

GENERAL CATALOGUE

Solution for Power, Control and Safety



TWOMASTER

manages the energy



As OSSA Elektrik ve Elektronik A.S., we have prepared our TWOMASTER 2024 product catalog with care for you to access the product details easily.

You can access technical details and more information about our products by visiting our website www.twomaster.com.tr. OSSA Elektrik ve Elektronik A.S., is and will be always your assistant and technical supporter both in system solutions and in choosing the right product with its years of experience and technical knowledge. Our products, which complied with IEC standards, can easily start their work without any difficulty and time loss thanks to quick installation. Our products also do not require accessories and continue to operate for many years without maintenance.

Thank you for choosing TWOMASTER products.

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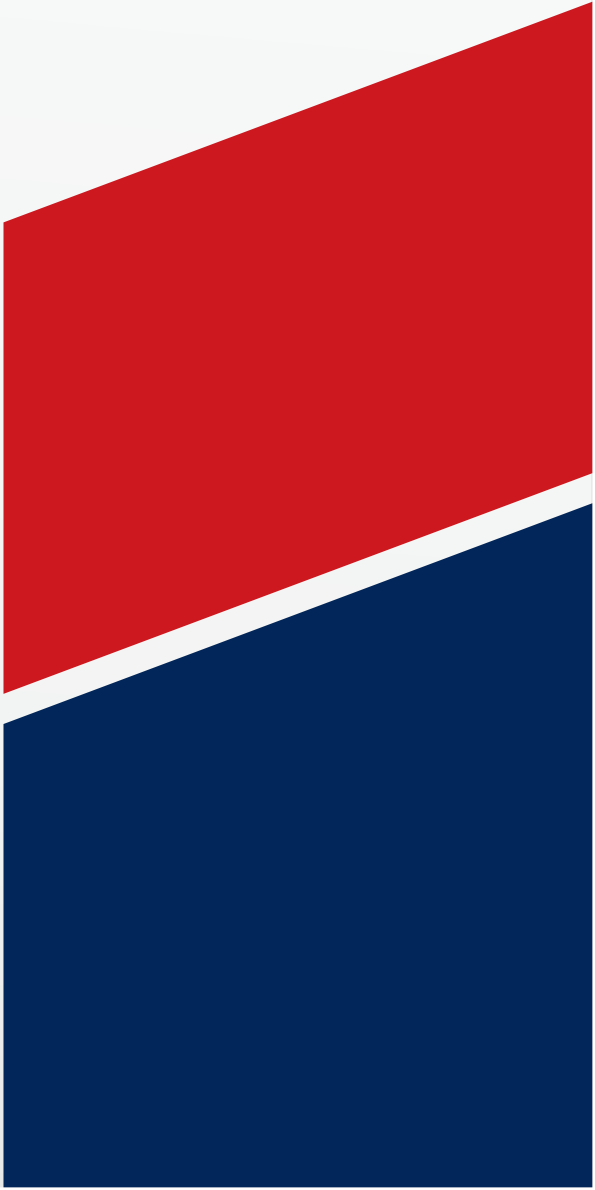
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TWOMASTER



TWOMASTER LBS
Load Break Switches
40A-3200A

TWOMASTER LBS

Load Break Switches

40A-3200A

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The solution for

- Main switchboard
- Distribution panel
- Emergency breaking
- Network coupling
- Local safety breaking

Compliance with standards

- IEC 60947-3
- IEC 60947-1
- GB/T14048.1-2006
- GB/T14048.3-2008

Approvals and certifications

China Quality Certification Centre



Product Description

LBS series isolation switch adopts modular design structure and glass fiber reinforced unsaturated polyester resin casing. It is high dielectric property, protective value and safe operation. The operation mechanism is a spring-accumulating and accelerating instant-release device, which makes instant making and breaking of the double gap contact. It is no relationship with the speed of operation handle. The product have been obtained 3C certificate.

Characteristics

Spring-storage instantaneous release of the mechanism to speed up the realization of the rapid making and breaking (13.8 m / s), and it is nothing to do with the operation handle speed, and have greatly improved the capability of extinguish electric arc.

The glass fiber reinforced unsaturated polyester resin casing have excellent flame resistance, dielectric, resist carbonic and resist impact performances.

Parallel double gap contact possesses self-cleaning functions

All the contact materials are copper alloy plated with silver, and possess two separation contact surfaces.

Large clearance of insulation.

When it is "0" position, the product can lock the handle with three locks at the same time, and it can avoid error operation.

Operation Environment

Altitude not exceed 2000m

Temperature: -5° C~+ 40°C, Relative humidity not more than 95%

No explosive dangerous medium environment

No rain and snow attack environment

Note: If the load isolation switch is expected to be used in the condition that the ambient temperature is higher than +40°C or is lower than -5°C~45°C, customers should inform to the manufactory

Performance Feature

7 specifications of LBS series load isolation switch from 40A to 3200A is basic model of modularized design type, have 3 poles and four poles (3 poles + on and off neutral pole). It is mainly applied for making and breaking, and switches over 1000A are only suitable for electric isolation

The mark window is in the front to indicate the on and off state.

Two group of auxiliary contacts can be assembled.

The electric cable insulating cover can be assembled.

Product Code

TWOMASTER-LBS Load Break Switch									
Rating (A)	Product Code	No. of poles	Direc Handle	External handle & Shaft	Auxiliary contact	Bridging bars			
40	32203004	3 Pole	included	32200001					
	32204004	4 Pole							
63	32203006	3 Pole							
	32204006	4 Pole							
80	32203008	3 Pole							
	32204008	4 Pole							
100	32203010	3 Pole							
	32204010	4 Pole							
125	32203012	3 Pole		32200002	32200011 (1NA/1NK) 32200012 (2NA/2NK)				
	32204012	4 Pole							
160	32203016	3 Pole							
	32204016	4 Pole							
200	32203020	3 Pole							
	32204020	4 Pole							
250	32203025	3 Pole							
	32204025	4 Pole							
315	32203031	3 Pole							
	32204031	4 Pole							
400	32203040	3 Pole							
	32204040	4 Pole							
500	32203050	3 Pole							
	32204050	4 Pole							
630	32203063	3 Pole							
	32204063	4 Pole							
800	32203080	3 Pole					32200003		
	32204080	4 Pole							
1000	32203100	3 Pole							
	32204100	4 Pole							
1250	32203120	3 Pole							
	32204120	4 Pole							
1600	32203160	3 Pole							
	32204160	4 Pole							
2000	32203200	3 Pole				32200200			
	32204200	4 Pole							
2500	32203250	3 Pole				32200250			
	32204250	4 Pole							
3200	32203320	3 Pole							
	32204320	4 Pole							

TWOMASTER LBS

Load Break Switches

40A-3200A



Technical Parameters

Rated thermal current I _{th}			63A		100A		160A	
Rated current I _{th}			40	63	80	100	125	160
Rated insulation voltage U _i (V)			750	750	750	750	750	750
Dielectric strength (V)			5000	5000	5000	5000	5000	5000
Rated impulse withstand voltage U _{imp} kV (Installed category IV)			6	6	6	6	8	8
Rated working current I _e (A)	380V	AC-21	40	63	80	80	125	160
		AC-22	40	63	80	80	125	160
		AC-23	40	50	80	80	125	160
	690V	AC-21	40	50	80	80	125	160
		AC-22	32	32	50	50	125	160
		AC-23	25	25	40	40	80	80
	220V	DC-21	32	63	80	100	125	125
		DC-22	40	63	80	80	125	125
		DC-23	40	63	63	63	125	125
	440V	DC-21					100	125
		DC-22					100	125
		DC-23					100	125
Motor power P(380V) kW		380V	18.5	25	40	40	63	80
		690V	22	22	33	33	75	75
Rated short-time withstand current I _{cw} (kA Rms) 0.1S/1S			10/5	10/5	10/5	10/5	10/20	10/20
Rated breaking capacity I _{cn} (A Rms) AC23 380V			320	504				
Rated marking capacity I _{cm} (A Rms) AC23 380V			400	630				
Rated short-circuit making I _{cm} (kA)capacity			7.5	7.5				
Mechanical life (operation cycle times)			10000	10000	10000	10000	10000	10000
Electrical life (operation cycle times) Rated voltage U _e =690V		COSΦ=0.95 AC 21	1700	1700	1700	1700	1500	1500
		COSΦ=0.65 AC 22	100	100	100	100	1000	1000
		COSΦ=0.35 AC 23	500	500	500	500	500	500
Operation torque(Nm)			1.2	1.2	1.2	1.2	6.5	6.5
Weight(Kg)		3 poles	0.37	0.37	0.37	0.37	1.3	1.3
		4 poles	0.41	0.41	0.41	0.41	1.5	1.5

Technical Parameters

250A		630A				1600A			3200A		
200	200	315	400	500	630	1000	1250	1600	2000	2500	3200
750	750	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
5000	5000	8000	8000	8000	8000	10000	10000	10000	10000	10000	10000
8	8	12	12	12	12	12	12	12	12	12	12
200	250	315	400	500	630	1000	1250	1600	2000	2500	3200
200	250	315	400	500	630	1000	1250	1600	2000	2000	3200
200	250	315	340	425	536						
200	250	315	400	400	500	1000	1000	1600	2000	2500	2500
160	160	315	315	315	315	800	800	800	1000	1000	1000
100	125	125	125	125	125						
200	250	315	400	500	630	1000	1250	1600	2000	2500	2500
200	250	315	400	400	500	1000	1250	1250	1600	1600	1600
160	200										
160	200	315	400	400	500	1000	1250	1250	2000	2000	2000
160	200	315	400	400	500	1000	1250	1250	1250	1250	1250
160	200	315	400	400	500	1000	1000	1000			
100	132	160	220	280	315	560	560	560	710	710	710
90	110	185	185	185	185	475	475	475	750	750	750
12/30	12/30	45/20	45/20	50/25	50/25	90/50	90/50	90/50	90/50	90/50	90/50
1600	1600	2500	3200	3200	3200						
2000	2000	3150	4000	4000	4000						
17	17	30	30	40	40						
10000	10000	5500	5500	5500	5500	4000	4000	3000	2500	2500	2500
1500	1500	750	750	750	750	600	600	450			
1000	1000	500	500	500	500	400	400	300			
500	500	250	250	250	250	200	200	150			
10	10	14.5	14.5	14.5	14.5	37	37	60	60	60	60
2.2	2.2	4.3	4.3	4.7	4.7	10.5	10.5	16	25.5	25.5	31
2.6	2.6	5.4	5.4	6	6	13	13	20	37.5	37.5	51.5

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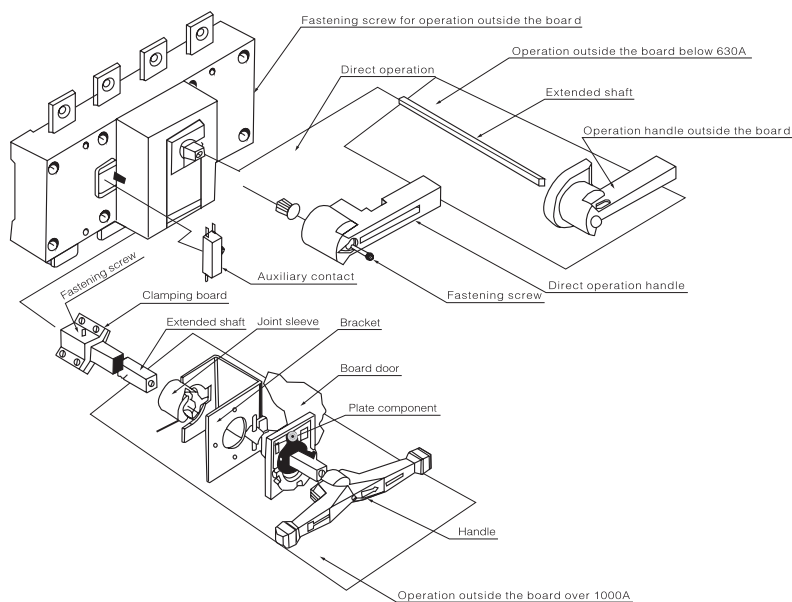
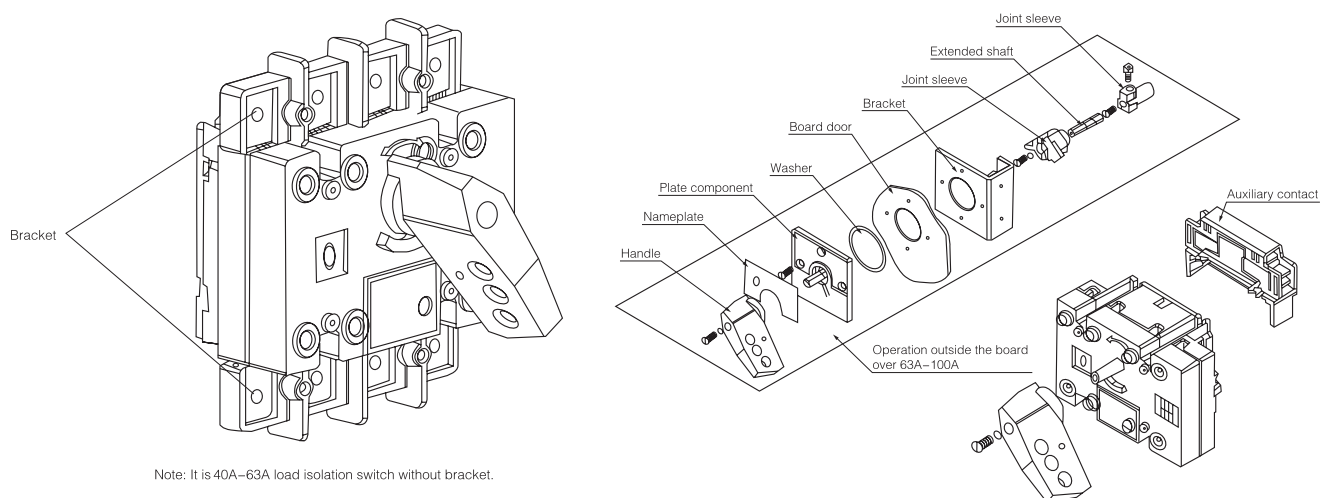
Load Break Switches

40A-3200A

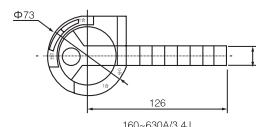
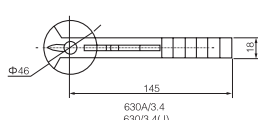
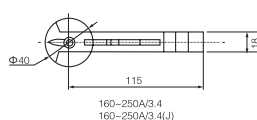
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Dimensions

- 40A-100A is applied for the circuit making and breaking or electric insulation.
- 40A-100A three poles and four poles (three poles + on and off neutral pole)
- Two groups of auxiliary contacts can be assembled.
- Side operation and outside operation can be assembled.

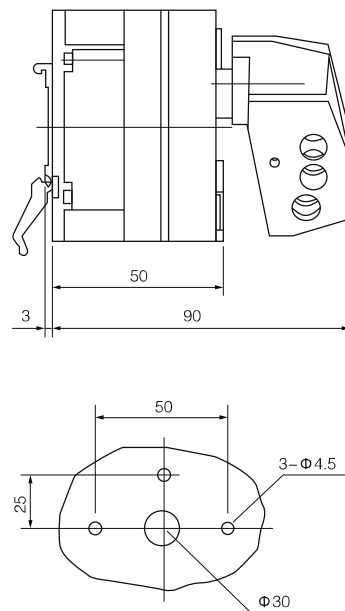
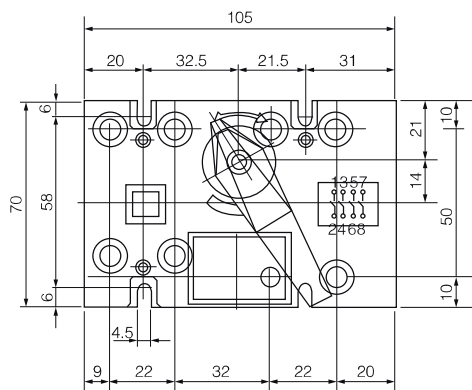


- Direct operation: Handle in the middle position.
- Operation outside: Handle in the outside of the board.



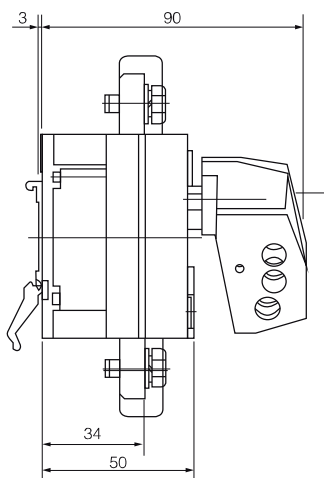
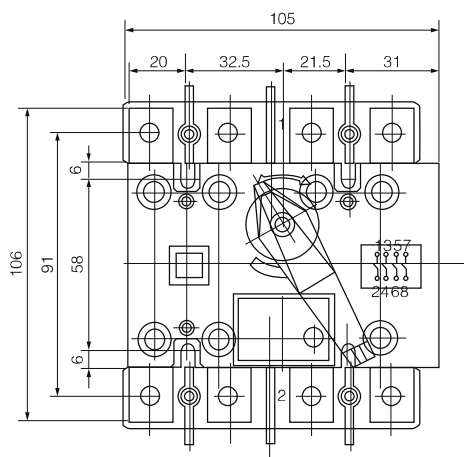
Dimensions

LBS-40A Direct operation



Installation size of operation outside the board

LBS-100A Direct operation



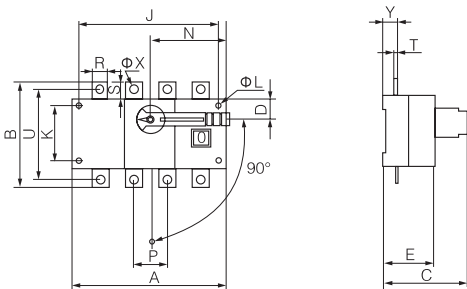
TWOMASTER LBS

Load Break Switches

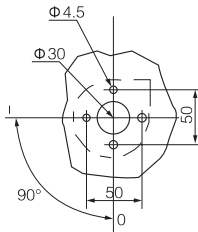
40A-3200A



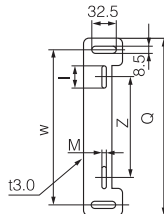
Dimensions



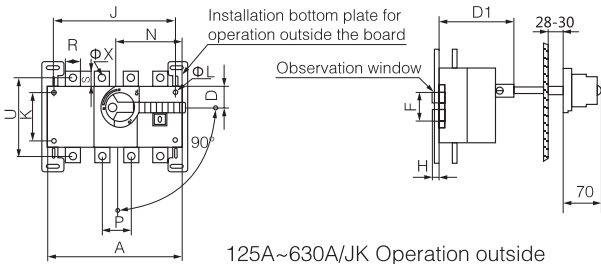
125A-630A Direct operation



Installation size of operation outside board handle



Installation bottom plate for operation outside the board

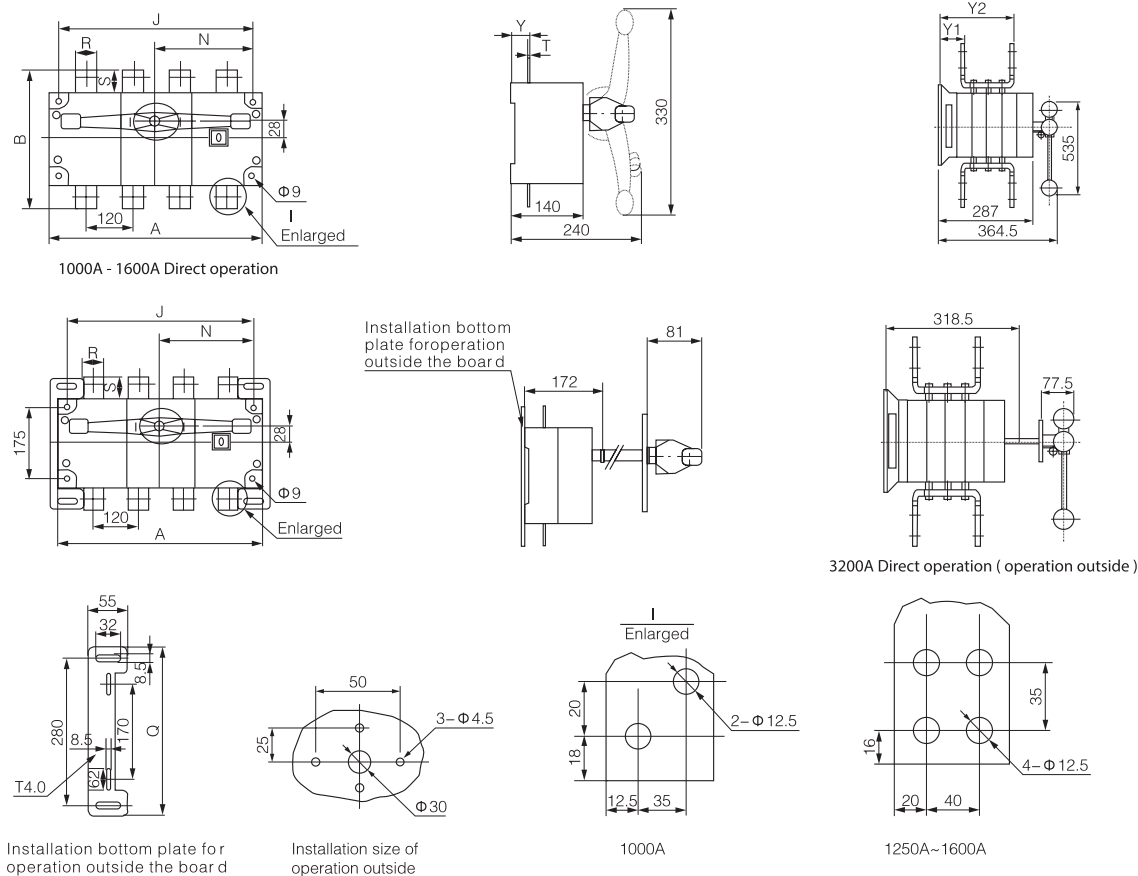


125A-630A/JK Operation outside

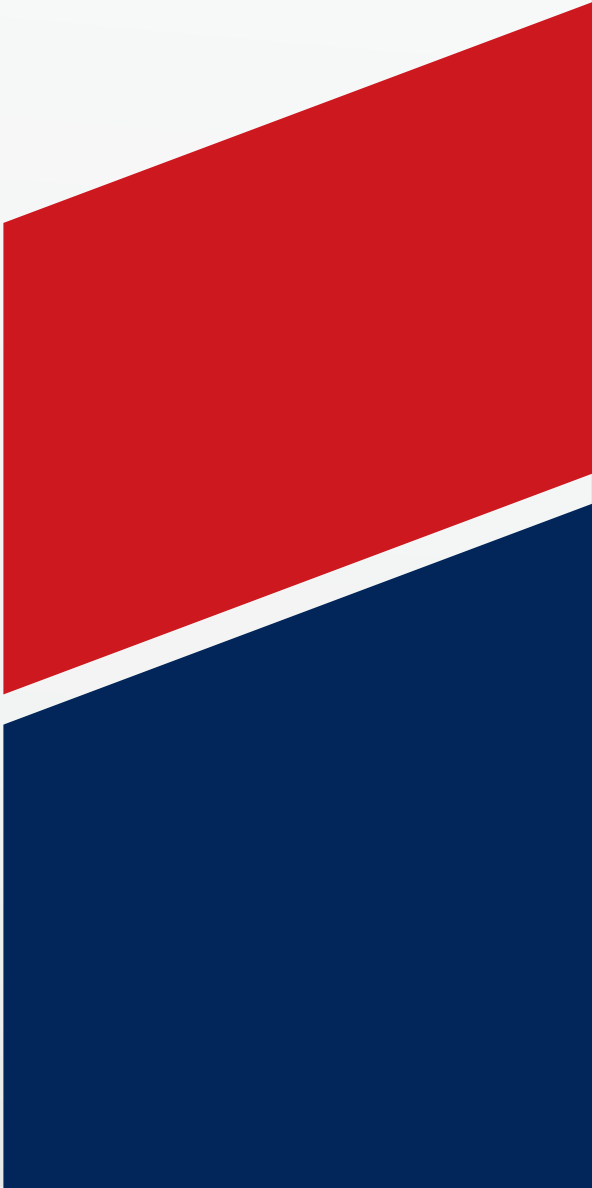
Specification	Dimension of bottom plate				
125A~630A	I	M	Z	W	Q
125A	55	5.5	85	190	218
160A	55	5.5	85	190	218
200A	55	5.5	85	190	218
250A	55	5.5	85	190	218
315A	60	6.5	130	240	270
400A	60	6.5	130	240	270
500A	60	6.5	130	240	270
630A	60	6.5	130	240	270

Specification	Overall and mounting dimensions																				
In	A	A1	B	C	D	D1	E	ΦL	J	J1	K	N	P	R	S	T	U	ΦX	Y	F	H
125A/3	140	50	135	92	27	92	73	5.5	120	120	65	85	36	20	25	3.5	85	9	24	52	10
125A/4	170	50	135	92	27	92	73	5.5	150	150	65	85	36	20	25	3.5	85	9	24	52	10
160A/3	140	50	135	92	27	92	73	5.5	120	120	65	85	36	20	25	3.5	85	9	24	52	10
160A/4	170	50	135	92	27	92	73	5.5	150	150	65	85	36	20	25	3.5	85	9	24	52	10
200A/3	180	60	170	103	35	104	83	5.5	160	160	90	115	50	25	30	3.5	110	11	25	79	13
200A/4	230	60	170	103	35	104	83	5.5	210	210	90	115	50	25	30	3.5	110	11	25	79	13
250A/3	180	60	170	103	35	104	83	5.5	160	160	90	115	50	25	30	3.5	110	11	25	79	13
250A/4	230	60	170	103	35	104	83	5.5	210	210	90	115	50	25	30	3.5	110	11	25	79	13
315A/3	230	85	240	134	50	133	113	7	210	210	140	145	65	30	40	5	160	11	36	100	24
315A/4	290	85	240	134	50	133	113	7	270	270	140	145	65	30	40	5	160	11	36	100	24
400A/3	230	85	240	134	50	133	113	7	210	210	140	145	65	30	40	5	160	11	36	100	24
400A/4	290	85	240	134	50	133	113	7	270	270	140	145	65	30	40	5	160	11	36	100	24
500A/3	230	85	260	134	50	133	113	7	210	210	140	145	65	40	50	6	160	12	36	100	24
500A/4	290	85	260	134	50	133	113	7	270	270	140	145	65	40	50	6	160	12	36	100	24
630A/3	230	85	260	134	50	133	113	7	210	210	140	145	65	40	50	6	160	12	36	100	24
630A/4	290	85	260	134	50	133	113	7	270	270	140	145	65	40	50	6	160	12	36	100	24

Dimensions



Specification	Overall and mounting dimensions																	
In	A	A1	B	D	E	F	G	J	J1	N	R	S	T	U	Y	Y1	Y2	Q
1000A/3	378	105	312					353	353	186	60	68	8	200	48			311
1000A/4	492	105	312					467	467	246	60	68	8	200	48			311
1250A/3	378	105	338	20	40	16	35	353	353	186	80	68	8	200	48			311
1250A/4	492	105	338	20	40	16	35	467	467	246	80	68	8	200	48			311
1600A/3	378	105	338	20	40	16	35	353	353	186	80	68	10	200	49			311
1600A/4	492	105	338	20	40	16	35	467	467	246	80	68	10	200	49			311
2000A/3	378		455	20	40	20	40	353	353	186	80	68	10	200		75.5	227.5	311
2000A/4	492		455	20	40	20	40	467	467	246	80	68	10	200		75.5	227.5	311
2500A/3	378		455	20	40	20	40	353	353	186	80	68	10	200		75.5	227.5	311
2500A/4	492		455	20	40	20	40	467	467	246	80	68	10	200		75.5	227.5	311
3200A/3	378		505	25	50	25	50	353	353	186	100	68	14	200		78	230	311
3200A/4	492		505	25	50	25	50	467	467	246	100	68	14	200		78	230	311



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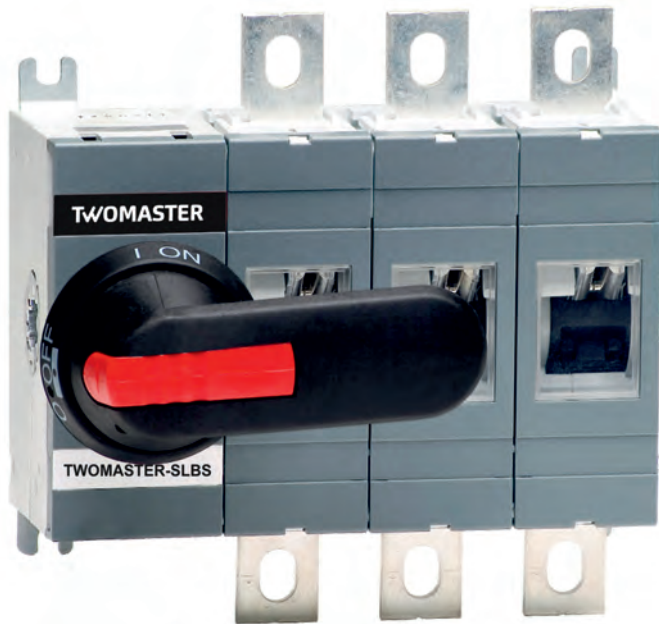


TWOMASTER SLBS
Load Break Switches
63A-800A

TWOMASTER SLBS

Load Isolation Switches

63A-800A

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The solution for

- Main switchboard
- Distribution panel
- Emergency breaking
- Network coupling
- Local safety breaking

Compliance with standards

- IEC 60947-3
- IEC 60947-1
- GB/T14048.1-2006
- GB/T14048.3-2008

Approvals and certifications

China Quality Certification Centre



Product Description

Application Range

SLBS load isolation switch is widely used as main switch in all kinds of low voltage switchgear, motor control center and also power control box, cable distribution box, floor distribution box, which do not need short-circuit and overheating protection. It can be also used as the isolator switch for all kinds of motors or regarded as the maintenance switch for other electrical equipments. In addition, it can be used in the solar system at all levels

Products Installation

The length of Axis is adjustable, and there is no need of accurate intercept axis length. Accessory can be directly installed. The location of terminal design is for double cable. Two small specifications cables are easier to bend, reducing the demand for space. The switch installation feet angle is adjustable. When installed, it can be in fixed on the side or the upper of switch.

Electrical Specification

High short circuit current endurance capacity protect switch from cutting off the current up to 100KA. Load isolation switch is installed in a closed environment and no need to reduce the rated current capacity

Front Operation Rotation Isolating Switch

With ON - OFF/ I-O black plastic handle and the metal shaft. Handle is IP60 protection grade. In the OFF position, it can be added padlock. In ON position, it can be interlocked with door, SLBS 63-250A shaft adjustable depth is 140- 205 mm, SLBS 315-400A shaft adjustable depth is 140-220mm, SLBS 630-800A shaft adjustable depth is 160-285mm

SLBS Series Load Isolation Switch Enclosure

SLBS load isolation switch provides a variety of simple solutions for power distribution system, such as load isolation switch, motor circuit main switch, site safety switch and bus Coupler switch, etc. The top and the bottom of the enclosure cover can be removed to make the wire imputing easily. Mainly apply to residential, commercial and industrial power supply system.

Protection

Users can see the actual location of the contact, avoiding operation error. The control wires of auxiliary contact can be installed in the cable groove and protected properly.

Main technical data

Load isolation switch range from 63A to 800A
Switch poles 3poles and 4 poles
Rated insulation voltage highest 1000V
Protection grade standard IP30
Conform to standard GB7251.3-1991 EN60947-3

Product Code

TWOMASTER-SLBS Load Isolation Switch					
Rating (A)	Product Code	No. of poles	External handle & Shaft	Direct Handle	Auxiliary contact
63	31143006	3 Pole	31140001	31140005	31140011 (1NA) 31140012 (1NK)
	31144006	4 Pole			
80	31143008	3 Pole			
	31144008	4 Pole			
100	31143010	3 Pole			
	31144010	4 Pole			
125	31143012	3 Pole			
	31144012	4 Pole			
160	31143016	3 Pole			
	31144016	4 Pole			
200	31143020	3 Pole			
	31144020	4 Pole			
250	31143025	3 Pole			
	31144025	4 Pole			
315	31143031	3 Pole	31140002	31140006	
	31144031	4 Pole			
400	31143040	3 Pole			
	31144040	4 Pole			
500	31143050	3 Pole	31140003	31140007	
	31144050	4 Pole			
630	31143063	3 Pole			
	31144063	4 Pole			
800	31143080	3 Pole			
	31144080	4 Pole			
1000	31143100	3 Pole	31140004	31140008	
	31144100	4 Pole			
1250	31143120	3 Pole			
	31144120	4 Pole			
1600	31143160	3 Pole			
	31144160	4 Pole			

TWOMASTER SLBS

Load Isolation Switches

63A-800A

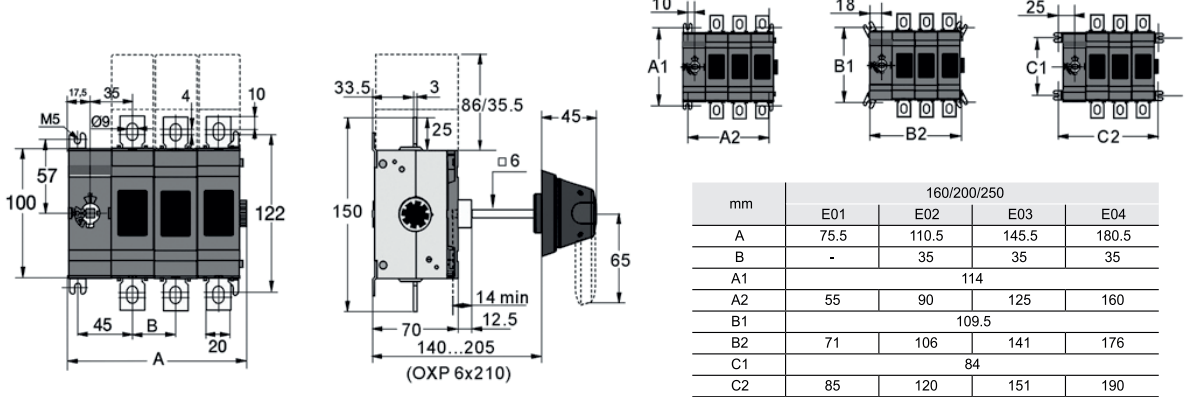
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Technical Parameters

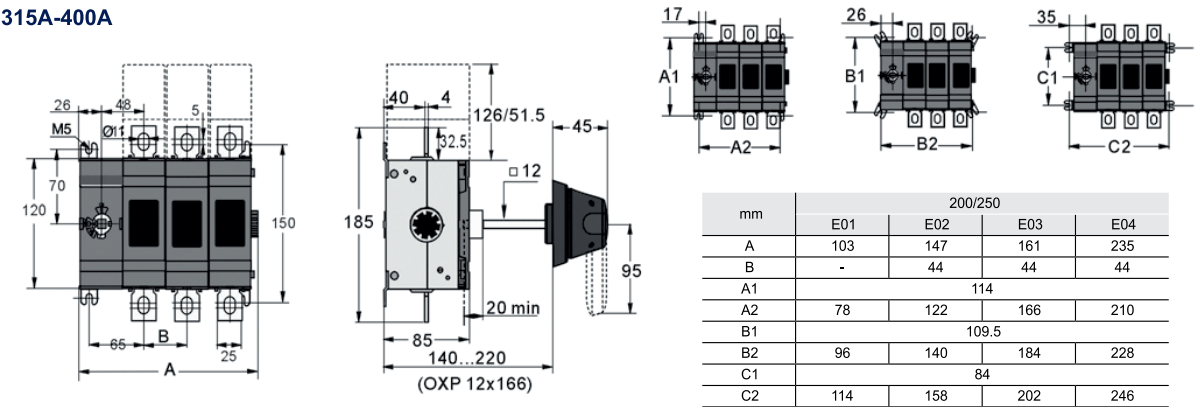
Switch model			63	80	100	125	160	200	250	315	400	630	800
The rated insulation voltage and working voltage	AC-20/DC-20	V	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Dielectric strength	50Hz per minute	KV	10	10	10	10	10	10	10	10	10	10	10
Rated impulse withstand voltage Uimp		KV	12	12	12	12	12	12	12	12	12	12	12
Rated thermal current and working current	AC-23 / 415V	A	63	80	100	125	148	180	230	260	360	420	500
The environment temperature of 40	Closed environment	A	63	80	100	125	160	200	250	315	400	630	800
Cable cross section	Cu	mm ²	80	80	80	80	80	95	120	185	240	2x185	2x240
Rated power AC-23	230V	KW	23	30	38	47	55	60	75	100	110	140	160
	415V	KW	39	49	62	77	90	110	140	160	220	260	310
	690V	KW	73	92	117	145	170	190	220	280	310	360	400
Rated breaking capacity AC-23	500V	A	1400	1400	1400	1400	1400	1600	2000	2500	3200	5040	6400
	690V	A	1400	1400	1400	1400	1400	1600	2000	2500	3200	5040	6400
Rated limited short-circuit current Ip(RMS)	100KA	KA	40.5	40.5	40.5	40.5	40.5	40.5	40.5	61.5	61.5	90	90
The biggest OFA fuse specifications gG/aM	500V	A	355/315	355/315	355/315	355/315	355/315	355/315	355/315	500/450	500/450	800/1000	800/1000
Rated short-time withstand current R.M.S value LCW	690V/0.25s	KA	15	15	15	15	15	15	15	24	24	35	36
	690V/1S	KA	8	8	8	8	8	8	8	15	15	25	20
	690V	KA	30	30	30	30	30	30	30	65	65	80	80
Mechanical life	OPER		20000	20000	20000	20000	20000	20000	20000	16000	16000	10000	10000
Weight (without accessory) 3 pole switch		kg	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.2	2.2	5.1	5.1
Screw specification	Diameter x length	mm	M8x25	M8x25	M8x25	M8x25	M8x25	M8x25	M8x25	M10x30	M10x30	M12x40	M12x40
Metric screw thread													

Dimensions

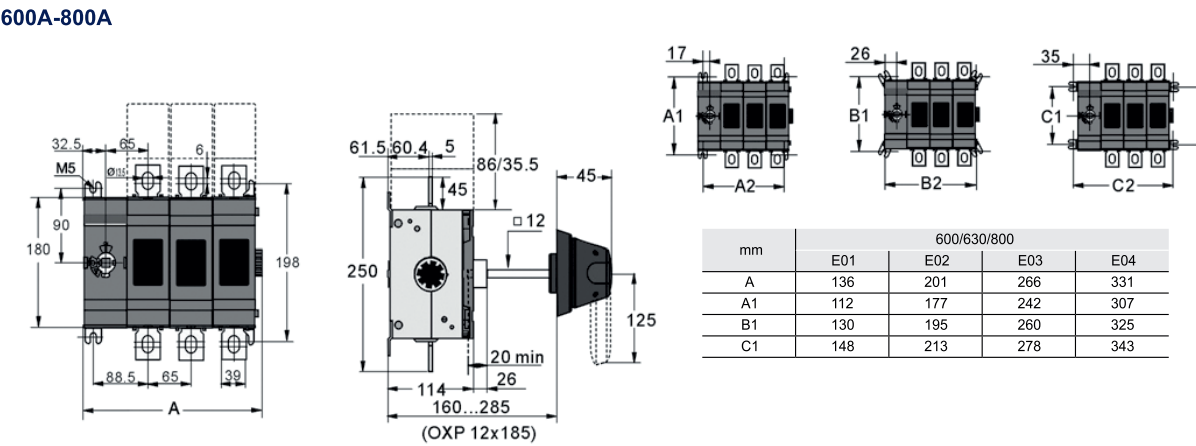
63A-250A



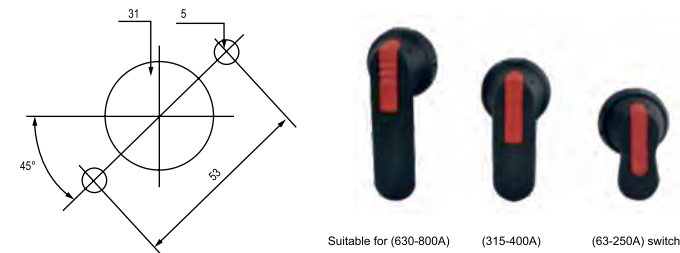
315A-400A

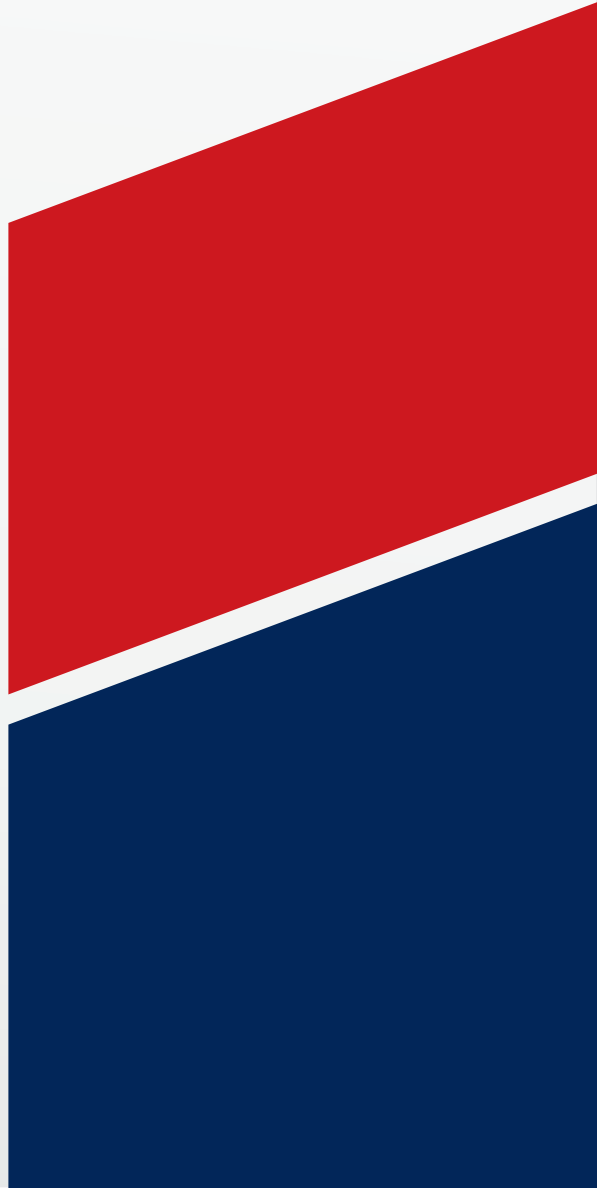


600A-800A

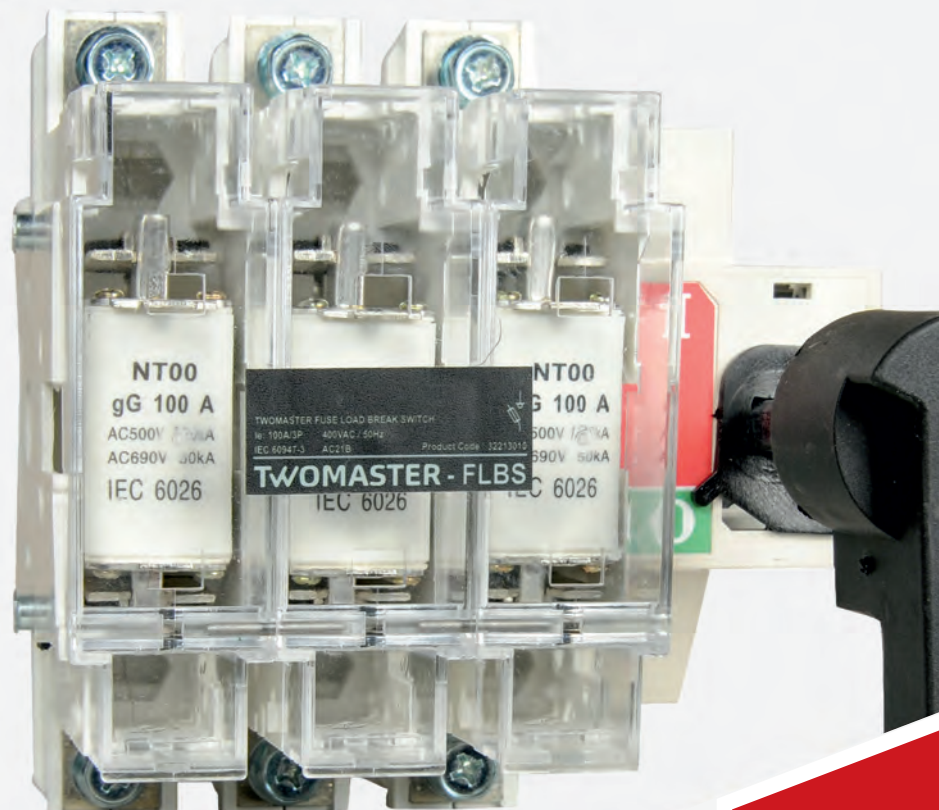


The Cupboard Door Handle Installation Size





TWOMASTER



TWOMASTER FLBS
Fused Load Break Switches
100A-1250A

TWOMASTER FLBS

Fused Load Break Switches

100A-1250A

TWOMASTER



The solution for

- Motor load break
- Protection of industrial processes

Compliance with standards

- IEC 60947-3
- IEC 60269-1
- IEC 60269-2

Approvals and certifications

China Quality Certification Centre



Product Description

FLBS type is of modular design structure. Ensure load making and breaking and reliable over current and short circuit protection. Obviously visible off state. It has 2 poles, 3 poles and 4 poles (3 poles and on and off neutral pole). Total 18 specifications from 100A-1250A. FLBS series fuse group of isolation switch (called as switch for short) is a kind of multipoles manual operation switch, adopting the glass fiber reinforced unsaturated polyester resin casing, having high dielectric performance, protective capability and safe operation. The operation mechanism is a spring-accumulating and accelerating instant-release device, which makes instant making and breaking of the double gap contact. It is no relationship with the speed of operation handle. It is strong humidity and resistant properties.

Structure And Operation Modes

Front direct operation: The handle is installed on the right side of switch.

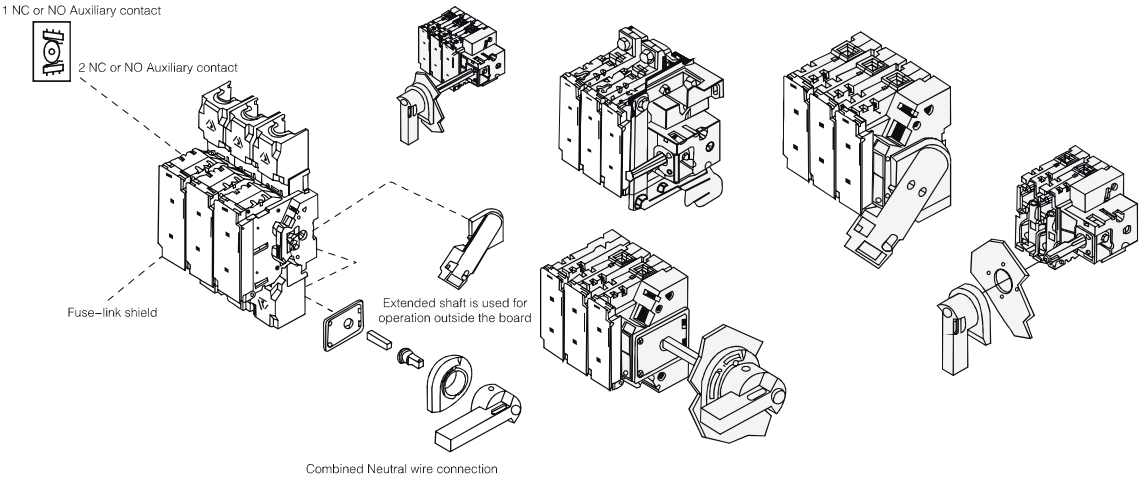
Side direct operation: The handle is installed on the right side of switch.

Front operation outside the board: The handle is installed in the front of distribution board door

Side operation outside the board: The handle is installed on the right side of the distribution board.

