Power Distribution System

....

1 - C - UI

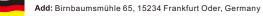
1.1

11

CE CE 9 ÷ 9

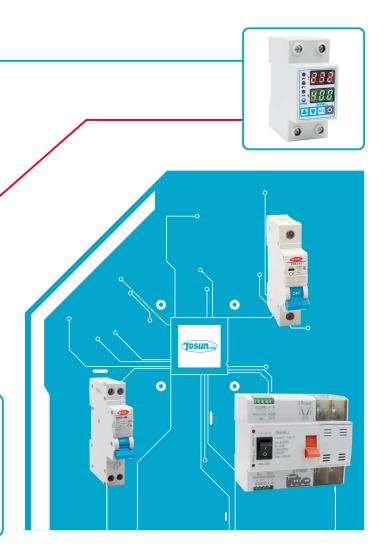


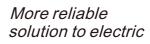
Trusted Brand in 91 Countries



Factory Add: Yangwen Industrial Zone, Wenzhou, Zhejiang Province, China Office Add: Room No.1001, Fortune Center, Station Road, Wenzhou, China E-mail:ceo@tosun.com Http://www.tosunlux.eu

Distributor







TSB3-63 Minia TSB4-63 Minia TSN3-32 Minia TSN4-40 Minia TSB4-125 Min TSB5-125 Min TSL3-63 Resid TSL3-100 Resi TSN1-40L Res TSN3-32L Res TSN4-40L Res TSN3-63L Res TIL1 Modular TPB1 Modular TSG3-125 Mod TSBL Modular Modular Socke Modular Digita Modular Digita TSP8 Surge Pro TSP7 Surge Pr LCH8 Modular LCH9 AC/DC N BIR Impulse Re TSM4 Moulded TSM4E Electro TSM4L Residu TSM8 Moulded TSW8 Intellige MP Motor Prot TSMQ1-100 D TSMQ6 Double TSMQ2 Intelli HGLD Double HGLZ Double HGL Isolating HR17 Fuse Sw Bar Fuse Swite NT Low Voltag Cylindrical Fus Spiral Fuse Li Fuse Holder



Contents

ature Circuit Breaker	P1
ature Circuit Breaker	P2
ature Circuit Breaker	P3
ature Circuit Breaker	P4
niature Circuit Breaker	P5
niature Circuit Breaker	P6
dual Current Circuit Breaker	P7
sidual Current Circuit Breaker	P8
sidual Current Operated Circuit Breaker (RCBO)	P9
sidual Current Operated Circuit Breaker (RCBO)	P10
sidual Current Operated Circuit Breaker (RCBO)	P11
sidual Current Operated Circuit Breaker (RCBO)	P12
Indicator	P13
r Pushbutton	P14
dular Main Switch	P15
r Alarm	P16
et	P16
al Over & Under Voltage Protector	P17
al Voltage & Current Protector	P18-P19
rotector	P20
rotector	P21-P22
r Contactor	P23-P24
Modular Contactor	P25
elay	P26
d Case Circuit Breaker	P27
onic Type Moulded Case Circuit Breaker	P28
al Current Operated Moulded Case Circuit Breaker	P29
d Case Circuit Breaker	P30
ent Circuit Breaker	P31-P32
tection Circuit Breaker	P33-P34
Oouble Power Automatic Changeover Switch	P35
e Power Automatic Changeover Switch	P36
igent Double Power Changeover Switch	P37
Power Automatic Changeover Switch	P38
Power Automatic Changeover Switch	P39-P40
Switch	P41
vitch Disconnector	P42
ch Disconnector	P43-P46
ge Fuse	P47-P48
se Link	P49
nk	P50
	P51

intertek CB (E DEKRA





TSB3-63 Miniature Circuit Breaker



Application

TSB3-63 series MCB with 4.5/6kA breaking capacity makes ideal for commercial and industrial applications. The products comply with IEC60898-1.

1P, 2P, 3P, 4P

1A, 2A, 3A, 4A, 5A, 6A, 8A, 10A, 13A, 16A, 20A, 25A, 32A, 40A, 50A, 63A

1P: 240/415V 2P, 3P, 4P: 415V

Thermal-magnetic

B, C, D

6000A for In 6A to 40A

4500A for In 50A 63A

3 comforming to IEC/EN 60898-1

415V AC

4000V

10000 cycles

4000 cycles

M5 2.5N.m II

IP40(modular enclosure) comforming to IEC 60529

-5~40°C

Compliant EU RoHS Declaration

2 comforming to IEC/EN 60898-1

H

IP20 comforming to IEC 60529

Specification Number of Poles

Rated Current

Curve Code

Rated Operational Voltage

Energy Limiting Class I2t: [Ui] Rated Insulation Voltage

[Uimp] Rated Impulse

Withstand Voltage Mechanical Durability

Electrical Durability

Tightening Torque

for Operation

Upper Wiring

Lower Wiring

EU RoHS Directive

Pollution Degree

IP Degree of Protection

Ambient Air Temperature

Trip Unit Technology

Rated short-circuit

capacity lcn:(A)

TSB3-631P



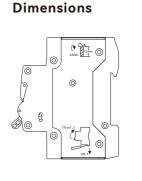
TSB3-63 2P



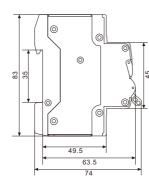
TSB3-63	3P





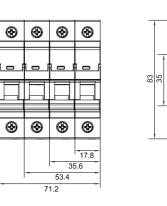


•	Ð	()	6
ŀ	ŀ	ŀ	0
٩	٢	\$	Ø
			17.8
		 ▲ 35 	.6
	•	53.4	



Dimensions





0

TSB4-63 Miniature Circuit Breaker

Application

TSB4-63 series MCB is high performance current limiting device with the ability to disconnect short circuits up to 6/10kA. Thermal trip unit is for normal overload protection and magnetic trip unit is for short circuit protection. The products comply with IEC60898-1 or IEC60947-2.

Specification

•	
Number of Poles	1P, 2P, 3P, 4
Rated Current	1A, 2A, 3A, 4A, 5A, 6A, 8A, 10A, 13A, 16A, 20
Rated Operational Voltage	1P: 240/415V 2P, 3P
Trip Unit Technology	Thermal-magn
Curve Code	B, C, D
Breaking Capacity	6kA or 10kA
Energy Limiting Class I2t:	3 comforming to IEC/E
[Ui] Rated Insulation Voltage	500V AC
[Uimp] Rated Impulse Withstand Voltage	4000V
Mechanical Durability	10000 cycles
Electrical Durability	4000 cycles
Tightening Torque	M5 2.5N.m l
IP Degree of Protection	IP20 comforming to IEC 60529 IP40(modular enclosure) comfo
Ambient Air Temperature for Operation	-5~40°C
EU RoHS Directive	Compliant EU RoHS D
Pollution Degree	2 comforming to IEC/E
Upper Wiring Lower Wiring	ר גוויין געריין גערי רעריין געריין

20A, 25A, 32A, 40A, 50A, 63A P, 4P: 415V

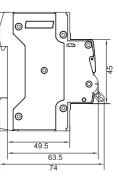
netic

EN 60898-1

forming to IEC 60529

Declaration EN 60898-1

L





TSB4-631P



TSB4-632P



TSB4-63 3P







TSN3-32 Miniature Circuit Breaker



TSN3-32

Application

TSN3-32 series MCB is an extensive range of DIN rail mounted, phase-neutral miniature circuit breaker. Boasting exclusive features, they provide absolute protection to circuits against short-circuit currents and overload currents in both residential and small building applications.

Specification

Number of Poles	1P+N		
Rated Current	1A, 2A, 3A, 4A, 5A, 6A, 10A, 16A, 20A, 25A, 32A,		
Rated Operational Voltage	230V/240V~		
Trip Unit Technology	Thermal-magnetic		
Curve Code	B, C, D		
Standards	IEC/EN 60898-1		
Breaking Capacity	lcn=lcs=3000A		
[Ui] Rated Insulation Voltage	415V AC		
[Uimp] Rated Impulse Withstand Voltage	4000V		
Mechanical Durability	10000 cycles		
Electrical Durability	4000 cycles		
Tightening Torque	М4 2N.т II		
IP Degree of Protection	IP20 comforming to IEC 60529 IP40(modular enclosure) comforming to IEC 6052		
Ambient Air Temperature for Operation	-5~40°C		
EU RoHS Directive	Compliant EU RoHS Declaration		
Pollution Degree	2 comforming to IEC/EN 60898-1		
Upper Wiring			
Lower Wiring	□ ∏ ↔ 1-16mm²		

TSN4-40 Miniature Circuit Breaker

Application

TSN4-40 series MCB is high performance current limiting device with the ability to disconnect short circuits up to 4.5/6kA. Thermal trip unit is for normal overload protection and magnetic trip unit is for short circuit protection.

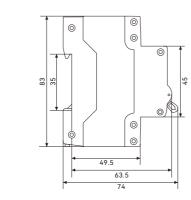
Specification

Number of Poles	1P+N
Rated Current	1A, 2A, 3A, 4A, 5A, 6A, 10A, 16
[Ue] Rated Operational Voltage	230V/240\
Trip Unit Technology	Thermal-mag
Curve Code	B, C, D
Standards	IEC/EN 6089
Breaking Capacity	lcn=lcs=4500/6
Energy Limiting Class I2t:	3 comforming to IEC/
[Ui] Rated Insulation Voltage	415V AC
[Uimp] Rated Impulse Withstand Voltage	4000V
Mechanical Durability	10000 cycl
Electrical Durability	4000 cycle
Tightening Torque	M4 2N.m
IP Degree of Protection	IP20 comforming to IEC 60529 IP40(modular enclosure) comfo
Ambient Air Temperature for Operation	-5~40°C
EU RoHS Directive	Compliant EU RoHS [
Pollution Degree	2 comforming to IEC/
Upper Wiring	
Lower Wiring	□

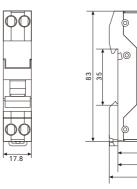
Dimensions

ЮÓ

000 + 17.8



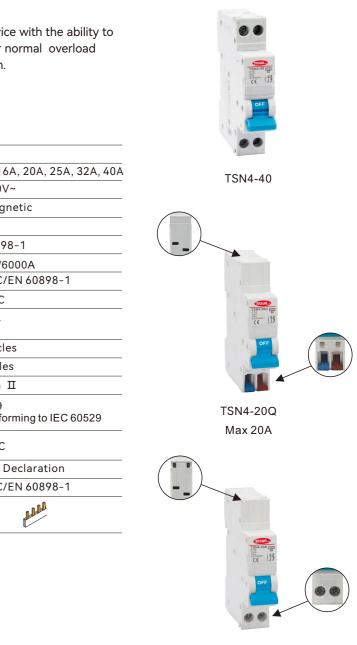
Dimensions



49.5

63.5





TSN4-40B





TSB4-125 Miniature Circuit Breaker



TSB4-125 1P



TSB4-125 2P



TSB4-125 3P

Application

TSB4-125 series MCB is suitable for AC 50/60Hz rated voltage 400V and below, rated current to 125A circuit for overload, short circuit protection, can also be used as a line infrequent operation conversion. it is suitable for commercial office buildings and residential houses. The products comply with IEC60898-1.

