⚠ Reserve the right to change the parameters without prior notice.

SAFE GREEN SMART

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MAXGE
Intelligence beyond vision

ACB

Air Circuit Breaker

Committed to becoming a world-class manufacturer of intelligent electric

https://www.maxge.com

COMPANY PROFILE

MAXGE Electric Technology Co., LTD was founded in 2006 with a registered capital of 50 million RMB. Its headquarter is located in Deqing County, Huzhou City, Zhejiang Province. It is a large-scale comprehensive high-tech enterprise integrating design, research and development, manufacturing, marketing and service.

Since its establishment, MAXGE has been professionally oriented and committed to the design and manufacturing of a series of products such as low voltage circuit breakers & controlgear for domestic, industrial protection and new energy power distribution, in order to meet user needs and provide high-quality solutions.

At present, MAXGE has won many honors such as National High-tech Enterprise, National Specialized and Sophisticated "Little Giant", Zhejiang Enterprise Technology Center, Zhejiang High-level Enterprise R&D Center, Zhejiang Export Brand and Zhejiang Digital Workshop.

In the process of production and operation,we have obtained ISO9001, ISO14001 and ISO45001 and obtained SGS certifications, and the testing center has won the national CNAS laboratory certification. The products have obtained CE, CB, VDE, KEMA, TUV, INTERTEK, BV, ASTA, EAC, INMETRO certifications with reliable quality, and are exported to more than 60 countries and regions such as the European Union, the South America, Middle East, Africa, and Southeast Asia. We have multiple branches in the United Kingdom, Spain, Netherlands and Hong Kong, and we are dedicated to providing high-quality products and services to global customers.

2006

The Company Was
Established In 2006

60+

We Provide Products To Over
60 Countries Around The World

Currently MAXGE has a R&D team of more than 100 personnel and nearly 1,000 employees, equipped with state of the art automatic production lines, CNAS affiliated laboratories and testing centers. MAXGE has obtained more than 100 invention and utility model patents, 10 software copyright, and participated in the formulation of national, industry and group standards.

There are over 133,000 square meters of Modern Intelligent Manufacturing Bases in Zhejiang Hangzhou, Huzhou and Anhui Wuhu.

The Huzhou factory covers an area of over 33,000 square meters, with a total investment of 500 million RMB. At present, there are 42 production lines in the automation workshops, among which the automatic assembly production line, semi-automatic assembly production line and automatic inspection line cover more than 90%.

DEVELOPMENT HISTORY

(2006 to 2010)
Development

1.0

Brand Establishment

Wenzhou Maxge Electric Technology Co, Ltd. was established, and focused on circuit breakers manufacturing.

(2011 to 2015)
Development

2.0

Thrive Period

Moved to Deqing County, entered into a new stage and focused on the design, development and production of low-voltage Circuit Breakers.

(2016 to 2020)
Development

3.0

4T+5I

- Standardization
- Automation
- Digitalization
- Intelligentization
- Products Innovation
- Technology Innovation
- Management Innovation
- Marketing Innovation
- Brand Innovation

(2021 to 2025)
Development

4.0

Comprehensive Transformation

The production capacity of Wuhu greenfield factory can reach 3 times bigger after construction. Not only focus on foreign markets, but also prepared for the domestic market.

(2026 to 2030)
Development

5.0

Green and Smart

MAXGE provides users with more diversified, intelligent and creative solutions, and promote the whole society towards the goal of green, intelligent and sustainable development.

1.0 2.0 3.0 4.0 5.0

CORPORATE CULTURE

Brand Interpretation

- Chinese Name: Mei Gao
- Mei: Perfection in Excellence
- Gao: Virtue in Action
- English Name: MAXGE
- MAX: Maximum
- GE: Global Electric

Core values

Customer Focused
Altruism & Win-win
Truth-seeking & Innovation

Mission

Making Electricity Safe Green Smart

CULTURE

Vision

SHORT-TERM VISION :
Making the best quality & high cost performance circuit breaker in China

LONG-TERM VISION :
Committed to becoming a world-class manufacturer of intelligent electric

Lotus

The Heart of Altruism

Remain true to the original aspiration
Keep the mission firmly in mind
Link the hearts tightly
Be upright and integrity

Bodhi Tree

The Tree of Wisdom

“Stay Hungry
Stay Foolish”
Be wise and enlightened
Self-growth and self-motivated

Wukong

The Spirit of Struggle

Keep going, never give up
Strive continuously to strengthen oneself
Be loyal and trustworthy
Have ample virtue and accommodate all things

SCALE CONFIGURATION

01 Mold & Tooling Workshop

Equipped with made in Switzerland GF AgieCharmilles, Japan Sodick wire cutting machine & EDM machine and Vertical milling CNC processing area.At present, it has achieved independent design,manufacturing and production of press tools & molds, with a comprehensive manufacturing capacity of more than 30 sets per month.Now the complete mold manufacturing process has been established, and an independent mold quality inspection group is equipped to realize the full inspection of the mold processing to ensure the precision and accuracy of mold.

02 Stamping Workshop

Equipped with high & medium speed stamping presses, and auxiliary equipment.The average punching speed can reach 100 to 300 strokes per minute, the highest punching speed can reach 500 strokes per minute, and the monthly production capacity of the workshop is to cater stamped parts for 5 millon MCB , 500K RCCB , 500K RCBO & 200K MCCB.