Product Code

TWOMASTER-FLBS Fused Load Break Switch						
Rating (A)	Product Code	No. of poles	Fuse Size	Direct handle	External handle & Shaft	Auxiliary contact
100	32213010	3 Pole	NH 000	included	32200002	32210011 (1NA/1NK) 32210012 (2NA/2NK)
	32214010	4 Pole				
160	32213016	3 Pole	NH 00			
	32214016	4 Pole				
250	32213025	3 Pole	NH 1			
	32214025	4 Pole				
400	32213040	3 Pole	NH 2			
	32214040	4 Pole				
630	32213063	3 Pole	NH 3		32200003	
	32214063	4 Pole				
1250	32213120	3 Pole	NH 4			
	32214120	4 Pole				



TWOMASTER FLBS

Fused Load Break Switches

100A-1250A



Technical Parameters

Type	100A	160A	250 A	400 A	630 A	800 A	800A	1250A
Number of poles	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4
Assigned thermal current I _{th} (35 °C)	100 A	160 A	250 A	400 A	630 A	800 A	800 A	1250 A
NFC/DIN fuse size	NH000	NH00	NH1	NH2	NH3	NH3	NH4	NH4
Rated operating voltage U _e (V)	690 V	600 V	690 V	690 V	690 V	690 V	415 V	415 V
Rated insulation voltage U _i (V)	800	800	800	1,000	1,000	1,000	1,000	1,000
Rated impulse withstand voltage U _{imp} (kV)	8	8	8	12	12	12	12	12
Short-circuit characteristics								
Prospective short-circuit current at U _e 400/415V AC (kA rms)	50	100	100	50	100	100	100	100
Prospective short-circuit current at U _e 660/690V AC (kA rms)	50	50	50	50	100	100	-	-
Rated operating current I _e (A)								
Nominal voltage	Operating category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 V AC	AC 21 A / AC 21 B	100/100	160/160	250/250	400/400	-/630	-/800	-/800
415 V AC	AC 22 A / AC 22 B	100/100	160/160	250/250	400/400	-/630	-/800	-/800
415 V AC	AC 23 A / AC 23 B	100/100	160/160	250/250	400/400	-/630	-/800	-/800
500 V AC	AC 21 A / AC 21 B	100/100	160/160	250/250	-/400	-/630	-/800	-/800
500 V AC	AC 22 A / AC 22 B	100/100	160/160	250/250	-/400	-/630	-/800	-/800
500 V AC	AC 23 A / AC 23 B	100/100	160/160	250/250	-	-	-	-
690 V AC	AC 20 A / AC 20 B	100/100	160/160	250/250	400/400	630/630	800/800	800/800
690 V AC	AC 21 A / AC 21 B	100/100	160/160	250/250	-/400	-/630	-/800	-/800
690 V AC ⁽²⁾	AC 22 A / AC 22 B	100/100	160/160	250/250	-/400	-/630	-/800 ⁽⁶⁾	-/800
690 V AC ⁽²⁾	AC 23 A / AC 23 B	80/80	125/125	250/250	250/315			
220 V DC	DC 21 A / DC 21 B	100/100	100/100	250/250	- /400A ⁽³⁾	- /630A ⁽³⁾		
220 V DC	DC 22 A / DC 22 B	100/100	100/100	250/250				
220 V DC	DC 23 A / DC 23 B	80/80	125/125	200/200				
440 V DC	DC 21 A / DC 21 B	100 ⁽³⁾ /100 ⁽³⁾	100 ⁽³⁾ /100 ⁽³⁾	250 ⁽³⁾ /250 ⁽³⁾	- /400A ⁽⁴⁾	- /630A ⁽⁴⁾		
440 V DC	DC 22 A / DC 22 B	100 ⁽³⁾ /100 ⁽³⁾	100 ⁽³⁾ /100 ⁽³⁾	250 ⁽³⁾ /250 ⁽³⁾				
440 V DC	DC 23 A / DC 23 B	80 ⁽³⁾ /80 ⁽³⁾	125 ⁽³⁾ /125 ⁽³⁾	200 ⁽³⁾ /200 ⁽³⁾				
Rated operating power in AC-23 (kW)								
At U _e 415 VAC without pre-break auxiliary contact ⁽¹⁾⁽⁵⁾		51/51	80/80	132/132	220/220	355/355	450/450	450/450
At U _e 690 VAC without pre-break auxiliary contact ⁽¹⁾⁽⁵⁾		90/90	110/110	220/220	220/295	295/400	400/400	400/400
Reactive power (kvar)								
At U _e 415 VAC ⁽⁵⁾		45	75	115	185	290	365	355
Mechanical characteristics								
Durability (number of operating cycles)		10 000	10 000	10 000	10 000	5 000	8 000	3 000
Storage temperature (°C)		-50 ...+85						
Operating temperature (°C)		-20...+70						
Regulatory compliance		IEC 60947-3						
Certification		CCC						

(1) Category with index A = frequent operation / Category with index B = infrequent operation.

(2) With terminal shrouds or phase barrier.

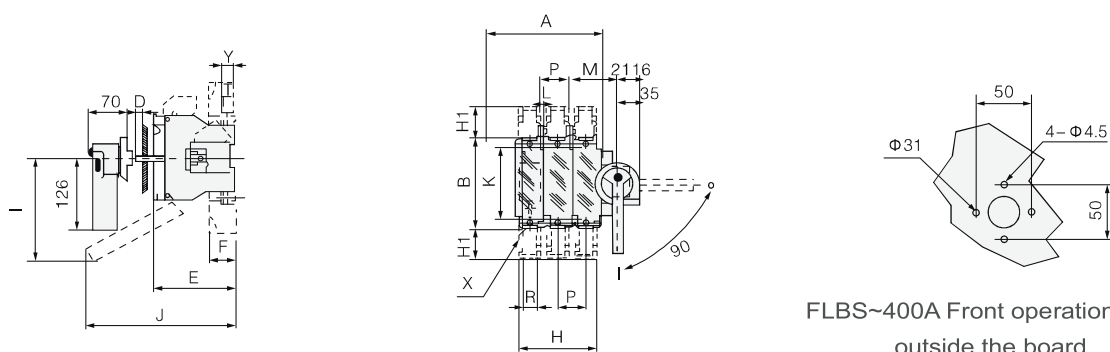
(3) 3-pole device with 2 poles in series for the '+' and 1 pole for the '-'.
(4) 4-pole device with 2 poles in series per polarity.

(5) The power value is given for information only; the current values vary from one manufacturer to another.

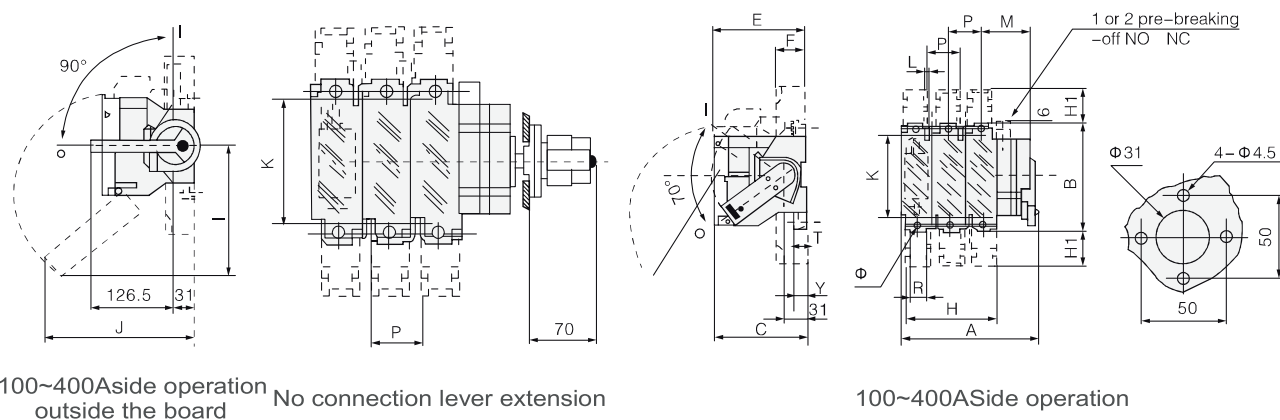
(6) For a rated operational voltage U_e = 400 VAC.

Dimensions

100A-400A/I Overall And Mounting Size Of Fuse Group Of Isolation Switch



Specification	Fuse-link model	Overall and mounting dimensions																
		A	B	D	E	F	H	H1	I	J	K	L	M	P	R	T	ΦX	Y
100A/3	0~00C	152	118	20~30	117				159	145	106	5.4	62.5	32				
100A/4	0~00C	184	118	20~30	117				159	145	106	5.4	62.5	32				
160/3	0~00	164	162	28~30	126	44	108	53	141	189	127	5.4	65	36	20	2.5	8.5	19.5
160/4	0~00	200	162	28~30	126	44	144	53	141	189	127	5.4	65	36	20	2.5	8.5	19.5
250/3	1	236	195	28~30	146	65	180	75	185	251	162	6.4	90.5	60	32	2.5	11	19.5
250/4	1	296	195	28~30	146	65	240	75	185	251	162	6.4	90.5	60	32	2.5	11	19.5
400/3	2	278	205	28~30	149	65	192	75	200	260	172	6.4	121	66	50	3	11	20
400/4	2	344	205	28~30	149	65	258	75	200	260	172	6.4	121	66	50	3	11	20



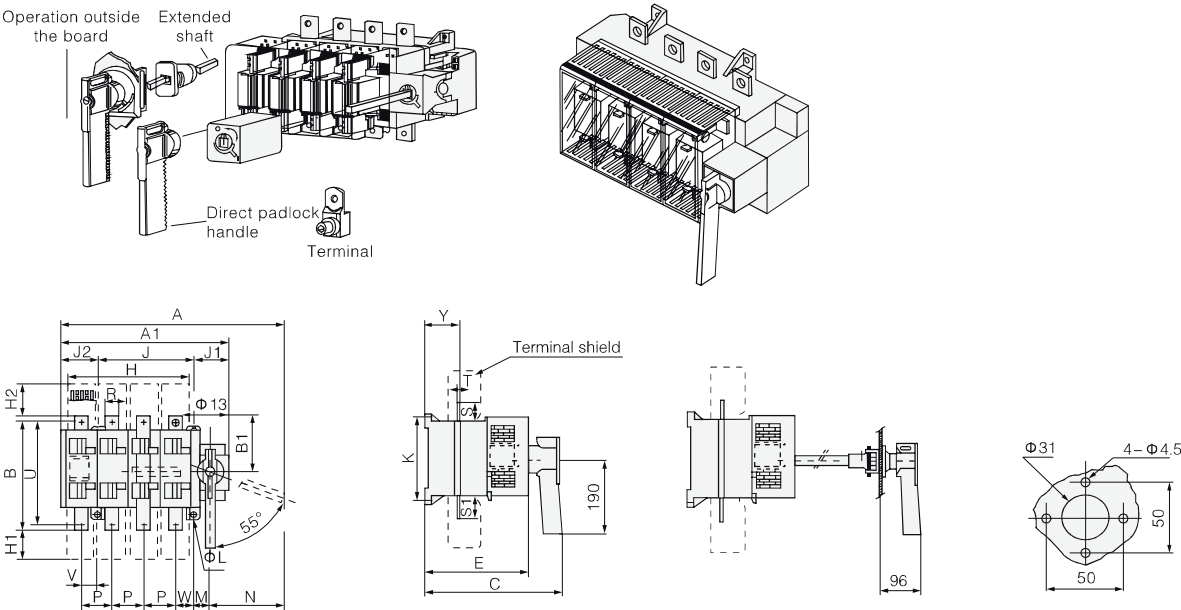
Specification	Fuse-link model	Overall and mounting dimensions																
		A	B	C	E	F	H	H1	I	J	K	L	M	P	R	T	ΦX	Y
100A/3	0~00C	133	118	134	126.5		116.5		159	145	106	5.4	36	32				
100A/4	0~00C	164	118	117	126.5		116.5		159	145	106	5.4	36	32				
160/3	0~00	150	162	173	126.5	44	108	53	141	189	127	5.4	38	36	20	2.5	8.5	19.5
160/4	0~00	186	162	173	126.5	44	144	53	141	189	127	5.4	38	36	20	2.5	8.5	19.5
250/3	1	253	195	173	146	65	180	75	185	251	162	6.4	81	60	32	2.5	11	19.5
250/4	1	313	195	173	146	65	240	75	185	251	162	6.4	81	60	32	2.5	11	19.5
400/3	2	271	205	173	149	65	192	75	200	260	172	6.4	86	66	50	3	11	20
400/4	2	337	205	173	149	65	250	75	200	260	172	6.4	86	66	50	3	11	20

TWOMASTER FLBS
Fused Load Break Switches
100A-1250A



Dimensions

400-630A/I Overall And Mounting Size Of
Fuse Group Of Isolation Switch



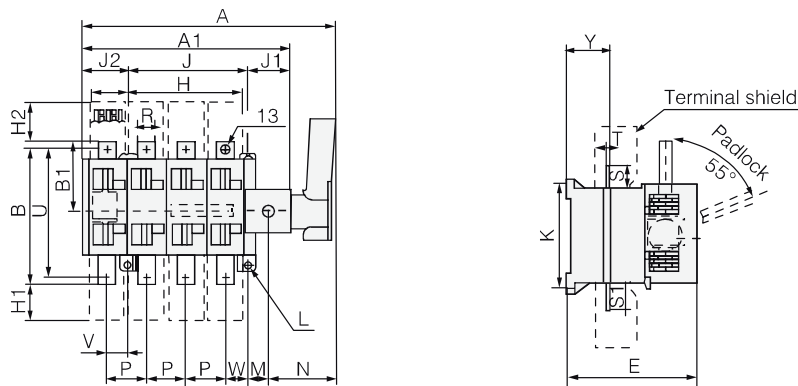
400A~630A Front direct operation

400~630A Front operation outside the board

Specification	Fuse-link model	Overall and mounting dimensions																								
		A	A1	B	B1	C	E	H	H1	H2	J	J2	J1	K	M	N	P	R	S	S1	T	V	U	W	ΦL	Y
400A/3	2	414	285	238	115	307	221	190	71	79	210	70	65	180	32.5	162	65	32	35	43	5	40.5	208	39.5	7	69
400A/4	2	474	345	238	115	307	221	255	71	79	210	70	65	180	32.5	162	65	32	35	43	5	24.5	208	39.5	7	69
630A/3	3	470	345	300	150	348	268	235	85	85	250	100	76	250	38.5	162	80	50	50	50	7	45.5	260	44.5	9	72
630A/4	3	550	425	300	150	348	268	315	85	85	250	100	76	250	38.5	162	80	50	50	50	7	34.5	260	44.5	9	72

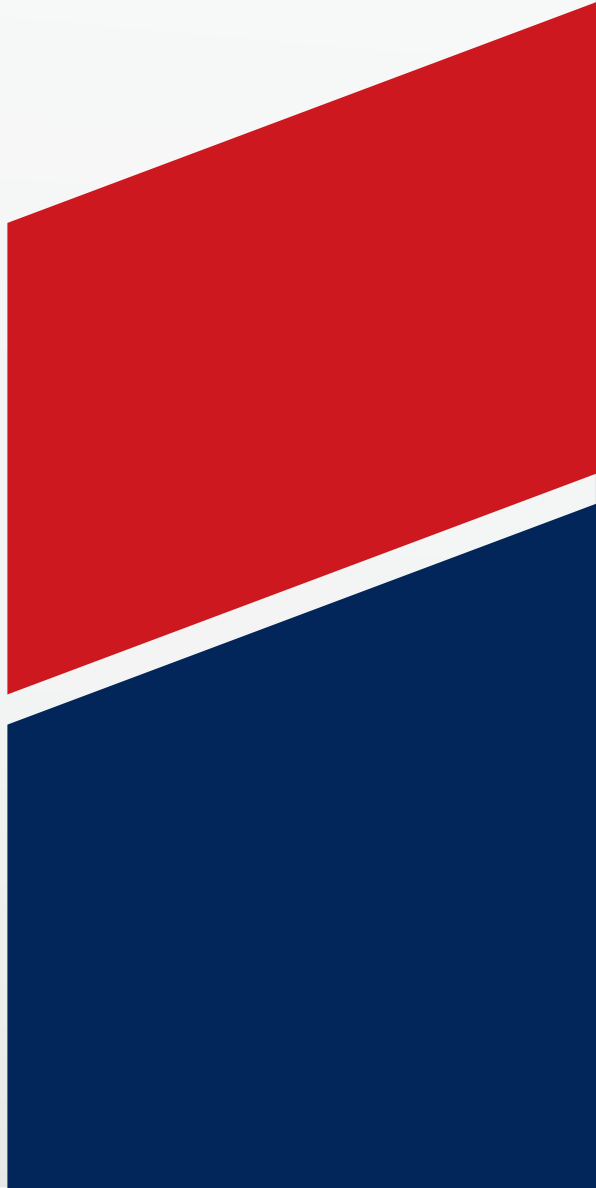
400-630A/I Overall And Mounting Size Of
Fuse Group Of Isolation Switch

Dimensions



400~630A Side direct operation

Specification	Fuse-link model	Overall and mounting dimensions																							
		A	A1	B	B1	E	H	H1	H2	J	J2	J1	K	M	N	P	R	S	S1	T	V	U	W	ΦL	Y
400A/3	2	500	285	238	115	221	190	71	79	210	70	65	180	32.5	119	65	32	30	43	5	40.5	208	39.5	7	69
400A/4	2	560	345	238	115	221	255	71	79	210	70	65	180	32.5	119	65	32	30	43	5	24.5	208	39.5	7	69
630A/3	3	550	345	300	150	268	235	85	85	250	100	76	250	38.5	119	80	50	50	50	7	45.5	260	44.5	9	72
630A/4	3	630	425	300	150	268	315	85	85	250	100	76	250	38.5	119	80	50	50	50	7	34.5	260	44.5	9	72



TWOMASTER



TWOMASTER PV
PV Load Break Switches
80-1250A
1000-1500VDC

TWOMASTER PV

PV Load Break Switches

80-1250A / 1000-1500VDC

TWOMASTER



The solution for

- Combiner box
- Recombiner box
- Inverter

Compliance with standards

- IEC 60947-3
- IEC 60947-1
- GB/T14048.1-2006
- GB/T14048.3-2008

Approvals and certifications

China Quality Certification Centre



Products Description

TWOMASTER PV series switch-disconnector is using the modular concept. The switch body adopts the special module assembly and the new appearance design to reduce the exposed metal parts of the switch body and improve the safety operating performance of the switch. The modular design facilitates the assembly and disassembly of the switch, and is suitable for different use requirements and occasions.

TWOMASTER PV series switch-disconnector is fit for AC 50/60Hz. Its rated working voltages are AC380V, AC690V, AC800V, AC1000V, DC1000V, DC1500V and the rated working current of 80A-1250A in the low-voltage distribution network can meet the loaded power-on and break the corresponding rated current, at the same time, it can also endure the overload current in the circuit in a short time.

TWOMASTER PV series switch-disconnector can be used for main power switches, isolating inspection switches and emergency stop switches of building construction, power, photovoltaic and petrochemical industries and factories, etc.

Compliance standards

National standards

GB/T 14048.1 Low-voltage Switchgear and Controlgear-General Rules

GB/T 14048.3 Low-voltage Switchgear and Controlgear -Switches, Disconnectors, Switch-disconnectors and Fuse-combination Units

International standards

IEC 60947-1 Low-voltage Switchgear and Controlgear- General Rules

IEC 60947-3 Low-voltage Switchgear and Controlgear -Switches, Disconnectors, Switch-disconnectors and Fuse-combination Units
Equipment Certification

PV series switch-disconnector has passed CCC, RoHS and CE standard certifications.

Product Code

TWOMASTER-PV 1500VDC Load Break Switch					
Rating (A)	Product Code	No. of poles	Direct handle	External handle & Shaft	Auxiliary contact
125	33302012	2 Pole	included	33300001	33300022 (1NA/1NK) 33300044 (2NA/2NK)
160	33302016	2 Pole			
250	33302025	2 Pole			
400	33302040	2 Pole			
630	33304063	4 Pole			
800	33304080	4 Pole			
1000	33304100	4 Pole			
1250	33308120	8 Pole			

TWOMASTER-PV 1000VDC Load Break Switch					
Rating (A)	Product Code	No. of poles	Direct handle	External handle & Shaft	Auxiliary contact
125	33402012	2 Pole	included	33400001	33400022 (1NA/1NK) 33400044 (2NA/2NK)
160	33402016	2 Pole			
250	33402025	2 Pole		33400002	
400	33402040	2 Pole		33400003	
630	33404063	4 Pole			
800	33404080	4 Pole			
1000	33404100	4 Pole			
1250	33408120	8 Pole			

PV Load Break Switches

80-1250A / 1000-1500VDC

Technical Parameter

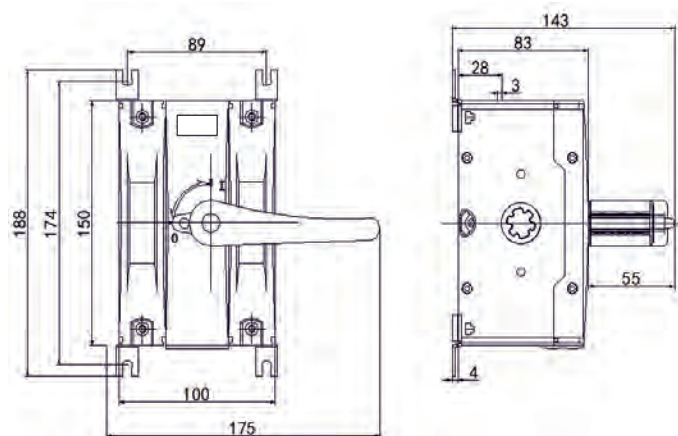
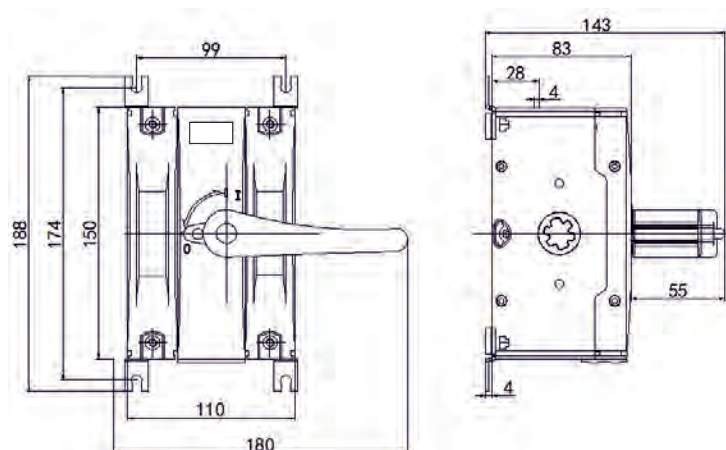
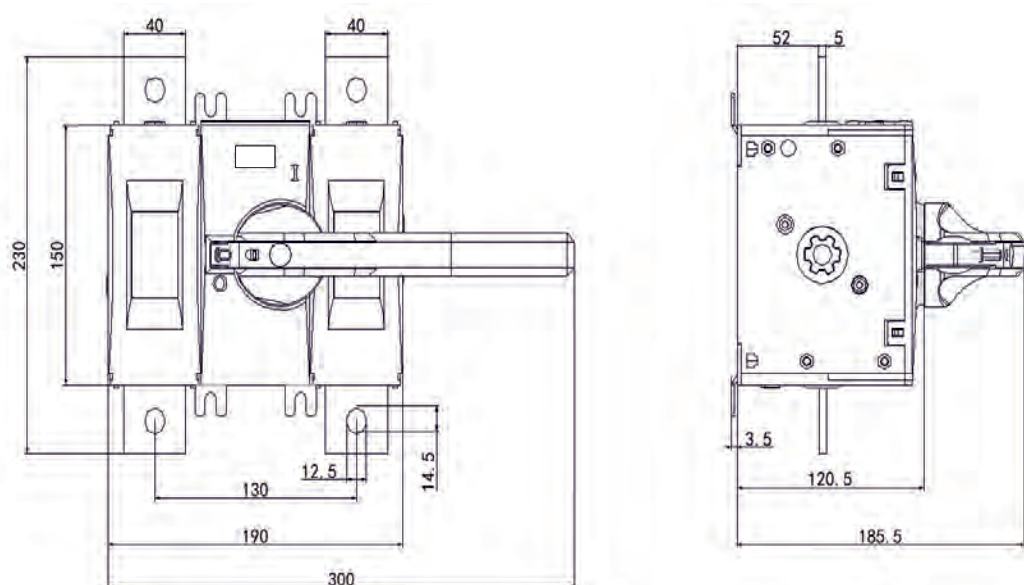
Conventional thermal current (A)		160	250	630	1250
Rated operating voltage (V)		DC1000 DC1500		DC1000 DC1500	
Rated operating current (A)		80,100,125,160	200,250	315,400,500,630	800,1000,1250
Number of poles		2P/3P/4P			
Rated impulse withstand voltage Uimp (kV)		12			
Rated insulation voltage Ui (V)		1500			
Usage category	DC1000V	DC -PV2(2P)	DC -PV2(2P)	DC -PV2(2P)	DC -PV1(2P)
	DC1500V	DC -21 B(3P) DC -PV2(4P)	DC -21 B(3P) DC -PV2(4P)	DC -21 B(3P) DC -PV2(4P)	DC -21A(3P) DC -PV1(4P)
Rated short circuit making capability Icm (kA peak)	DC 1500V	5	7	10	40
Rated short -time withstand current Icw	DC 1500V	10kA/1s	10kA/1s	20kA/1s	40kA/1s
Mechanical life (times)		7800	7800	4800	2900
Electrical life (times)		200	200	200	100
Tightening torque with terminal (Nm)		15-22	15-22	50-75	50-75
Operating altitude		<2000 m			
Operating temperature		-45℃ - + 70℃			
Pollution level		Level 3			
Protection level		IP20			
Weight(kg)	3 poles	1.7	1.9	6.5	15.8
	4 poles	2.3	2.5	7.7	19.3

Technical Parameter

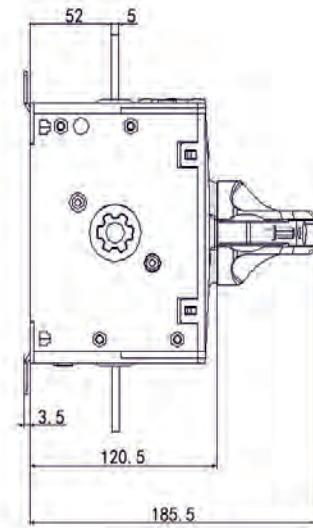
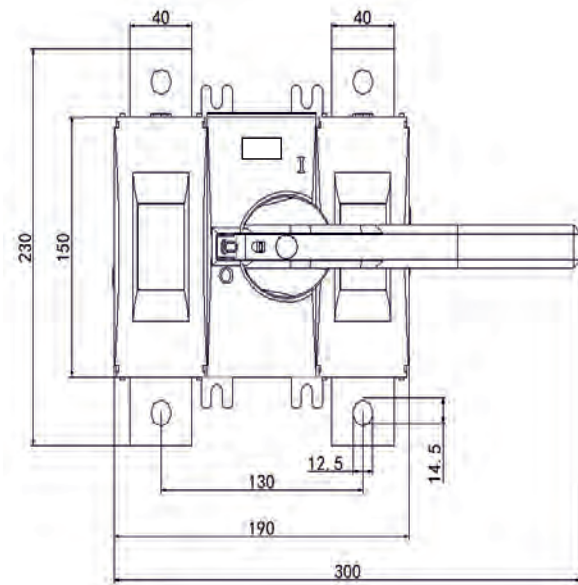
Conventional thermal current (A)		500
Rated operating voltage (V)		DC1500
Rated operating current (A)		200 250 315 400 500
Number of poles		2P
Rated impulse withstand voltage Uimp		12
Rated insulation voltage Ui (V)		1500
Usage category	DC 1500V	DC-PV2
Rated short circuit making capability Icm (kA peak)	DC 1500V	10
Rated shorttime withstand current Icw	DC 1500V	10kA/1s
Mechanical life (times)		4800
Electrical life (times)		200
Tightening torque with terminal (Nm)		50-75
Operating altitude		<2000 m
Operating temperature		-45°C- + 70°C
Pollution level		Level 3
Protection level		IP20
Weight(kg)	2 poles	6.6

TWOMASTER PV

PV Load Break Switches

80-1250A / 1000-1500VDC**TWOMASTER****Dimensions****1000VDC / 160A / 2P****1000VDC / 250A / 2P****1000VDC / 315...630A / 2P**

1500VDC / 200...500A / 2P



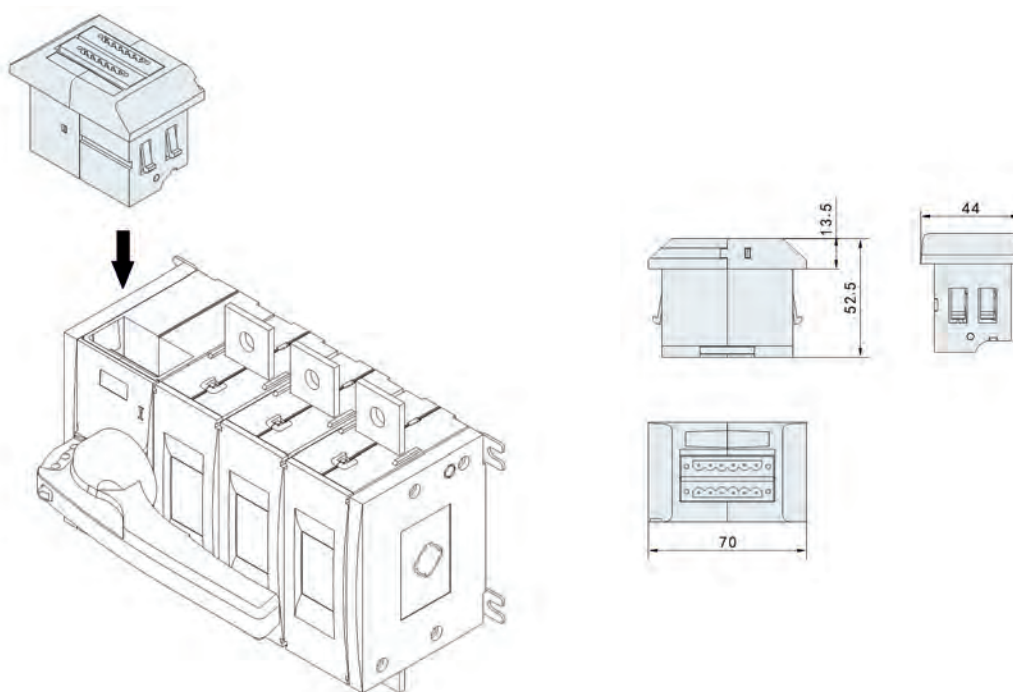
TWOMASTER PV

PV Load Break Switches

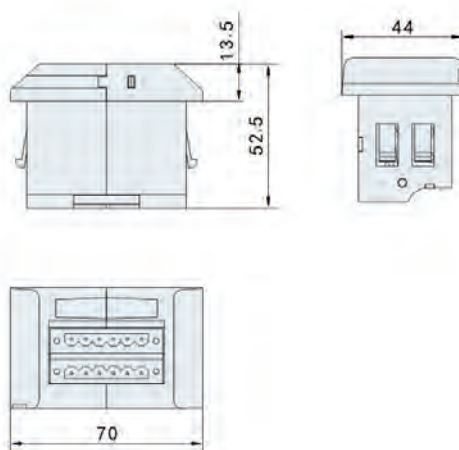
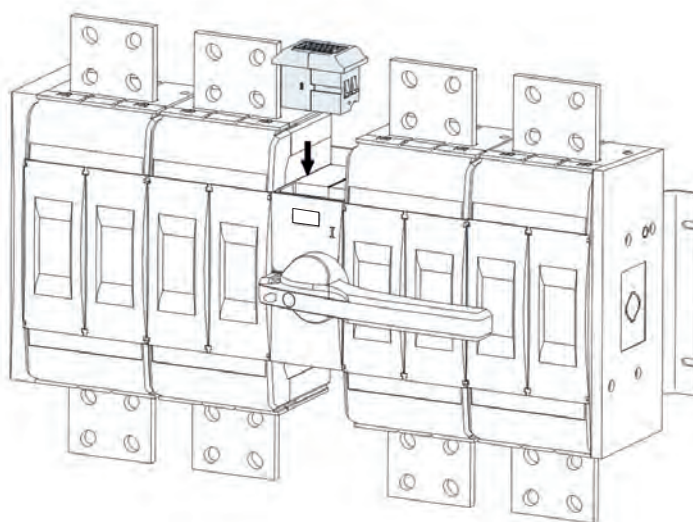
80-1250A / 1000-1500VDC

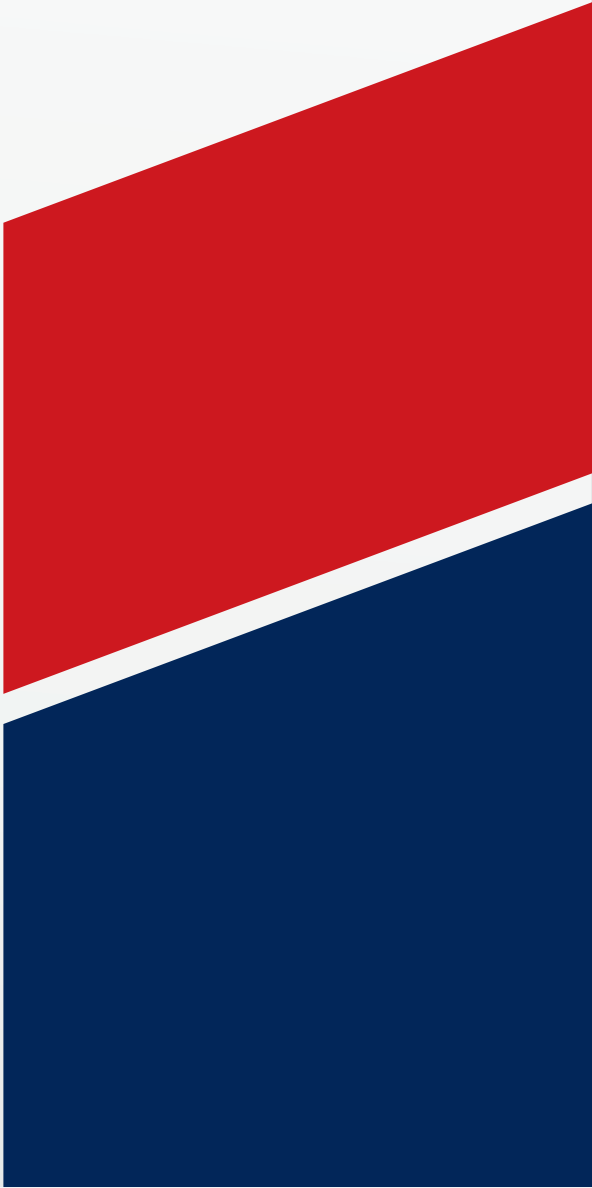
TWOMASTER

Dimensions



Dimensions





TWOMASTER



TWOMASTER FSD
Fuse Switch Disconnect

TWOMASTER FSD

Fuse Switch Disconnecter

100A-630A

TWOMASTER



The solution for

- Protection of industrial processes
- Main switchboard
- Distribution panel
- Compensation board

Compliance with standards

- IEC 60947-1:2021
- IEC 60947-2:2017+A1:2020

Approvals and certifications

UDEM International Certification



Products Description

Introduction

FSD series integrate control, isolation, and fuse base function in one device. These functions can also be realized by using of different

Function

Fuse switch disconnecter has following functions:
The load change over. The work speed and breaking capacity of the fuse is associated with the specific operation situation of the operator.

- Fuse brake piece form the dynamic contact of the fuse.
- Fuse is installed in the fuse base.
- By manipulating the handle , the fuse base can operate the main active contact.
- When the fuse base is in the OFF position(OFF), contacts can indicate information.
- With DIN type blade industry fuse (NH), it can provide power distribution circuit with short circuit or overload protection.

The solution of different combined components

By using isolating switch and the fuse installed on different fuse base,it can protect the power distribution circuit and the motor.

- The function of each component can provide.
- The load switch (opening and closing) and isolation (isolating switch).
- Short circuit or overload protection (fuse).

With the aid of these components, it has Interpact INS isolating switch function between 40A~ 800A .

In accordance with the protection degree

FSD fuse can prevent direct contact. Its protection degree conform to the IEC 60529 standard IP (20).

Conform to the standard

FSD fuses accessories meet the following international standards and national standards GB14048.3 and specifications:

IEC 60947-1 general rule.

IEC 60947-1; Switch, isolator, isolation switch and fuse composition unit.

IEC 60947-5.1 and below: control circuit devices and switching components, control components.

Class of pollution

FSD fuse is certified. It can work in level III pollution environment.

The pollution level is in accordance with industrial environment IEC 60947 standard.

Environment temperature

FSD fuse operating temperature range from 25 °C to + 70 °C.

When the temperature is higher than 40 °C, squad coefficient must be used.

As long as no more than a certain duration,it can operate under the condition of ambient temperature below -35 °C.

Product Code

TWOMASTER-FSD Fuse Switch Disconnect			
Rating (A) 690VAC	Product Code	No. of poles	Fuse Size
100	32223010	3 Pole	NH000
160	32223016	3 Pole	NH00
250	32223025	3 Pole	NH1
400	32223040	3 Pole	NH2
630	32223063	3 Pole	NH3

TWOMASTER FSD

Fuse Switch Disconnecter

100A-630A



Technical Parameters

FSD isolating switch fuse		
Electrode number/Fuse model		IEC60 2692-1 standard, clause 1
Electric property in accordance with IEC 60947-1 GB14048.3		
The rated load current (A)	ventilation	lth
	At 40°C	
	The maximum loss power of the fuse(W)	
	inner of shell	lthe
	At 40°C	
	The maximum loss power of the fuse (W)	
rated insulation voltage (V)		Ui
		AC 50/60 Hz / DC
Rated impulse withstand voltage		Uimp
The rated operating voltage (V)		Ue
		AC 50/60 Hz
		DC
The rated operating voltage (AC20 and DC20) (V)Ue		
Rated current (A)		Ie
		AC 50/60 Hz
		220/240 V
		380/415 V
		440/480 V
		500 V
		660/690 V
		DC/Tandem electrode
		125 V /Electrode number
		220 V /Electrode number
		440 V /Electrode number
working mode		continuously operate
rated short circuit breaking capacity (kA rms) / Icn/Icm/In fuse		415 V
rated short-circuit		500 V
closing capacity (Peak value kA) fuse (A) ⁽³⁾		690 V
Service life (class B) (CO cycle)		Machinery
		AC
		AC22B 415 V
		electricity
		AC21B 690 V
Suitable for isolation		
Visible breakpoint		
class of pollution		
Control		
The lock of rotation handle on direct front panel		Padlock
		Seal retainer
Auxiliary indicator		
Auxiliary contact		
Fuse monitor		
Fuse failure indicator contact		
Installation and connection accessories		
Installation site		Horizontal
		Vertical
Bare cable connector		
Other connector		For bare copper/aluminum cable
		Used for bus
Power connector		
Copper cable lug		
Comb bus		
The comb bus insulation cover		
Comb bus input connector		
Terminal cover		
Dimensions and Weight		
Overall dimension H x W x D (mm)		3poles
No fuse reference weight (kg)		3poles

Technical Parameters

FSD-100		FSD-160		FSD-250		FSD-400		FSD-630	
3P/DIN (NH)		3P/DIN (NH)		3P/DIN (NH)		3P/DIN (NH)		3P/DIN (NH)	
100 ⁽¹⁾		160		250		400		630	
9		12		23		34		48	
100 ⁽¹⁾		160		250		400		630	
9		12		23		34		48	
690		800		800		800		800	
6		8		8		8		8	
690		690		690		690		690	
440		440		440		440		440	
690		800		800		800		800	
AC21B	AC22B	AC21B	AC22B	AC21B	AC22B	AC21B	AC22B	AC21B	AC22B
100	100	160	160	250	250	400	400	630	630
100	100	160	160	250	250	400	400	630	630
100	-	160	-	250	-	400	-	630	-
100	-	100	-	250	-	400	-	630	-
100	-	100	-	250	-	400	-	630	-
DC21B	DC22B	DC21B	DC22B	DC21B	DC22B	DC21B	DC22B	DC21B	DC22B
100/1	-	160/1	-	250/1	-	400/1	-	630/1	-
100/1	-	160/1	-	250/1	-	400/1	-	630/1	-
100/1	-	160/2	-	250/2	-	400/2	-	630/2	-
80 / 176 / 100		50 / 105 / 160		50 / 105 / 250		50 / 105 / 400		50 / 105 / 630	
50 / 105 / 100		50 / 105 / 160		50 / 105 / 250		50 / 105 / 400		50 / 105 / 630	
50 / 105 / 100		50 / 105 / 100		50 / 105 / 200		50 / 105 / 315		50 / 105 / 500	
2000		1600		1600		1000		1000	
300		200		200		200		200	
300		200		200		200		200	
3		3		3		3		3	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
-		-		-		-		-	
141 x 89 x 71		163 x 107 x 80		246 x 186 x 110		271 x 210 x 127		271 x 250 x 132	
0.46		0.64		2.06		2.96		4.00	

TWOMASTER FSD

Fuse Switch Disconnector

100A-630A



Technical Parameters

FSD isolating switch fuse type			FSD-100	FSD-160	FSD-250	FSD-400	FSD-630
The model of fuse							
	DIN NH000				-	-	-
	DIN NH00		-		-	-	-
	DIN NH1		-	-		-	-
	DIN NH2		-	-	-		-
	DIN NH3		-	-	-	-	
Installation and connection							
Symmetric guide				-	-	-	-
Direct connection on the back							
Hook connection with the spacing of 60 mm bus							
Temperature drop capacity (using the gG type fuse) (1) (2)			100/160 ³⁾	160	250	400	630
		40°C	100/160	160	250	400	630
		45°C	95/152	152	238	380	599
		50°C	90/144	144	225	360	567
"vertical installation"	lth (A)	55°C	85/136	136	213	340	536
Vertical fuse		60°C	80/128	128	200	320	504
		65°C	75/120	120	188	300	473
		70°C	70/112	112	175	280	441
		40°C	100/160	160	250	400	630
		45°C	95/152	152	238	380	599
		50°C	90/144	144	225	360	567
"horizontal installation"	lth (A)	55°C	85/136	136	213	340	536
Horizontal fuse		60°C	80/128	128	200	320	504
		65°C	75/120	120	188	300	473
		70°C	70/112	112	175	280	

(1) drop volume data based on:

- equipment fuse maximum rated value
- the maximum heat loss

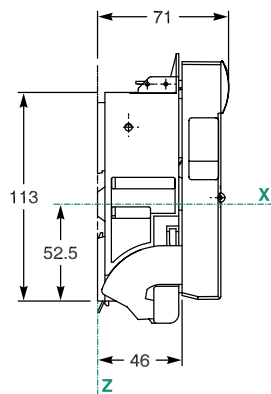
(2) When install top mounted , it needs another 10% reduction

(3)Using 100/160 A f

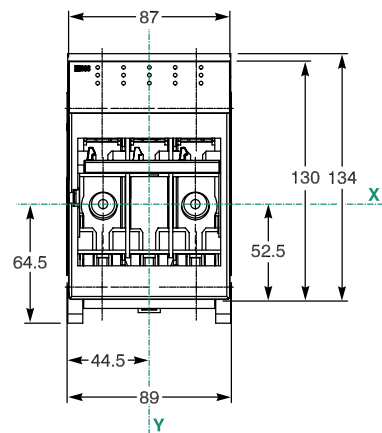
Dimensions

FSD-100

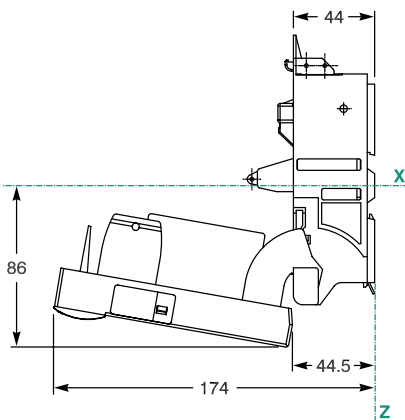
Fuse switch closure



Front side



Fuse switch open



TWOMASTER FSD

Fuse Switch Disconnector

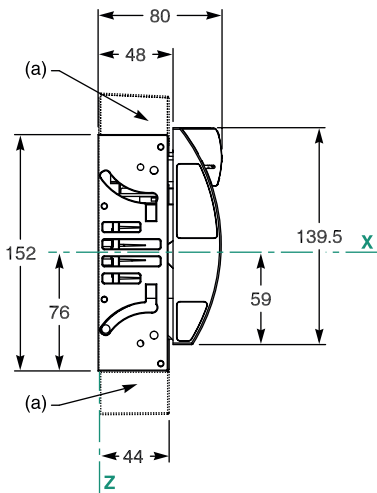
100A-630A



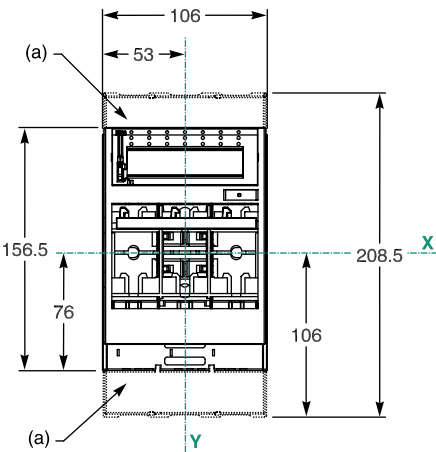
Dimensions

FSD-160

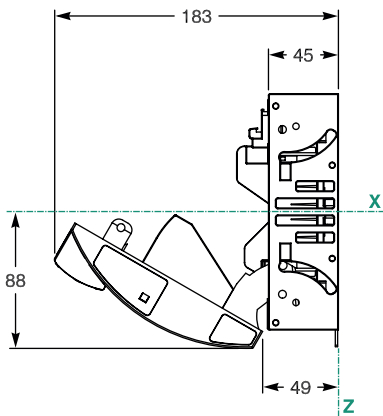
Fuse switch close



Front side



Fuse switch open

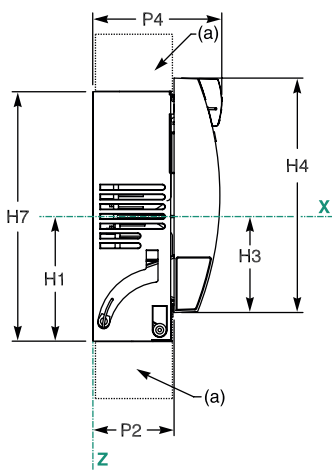


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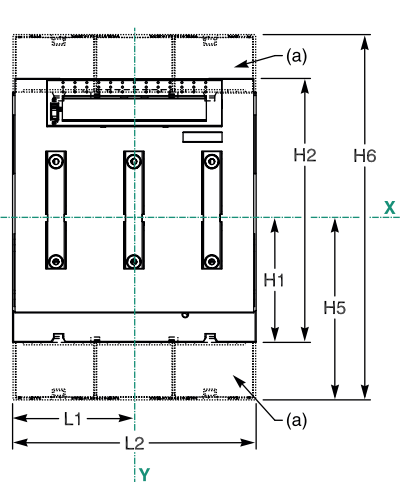
Dimensions

FSD 250-630

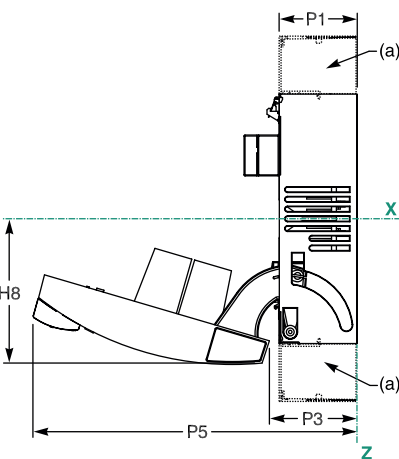
Fuse switch close



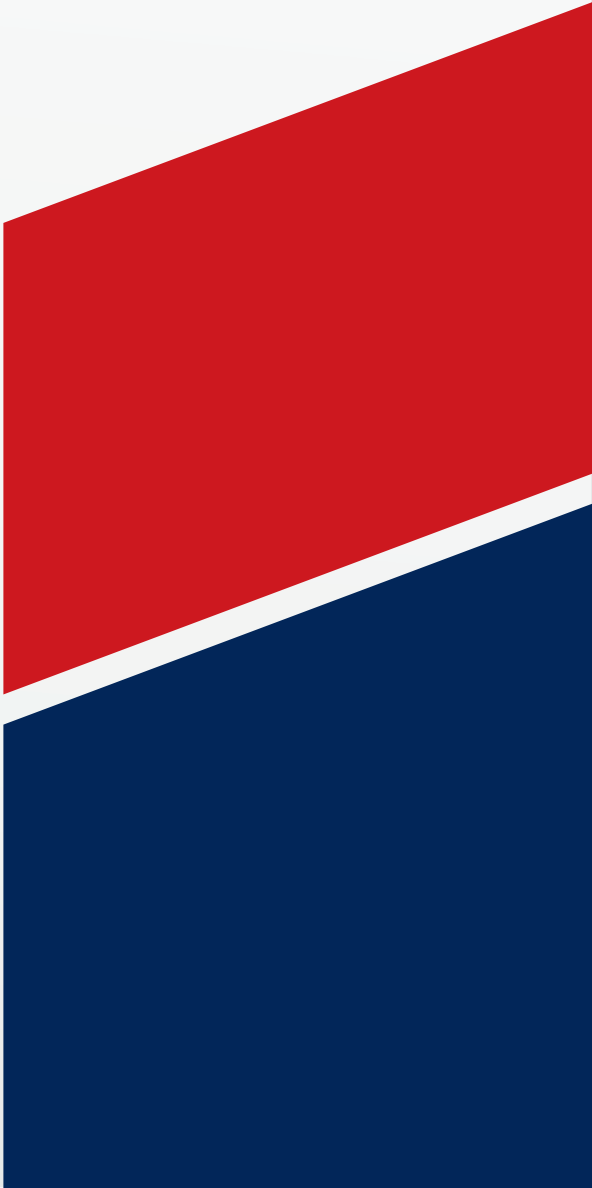
Front side



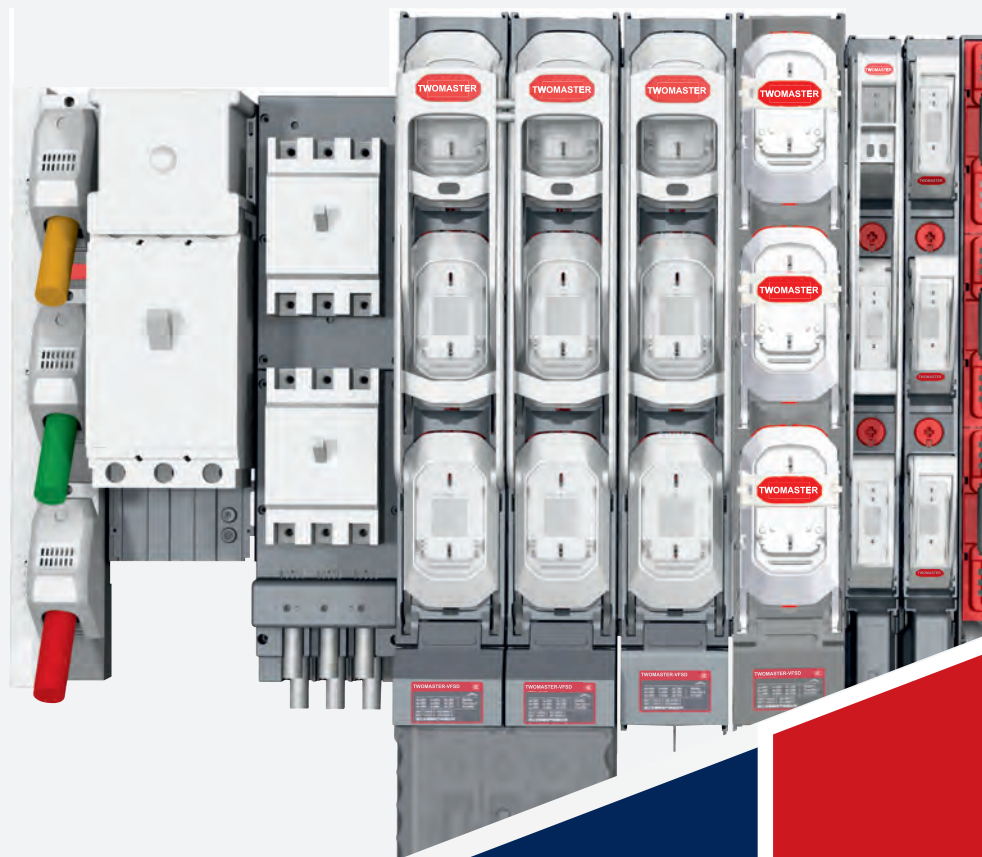
Fuse switch open



	H1	H2	H3	H4	H5	H6	H7	H8	L1	L2	P1	P2	P3	P4	P5	R1	R2	P6	P7
FSD-250	115	245	86	216	174	348	230	133	92	184	68	72	78	110	293	-	-	316	148
FSD-400	128	270	99	241	187	374	256	144	105	210	82	84	91	127	331	65	130	319	148
FSD-630	128	270	99	241	187	374	256	147	125	250	82	84	91	132	332	80	160	319	148



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TWOMASTER VFSD
Vertical Fuse Switch Disconnect
160A-1000A

TWOMASTER VFSD

Vertical Fuse Switch Disconnecter

160A-1000A

TWOMASTER



The solution for

- Protection of industrial processes
- Main switchboard
- Distribution panel
- Photovoltaic Power Plants

Compliance with standards

- IEC 60947-3
- IEC 60269-2

Approvals and certifications

China Quality Certification Centre



Product Description

Series Overview

In the 185mm electrical system, the vertical fusedisconnector can be installed on the busbar orderly andcompactly. With the connection of the hanging terminals, thebusbars do not need to be drilled, which is convenient,quick and easy to maintain.