Specification

Characteristic Curve

Dimensions

l/In Type C

0

71.2

53.4 35.6

17.8

Number of Poles	1P, 2P, 3P, 4P
Rated Current	80A, 100A, 125A
Breaking Capacity	6000A
Rated Voltage	230V/400V~ 240V/415V~
Trip Unit Technology	Thermal-magnetic
Curve Code	C, D
[Uimp] Rated Impulse Withstand Voltage	4000V
Mechanical Durability	10000 cycles
Electrical Durability	6000 cycles
Tightening Torque	M7 3.5N.m ll
Endurance	≥20000
Circumstance Temperature	-5°C~+40°C
Protection Degree	IP20

0.00

TSB5-125 Miniature Circuit Breaker

Application

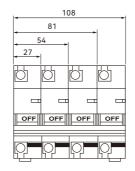
TSB5-125 series MCB is used for AC 50/60Hz single pole 240V, 2P/3P/4P 415V for overload and short circuit protection. It can be used in lighting and electric motor distribution system. Meantime, it is applicable to an unfrequent switch over the electric apparatus and lighting circuit under normal condition. The products comply with IEC60898-1 or IEC60947-2.

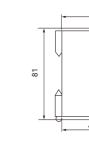
Specification

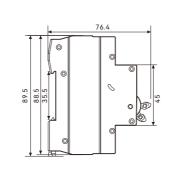
Number of Poles	1P, 2P, 3P, 4P
Rated Current	80A, 100A, 125
Breaking Capacity	6000A
Rated Voltage	240V/415V
Curve Code	C, D
Endurance	≥20000
Circumstance Temperature	-5°C~+40°C
Mechanical Durability	10000 cycles
Electrical Durability	6000 cycles
Protection Degree	IP20

Characteristic Curve

Dimensions







I/In Type D P 25A / C S S



TSB5-125 1P



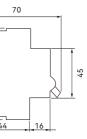
TSB5-125 2P

--- C type 5-10In -- D type 10-14In



TSB5-125 3P







TSL3-63 Residual Current Circuit Breaker

Application

TSL3-63 RCCBs incorporate the same housing and installation features as the MCBs. With a range that includes pulse current sensitive and super immune devices, there's a unit for every application.



TSL3-63 1P+N



TSL3-63 3P+N

Number of Poles	1P+N, 3P+N	
Rated Current	16A, 25A, 40A, 63A	
Rated Operational Voltage	230V/400V~, 240V/415V~	
Earth-leakage Sensitivity	30mA, 100mA, 300mA	
Trip Unit Technology	Electro-magnetic	
Network Type	AC ~/A 🖾	
Standards	IEC/EN 61008-1	
Rated Breaking Capacity(Icn)	Inc=I∆c=6000A	
[Ui] Rated Insulation Voltage	415V	
[Uimp] Rated Impulse Withstand Voltage	4000V	
Mechanical Durability	10000 cycles	
Electrical Durability	4000 cycles	
Tightening Torque	M5 2.5N.m II	
IP Degree of Protection	IP20 comforming to IEC 60529 IP40(modular enclosure) comforming to IEC 60529	
Ambient Air Temperature for Operation	-5~40°C	
EU RoHS Directive	Compliant EU RoHS Declaration	
Pollution Degree	2 comforming to IEC/EN 60898-1	
Upper Wiring		
Lower Wiring		

TSL3-100 Residual Current Circuit Breaker

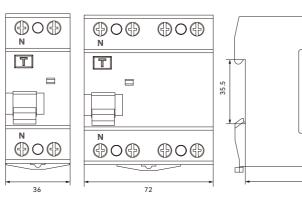
Application

TSL3-100 RCCBs incorporate the same housing and installation features as the MCBs. With a range that includes pulse current sensitive and super immune devices, there's a unit for every application.

Specification

Number of Poles	1P+N, 3P+N
Rated Current	80A,100A
Rated Operational Voltage	1P+N: 230/240V~, 3P+N:400/415V~
Earth-leakage Sensitivity	30mA,100mA,300mA
Type of Trip	Electro-magnetic
Network Type	AC ~/A 🖾
Standard	IEC/EN 61008-1
Rated Breaking Capacity	6000A
[Uimp] Rated Impulse Withstand Voltage	4000V
Electrical Durability	2000 Cycles
Mechanical Durability	4000 Cycles
Residual Current Off-time Under I $ riangle$ n	≤ 0.1s
Protection Degree	IP20
Ambient Air Temperature for Operation	-5~40°C
Terminal Connection Type	Cable/Pin-type busbar/Fork-type busbar
Max.Terminal Size for Cable	35mm²
Max.Tightening Torque	2.5N.m
Installation	Mounting on 35mm DIN rail

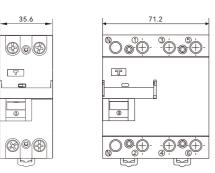
Dimensions

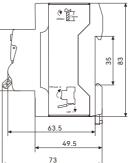




Dimensions

intertek





1	ĩ			
35	83			
	I			





TSL3-100 1P+N



TSL3-100 3P+N



....

TSN1-40L



Application

Designed for DIN rail distribution boards, the TSN1-40L range of RCBO provides maximum protection and continuity of service while minimizing service intervention time.

Specification

Number of Poles	1P+N
Rated Current	5A, 6A, 10A, 16A, 20A, 25A, 32A, 40A
Rated Operational Voltage	230V/240V~
Earth-leakage Sensitivity	10mA, 30mA, 100mA
Trip Unit Technology	Electronic
Earth-leakage Protection Class	AC ~/A 🖾
Standards	IEC/EN 61009-1
Rated Breaking Capacity(Icn)	6000A
[Ui] Rated Insulation Voltage	415V
[Uimp] Rated Impulse Withstand Voltage	4000V
Mechanical Durability	10000cycles
Electrical Durability	4000 cycles
Curve Code	B, C
Tightening Torque	M4 2N.m
Ambient Air Temperature for Operation	-5°C~40°C
Upper Wiring Lower Wiring	∏
	1

TSN3-32L Residual Current Operated Circuit Breaker (RCBO)

Application

Slim DIN mounted RCBO is available as single module devices to save valuable switchboard space.

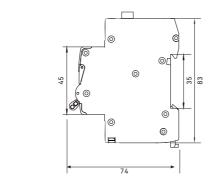
Specification

•						
Number of Poles	1P+N					
Rated Current	6A, 10A, 16A, 20A, 25A, 32A					
Rated Operational Voltage	230V/240V~					
Earth-leakage Sensitivity	10mA, 30mA, 100mA					
Trip Unit Technology	Electronic					
Network Type	AC ~/A 🖾					
Standards	IEC/EN 61009-1					
Breaking Capacity	lcn=lcs=6000A					
[Ui] Rated Insulation Voltage	415V AC					
[Uimp] Rated Impulse Withstand Voltage	4000V					
Mechanical Durability	10000 cycles					
Electrical Durability	4000 cycles					
Tightening Torque	M42N.m II					
IP Degree of Protection	IP20 comforming to IEC 60529 IP40(modular enclosure) comforming to IEC 60529					
Curve Code	B, C					
Ambient Air Temperature for Operation	-5~40°C					
EU RoHS Directive	Compliant EU RoHS Declaration					
Pollution Degree	2 comforming to IEC/EN 60898-1					
Upper Wiring						
Lower Wiring	UUU 1-16mm²					

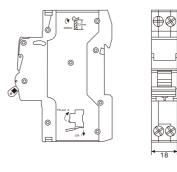
Dimensions

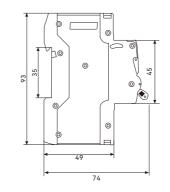
boo

0



Dimensions













TSN3-32L





TSN4-40L Residual Current Operated Circuit Breaker (RCBO)

Application

Designed for DIN rail distribution boards, the TSN4-40L range of RCBO provides maximum protection and continuity of service while minimizing service intervention time.



TSN4-40L

Number of Poles	1P+N
Rated Current	6A, 10A, 16A, 20A, 25A, 32A, 40A
Rated Operational Voltage	230V/240V~
Earth-leakage Sensitvity	10mA, 30mA, 100mA
Trip Unit Technology	Electro-magnetic
Network Type	
Standards	IEC/EN 61009-1
Rated Breaking Capacity(Icn)	6000A
Rated Residual Breaking and Making Capacity(I∆m)	500A
[Ui] Rated Insulation Voltage	400V
[Uimp] Rated Impulse Withstand Voltage	4000V
Mechanical Durability	10000 cycles
Electrical Durability	4000 cycles
Tightening Torque	M4 2N.m II
Curve Code	B, C
IP Degree of Protection	IP20 comforming to IEC 60529 IP40(modular enclosure) comforming to IEC 60529
Ambient Air Temperature for Operation	-5°C~40°C
EU RoHS Directive	Compliant EU RoHS Declaration
Pollution degree	2 comforming to IEC/EN 60898-1
Upper Wiring	
Lower Wiring	

TSN3-63L Residual Current Operated Circuit Breaker (RCBO)

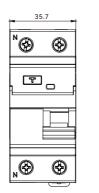
Application

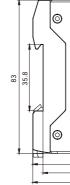
TSN3-63L RCBO is used in the single phase circuit of AC 50/60Hz, rated voltage 240V, as electron shock protection. It can protect circuit from overload and short circuit. This product has advantages of small volume and high breaking capacity. It cuts off the live wire and zero wire at the same time. It also protects person from electric shock when the live wire is connected opposite. The products comply with the standards of IEC61009.

Specification

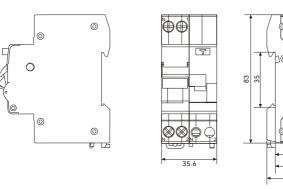
Number of Poles	1P+N
Rated Current	6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Earth-leakage Sensitivity	30mA, 100mA, 300mA
Trip Unit Technology	Electronic
Network Type	
Rated Voltage	230V~ 240V~
Residual Current Off-time	≤0.1s
Short Circuit Capacity (Icu)	4500A
Characteristic	B, C
Mechanical Durability	10000 cycles
Electrical Durability	3000 cycles
Protection Degree	IP20
Upper Wiring	
Lower Wiring	₽₽₽₽ 1-25mm²

Dimensions





Dimensions

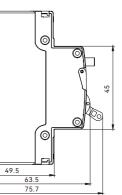


49.5

63 5



TSN3-63L





TIL1 Modular Indicator

Application

TIL1 modular indicator is applicable to the control system of a circuit with AC 50/60Hz rated voltage to 230V or DC voltage to 230V. It is used for indication signals, preset signals, accident signals or other indications in telecommunication, electrical, and other industries as well.



