

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

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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

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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

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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					

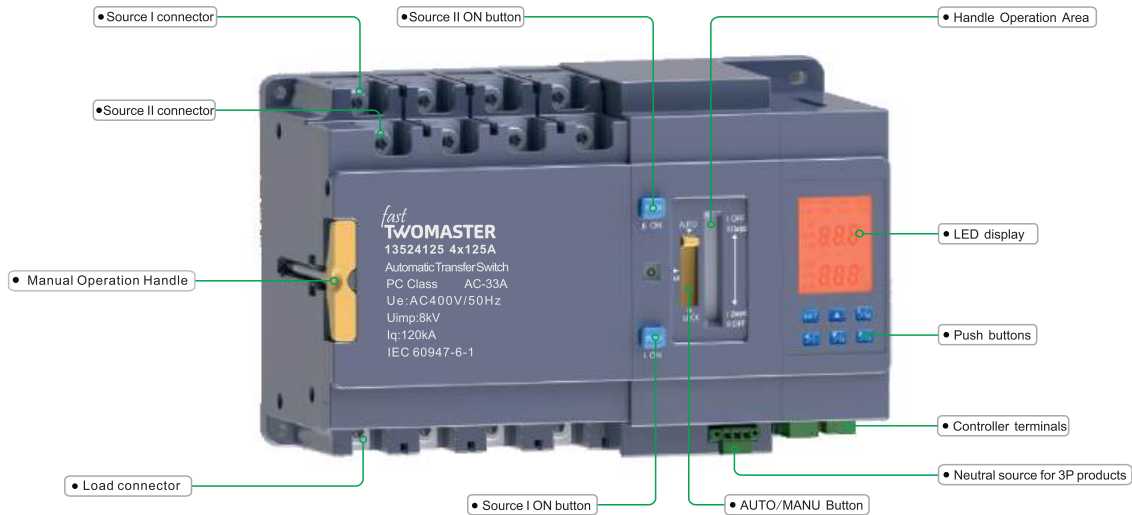
TWOMASTER FAST SERIES
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Technical Parameter

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-0-II (ms)	≤ 50											
Number of operation cycles	No Load	10000					10000			10000			
	With Load	6000					6000			6000			
	Total	16000					16000			16000			
Use categeory		AC-33A											

Structure Instruction
Frame Current 40A-630A

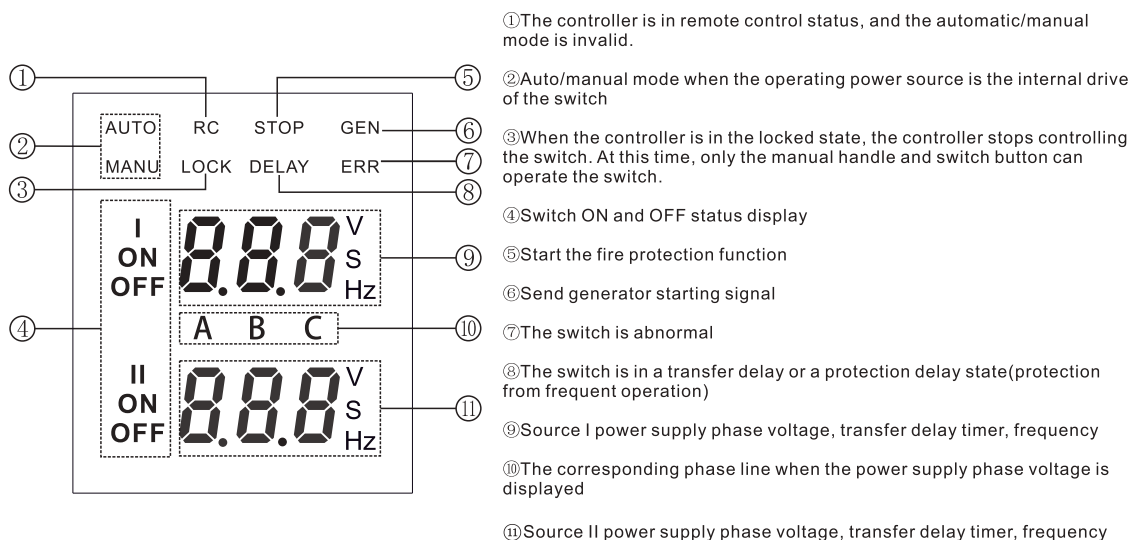


Display Panel Definition



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.