-  The installation of hanging terminal is efficient and fast.
-  Overall protection structure, electricity safety and anti-accidental injury.
-  There is a variety of wiring methods to adapt to a variety of site needs.
-  The busbar is connected without holes, the component is flexibly applied, and it is easy to service and maintain.
-  The system structure is compact to save space.

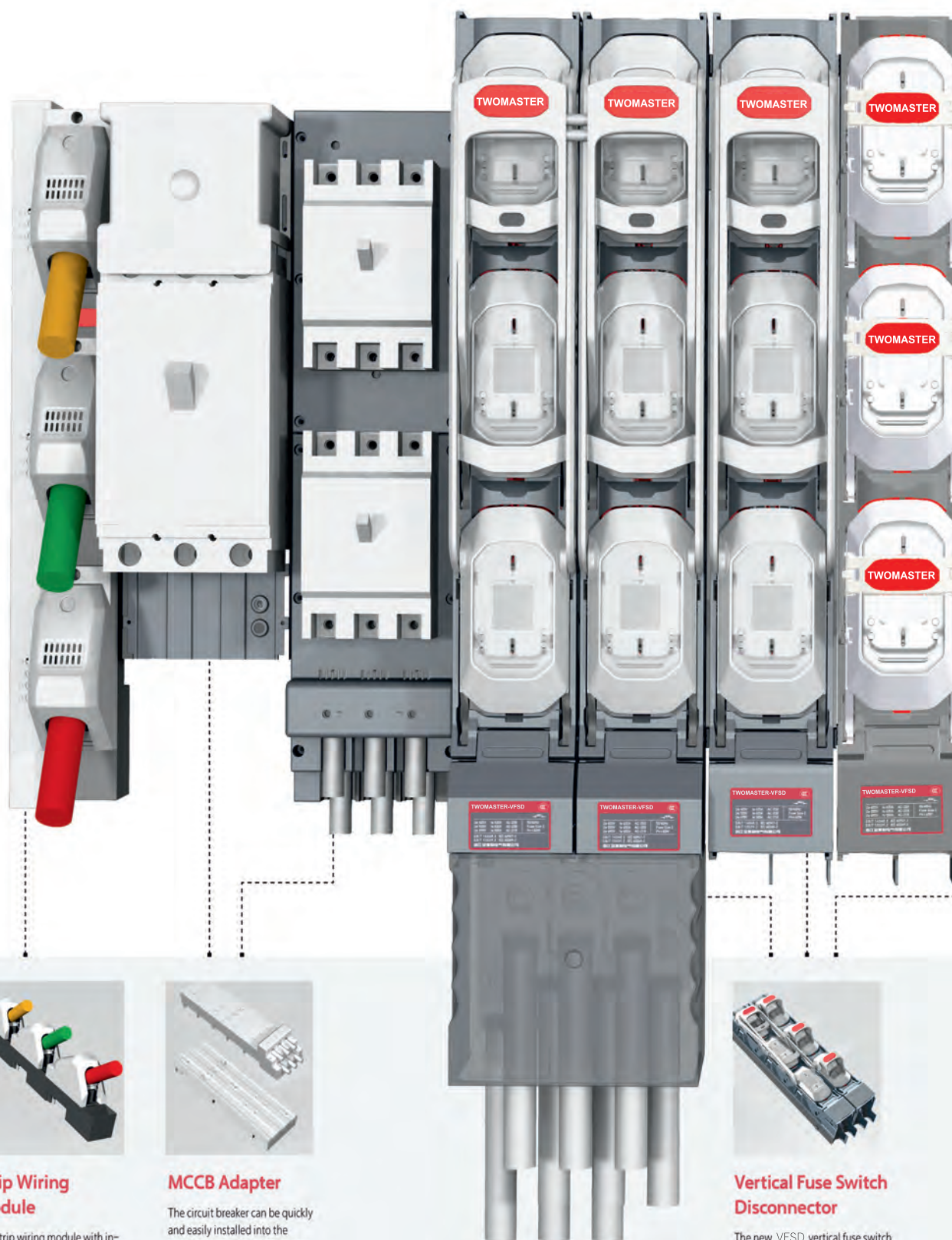
TWOMASTER-VFSD Vertical Fuse Switch Disconnecter				
Rating (A)	No. of poles	Fuse Size	Switching Mode	Product Code
160	3 Pole	NH00	1 pole	32233016
250	3 Pole	NH1	1 pole	32233025
400	3 Pole	NH2	1 pole	32233040
630	3 Pole	NH3	1 pole	32233063
1000	3 Pole	NH4	1 pole	32233100
1250	2x3 Pole	NH3	2x1 pole	32233120
2000	2x3 Pole	NH4	2x1 pole	32233200

TWOMASTER-VFSD Vertical Fuse Switch Disconnecter				
Rating (A)	No. of poles	Fuse Size	Switching Mode	Product Code
160	3 Pole	NH00	3 pole	32233017
250	3 Pole	NH1	3 pole	32233026
400	3 Pole	NH2	3 pole	32233041
630	3 Pole	NH3	3 pole	32233064
1000	3 Pole	NH4	1 pole	32233101
1250	2x3 Pole	NH3	2x3 pole	32233121
2000	2x3 Pole	NH4	2x3 pole	32233201

TWOMASTER VFSD

Vertical Fuse Switch Disconnecter

160A-1000A

TWOMASTER


Strip Wiring Module

The strip wiring module with in-line integrated design solves the problem of customer's incoming wire layout, saves space and cost, and is safe and reliable.



MCCB Adapter

The circuit breaker can be quickly and easily installed into the system via an adapter. They can be used for the installation of circuit breakers for incoming and outgoing busbar systems and are compatible with most brands of circuit breakers.



Vertical Fuse Switch Disconnecter

The new VFSD vertical fuse switch disconnecter has integrated into the design philosophy of "independent innovation", it conceived and implemented a variety of new structures to help customer solve the application difficulties. At the same time, it has many patents.



185mm

OVERVIEW of 185mm ELECTRICAL SYSTEM

Innovative Solutions And Efficient Experience

- With a modular 185mm electrical system, the vertical fuse switch disconnecter, circuit breaker, fuse rail and other components can be installed in a busbar system with a 185mm space, of which all components are perfectly compatible.
- Thanks to the non-hole connection technology and modular design concept, the 185mm system has the advantages of simple and fast installation, safe and reliable power supply, diversified system functions, easy expansion of electrical circuit capacity and so on, bring even more helpful and innovative features to users.



Vertical Fuse Rail

The vertical fuse rail provides the basic functions in the electrical system: overload and short circuit protection, to ensure that the system runs reliably and to prevent hazards in time.



Busbar Cover

An anti-touch busbar cover is made of insulation material to ensure the safety of the 185mm system.



Busbar Support

The different sizes of busbar are directly installed in the electrical cabinet through busbar bracket with adjustable width, without being separately drilled, so as to realize non-drilling installation.

TWOMASTER VFSD

Vertical Fuse Switch Disconnecter

160A-1000A

TWOMASTER

185mm

FULL RANGE DISPLAY of 185mm VERTICAL SWITCH

Series Overview

- In the 185mm electrical system, the vertical fuse disconnecter can be installed on the busbar orderly and compactly.
- With the connection of the hanging terminals, the busbars do not need to be drilled, which is convenient, quick and easy to maintain.



The installation of hanging terminal is efficient and fast.



Overall protection structure, electricity safety and anti-accidental injury.



There is a variety of wiring methods to adapt to a variety of site needs.



The busbar is connected without holes, the component is flexibly applied, and it is easy to service and maintain.



The system structure is compact to save space.



Position Block

The position block is installed on the base, and the spacing of the switches can be automatically arranged to be 5mm during the side-by-side installation to optimize the installation.



Electrical Fuse Monitor

The electrical fuse monitor is suitable for the monitoring component as a fuse in the control circuit. According to the fuse of the circuit, the panel outputs a work light or a fault light, and if the fault is displayed, it can simultaneously output a remote signal. When a new fuse is replaced, the monitor automatically returns to normal indication.



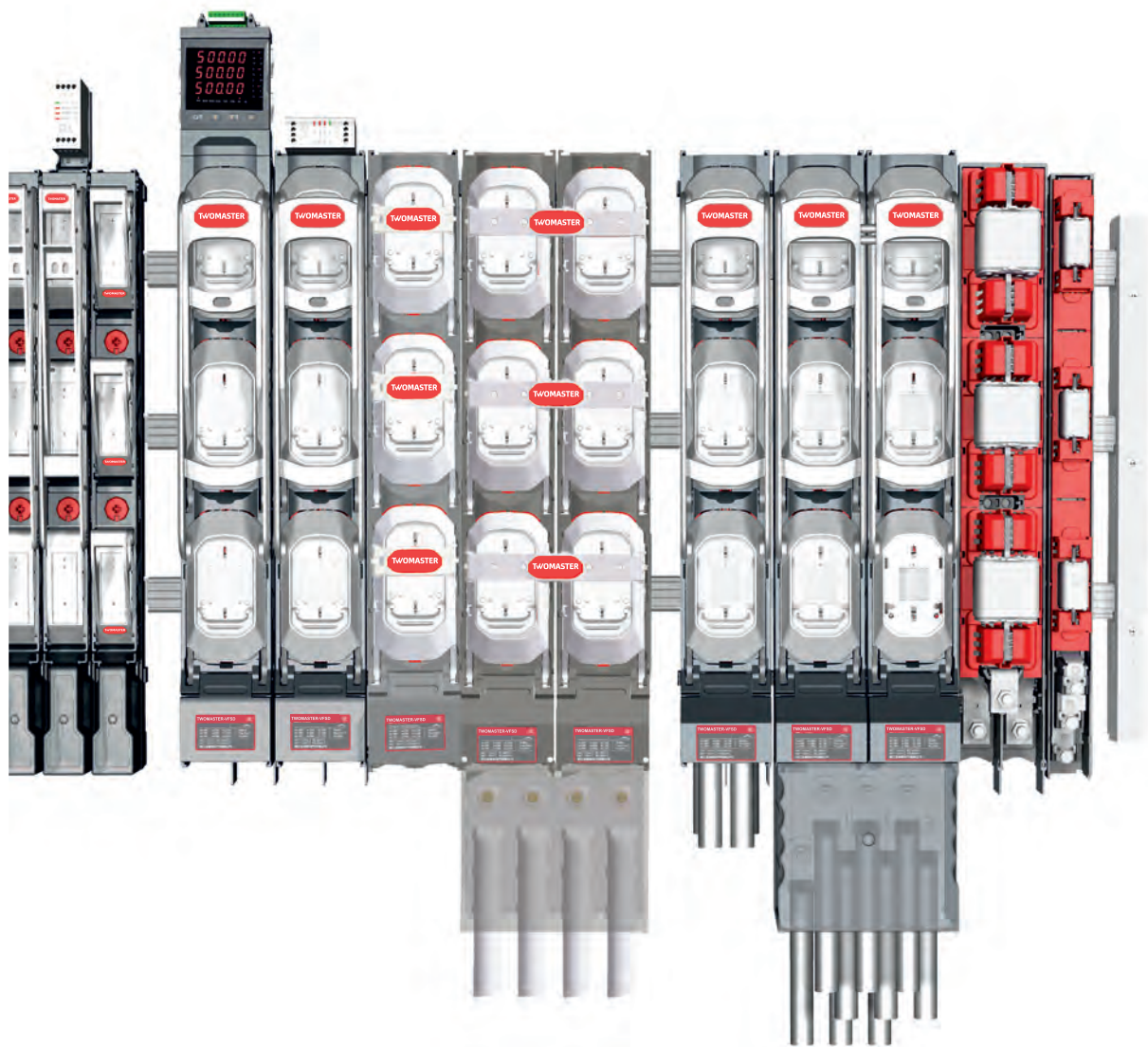
One-Phase Ammeter

With 3S monopole operation, a three-phase ammeter can be added to directly check the current of each phase.



Multi-Function Intelligent

The multi-function intelligent meter can be chosen for integrated installation, it has function of programmable measurement, display, digital communication and power pulse transmission output, which can complete electrical measurement, electric energy measurement, data display, acquisition and transmission. There is LED status display and remote RS-485 digital interface communication.



Connected In Parallel

The two switches are connected in parallel and the maximum current can be up to 1250A (with fuse), and 2000A (with sold link)



Padlock

DNH18 switch structure is lockable design. When the electrical system is in normal operation or needs to be serviced or maintained, abnormal operation causing equipment failures and personal risk in the electrical system shall be prevented.



Logo

It is well designed and uses a two-color plastic injection molding process to show its ingenuity in the subtle aspects.



Structure

The integrated structure of switch transformer is adopted, and each phase can be installed with the transformer, which enhances the customer experience with convenient operation and service.

TWOMASTER VFSD

Vertical Fuse Switch Disconnecter

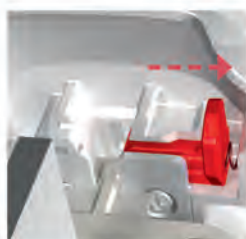
160A-1000A

TWOMASTER

VERTICAL FUSE SWITCH DISCONNECTOR

The VFSD Vertical fuse switch is a new vertical fuse switch disconnecter by OSSA for three years. In the early stage of research and development, market research was carried out, user feedback was integrated, and the product structure was optimized according to the new PI planning of OSSA. Each design can solve the problems faced by user in practical application and provide the market with a new choice.

- The new VFSD vertical fuse switch disconnecter is installed with a special hanging terminal and directly connected to the busbar. The hanging terminal can be fixed on the switch in advance and installed integrally with switch efficiently and conveniently.
- The VFSD vertical fuse switch disconnecter can provide a variety of wiring modes to meet your wiring needs in different situations.



Horizontal Sliding Block

The fuse link is easy to assemble and disassemble, and can be locked and unlocked by laterally moving the red slider.



Arc-Extinguishing Chamber

The switch has a multi-piece arc-extinguishing chamber structure for fast arc extinguishing and the separate contact shield will protect the contact integrity when installed by the customer.



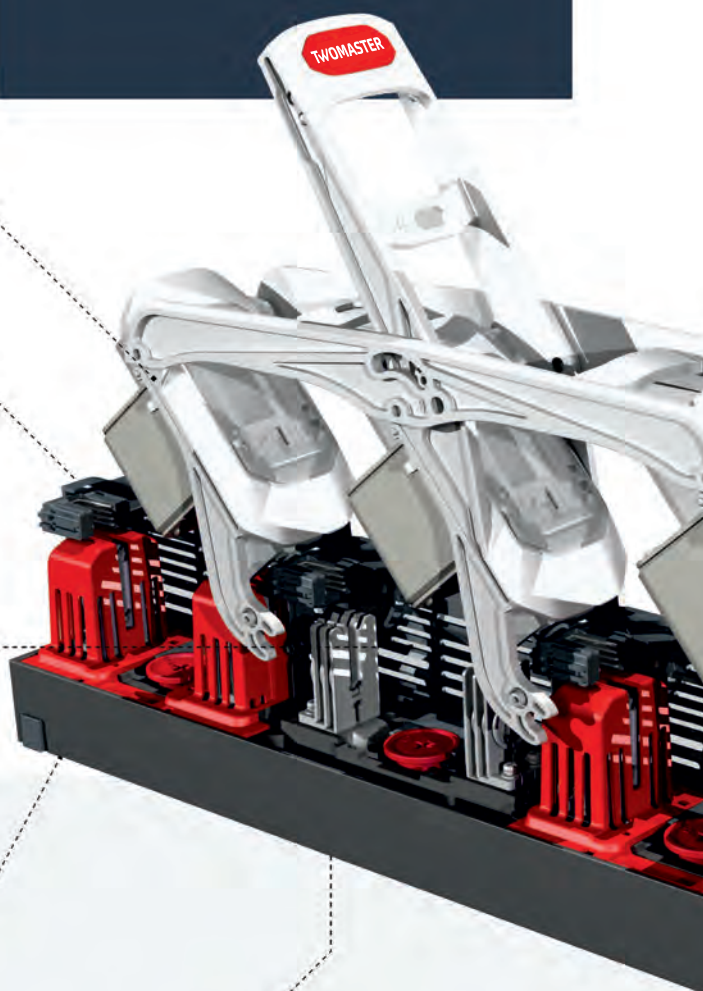
Heat Dissipation Structure

The heat dissipation groove channel is added on the side of the switch to improve heat dissipation when the switches are installed side by side.



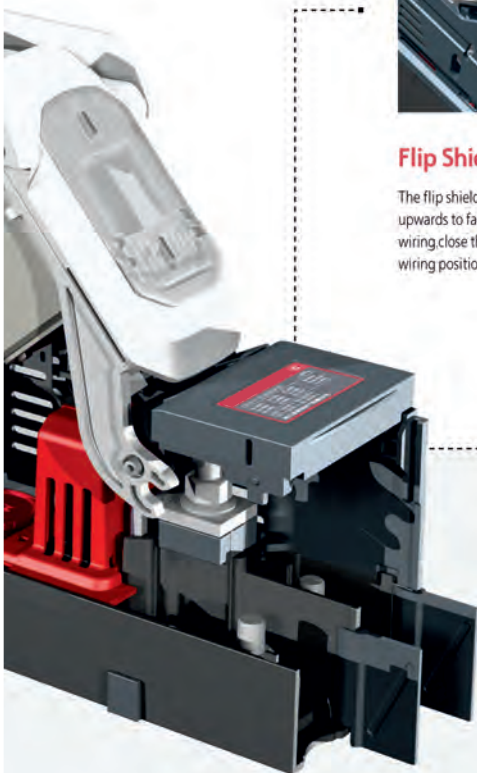
Protective Block

The base is provided with a block protecting the copper parts to prevent the copper parts from rubbing against the ground when laid flat. It shall be ensured that the switch and the busbar are electrically conductive without virtual connection.



Hanging Terminal

The hanging terminal is fixed on the switch in advance, and is installed integrally with the switch to improve the installation speed and save labor. The application of high-strength alloy steel materials ensures long-term safe and reliable use of electricity.



Flip Shield

The flip shield can be opened and fixed upwards to facilitate cable wiring. After wiring, close the shield to cover the cable wiring position.



Wiring Bolt

Grade 8.8 geared flange bolts are used for safe and reliable connection and there is an self-locking function. The bolts face up and with visible holes, the cable lug is easy to install.



Cable Lug

The wiring bolts face upwards, which is convenient for the customer to connect the cable lug and to install. Each phase can be connected to wire Max. 2X240mm².



Connection Terminal (V-shape)

Each phase for connect wire 50-300mm².



Double Core Terminal

Each phase for connect wire Max. 2X240mm².

TWOMASTER VFSD

Vertical Fuse Switch Disconnecter

160A-1000A



Technical Parameters

				VFSD-160			VFSD-250			VFSD-400			VFSD-630			
Electrical parameter	With fuse link	Rated operating voltage	Ue	V	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690
		Rated operating current	Ie	A	160	125	100	250	250	200	400	400	315	630	630	500
		Conventional thermal current	Ith	A	160	125	100	250	250	200	400	400	315	630	630	500
		Utilization Category			AC-23B	AC-23B	AC-22B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B
		Rated limited short-circuit current	Iq	kA		50		100	100	50	100	100	50	100	100	50
		Rated insulation voltage	Ui	V		1000		1000			1000			1000		
		Rated impulse withstand voltage	Uimp	kV		8		12			12			12		
		Rated frequency		Hz		50/60		50/60			50/60			50/60		
		Electrical endurance times		second		200		200			200			200		
	With copper link	Rated operating voltage	Ue	V		∕		∕	AC500	∕	∕	AC500	∕	∕	AC500	∕
		Rated operating current	Ie	A		∕		∕	250	∕	∕	400	∕	∕	630	∕
		Conventional thermal current	Ith	A		∕		∕	250	∕	∕	400	∕	∕	630	∕
		Utilization Category				∕		∕	AC-23B	∕	∕	AC-23B	∕	∕	AC-23B	∕
		Rated limited short-circuit current	Icw	kA		∕		∕	12	∕	∕	12	∕	∕	12	∕
		Rated insulation voltage	Ui	V		∕			1000			1000			1000	
		Rated impulse withstand voltage	Uimp	kV		∕			12			12			12	
		Rated frequency		Hz		∕			50/60			50/60			50/60	
		Electrical endurance Times		second		∕			200			200			200	
		Fuse	Fuse size (RT16NTNH) GB/T13539.2 IEC 60269-2				00			1			2			3
Operating current	In		A	160	125	100	250	250	200	400	400	315	630	630	500	
Power loss	P		W	12	12	12	18	23	32	28	34	45	40	48	60	
Mechanism	Mechanical endurance times		second		1400			1400		800	800	1400		800		
	Busbar spacing		mm		185			185			185			185		
Protection	Frontal	On			IP20			IP20			IP20			IP20		
		Off			IP30			IP30			IP30			IP30		
Other	Electronic Fuse Monitor (EFM)				Can be added			Can be added			Can be added			Can be added		
	Signal feedback for opening and closing the switch (micro switch)				Can be added			Can be added			Can be added			Can be added		
Working conditions	Ambient temperature		℃							-5 ~ +55						
	Working mode									Continuous operation						
	Operation									Handle						
	Installation form									Vertical						
	Sea level		Meter							≤2000						
	Pollution degree									3						
	Overvoltage category				III					IV						

Technical Parameters

				VFSD-1000				VFSD-630x2				VFSD-1000x2				
Electrical parameter	With fuse link	Rated operating voltage	Ue	V	✓				✓				✓			
		Rated operating current	Ie	A	✓				✓				✓			
		Conventional thermal current	Ith	A	✓				✓				✓			
		Utilization Category			✓				✓				✓			
		Rated limited short-circuit current	Iq	kA	✓				✓				✓			
		Rated insulation voltage	Ui	V	✓				✓				✓			
		Rated impulse withstand voltage	Uimp	kV	✓				✓				✓			
		Rated frequency		Hz	✓				✓				✓			
		Electrical endurance times		second	✓				✓				✓			
	With copper link	Rated operating voltage	Ue	V	AC500				AC500				AC500			
		Rated operating current	Ie	A	✓	1000	✓	✓	1250	✓	✓	✓	2000	✓	✓	
		Conventional thermal current	Ith	A	✓	1000	✓	✓	✓	1250	✓	✓	✓	2000	✓	
		Utilization Category			✓	AC-21B	✓	✓	✓	AC-21B	✓	✓	✓	AC-21B	✓	
		Rated limited short-circuit current	Icw	kA	✓	15, 25(special structure)			✓	15	✓	✓	✓	25	✓	
		Rated insulation voltage	Ui	V	1000				1000				1000			
		Rated impulse withstand voltage	Uimp	kV	12				12				12			
		Rated frequency		Hz	50/60				50/60				50/60			
		Electrical endurance Times		second	100				100				100			
Fuse	Fuse size (RT16NTNH) GB/T13539.2 IEC 60269-2				✓				✓				✓			
	Operating current	Iin	A	✓				✓				✓				
	Power loss	P	W	✓				✓				✓				
Mechanism	Mechanical endurance times		second	500				500				500				
	Busbar spacing		mm	185				185				185				
Protection	Frontal	On		IP20				IP20				IP20				
		Off		IP30				IP30				IP30				
Other	Electronic Fuse Monitor (EFM)				Can be added				Can be added				Can be added			
	Signal feedback for opening and closing the switch (micro switch)				Can be added				Can be added				Can be added			
Working conditions	Ambient temperature			℃	-5 ~ +55											
	Working mode				Continuous operation											
	Operation				Handle											
	Installation form				Vertical											
	Sea level			Meter	≤2000											
	Pollution degree				3											
	Overvoltage category				IV											

TWOMASTER VFSD

Vertical Fuse Switch Disconnecter

160A-1000A



Technical Parameters

	Type	Item No.	Appearance	Name	Part No.	Conductor cross section min.-max. (mm ²)	Torque (N·m)	Quantity (per unit)	Specifications for the matched vertical fuse switch disconnecter	Standard	Optional
Accessories	Product accessories	1.1		Position block	—	—	—	4	VFSD-250~630	●	
		1.2		Insulation board	—	—	—	2		●	
		1.3		Multi-function meter	—	—	—	1			●
		1.4		Current transformer (class 0.5)	Choose the switch model no. base on customer' s ampere in demand.	—	—	3			●
		1.5		Electronic Fuse Monitor (EFM)	—	—	—	1	VFSD-160~630		●
	Mounting terminal	2.1		Hanging terminal	—	—	8	3	VFSD-160		●
		2.2		Hanging terminal	—	—	30	3	VFSD-250~630		●
	Wiring terminal	3.1	Matching cable lug or busbar	M8 bolt	—	16~70	12	3	VFSD-160		●
		3.2	Matching cable lug or busbar	M10 bolt	—	35~240	30	3	VFSD-250		●
		3.3	Matching cable lug or busbar	M10 bolt	—	35~240	30	3	VFSD-400		●
		3.4	Matching cable lug or busbar	M12 bolt	—	70~240	35	3	VFSD-630		●
		3.5		Wiring terminal	—	16~70 s(r) 16~70 s(s) 16~70 f+AE	3	3	VFSD-160		●
		3.6		Wiring terminal	—	35~70 s(r) 16~150 s(s) 16~185sol(s)	25	3	VFSD-250		●
		3.7		Wiring terminal(V-shaped)	—	50~300s(r) 50~240s(s) 50~300sol(s)	30	3	VFSD-250~630		●
		3.8		Horizontal double core wiring terminal	—	2*185~240	30	1	VFSD-630		●
		3.9		Vertical double core wiring terminal	—	2*185~240	30	2	VFSD-630		●

Technical Parameters

No.	Part No.	Pole	Current	System	Size	Adaptation	Remarks
1	VFSD-160/3L	3	160A	185	668 × 50	Fixed installation (drill hole), three-phase synchronous operation and with fuse	
2	VFSD-160/311L	3	160A	185		Hanging installation, with auxiliary contacts, three-phase synchronous operation and with fuse	
3	VFSD-250/3L	3	250A	185	666 × 100	Fixed installation (drill hole), three-phase synchronous operation and with fuse	
4	VFSD-250/3S	3	250A	185		Fixed installation (drill hole), three-phase separate operation and with fuse	
5	VFSD-250/3LD	3	250A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse isolation knife	
6	VFSD-250/311L	3	250A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
7	VFSD-400/3L	3	400A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
8	VFSD-400/3S	3	400A	185		Fixed installation (drill hole), three-phase separate operation and with fuse	
9	VFSD-400/3LD	3	400A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse isolation knife	
10	VFSD-400/311L	3	400A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
11	VFSD-630/3L	3	630A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
12	VFSD-630/3S	3	630A	185		Fixed installation (drill hole), three-phase separate operation and with fuse	
13	VFSD-630/3LD	3	630A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse isolation knife	
14	VFSD-630/311L	3	630A	185		Hanging installation, with auxiliary contacts, three-phase synchronous operation and with fuse.	
Remarks	1. Please refer to the model no. definition of the vertical fuse switch disconnecter to choose the right items in demand.						
	2. Other accessories, such as wiring terminals, please refer to the vertical fuse switch disconnecter accessories list.						

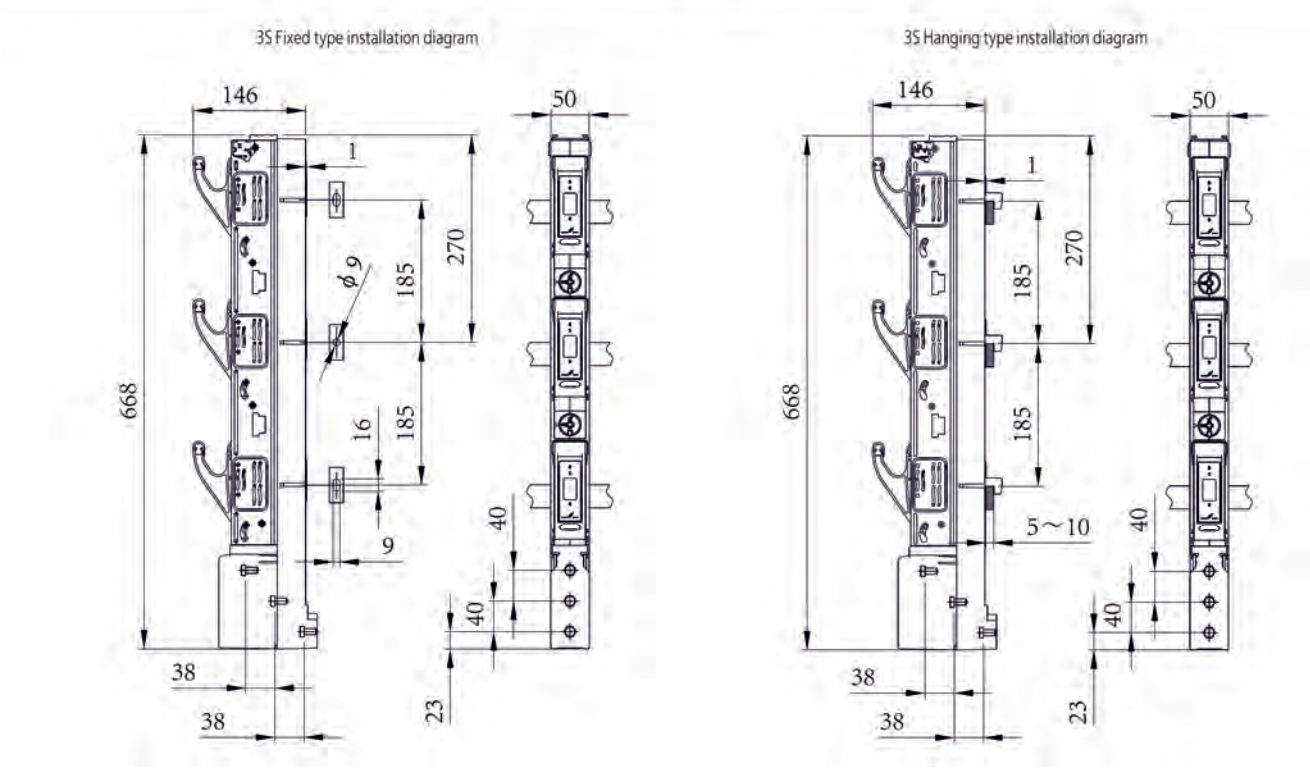
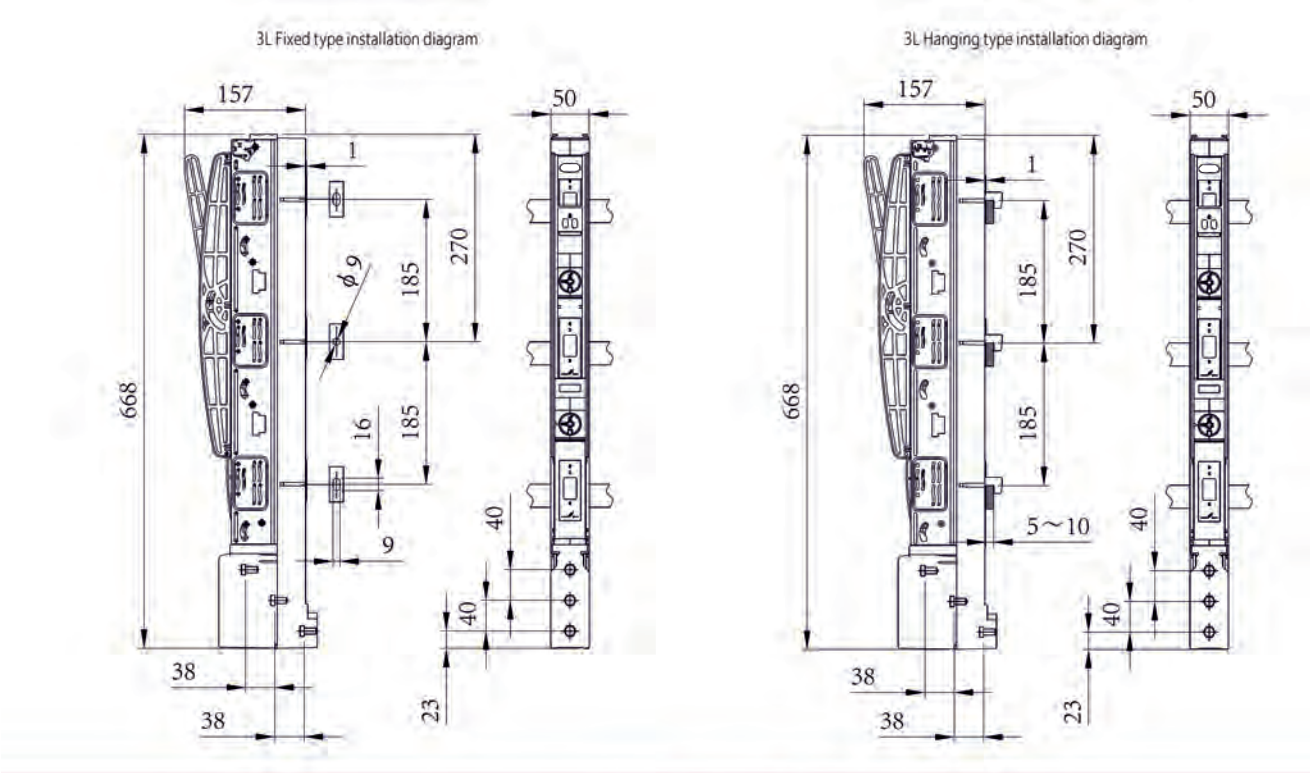
TWOMASTER VFSD

Vertical Fuse Switch Disconnecter

160A-1000A

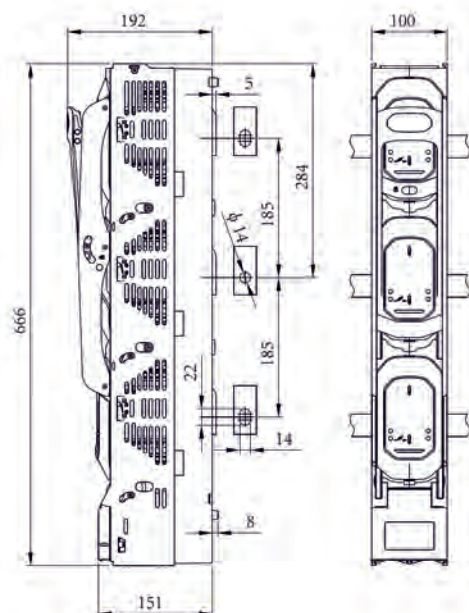


Dimensions

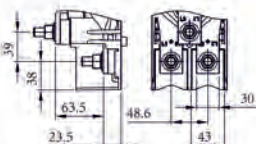


Dimensions

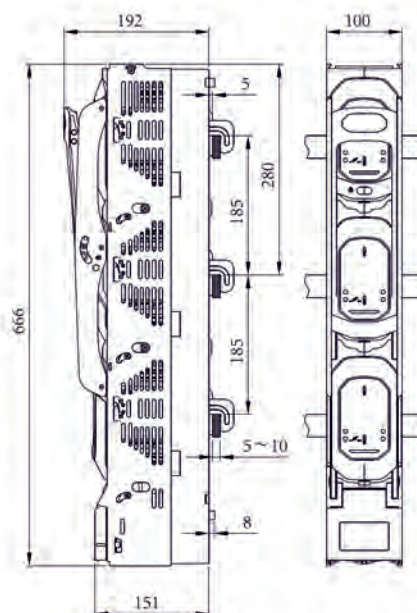
3L Fixed type installation diagram



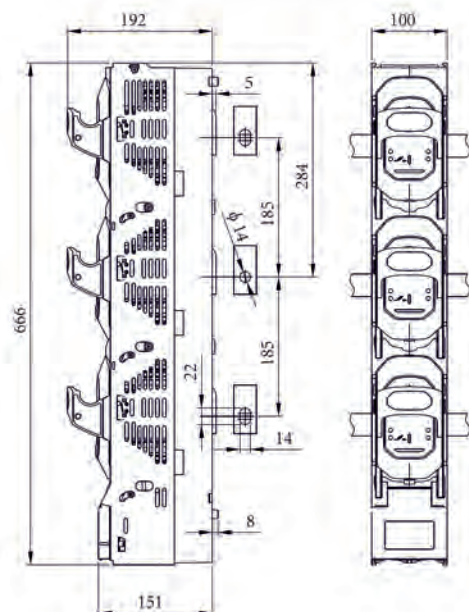
Wiring terminal clamp size diagram:



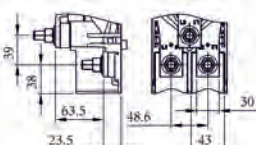
3L Hanging type installation diagram



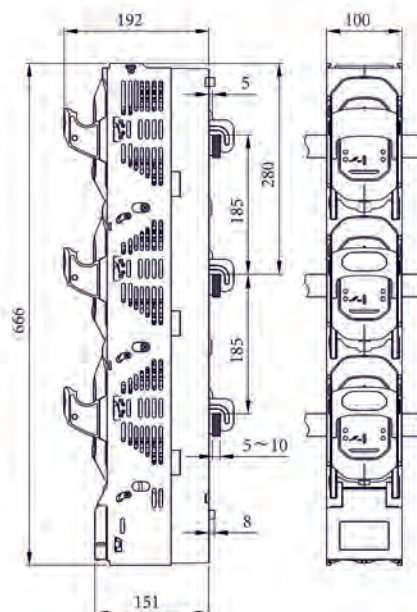
35 Fixed type installation diagram



Wiring terminal diagram



35 Hanging type installation diagram

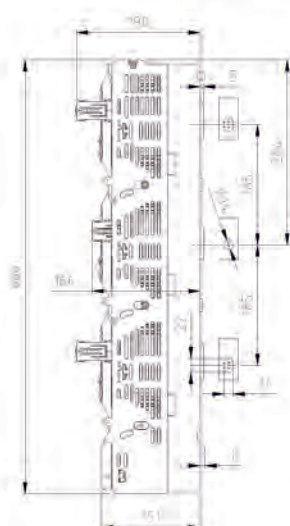


Vertical Fuse Switch Disconnect

160A-1000A

Dimensions

35 Fixed type installation diagram



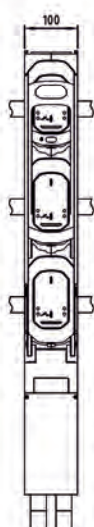
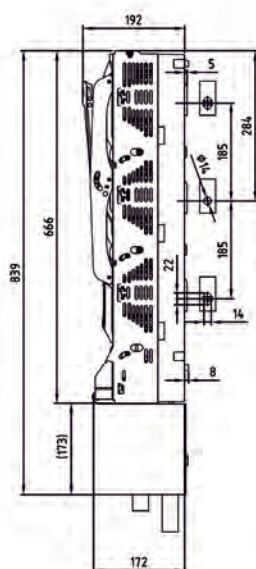
Terminal



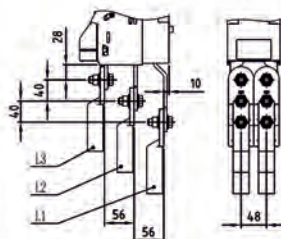
3S Hanging type installation diagram



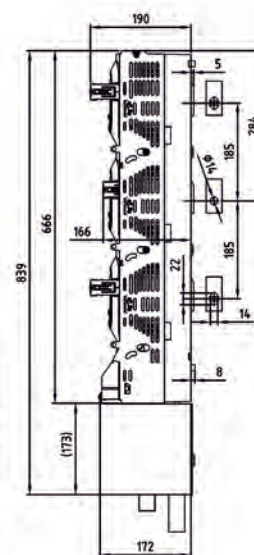
3L Fixed type installation diagram



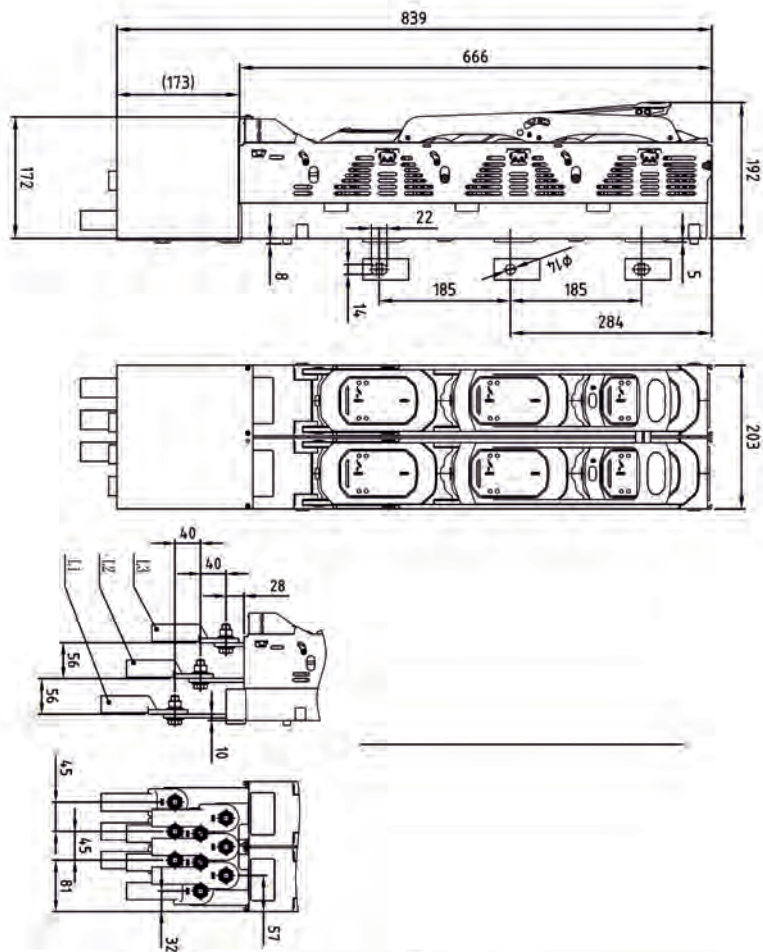
Terminal



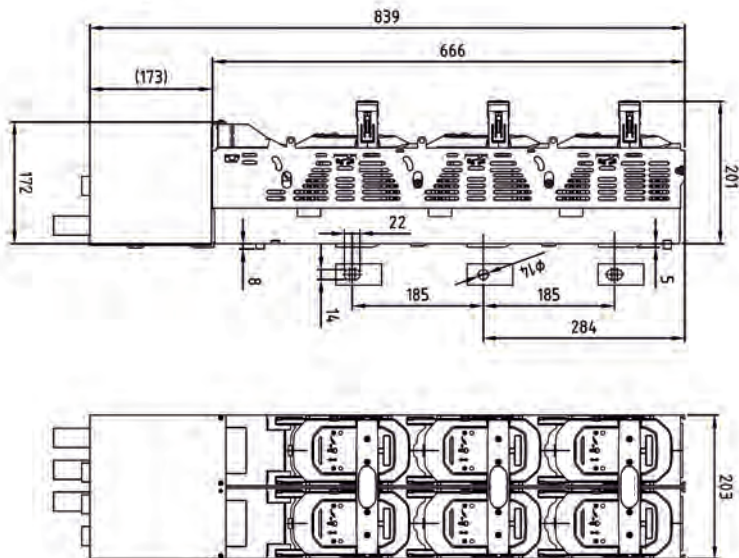
3S Fixed type installation diagram



Dimensions



3L Fixed type installation diagram

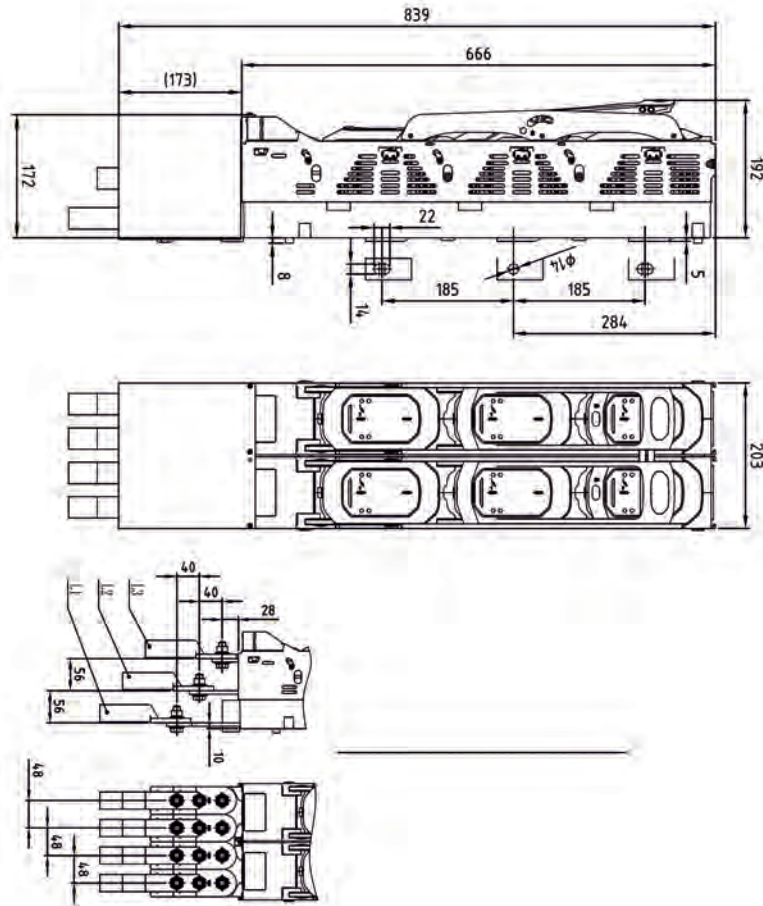


3S Fixed type installation diagram

Vertical Fuse Switch Disconnecter

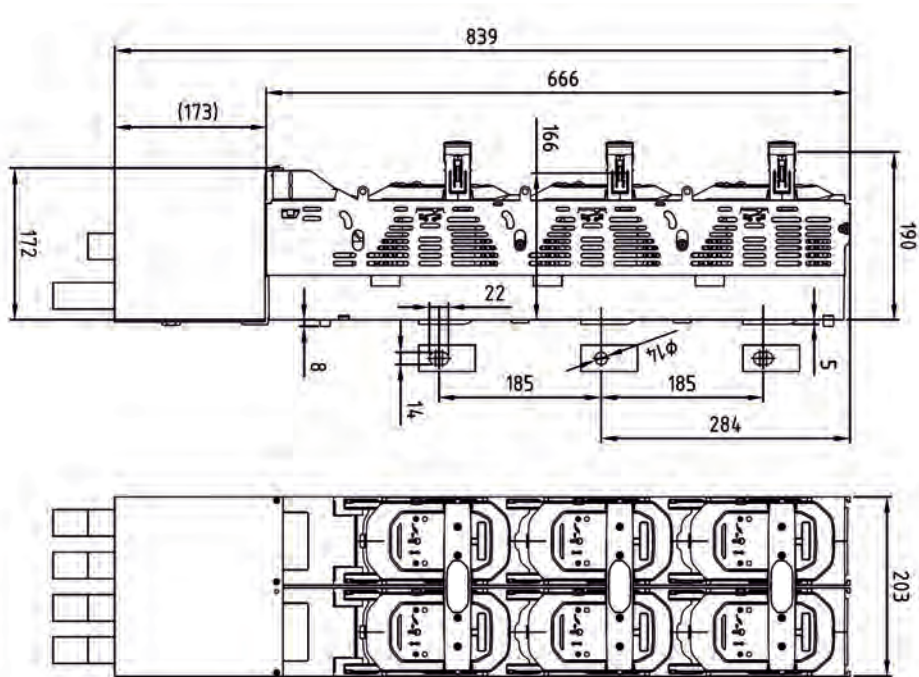
160A-1000A

Dimensions

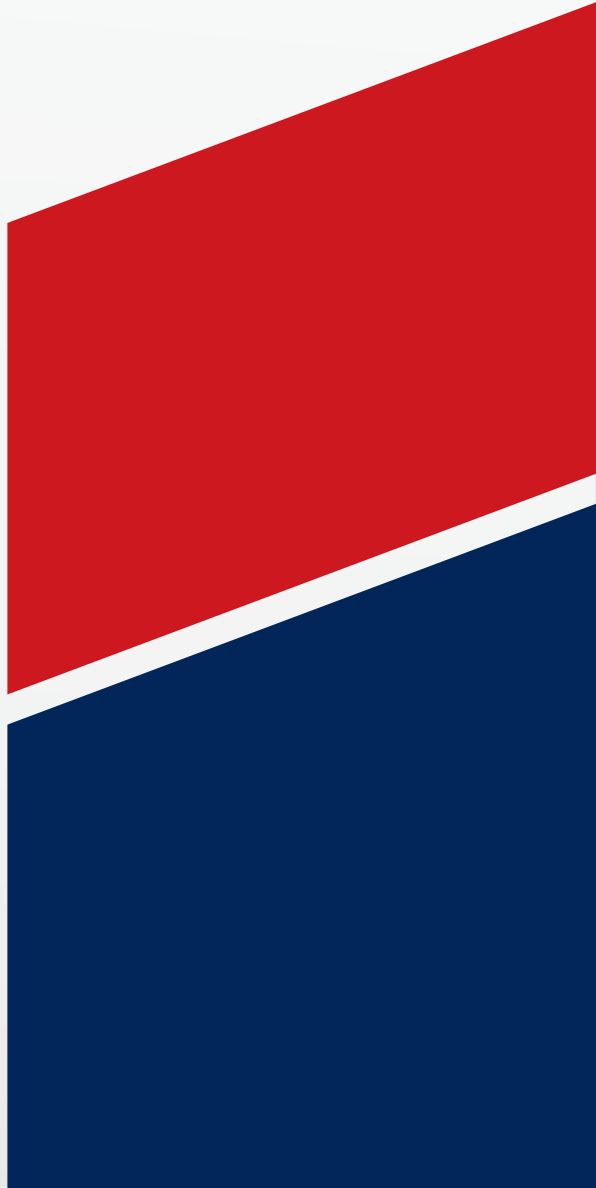


3L Fixed type installation diagram

Dimensions



3S Fixed type installation diagram



TWOMASTER



TWOMASTER FSD 800 VAC
Fuse Switch Disconnecter
63A-315A

TWOMASTER FSD 800 VAC

Fuse Switch Disconnecter

63A-315A

TWOMASTER


The solution for

- Protection of industrial processes
- Main switchboard
- Distribution panel
- Compensation board
- Photovoltaic Power Plants

Compliance with standards

- IEC 60947-1:2021
- IEC 60947-2:2017+A1:2020

Approvals and certifications

UDEM International Certification



Product Description

Introduction

FSD series integrate control, isolation, and fuse base function in one device. These functions can also be realized by using of di?er

Function

Fuse switch disconnecter has following functions:
The load change over. The work speed and breaking capacity of the fuse is associated with the specific operation situation of the operator.