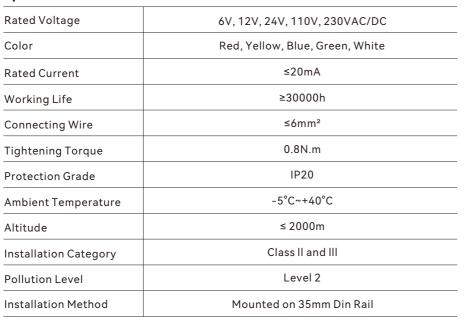
Specification

TII	1	1
111	_ -	- L

Ī	
	99
	Tosun
	TIL1-2
	E



TIL1-2



TPB1 Modular Pushbutton

Application

TPB1 modular pushbutton is applicable to the control system of a circuit with AC 50/60Hz rated voltage to 230V, such as to work with magnetic starter, contactor and other electrical circuit control. The button with light is also applicable to places where various light signals indication are required.

Specification

-	
Rated Voltage	230V AC
Color	Red, Green
Rated Current	6A
Mechanical Life (times)	250000
Electrical Life (times)	100000
Contact Combination Mode	TPB1-1: 2NO+2NC, 3NC
Contact Combination Mode	TPB1-2: 1NO+2NC, 2NC
Connecting Wire	≤6mm²
Tightening Torque	0.8N.m
Use Category	AC-14
Protection Grade	IP20
Rated Voltage of Indicator	6V, 12V, 24V, 110V, 23
Rated Working Current	≤20mA
Working Life	≥30000h
Ambient Temperature	-5°C~+40°C
Altitude	≤ 2000m
Installation Method	Mounted on 35mm

18

() @ @

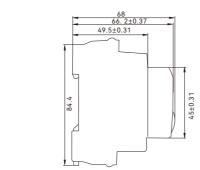
()

00 00 00 00

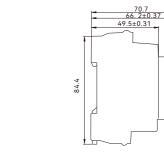
Dimensions

18

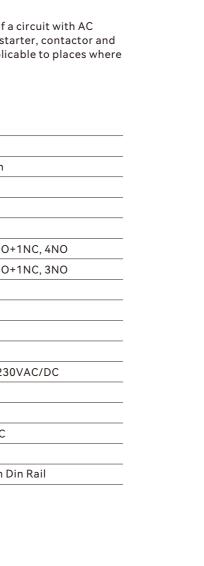
⊕ ⊕



Dimensions



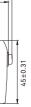








TPB1-2





Application

TSG3-125 Modular Main Switch

location when isolation of power is required in an emergency.

TSG3-125 1P



TSG3-125 2P

Number of Poles	1P, 2P, 3P, 4P
Utilisation Category	AC-22A
Rated Operational Current	32A, 40A, 63A, 80A, 100A, 125A
Rated Operational Voltage	230/400V~ 240/415V~
Standards	IEC/EN 60947-3
[Icm] Rated Short-circuit Making Capacity	5 kA switch-disconnector alone
[Icw] Rated Short-time Withstand Current	1500A
[Ui] Rated Insulation Voltage	250V AC
[Uimp] Rated Impulse Withstand Voltage	6000V
Mechanical Durability	8500 cycles
Electrical Durability	1500 cycles
Tightening Torque	М6 3.5N.m II
IP Degree of Protection	IP20 comforming to IEC 60529 IP40(modular enclosure) comforming to IEC 60529
Ambient Air Temperature for Operation	-5~40°C
EU RoHS Directive	Compliant EU RoHS Declaration
Pollution Degree	2 comforming to IEC/EN 60898-1
Upper Wiring Lower Wiring	∏ ∄ 🛱 1-50mm²

TSG3-125 modular main switch offers an extensive range of high quality main switches for

residential, commercial and industrial applications. The products incorporate superior quality internal mechanisms and come with a highly visible ON/OFF toggle, which allows for quick

TSBL Modular Alarm

Application

The electric bell issuitable for audible signaling for intermittent use only in domestic and commercial installations.

Specification

220-240\
Short-time V
Mounting on 35r
IEC 60947

Dimensions

Modular Socket



TMS-5



TMS-6

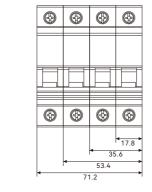


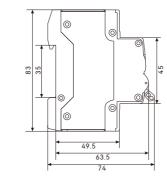
TMS-8



TSG3-125 3P

Dimensions







VAC

Working 5mm Din Rail 7-5-1



TSBL





TMS-7



TMS-9



Modular Digital Over & Under Voltage Protector



Application

TDP Modular Digital Over & Under Voltage Protector is self-healing phase failure & phase sequence protective relay and it's a newly developed household electrical equipment protector.

The protector can quickly disconnect the power supply to protect the appliances when there is power interruption or the voltage exceeds or falls below the predetermined value.

When the power supply recovers, the protector automatically connects the power after 1-2 minutes' delay.

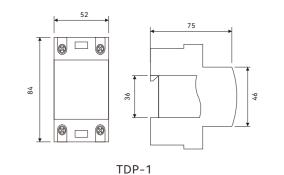
All the protective actions are automatically controlled. Indicators on the panel display the working condition of the protector.

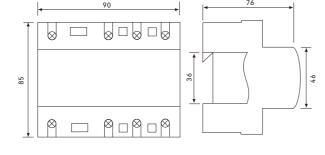
This product is convenient in use, reliable in quality and excellent in performance.

Specification

Model		TDP-1						TDP-3			
Number of Poles		1P						3P			
Rated Voltage		220VAC				380VAC					
Rated Current	20A	20A 32A 40A 50A 63A 80A				32A	40A	50A	63A	80A	
Loading Power (KVA)	4.4	6.6	8.8	11	13	17	20	25	30	40	52
Over-Voltage Cut-Off Value (VAC)	230-	230-270 adjustable (400V short time)					230-270 adjustable				
Time Delay		0.01s				0.01s					
Under-Voltage Cut-Off Value		120-210VAC adjustable				120-210VAC adjustable					
Time Delay		0.1s					0.1s				
Recovery Setting Time Range		10-600s					10-600s				
Self Power Consumption		≤3W ≤3W									
Ambient Temperature		-20°C~+40°C									

Dimensions





TDP-3

Modular Digital Voltage & Current Protector



TDP2-1

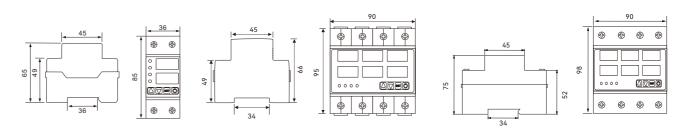
Application

TDP2 Voltage Protector, a new generation of home appliance protectors, is suitable for houses, hotels, buildings, school dormitories, etc, to protect the electrical safety of appliances and other loads, to prevent damage to the load caused by too high or too low mains power.

Specification

Model	TDP2-1	P2-3					
Rated Supply Voltage	AC 2	AC 380V					
Operation Voltage Range	AC 80V~400V(single phase)	AC140~700V(three phase)					
Electric Current(> A)setting Range	1~40/63A	1~40A/63A/80A/100A	1~40A/63A/80A/100A				
Overvoltage(>U)setting Range	230~	300V	390~500v				
Undervoltage(<u)setting range<="" td=""><td>210~</td><td>370~260V</td></u)setting>	210~	370~260V					
Rated Current	40/63A	40A/63A/80A/100A					
>U and <u delay<="" td="" trip=""><td colspan="7">0.1~30s</td></u>	0.1~30s						
Reset/start Delay	1 ~600s 1~500s						
Voltage Measurement Accuracy	2% (Not exceeding 2% of the overall range)						
Rated Insulation Voltage	40	700∨					
Output Contact	1NO	0					
Protection Degree		IP 20					
Pollution Degree		3					
Altitude	≤2000m						
Operatintg Temperature	– 50°C~55°C						
Humidity	≤50	% at 40°C(without condensat	ion)				
Storage Temperature		- 30°C~70°C					

Dimensions



TDP2-1

TDP2-3



TDP2-3

TSP2-3 80/100A



Modular Digital Voltage & Current Protector





TDP4-1

TDP4-3

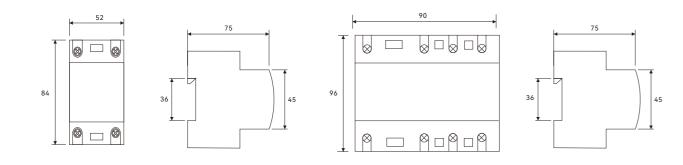
Application

TDP4 modular digital voltage and current protector can disconnect the circuit to protect the appliances automatically in case abnormal situation happens to power supply. When the power supply recovers, the protector switches on the circuit automatically after 1-2 minutes delay. Indicators on the panel show the working condition of the protector.

Specification

Model	TDP4-1	TDP4-3				
Rated Working Voltage	220V	380V				
Operation Voltage Range	AC80V-400V(Single Phase)	140-650V				
Rated Frequency	50/60	Ηz				
Rated Working Current	32A/40A/63	3A/80A				
Over-voltage Protection Value	AC230V-A	C300V				
Under-voltage Protection Value	AC120V-A	C210V				
Voltage Power Off Time	0.4s					
Overcurrent Protection Value	1-32A/1-40A/1-63A/1-80A					
Overcurrent Power Off Time	1-60s					
Recover time (Starting Delay Time)	10-999s.	10-999s/80s				
Own Power Consumption	≤1.5V	V				
Motor Mechanical Life	≥100,000	Times				
Relative Humidity	45-90%	45-90%RH				
Temperature	40°C					
Altitude	≤2000	M				

Dimensions



TSP8 Surge Protector

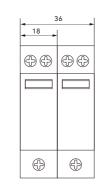


TSP8 1P+NPE

Specification

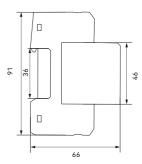
Туре		2P, 4P, 1P+NPE, 3P+NPE						
Nominal Discharge Current (8/20	μs)(In)	5kA		10kA		20kA		
Max. Discharge Current (8/20µs)	(lmax)	10kA 20kA)kA	40kA		
Max. Continuous Operating Volta	ige (a.c.) (Uc)	150V	280V	320V	320V 385V		255V(NPE)	
	TSP8-10	≪0.7kV	≪0.8kV	≤1.0kV	≤1.2kV	≤1.6kV	≤1.5kV	
Voltage Protection Level (Up)	TSP8-20	≪0.8kV	≤1.0kV	≤1.2kV	≤1.45kV	≤1.6kV	≤1.5kV	
	TSP8-40	≤1.0kV	≤1.3kV	≪1.4kV	≤1.8kV	≤2.2kV	≤1.5kV	
SPD According to EN61643-11		Type 2/Class II/T2						
Response Time (tA)				25ns / NP	E: 100ns			
Operating Temperature Range (T	ū)	-40°C~+80°C						
Operating State / Fault Indication	ı	2P, 4P: Green: normal Red: invalid						
Degree of Protection		IP20						