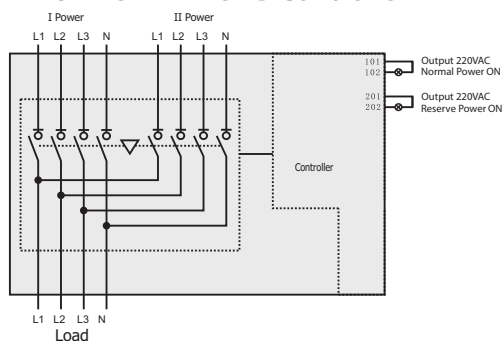


TWOMASTER FAST SERIES

40A-630A

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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

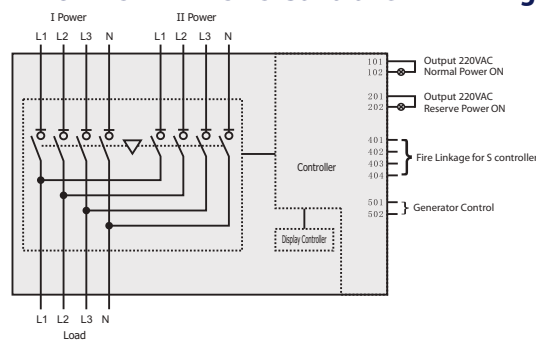
102—Main power ON signal output

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,

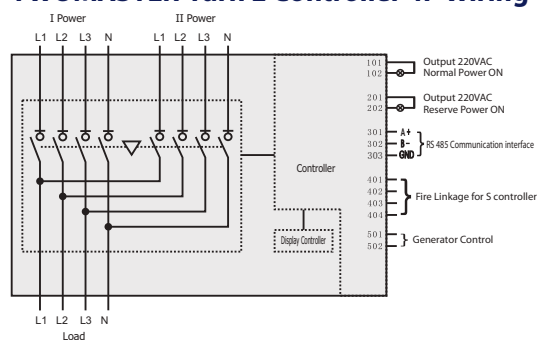
403, 404— Feedback signal when ATS transfer to OFF position

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

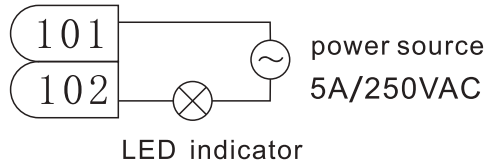
Note:

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.

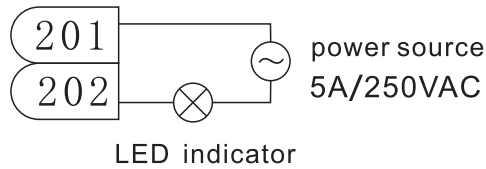
TWOMASTER-FAST Controller Terminal Definition

40A-630A

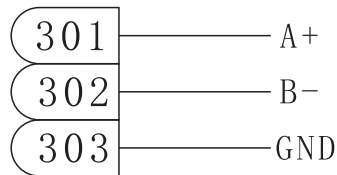
Source I closed status
passive output terminal



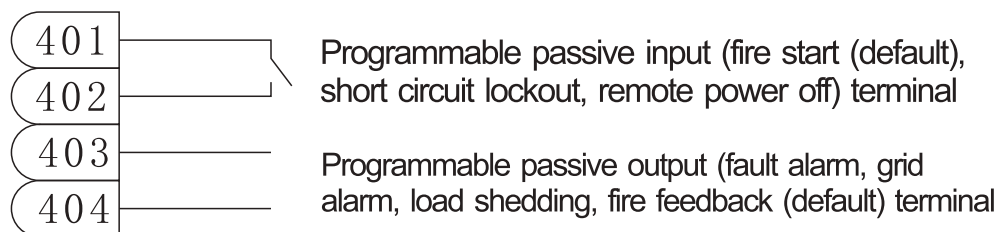
Source II closed status
passive output terminal