- Fuse brake piece form the dynamic contact of the fuse.
- Fuse is installed in the fuse base.
- By manipulating the handle , the fuse base can operate the main active contact.
- When the fuse base is in the OFF position(OFF), contacts can indicate information.
- With DIN type blade industry fuse (NH), it can provide power distribution circuit with short circuit or overload protection.

The solution of different combined components

By using isolating switch and the fuse installed on different fuse base,it can protect the power distribution circuit and the motor.

- The function of each component can provide.
 - The load switch (opening and closing) and isolation (isolating switch).
 - Short circuit or overload protection (fuse).
- With the aid of these components, it has Interpact INS isolating switch function between 40A~ 800A .

In accordance with the protection degree

FSD fuse can prevent direct contact. Its protection degree conform to the IEC 60529 standard IP (20).

Conform to the standard

FSD fuses accessories meet the following international standards and national standards GB14048.3 and specifications:

IEC 60947-1 general rule.

IEC 60947-1; Switch, isolator, isolation switch and fuse composition unit.

IEC 60947-5.1 and below: control circuit devices and switching components, control components.

Class of pollution

FSD fuse is certified. It can work in level III pollution environment. The pollution level is in accordance with industrial environment IEC 60947 standard.

Environment temperature

FSD fuse operating temperature range from 25 °C to + 70 °C. When the temperature is higher than 40 °C,squad coeffcent must be used.

As long as no more than a certain duration,it can operate under the condition of ambient temperature below -35 °C.

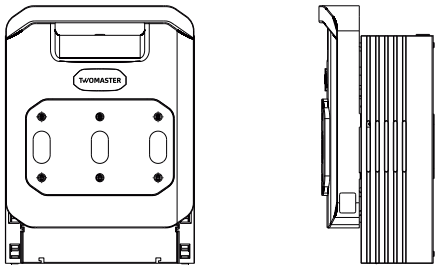
Product Code

TWOMASTER-FSD 800VAC Fuse Switch Disconnecter					
Rating (A) 800VAC	Rating (A) 690VAC	Fuse Size	No. of poles	Installation mode	Product Code
63	160	NH00	3 Pole	Fixed Type	32623016
125	250	NH1	3 Pole	Fixed Type	32623025
250	400	NH2	3 Pole	Fixed Type	32623040
315	630	NH3	3 Pole	Fixed Type	32623063

Rating (A) 800VAC	Rating (A) 690VAC	Fuse Size	No. of poles	Installation mode	Product Code
63	160	NH00	3 Pole	Hang Type	32823016
125	250	NH1	3 Pole	Hang Type	32823025
250	400	NH2	3 Pole	Hang Type	32823040
315	630	NH3	3 Pole	Hang Type	32823063

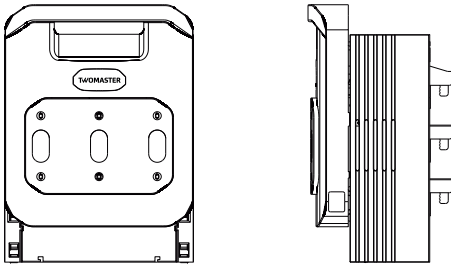
Installation mode

Fixde type



Installation mode

Hang type



TWOMASTER FSD 800 VAC

Fuse Switch Disconnecter

63A-315A

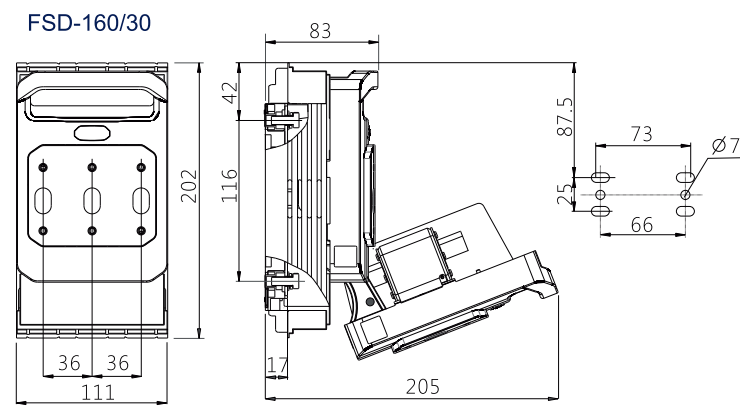


Technical Parameters

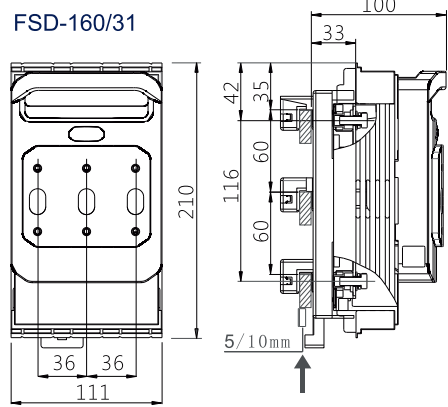
Electrical parameter			FSD-630			FSD-400			FSD-250			FSD-160			
Technical Parameter	Rated working voltage	Ue	V	AC400	AC690	AC800	AC400	AC690	AC400	AC690	AC800	DC440	AC400	AC690	AC800
	Rated working current	Ie	A	630	630	315	400	315	250	250	160	250	160	160	63
	Conventional thermal current	Ith	A	630	630	315	400	315	250	250	160	250	160	160	63
	Rated limited short-circuit current (with fuse link)		KA	100	50	100	100	50	100	50	100	100	100	50	30
	Utilization category (with fuse link)			AC-23B	AC-21B	AC-21B	AC-23B	AC-21B	AC-23B	AC-21B	AC-21B	DC-21B	AC-23B	AC-21B	AC-21B
	Rated insulation voltage	Ui	V	AC1000	AC1000	AC1000	AC1000	AC1000	AC1000	AC1000	AC1000	AC1000	AC1000	AC1000	AC1000
	Rated impulse withstand voltage	Uimp	KV	12	12	12	12	12	12	12	12	12	12	12	12
	Rated frequency		Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
	Electrical durability times		times	200	200	200	200	200	200	200	200	200	200	200	200
	Maximum torque			N.m	28	28	28	20	20	20	20	20	20	12	12
Fuse	Size:IEC60269-2			3	3	3	2	2	1	1	1	1	00	00	00
	Rated working current	In	A	630	630	315	400	315	250	250	160	250	160	160	63
	Loss power	Pn	W	40	60	60	34	45	23	32	32	32	12	12	12
Normal use, installation and transportation conditions	Ambient temperature			-5℃~-+40℃											
	Altitude			≤2000m											
	Installation category and pollution level			Ⅲ 、 Ⅳ						3					
	Transportation and storage			-25℃~-+55℃											

Dimensions

Fixed type configuration & installation dimension

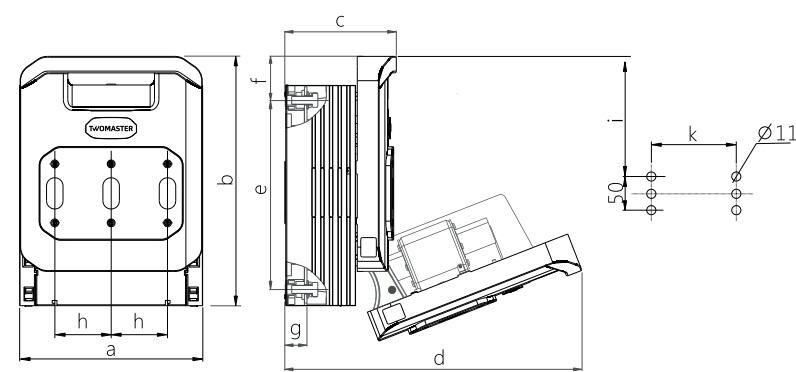


Hang type configuration & installation dimensions



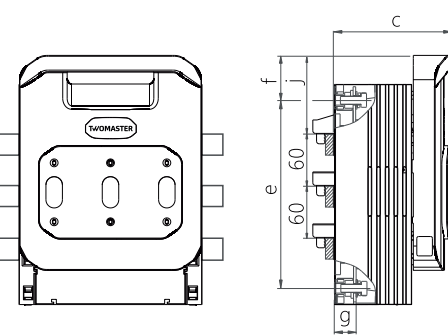
Fixed type configuration & installation dimension

FSD-250~630/30



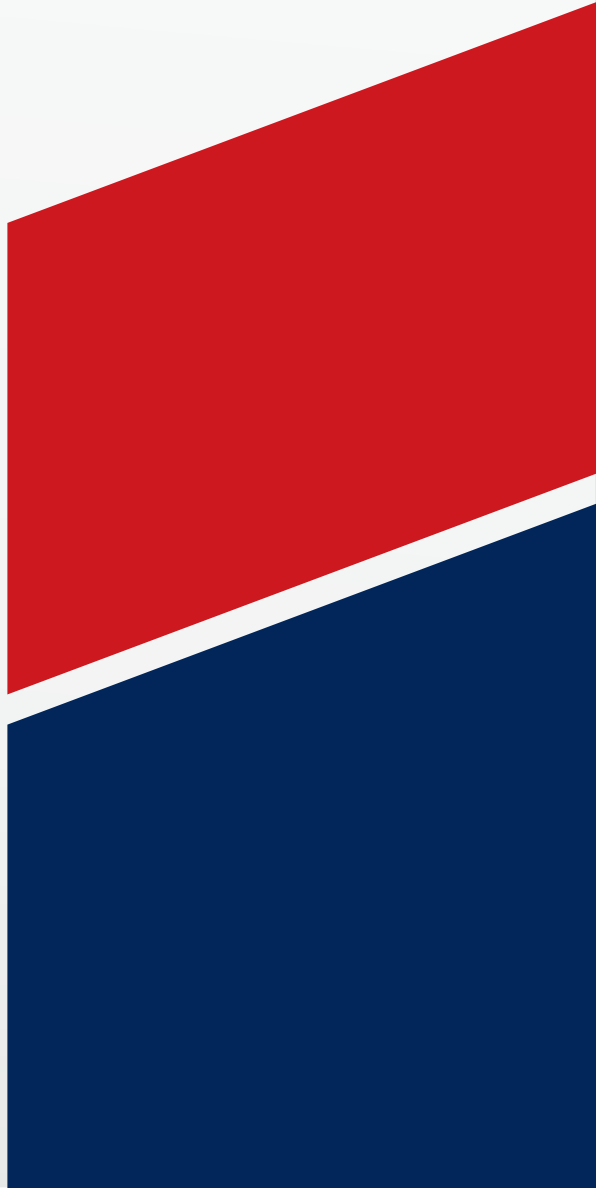
Hang type configuration & installation dimensions

FSD-250~630/31

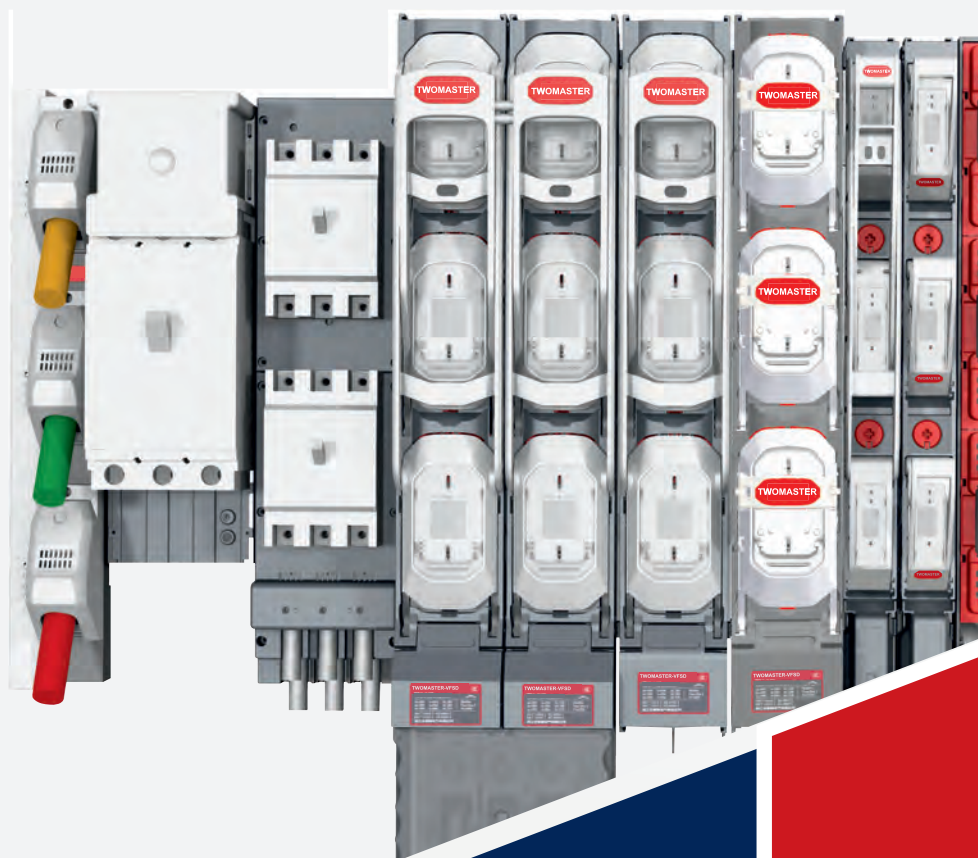


Specification table

model	a	b	c	d	e	f	g	h	i	j	k
FSD-250/30	185	247	111	295	185	42.5	22.5	57	110	/	114
FSD-250/31	185	247	121	305	185	42.5	32.5	57	/	67.5	/
FSD-400/30	210	288	129	344	210	52	26	65	132	/	130
FSD-400/31	210	288	137	353	210	52	34.5	65	/	90	/
FSD-630/30	256	304	146	361	211	54	30	81	135	/	162
FSD-630/31	256	304	155	370	211	54	39	81	/	90	/



TWOMASTER



TWOMASTER VFSD 800 VAC
Vertical Fuse Switch Disconnect
63A-315A

TWOMASTER VFSD 800 VAC

Vertical Fuse Switch Disconnecter

63A-315A

TWOMASTER


The solution for

- Protection of industrial processes
- Main switchboard
- Distribution panel
- Photovoltaic Power Plants

Compliance with standards

- IEC 60947-3
- IEC 60269-2

Approvals and certifications

China Quality Certification Centre



Product Description

Series Overview

In the 185mm electrical system, the vertical fusedisconnector can be installed on the busbar orderly andcompactly. With the connection of the hanging terminals, thebusbars do not need to be drilled, which is convenient,quick and easy to maintain.

-  The installation of hanging terminal is efficient and fast.
-  Overall protection structure, electricity safety and anti-accidental injury.
-  There is a variety of wiring methods to adapt to a variety of site needs.
-  The busbar is connected without holes, the component is flexibly applied, and it is easy to service and maintain.
-  The system structure is compact to save space.

TWOMASTER VFSD 800 VAC
Vertical Fuse Switch Disconnecter
63A-315A

Product Code

TWOMASTER-FSD 800VAC Fuse Switch Disconnecter					
Rating (A) 800VAC	Rating (A) 690VAC	No. of poles	Fuse Size	Switching Mode	Product Code
63	160	3 Pole	NH00	1 pole	32633016
160	250	3 Pole	NH1	1 pole	32633025
315	630	3 Pole	NH2 / NH3	1 pole	32633063

Rating (A) 800VAC	Rating (A) 690VAC	No. of poles	Fuse Size	Switching Mode	Product Code
63	160	3 Pole	NH00	3 pole	32633017
160	250	3 Pole	NH1	3 pole	32633027
315	630	3 Pole	NH2 / NH3	3 pole	32633064

TWOMASTER VFSD 800 VAC

Vertical Fuse Switch Disconnecter

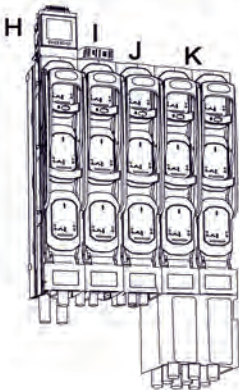
63A-315A



Technical Parameters

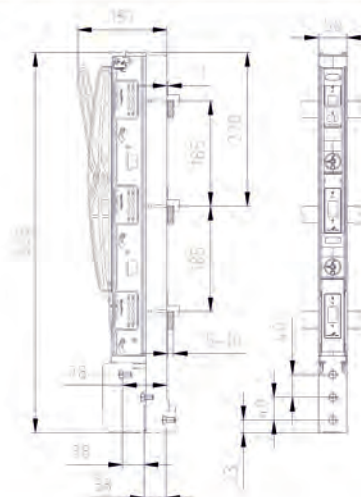
Electrical parameter			VFSD18-630	VFSD18-400	VFSD18-250	VFSD18-160
Technical Parameter	Rated working voltage	Ue V	AC800	—	AC800	AC800
	Rated working current	Ie A	315	—	160	63
	Conventional thermal current	Ith A	315	—	160	63
	Rated limited short-circuit current (with fuse link)	I _{ka} kA	100	—	100	30
	Utilization Category (with fuse link)		AC-21B	—	AC-21B	AC-21B
	Rated short-time withstand current (with fuse solid link)	I _{cw} kA/S	—	—	—	—
	Utilization Category (with fuse solid link)		—	—	—	—
	Rated insulation voltage	Ui V	AC1000	—	AC1000	AC1000
	Rated impulse withstand voltage	U _{imp} kV	12	—	12	12
	Rated frequency	Hz	50/60	—	50/60	50/60
	Electrical durability times	times	200	—	200	200
Fuse	Size: IEC60269-2		NT3-M, NH3-M	—	NT1-M, NH1-M	NT00-M, NH00-M
	Rated working current	I _n A	315	—	160	63
	Loss power	P _n W	60	—	32	12

Item	No.	Configuration	Name	Specification	Cable square (mm ²)	Torque (N·m)	Quantity (PCS)	Switch specification	Stan dard	Opti onal
Additional Parts	1.1		Positioning block	—	—	—	4	VFSD18- 250-630	●	
	1.2		Insulation plate	—	—	—	2		●	
Hanging clamp	2.1		Hanging clamp	TW54251	—	8	3	VFSD18-160		●
	2.2		Hanging clamp	TW54253	—	30	3	DNH18- 250-630		●
Attachment Terminal brace	3.1	With cable lug or busbar	M8bolt	—	16~70	12	3	VFSD18-160		●
	3.2		M5bolt	TW54224	16~70	3	3			●
	3.3	With cable lug or busbar	M10bolt	—	35~240	30	3	VFSD18-250		●
	3.4	With cable lug or busbar	M10bolt	—	35~240	30	3	VFSD18-400		●
	3.5	With cable lug or busbar	M12bolt	—	70~240	35	3	VFSD18-630		●
	3.6		Terminal brace	TW54267	35~70s(r) 35~150s(s) 35~185sol(s)	25	3	VFSD18-250		●
	3.7		Terminal brace (V shape)	TW54275	50~300s(r) 50~240s(s) 50~300sol(s)	30	3	VFSD18- 250-630		●
	3.8		Horizontal double terminal brace	TW54276	2*185~240	30	1	VFSD18-630		●
			Vertical double terminal brace		2*185~240	30	2			●

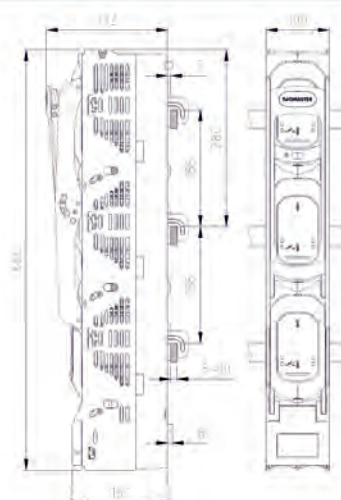


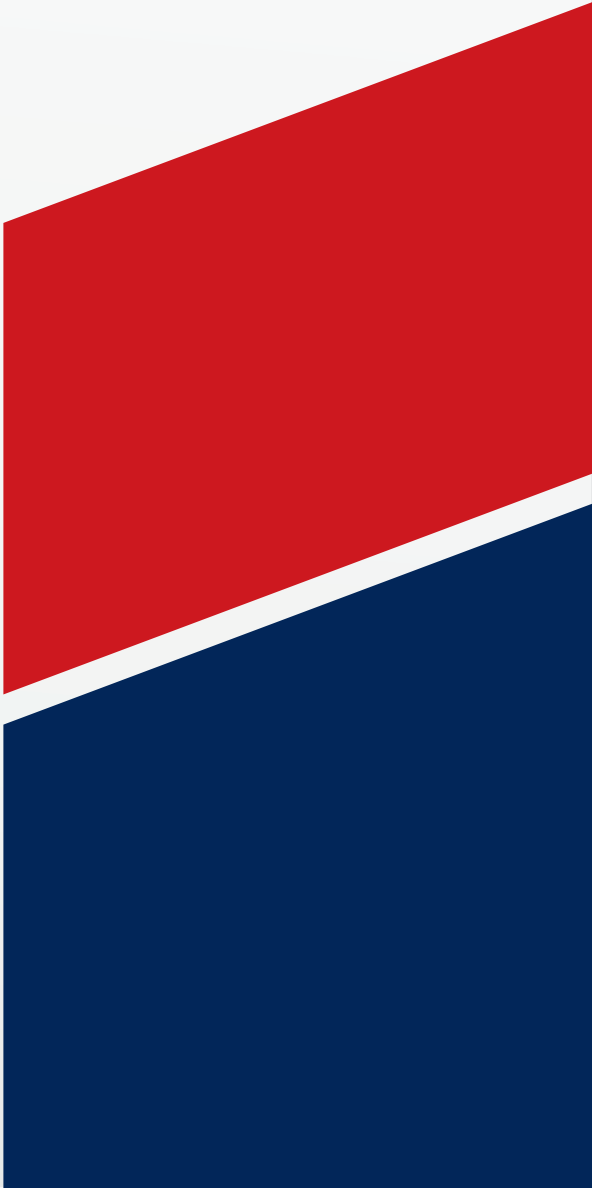
Multifunctional configuration: from left to right			
H	I	J	K
With current transformers and multifunctional meter	With electronic fuse monitor(EFM)	With double terminal brace	Two switches in paralleled to large current (operate simultaneously)

Hang type configuration & installation dimension



Hang type configuration & installation dimension





TWOMASTER



TWOMASTER NH SERIES 800VAC
Industrial Fuses
2A-315A

TWOMASTER NH SERIES 800VAC

Industrial Fuses

2A-315A

TWOMASTER


The solution for

- Protection of industrial processes
- Main switchboard
- Distribution panel
- Photovoltaic Power Plants

Compliance with standards

- IEC 60269-1
- IEC 60269-2
- GB/T 13539

Approvals and certifications

China Quality Certification Centre



Product Description

TWOMASTER NH Series industrial fuses protect installations and people from overcurrents for any low voltage electrical circuit. It offers a solution for facilities with 800VAC operating voltage.

- High breaking capacity 100kA at 800VAC
- High short-circuit limitation capacity
- Simple and reliable protection
- Absolute protection over time guaranteed by the simplicity of manufacture and function
- No downgrading of fuse characteristics over time
- The energy released whilst eliminating the fault (fuse blowing) is contained within the cartridge (no degassing)

Product Code

TWOMASTER NH Series 800VAC			
Rating (A) 800VAC	Fuse Size	Fuse Type	Product Code
2	NH00	gG	40040002
4	NH00	gG	40040004
6	NH00	gG	40040006
10	NH00	gG	40040010
16	NH00	gG	40040016
20	NH00	gG	40040020
25	NH00	gG	40040025
32	NH00	gG	40040032
40	NH00	gG	40040040
50	NH00	gG	40040050
63	NH00	gG	40040063
25	NH1	gG	40140025
32	NH1	gG	40140032
40	NH1	gG	40140040
63	NH1	gG	40140063
80	NH1	gG	40140080
100	NH1	gG	40140100
125	NH1	gG	40140125
160	NH1	gG	40140160
200	NH3	gG	40340200
250	NH3	gG	40340250
315	NH3	gG	40340315

Short Circuit Breaking Capacity ; NH00 30kA , NH1 100kA , NH3 100kA.

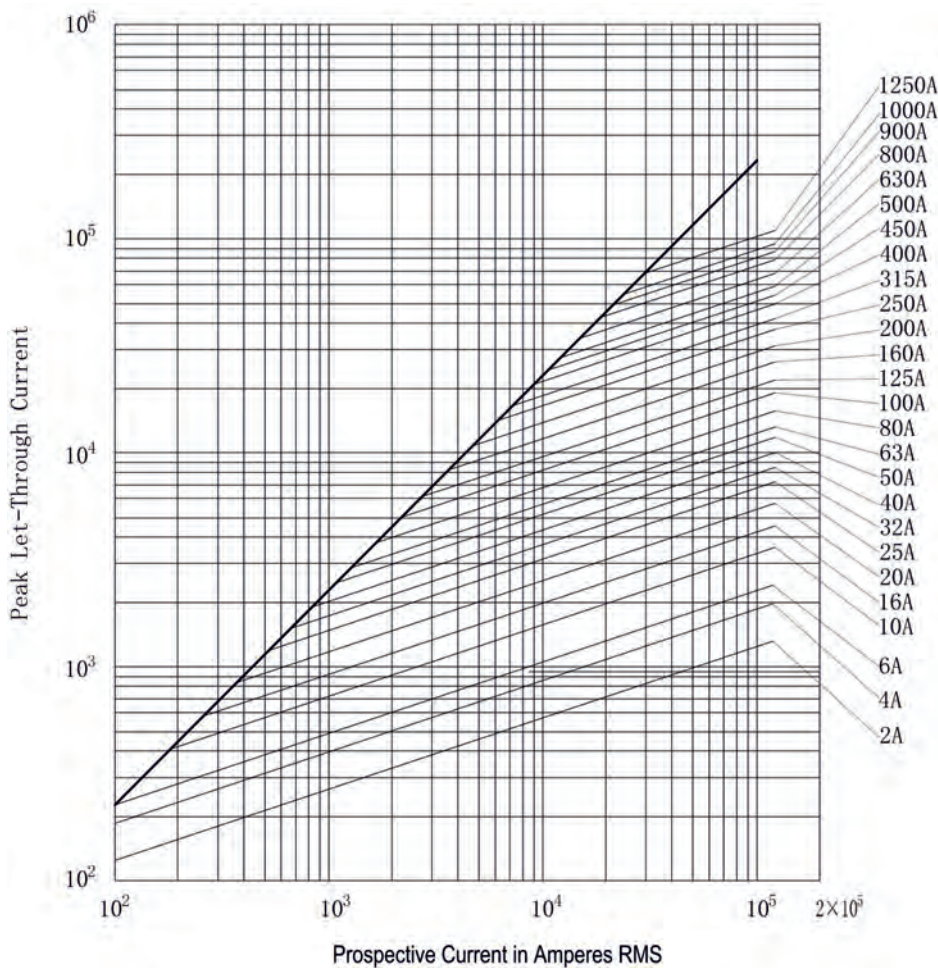
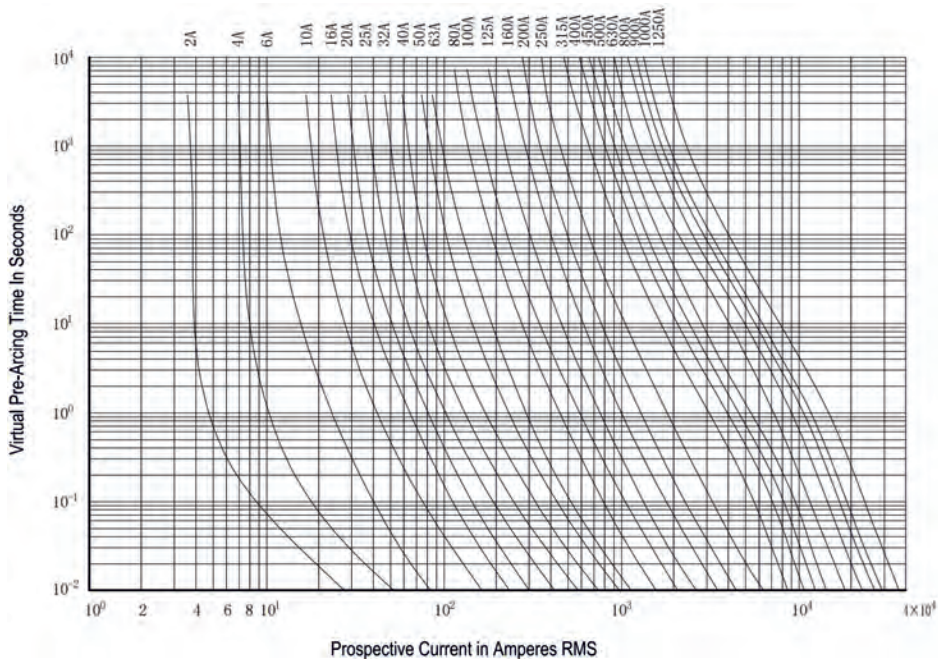
TWOMASTER NH SERIES 800VAC



Industrial Fuses

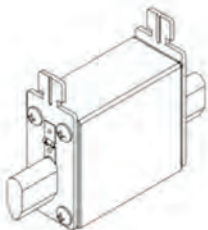
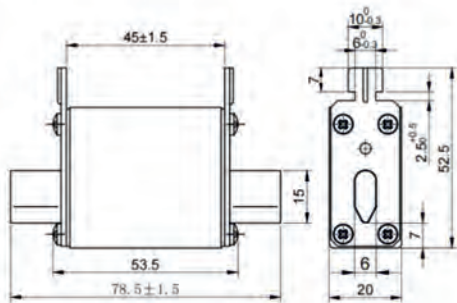
2A-315A

Time-Current Characteristic (gG)

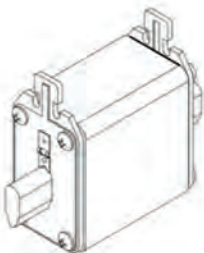
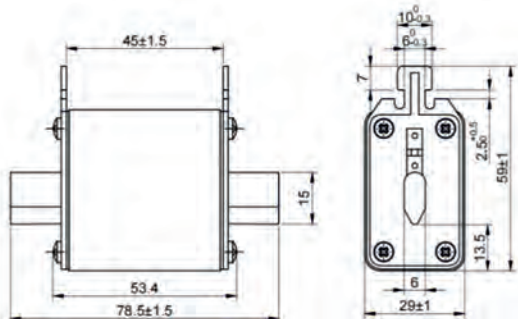


Dimensions

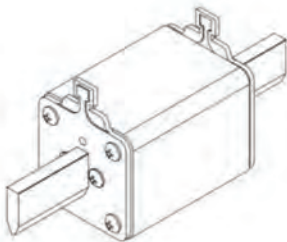
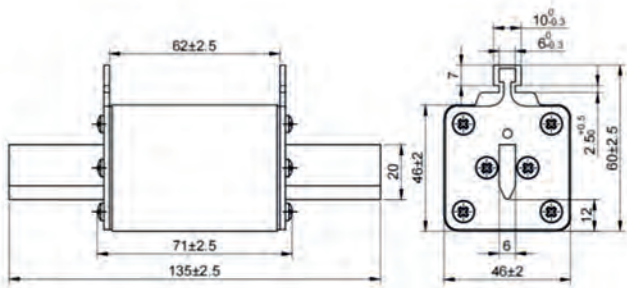
NH000



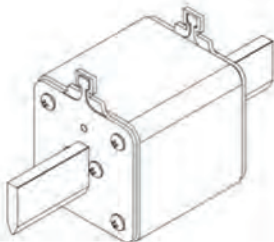
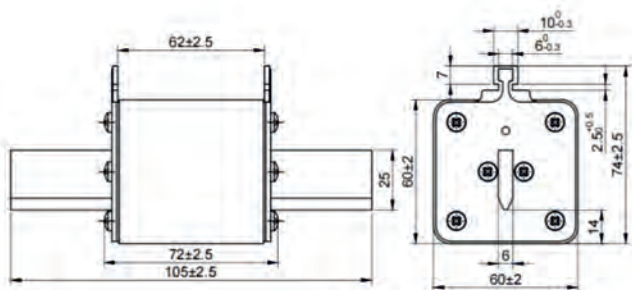
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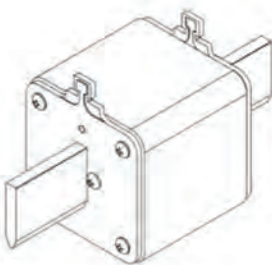
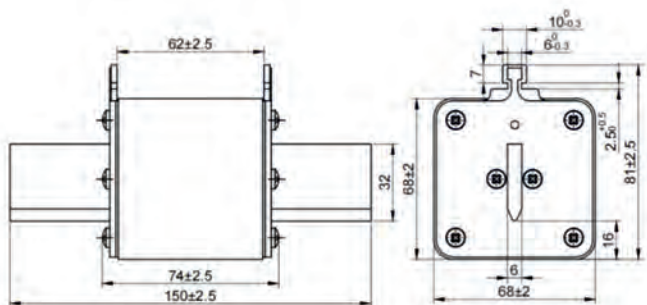
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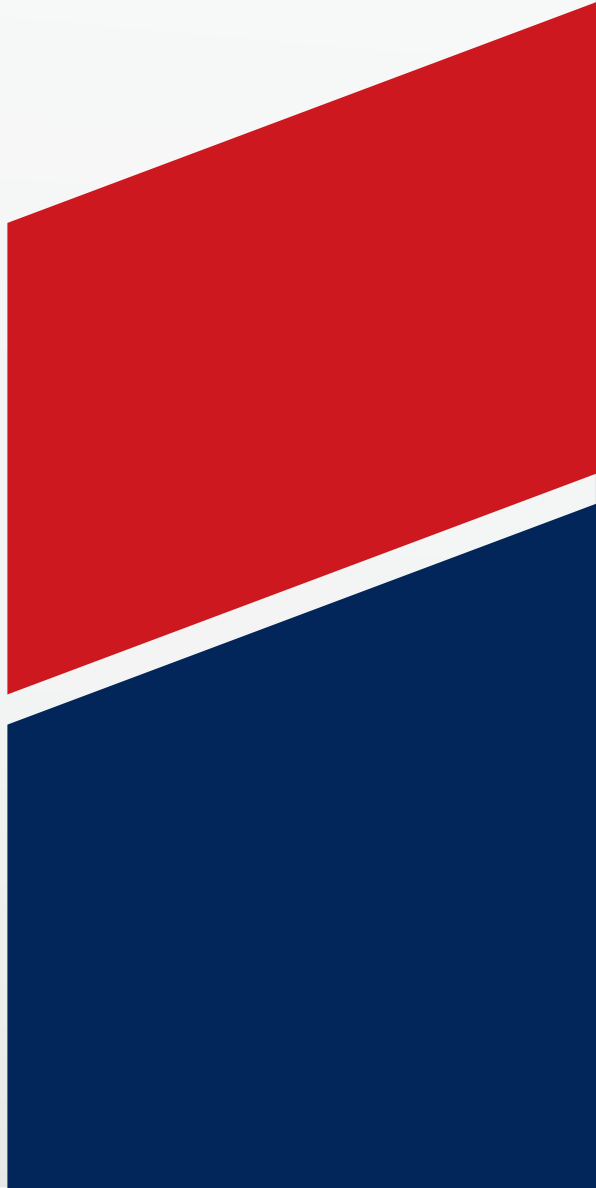


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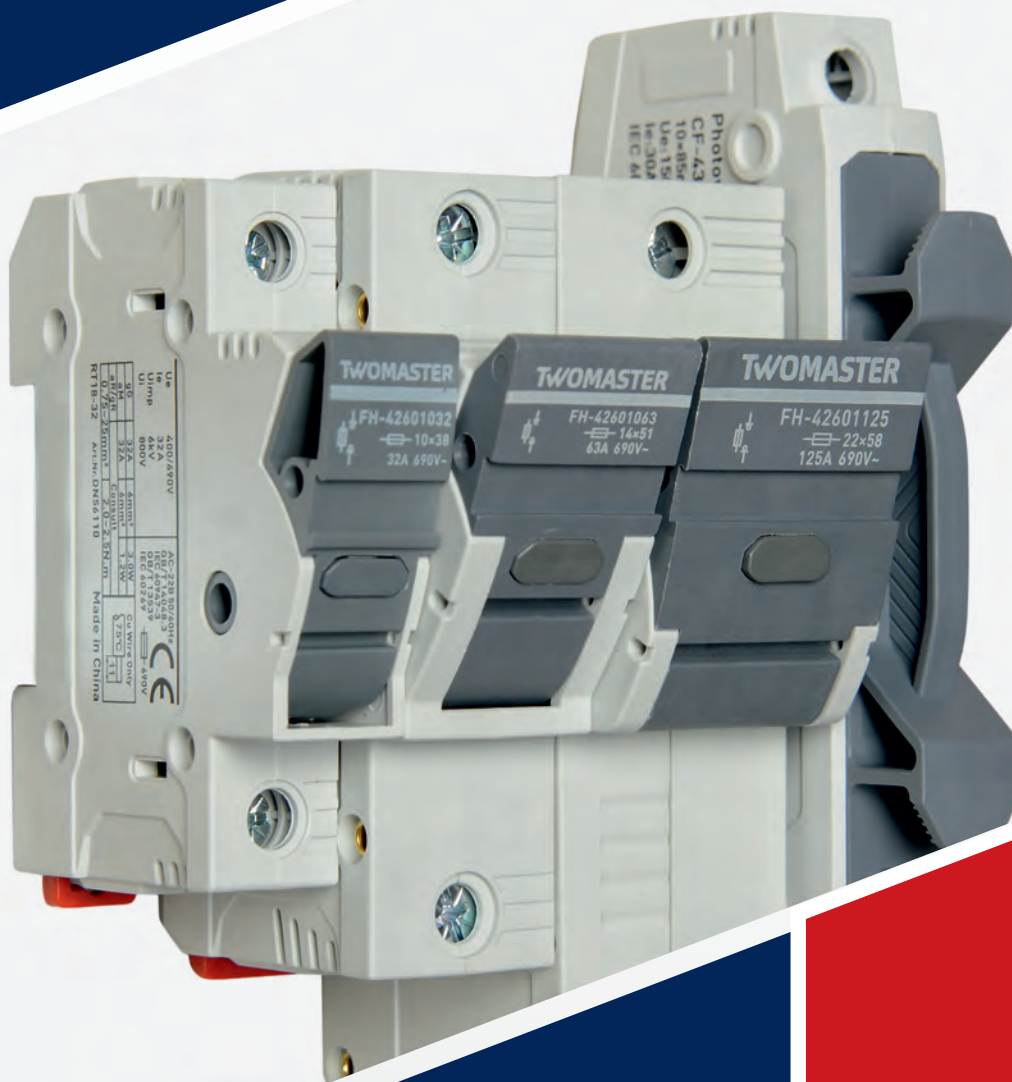


NH3





TWOMASTER



TWOMASTER FH & CF SERIES

Fuse Holder & Cylindrical Fuse

1A-125A

TWOMASTER FH & CF SERIES

Fuse Holder & Cylindrical Fuse

1A-125A

TWOMASTER


The solution for

- Protection of industrial processes
- Main switchboard
- Distribution panel
- Photovoltaic Power Plants

Compliance with standards

- IEC 60269-1
- IEC 60269-2
- IEC 60947-3

Approvals and certifications

ISTITUTO SERVIZI EUROPEI TECNOLOGICI
ITALIA



Product Description

TWOMASTER FH Series are modular fuse disconnect switches for cylindrical fuses. They provide safety disconnection and protection against overloads and short-circuits in any low voltage electrical circuit.

Advantages

- Improved safety
- Omnipolar and simultaneous breaking.
- High dielectric strength.
- IP2X protection.
- High breaking capacity.
- Protection against overloads and short-circuits thanks to high breaking capacity fuses (100 kA rms).