Dimensions





TSP8 4P





TSP7 Surge Protector











TSP7 3P





TSP7 1P+NPE

Specification

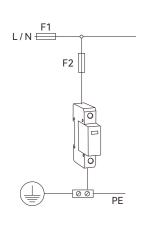
Туре		1P, 2P, 3P, 4P							
Nominal Discharge Current (8/20	μs)(ln)	5kA		10kA		20kA		30kA	
Max. Discharge Current (8/20µs)(10kA		20kA		40kA			60kA	
Max. Continuous Operating Volta	ige (a.c.) (Uc)	150V	28	0V	320V	385V 4		0V	600V
	TSP7-10	≪0.7kV	≪0.	8kV	≤1.0kV	≤1.2kV	≤1.	6kV	≤2.0kV
Voltage Protection Level (Up)	TSP7-20	≪0.8kV	′ ≤1.0		≤1.2kV	≪1.45kV	≤1.	6kV	≤2.0kV
	TSP7-40	≪1.0kV	≤1.0kV ≤1.3		≤1.4kV	≪1.8kV	≤2.	2kV	≤2.5kV
	TSP7-60	\leq 1.2kV	.2kV ≤1.		≤1.6kV	≪1.8kV	≤2.0kV		≤2.5kV
SPD According to EN61643-11		Type 2/Class II/T2							
Response Time (tA)		1P, 2P, 3P, 4P: 25ns							
Operating Temperature Range (T	ū)	-40°C~+80°C							
Operating State / Fault Indicatior	1P, 2P, 3P, 4P: Green: normal Red: invalid								
Degree of Protection		IP20							

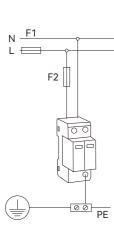
			1P+NPE,	3P+NPE			
5kA	5kA 10kA 20kA 30kA						30kA
10kA		20kA	20kA		40kA 60kA		
150V	280V	320V	385V		440V	600V	255V(NPE)
≪0.7kV	≪0.8kV	≤1.0kV	≤1.2kV		≤1.6kV	≤2.0kV	≪1.5kV
≪0.8kV	≤1.0kV	≤1.2kV	≤1.4	5kV	≤1.6kV	≤2.0kV	≤1.5kV
≤1.0kV	≤1.3kV	≤1.4kV	≤1.8	8kV	≤2.2kV	≤2.5kV	≤1.5kV
≤1.2kV	≤1.5kV	≤1.6kV	≤1.8	8kV	≤2.0kV	≤2.5kV	≤1.5kV
			Type 2/Cl	ass II/T2			
		1P+N	NPE, 3P+N	PE: 25/10)Ons		
			-40°C~	+80°C			

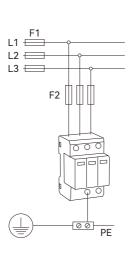
1P, 3P: Green: normal Red: invalid

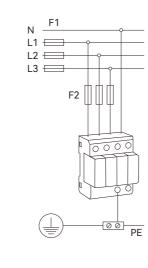
IP20

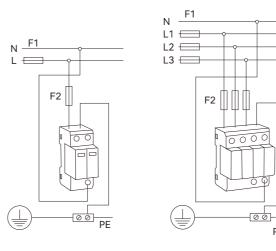
Standard Wiring











TSP7 1P

TSP7 2P

TSP7 3P

TSP7 4P

TSP7 1P+NPE

TSP7 3P+NPE

ΡE

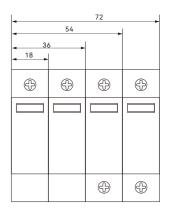
21

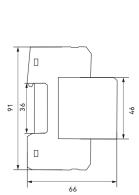




TSP7 3P+NPE

Dimensions







LCH8 Modular Contactor







LCH8-63 4P





.

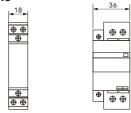
0 A

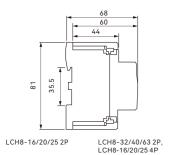
LCH8M-63 3P

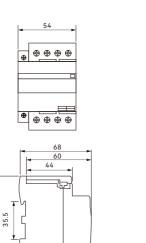
Specification

Model	Ratir	ıg(ln)	Control Voltage	Contact	Width in 9mm modules	Туре
Model	AC-1	AC-3	control voltage	Contact	width in finn modules	Type
	16A	6A				
	20A	7A			2	
	25A	9A				
LCH8 2P	32A	12A	_	2NO		A1R1R3 A1R1 1 A113
	40A	18A		1NO+1NC	4	│
	63A	25A		2NC		A2 R2 R4 A2 R2 2 A2 2 4
	80A	32A				
	100A	40A	24VAC		6	
	125A	50A	110VAC			
	16A	6A	230VAC			
	20A	7A	230VAC		4	A1 1 3 5 A1 R1 R3 R5
LCH8 3P	25A	9A	50/60Hz	3NO		
LCH0 SF	32A	12A		3NC Ţ))	$\begin{pmatrix} \uparrow \\ A2 & 2 & 4 & 6 & A2 & R2 & R4 & R6 \end{pmatrix}$	
	40A	18A			6	AZZ46 AZKZK4K6
	63A	25A				
	16A	6A	_			
	20A	7A	-		4	A1 1 3 5 7 A1 R1 R3 R5 R7
	25A	9A	-	4NO		
LCH8 4P	32A	12A	-	4NC		A2 2 4 6 8 A2 R2 R4 R6 R8
	40A	18A	-	2NO+2NC	6	
	63A	25A	-	3NO+1NC		A1R113R3 A1135R1
	80A	32A	1			
	100A	40A	-		12	A2 R2 2 4 R4 A2 2 4 6 R2
	125A	50A				

Dimensions

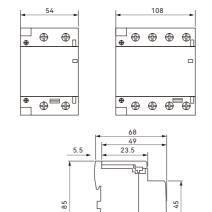






LCH8-32/40/63 4P

85



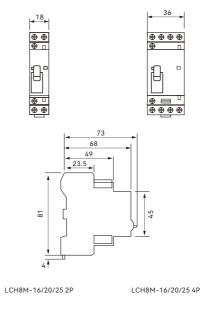
LCH8-100 4P

LCH8-100 2P



Madal	Ratir	ig(In)	Control Voltage	Contoct	Width in 9mm modules	es Type		
Model	AC-1	AC-3	Control voltage	Contact	width in 9mm modules			
	16A	6A				A1 1 3	A1 1R1	
	20A	7A		2010	2		auto ○─┘╋┪┥┝	
	25A	9A		2NO 1NO+1NC		○· — ┘ │ │ │ A2 2 4	○. — J A2 2R2	
LCH8M-2P	32A	12A		2NC			A1 R1 R3	
	40A	18A		2110	4	auto	₽7-7 -	
	63A	25A				0: I I I I A2 R2R4		
	16A	6A	24VAC					
	20A	7A	110VAC	3NO 3NC	4	A1 1 3 5	A1 R1 R3 R5	
LCH8M-3P	25A	9A					auto'፵ᢩᡝᢩᠲᢆᠯ᠆ᢜ᠆ᢜ	
LCHOM-3P	32A	12A	230VAC			○ — J A2 2 4 6	0. — J A2 R2 R4 R6	
	40A	18A	50/60Hz		6			
	63A	25A	30/00112					
	16A	6A				A1 1 3 5 7	A1 R1 R3 R5 R7	
	20A	7A		4NO	4	auto O.	auto 	
	25A	9A		4NC		A2 2 4 6 8	A2 R2 R4 R6 R8	
LCH8M-4P	32A	12A		2NO+2NC				
	40A	18A		3NO+1NC	6	auto = + + + + + + + + + + + + + + + + + +	auto – – – – – – – – – – – – – – – – – – –	
	63A	25A				0. — J I I I I I A2 R2 2 4 R4	0 J	

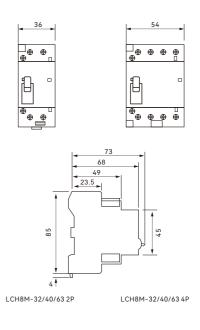
Dimensions







LCH8M-63 4P





Specification

LCH9 AC/DC Modular Contactor

0 . (

LCH9-63 2P



LCH9-63 4P

AUC20

opeenieau	••••				
Model	Rating(In)	Control Voltage	Contact	Width in 9mm modules	Туре
LCH9 2P	16A				
	20A		2NO 1NO+1NC 2NC	2	
	25A				A1 R1 1
	32A				A2 R2 2
	40A	12VAC/DC			$ \begin{array}{c} A1 \\ - \\ - \\ A2 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ $
	63A	24VAC/DC		4	AZZ4
	16A	48VAC/DC 110VAC/DC			
	20A	230VAC/DC			 A2 2 4 6 8 A1 R1 R3 R5 R7
	25A		4NO 4NC	4	A2 R2 R4 R6 R8
LCH9 4P	32A		2NO+2NC 3NO+1NC		
	40A			,	A1 1 3 5 R1
	63A			6	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $

Auxiliary

		AC	-12	AC	-15	DC	-13	
Model	Used for Contactor	Control Voltage	Control Current	Control Voltage	Control Current	Control Voltage	Control Current	Туре
AUC11	LCH8		5A	230V		-	_	
AUC20		2/01/			2A			1 2 4
AC1-11		240V	JA			130V	1A	R1
AC1-20	LCH9					1300	IA	1 2 4

BIR Impulse Relay

Application

- Closing of the impulse relay pole(s) is triggered by an impulse on the coil.
- Having two stable mechanical positions, the pole(s) will be opened by the next impulse. Each impulse received by the coil reverses the position of the pole(s).
- Can be controlled by an unlimited number of pushbuttons.
- Zero energy consumption.

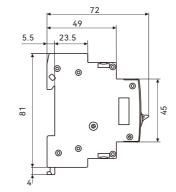
Specification

•		
Model	Rated Current (A)	Wiring Diagram
BIR-16/20		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
BIR-16/11	14	
BIR-16/1C	16	
BIR-16/10		

Technical data

Dissipated Power	1P,2P: 19VA(during the impulse)
Illuminated PB Control	Max. current 3 mA (if > use an ATLz)
OperatingThreshold	Min.85% of Un
Duration of The Control Order	50 ms to 1 s (200 ms recommended)
ResponseTime	50 ms
Rated Voltage	24~250VAC
Maximum Operations	5times/m
Maximum Switching Operation	100times/d
Insulation Voltage (Ui)	440V AC
Rated Impulse Withstand Voltage (Uimp)	6kV
	200,000 cycles (AC21)
ElectricalLife	100,000 cycles (AC22)
Overvoltage Category	IV

Dimensions



25



Control Voltage

24VAC 12VDC

48VAC 24VDC

130VAC 48VDC

230VAC 110VDC

1	₿
0	٢
6	0
胢	Ħ(
þ	₽
b	٢
٩	رم

BIR-16/10



Co Ko K.