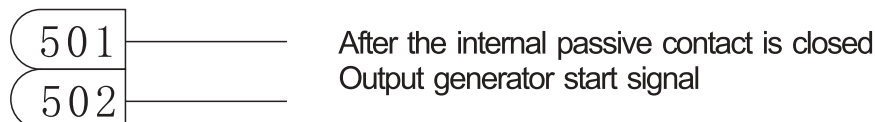
Communication output terminal



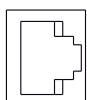
Fire input and output terminals



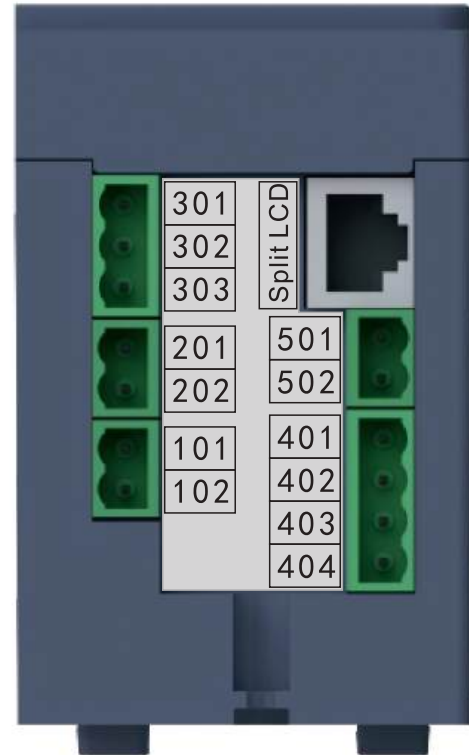
Generator start signal output terminal



Split connection output port



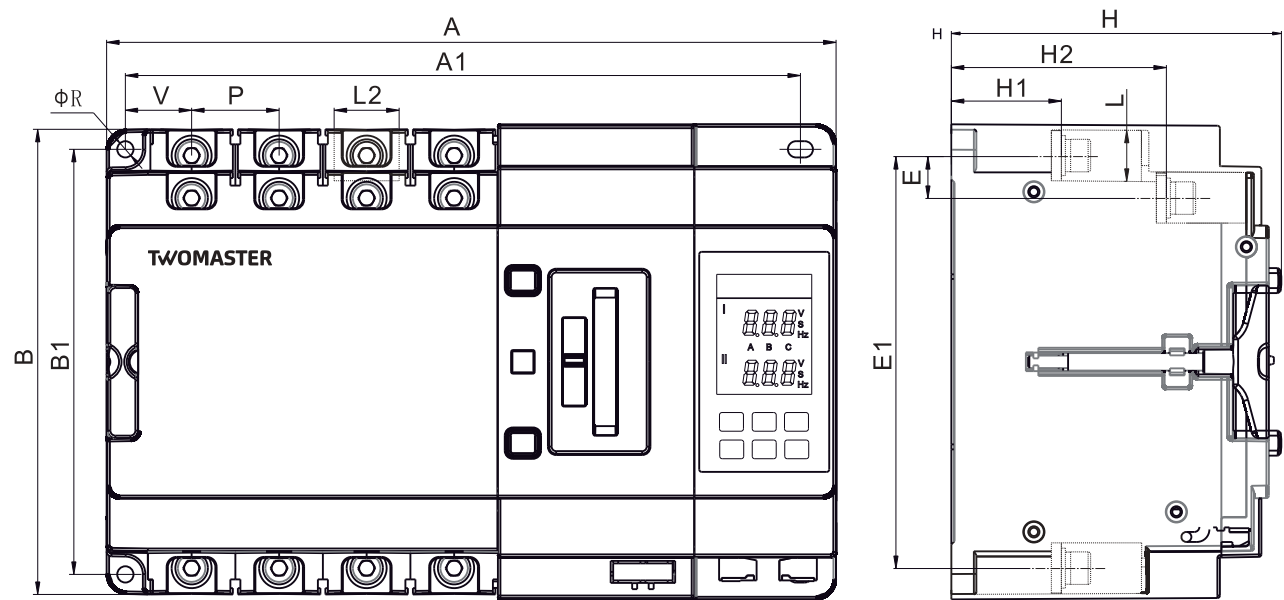
RJ45 network cable connection



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