TWOMASTER-FH Series Fuse Holder			
Rating (A) 690VAC	Fuse Size	Poles	Product Code
32	10x38	1P	42601032
32	10x38	1P (with LED)	44601032
32	10x38	2P	42602032
32	10x38	3P	42603032
32	10x38	4P	42604032
32	10x38	3P+N	42605032
63	14x51	1P	42601063
63	14x51	2P	42602063
63	14x51	3P	42603063
63	14x51	4P	42604063
63	14x51	3P+N	42605063
125	22x58	1P	42601125
125	22x58	2P	42602125
125	22x58	3P	42603125
125	22x58	4P	42604125
125	22x58	3P+N	42605125
Rating (A) 1000VDC	Fuse Size	Poles	Product Code
30	10x38	1P	43630030
30	10x38	1P (with LED)	45630030
Rating (A) 1000VAC	Fuse Size	Poles	Product Code
32	10x85	1P	43930030
Rating (A) 1500VAC	Fuse Size	Poles	Product Code
30	10x85	1P	43930030

TWOMASTER FH & CF SERIES



Cylindrical Fuse

1A-125A

Product Code

TWOMASTER-CF Series Cylindrical Fuse			
Rating (A) 690VAC	Fuse Size	Fuse Type	Product Code
2	10x38	gG	42601032
4	10x38	gG	44601032
6	10x38	gG	42602032
8	10x38	gG	42603032
10	10x38	gG	42604032
12	10x38	gG	42605032
16	10x38	gG	42601032
20	10x38	gG	44601032
25	10x38	gG	42602032
32	10x38	gG	42603032

2	14x51	gG	40700002
4	14x51	gG	40700004
6	14x51	gG	40700006
8	14x51	gG	40700008
10	14x51	gG	40700010
12	14x51	gG	40700012
16	14x51	gG	40700016
20	14x51	gG	40700020
25	14x51	gG	40700025
32	14x51	gG	40700032
40	14x51	gG	40700040
50	14x51	gG	40700050
63	14x51	gG	40700063

10	22x58	gG	40800010
12	22x58	gG	40800012
16	22x58	gG	40800016
20	22x58	gG	40800020
25	22x58	gG	40800025
32	22x58	gG	40800032
40	22x58	gG	40800040
50	22x58	gG	40800050
63	22x58	gG	40800063
80	22x58	gG	40800080
100	22x58	gG	40800100
125	22x58	gG	40800125

Rating (A) 1000VDC	Fuse Size	Fuse Type	Product Code
2	10x38	gPV	41630002
3	10x38	gPV	41630003
4	10x38	gPV	41630004
5	10x38	gPV	41630005
6	10x38	gPV	41630006
8	10x38	gPV	41630008
10	10x38	gPV	41630010
12	10x38	gPV	41630012
15	10x38	gPV	41630015
16	10x38	gPV	41630016
20	10x38	gPV	41630020
25	10x38	gPV	41630025
30	10x38	gPV	41630030

Rating (A) 1000VAC	Fuse Size	Fuse Type	Product Code
2	10x85	gG	40950002
4	10x85	gG	40950004
6	10x85	gG	40950006
8	10x85	gG	40950008
10	10x85	gG	40950010
12	10x85	gG	40950012
16	10x85	gG	40950016
20	10x85	gG	40950020
25	10x85	gG	40950025
32	10x85	gG	40950032

Rating (A) 1500VAC	Fuse Size	Fuse Type	Product Code
2	10x85	gPV	41930002
3	10x85	gPV	41930003
4	10x85	gPV	41930004
5	10x85	gPV	41930005
6	10x85	gPV	41930006
8	10x85	gPV	41930008
10	10x85	gPV	41930010
12	10x85	gPV	41930012
15	10x85	gPV	41930015
16	10x85	gPV	41930016
20	10x86	gPV	41930020
25	10x87	gPV	41930025
30	10x88	gPV	41930030

TWOMASTER FH & CF SERIES



Fuse Holder

32A-125A

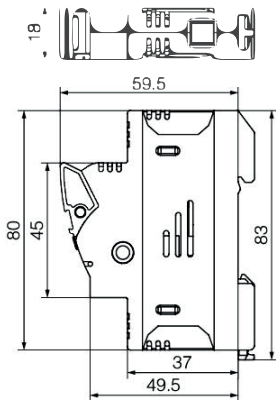
Technical Parameters

Product model	FH 10x38	FH 14x51	FH 22x58	FH 10x85	FH PV 10x38	FH PV 10x85
Description	Fuse switch disconnecter					
Pole	1P,1P+N,2P,3,3P+N,4	1P,1P+N,2P,3,3P+N,4	1P,1P+N,2P,3,3P+N,4	1P	1P,2P	1P
Mounting method	DIN rail installation	DIN rail installation	DIN rail installation	DIN rail installation	DIN rail installation	DIN rail installation
Wiring range	0.75-25mm ²	1.5-35mm ²	4-50mm ²	0.75-25mm ²	0.75-25mm ²	0.75-25mm ²
Fuse size	10*38	14*51	22*58	10*85/14*85 mm	10*38	10*85/14*85 mm
Rated operational current Ie	32A	63A	125A	30A	30A	30A
Rated operational voltage Ue	400V/690V	400V/690V	400V/690V	1000V	1000VDC	1500VDC
Rated insulation voltage	800V	800V	800V	1500V	1000V	1500V
Rated impulse withstand current Ipk	6 kV	6 kV	6 kV	8 kV	6 kV	8 kV
Breaking capacity with fuse	100kA(500VAC)/ 50kA(690VAC)	100kA(500VAC)/ 50kA(690VAC)	100kA(500VAC)/ 50kA(690VAC)	20kA	20kA	20kA
Utilization category with fuse	AC-22B	AC-22B	AC-22B*	AC-20B	DC-PV0	DC-PV0
IP	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Reference standard	IEC 60947-3, GB/T14048.3	IEC 60947-3, GB/T14048.3	IEC 60947-3, GB/T14048.3	IEC 60947-3, GB/T14048.3	IEC 60947-3, GB/T14048.3	IEC 60947-3, GB/T14048.3

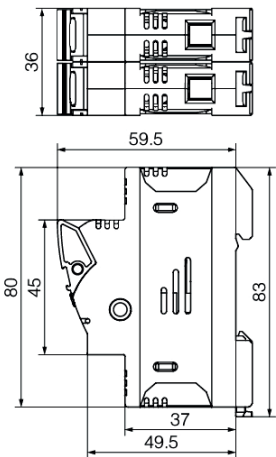
* Max. 63A 400VAC / 690VAC

Dimensions

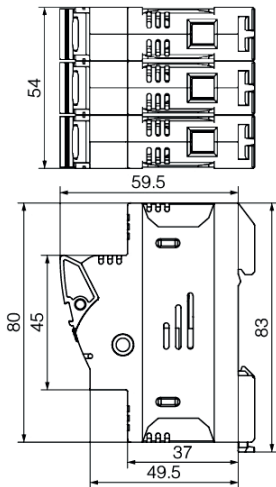
TWOMASTER FH 10x38
1P



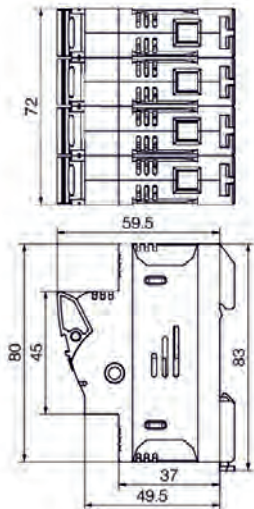
TWOMASTER FH 10x38
2P



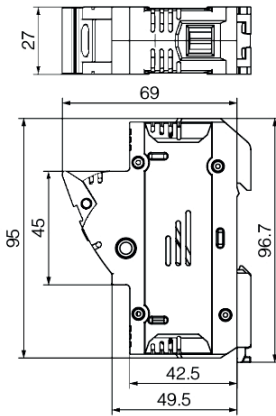
TWOMASTER FH 10x38
3P



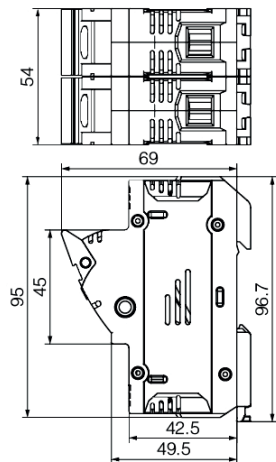
TWOMASTER FH 10x38
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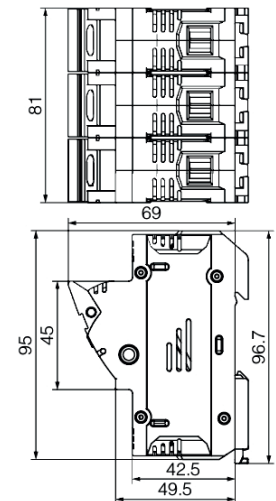
TWOMASTER FH 14x51
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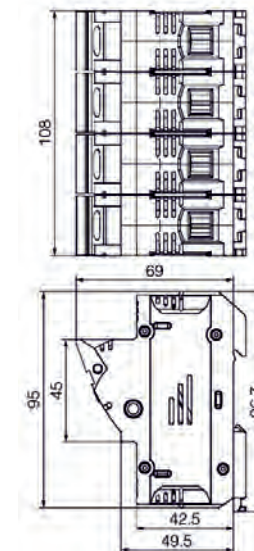
TWOMASTER FH 14x51
2P



TWOMASTER FH 14x51
3P



TWOMASTER FH 14x51
4P



TWOMASTER FH & CF SERIES

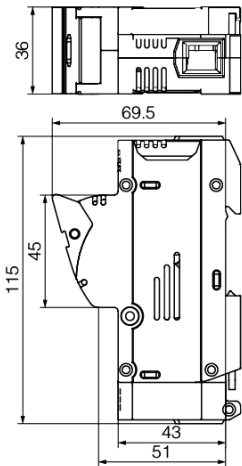


Fuse Holder

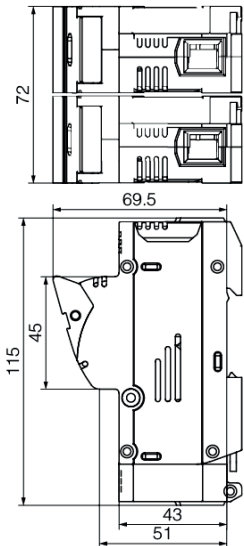
32A-125A

Dimensions

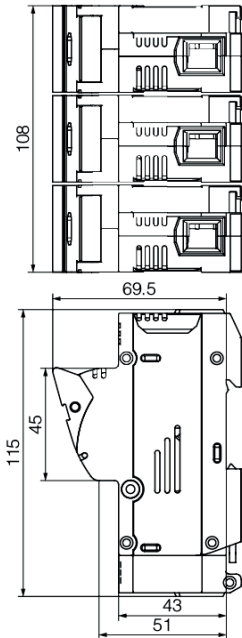
TWOMASTER FH 22x58
1P



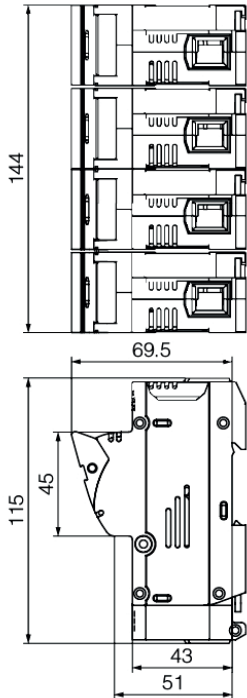
TWOMASTER FH 22x58
2P



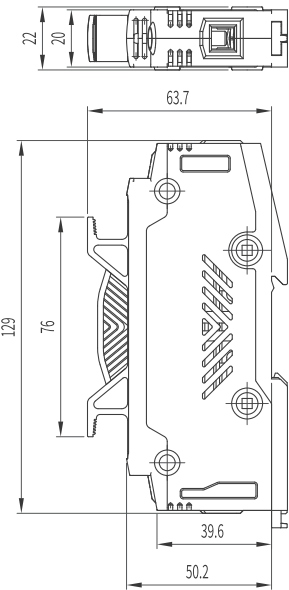
TWOMASTER FH 22x58
3P

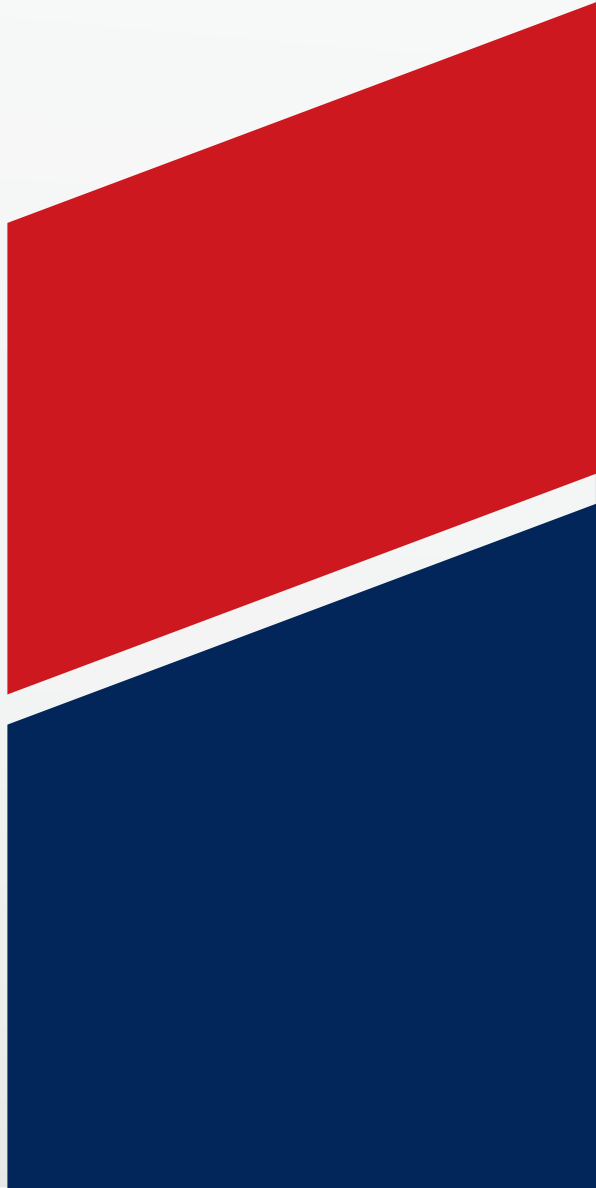


TWOMASTER FH 22x58
4P



TWOMASTER FH 10x85
1P





TWOMASTER



TWOMASTER MTS
Manuel Transfer Switches
63-3200A

TWOMASTER MTS

Manuel Transfer Switches

63-3200A

TWOMASTER


The solution for

- Manufacturing
- Power distribution

Compliance with standards

- IEC 60947-3
- IEC 60947-6-1

Approvals and certifications

China Quality Certification Centre



Product Description

TWOMASTER MTS 63-3200A is applied to changeover two groups of low voltage electric circuit or two groups of load devices or safety isolation. Mode of operation: Direct operation: handle is installed on the switch
Operation outside: handle is installed outside the door of power distribution board. It have three poles and four poles (three poles + on and off neutral pole) Two groups of auxiliary contacts can be assembled in factory. Extended shaft is used for the operation outside the board. Mechanical performance and electrical performance are correspond to MTS 63-3200A property. The bridge connecting conductor can provided to connect the inlet or outlet terminals of the switch.
Note: The bridge connection is chosen, and it need to indicate the inlet or outlet connection with it.

Characteristics

- Spring-storage instantaneous release of the mechanism to speed up the realization of the rapid marking and breaking (13.8 m / s), and it is nothing to do with the operation handle speed, and have greatly improved the capability of extinguish electric arc.
- The glass fiber reinforced unsaturated polyester resin casing have excellent flame resistance, dielectric, resist carbonic and resist impact performances
- Parallel double gap contact possesses self-cleaning functions.
- All the contact materials are copper alloy plated with silver, and possess two separation contact surfaces
- Large clearance of insulation.
- When it is "0" position, the product can lock the handle with three locks at the same time, and it can avoid error operation.

General

MTS series changeover switch is applicable for AC 50Hz, rated voltage AC 690V and below, DC 440V and below, rated current up to 3200A. It can be applied for manually infrequent making and breaking.

Performance Faeature

- 7 specifications of MTS series changeover switch from 63A to 3200A is basic model of modularized design type, have 3 poles and four poles (3 poles + on and off neutral pole). It is mainly applied for making and breaking, and switches
- Two group of auxiliary contacts can be assembled
- The electric cable insulating cover can be assembled.

Product Code

TWOMASTER-MTS Series Manual Transfer Switches							
Rating (A)	Product Code	No. of poles	Direc Handle	External handle & Shaft	Auxiliary contact	Bridging bars	
40	23113004	3 Pole	included	23110001	23140011 (1NA/1NK) 23140012 (2NA/2NK)	23110004	
	23114004	4 Pole					
63	23113006	3 Pole				23110006	
	23114006	4 Pole					
80	23113008	3 Pole				23110008	
	23114008	4 Pole					
100	23113010	3 Pole				23110010	
	23114010	4 Pole					
125	23113012	3 Pole		23110002		23110012	
	23114012	4 Pole					
160	23113016	3 Pole				23110016	
	23114016	4 Pole					
200	23113020	3 Pole				23110020	
	23114020	4 Pole					
250	23113025	3 Pole				23110025	
	23114025	4 Pole					
315	23113031	3 Pole				23110031	
	23114031	4 Pole					
400	23113040	3 Pole				23110040	
	23114040	4 Pole					
500	23113050	3 Pole				23110050	
	23114050	4 Pole					
630	23113063	3 Pole				23110003	23110063
	23114063	4 Pole					
800	23113080	3 Pole		23110080			
	23114080	4 Pole					
1000	23113100	3 Pole		23110100			
	23114100	4 Pole					
1250	23113120	3 Pole		23110120			
	23114120	4 Pole					
1600	23113160	3 Pole		23110160			
	23114160	4 Pole					
2000	23113200	3 Pole		23110200			
	23114200	4 Pole					
2500	23113250	3 Pole		23110250			
	23114250	4 Pole					
3200	23113320	3 Pole		23110320			
	23114320	4 Pole					

TWOMASTER MTS

Manuel Transfer Switches

63-3200A



Technical Parameters

Rated thermal current Ith			63A		100A		160A	
Rated current Ith			40	63	80	100	125	160
Rated insulation voltage Ui(V)			750	750	750	750	750	750
Dielectric strength (V)			5000	5000	5000	5000	5000	5000
Rated impulse withstand voltage Uimp kV (Installed category IV)			6	6	6	6	8	8
Rated working current Ie(A)	380V	AC-21	40	63	80	100	125	160
		AC-22	40	63	80	100	125	160
		AC-23	40	50	80	80	125	160
	690V	AC-21	40	50	80	80	125	160
		AC-22	32	32	50	50	125	160
		AC-23	25	25	40	40	80	80
	220V	DC-21	32	63	80	100	125	125
		DC-22	40	63	80	80	125	125
		DC-23	40	63	63	63	125	125
	440V	DC-21					100	125
		DC-22					100	125
		DC-23					100	125
Motor power P(380V) kW		380V	18.5	25	40	40	63	80
		690V	22	22	33	33	75	75
Rated short-time withstand current Icw (kA Rms) 0.1S/1S			10/5	10/5	10/5	10/5	10/20	10/20
Rated breaking capacity Icn(A Rms) AC23 380V			320	504				
Rated marking capacity Icm(A Rms) AC23 380V			400	630				
Rated short-circuit making Icm(kA)capacity			7.5	7.5				
Mechanical life (operation cycle times)			10000	10000	10000	10000	10000	10000
Electrical life (operation cycle times) Rated voltage Ue=690V		COSΦ=0.95 AC 21	1700	1700	1700	1700	1500	1500
		COSΦ=0.65 AC 22	100	100	100	100	1000	1000
		COSΦ=0.35 AC 23	500	500	500	500	500	500
Operation torque(Nm)			1.2	1.2	1.2	1.2	6.5	6.5

Technical Parameters

250A		630A				1600A			3200A		
200	200	315	400	500	630	1000	1250	1600	2000	2500	3200
750	750	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
5000	5000	8000	8000	8000	8000	10000	10000	10000	10000	10000	10000
8	8	12	12	12	12	12	12	12	12	12	12
200	250	315	400	500	630	1000	1250	1600	2000	2500	3200
200	250	315	400	500	630	1000	1250	1600	2000	2000	3200
200	250	315	340	425	536						
200	250	315	400	400	500	1000	1000	1600	2000	2500	2500
160	160	315	315	315	315	800	800	800	1000	1000	1000
100	125	125	125	125	125						
200	250	315	400	500	630	1000	1250	1600	2000	2500	2500
200	250	315	400	400	500	1000	1250	1250	1600	1600	1600
160	200										
160	200	315	400	400	500	1000	1250	1250	2000	2000	2000
160	200	315	400	400	500	1000	1250	1250	1250	1250	1250
160	200	315	400	400	500	1000	1000	1000			
100	132	160	220	280	315	560	560	560	710	710	710
90	110	185	185	185	185	475	475	475	750	750	750
12/30	12/30	45/20	45/20	50/25	50/25	90/50	90/50	90/50	90/50	90/50	90/50
1600	1600	2500	3200	3200	3200						
2000	2000	3150	4000	4000	4000						
17	17	30	30	40	40						
10000	10000	5500	5500	5500	5500	4000	4000	3000	2500	2500	2500
1500	1500	750	750	750	750	600	600	450			
1000	1000	500	500	500	500	400	400	300			
500	500	250	250	250	250	200	200	150			
10	10	14.5	14.5	14.5	14.5	37	37	60	60	60	60

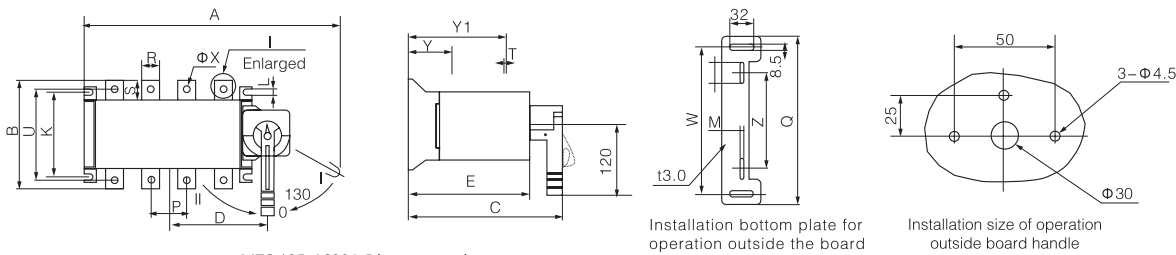
TWOMASTER MTS

Manuel Transfer Switches

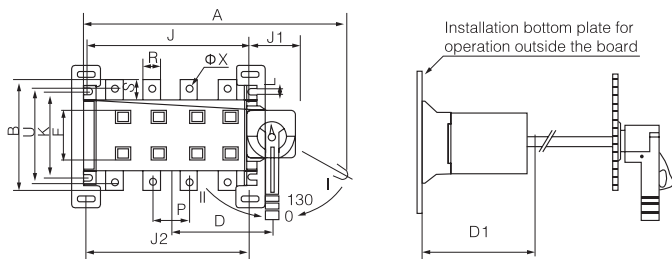
63-3200A



Dimensions

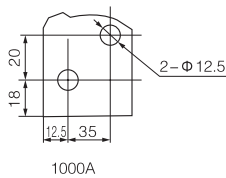


MTS 125-1600A Direct operation

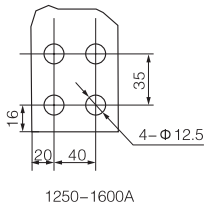


MTS 125-1600A External operation

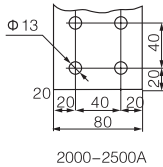
Specification	Dimension of bottom plate				
	I	M	Z	W	Q
125~1600A					
125A	55	6.5	95	216	244
160A	55	6.5	95	216	244
200A	55	6.5	116	216	244
250A	55	6.5	116	216	244
315-400A	60	8.5	180	280	311
500-630A	60	8.5	180	280	311
1000-1600A	60	8.5	180	280	311



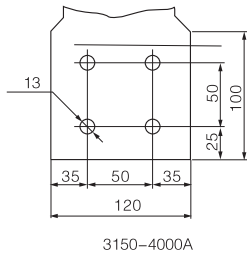
1000A



1250-1600A



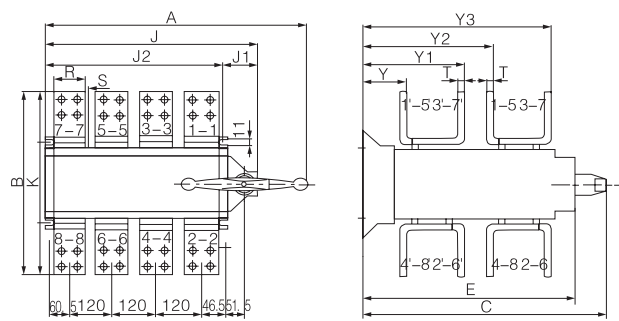
2000-2500A



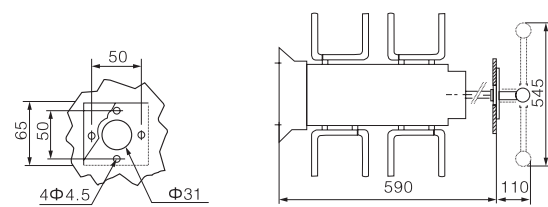
3150-4000A

Specification	Overall and mounting dimensions																			
63-630A	A	B	C	D	D1	E	J	J1	J2	K	L	P	R	S	T	U	ΦX	Y	Y1	F
63-100A	194	105	170	100	140	115	126	65	112	84	7	30	14	18	2.5	90	6	32	91	46
125A-160A/3	270	135	212	89	195	150	120	65	120	95	7	36	20	25	3.5	115	9	55	121	59
125A-160A/4	300	135	212	104	195	150	150	65	150	95	7	36	20	25	3.5	115	9	55	121	59
200A-250A/3	307	170	260	110	215	172	160	65	160	115	11	50	25	30	3.5	140	11	70	140	76
200A-250A/4	357	170	260	135	215	172	210	65	210	115	11	50	25	30	3.5	140	11	70	140	76
315A-400A/3	372	240	297	150	275	236	210	77	210	180	13	65	32	40	5	206	11	83	192	94
315A-400A/3	432	240	297	180	275	236	275	77	275	180	13	65	32	40	5	206	11	83	192	94
500A-630A/3	372	240	297	150	275	236	210	77	210	180	13	65	32	40	6	206	11	83	192	94
500A-630A/4	432	240	297	180	275	236	275	77	275	180	13	65	32	40	6	206	11	83	192	94

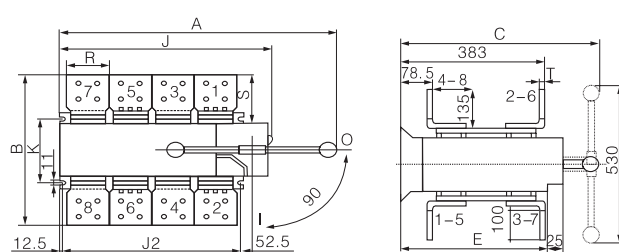
Dimensions



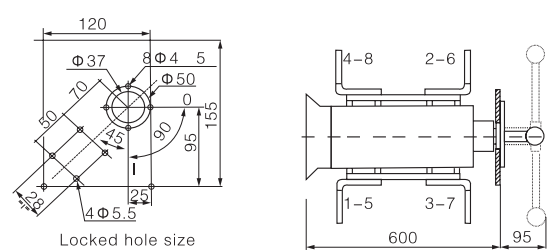
MTS 2000-2500A Direct operation



MTS 2000-2500A External operation

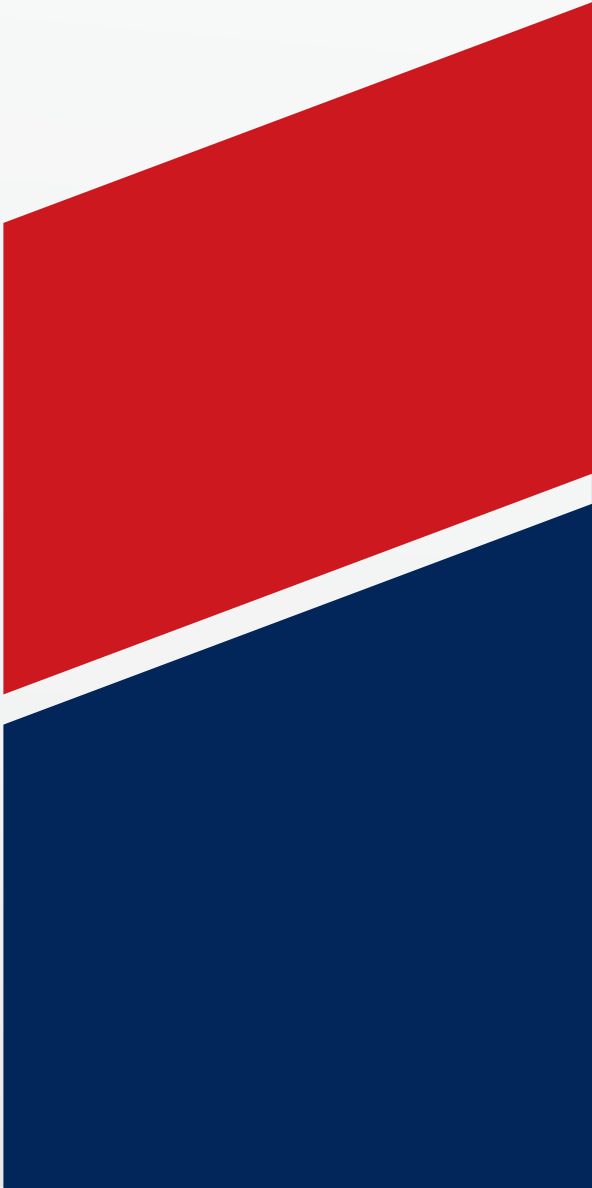


MTS 3200A Direct operation



MTS 3200A External operation

Specification	Overall and mounting dimensions																		
1000~3150A	A	B	C	D	D1	E	J	J1	J2	K	P	R	S	T	ΦX	Y	Y1	Y2	Y3
1000A/3	638	312	374	229	340	302	355	108.5	355	220	120	60	56	8	12.5	99	243.5		
1000A/4	758	312	374	289	340	302	473	108.5	473	220	120	60	56	8	12.5	99	243.5		
1250A/3	638	338	374	229	340	302	355	108.5	355	220	120	80	69	8	12.5	99	243.5		
1250A/4	758	338	374	289	340	302	473	108.5	473	220	120	80	69	8	12.5	99	243.5		
1600A/3	638	338	374	229	340	302	355	108.5	355	220	120	80	69	10	12.5	99.5	244		
1600A/4	758	338	374	289	340	302	473	108.5	473	220	120	80	69	10	12.5	99.5	244		
2000A/3	576	455	603	603	700	495	347	88	355	220	120	80	127.5	10	12.5	78.5	225.5	309.5	456.5
2000A/4	696	455	603	603	700	495	467	88	473	220	120	80	127.5	10	12.5	78.5	225.5	309.5	456.5
2500A/3	576	455	603	603	700	495	347	88	355	220	120	80	127.5	10	12.5	78.5	227.5	309.5	456.5
2500A/4	696	455	603	603	700	495	467	88	473	220	120	80	127.5	10	12.5	78.5	227.5	309.5	456.5
3200A/3	576	505	603	603	700	495	347	88	355	220	120	120	152.5	12	12.5	78.5	227.5	309.5	458
3200A/4	696	505	603	603	700	495	467	88	473	220	120	120	152.5	12	12.5	78.5	227.5	309.5	458



TWOMASTER



TWOMASTER ATS SERIES
40-6300A

TWOMASTER Transfer Switch Selection Guide

	R	B	S	S Plus	E	Pro S	Pro E
Automatic Transfer / Auto Recovery		√	√	√	√	√	√
Remote Transfer	√			√			
Manual Transfer	√	√	√	√	√	√	√
LED Power Indicator	√	√	√	√	√	√	√
LED Position Indicator	√	√	√	√	√	√	√
Mechanical Position Indicator	√	√	√	√	√	√	√
Auxiliary Contacts	√	√	√	√	√	√	√
Generator Start/Stop		√	√	√	√	√	√
Single Phase Sensing		√					
Three Phase Sensing			√	√	√	√	√
Phase Sequence Sensing			√	√	√	√	√
Frequency Sensing			√	√	√	√	√
Current Sensing				√			
LCD Screen			o	o	√	√	√
RS 485 Modbus Communication					√		√
Generator Exercise					√		√
Voltage Lower/Upper Limit			√	√	√	√	√
Frequency Lower/Upper Limit			√	√	√	√	√
Source Priority Selection			√	√	√	√	√
Fire Alarm Input		√	√		√	√	√

Standart : √
Optional : o



Standards :
EN IEC 60947-6-1 : 2023
EN IEC 55014-1 : 2021
EN IEC 55014-2 : 2021
EN IEC 61000-3-2 : 2019 + A1 : 2021
EN 61000-3-3 : 2013 + A2 :2021
Approvals and certifications:
ICR Polska Co., Ltd. POLAND

	TURN R	TURN B	TURN S	TURN E	FAST B	FAST S	FAST E
Automatic Transfer / Auto Recovery		✓	✓	✓	✓	✓	✓
Remote Transfer	✓					✓	✓
Manual Transfer	✓	✓	✓	✓	✓	✓	✓
LED Power Indicator	✓	✓	✓	✓	✓	✓	✓
LED Position Indicator	✓	✓	✓	✓	✓	✓	✓
Mechanical Position Indicator	✓	✓	✓	✓	✓	✓	✓
Auxiliary Contacts	✓	✓	✓	✓	✓	✓	✓
Generator Start/Stop		✓	✓	✓		✓	✓
Single Phase Sensing		✓			✓		
Three Phase Sensing			✓	✓		✓	✓
Phase Sequence Sensing			✓	✓		✓	✓
Frequency Sensing			✓	✓		✓	✓
Current Sensing							
LCD Screen			○	✓		✓	✓
RS 485 Modbus Communication				✓			✓
Generator Exercise				✓			✓
Voltage Lower/Upper Limit			✓	✓		✓	✓
Frequency Lower/Upper Limit			✓	✓		✓	✓
Source Priority Selection			✓	✓		✓	✓
Fire Alarm Input		✓	✓	✓		✓	✓

Standart : ✓
Optional : ○



Standards :
 EN IEC 60947-6-1 : 2023
 EN IEC 55014-1 : 2021
 EN IEC 55014-2 : 2021
 EN IEC 61000-3-2 : 2019 + A1 : 2021
 EN 61000-3-3 : 2013 + A2 : 2021
Approvals and certifications:
 ICR Polska Co., Ltd. POLAND

TWOMASTER B SERIES

40A-1600A

TWOMASTER



Product Description

Transfer Switch mainly used for electric distribution network or motor network with rated voltage 400V/ 50-60Hz, rated current 40A to 6300A, change over between main power and backup power system, power grid and genset. Meanwhile can be used as isolation of unfrequency making and breaking circuit.

It is widely used in the transmission and distribution system and automation system of the important place which not allow power cutoff such as fire-fighting, hospital, industrial facilities, bank, high building, telecommunications, school, etc.

Performance And Characteristic

It adopted double complex contact/ horizontal pulling mechanism/micro motor energy pre storage and micro-computer control technology, basically come to zero arc. Adopted reliable mechanical interlock and electric interlock, executive unit adopt independent load disconnect switch, it makes more reliable and safety; Adopt "Zero Position" technology, it can force to set to Zero Position under emergency situation (cutoff two way power supply, meet the fire linkage requirements; Load disconnect switch change over adopt singleness motor drive, switch over smooth and reliable, no noise, little impact; The driving motor have instant current across only under the load disconnect switch change over, stable working status no need to provide the working current, outstanding energy saving; Executive load disconnect switch have mechanical interlock, make sure the Normal power and Reserve Power working reliable and no interference; Distinct ON and OFF position indicator, padlock function etc., make reliable and safe isolation between power supply and loading. High security, high automatization, high reliability, long working life

Performance And Characteristic

Electromechanical integration design, accuracy change over, flexible, smoothly, adopt international advanced logical control technology, high anti-interference ability, no interference outward. Have main power ON, backup power OFF; main power OFF, backup power ON; main and backup power OFF; three working mode (I-O-II); Easy installation, control circuit adopt plug type terminal connection; Four operating functions: Emergency manual, motor remote control, emergency OFF under auto control status, auto control operation.

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Housing projects

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certifications

ICR Polska Co., Ltd. POLAND



Basic Type Switch Control Characteristic

Suitable for two way main and backup power system, auto change auto recovery; Can expand functions by outer connection; Auto, Remote, Manual control functions; Delay 0.5s signal detect, avoid miss actuation; Under Auto control status have "0" position remote control; Key switch select the operating mode; Can with RS-485 communication port (optional), according to customer required.

Advantages

3 or 4 Pole Automatic Transfer Switch
Automatic Transfer with Voltage Sensing (Single Phase)
Integrated Auxiliary Contacts,(Output 220VAC)
Generator Start/Stop, (No delay time)
Integrated Dual Power Supply
Integrated Bridging Bars
Fire Alarm Input, (Dry contact)
Mechanical Position Indicator
LED Position Indicator
LED Power Indicator
Wide Voltage Range
Easy integration

Product Code

TWOMASTER B Series Automatic Transfer Switches						
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	Control Module
40	13223004	3 Pole	13200001 included	mounted	mounted	13220002 mounted
	13224004	4 Pole				
63	13223006	3 Pole				
	13224006	4 Pole				
80	13223008	3 Pole				
	13224008	4 Pole				
100	13223010	3 Pole				
	13224010	4 Pole				
125	13223012	3 Pole				
	13224012	4 Pole				
160	13223016	3 Pole				
	13224016	4 Pole				
200	13223020	3 Pole				
	13224020	4 Pole				
250	13223025	3 Pole				
	13224025	4 Pole				
315	13223031	3 Pole				
	13224031	4 Pole				
400	13223040	3 Pole				
	13224040	4 Pole				
500	13223050	3 Pole				
	13224050	4 Pole				
630	13223063	3 Pole				
	13224063	4 Pole				
800	13223080	3 Pole	13200005 included			
	13224080	4 Pole				
1000	13223100	3 Pole				
	13224100	4 Pole				
1250	13223120	3 Pole				
	13224120	4 Pole				
1600	13223160	3 Pole				
	13224160	4 Pole				

TWOMASTER S SERIES

40A-3200A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch,
- **Automatic Transfer with Voltage Sensing (Three Phase),**
- LCD Screen (Optional),
- Adjustable delay time before transfer,*
- Phase Sequence Sensing,*
- Voltage Lower/Upper Limit,*
- Frequency Lower/Upper Limit,*
- Source Priority Selection,*
- Integrated Auxiliary Contacts (Output 220VAC),
- Generator Start/Stop (adjustable delay time),
- Integrated Dual Power Supply,
- Integrated Bridging Bars,
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator,
- LED Position Indicator,
- LED Power Indicator,
- Wide Voltage Range,
- Easy integration,

*These settings can be made on the LCD screen.

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Housing projects
- Main/Genset, Main/Main, Genset/Genset applications
- High Building
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- School
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 : 2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



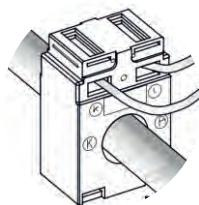
Product Code

TWOMASTER S Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary contact	Bridging bars	LCD Screen	Control module
40	13233004	3 Pole	included 13200001	mounted	mounted	13230001	13230002 mounted
	13234004	4 Pole					
63	13233006	3 Pole					
	13234006	4 Pole					
80	13233008	3 Pole					
	13234008	4 Pole					
100	13233010	3 Pole					
	13234010	4 Pole					
125	13233012	3 Pole					
	13234012	4 Pole					
160	13233016	3 Pole					
	13234016	4 Pole					
200	13233020	3 Pole					
	13234020	4 Pole					
250	13233025	3 Pole					
	13234025	4 Pole					
315	13233031	3 Pole					
	13234031	4 Pole					
400	13233040	3 Pole					
	13234040	4 Pole					
500	13233050	3 Pole					
	13234050	4 Pole					
630	13233063	3 Pole					
	13234063	4 Pole					
800	13233080	3 Pole	included 13200005				
	13234080	4 Pole					
1000	13233100	3 Pole					
	13234100	4 Pole					
1250	13233120	3 Pole					
	13234120	4 Pole					
1600	13233160	3 Pole					
	13234160	4 Pole					
2000	13233200	3 Pole					
	13234200	4 Pole					
2500	13233250	3 Pole					
	13234250	4 Pole					
3200	13233320	3 Pole					
	13234320	4 Pole					

TWOMASTER S PLUS SERIES

40A-3200A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- Automatic Transfer with Voltage Sensing (Three Phase)
- LCD Screen (Optional)
- Adjustable delay time before transfer
- **Current Sensing**
 - Phase Sequence Sensing
 - Voltage Lower/Upper Limit
 - Frequency Lower/Upper Limit
 - Source Priority Selection
- Integrated Auxiliary Contacts (Output 220VAC)
- Generator Start/Stop (adjustable delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

*These settings can be made on the LCD screen.

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- High Building
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- School
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 : 2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Product Code

TWOMASTER S Plus Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary contact	Bridging bars	LCD Screen	Control module
40	13243004	3 Pole	included 13200001	mounted	mounted	13230001	13240002 mounted
	13244004	4 Pole					
63	13243006	3 Pole					
	13244006	4 Pole					
80	13243008	3 Pole					
	13244008	4 Pole					
100	13243010	3 Pole					
	13244010	4 Pole					
125	13243012	3 Pole					
	13244012	4 Pole					
160	13243016	3 Pole					
	13244016	4 Pole					
200	13243020	3 Pole					
	13244020	4 Pole					
250	13243025	3 Pole					
	13244025	4 Pole					
315	13243031	3 Pole					
	13244031	4 Pole					
400	13243040	3 Pole					
	13244040	4 Pole					
500	13243050	3 Pole					
	13244050	4 Pole					
630	13243063	3 Pole					
	13244063	4 Pole					
800	13243080	3 Pole	included 13200005				
	13244080	4 Pole					
1000	13243100	3 Pole					
	13244100	4 Pole					
1250	13243120	3 Pole					
	13244120	4 Pole					
1600	13243160	3 Pole					
	13244160	4 Pole					
2000	13243200	3 Pole					
	13244200	4 Pole					
2500	13243250	3 Pole					
	13244250	4 Pole					
3200	13243320	3 Pole					
	13244320	4 Pole					

TWOMASTER E SERIES

40A-3200A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch,
- **Automatic Transfer with Voltage Sensing (Three Phase),**
- **RS 485 Modbus Haberleşme**
- LCD Screen
- Adjustable delay time before transfer,*
- Phase Sequence Sensing,*
- Voltage Lower/Upper Limit,*
- Frequency Lower/Upper Limit,*
- Source Priority Selection,*
- Integrated Auxiliary Contacts (Output 220VAC),
- Generator Start/Stop (adjustable delay time),
- Integrated Dual Power Supply,
- Integrated Bridging Bars,
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator,
- LED Position Indicator,
- LED Power Indicator,
- Wide Voltage Range,
- Easy integration,

*These settings can be made on the LCD screen.

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Housing projects
- Main/Genset, Main/Main, Genset/Genset applications
- High Building
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- Data Center
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 : 2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Product Code

TWOMASTER E Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary contact	Bridging bars	LCD Screen	Control module
40	13253004	3 Pole	included 13200001	mounted	mounted	included 13230001	13250002 mounted
	13254004	4 Pole					
63	13253006	3 Pole					
	13254006	4 Pole					
80	13253008	3 Pole					
	13254008	4 Pole					
100	13253010	3 Pole					
	13254010	4 Pole					
125	13253012	3 Pole					
	13254012	4 Pole					
160	13253016	3 Pole					
	13254016	4 Pole					
200	13253020	3 Pole					
	13254020	4 Pole					
250	13253025	3 Pole					
	13254025	4 Pole					
315	13253031	3 Pole					
	13254031	4 Pole					
400	13253040	3 Pole					
	13254040	4 Pole					
500	13253050	3 Pole					
	13254050	4 Pole					
630	13253063	3 Pole					
	13254063	4 Pole					
800	13253080	3 Pole					
	13254080	4 Pole					
1000	13253100	3 Pole					
	13254100	4 Pole					
1250	13253120	3 Pole					
	13254120	4 Pole					
1600	13253160	3 Pole					
	13254160	4 Pole					
2000	13253200	3 Pole					
	13254200	4 Pole					
2500	13253250	3 Pole					
	13254250	4 Pole					
3200	13253320	3 Pole					
	13254320	4 Pole					

TWOMASTER R SERIES

40A-6300A

TWOMASTER



The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Generator manufacturers

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

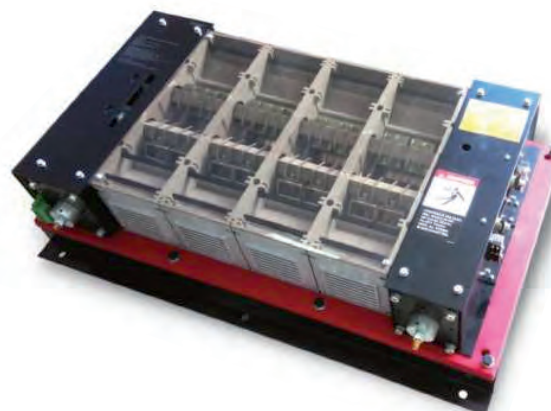
Approvals and certification

ICR Polska Co., Ltd. POLAND



Advantages

- 3 or 4 Pole Motorized Transfer Switch
- Remote Transfer Switch
- Integrated Auxiliary Contacts
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration



TWOMASTER R Series 4000-5000-6300A

Product Code

TWOMASTER R Series Remote Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary contact	Bridging bars	Control module	Automatic Control Unit
40	13273004	3 Pole	included 13200001	mounted	mounted	13270002 mounted	Analog 13270001 Digital 13270004
	13274004	4 Pole					
63	13273006	3 Pole					
	13274006	4 Pole					
80	13273008	3 Pole					
	13274008	4 Pole					
100	13273010	3 Pole					
	13274010	4 Pole					
125	13273012	3 Pole					
	13274012	4 Pole					
160	13273016	3 Pole					
	13274016	4 Pole					
200	13273020	3 Pole					
	13274020	4 Pole					
250	13273025	3 Pole					
	13274025	4 Pole					
315	13273031	3 Pole					
	13274031	4 Pole					
400	13273040	3 Pole					
	13274040	4 Pole					
500	13273050	3 Pole					
	13274050	4 Pole					
630	13273063	3 Pole					
	13274063	4 Pole					
800	13273080	3 Pole	included 13200005				
	13274080	4 Pole					
1000	13273100	3 Pole					
	13274100	4 Pole					
1250	13273120	3 Pole					
	13274120	4 Pole					
1600	13273160	3 Pole					
	13274160	4 Pole					
2000	13273200	3 Pole					
	13274200	4 Pole					
2500	13273250	3 Pole					
	13274250	4 Pole					
3200	13273320	3 Pole					
	13274320	4 Pole					
4000	13273400	3 Pole	included 13200006				Digital 13270004
	13274400	4 Pole					
5000	13273500	3 Pole					
	13274500	4 Pole					
6300	13273630	3 Pole					
	13274630	4 Pole					

TWOMASTER ATS SERIES

40A-6300A



Technical Parameter

Rated Thermal Current I _{th}		100A				160A		250A		630A			
Rated Current I _n (A)		40	63	80	100	125	160	200	250	315	400	500	630
Rated insulation voltage U _i (V)		500	500	500	500	500	500	500	500	500	500	500	500
Dielectric strength (V)		5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Rated impulse withstand voltage U _{imp} KV (installation category)		8	8	8	8	8	8	8	8	12	12	12	12
Rated working current I _e (A)	AC-33iB	40	63	80	100	125	160	200	250	315	400	500	630
Rated short time withstand current I _{cw} (kA Rms)	0.1S / 1S	9/5	9/5	9/5	9/5	12/5	12/5	12/5	12/5	40/20	40/20	40/20	50/25
Rated Breaking capacity (A Rms) AC-33iB 400V		320	500	640	800	1000	1280	1600	2000	3200	3200	3200	5000
Rated Making capacity (A Rms) AC-33iB 400V		400	630	800	1000	1250	1600	2000	2500	4000	4000	4000	6300
Transfer Time	I-O-II (S)	0.5	0.5	0.5	0.5	1	1	1.1	1.1	1.2	1.2	1.2	1.2
	O-I or II-O (S)	0.3	0.3	0.3	0.3	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8
Weight (kg)	3Poles	3,25	3,25	3,25	3,25	6,1	6,1	8,82	8,82	17.8	17.8	17.8	17.8
	4Poles	3,34	3,34	3,34	3,34	6,3	6,3	9,22	9,22	18,7	18,7	18,7	18,7
Use categeory		AC-32B(PC)											

Technical Parameter

Rated Thermal Current I _{th}		1000A		1250A	1600A	2000A	2500A	3200A
Rated Current I _n (A)		800	1000	1250	1600	2000	2500	3200
Rated insulation voltage U _i (V)		500	500	500	500	1000	1000	1000
Dielectric strength (V)		10000	10000	10000	10000	10000	10000	10000
Rated impulse withstand voltage U _{imp} KV (installation category)		12	12	12	12	12	12	12
Rated working current I _e (A)	AC-33iB	800	1000	1250	1600	2000	2500	3200
Rated short time withstand current I _{cw} (kA Rms)	0.1S/1 S	90/50	90/50	90/50	90/50	50	50	55
Rated Breaking capacity (A Rms) AC-33iB 400V		6400	8000	10000	12800	16000	20000	25600
Rated Making capacity (A Rms) AC-33iB 400V		8000	10000	12500	16000	20000	25000	32000
Transfer Time	I-O-II (S)	1.2	1.2	1.2	1.2	2.4	2.4	2.4
	O-I or II-O (S)	0.8	0.8	0.8	0.8	1.6	1.6	1.6
Weight (kg)	3Poles	42,3	42,3	42,9	44,2	78	87	114
	4Poles	46,3	46,3	50,9	51,2	99	114	127
Use category		AC-32B(PC)						

TWOMASTER ATS SERIES
40A-6300A



Technical Parameter

Rated Current In		4000A		5000A		6300A	
Insulation voltage		AC800V					
Impulse withstand voltage		8kA					
Rated voltage		AC400V					
Vote count		Double throw					
Wiring		After the board (Front panel for special delivery)					
Poles		3P	4P	3P	4P	3P	4P
Weight (kg)		207	212	265	275		
Operating current (A)	DC110V/125V	32	36	36	38	36	38
	AC100V/110V	32	36	36	38	36	38
	AC200V/ 220V/230V	16	18	18	20	18	20
Tripping current (A)	DC110V/125V	6					
	AC100V/110V	6					
	AC220V	2					
Performance	Short time withstand current		50kA				
	Rated conditional short-circuit current (fuse for protection)		120kA				
	Rated conditional short-circuit current (fuse for Breaker)		50kA				
	Breaking capacity		AC-33B(10IeConnect/10IeBreaking) cosΦ = 0.35 DC-33B(4IeConnect.4IeBreaking) L/R = 2.5ms				
	Time Conversion	I-II	≤0.2s				
		II-I					
	Lifetime		Electrical life of 6,000 times, the mechanical life of 10,000 times				
Operating cycle frequency		120 times / hour					
Auxiliary switch		A, B power supply side are two normally open and two normally closed; switching capacity AC: 110V5A / AC: 220V3A DC: 200V0.2A					
Accessory		Operating handle					

Note:

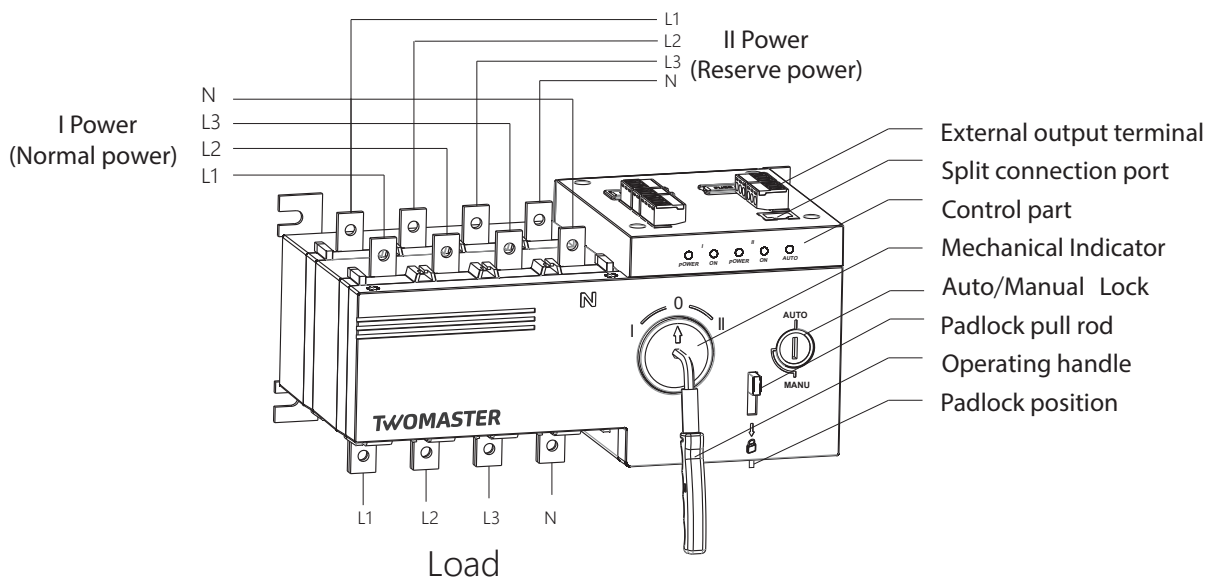
1) Direct current (DC) case operation, AC circuit and configured substantially the same. Please go to follow the exchange operating instructions.

2) The weight of the table for reference purposes only.

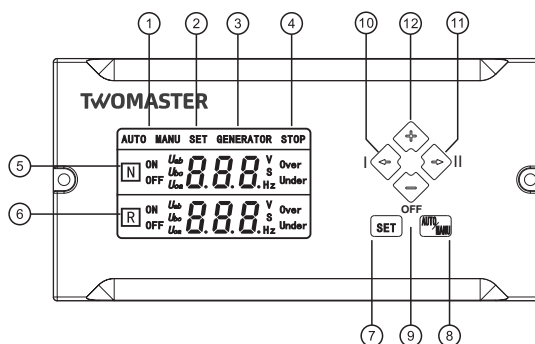
3) Short-time withstand current and operating current, the current value of the trip is for reference only.

4) 4000A and 5000A 4P product, N-pole contacts capacity are 2000A, 2500A.