TSM4-125L

0

TSM4 Moulded Case Circuit Breaker

Application

TSM4 series moulded case circuit breaker is applied for circuit of rated insulating voltage up to 1000V, rated operation voltage up to 400V, rated operation current up to 800A, AC 50/60Hz, for usage of infrequent transfer of the circuit and infrequent starting of the motor as well.

The breakers protect the circuit and devices in the circuit against being damaged by means of overload proection, short circuit protection and under voltage protection. The products comply with IEC60947-2.

Specification

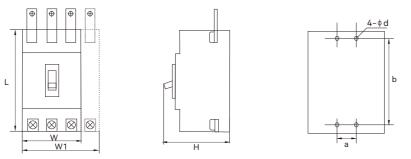
Model	Туре	Pole	Rated Current (A)	lcs (kA)	lcu (kA)	Arc Distance
TSM4-63	L	3, 4	10,16,20,25,32,40,50,63	15	18	≤50
	М	5, 4	10,10,20,23,32,40,30,03	18	20	250
TSM4-125	L	2,3,4	16,20,32,40,50,	18	25	≤50
	М	2,0,4	63,80,100,125	22	30	⊃0
TSM4-250	L	2,3,4	100,125,140,160,180,	20	25	≤50
1314-250	М	2,3,4	200,225,250	25	35	
TSM4-400	L	3, 4	200,225,250,315,350,400	25	35	- ≤100
13114 400	М	5, 4	200,223,230,313,330,400	35	50	
TSM4-630	L	3, 4	400,500,630	30	40	≤100
1314-030	М	3, 4	400,300,030	35	50	_100
TSM4-800	М	3, 4	630,700,800	35	50	≤100



TSM4-250L

Dimensions

Model	Туре	L	W	W1	Н	а	b	4- \$ d
TSM4-63	L	136	75	103	90.5	25	117	3.5
1314-03	М	150	75	105	98.5	25		
TSM4-125	L	150	93	122	96	30	129	4.5
1514-125	М	150	73	122	104	30	127	4.5
TSM4-250	L	165	107	142	110	35	126	4.5
1314-250	М	105	107	142	127	35		4.5
TSM4-400	L,M	257	150	198	151.5	44	194	7
TSM4-630	L,M	270	182	238	155	58	200	7
TSM4-800	М	280	210	280	155	70	243	7



TSM4E Electronic Type Moulded Case Circuit Breaker

Application

TSM4E series electronic type moulded case circuit breaker is applied for circuit of rated insulating voltage up to 1000V, rated operation voltage up to 400V, rated operation current up to 800A, AC 50/60Hz, for usage of infrequent transfer of the circuit and infrequent starting of the motor as well.

The breakers protect the circuit and devices in the circuit against being damaged by means of inverse time long time delay overload proection, inverse time short time delay short circuit protection, short time delay short circuit protection, short circuit protection and under voltage protection.

The products comply with IEC60947-2.

Feature

- Five options of tripping characteristic are available, user can adjust the current according to the required loading;
- The electronic tripper is energized by the circuit breaker itself.
- Alarm indication: when loaded current is bigger than the preset current, the LED indicator on the front panel indicates yellow color immediately.
- Overload indication: when loaded current is bigger than the rectified current, the LED indicator on the front panel indicates red color immediately.

Specification

Model	Туре	Pole	Rated Current (A)	lcs (kA)	lcu (kA)	Arc Distance
TSM4E-125	L	3	16,20,25,32, 26 40 45 50 55 40	18	25	≤50
13M4E-125	М		36,40,45,50,55,60, 65,70,75,80,85,90,95,125	22	30	<u></u>
TSM4E-250	L	3	100,125,140,	20	25	≤50
13142-230	М	5	160,180,200,225,250	25	35	
TSM4E-400	М	3	200,225, 250, 280,315,350,400	35	50	≤100
TSM4E-630	М	3	400,420,440,460, 500,530,560,600,630	35	50	≤100
TSM4E-800	М	3	630, 640,660,680, 700,720,740,760,780,800	35	50	≤100





TSM4E-125L



TSM4E-250M





TSM4L-125

TSM4L Residual Current Operated Moulded Case Circuit Breaker

Application

TSM4L residual current operated moulded case circuit breaker is applied for circuit of rated insulating voltage up to 1000V, rated operation voltage up to 400V, rated operati on current up to 800A, AC 50/60Hz, for usage of infrequent transfer of the circuit and inf requent starting of the motor as well.

The breakers protect the circuit and devices in the circuit against being damaged by me ans of overload proection, short circuit protection, under voltage protection and residual current proection.

The products comply with IEC60947-2.

Feature

- The product can work normally when phase failure happens to one of phases.
- The product can work normally even when the voltage is reduced to 85V.
- $\bullet\,$ User can adjust the rated residual operation current IDn and the maximum tripping duration according to the detailed situation.
- Output signal of alarm against residual current is available.

Specification

Tosun	СВ	1	Ð
TSM4L-250	Marian Maria		1
Margana auro Margana auro R K (260			r
and the last	Mail O T		4
	CE.		I.

TSM4L-250

Model TSM4L-125 TSM4L-250 TSM4L-400 TSM4L-800 Туре L М М Μ L Μ 4 4 4 4 Pole 16,20,25, 100,125, 200,225,250, 400,500, Rated Current (A) 32,40,50, 140,160,180, 315,350,400 630,700,800 200,225,250 63,80,100,125 20 25 lcs (kA) 18 22 35 35 lcu (kA) 30 25 35 50 25 50 ≤50 ≤100 Arc Distance ≤50 ≤100 Rated Residual Action 100,300,500 (optional) Current I∆n (mA)

TSM8 Moulded Case Circuit Breaker

Application

 $\mathsf{TSM8}\ \mathsf{series}\ \mathsf{moulded}\ \mathsf{case}\ \mathsf{circuit}\ \mathsf{breaker}\ \mathsf{is}\ \mathsf{applied}\ \mathsf{for}\ \mathsf{circuit}\ \mathsf{of}\ \mathsf{rated}\ \mathsf{insulating}\ \mathsf{voltage}$ up to 800V, rated operation voltage up to 690V, rated operation current up to 1600A, AC 50/60Hz, for usage of infrequent transfer of the circuit and infrequent starting of the motor as well.

Model of TSM8-100, TSM8-160, TSM8-250, TSM8-400 and TSM8-630 protect the circuit and devices in the circuit against being damaged by means of overload proection, short circuit protection and under voltage protection. Model with bigger current (bigger than 630A) protect the circuit and devices in the circuit against being damaged by means of inverse time long time delay overload proection, inverse time short time delay short circuit proection, short time delay short circuit protection, short circuit protection and under voltage protection.

The products comply with IEC60947-2.

Specification

Model	Туре	Pole	Rated Current (A)	lcs (kA)	lcu (kA)
	F			36	36
TSM8-100	N	3, 4	16,20,25,32,40,50,63,80,100	50	50
	Н			70	70
	F			36	36
TSM8-160	N	3, 4	63,80,100,125,160	50	50
	Н			70	70
TSM8-250	F			36	36
	N	3, 4	100,125,160,200,250	50	50
	Н			70	70
TSM8-400	F			36	36
	N	3, 4	160-400	50	50
	Н			70	70
	F		250-630	36	36
TSM8-630	N	3, 4		50	50
	Н			70	70
	F		320-800	36	36
TSM8-800	N	3, 4		50	50
	Н			70	70
	F			36	36
TSM8-1000	N	3, 4	400-1000	50	50
	Н			70	70
	F			36	36
TSM8-1250	N	3, 4	500-1250	50	50
	Н			70	70
	F			36	36
TSM8-1600	N	3, 4	640-1600	50	50
	Н			70	70



TSM8-250F



TSM8-630F





TSW8 Intelligent Circuit Breaker





TSW8-2000

TSW8-1600

1600

3,4

Specification

Number of Poles

Frame Rated Current Inm (A)

Model

Application

TSW8 series intelligent circuit breaker is suitable for the circuit of AC 50/60Hz with rated voltage 400V, 690V and rated current up to 6300A. It is mainly used for distribution electric energy as well as protecting circuit and power supply equipment from overload, under-voltage, short-circuit and single phase earthing. With intelligent and selective protection functions, the breaker can improve the reliability of power supply, and avoid unnecessary power failure. The breaker is applied to power stations, factories, mines (for 690V) and modern high-building, especially to the distribution system of intelligent building. The breakers comply to IEC60947-2.

