B Connector
Eastern Metropolitan Bypass, Kolkata - 700042
☎ : +91 33 24449000, 24428641-47
Fax: +91 33 24449010 / 13

Lucknow

28/45, Ashok Marg, Opposite Indira Bhawan
Lucknow - 226001
☎ : +91 522 4031022, 4031000
Fax: +91 522 4031019

Mumbai

130, Pandurang Budhkar Marg, Worli
Mumbai - 400018
☎ : +91 22 24987000-02
Fax: +91 22 24987312

Kolhapur

Sursati Mahabharat Apt., Flat No. 101, 1st Floor
C.S. NO. 250B / 22, Nr.Mahavir Garden to College
Main Road, Kolhapur - 416003, Maharashtra
☎ : +91 231 2663330
Mobile: +91 9881465421
E-mail: sachin.chavan@siemens.com

Kota

48, Model Town, Khedli Phatak
Kota - 324002, Rajasthan
Mobile: +91 9784842605
E-mail: ajit.parashar@siemens.com

Ludhiana

H.No 3746, First Floor, Sector 32-A
Chandigarh Road, Ludhiana - 141010, Punjab
Mobile: +91 9872317702
E-mail: rajeev.kapoor@siemens.com

Ludhiana

H.No 92, Lajpat Nagar, Near Bus Stand
Ludhiana - 141010, Punjab
☎ : +91 161 2770574
Mobile: +91 9815502480
E-mail: rohit.jaggga@siemens.com

Madurai

8/12, Ground Floor, Sakhti Vellammal Street
SS Colony, Madurai - 625010, Tamilnadu
Mobile: +91 9894617780
E-mail: mahendiran.murugan@siemens.com

Nashik

Flat No 2, Shivam Park, Rajiv Nagar
Rane Nagar, Nasik-Mumbai Highway
Nashik - 422009, Maharashtra
Mobile: +91 9822193204
E-mail: kiran.vaideya@siemens.com

Pondicherry

32, Second Floor, St. Theresa Street
Pondicherry - 605001
☎ : +91 413 4500101
Mobile: +91 9840472727
E-mail: elankumarak.pandian@siemens.com

Raipur

Flat No.103, First Floor, Block B, Shilp Enclave
Near LAS Colony, Shankar Nagar
Raipur - 492007, Chhattisgarh
Mobile: +91 9425057945
E-mail: brajesh.rathor@siemens.com

Rajkot

D-3 Aalap Century, University Road
Rajkot - 360005, Gujarat
Mobile: +91 9825506962
E-mail: bhushan.sawant@siemens.com

Ranchi

H-1/187, Harmu Housing Colony, Harmu
Ranchi - 834002, Jharkhand
Mobile: +91 9234610953
E-mail: sourav.dasgupta@siemens.com

Renukoot

Above LICICI Prudentail Office, Patel Nagar
Murdhawa, Dist-Sonebhadra
Renukoot - 231217, Uttar Pradesh
Mobile: +91 9838007897
E-mail: siemens_ipeast@sify.com

Nagpur

5th Floor, Landmark Building, Ramdas Peth
Nagpur - 440010
☎ : +91 712 6633000
Fax: +91 712 6633111

New Delhi

4A, Ring Road, I.P. Estate, New Delhi - 110002
☎ : +91 11 42995000-09
Fax: +91 11 42995030

Pune

Tower B / 701 - 705, ICC Trade Tower
403A, Senapati Bapat Road, Pune - 411016
☎ : +91 20 2570 6000
Fax: +91 20 2570 6060

Rourkela

T-15, Civil Town, Rourkela - 769004, Orissa
☎ : +91 661 2400880
Mobile: +91 9437041724
E-mail: sanjoy.ganguly@siemens.com

Salem

3/25 Santosh Nagar, PACB Backside
Chinnathirupathi, Salem - 636008, Tamilnadu
Mobile: +91 9894617772
E-mail: rubengerald@siemens.com

Sambalpur

Pradhan Para, Near Jamkani Mandir
Beside LIC Div Off, Ainthapalli
Sambalpur - 768004, Orissa
☎ : +91 663 2541258
Mobile: +91 9438529778
E-mail: samir.chaintak@siemens.com

Surat

59, Ground Floor, Shreejinagar Part-1
Dhabholi Char Rasta, Ved Road, Katagram
Surat - 395004, Gujarat
Mobile: +91 9925001779
E-mail: chandrakant.keshrani@siemens.com

Tiruchirappali

T3, 3rd Floor, Vishranthi Daffodils Apartments
Old Friends Eye Hospital, Puthur
Tiruchirappali - 620017, Tamilnadu
☎ & Fax: +91 431 4030390
Mobile: +91 9444911221
E-mail: akhilesh.nair@siemens.com

Trivandrum

Sonu, TC9/2082, 5, Thamarakulam Lane
Sathamangalam, Trivandrum - 695010, Kerala
Mobile: +91 9895979604
E-mail: jonsa-82@yahoo.com

Udaipur

303, Oasis Park, PP Singhal Marg, Ambavgarh
Udaipur - 313001, Rajasthan
☎ & Fax: +91 294 2430345
Mobile: +91 9829039120
E-mail: ankur.singh@siemens.com

Vapi

Flat No. 302, Samrajya IV, Royal Residency
Charwada Road, Vapi - 396195, Gujarat
☎ : +91 260 6451156
Mobile: +91 9825147957
E-mail: siemens_vapi@sancharnet.in

Vijayawada

G-2, Shreya Tower, Moghalarajapuram
Near Jammichettu Centre
Vijayawada - 520010, Andhra Pradesh
☎ : +91 866 6629933
Mobile: +91 9866463639
E-mail: santosh.p@siemens.com

Visakhapatnam

84, Mount Moriah Residency, Waltair Uplands
Visakhapatnam - 530003, Andhra Pradesh
☎ : +91 891 2712535
Mobile: +91 9849212555
E-mail: siemensvaizag@rediffmail.com

Siemens Ltd.
Industry Sector
LV Control & Distribution Products
Thane Belapur Road, Thane 400601
Fax: +91 22 27623729
E-mail: lvsgmrktg.india@siemens.com

www.siemens.com/industry

Order No.: 102284408
SGR-01-109-056
(This replaces SGR-01-109-045)

Customer Care Toll free no. 1800 220 987
Email: adcs.india@siemens.com

Product upgradation is a continuous process. Hence, data in this catalog is subject to change without prior notice. For the latest information, please get in touch with our Sales Offices.