ATS Wiring Instruction
Frame Current 40A - 3200A



Keyboards guide



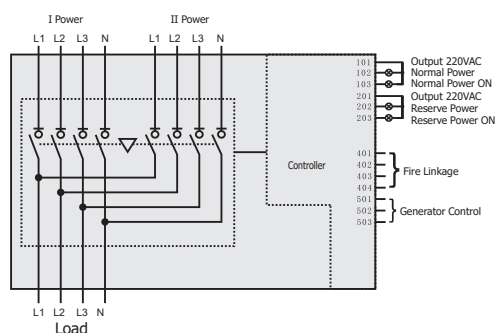
- 1- AUTO/MANU working status indicator
- 2- SET entry setting menu indicator
- 3- GEN generator start working status indicator
- 4- STOP fire linkage working status indicator (force transfer to double off working position)
- 5- Source I voltage, frequency display
- 6- Source II voltage, frequency display
- 7- SET key, press entry setting interface, on SET menu, press is confirm the settings.
- 8- AUTO/MANU key to select transfer mode. AUTO is auto transfer, MANU is manual transfer. On SET menu, press to save the settings and exit.
- 9- On manual working mode and when either source I/II is available, press key transfer to double off working position; on SET menu, is turn down key.
- 10- On manual working mode and when source I is available, press key transfer to source I supply, on SET menu, is scroll up key.
- 11- On manual working mode and when source II is available, press key transfer to source II supply, on SET menu, is scroll down key.
- 12- On setting menu, press to turn up)

TWOMASTER ATS SERIES

40A-6300A

TWOMASTER

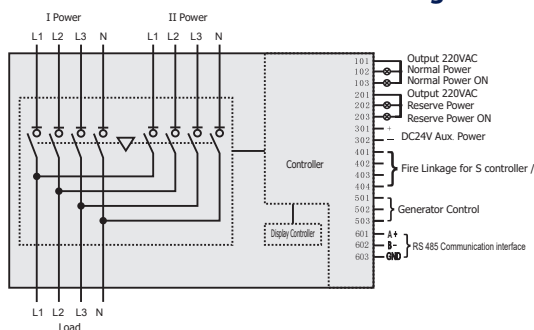
TWOMASTER-B Controller 4P Wiring



Twomaster-B Controller terminal wiring instruction

- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
 101—Indicator common null line and 3P null line input
 102—Main power indicator signal output
 103—Main power ON signal output
 201~203 : Backup power external indicator signal (Active AC230V/0.5A)
 201—Indicator common null line and 3P null line input
 202—Backup power indicator signal output
 203—Backup power ON signal output
 401~404 fire linkage control signal input and feedback signal output
 401,402— Fire linkage signal passive input,
 403,404— Feedback signal when ATS transfer to OFF position
 501-503 : Generator start control signal output
 501—Control signal NC point
 502—Control signal common point
 503—Control signal NO point

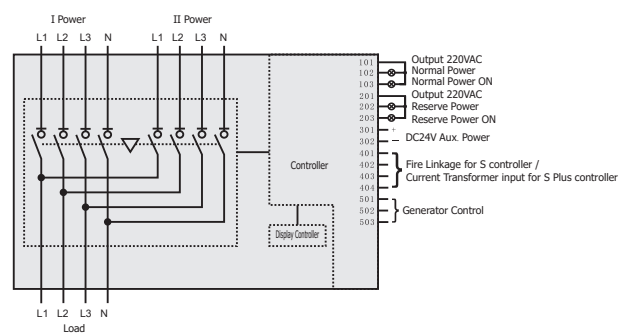
TWOMASTER-E Controller 4P Wiring



Twomaster-E Controller terminal wiring instruction

- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
 101—Indicator common null line and 3P null line input
 102—Main power indicator signal output
 103—Main power ON signal output
 201~203 : Backup power external indicator signal (Active AC230V/0.5A)
 201—Indicator common null line and 3P null line input
 202—Backup power indicator signal output
 203—Backup power ON signal output
 301~302 aux. power DC24V input
 301--DC24V "+" input
 302--DC24V "-" input
 401~404 fire linkage control signal input and feedback signal output
 401,402— Fire linkage signal passive input,
 403,404— Feedback signal when ATS transfer to OFF position
 501-503 : Generator start control signal output
 501—Control signal NC point
 502—Control signal common point
 503—Control signal NO point
 601~603: RS485 Communication terminal 601--A+, 602--B-, 603--GND

TWOMASTER-S & S Plus Controller 4P Wiring



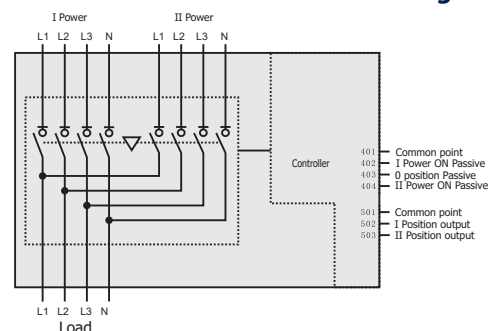
Twomaster-S Controller terminal wiring instruction

- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
 101—Indicator common null line and 3P null line input
 102—Main power indicator signal output
 103—Main power ON signal output
 201~203 : Backup power external indicator signal (Active AC230V/0.5A)
 201—Indicator common null line and 3P null line input
 202—Backup power indicator signal output
 203—Backup power ON signal output
 301~302 aux. power DC24V input
 301--DC24V "+" input
 302--DC24V "-" input
 401~404 fire linkage control signal input and feedback signal output
 401,402— Fire linkage signal passive input,
 403,404— Feedback signal when ATS transfer to OFF position
 501-503 : Generator start control signal output
 501—Control signal NC point
 502—Control signal common point
 503—Control signal NO point

S Plus Controller terminal wiring instruction

- 401~404 current signal input, 100mA

TWOMASTER-R Controller 4P Wiring

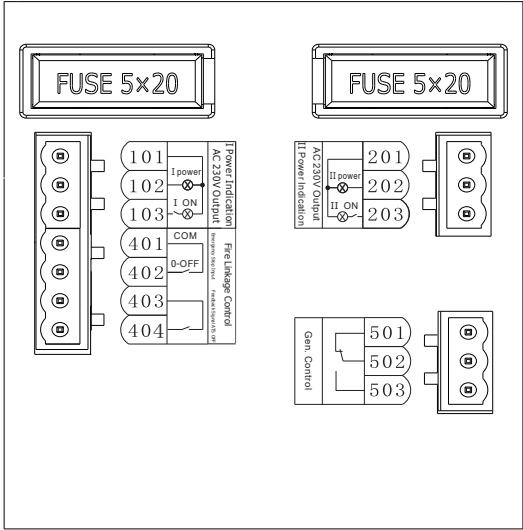


Twomaster-R Controller terminal wiring instruction

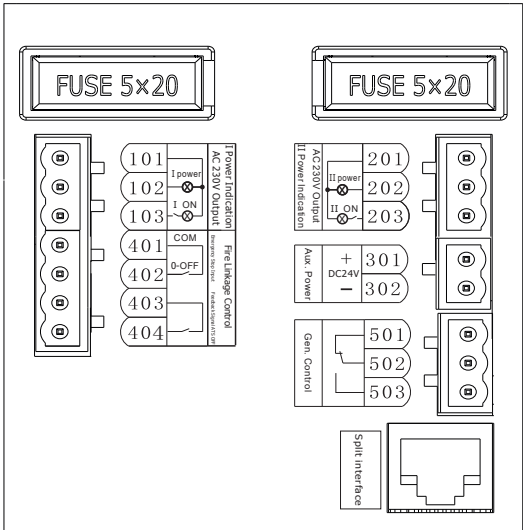
- 401~404 Remote control signal input
 401— Common point
 402— I Power ON passive input
 403— 0 position passive input
 404— II Power ON passive input
 501-503 : Position signal output
 501—Common point
 502—I Position passive signal output
 503—II Position passive signal output

Note: 1. If fire-fighting equipment output signal is active power, the signal source need to change over the line connection, for example to connect through a relay to change the line connection, and connect the relay NO point to 401,402, when NO contact point closed ATS transfer to OFF position. When the fire linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then the ATS will recovery normal operation. If it is intelligent type, need switching Manual/Auto button one time.
 2. When the backup power is Auto start generator, when normal power is good 501 and 502 closed, 502 and 503 open; When Normal power is fault, 501 and 502 open, 502 and 503 closed.
 3. RS485 Communication interface manual please refer to communication protocol.

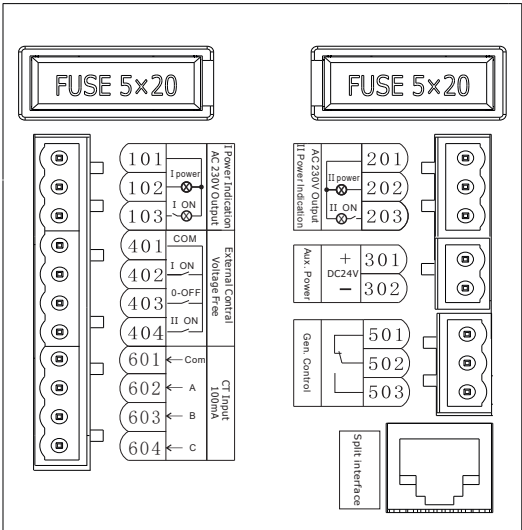
TWOMASTER-B Controller Terminal Definition
40A-1600A



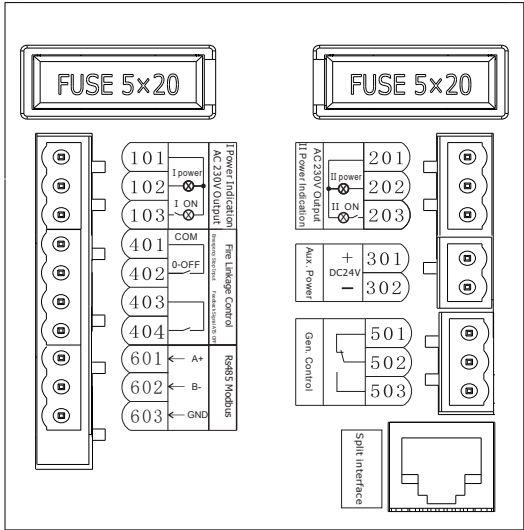
TWOMASTER-S Controller Terminal Definition
40A-3200A



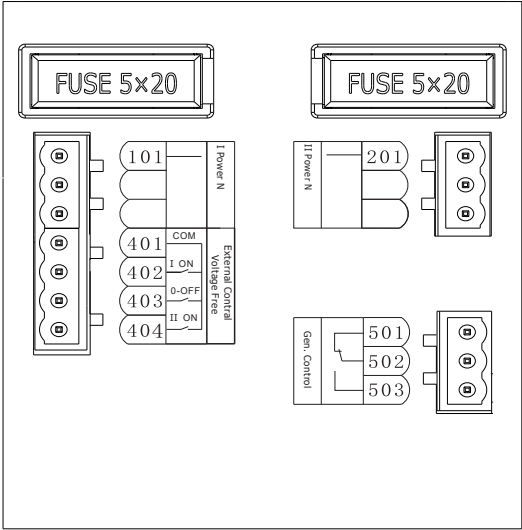
TWOMASTER-S Plus Controller Terminal Definition
40A-3200A



TWOMASTER-E Controller Terminal Definition
40A-3200A



TWOMASTER-R Controller Terminal Definition
40A-1600A



TWOMASTER ATS SERIES

40A-6300A



TWOMASTER-R Controller Terminal Definition

2000A-3200A

Output Terminal Wiring	Inner wiring	Terminal
I 230VAC II 230VAC F N F N 101 102 103 104 105 106	Device inner output	Terminals Main Power Input 230VAC Backup Power Input 230VAC F - N F - N 101 102 103 104 105 106 DO NOT USE 101-106
Command/Auto Selection Common point Position I Position O Position II	Control	Terminals Command/Auto Selection 220V Common point I 0 II 201 202 203 204 205 206
Common point Position I Position O Position II	Position Indicate	Terminals Position 301 302 303 304 305 306
Common point Position I Position O Position II	the 1st pre-break Aux. contact	Terminals Pre-break Position I Position II 401 402 403 404 405 406
Initial* Contact open * Contact close Mode Padlock Lock* Contact open Padlock* contact close		Terminals Padlock mode Auto/Manual mode Padlock 501 502 503 504 505 506

201

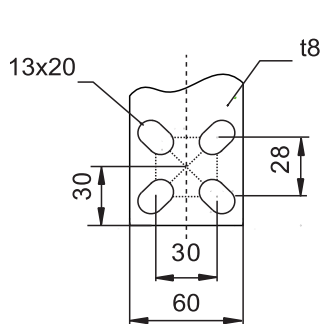
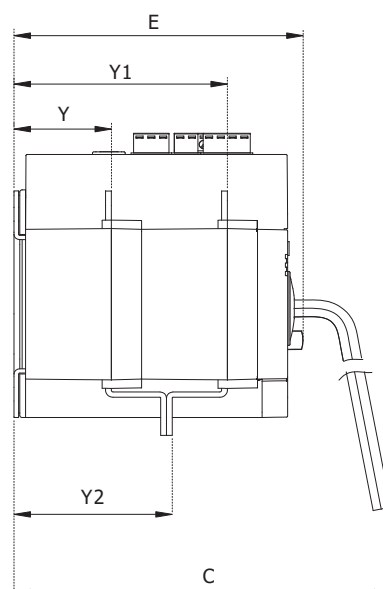
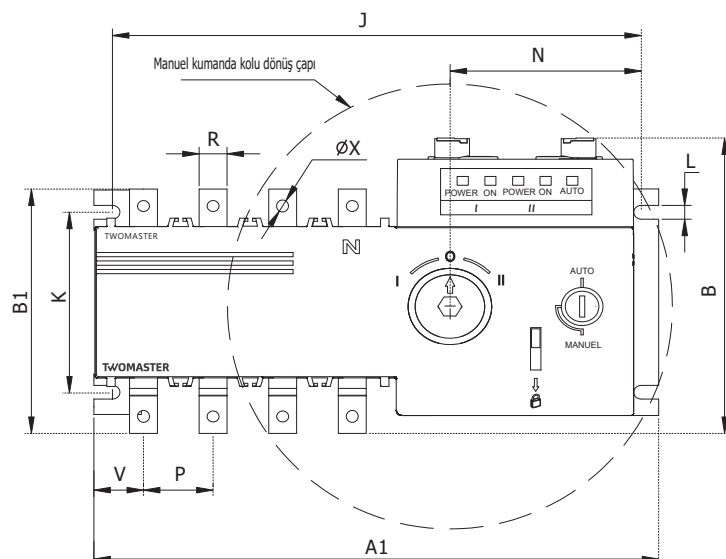
202

203

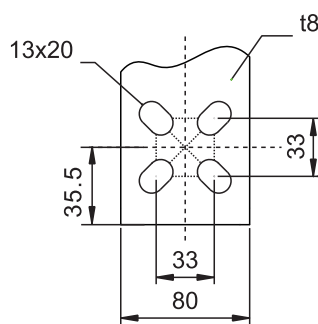
204

205

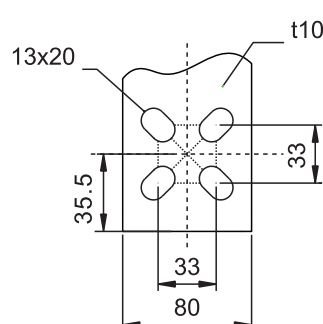
206



800-1000A



1250A



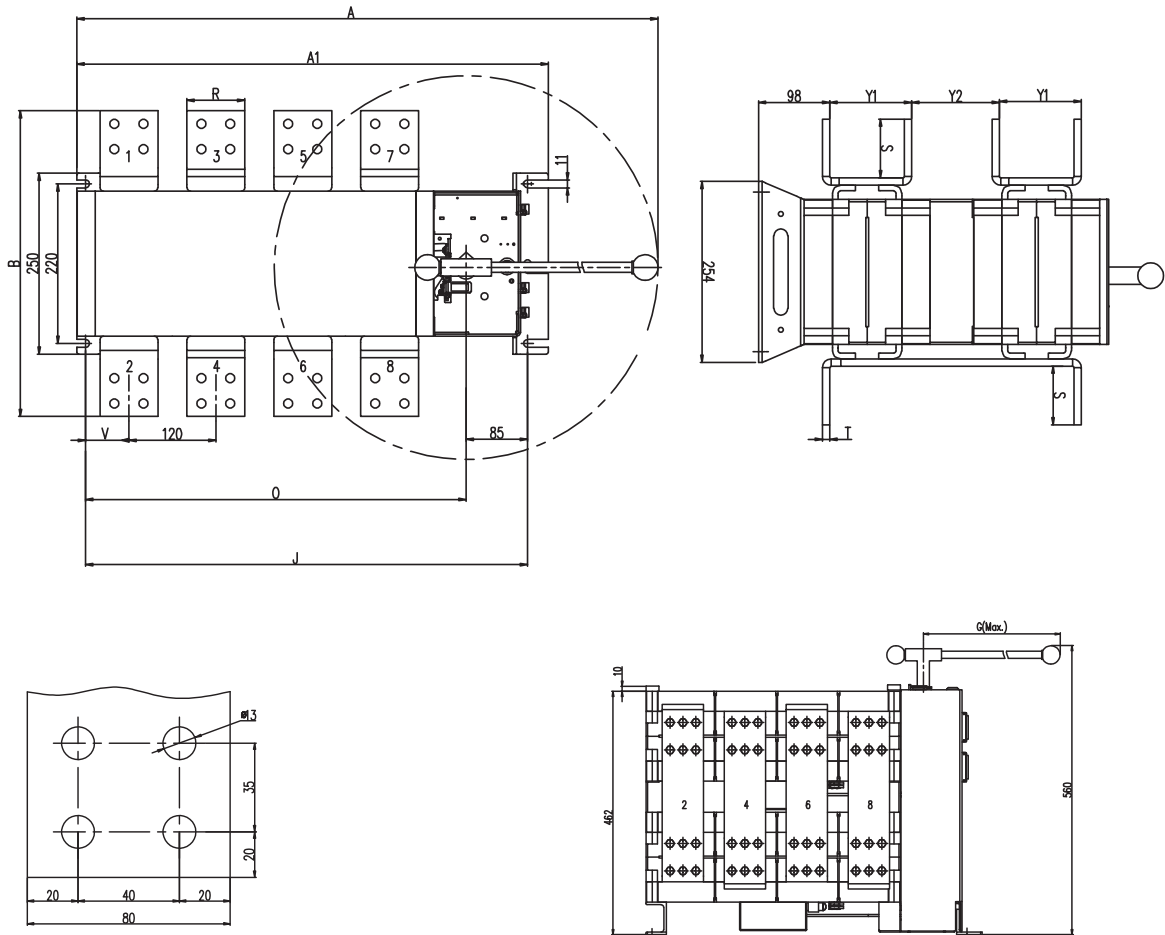
1600A

Size	Overall Dimension(mm)					Mounting Dimension (mm)												
In	A1	B	B1	C	E	J	K	L	N	P	R	V	ΦX	Y	Y1	Y2	t	
100	244	142	123	165	125	228	85	6.5	83	30	14	21	6.5	41.5	91.5	43	2.5	
160	301	175	140	200	166	285	102	7	94	36	20	31	8.5	55.5	125.5	92.5	3.5	
250	373	175	178	250	198	350	108	6.5	105	50	24	37	11	72	157	116	3.5	
630	433	260	260	295	244	416	180	9	101	65	40	47.5	12	83	193	140	5	
1000	636	366	355	373	320	612	220	11	83.5	120	60	71	13	109	241	105	8	
1250	636	366	369	373	320	612	220	11	83.5	120	80	71	13	109	241	106	8	
1600	636	366	369	373	320	612	220	11	83.5	120	80	71	13	109	241	106	10	

TWOMASTER ATS SERIES
40A-6300A



Diemensions
2000A-3200A

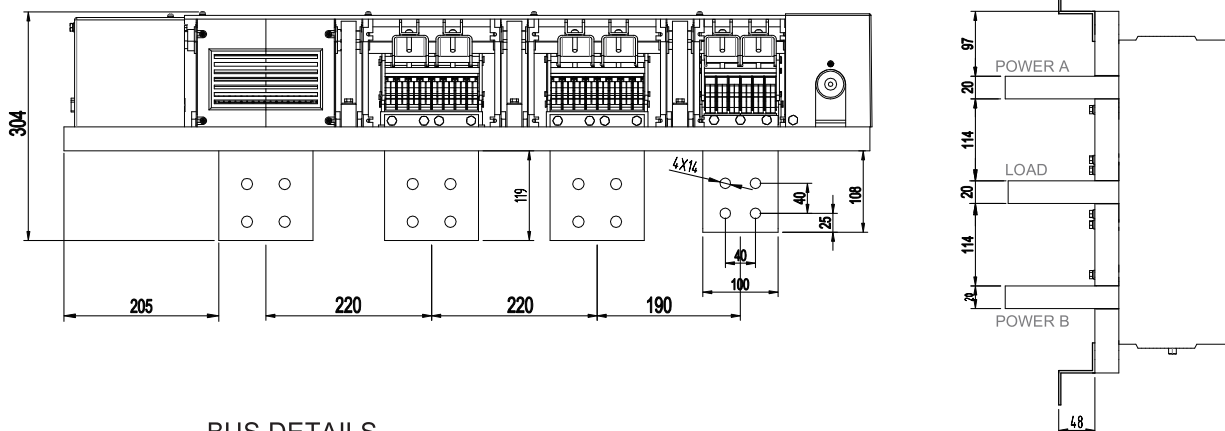
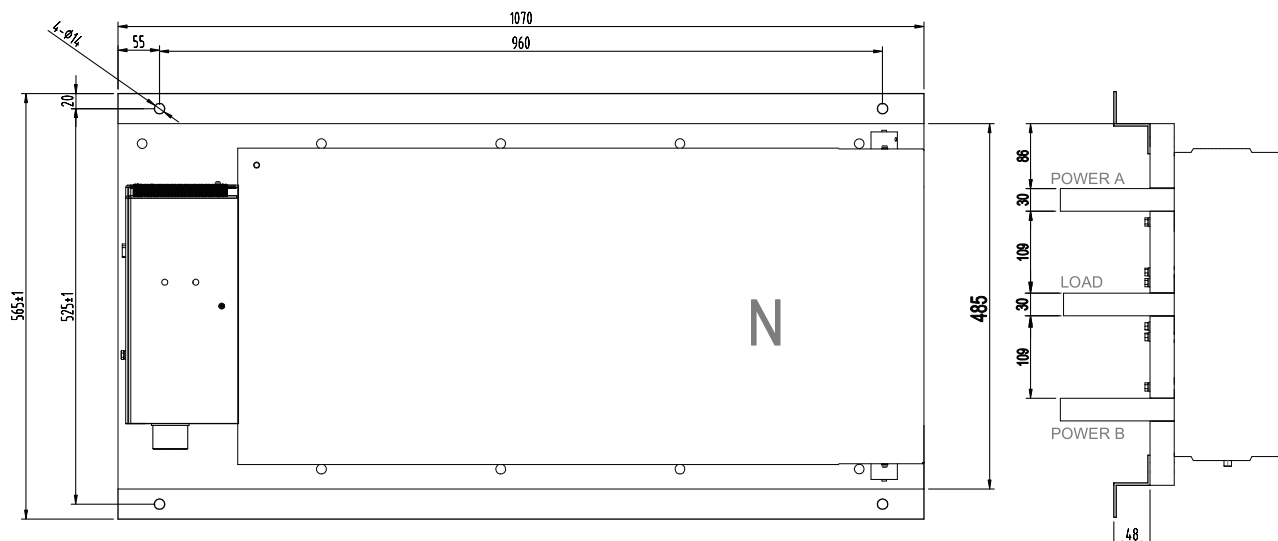


2000A, 2500A, 3200A

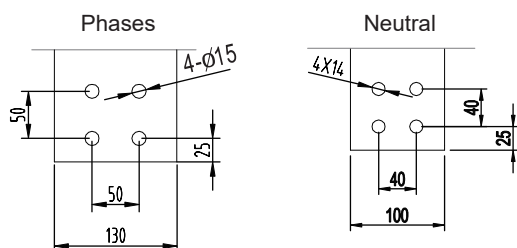
	Overall Dimension(mm)			Mounting Dimension(mm)						
Size	A1	B	G	J	R	S	T	V	Y1	Y2
2000/3P	537	423	360	496	80	81	10	56	113	121
2000/4P	651	423	540	610	80	81	10	60	113	121
2500/3P	537	433	360	496	80	81	15	56	118	116
2500/4P	651	433	540	610	80	81	15	60	118	116
3200/3P	537	443	360	496	80	81	20	56	121	111
3200/4P	651	443	540	610	80	81	20	60	121	111

Dimensions

4000A-5000A



BUS DETAILS



Panel board safety distance:
S1 Dimension: 50mm(400V),100mm(690V)
S2 Dimension: 560mm(400V),600mm(690V)

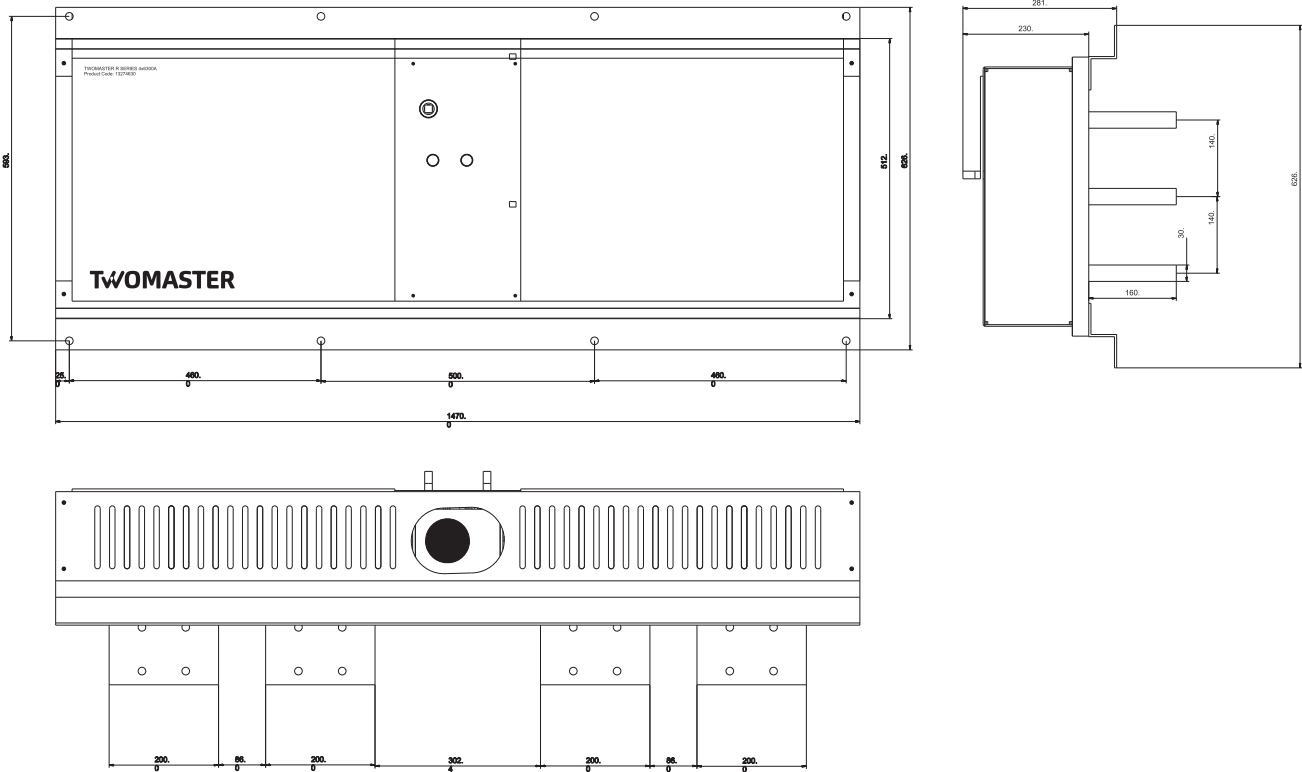
TWOMASTER ATS SERIES

40A-6300A



Diemensions

6300A



TWOMASTER Automatic Control Unit



13270001
Analog

13270004
Digital

Automatic Transfer / Auto Recovery	√	√
Manual Transfer on Control Unit		√
LED Power Indicator	√	√
LED Position Indicator		√
Generator Start/Stop		√
Three Phase Sensing	√	√
Phase Sequence Sensing	√	√
Current Sensing		√
Frequency Sensing	√	√
Voltage Lower/Upper Limit	√	√
Frequency Lower/Upper Limit		√
Current Lower/Upper Limit		√
LCD Screen		√
RS 485 Modbus Communication		√

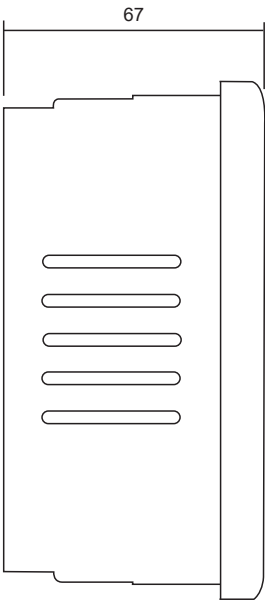
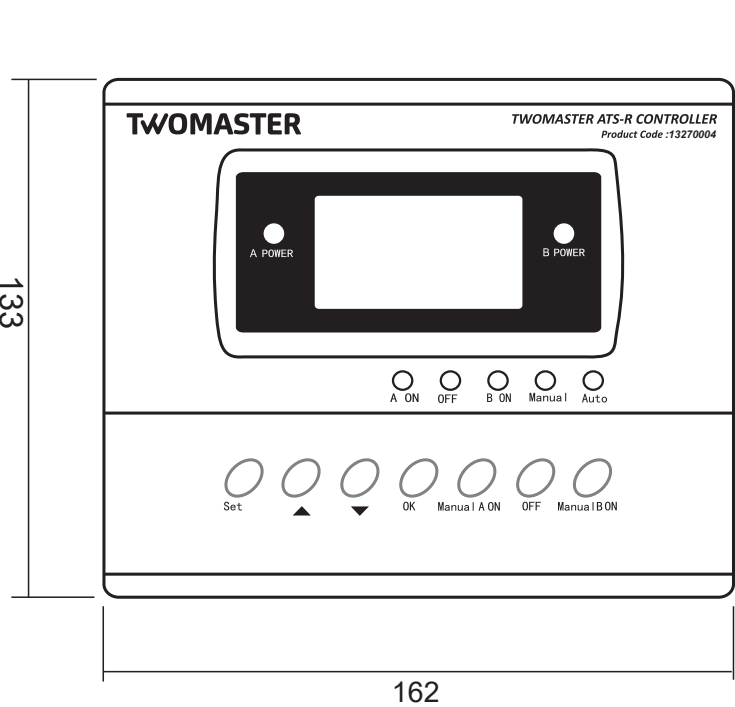
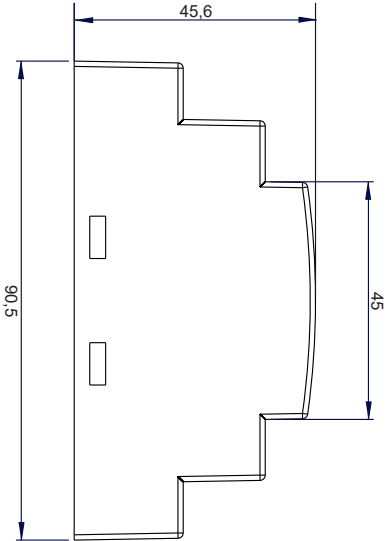
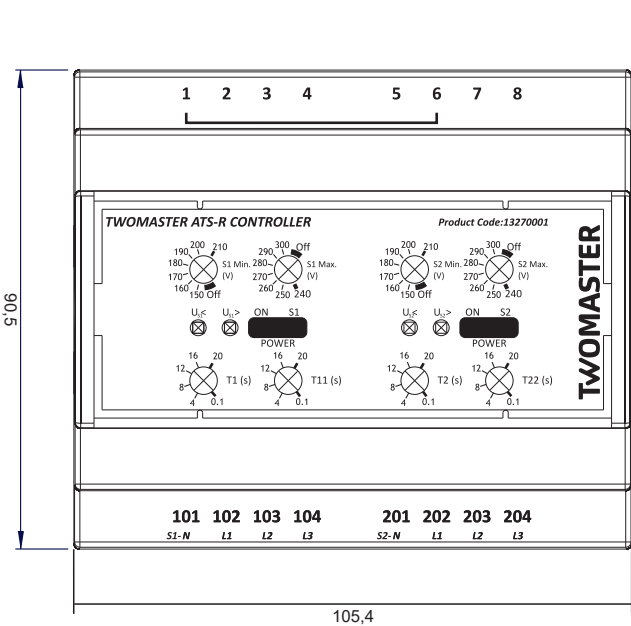
TWOMASTER ATS SERIES

40A-6300A

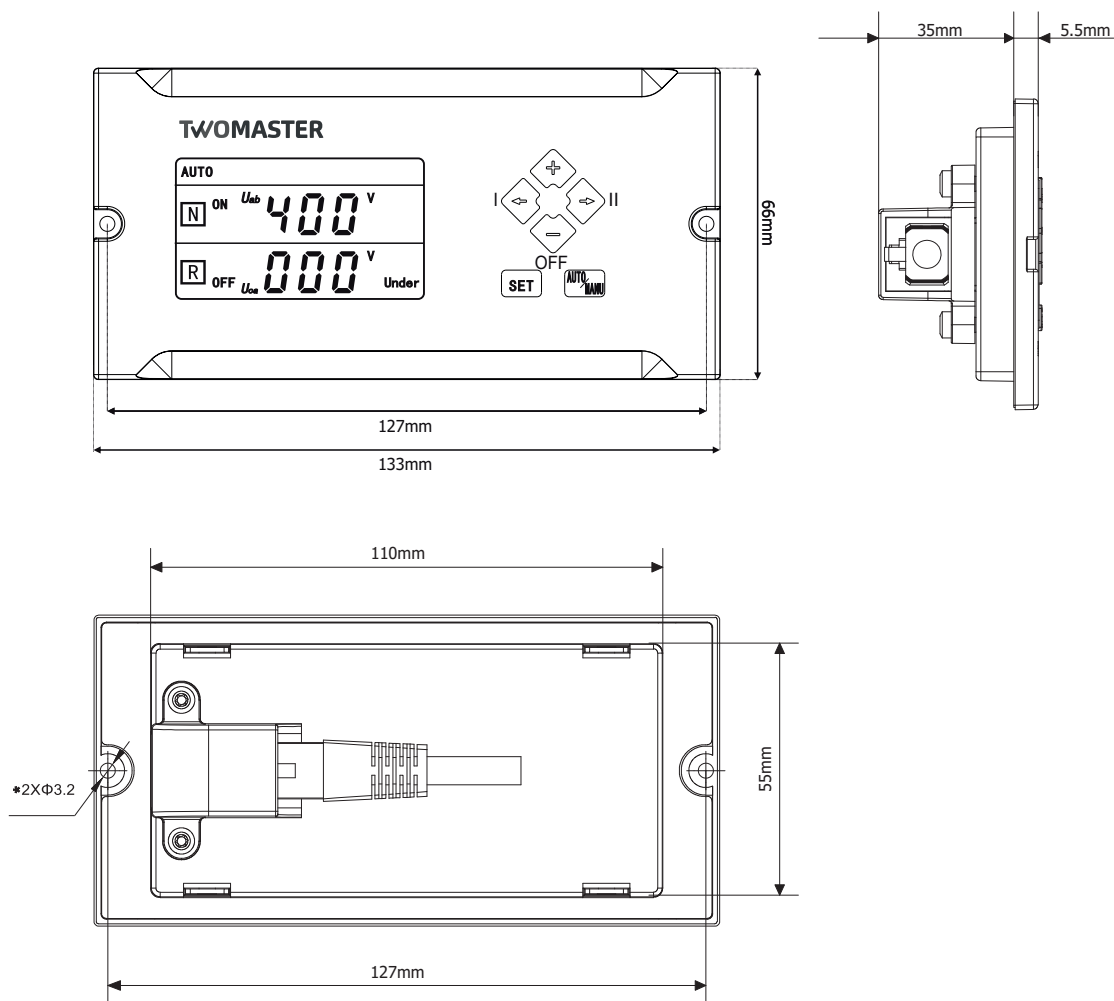


Diemensions

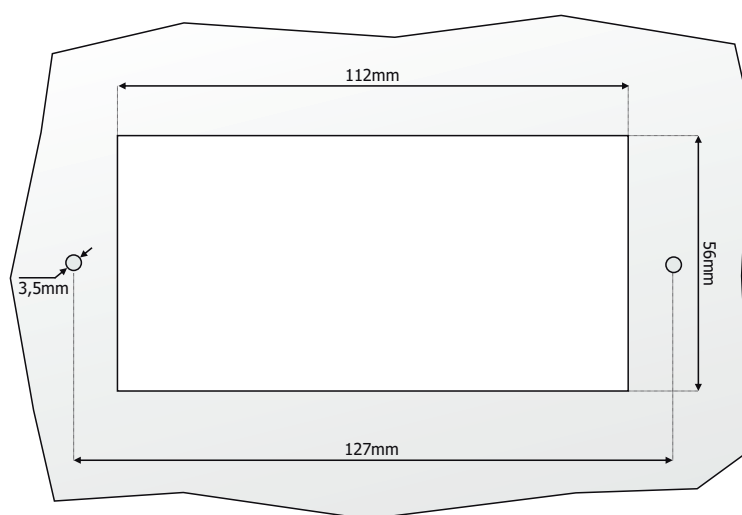
Automatic Control Unit



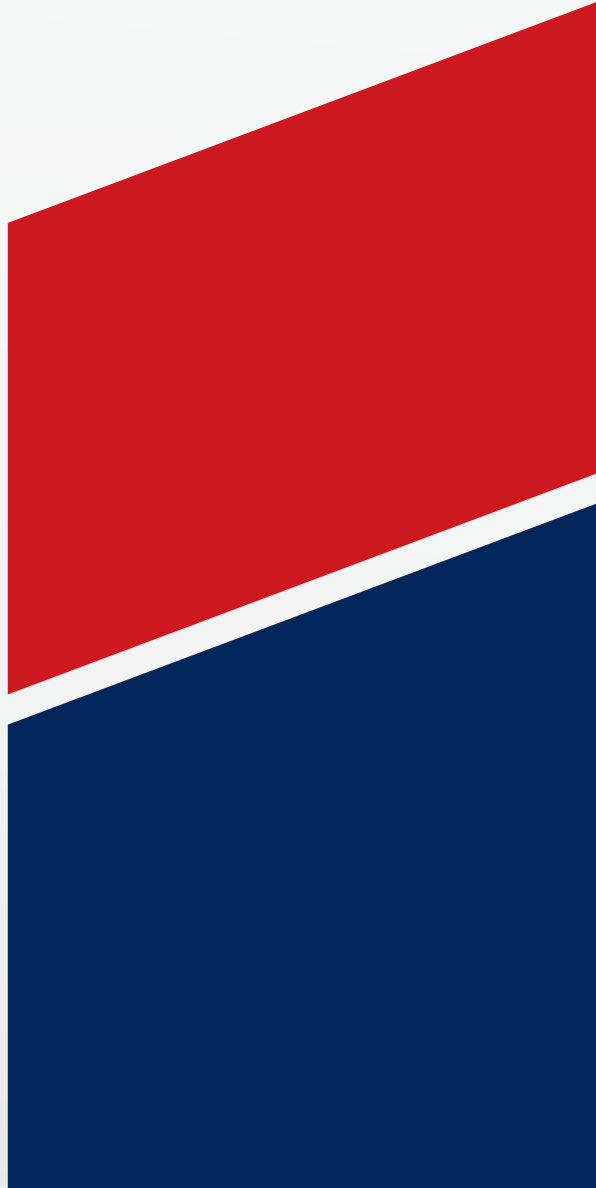
Dimensions Twomaster LCD



Overall dimensions



Split mounting hole size



TWOMASTER



TWOMASTER PRO SERIES
40A-630A

TWOMASTER PRO S SERIES

40-630A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- **Load Category is AC33-B**
- Automatic Transfer with Voltage Sensing (Three Phase)
- LCD Screen
- Adjustable delay time before transfer
- Phase Sequence Sensing
- Voltage Lower/Upper Limit
- Frequency Lower/Upper Limit
- Source Priority Selection
- Integrated Auxiliary Contacts (Output 220VAC)
- Generator Start/Stop (adjustable delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

*These settings can be made on the LCD screen.

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- High Building
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- School
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Product Code

TWOMASTER Pro S Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary contact	Bridging bars	LCD Screen	Control module
40	13343004	3 Pole	mounted	mounted	mounted	mounted 13230001	13340002 mounted
	13344004	4 Pole					
63	13343006	3 Pole					
	13344006	4 Pole					
80	13343008	3 Pole					
	13344008	4 Pole					
100	13343010	3 Pole					
	13344010	4 Pole					
125	13343012	3 Pole					
	13344012	4 Pole					
160	13343016	3 Pole					
	13344016	4 Pole					
200	13343020	3 Pole					
	13344020	4 Pole					
250	13343025	3 Pole					
	13344025	4 Pole					
315	13343031	3 Pole					
	13344031	4 Pole					
400	13343040	3 Pole					
	13344040	4 Pole					
500	13343050	3 Pole					
	13344050	4 Pole					
630	13343063	3 Pole					
	13344063	4 Pole					

TWOMASTER PRO E SERIES

40-630A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- **Load Category is AC33-B**
- Automatic Transfer with Voltage Sensing (Three Phase)
- LCD Screen
- **RS 485 Modbus Communication**
- Adjustable delay time before transfer
- Phase Sequence Sensing
- Voltage Lower/Upper Limit
- Frequency Lower/Upper Limit
- Source Priority Selection
- Integrated Auxiliary Contacts (Output 220VAC)
- Generator Start/Stop (adjustable delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Data Center
- High Building
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- School
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Product Code

TWOMASTER Pro E Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary contact	Bridging bars	LCD Screen	Control module
40	13353004	3 Pole	mounted	mounted	mounted	mounted 13230001	13350002 mounted
	13354004	4 Pole					
63	13353006	3 Pole					
	13354006	4 Pole					
80	13353008	3 Pole					
	13354008	4 Pole					
100	13353010	3 Pole					
	13354010	4 Pole					
125	13353012	3 Pole					
	13354012	4 Pole					
160	13353016	3 Pole					
	13354016	4 Pole					
200	13353020	3 Pole					
	13354020	4 Pole					
250	13353025	3 Pole					
	13354025	4 Pole					
315	13353031	3 Pole					
	13354031	4 Pole					
400	13353040	3 Pole					
	13354040	4 Pole					
500	13353050	3 Pole					
	13354050	4 Pole					
630	13353063	3 Pole					
	13354063	4 Pole					

TWOMASTER PRO SERIES

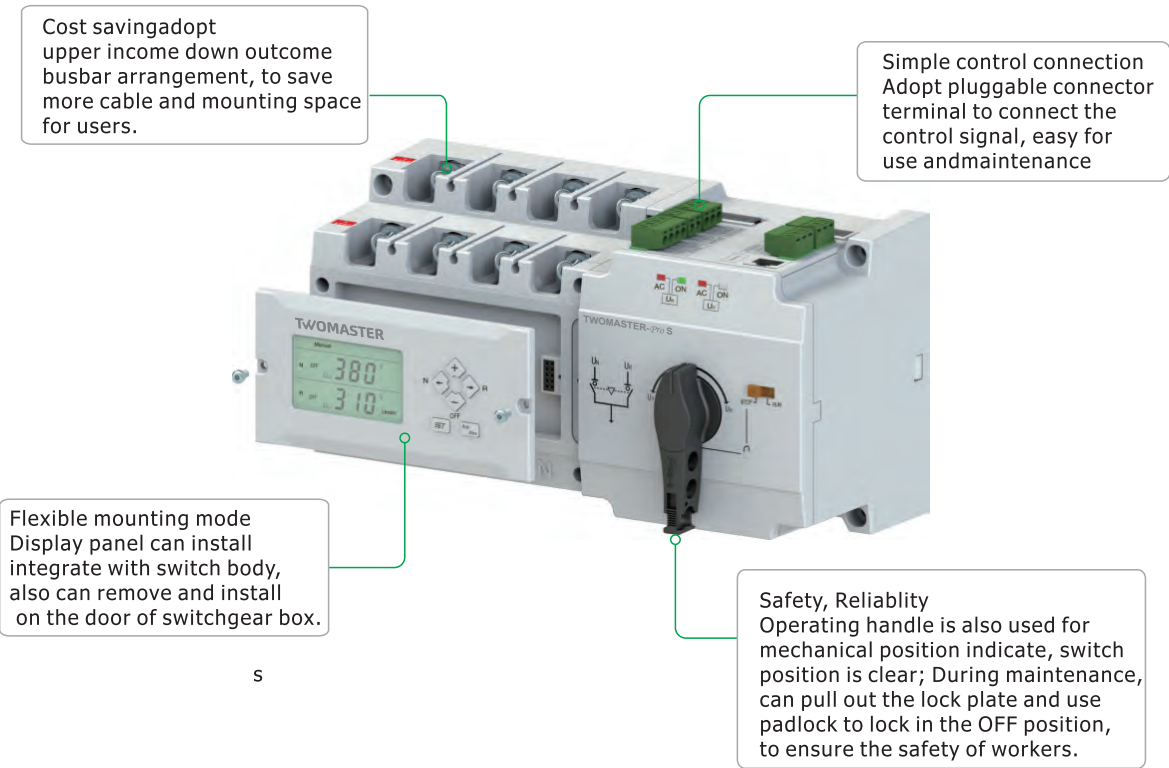
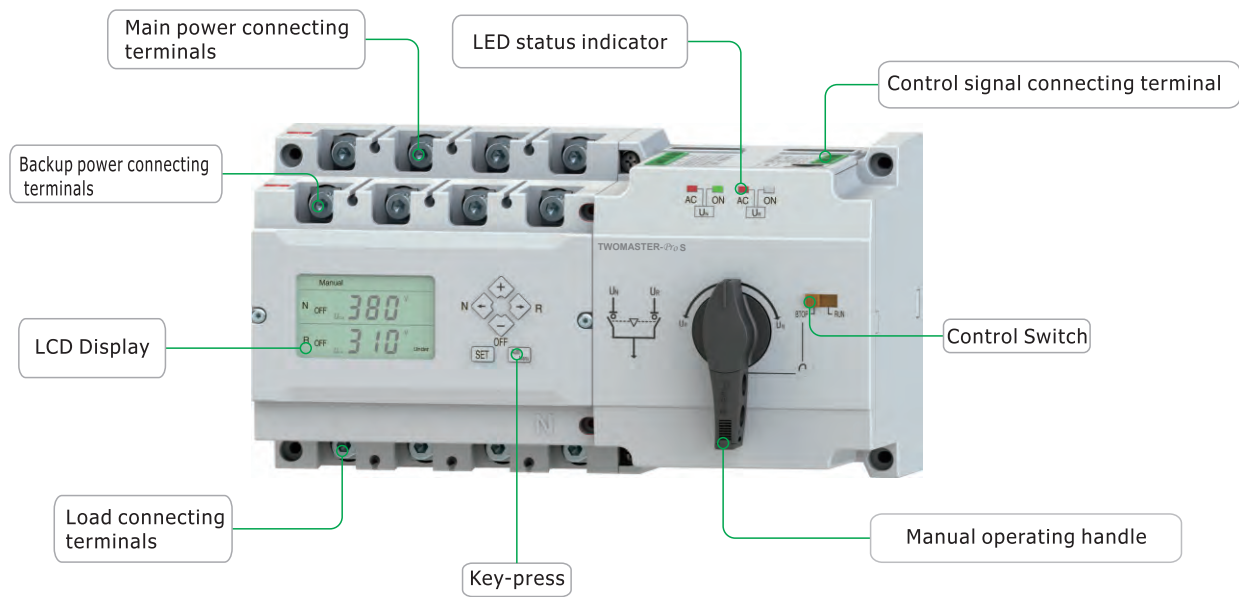
40-630A



Technical Parameter

Rated Thermal Current I _{th}		80A			125A		250A			630A			
Rated Current I _n (A)		40	63	80	100	125	160	200	250	315	400	500	630
Rated insulation voltage U _i (V)		690											
Rated impulse withstand voltage U _{im} KV (installation category)		8	8	8	8	8	8	8	8	12	12	12	12
Rated working current I _e (A)	AC-33B	40	63	80	100	125	160	200	250	315	400	500	630
Rated short time withstand current I _{cs} kA		10	10	10	20	20	30	30	30	25	25	25	25
Rated short circuit making capacity I _{cm} kA peak		15	15	15	20	20	30	30	30	50	50	50	50
Transfer Time	I-0-II (S)	1.2	1.2	1.2	1.2	1.2	2.1	2.1	2.1	3.3	3.3	3.3	3.3
	0-I or II-0 (S)	0.6	0.6	0.6	0.6	0.6	1	1	1	1.5	1.5	1.5	1.5
Weight (kg)	3Poles	2,5	2,5	2,5	4,3	4,3	9	9	9	22,5	22,5	22,5	22,5
	4Poles	2,5	2,5	2,5	4,3	4,3	9	9	9	22,5	22,5	22,5	22,5
Use category		AC-33B(PC)											

Structure Instruction
Frame Current 40A-630A



S

TWOMASTER PRO SERIES

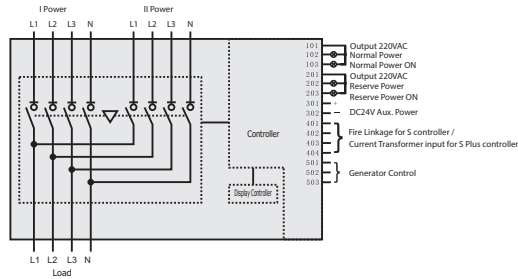
40-630A



Wiring Instruction

Frame Current 40A-630A

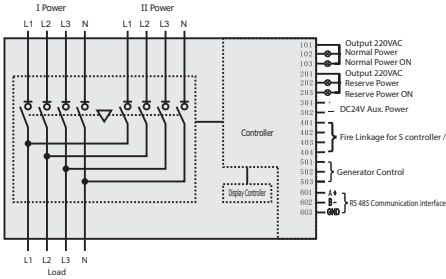
TWOMASTER-Pro S Controller 4P Wiring



- Twomaster-Pro S Controller terminal wiring instruction
- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
- 101—Indicator common null line and 3P null line input
- 102—Main power indicator signal output
- 103—Main power ON signal output
- 201~203 : Backup power external indicator signal (Active AC230V/0. 5A)
- 201—Indicator common null line and 3P null line input
- 202—Backup power indicator signal output
- 203—Backup power ON signal output
- 301~302 aux. power DC24V input
- 301--DC24V "+" input
- 302-- DC24V "-" input
- 401~404 fire linkage control signal input and feedback signal output
- 401, 402— Fire linkage signal passive input,
- 403, 404— Feedback signal when ATS transfer to OFF position
- 501-503 : Generator start control signal output
- 501—Control signal NC point
- 502—Control signal common point
- 503—Control signal NO point

- S Plus Controller terminal wiring instruction
- 401~404 current signal input, 100mA

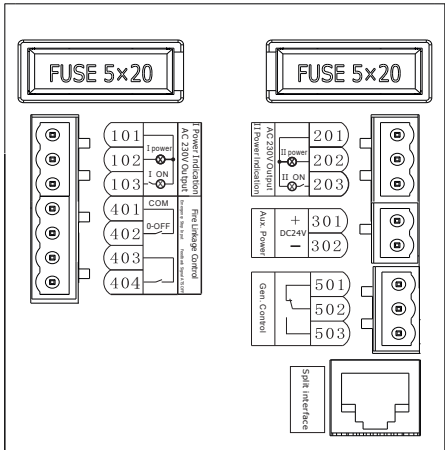
TWOMASTER-Pro E Controller 4P Wiring



- Twomaster-Pro E Controller terminal wiring instruction
- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
- 101—Indicator common null line and 3P null line input
- 102—Main power indicator signal output
- 103—Main power ON signal output
- 201~203 : Backup power external indicator signal (Active AC230V/0. 5A)
- 201—Indicator common null line and 3P null line input
- 202—Backup power indicator signal output
- 203—Backup power ON signal output
- 301~302 aux. power DC24V input
- 301--DC24V "+" input
- 302-- DC24V "-" input
- 401~404 fire linkage control signal input and feedback signal output
- 401, 402— Fire linkage signal passive input,
- 403, 404— Feedback signal when ATS transfer to OFF position
- 501-503 : Generator start control signal output
- 501—Control signal NC point
- 502—Control signal common point
- 503—Control signal NO point
- 601~603: RS485 Communication terminal 601--A+ , 602- B- , 603—GND

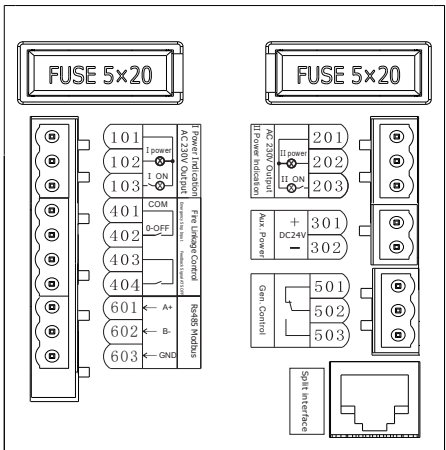
TWOMASTER-Pro S Controller Terminal Definition

40A-630A



TWOMASTER-Pro E Controller Terminal Definition

40A-630A

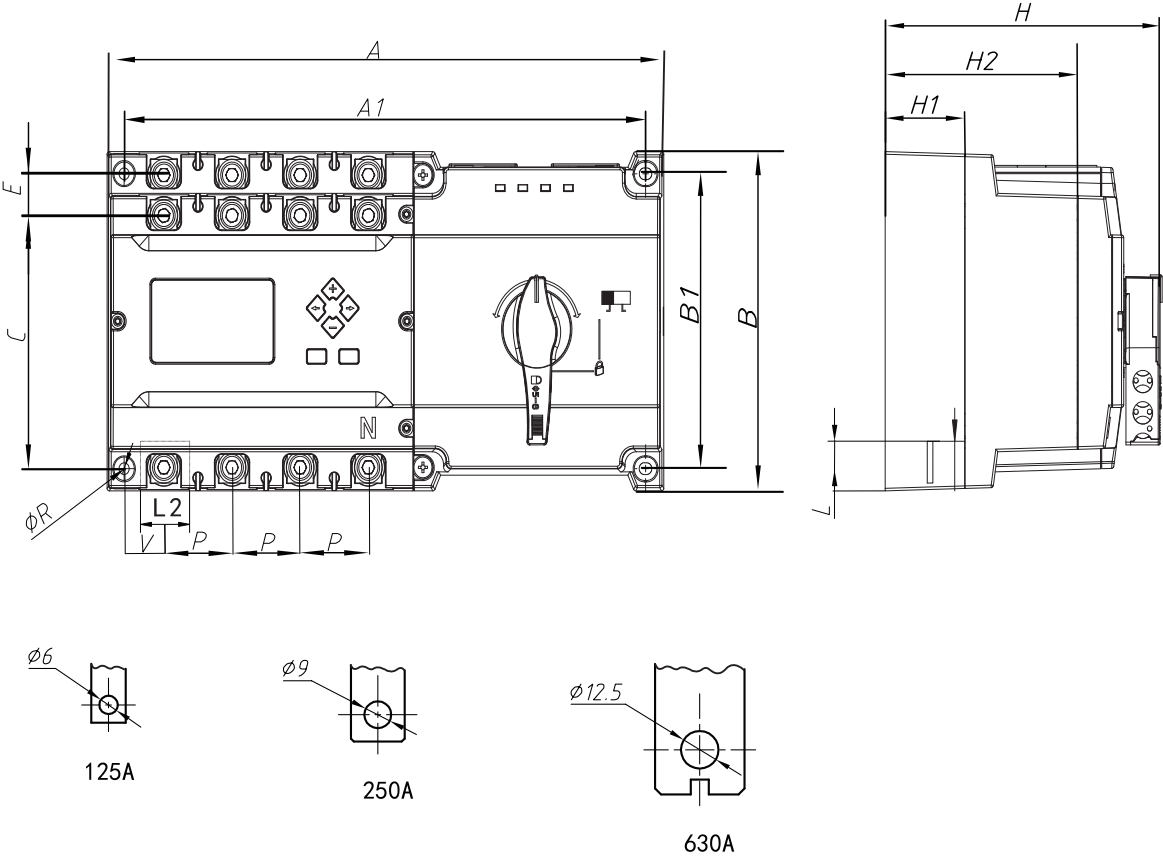


Note: 1. If fire-fighting equipment output signal is active power, the signal source need to change over the line connection, for example to connect through a relay to change the line connection, and connect the relay NO point to 401,402, when NO contact point closed ATS transfer to OFF position. When the fire linkage function is active, the ATS will stop working,if want the ATS to working again, must first clear up the fire-fighting signal and then the ATS will recovery normal operation. If it is intelligent type , need switching Manual/Auto button one time.