TSW8-4000

4000

3,4

TSW8-6300

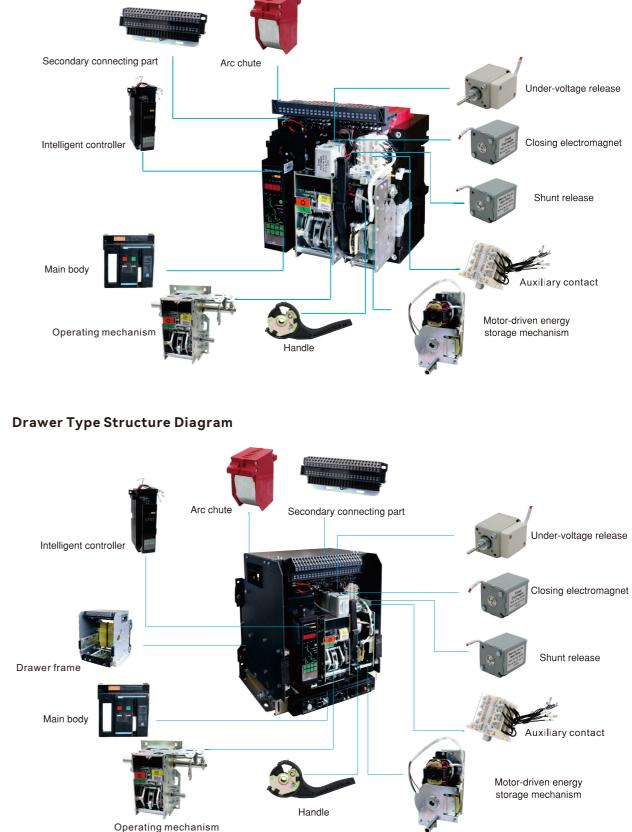
6300

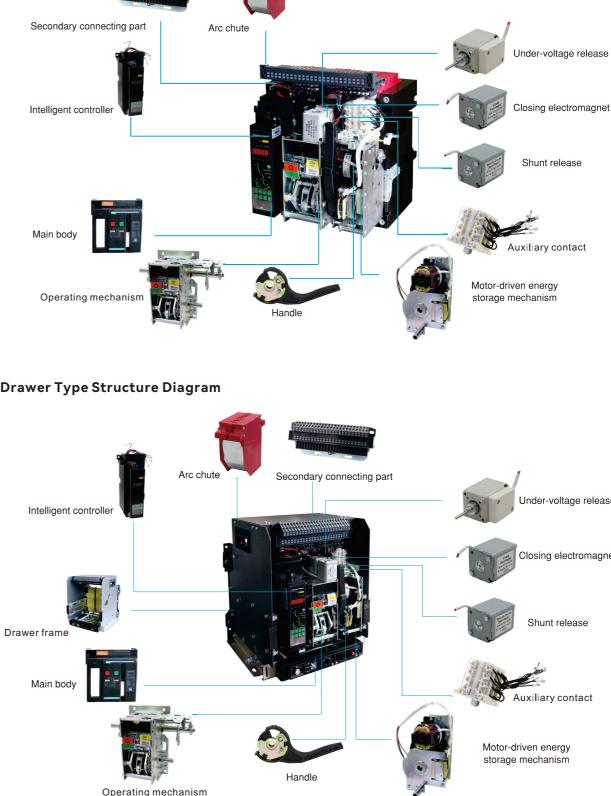
3,4

TSW8-3200

3200

3,4





Rated Current I	n (A)	400,630, 800,1000, 1250,1600	630,800, 1000,1250, 1600,2000	2000,2500, 2900,3200	3600,4000	4000,5000 6300	
lcu (kA)	400V	65 80		100	100	120	
	690V	50	50	65	65	65	
lcs (kA)	400V	55	65	80	80	100	
	690V	50	50	65	65	65	
Rated Current at N-pole In (A)		100% In	100% In	100% In	50% In	50% In	
Inherent Making & Breaking Time			1	≪30ms			
Electrical Life (times)		6000	5000	3000	2000	1500	
Mechanical Life (times)		15000 10000 8000 5000		5000	2000		
Mounting Mode	9	Fixed type or Withdrawable type					
Arcing Distance	e (mm)			0			
Intelligent Cont	roller	Standard type (M) telecommunication type (H)					

TSW8-2000

2000

3,4

31



MP Motor Protection Circuit Breaker

Application



MP1



MP2



MP2-MC02



MP series motor protection circuit breakers are mainly used for the overload and short
circuit protection of the motor in AC 50/60Hz, up to 660V, 0.1-80A power circuit, as a
full-voltage starter to start and cut off the motor, under the AC3 load or for the overload
and short circuit protection of the circuit and power equipment in the power distribution
network.

Specification

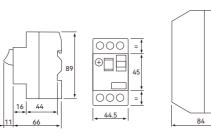
Model		Standard F rs 50/60Hz i			Setting Magnetic		
	230V	400V	415V	440V	Range (A)	Current (A)	
MP1 MP2	KW	KW	KW	KW		(~)	
M01	-	-	-	-	0.1-0.16	1.5	
M02	-	-	-	-	0.16-0.25	2.4	
M03	-	-	-	-	0.25-0.4	5	
M04	-	-	-	-	0.4-0.63	8	
M05	-	-	-	0.37	0.63-1	13	
M06	-	0.37	-	0.55	1-1.6	22.5	
M07	0.37	0.75	0.75	1.1	1.6-2.5	33.5	
M08	0.75	1.5	1.5	1.5	2.5-4	51	
M10	1.1	2.2	2.2	3	4-6.3	78	
M14	2.2	4	4	4	6-10	138	
M16	3	5.5	5.5	7.5	9-14	170	
M20	4	7.5	9	9	13-18	223	
M21	5.5	11	11	11	17-23	327	
M22	5.5	11	11	11	20-25	327	
M32	7.5	15	15	15	24-32	416	

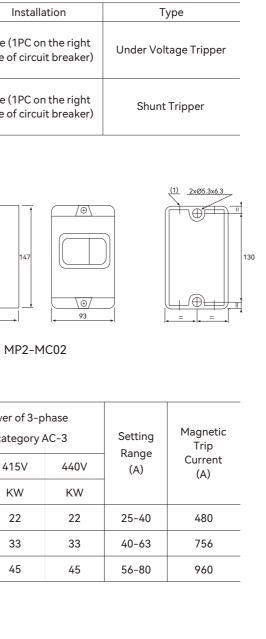
Model	Contact Type	Installation	Туре	
AE11	N/O+N/C	Front (1PC for each		
AE20	N/O+N/O	circuit breaker)	Instantaneous auxiliary	
AN11	N/O+N/C	Side (Max. 2PCS on the	contact	
AN20	N/O+N/O	left side of circuit breaker)		
AD1010	N/O+N/O			
AD1001	(Fault)+N/C	Side (1PC on the left side	Fault signal contact +	
AD0110	N/C+N/O	of circuit breaker)	instantaneous auxiliary contact	
AD0101	(Fault)+N/C			

Specification

	Installation	Voltage	Model
		110127V 50Hz	AU115
Un	Side (1PC on the right side of circuit breaker)	220240V 50Hz	AU225
	side of circuit breakery	380415V 50Hz	AU385
		110127V 50Hz	AS115
	Side (1PC on the right side of circuit breaker)	220240 50Hz	AS225
		380415V 50Hz	AS385

Dimensions



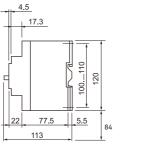


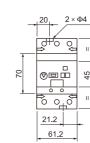
MP2

Specification

Model	Rated Standard Power of 3-phase Motors 50/60Hz in category AC-3					
	230V	400V	415V	440V	Ra	
	KW	KW	KW	KW		
MP3-M40	11	18.5	22	22	2	
MP3-M63	15	30	33	33	4(
MP3-M80	22	40	45	45	50	

Dimensions





MP3



AU

AS





MP3



TSMQ1-100 Double Power Automatic Changeover Switch





TSMQ1-100 2P

TSMQ1-100 4P

Application

TSMQ1-100 modular double power automatic changeover switch is used to provide the power supply for circuit constantly when the main power supply is not available suddenly. The switch is suitable in power supply system with 50/60Hz, rated voltage up to 415V and rated up to 100A.

When the product works under automatic mode, the switch converses the circuit from the main power supply (I) to standby power supply (I) automatically in case the main supply power is off (or phase failure). When the main power supply (I) resumes to be available, the switch converses the circuit back to main power supply (I) from standby power supply (II) automatically.

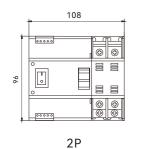
When the product works under manual mode, the changeover of circuit between main power supply (I) and standby power supply (II) should be realized manually.

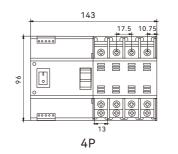
The switch is characteristic of small in volume, prompt in reaction, reliable in conversion, convenient in installation and long life in service.

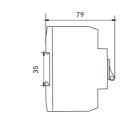
Specification

Number of Poles	2P, 4P	
Rated Current	20A, 32A, 40A, 50A, 63A, 80A, 100A	
Usage Category	AC-33iB	
Rated Working Voltage (Ue)	2P 230/240V/50Hz; 4P 400/415V/50Hz	
Rated Insulation Voltage (Ui)	AC690V/50Hz	
Rated Impulse Withstand Voltage	8kV	
Rated limiting Short Circuit Current	50kA	
Mechanical life	5000 times	
Electrical life	2000 times	
Classification	PC class: can be manufactured and withstood without short circuit current	
Control Circuit	Rated control voltage Us: AC220V, 50Hz Narmal working conditions: 85%Us-110%Us	
Auxiliary	Contact capacity of contact : AC220V 50Hz le=5y	
Operation Conversion Time		
Return Conversion Time	<30ms	
Power off Time		

Dimensions







TSMQ6 Double Power Automatic Changeover Switch



TSMQ6-63/2P

Application

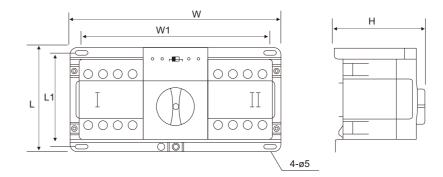
TSMQ6 Double power automatic changeover switch is suitable in terminal type double-circuit power supply system with 50/60Hz, rated working voltage 220V(2P), 380V(3P, 4P), rated current 10A~63A. Automatic switching between common power supply and standby power supply can be completed to prove the reliability of power supply. The item are widely used in high-rise buildings, shopping malls, fire pumps, smoke elimination fans, elevators, life pumps, emergency lighting etc.

Specification

Number of Poles	2P, 3P, 4P
Rated Current	10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Rated Working Voltage	2P: 220V; 3P, 4P: 380V
Rated Insulation Voltage	690V
Frequency	50/60Hz
Breaking Capacity	6КА
Ambient Temperature	-5°C~+40°C
Protection Degree	IP30
Protection	Overload/Short circuit

Dimensions

Model	W	W1	L	L1	н
TSMQ6-63/2P	186	158	125	114	111
TSMQ6-63/3P	222	194	125	114	111
TSMQ6-63/4P	258	230	125	114	111





TSMQ6-63/4P



TSMQ2 Intelligent Double Power Changeover Switch



TSMQ2-225

Application

TSMQ2 intelligent double power changeover switch is suitable for electrical system with AC 50/60Hz, rated working voltage up to 400V, rated working current 100A-1250A. The items are widely used in varieties of residence community, military installations, hospital, shopping mall, airports etc.

The product consists of microcomputer controller and switching changeover device which includes the function: auto control switch, manual control switch, common switching on indicator, emergency switching on indicator, mechanical and electrical dual interlocking and so on. There are three state positions for the users to choose: common power (N) switching on, double off and emergency power (R) switching on.

HGLD Double Power Automatic Changeover Switch



HGLD-400A 4P

Application

HGLD series Double power automatic changeover switch is suitable in electrical system with AC 50/60Hz, rated insulation voltage up to 1000V, rated voltage up to 440V, conventional heat current up to 3200A. The items are widely used in varieties of hospital, building, bank, airport, coal mine, telecom, freeway, military installations etc.

Specification

Model	Applicable Circuit Breaker	Rated Working Current (A)	Conversion Action Time (s)	Utilization Category	Mechanical Life (times)	Electrical Life (times)	Rated Short-circuit Impulse Withstand Voltage (Uimp)	Rated Short-circuit Breaking Capacity Icu (kA)
TSMQ2-100		100	≤5		5000	1000		10
TSMQ2-225	-	100,125,160, 200,225	≤5		5000	1000		10
TSMQ2-400	TSM2	225,250,315, 350,400	≪6	AC-33iB	3000	1000	8KV	10
TSMQ2-630	series	400,500,630	≪6	AC-33IB	2500	500	OKV	12.6
TSMQ2-800		630,700,800	≪6		2500	500		16
TSMQ2-1250		800,1000, 1250	≪6		2500	500		25

Specification

Rated heating cur	rent (A)	100	160	250	400	630	1000	1250	1600	2000	2500	3200
Rated insulation v	750V					1000V						
Rated impulse wit			8KV					12	KV			
	AC-31A	100	160	250	400	630	1000	1250	1600	2000	2500	3200
Rated working current (A)	AC-35A	100	160	250	400	630	1000	1250	1600	2000	2500	3200
	AC-33A	100	160	250	400	630	1000	1250	1600	2000	2500	3200
Rated short-term	withstand current	7KA	91	٢A	13	KA		50KA		55KA		
Rated limited sho	rt circuit current		100KA		70	KA	100KA	120)KA		80KA	
Control power supply voltage					D	0C24V, 4	8V, 110V	, AC220	V			
Conversion time (S)	0.5	1	1.1	1.	2		1.25			2.45	



HGLZ Double Power Automatic Changeover Switch

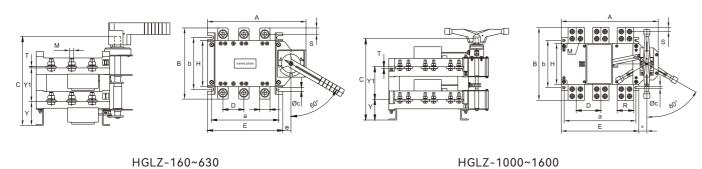




HGLZ-160~1600 Overall Mounting Dimension

Madal		0	erall D	imensi	on		Mo	unting	Dimens	sion		Termir	nal Dim	ension	
Model	А	В	С	D	Е	Н	а	b	Φc	е	R	S	Т	Y1	М
HGLZ-160/3	195	135	196	36	140	85	120	65	5.5	20	20	10	25	72	8
HGLZ-160/4	225	135	196	36	170	85	150	65	5.5	20	20	10	3.5	12	6
HGLZ-250/3	235	170	215	50	180	110	160	90	5.5	20	25	4.5	<u>а г</u>	0.0	4
HGLZ-250/4	285	170	215	50	230	110	210	90	5.5	20	25	15	3.5	82	1
HGLZ-400/3	300	240	278	65	230	160	210	140	7	35		47	-		
HGLZ-400/4	360	240	278	65	290	160	270	140	7	35	32	17	5	114	1
HGLZ-630/3	300	260	278	65	230	160	210	140	7	35			,		
HGLZ-630/4	360	260	278	65	290	160	270	140	7	35	40	20	6	114	1
HGLZ-1000/3	473	312	380	120	378	200	353	230	9	40			_	454	
HGLZ-1000/4	593	312	380	120	498	200	473	230	9	40	60	20	8	156	1
HGLZ-1250/3	473	356	380	120	378	200	353	230	9	40			_	454	
HGLZ-1250/4	593	356	380	120	498	200	473	230	9	40	80	20	8	156	1
HGLZ-1600/3	473	356	380	120	378	200	353	230	9	40			10	457	
HGLZ-1600/4	593	356	380	120	498	200	473	230	9	40	80	20	10	156	1

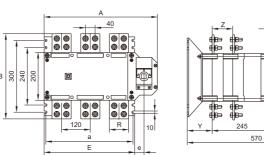
Note: The hole size of wiring board is corresponding to HGLZ.



HGLZ-1000~1600

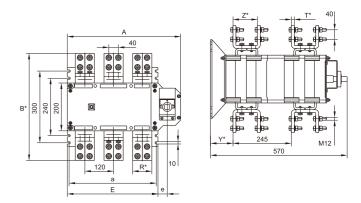
HGLZ-2000~3200 Overall Mounting Dimension

Model		Overall Mount	ting Dime	ension	Mounting Dimension					
Model	Α	B/B*	E	а	e	R/R*	T/T*	Y/Y*	Z/Z*	
HGLZ-2000/3	473	356/502	378	350	40	00/00	0/10	00/05	00/115	
HGLZ-2000/4	593	356/502	498	470	40	80/80	8/10	98/85	88/115	
HGLZ-2500/3	473	356/502	378	350	40	00/00	0/10	00/05	00/115	
HGLZ-2500/4	593	356/502	498	470	40	80/80	8/12	98/85	88/115	
HGLZ-3200/3	473	356/502	378	350	40	00/100	10/15	00/02	00/100	
HGLZ-3200/4	593	356/502	498	470	40	80/100	10/15	99/83	88/120	





Note: "*" is the size for products with connecting copper.



HGLZ-2000~3200 with connecting copper



HGL Isolating Switch



Application

The products are suitable for making and breaking power turn-circuit of voltage 415V, frequency 50/60Hz, rated current up to 1600A, acting as power switch, isolating switch and emergency switch. Because of special system of arc-contact and main-contact, HGL operates with high efficiency, safety and reliability, complying with IEC60947-3.Rotational operation and direct mechanical connection between handle and moving contact, on-off handle makes contact break and indicating place of contact. Panel and independent type installation are fitted with HGL.

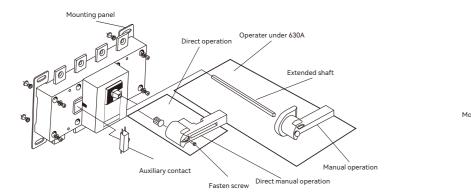
Specification

opeenicatio												
Conventional He	eat Current Ith((A)	160	250	400	630	1000	1250	1600	2500	3200	
Rated Insulation	Voltage Ui		80)0V	1000V							
Dielectric Streng	gth		30	3000V 3500V								
Rated Impulse Withstand Voltage			8	8kA 12kA								
Rated Working	/oltage			AC400-660V								
Rated Frequenc	у						50Hz					
Utilization categ	Jory		AC-21, 22, 23									
		AC-21	160	250	400	630	1000	1250	1600	2500	3200	
Rated Working Current le (A)	AC400V	AC-22	160	250	400	630	1000	1250	1600	2500	3200	
Current le (A)		AC-23	160	250	400	630	800	1000	1250	2000	2500	
Rated Making Ca	apacity (A Rms	;)		1	1		10le					
Rated Breaking	Capacity (A Rm	ns)					8le					
Rated Short-circuit	Making Capacity	Icm (kA Rms)	12	17	30	40		70		10	00	
1S Short-time W	/ithstand Curre	ent (A Rms)	10	12	20	25		50		70		
Mechanical Life	(times)		50	00	30	00		2000		10	00	
Electric Life (tim	es)		1000 600 300 /						/			

Panel type installa

ndependent Type Installatio

Configuration



HR17 Fuse Switch Disconnector



HR17-160 3P

Application

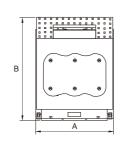
HR17 Fuse switch disconnector is applied to the high short circuit current circuit with AC 50/60Hz, voltage up to 690V and rated working current up to 630A. It processes upper and lower end input and output structure, leads in equipment with knife-edge and arc extinguishing equipment, it also can be operated with load. It is used as power switch, isolating switch and emergency switch for overload protection and short circuit protection.

Specification

Model	Rated Working Current le	Rated Short Circuit Connecting Capacity Icm	Rated Limit Short Circuit Current Inc	Rated Insulated Voltage Ui	Use Type	Number of Poles	Matched Fuse Link
HR17-160	160A	1600A					NT00
HR17-250	250A	2500A					NT1
HR17-400	400A	4000A	50kA	690V	AC-22B	3,4	NT2
HR17-630	630A	6300A					NT3

Dimension

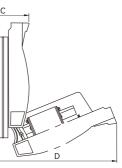
Model	Assorted Fuse	A	В	С	D	а	b	φc
HR17-160 3P	NT00	106	200	83	205	66	25	φ7
HR17-250 3P	NT1	185	247	110	295	114	50	ф 11
HR17-400 3P	NT2	210	290	125	340	130	50	¢ 11
HR17-630 3P	NT3	256	300	145	360	162	50	ф 11
HR17-160 4P	NT00	138	200	83	205	100	25	φ7
HR17-250 4P	NT1	242	247	110	295	172	50	¢ 11
HR17-400 4P	NT2	276	290	125	340	195	50	ф 11
HR17-630 4P	NT3	340	300	145	360	243	50	¢ 11







HR17-250 3P





Bar Fuse Switch Disconnector







BFD2-250 (400/630/800)



Application

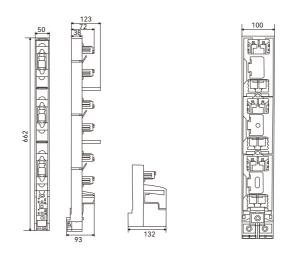
BFD1 BFD2 BFD3 series fuse switch disconnector is integrated with initiating current transformer and fuse switch in circuit with rated working current of 160A, 250A, 400A, 630A or 800A 50/60Hz. These fuse switch disconnectors provide reliable overload and short circuit protection for distribution facility, such as cable branch box, box transformer in industrial plants, cormnunity and other infrastructure as well.

- The location of the switch installation is no more than 2000m.
- The level of environmental pollution of the switch is grade 3.
- The installation category of the switch is class III.
- The switch is installed in a place where there is no vibration or shock.
- Fuse units of BFD3 model are closed or opened integrately while fuse unites under BFD2 model are operated separately only.
- The operation is safer, the core is mounted on the handle, and can be used directly as contact blades;
- Beautiful and practical, seat and body disassembly convenience, and box installation fast, convenient construction.
- Reduce wiring, easy to increase the loop. Increase the use rate of the box;
- Resin glass fiber base, V0 grade flame retardant, and the protection grade of shell can reach P30;
- New products, H field, he used semi tender 7l bid to develop styles.
- Instantaneous time off up to 100KA, with a load capacity of up to 1.3 times of rated current;
- Can add fuse monitor, signal switch and remote control module.