2. When the backup power is Auto start generator, when normal power is good 501 and 502 closed, 502 and 503 open; When Normal power is fault, 501 and 502 open, 502 and 503 closed.

3. RS485 Communication interface manual please refer to communication protocol.

Dimensions

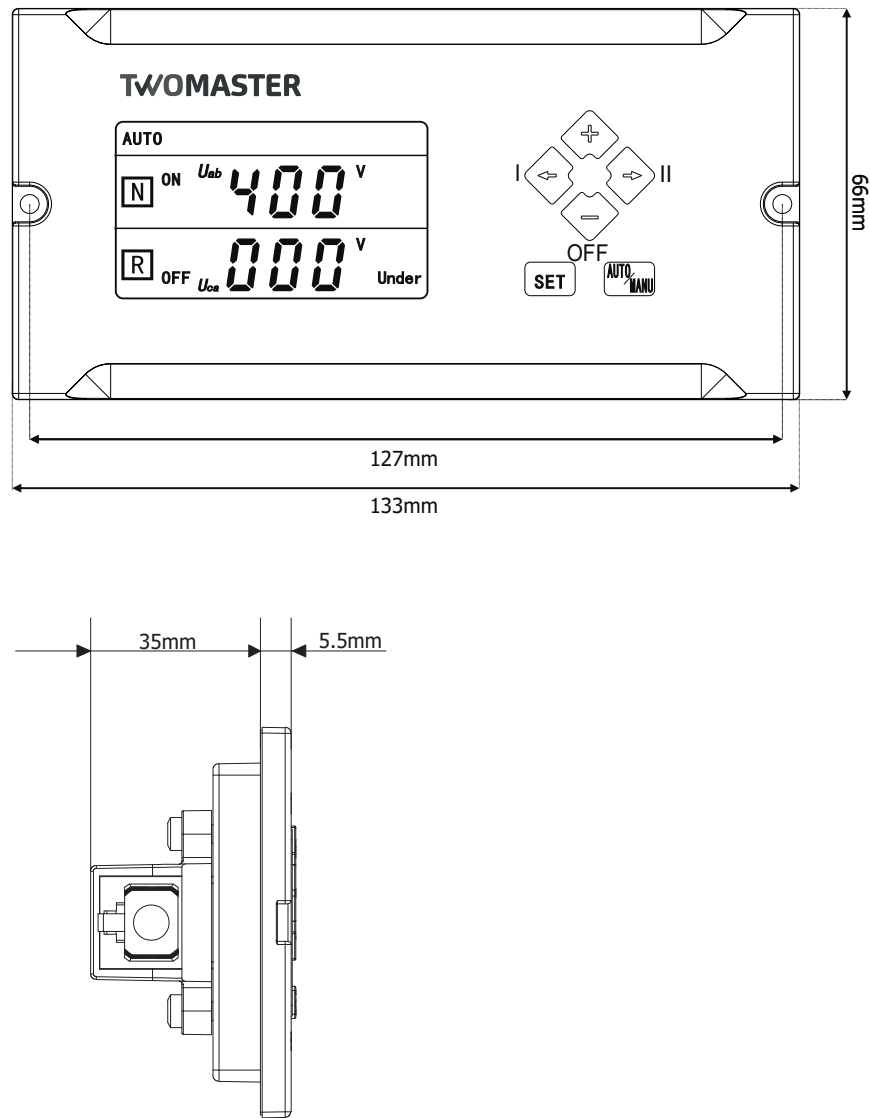


Size	Outline (mm)			Mounting(mm)										
	A	B	H	A1	B1	H1	H2	C	E	R	V	P	L	L2
80	230	125	130	212	100	35	83	79	16.5	4	15.5	23	14	9
125	245	130	122	230	113	31	71	97.5	15.5	4.5	25	30	16	21.5
250	295	175	175	275	152	29	99	132	20	6	32	35	29	27
630	430	272	228	400	240	41	131	207	30	9	50	58	38	42

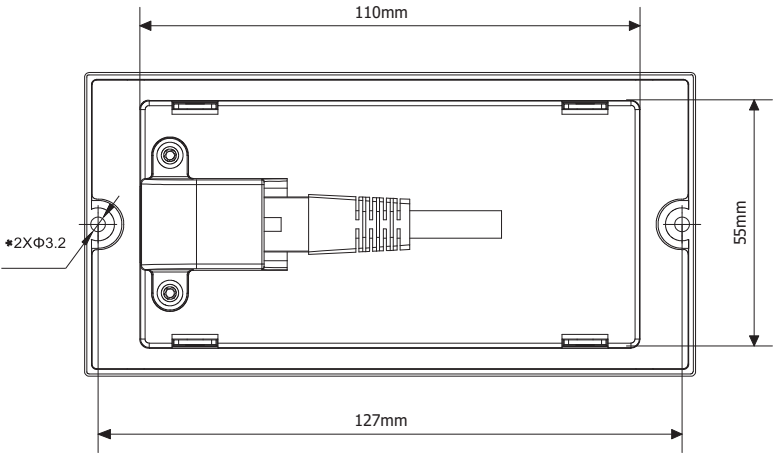
TWOMASTER PRO SERIES
40-630A



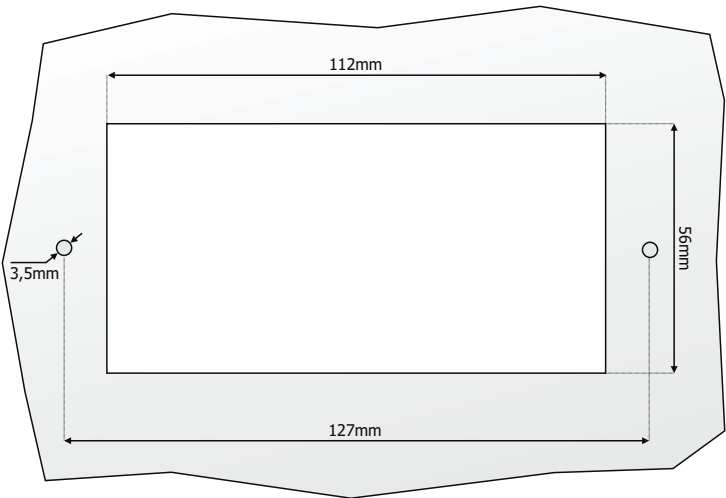
Dimensions Twomaster LCD



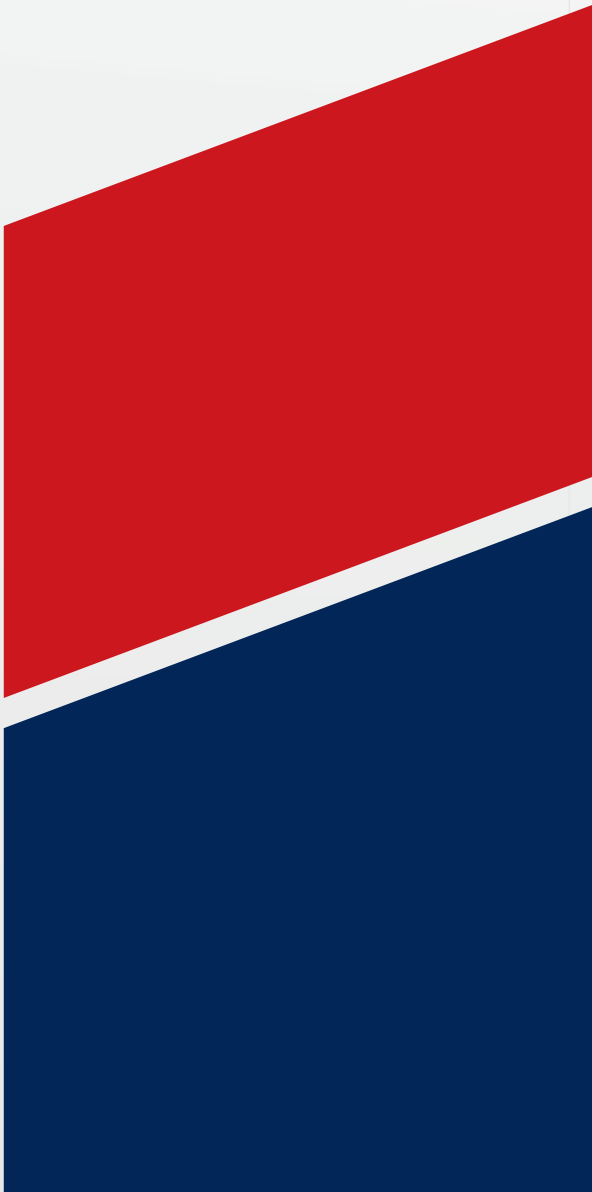
Dimensions Twomaster LCD



Overall dimensions



Split mounting hole size



TWOMASTER

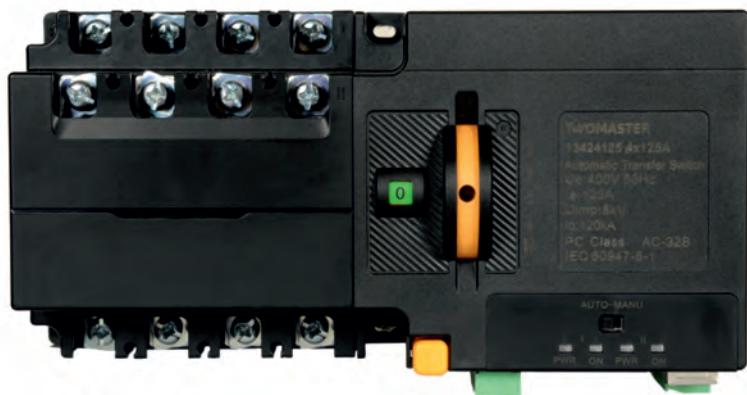


TWOMASTER TURN SERIES
40A-630A

TWOMASTER TURN B SERIES

40A-630A

TWOMASTER



The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Housing Projects

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- Automatic Transfer with Voltage Sensing (Single Phase)
- Integrated Auxiliary Contacts,(Output 220VAC)
- Generator Start/Stop, (No delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

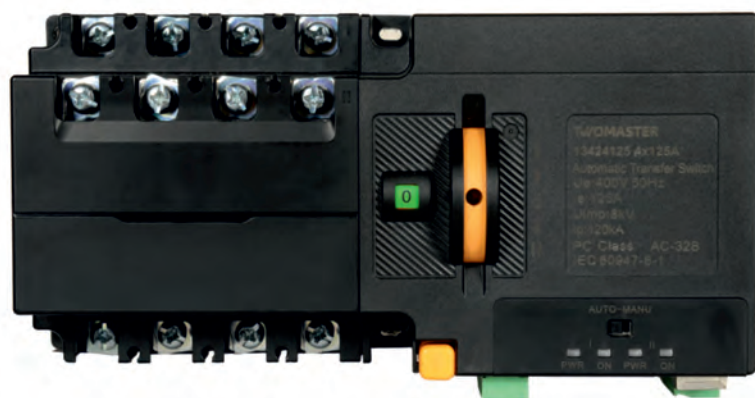
Product Code

TWOMASTER TURN B Series Automatic Transfer Switches						
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	Control Module
40	13423004	3 Pole	1340001 included	mounted	mounted	13420002 mounted
	13424004	4 Pole				
63	13423006	3 Pole				
	13424006	4 Pole				
80	13423008	3 Pole				
	13424008	4 Pole				
100	13423010	3 Pole				
	13424010	4 Pole				
125	13423012	3 Pole				
	13424012	4 Pole				
160	13423016	3 Pole				
	13424016	4 Pole				
200	13423020	3 Pole				
	13424020	4 Pole				
250	13423025	3 Pole				
	13424025	4 Pole				
315	13423031	3 Pole				
	13424031	4 Pole				
400	13423040	3 Pole				
	13424040	4 Pole				
500	13423050	3 Pole				
	13424050	4 Pole				
630	13423063	3 Pole				
	13424063	4 Pole				

TWOMASTER TURN S SERIES

40A-630A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- **Automatic Transfer with Voltage Sensing (Three Phase)**
- LCD Screen
- Adjustable delay time before transfer
- Phase Sequence Sensing
- Voltage Lower/Upper Limit
- Frequency Lower/Upper Limit
- Source Priority Selection
- Integrated Auxiliary Contacts (Output 220VAC)
- Generator Start/Stop (adjustable delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

*These settings can be made on the LCD screen.

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- High Building
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- School
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



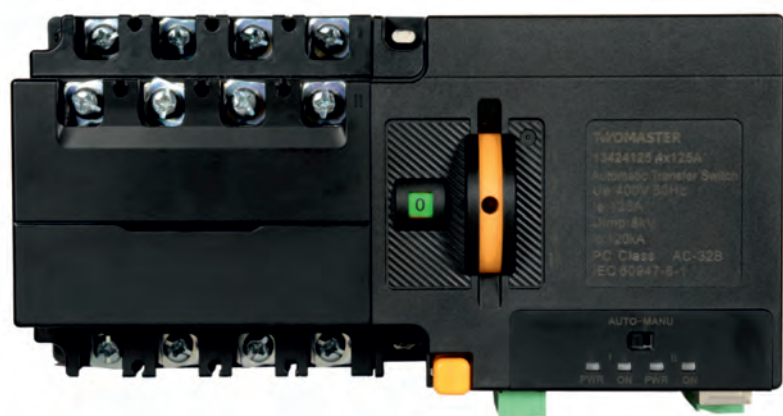
Product Code

TWOMASTER TURN S Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	LCD Screen	Control Module
40	13433004	3 Pole	1340001 included	mounted	mounted	13230004	13430002 mounted
	13434004	4 Pole					
63	13433006	3 Pole					
	13434006	4 Pole					
80	13433008	3 Pole					
	13434008	4 Pole					
100	13433010	3 Pole					
	13434010	4 Pole					
125	13433012	3 Pole					
	13434012	4 Pole					
160	13433016	3 Pole					
	13434016	4 Pole					
200	13433020	3 Pole					
	13434020	4 Pole					
250	13433025	3 Pole					
	13434025	4 Pole					
315	13433031	3 Pole					
	13434031	4 Pole					
400	13433040	3 Pole					
	13434040	4 Pole					
500	13433050	3 Pole					
	13434050	4 Pole					
630	13433063	3 Pole					
	13434063	4 Pole					

TWOMASTER TURN E SERIES

40A-630A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- Automatic Transfer with Voltage Sensing (Three Phase)
- LCD Screen
- **RS 485 Modbus Communication**
- Adjustable delay time before transfer
- Phase Sequence Sensing
- Voltage Lower/Upper Limit
- Frequency Lower/Upper Limit
- Source Priority Selection
- Integrated Auxiliary Contacts (Output 220VAC)
- Generator Start/Stop (adjustable delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Data Center
- High Building
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- School
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



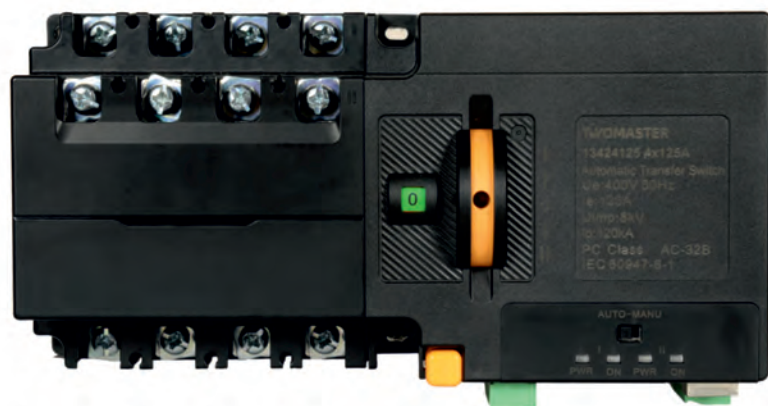
Product Code

TWOMASTER TURN E Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	LCD Screen	Control Module
40	13453004	3 Pole	1340001 included	mounted	mounted	13230004 included	13450002 mounted
	13454004	4 Pole					
63	13453006	3 Pole					
	13454006	4 Pole					
80	13453008	3 Pole					
	13454008	4 Pole					
100	13453010	3 Pole					
	13454010	4 Pole					
125	13453012	3 Pole					
	13454012	4 Pole					
160	13453016	3 Pole					
	13454016	4 Pole					
200	13453020	3 Pole					
	13454020	4 Pole					
250	13453025	3 Pole					
	13454025	4 Pole					
315	13453031	3 Pole					
	13454031	4 Pole					
400	13453040	3 Pole					
	13454040	4 Pole					
500	13453050	3 Pole					
	13454050	4 Pole					
630	13453063	3 Pole					
	13454063	4 Pole					

TWOMASTER TURN R SERIES

40A-630A

TWOMASTER



The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Generator Manufacturers

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Advantages

- 3 or 4 Pole Motorized Transfer Switch
- Remote Transfer Switch
- Integrated Auxiliary Contacts
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

Product Code

TWOMASTER TURN R Series Automatic Transfer Switches						
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	Control Module
40	13473004	3 Pole	1340001 included	mounted	mounted	13470002 mounted
	13474004	4 Pole				
63	13473006	3 Pole				
	13474006	4 Pole				
80	13473008	3 Pole				
	13474008	4 Pole				
100	13473010	3 Pole				
	13474010	4 Pole				
125	13473012	3 Pole				
	13474012	4 Pole				
160	13473016	3 Pole				
	13474016	4 Pole				
200	13473020	3 Pole				
	13474020	4 Pole				
250	13473025	3 Pole				
	13474025	4 Pole				
315	13473031	3 Pole				
	13474031	4 Pole				
400	13473040	3 Pole				
	13474040	4 Pole				
500	13473050	3 Pole				
	13474050	4 Pole				
630	13473063	3 Pole				
	13474063	4 Pole				

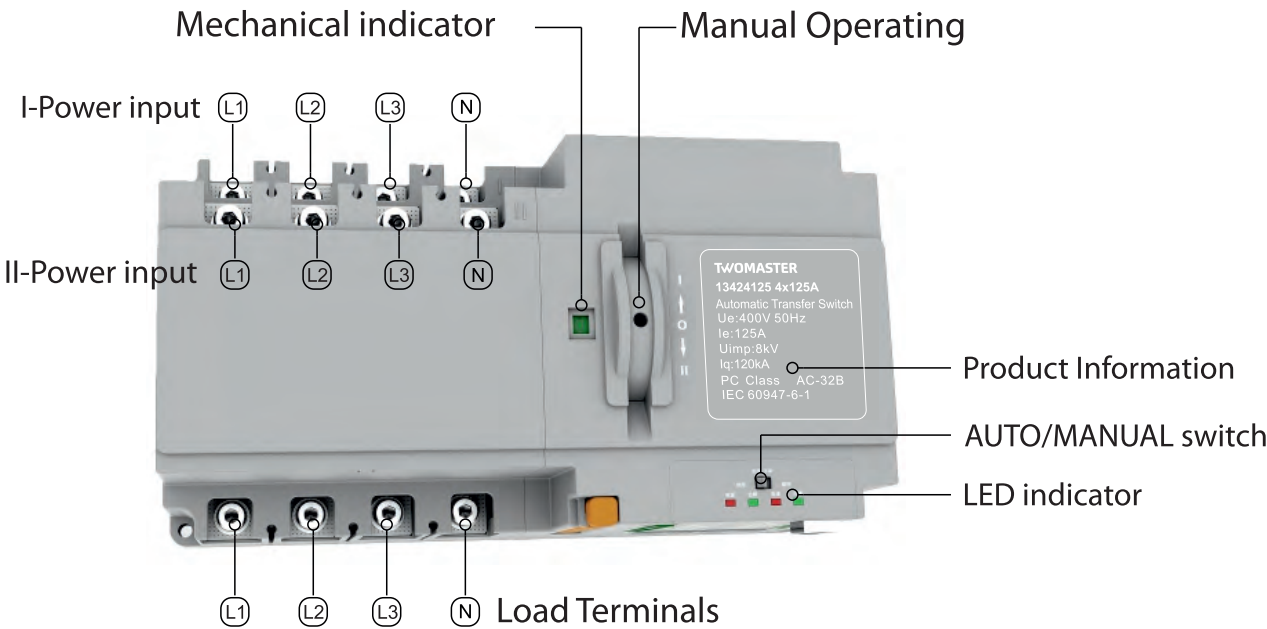
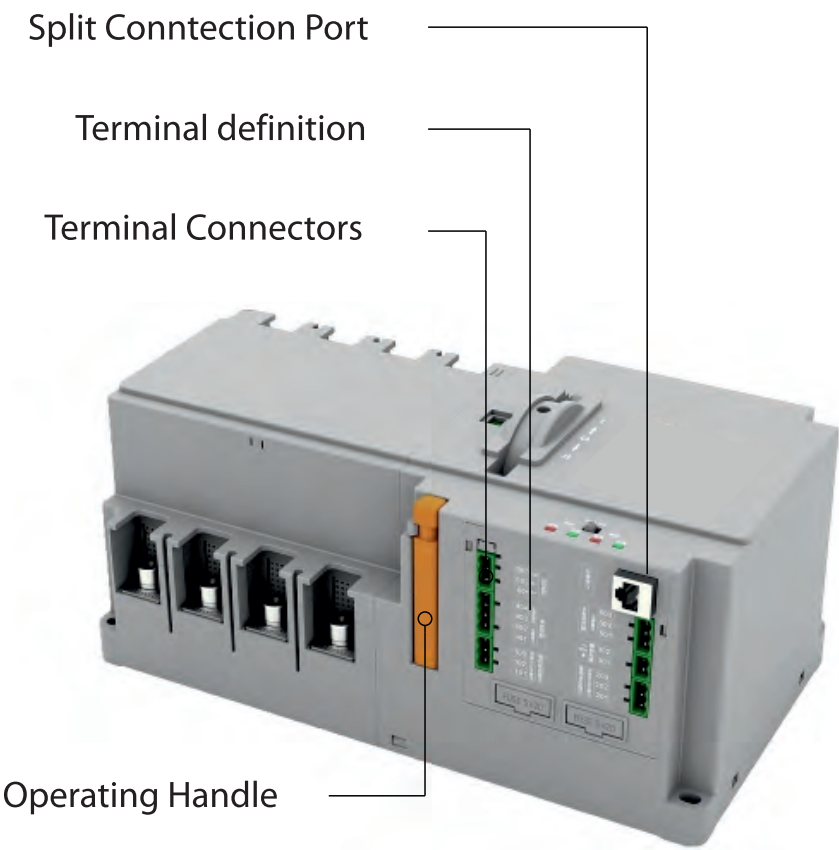
TWOMASTER TURN SERIES
40A-630A



Technical Parameter

Rated Thermal Current I _{th}		125A					250A			630A			
Rated Current I _n (A)		40	63	80	100	125	160	200	250	315	400	500	630
Rated insulation voltage U _i (V)		690	690	690	690	690	690	690	690	690	690	690	690
Rated impulse withstand voltage U _{imp} KV (installation category)		8											
Rated working current I _e (A)	AC-33iB	40	63	80	100	125	160	200	250	315	400	500	630
Rated short-circuit making capacity I _{cm} (kA) peak		12	12	12	12	12	17	17	17	26	26	26	26
Rated limited short-circuit current I _q (kA)		120											
Transfer Time	I-O-II (S)	1.4	1.4	1.4	1.4	1.4	2.0	2.0	2.0	2.5	2.5	2.5	2.5
	O-I or II-O (S)	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.9	1.2	1.2	1.2	1.2
Weight (kg)	3Poles	4,3	4,3	4,3	4,3	4,3	9	9	9	22,5	22,5	22,5	22,5
	4Poles	4,3	4,3	4,3	4,3	4,3	9	9	9	22,5	22,5	22,5	22,5
Use category		AC-32B(PC)											

Structure Instruction
Frame Current 40A-630A

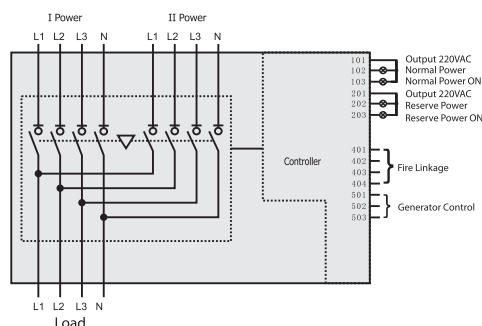


TWOMASTER TURN SERIES

40A-630A

TWOMASTER

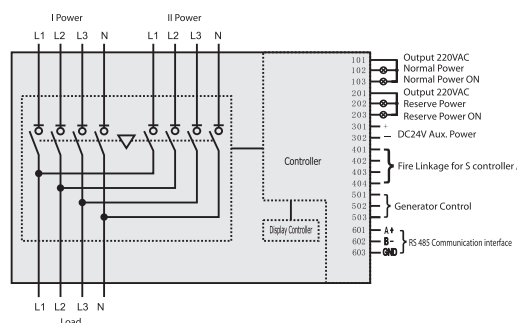
TWOMASTER-TURN B Controller 4P Wiring



Twomaster-Turn B Controller terminal wiring instruction

- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
- 101—Indicator common null line and 3P null line input
- 102—Main power indicator signal output
- 103—Main power ON signal output
- 201~203 : Backup power external indicator signal (Active AC230V/0.5A)
- 201—Indicator common null line and 3P null line input
- 202—Backup power indicator signal output
- 203—Backup power ON signal output
- 401~404 fire linkage control signal input and feedback signal output
- 401,402— Fire linkage signal passive input,
- 403,404— Feedback signal when ATS transfer to OFF position
- 501-503 : Generator start control signal output
- 501—Control signal NC point
- 502—Control signal common point
- 503—Control signal NO point

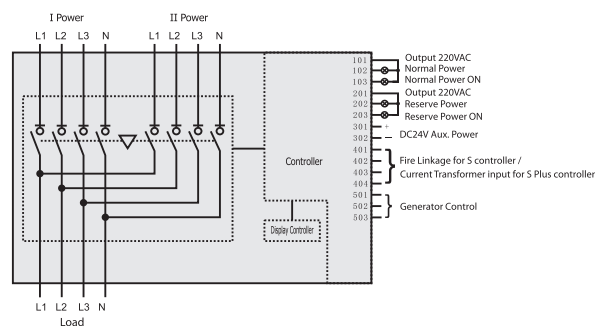
TWOMASTER-Turn E Controller 4P Wiring



Twomaster-E Controller terminal wiring instruction

- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
- 101—Indicator common null line and 3P null line input
- 102—Main power indicator signal output
- 103—Main power ON signal output
- 201~203 : Backup power external indicator signal (Active AC230V/0.5A)
- 201—Indicator common null line and 3P null line input
- 202—Backup power indicator signal output
- 203—Backup power ON signal output
- 301~302 aux. power DC24V input
- 301—DC24V "+" input
- 302—DC24V "-" input
- 401~404 fire linkage control signal input and feedback signal output
- 401,402— Fire linkage signal passive input,
- 403,404— Feedback signal when ATS transfer to OFF position
- 501-503 : Generator start control signal output
- 501—Control signal NC point
- 502—Control signal common point
- 503—Control signal NO point
- 601~603: RS485 Communication terminal 601--A+ , 602-- B- , 603--GND

TWOMASTER-TURN S Controller 4P Wiring



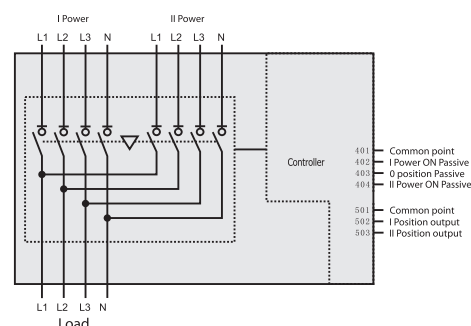
Twomaster-Turn S Controller terminal wiring instruction

- 101-103 : Main Power external Indicator signal output (Active AC230V 0.5A)
- 101—Indicator common null line and 3P null line input
- 102—Main power indicator signal output
- 103—Main power ON signal output
- 201~203 : Backup power external indicator signal (Active AC230V/0.5A)
- 201—Indicator common null line and 3P null line input
- 202—Backup power indicator signal output
- 203—Backup power ON signal output
- 301~302 aux. power DC24V input
- 301—DC24V "+" input
- 302—DC24V "-" input
- 401~404 fire linkage control signal input and feedback signal output
- 401,402— Fire linkage signal passive input,
- 403,404— Feedback signal when ATS transfer to OFF position
- 501-503 : Generator start control signal output
- 501—Control signal NC point
- 502—Control signal common point
- 503—Control signal NO point

S Plus Controller terminal wiring instruction

- 401~404 current signal input, 100mA

TWOMASTER-Turn R Controller 4P Wiring

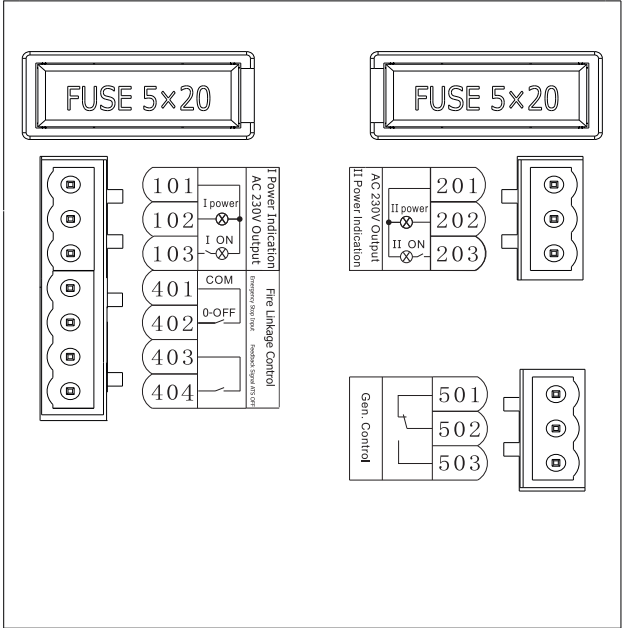


Twomaster-R Controller terminal wiring instruction

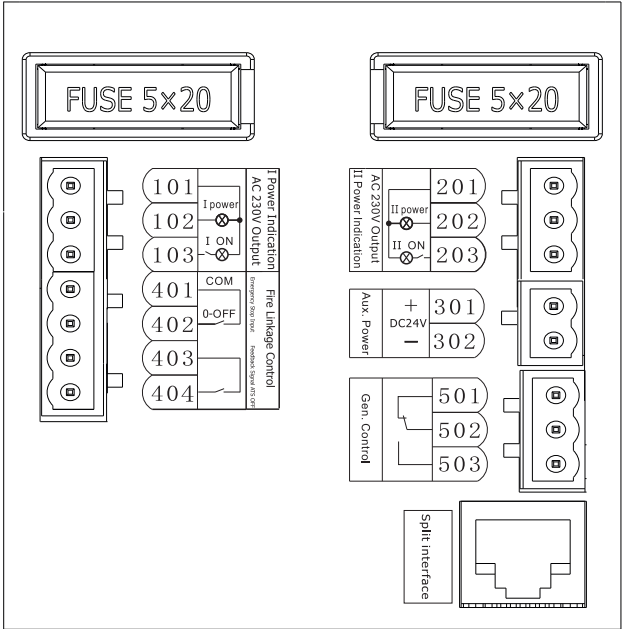
- 401~404 Remote control signal input
- 401— Common point
- 402— I Power ON passive input
- 403— 0 position passive input
- 404— II Power ON passive input
- 501-503 : Position signal output
- 501—Common point
- 502—I Position passive signal output
- 503—II Position passive signal output

- Note: 1. If fire-fighting equipment output signal is active power, the signal source need to change over the line connection, for example to connect through a relay to change the line connection, and connect the relay NO point to 401,402, when NO contact point closed ATS transfer to OFF position. When the fire linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then the ATS will recovery normal operation. If it is intelligent type, need switching Manual/Auto button one time.
2. When the backup power is Auto start generator, when normal power is good 501 and 502 closed, 502 and 503 open; When Normal power is fault, 501 and 502 open, 502 and 503 closed.
3. RS485 Communication interface manual please refer to communication protocol.

TWOMASTER-TUN B Controller Terminal Definition
40A-630A



TWOMASTER-TURN S Controller Terminal Definition
40A-630A



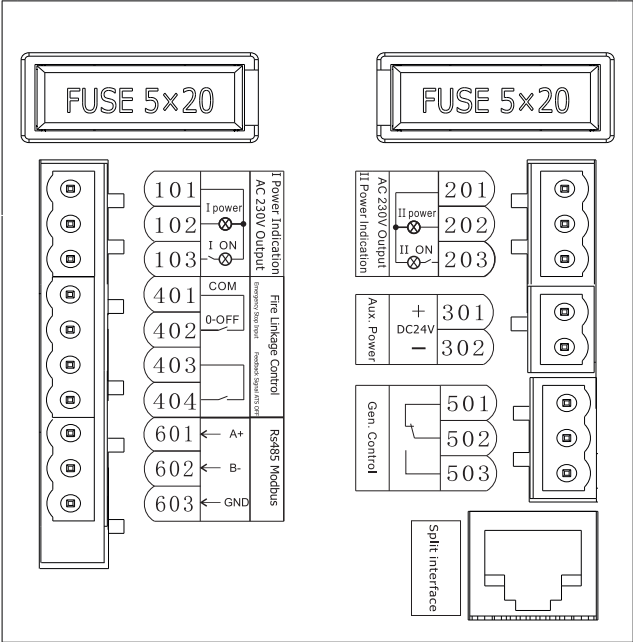
TWOMASTER TURN SERIES

40A-630A



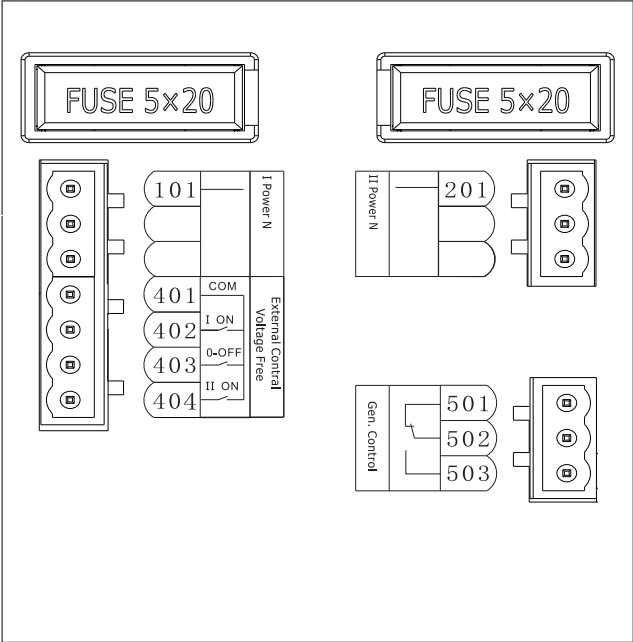
TWOMASTER- TURN E Controller Terminal Definition

40A-630A

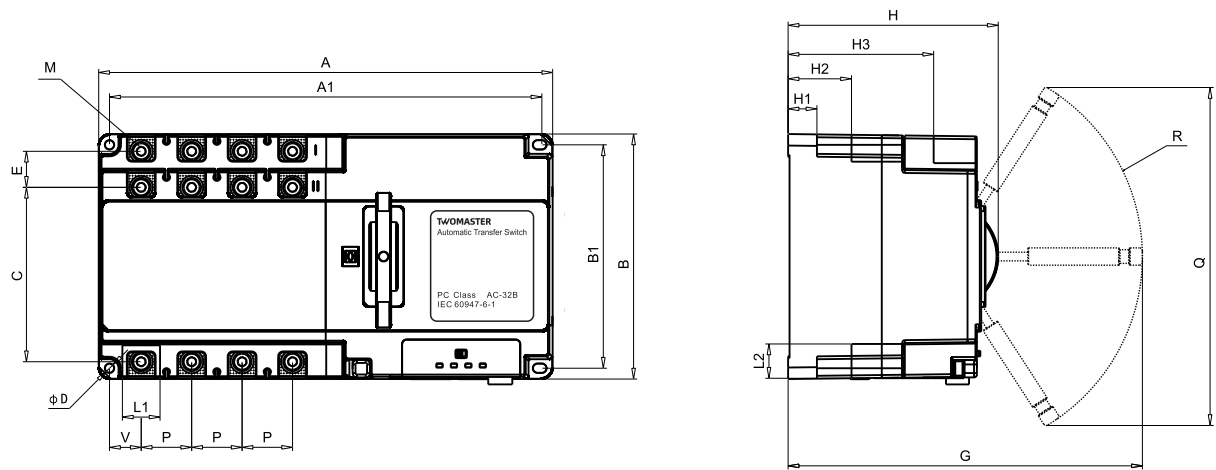


TWOMASTER-TURN R Controller Terminal Definition

40A-630A



Dimensions



Spec	Outline size (mm)			Mounting size (mm)													Operating space (mm)		
In	A	B	H	A1	B1	H1	H2	H3	L1	L2	C	E	V	P	D	M	G	R	Q
125	242	120	115	116	106	15.5	33	82.2	18.5	19	83	21	16.6	25	φ 4.5	M6	196	106	196
250	315	170	146	298.5	155	20	44	101	26	24	121	25	22	35	φ 6.3	M8	246	137	235
630	475	230	199.5	444	203	14	59.5	127.5	48	32.6	173	27	45.5	58	φ 8.5	M10	305	163	240



TWOMASTER



TWOMASTER FAST SERIES
40A-630A

TWOMASTER FAST B SERIES

40A-630A

TWOMASTER



The solution for

- Main/Genset, Main/Main, Genset/Genset applications

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Description

PC Class , Solenoid Type
Automatic Transfer Switch

TWOMASTER FAST Series product is a new PC class automatic transfer switching equipment that designed by our R&D engineer team, and validated in laboratory, achieves fast switching in milliseconds, it has the following significant features.

Structure Features

Wide application range,

Utilization category: AC-33A,

Ambient temperature range: -25°C - 70°C

Flexible control module,

Controller with optional splitted type, easy installation,

Controller with basic type and intelligent type, meet various application requirements.

Product Independent manual operation,

Auto mode adopt electromagnetic coil drive to achieve millisecond class transition, Manual mode realizes independent manual operation of open and close.

Advantages

- 3 or 4 Pole Automatic Transfer Switch
- **Transfer in less than 50ms**
- LED Display
- Automatic Transfer with Voltage Sensing (Three Phase)
- Integrated Auxiliary Contacts,(Output 220VAC)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

Product Code

TWOMASTER FAST B Series Automatic Transfer Switches						
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	Control Module
40	13523004	3 Pole	1350001 included	mounted	mounted	13520002 mounted
	13524004	4 Pole				
63	13523006	3 Pole				
	13524006	4 Pole				
80	13523008	3 Pole				
	13524008	4 Pole				
100	13523010	3 Pole				
	13524010	4 Pole				
125	13523012	3 Pole				
	13524012	4 Pole				
160	13523016	3 Pole				
	13524016	4 Pole				
200	13523020	3 Pole				
	13524020	4 Pole				
250	13523025	3 Pole				
	13524025	4 Pole				
315	13523031	3 Pole				
	13524031	4 Pole				
400	13523040	3 Pole				
	13524040	4 Pole				
500	13523050	3 Pole				
	13524050	4 Pole				
630	13523063	3 Pole				
	13524063	4 Pole				

TWOMASTER FAST S SERIES

40-630A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- **Transfer in less than 50ms**
- LED Display
- Automatic Transfer with Voltage Sensing (Three Phase)
- LCD Screen (Optional)
- Adjustable delay time before transfer
- Phase Sequence Sensing
- Voltage Lower/Upper Limit
- Frequency Lower/Upper Limit
- Source Priority Selection
- Integrated Auxiliary Contacts (Output 220VAC)
- Generator Start/Stop (adjustable delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Data Center
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Product Code

TWOMASTER FAST S Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	LCD Screen	Control Module
40	13533004	3 Pole	1350001 included	mounted	mounted	13230004	13530002 mounted
	13534004	4 Pole					
63	13533006	3 Pole					
	13534006	4 Pole					
80	13533008	3 Pole					
	13534008	4 Pole					
100	13533010	3 Pole					
	13534010	4 Pole					
125	13533012	3 Pole					
	13534012	4 Pole					
160	13533016	3 Pole					
	13534016	4 Pole					
200	13533020	3 Pole					
	13534020	4 Pole					
250	13533025	3 Pole					
	13534025	4 Pole					
315	13533031	3 Pole					
	13534031	4 Pole					
400	13533040	3 Pole					
	13534040	4 Pole					
500	13533050	3 Pole					
	13534050	4 Pole					
630	13533063	3 Pole					
	13534063	4 Pole					

TWOMASTER FAST E SERIES

40A-630A

TWOMASTER



Advantages

- 3 or 4 Pole Automatic Transfer Switch
- Transfer in less than 50ms
- LED Display
- Automatic Transfer with Voltage Sensing (Three Phase)
- LCD Screen
- RS 485 Modbus Communication
- Adjustable delay time before transfer
- Phase Sequence Sensing
- Voltage Lower/Upper Limit
- Frequency Lower/Upper Limit
- Source Priority Selection
- Integrated Auxiliary Contacts (Output 220VAC)
- Generator Start/Stop (adjustable delay time)
- Integrated Dual Power Supply
- Integrated Bridging Bars
- Fire Alarm Input, (Dry contact)
- Mechanical Position Indicator
- LED Position Indicator
- LED Power Indicator
- LED Power Indicator
- Wide Voltage Range
- Easy integration

The solution for

- Main/Genset, Main/Main, Genset/Genset applications
- Data Center
- Hospital
- Industrial Facilities
- Bank Office
- Telecommunications
- Public Buildings

Compliance with standards

- IEC 60947-1
- IEC 60947-3
- IEC 60947-6-1:2023
- IEC 55014-1 : 2021
- IEC 55014-2 : 2021
- IEC 61000-3-2 : 2019 + A1 : 2021
- EN 61000-3-3 : 2013 + A2 :2021

Approvals and certification

ICR Polska Co., Ltd. POLAND



Product Code

TWOMASTER FAST E Series Automatic Transfer Switches							
Rating (A)	Product Code	No. of poles	Manual Handle	Auxiliary Contact	Bridging Bars	LCD Screen	Control Module
40	13553004	3 Pole	1350001 included	mounted	mounted	13230004 included	13550002 mounted
	13554004	4 Pole					
63	13553006	3 Pole					
	13554006	4 Pole					
80	13553008	3 Pole					
	13554008	4 Pole					
100	13553010	3 Pole					
	13554010	4 Pole					
125	13553012	3 Pole					
	13554012	4 Pole					
160	13553016	3 Pole					
	13554016	4 Pole					
200	13553020	3 Pole					
	13554020	4 Pole					
250	13553025	3 Pole					
	13554025	4 Pole					
315	13553031	3 Pole					
	13554031	4 Pole					
400	13553040	3 Pole					
	13554040	4 Pole					
500	13553050	3 Pole					
	13554050	4 Pole					
630	13553063	3 Pole					
	13554063	4 Pole					

TWOMASTER FAST SERIES
40A-630A

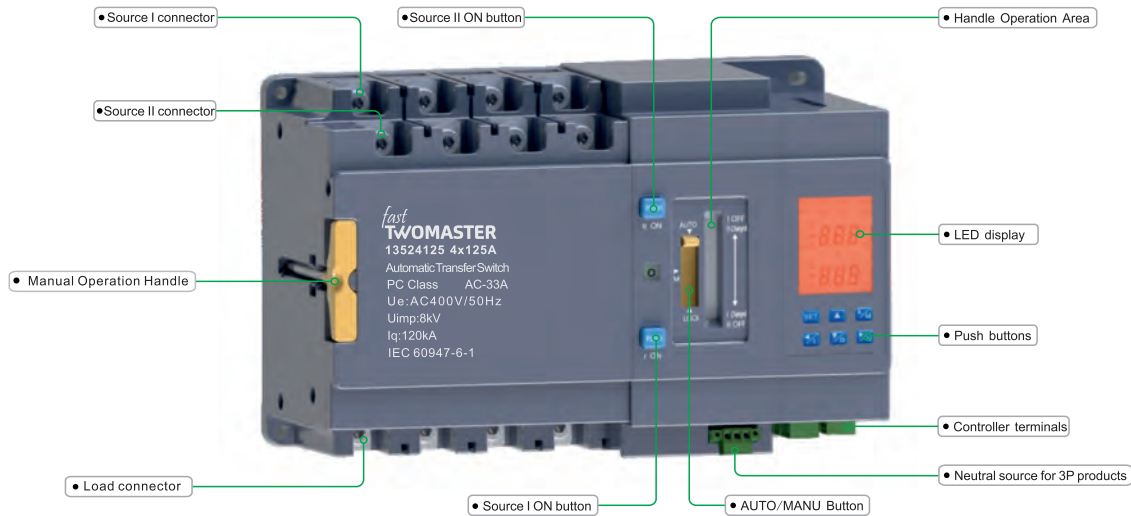


Technical Parameter

Rated Thermal Current Ith		125A					250A			630A			
Rated Current In(A)		40	63	80	100	125	160	200	250	315	400	500	630
Rated insulation voltage Ui(V)		800											
Rated impulse withstand voltage Uimp KV (installation category)		8											
Rated working current Ie(A)	AC-33A	40	63	80	100	125	160	200	250	315	400	500	630
Rated limited short-circuit current Iq (kA)		120											
Transfer Time	I-O-II (ms)	≤ 50											
Number of operation cycles	No Load	10000					10000			10000			
	With Load	6000					6000			6000			
	Total	16000					16000			16000			
Use categrory		AC-33A											

Structure Instruction

Frame Current 40A-630A

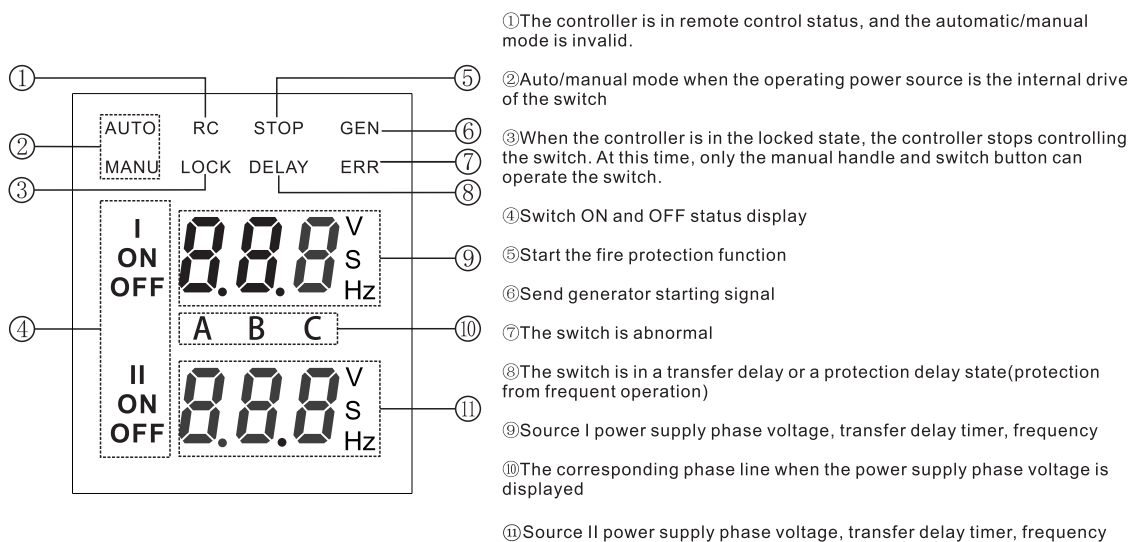


Display Panel Definition



Control module

- [SET]** Setting key, used for function selection settings
- [▲]** Press the key to increase the parameter value.
- [A/M]** Auto/Manual key, switching between automatic/manual mode.
- [←]** Left shift key, left shift option, used for up menu, in manual mode, switch to source I ON.
- [▼]** Minus key, decrease parameter value, in manual mode, switch to OFF position.
- [→]** Right shift key, right shift option, scroll down menu, in manual mode, switch to source II ON.

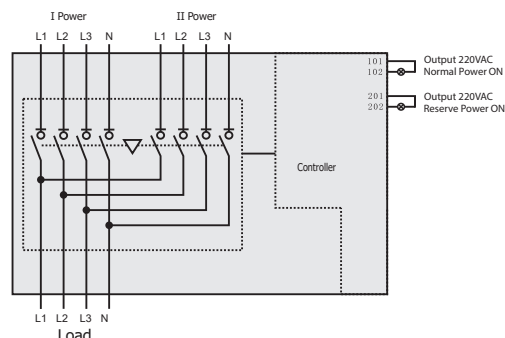


TWOMASTER FAST SERIES

40A-630A

TWOMASTER

TWOMASTER-FAST B Controller 4P Wiring



Twomaster-Fast B Controller terminal wiring instruction

101-102 : Main Power external Indicator signal output (Active AC230V 0.5A)

101—Indicator common null line and 3P null line input

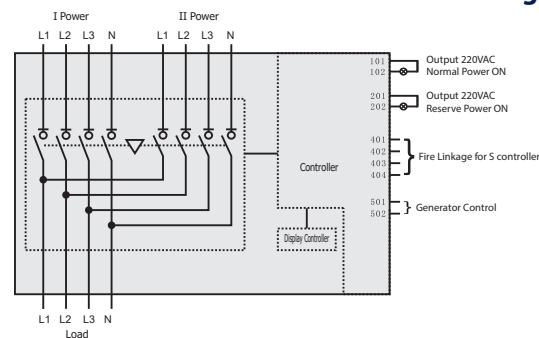
102—Main power ON signal output

201~202 : Backup power external indicator signal (Active AC230V/0. 5A)

201—Indicator common null line and 3P null line input

202—Backup power ON signal output

TWOMASTER-FAST S Controller 4P Wiring



Twomaster-Fast S Controller terminal wiring instruction

101-102 : Main Power external Indicator signal output (Active AC230V 0.5A)

101—Indicator common null line and 3P null line input

102—Main power ON signal output

201~202 : Backup power external indicator signal (Active AC230V/0. 5A)

201—Indicator common null line and 3P null line input

202—Backup power ON signal output

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

401, 402— Fire linkage signal passive input,

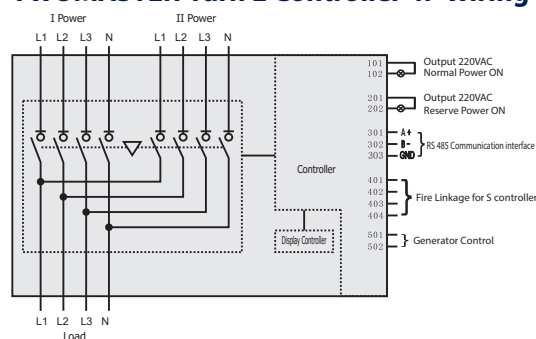
403, 404— Feedback signal when ATS transfer to OFF position

501-502 : Generator start control signal output

501—Control signal common point

502—Control signal NO point

TWOMASTER-Turn E Controller 4P Wiring



Twomaster-Fast S Controller terminal wiring instruction

101-102 : Main Power external Indicator signal output (Active AC230V 0.5A)

101—Indicator common null line and 3P null line input

102—Main power ON signal output

201~202 : Backup power external indicator signal (Active AC230V/0. 5A)

201—Indicator common null line and 3P null line input

202—Backup power ON signal output

301~303: RS485 Communication terminal 301--A+ , 302-- B- , 303--GND

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

401, 402— Fire linkage signal passive input,

403, 404— Feedback signal when ATS transfer to OFF position

501-502 : Generator start control signal output

501—Control signal common point

502—Control signal NO point

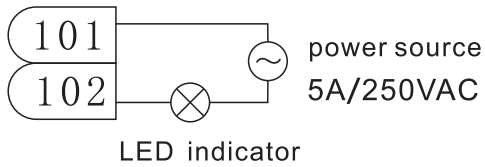
Note:

1. If fire-fighting equipment output signal is active power, the signal source need to change over the line connection, for example to connect through a relay to change the line connection, and connect the relay NO point to 401, 402, when NO contact point closed ATS transfer to OFF position. When the fire linkage function is active, the ATS will stop working, if want the ATS to working again, must first clear up the fire-fighting signal and then the ATS will recovery normal operation. If it is intelligent type, need switching Manual/Auto button one time.
2. When the backup power is Auto start generator, when normal power is good 501 and 502 open; When Normal power is fault, 501 and 502 closed
3. RS485 Communication interface manual please refer to communication protocol.

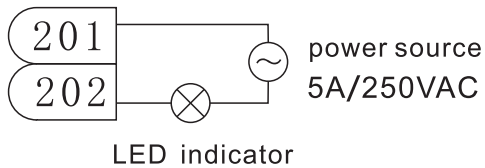
TWOMASTER-FAST Controller Terminal Definition

40A-630A

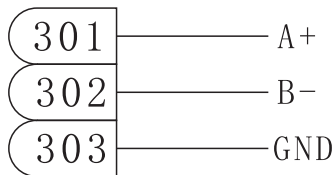
Source I closed status
passive output terminal



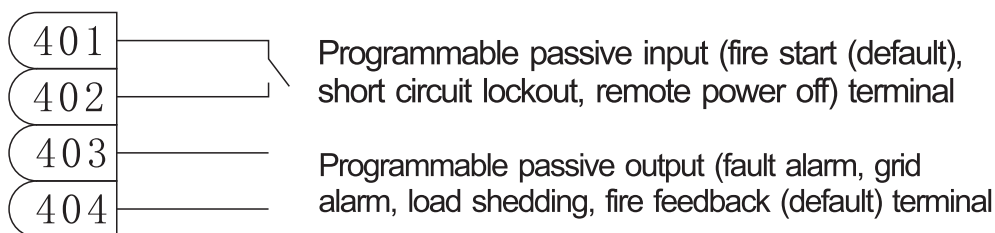
Source II closed status
passive output terminal



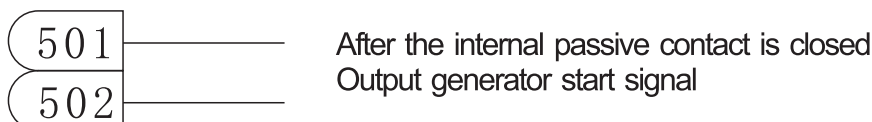
Communication output terminal



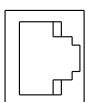
Fire input and output terminals



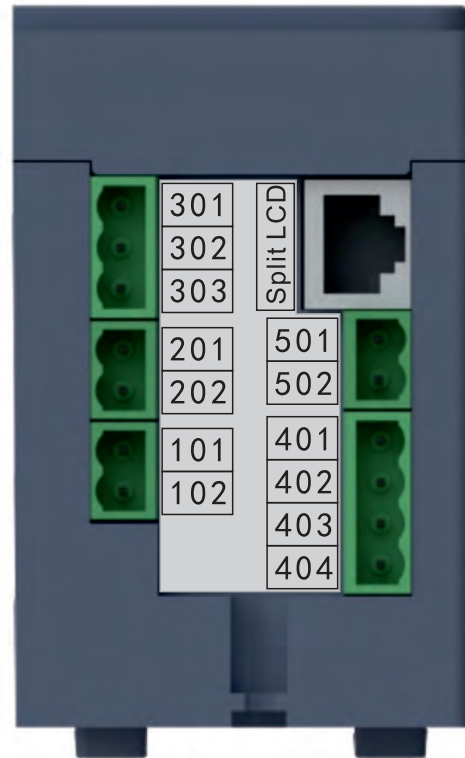
Generator start signal output terminal



Split connection output port



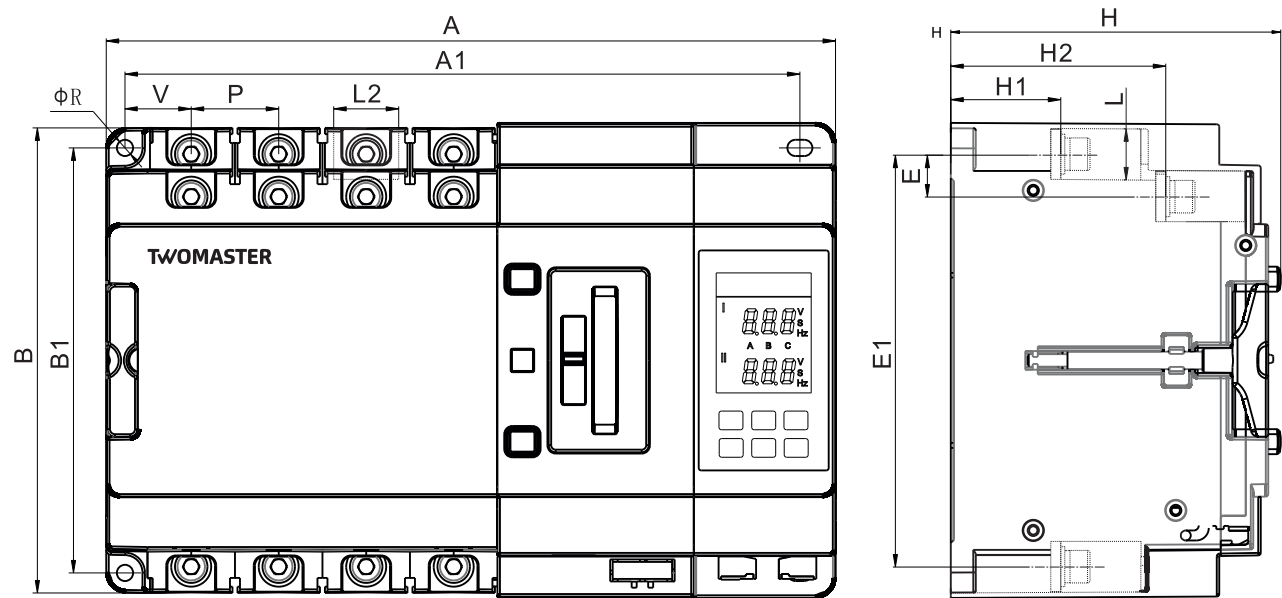
RJ45 network cable connection



TWOMASTER FAST SERIES
40A-630A

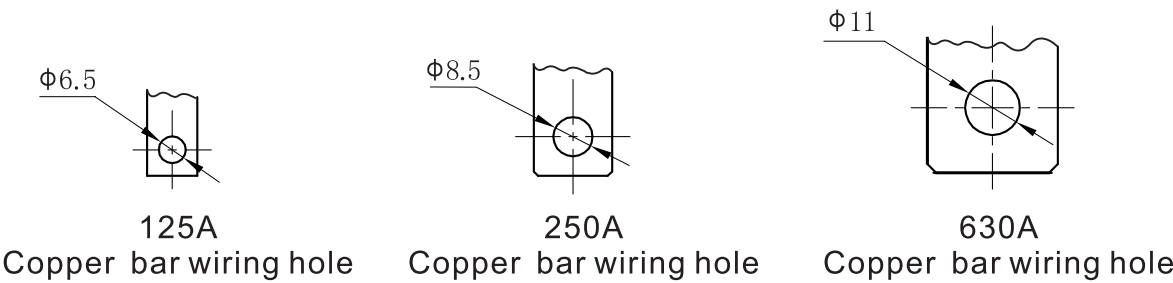


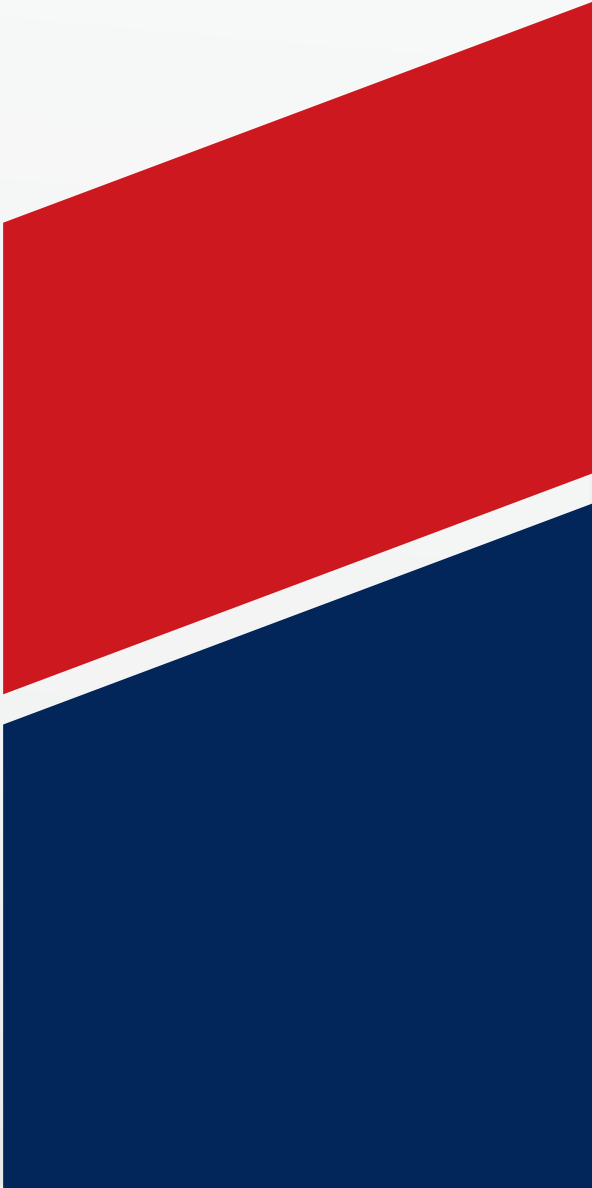
Diemensions
40A-630A



SPEC.		Overall Dimensions (mm)			Installation Dimension (mm)										
In	POLES	A	B	H	A1	B1	H1	H2	E1	E	R	V	P	L	L2
125A	4P	238	140	115	220	125	34	68,5	124	15,5	4,5	20,5	25	17,5	18
	3P	213			195										
	2P	188			170										
250A	4P	292	190	132	270	170	44	86	165	17	6,5	26,5	35	20	26
	3P	257			235										
630A	4P	375	285	195	345	252	56	106	250	27	11	40	45	33	37
	3P	330			300										

Dimensions
40A-630A





TWOMASTER



TWOMASTER STRING MONITORING



The solution for

- Combiner Box Monitoring
- 1000VDC or 1500VDC System
- DC Transmission
- Power distribution and other occasions
- DC Cabinet
- Telecommunications base station

Description

TWOMASTER String Monitoring products mainly used in DC transmission, power distribution and other occasions, such as PV combiner box, DC cabinet, telecommunications room, telecommunications base station etc.

Its main function is to monitor each string current, busbar voltage, temperature of the combiner box, the state of SPD, the state of DC breaker in real time, detecting whether there is harmful arc in direct current circuit in real time, once there is some harmful arc, an alarm signal will be sent immediately and drive the tripping device on the dc breaker, cut off the fault circuit, effectively prevent fire and other safety hazards caused by the arc.

RS485 or PLC (Power Line Carrier Communication) is used for the communication between the monitor and SCADA.

Twomaster String Monitoring feature:

- Support 600VDC, 1000VDC, 1200VDC, 1500VDC, 1700VDC system;
- Support two communication modes: RS485, Power Line Carrier Com.;
- Modular design, support up to 32 channels;
- Arc fault detection and protection;
- Local pixels graphic LCD display, the current of each channel be displayed in histogram;
- Abnormal alarm of each channel (Over voltage, under voltage, over current, under current, unbalanced current, etc);
- Drive shunt trip device directly, no external circuit is required;
- Remote alarm, the state of arc alarm can be read by MODBUS;
- Telecommunication: RS485 Modbus-RTU
- The arc and current are measured through perforated isolation, Strong isolation ability
- Arc and current sensors have large hole sizes, the diameter up to 10mm



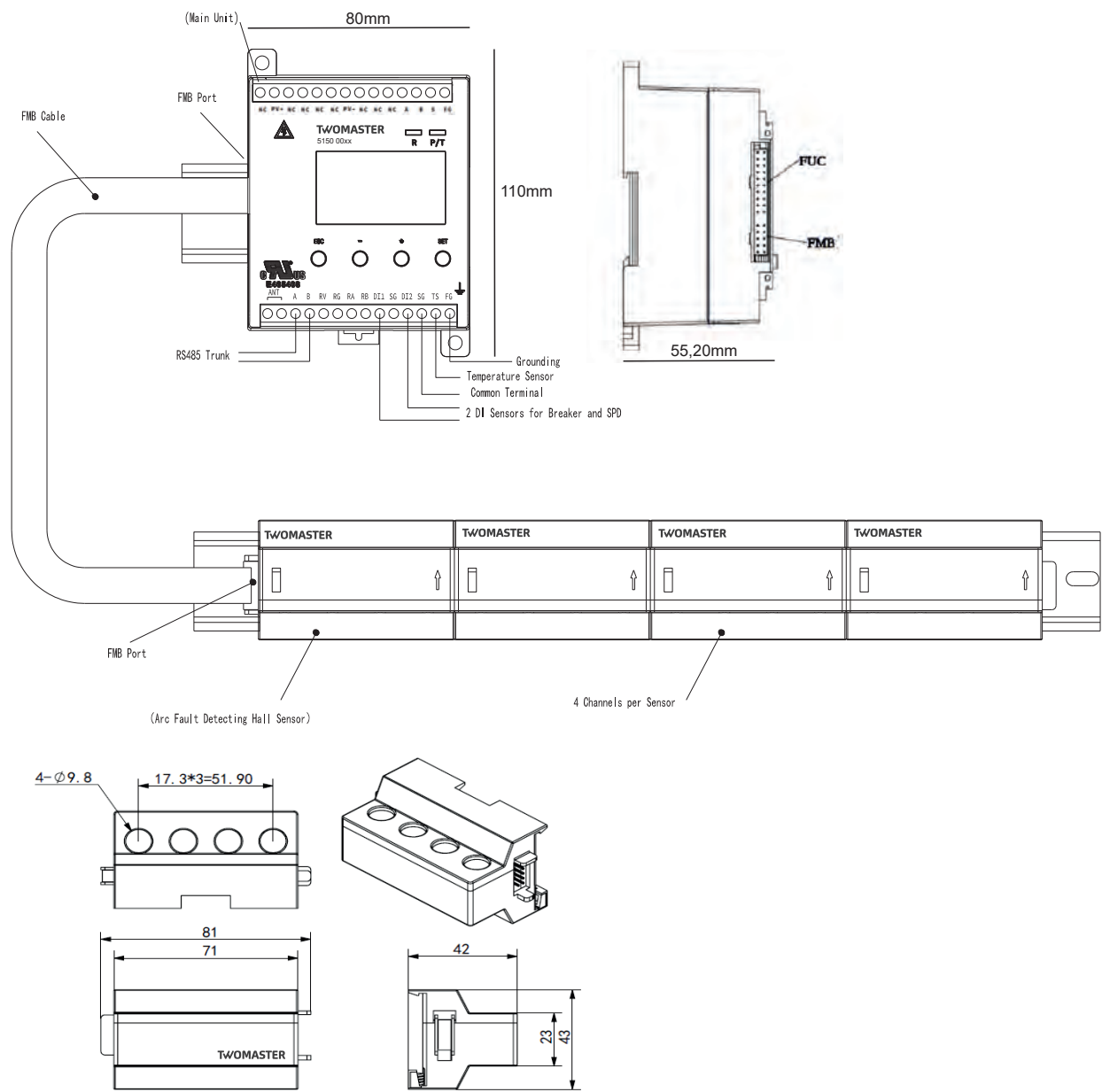
Product Code

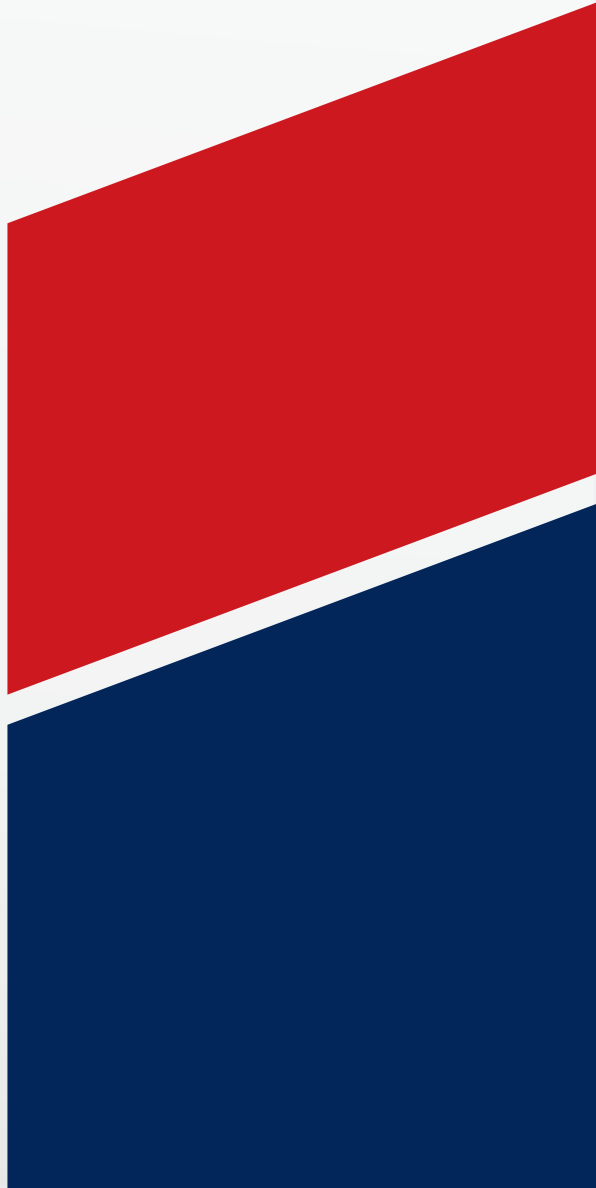
TWOMASTER STRING MONITORING		
Product	Product Code	Description
Combiner box monitoring host	51500001	Main control module of combiner box monitoring, used in 1500V or below 1500V PV system. Support up to 24 current channels
	51500002	On the basis of , integrated circuit breaker shunt trip drive is used for arc protection. It can also be used without expansion module and RS485 communication.
	51500003	Main control module of combiner box monitoring, used in 1500V or below 1500V PV system, Support up to 32 current channels
	51700001	Main control module of combiner box monitoring, used in 1700V or below 1700V PV system. Support up to 24 current/ARC channels
	51700002	Combiner box monitoring host, used for systems of 1700V and below, supports up to 24 current channels, and supports RS485 communication
	51700003	Combiner box monitoring host, used for systems of 1700V and below, supports up to 24 current channels, and DC 24V power supply
Current Sensor Arc Fault Detector	50004020	Four channel hall current sensor, current range: - 20A~20A
	50004000	Four channel hall current and arc fault detecting sensor
	50004030	Four channel hall current sensor, current range: - 30A~30A
	50004040	Four channel hall current sensor, current range: - 40A~40A
	50004060	Four channel hall current sensor, current range: - 60A~60A

Product Parameter

CURRENT MEASUREMENT	
Maximum Channels	4 Multiple, Maximum 32 Channels
Input Current Range	-20A~+20A & -30A~+30A & -40A~+40A & -60A~+60A
Rated Current	-10A~+10A
Zero Drift	±0.1A
Temperature Drift	±0.005A/
Accuracy	1%FS
VOLTAGE MEASUREMENT	
Input Voltage Range	400~+1700V
Accuracy	Class 1, 1%
Resolution	1V
TEMPERATURE MEASUREMENT	
Number of Temperature Sensor	2
Sensor Type	NTC
Measurement Range	-40~+125
Accuracy	±2
Resolution	0.1
DIGITAL STATUS MONITORING	
Number of Digital Status	4
Type	Dry Contact
Input Voltage	DC5V
LOCAL SCREENING	
Display	LCD, Histogram Display
Working Status Instructions	2 LEDs, Indicating Power & Communication Status
LOCAL OPERATION	
Operating Content	Operating Status Display and Parameter Setting
Local Operation Key	4nos
RS-485 COMMUNICATION	
Communication Protocol	Modbus-RTU
Communication Baud Rate	2400/4800/9600/19200/38400 bps
Parity	8N1, 8O1, 8E1
MAIN UNIT POWER SUPPLY PARAMETERS	
Input Voltage	400~1700VDC
Maximum Input Current	0.1A
ENVIRONMENT	
Operating Temperature	-40 +85
Storage Temperature	-40 +85
Operating Humidity	095%
EMC	
Surge Immunity	GB/T 17626.5-2008 class 4, common mode 4KV, dierence mode 2KV
Electrical Fast Transient (EFT) Disturbance	GB/T 17626.4-2008 class 4, common mode 4KV, dierence mode 2KV
Electrostatic Discharge Test Immunity	GB/T 17626.2-2006 class 3 , contact discharge 8KV, air discharge 15KV
Electromagnetic Radiation Immunity	GB7251.1-2005, GB/T 17626.3-2006, 10V/m
Power Frequency Magnetic Field Immunity	GB/T 17626.8-2006 class 3

Structure Instuct and Dimensions





TWOMASTER



TWOMASTER PS SERIES
60W-480W

TWOMASTER PS SERIES

60W-480W

TWOMASTER



The solution for

- Industrial applications
- DC Transmission
- DC Cabinet
- Power distribution board
- Telecommunications base station
- Machine automation

Description

Metal Case for industrial applications.

Slim design.

Compliant with EMC EN55022

Industrial type, DIN rail mounting

Short circuit, overload, high voltage and high temperature protection

Product Code

TWOMASTER PS SERIES POWER SUPPLY				
Rating (A)	Product Code	Output Voltage	DIN Rail Case	Power (W)
2,5	61006024	24VDC	Plastic	60
3,1	61107524	24VDC	Metal	75
5	61112024	24VDC	Metal	120
10	61124024	24VDC	Metal	240
20	61148024	24VDC	Metal	480

TWOMASTER PS SERIES
60W-480W

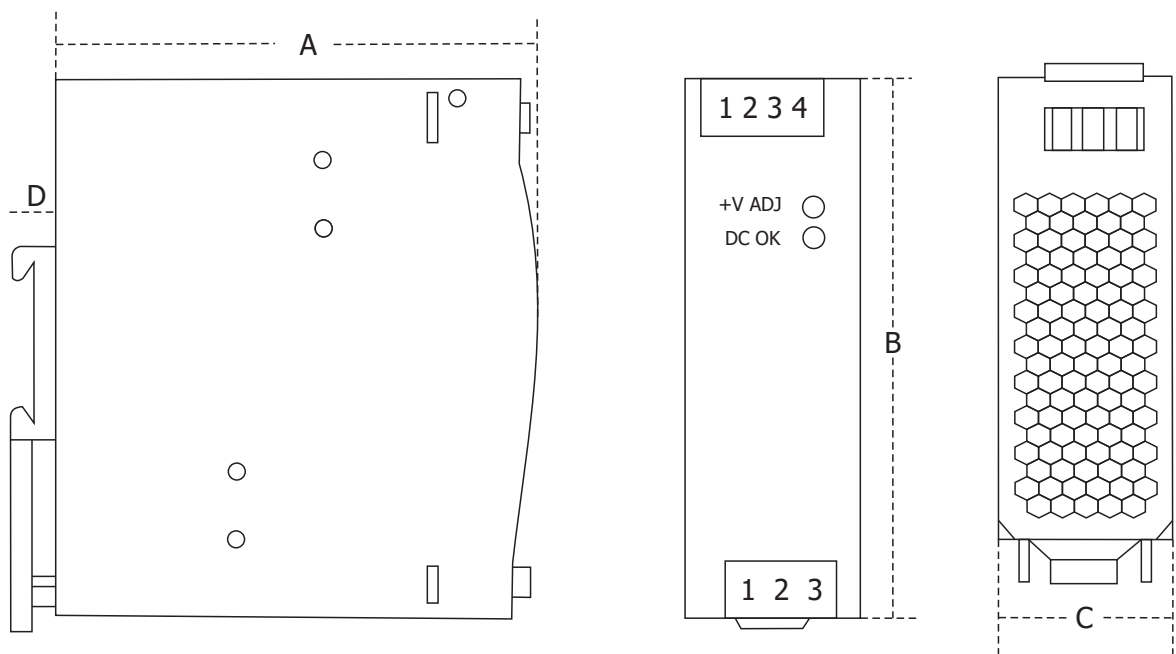


Product Parameter

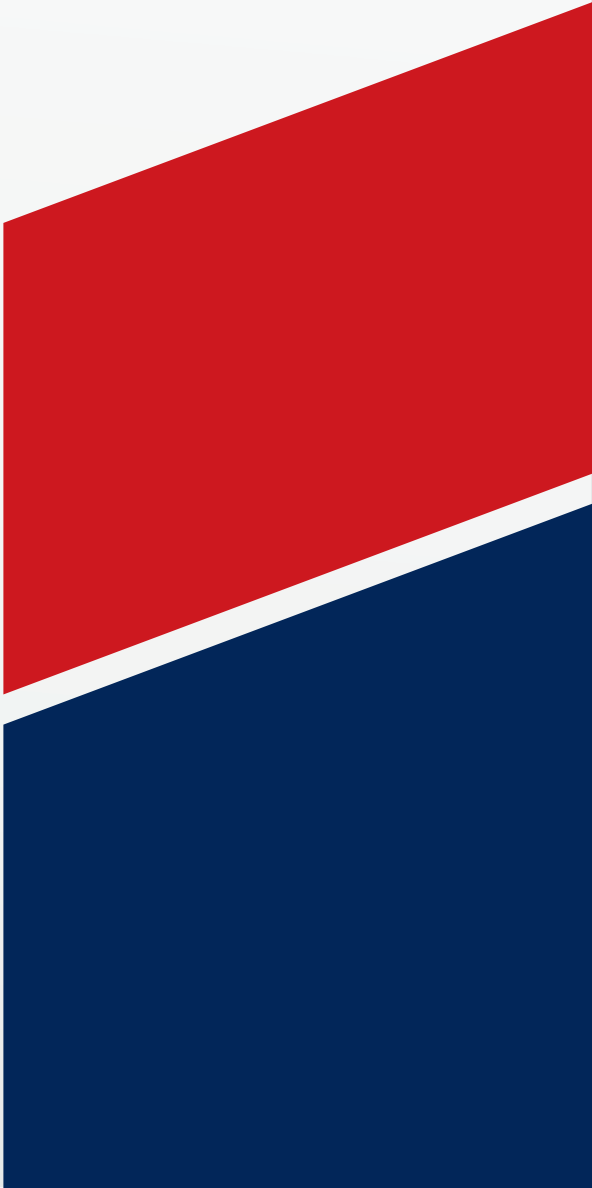
Reference	Power	Input Voltage	Output Voltage	Max. Output Current	Overload Protection	Operating Temperature	Weight
61006024	60W	85-264VAC	24VDC	2,5A	%105 ~ %150	-20°C ~ +50°C	0,30kg
61107524	75W	90-264VAC	24VDC	3,1A	%105 ~ %130	-20°C ~ +50°C	0,51kg
61112024	120W	90-264VAC	24VDC	5,0A	%105 ~ %130	-20°C ~ +50°C	0,60kg
61124024	240W	90-264VAC	24VDC	10,0A	%105 ~ %130	-20°C ~ +50°C	1,00kg
61148024	480W	90-264VAC	24VDC	20,0A	%105 ~ %130	-20°C ~ +50°C	2,00kg

Note :
Shot off o/p voltage, after the restart recovery.
Over load production , %105 - %150 constant current mode, recovery.

Dimensions



Referans	A	B	C	D
61006024	100	90	40	10
61107524	102	125,2	32	10
61112024	113,5	125,2	40	10
61124024	113,5	125,2	63	10
61148024	100	125,2	125,5	10



TWOMASTER



TWOMASTER MEK SERIES
Sheet Steel Enclosure From
500-1600A

TWOMASTER MEK SERIES

Sheet Steel Enclosure From 63-1600A

TWOMASTER


The solution for

- Steel works
- Cement works
- Automotive
- Mining industries
- Food processing
- Chemical industry

Compliance with standards

- IEC 60947-3
- EN 60947-3
- VDE 0660-107 (1992)
- NBN EN 60947-3
- BS EN 60947

Approvals and certifications

China Quality Certification Centre



Product Description

BUILT FOR SAFETY

Thanks to the dedicated cut-off equipment, the user can operate on the equipment quickly and safely.

RESISTANT

A secure enclosure, equipment and fittings adapted to an aggressive and dusty environment.

EASY TO INSTALL

Secure connections and commissioning with a well equipped enclosure.

Safety enclosures equipped with TWOMASTER switches provide emergency breaking, breaking for mechanical maintenance and safety isolation in the vicinity of any low voltage final circuit.

Double Locking

This prevents the switch from being closed if the enclosure is open, but also prevents the enclosure from being opened if the switch is closed.

Triple Safety Handle

It allows the installation to be locked by 3 locks when the switch is in the opened position.

Detectable Cut-off

Handle indicates clearly position of contacts, guaranteeing switch operation.

Standard

2 pushbuttons, 22 mm Ø (1 green/1 red): Identification labels "Start" and "Stop" 1pcs NO/NC auxiliary contacts for pre-break, the 2nd auxiliary contact is optional.

The enclosure has an IP65 degree of protection
Emergency stop button is optional.

Visible Cut-off

The technology of the contacts, positioned in parallel on a movable bar, make it possible to check the contacts are correctly separated.

Product Code

TWOMASTER-MEK Safety Enclosures					
Rating (A)	Product Code	No. of poles	External handle & Shaft	Direct Handle	Auxiliary contact
63	31103006	3 Pole	31140001	31140005	31140011 (1NA) 31140012 (1NK)
	31104006	4 Pole			
80	31103008	3 Pole			
	31104008	4 Pole			
100	31103010	3 Pole			
	31104010	4 Pole			
125	31103012	3 Pole			
	31104012	4 Pole			
160	31103016	3 Pole			
	31104016	4 Pole			
200	31103020	3 Pole			
	31104020	4 Pole			
250	31103025	3 Pole			
	31104025	4 Pole			
315	31103031	3 Pole	31140002	31140006	
	31104031	4 Pole			
400	31103040	3 Pole			
	31104040	4 Pole			
500	31103050	3 Pole	31140003	31140007	
	31104050	4 Pole			
630	31103063	3 Pole			
	31104063	4 Pole			
800	31103080	3 Pole			
	31104080	4 Pole			
1000	31103100	3 Pole	31140004	31140008	
	31104100	4 Pole			
1250	31103120	3 Pole			
	31104120	4 Pole			
1600	31103160	3 Pole			
	31104160	4 Pole			

TWOMASTER MEK SERIES

Sheet Steel Enclosure From

63-1600A



Technical Data

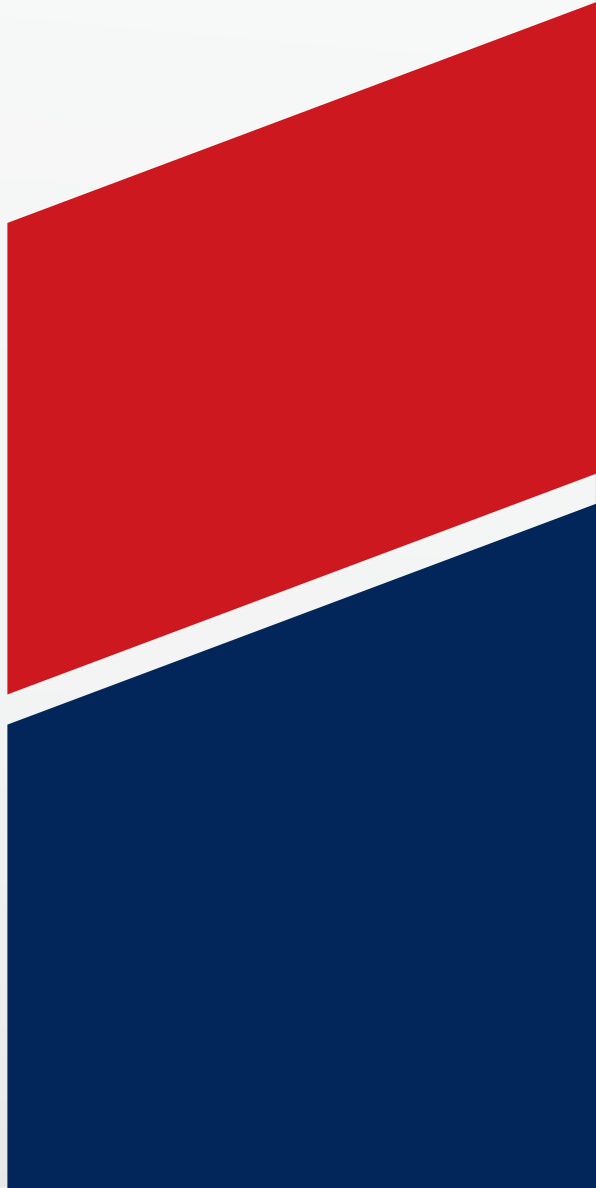
TWOMASTER SAFETY ENCLOSURES

Rated operating current Ie (A)		50 A	80 A	125 A	200 A	400 A	500 A	630 A
Associated fuse rating (A)		40	63	100	160	315	400	500
Rated insulation voltage Ui (V)		690	690	750	750	1000	1000	1000
Rated impulse withstand voltage Uimp (kV)		6	6	8	8	12	12	12
Rated operational currents Ie (A)								
400 V AC	AC 21 A	50	80	125	200	400	500	630
	AC 22 A	50	63	125	200	400	400	630
	AC 23 A	50	63	125	200	400	400	630
Operational power in AC-23 A (kW)								
At 400 VAC without pre-break in AC-23 (kW)		25	30	63	100	220	220	355
At 500 VAC without pre-break in AC-23 (kW)		11	25	63	63	140	140	355
At 690 VAC without pre-break in AC-23 (kW)		-	7,5	11	-	75	75	90
At 400 VAC with pre-break in AC-23 (kW)		25	30	63	100	220	220	355
At 500 VAC with pre-break in AC-23 (kW)		18.5	33	63	80	220	220	450
At 690 VAC with pre-break in AC-23 (kW)		22	33	55	90	185	185	295
Short-circuit capacity								
Rated short-time withstand current 1s. ICW (kA rms)		2,5	2,5	7	9	13	13	26
Fuse protected short-circuit withstand (kA rms prospective)(415VAC)		12	12	20	30	45	45	55
Rated peak withstand current (kA peak)(415VAC)		4,5	4,5	12	17	30	30	50
Mechanical characteristics								
Durability (number of operating cycles)		10000	10000	10000	10000	5000	5000	5000
Operating effort (Nm)		2	2	10	13	21	21	45

Please consult us for other current ratings (800A - 1250A - 1600A)

Dimensions

A	Pole	H x W x D	kg
50	3	320x220x150	9
80	3	320x220x150	9
125	3	450x350x200	17
125	6	450x800x300	23
200	3	500x400x200	21
200	6	500x900x300	30
400	3	700x500x250	35
400	6	700x1200x400	45
630	3	900x500x350	39
630	6	900x1200x500	52
800	3	900x500x350	85
1250	3	1200x700x400	90
1600	3	1200x700x400	100



TWOMASTER



TWOMASTER SPD SERIES
Surge Protective Device

TWOMASTER SPD SERIES

Surge Protective Device

TWOMASTER


The solution for

- Industry
- All types building

Compliance with standards

- IEC 61643-11
- EN 61643-11

Approvals and certifications

ICR Polska Co., Ltd. POLAND



Product Description

TWOMASTER SPD series is designed to ensure the protection of your low voltage distribution installations and your electrical equipment. It acts against industrial operation surges and surges owing to lightning.

Type1+2 of surge protective device is particularly recommended where there is a risk of direct impact of lightning strikes.

Remote signalling :

With the remote signalling contact , you can upload the alert to a supervisory device.

Applications :

Located in the main switchboard, upstream of the distribution panels.

Main electrical switchboard + building protected against lightning either:

- through lightning conductors,
- through mesh cages.

Main switchboard in buildings subject to a high risk of lightning strikes such as classified installations, installations located in areas prone to a high density of lightning strikes, high-rise buildings, presence of antenna towers, chimneys.

Sites located at high altitude.

Distribution board of a building with presence of Lightning Protection Systems.

Product Code

TWOMASTER SPD Series Surge Protective Device							
Product Code	No. of poles	Type	Un	I _{max}	I _n	I _{imp} (total)	Aux Contact
71114100	4 Pole	Type 1	400VAC	100kA	50kA	100kA	Yes
71104100	4 Pole	Type 1	400VAC	100kA	50kA	50kA	No
71414100	4 Pole	Type 1+2	400VAC	100kA	50kA	50kA	Yes
71404100	4 Pole	Type 1+2	400VAC	100kA	50kA	50kA	No
71514100	4 Pole	Type 1+2+3	400VAC	100kA	20kA	50kA	Yes
71504100	4 Pole	Type 1+2+3	400VAC	100kA	20kA	50kA	No
72413100	3 Pole	Type 1+2	800VAC	100kA	20kA	25kA	Yes
72403100	3 Pole	Type 1+2	800VAC	100kA	20kA	25kA	No
71214040	4 Pole	Type 2	400VAC	40kA	20kA		Yes
71204040	4 Pole	Type 2	400VAC	40kA	20kA		No
71212040	2 Pole	Type 2	400VAC	40kA	20kA		Yes
71202040	2 Pole	Type 2	400VAC	40kA	20kA		No
71612010	2 Pole	Type 2+3	400VAC	10kA	5kA		Yes
71602010	2 Pole	Type 2+3	400VAC	10kA	5kA		No
71311010	1 Pole	Type 3	400VAC	10kA	5kA		Yes
71311010	1 Pole	Type 3	400VAC	10kA	5kA		No
73212040	2 Pole	Type 2	1000VDC	40kA	20kA		Yes
73202040	2 Pole	Type 2	1000VDC	40kA	20kA		No
74213040	3 Pole	Type 2	1500VDC	40kA	20kA		Yes
74203040	3 Pole	Type 2	1500VDC	40kA	20kA		No
74412040	2 Pole	Type 1+2	1500VDC	40kA	20kA	9kA	Yes
74402040	2 Pole	Type 1+2	1500VDC	40kA	20kA	9kA	No
74413040	3 Pole	Type 1+2	1500VDC	40kA	20kA	13,5kA	Yes
74403040	3 Pole	Type 1+2	1500VDC	40kA	20kA	13,5kA	No

TWOMASTER SPD SERIES

Surge Protective Device



Technical Data

Type		SPD-T1	SPD-T1+T2	SPD-T1+T2+T3	SPD-T1+T2	SPD-T2	SPD-T2
SPD		Type 1	Type 1+2	Type 1+2+3	Type 1+2	Type 2	Type 2
Rated Operating Voltage	Un	230/400VAC			800VAC [L-L]	230/400VAC	230VAC
Max. Operating Voltage [L-N]	Uc	320VAC	320VAC	280VAC	1000VAC [L-L]	280VAC	280VAC
Max. Operating Voltage [N-PE]	Uc	255VAC	255VAC	255VAC		255VAC	255VAC
Nominal Discharge Current (8/20µs) [L-N/N-PE]	In	50kA	20kA / 50kA	20kA / 20kA	20kA	20kA / 20kA	20kA / 20kA
Max. Discharge Current (8/20µs) [L-N/N-PE]	I _{max}	100kA	50kA / 100kA	50kA / 100kA	100kA	40kA / 40kA	40kA / 40kA
Impulse Discharge Current (10/350µs) [L-N/N-PE]	I _{imp}	25kA	12,5kA / 50kA	12,5kA / 12,5kA	6,25kA		
Total Impulse Current (10/350µs)	I _{imp} / I _{total}	100kA	50kA	50kA	25kA		
	U _{oc}			10/6kV			
Voltage Protection Level	Up	1.8kV	1,5kV	1,5kV	5kV	1,5kV	1,5kV
Response Time [L-N/N-PE]	t _A	100ns	25/100ns	25/100ns	25ns	25/100ns	25/100ns
Operating Temperature Range	T _u	-40°C ... +80°C					
Operating State / Fault Indication		Green : Normal - Red : Invalid					
Number of poles		3P+N	3P+N	3P+N	3P (4 modules)	3P+N	1P+N
Size		144mm	72mm	72mm	144mm	72mm	36mm
For mounting on		35mm Din Rail					
Place of instalation		Indoor Instalation					
Degree of protection		IP20					
Flame Class		V0					
Standarts		IEC / EN 61643-11:2012+A11:2018					

Technical Data

Type		SPD-T2+T3	SPD-T3	SPD/PV-T2	SPD/PV-T2	SPD/PV-T1+T2
SPD		Type 2+3	Type 3	Type 2	Type 2	Type 1+2
Rated Operating Voltage	Un	230VAC	230VAC	1000VDC	1500VDC	1500VDC
Max. Operating Voltage [L-N]	Uc	320VAC	280VAC	Ucpv 1000VDC	Ucpv 1500VDC	Ucpv 1500VDC
Max. Operating Voltage [N-PE]	Uc	255VAC	255VAC			
Nominal Discharge Current (8/20μs) [L-N/N-PE]	In	5kA	5kA	20kA	20kA	20kA
Max. Discharge Current (8/20μs) [L-N/N-PE]	Imax	10kA	10kA	40kA	40kA	40kA
Impulse Discharge Current (10/350μs) [L-N/N-PE]	Iimp					4,5kA
Total Impulse Current (10/350μs)	Iimp / Itotal					2P:9kA /3P:13,5kA
	Uoc	10kV	10kV			
Voltage Protection Level	Up	1,5kV	1,0kV	3,5kV	4,5kV	4,5kV
Response Time [L-N/N-PE]	ta	25/100ns	25ns	25ns	25ns	25ns
Operating Temperature Range	Tu	-40°C ... +80°C				
Operating State / Fault Indication		Green : Normal - Red : Invalid				
Number of poles		1P+N	1P	- / +	- / G / +	- / G / +
Size		18mm	18mm	36mm	54mm	72mm/108mm
For mounting on		35mm Din Rail				
Place of installation		Indoor Instalation				
Degree of protection		IP20				
Flame Class		V0				
Standarts		IEC / EN 61643-11:2012+A11:2018				

NOT:

Handwriting practice lines consisting of 20 sets of three horizontal dashed lines.

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Handwriting practice lines consisting of 20 sets of three horizontal dashed lines.

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Handwriting practice lines consisting of 20 sets of three horizontal dashed lines.



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TWOMASTER
manages the energy

Ossa Elektrik ve Elektronik A.Ş.
Melih Gökçek Blv. No: 18/38
İvedik Osb. Yenimahalle/Ankara TÜRKİYE
Tel: +90 312 394 67 72
Fax: +90 312 394 67 71
E-mail: info@twomaster.com.tr