Specification

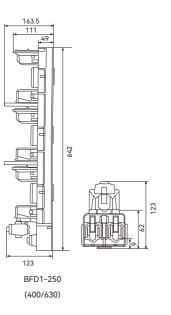
Model	BFD1-160	BFD1-250	BFD1-400	BFD1-630				
Rated Operational Voltage (Ue)		69	0V	-				
Rated Operational Current (le)	160A	250A	400A	630A				
Fuse Size	00	1	2	3				
Rated Insulation Voltage (Ui)		100	00V					
Rated Impulse Withstand Voltage (Uimp)		12	KV					
Degree of Protection		IP	10					
Mechanica Life (times)		20	00					
Wire Specifications	10-95mm²	120mm ²	240mm²	300mm²				
Method Connecting Wire	Screw & V-Clamp							
Installation Method	Screw & Hook							
Use Classes		AC-21B AC-	22B AC-23B					
Standard		IEC/EN	50947-3					
Rated Short Circuit Current (Iq)		120)KA					
Rated Short Time Current (Icw)	16KA/1s							
Screw Fastening	M8/M10/M12							
Ambinet Temperature	-45°C~+50°C							

Dimensions





BFD1-250 (400/630)





Bar Fuse Switch Disconnector

Specification



BFD2-160

The second second
Ten F
A Carrier
1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
N SE
Area
I ST THE
N STORE
and the second second

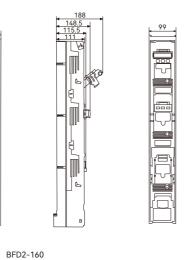
BFD2-250 (400/630/800)

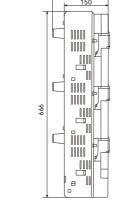
Model	BFD2-160	BFD2-250	BFD2-400	BFD2-630	BFD2-800		
Rated Operational Voltage (Ue)			690V				
Rated Operational Current (le)	160A	250A	400A	630A	800A		
Fuse Size	00	1	2	3	3		
Rated Insulation Voltage (Ui)			1000V				
Rated Impulse Withstand Voltage (Uimp)			12KV				
Degree of Protection			IP20				
Mechanica Life (times)			2000				
Wire Specifications	10-70mm ²	120mm²	240mm²	300mm²	2x240mm ²		
Method Connecting Wire		Sc	rew & V-Cla	imp			
Installation Method			Screw & Hoc	ok			
Use Classes		AC-21	B AC-22B A	C-23B			
Standard		IE	EC/EN60947-	-3			
Rated Short Circuit Current (Iq)			120KA				
Rated Short Time Current (Icw)	16KA/1s						
Screw Fastening	M8/M10/M12						
Ambinet Temperature			-45°C~+50°C				

Specification

Model	BFD3-160	BFD3-250	BFD3-400	BFD3-630	BFD3-800		
Rated Operational Voltage (Ue)			690V				
Rated Operational Current (le)	160A	250A	400A	630A	800A		
Fuse Size	00	1	2	3	3		
Rated Insulation Voltage (Ui)			1000V				
Rated Impulse Withstand Voltage (Uimp)			12KV				
Degree of Protection			IP20				
Mechanica Life (times)			2000				
Wire Specifications	10-70mm ²	120mm ²	240mm²	300mm²	2x240mm ²		
Method Connecting Wire		Sc	rew & V-Cla	imp			
Installation Method			Screw & Hoo	ok			
Use Classes		AC-21	B AC-22B A	C-23B			
Standard		IE	EC/EN60947-	-3			
Rated Short Circuit Current (Iq)			120KA				
Rated Short Time Current (Icw)			16KA/1s				
Screw Fastening	M8/M10/M12						
Ambinet Temperature			-45°C~+55°C				

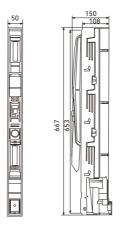
Dimensions





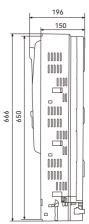
BFD2-250 (400/630/800)

Dimensions





BFD3-160



BFD3-250 (400/630/800)



BFD3-160



BFD3-250 (400/630/800)



Application

NT Low Voltage Fuse

of electric installation. This product conforms to IEC60269.



NT00C



NT00



		Fuse Link		Fuse	Base
Model	Rated Current (A)	Rated Voltage (V)	Rated Power Loss (W)	Model	Rated Current (A)
	6		0.81		
	10	1	1.08		
	16	1	1.60		
	20	1	1.81		
	25	1	2.31		
NTOOC	32		3.07	C:++ 101	1/0
NT00C	36	500/660	3.17	Sist 101	160
	40	1	4.05		
	50	1	4.25		
	63	1	4.70		
	80	1	5.7		
	100	1	7		
	6		0.89		
	10	1	1.14		
	16		1.65		
	20	1	1.94		
	25	1	2.50		
	32	500///0	3.32		
	36	500/660	3.56		
NT00	40	1	4.30		
	50		4.5		
	63	1	4.6	Sist 101	160
	80	1	6	5151 101	100
	100	1	7.3		
	125	500	7.6		
	160	500	9.6		
	6		1.03		
	10	1	1.42		
	16	1	2.45		
	20	1	2.36		
	25		2.7		
NT0	32	500/660	3.74		
	40	1	4.7	Sist 160	160
	50	1	5.5		
	63	1	6.9		
	80	1	7.6		
	100	1	8.9		
	125	500	10.1		
	160	500	15.2		

NT low voltage fuse features light in weight, small in size, low in power loss and high in

breaking capacity. This product has been widely used in overload and short circuit protection

		Fuse Link		Fuse	Base	
Model	Rated Current (A)	Rated Voltage (V)	Rated Power loss (W)	Model	Rated Current (A)	
	80		6.2			
	100		7.5			
1.174	125		10.2	0004	050	
NT1	160	500	13	Sist201	250	NT2
	200		15.2			
	250		18.3			
	125		9			
	160		11.5			
	200		15			
	250		18.4	01.1.00	(00	
NT2	300	500	21	Sist401	400	
	315		19.2			
	355		24.5			
	400		26			
	315		21.7			
	355		22.7			Fuse Puller
	400	F00	26.8			
NT3	425	500	28.9	Sist601	630	
	500		32			
	630		40.3			
NT4	800	380	62	Sist1001	1000	
N14	1000	380	75	SISTIUUT	1000	A.C.
Model	00	0	1	2	3	
$ln(\Lambda)$	140	140	250	400	(20	

		Fuse Link		Fuse	Base	
Model	Rated Current (A)	Rated Voltage (V)	Rated Power loss (W)	Model	Rated Current (A)	
	80		6.2			a de la compañía de la
	100		7.5			
1174	125	500	10.2	0: 1004	050	
NT1	160	500	13	Sist201	250	NT2
	200		15.2			
	250		18.3			
	125		9			
	160		11.5			
NT2	200		15			
	250	500	18.4	Sist401	(00	
	300	500	21		400	
	315		19.2			
	355		24.5			
	400		26			
	315		21.7			
	355		22.7			Fuse Puller
	400	500	26.8			
NT3	425	500	28.9	Sist601	630	
	500		32			
	630		40.3			
	800	200	62	C:++1001	1000	
NT4	1000	380	75	Sist1001	1000	A.S.
Model	00	0	1	2	3	
In(A)	160	160	250	400	630	

NT0

Knife Link(Neutral)



Cylindrical Fuse Link

Application

The fuse links with cylindrical contact caps are designed for protecting electrical distributing installations of rated voltage of 660V AC. with rated current up to 125A against damage due to overload and short circuit. Fuse links with the striker are supplied for the purpose of protecting motors against motor single phase operation when fitted in fuse isolators.



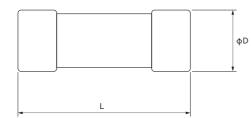
Ø 22x58 500V-100KA 9G 80 A C C EC(EN)00209

Ø 22x58 500V-100KA 9G 63 A C C

Specification

_

Model		Rated Current (A)	Rated	Dimension	
gL/gG aM	aR	Rated Current (A)	Voltage (V)	ØD x L	
RO14	-	2,4,6,10,16,20		Ø8.5 x 31.5	
RO15	RS15	1,2,4,6,10,16,20,25,32	380/500	Ø10x 38	
RO16	RS16	2,4,6,10,16,20,25,32,40,50,63	380/500	Ø14x 51	
RO17	RS17	10,16,20,25,32,40,50,63,80,100,125		Ø22x 58	
RO54	-			Ø5 x 20	
RO55	-	1,2,4,6,10,16	250	Ø5 x 25	
RO57	-			Ø6x 25	



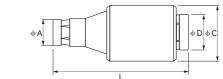


Dimension					
Ø10x38	Ø14x51	Ø22x58			

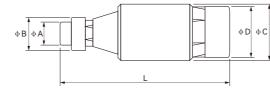
Spiral Fuse Link

Specification

Model	Sizo	Rated		Dime	en
gG	Size	(A)	ΦА	φC	
		2,4,6	6	22	
		8,10	8	22	
RO21		13	8	22	
RUZI		16	10	22	
		20	12	22	
		25	14	22	
		30,35,40	16	27	
R022	DIII	50	18	27	
		63	20	27	
		2,4,6	6	12.5	
RO24		10	8	12.5	
KU24	Size Current (A) ΦA 2,4,6 6 8,10 8 13 8 16 10 20 12 25 14 011 50 18 63 20 2,4,6 6	10	12.5		
		20,25	12	12.5	



Model	Size	Rated Current	Dimension					
gG	Size	(A)	φA	φB	φC	φD	L	
		2,4,6	5	7.3	10.6	10	36	
	D01	10	5	8.5	10.6	10	36	
		16	5	9.7	10.6	10	36	
		20	8.5	11	15	14	36	
RO26		25	8.5	12	15	14	36	
RU20	D02	35	8.5	13.3	15	14	36	
		50	8.5	14.5	15	14	36	
		63	8.5	16	15	14	36	
	D03 -	80	17	22	22	21	43	
		100	17	25	22	21	43	



Neutral link

φL
50
50
50
50
50
50
50
50
50
50
50
50
50















Fuse Holder

RT18



Model	Assorted	Rated	Rated	Dimensions					
Model	Fuse	Voltage(V)	Current (A)	Α	В	С	D	E	
RT18-32 1P			32	80	78	35	60	18	
RT18-32 2P	ø10 x 38		32	80	78	35	60	36	
RT18-32 3P			32	80	78	35	60	54	
RT18-63 1P			63	98	96	35	68	26	
RT18-63 2P	ø14 x 51		63	98	96	35	68	52	
RT18-63 3P		690	63	98	96	35	68	78	
RT18-32X 1P		0,0	32	80	78	35	60	18	
RT18-32X 2P	ø10 x 38		32	80	78	35	60	36	
RT18-32X 3P			32	80	78	35	60	54	
RT18-63X 1P			63	98	96	35	68	26	
RT18-63X 2P	ø14 x 51		63	98	96	35	68	52	
RT18-63X 3P			63	98	96	35	68	78	

RT18-32 1P

Dimensions



C B A	

\otimes	8	8	
8 E	8	8	

8 8 8

8 8 8

RT18L

Dimensions

RT18-63X 1P

Model	Matched Rated		Rated	Dimensions								
Model	Fuse Link	Voltage (V)	Current (A)	A	В	С	D	E				
RT18L-631P				110	108	78	100	27				
RT18L-63 2P	~1/F1		(2	110	108	78	100	54				
RT18L-63 3P	ø14 x 51	690	63	110	108	78	100	81				
RT18L-63 4P				110	108	78	100	108				
RT18L-125 1P			070	070	090	070	070		127	125	78	104
RT18L-125 2P	~22		105	127	125	78	104	72				
RT18L-125 3P	ø22 x 58		125	127	125	78	104	108				
RT18L-125 4P				127	125	78	104	144				



RT18L-125 1P