03 Spot Welding Workshop

Equipped with automatic coil winding machines, automatic braid compacting & cutting machines, automatic thermal and magnetic welding group assembly machines ,automatic armature assembly machines, automatic pad printing on handle and latch holder machines.The automation level is over 90%, and it is mainly responsible for the production of welding groups required by the finished product workshop.

Through the integrated technology of winding and welding, automatic welding production has been realized. Thermal assembly heat treatment process is adopted to improve first pass yield during thermal verification process.

04 Injection Molding Workshop

Equipped with 38 injection molding machines from 60 to 350 ton capacity, overhead cranes and auxiliary equipment such as automatic warpage prevention machines, mould temperature controllers, granulators. The automation level is over 90%, realizing an automatic and efficient production process.

Adopted centralised material feeding system to improve production efficiency and realize effective utilization of resources.

Smart humidifying room, use advanced humidification process to strengthen the mechanical properties of the product.

MAXGE adapts online CCD image detection unit though which critical parts of mechanism undergoes 100% inspection to ensure delatch free breakers. Through CCD image detection equipment, efficient, accurate and reliable image detection and analysis can be realized to ensure product quality.

05 ACB Automatic Testing Line

The product will go through the steps of manual assembly, contact parameters tests such as trip force, trip distance , ACB & cradle assembly by robot ,mechanical operation test unit to verify internal accessories and motor, current characteristic test unit , high voltage and loop resistance test unit, & appearance inspection by CCD device. Automation level has reached 80% and the monthly detection capacity has reached more than 1000 poles.

06 MCCB Automatic Workshop

It mainly produces Moulded Case Circuit Breaker such as thermal magnetic type, electronic type, and ELCB type, as well as Intelligent Air Circuit Breaker.
There are currently 8 automatic production lines & one manual line, and the monthly production capacity reaches 200,000 units.
It has realized the automatic assembly & inspection of the whole process,including contact parameters such as automatic open distance, overtravel, on-off, synchronicity, trip force, trip distance, loop resistance, lift force & routine tests such as magnetic, thermal, reliability & HV test. Test line also equipped with laser printing & final appearance inspection by CCD device. The automation level has reached to 80%.

07 MCB Automatic Workshop

It mainly produces Miniature Circuit Breakers. There are 11 automatic production lines and 4 U-shaped lean production lines. At present, the average monthly production capacity can reach about 5 million poles.
Equipped with automatic assembly, laser printing, riveting, Deltach test, terminal screw test, thermal calibration, cooling, thermal verification, automatic multi-pole assembly, magnetic test, on-off test and high voltage test, plasma arc cleaning, laser marking, pad printing, din clip fixing ,automatic packaging and other equipment, the automation level is over 90%.Through magnetic test, on-off test and high voltage test, to verify the response speed of the product and ensure that the power supply can be connected or disconnected stably. Adopt double-track automatic production line to improve production efficiency, add automatic tripping force measurement unit, conduct full inspection of products, and comprehensively monitor product quality.

08 RCCB Automatic Workshop

It mainly produces magnetic relay, electronic and electromagnetic Residual Current Circuit Breakers, plastic and metal type single-phase and three-phase Distribution Boxes, Photovoltaic Combiner Boxes and controlgear products.There are 4 automatic production lines and 4 U-shaped lean production lines. At present, the average monthly production capacity can reach about 400,000 poles.The key component of RCCB named magnetic relay is produced in a clean room of class one rating & temperature, humidity conditions are maintained within standard range.Equipped with magnetic relay workshop grinding machine, finished product workshop automatic demagnetization machine, automatic calibration bench, automatic on-off and HV test machine, magnetic relay automatic winding machine and other equipment, the detection automation level has reached 80%.

09 RCBO Automatic Workshop

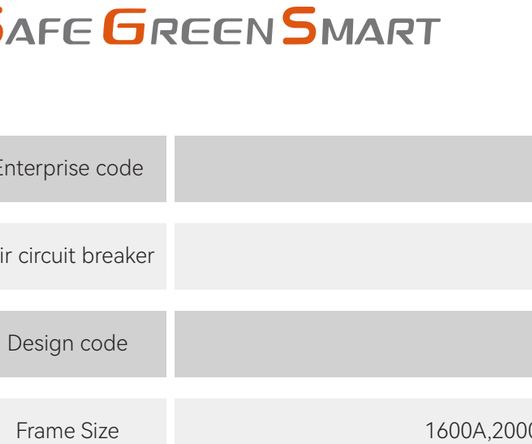
It mainly produces Residual Current Circuit Breaker with Over Current Protection with different variants such as 2P Electronic RCBO, DPN RCBO, 1P Electronic RCBO, multipole RCBO, electromagnetic type RCBO & Arc Fault Detection Device.There are 5 automatic production lines,2 semi-automatic production lines and 3 U-shaped lean assembly lines. At present, the average monthly production capacity can reach about 500,000 poles.Equipped with automatic riveting, Deltach test, terminal screw test, magnetic test, on-off test, high voltage test, leakage current detection, thermal calibration, cooling, thermal verification, plasma arc cleaning, laser marking, pad printing and automatic packaging and other equipment, the automation level is over 85%.

Enterprise code	MG
Air circuit breaker	W
Design code	6
Frame Size	1600A,2000A,3200A,4000A,6300A,7500A
Number of pole	3P,4P

MG	W	6	-	□	/	□

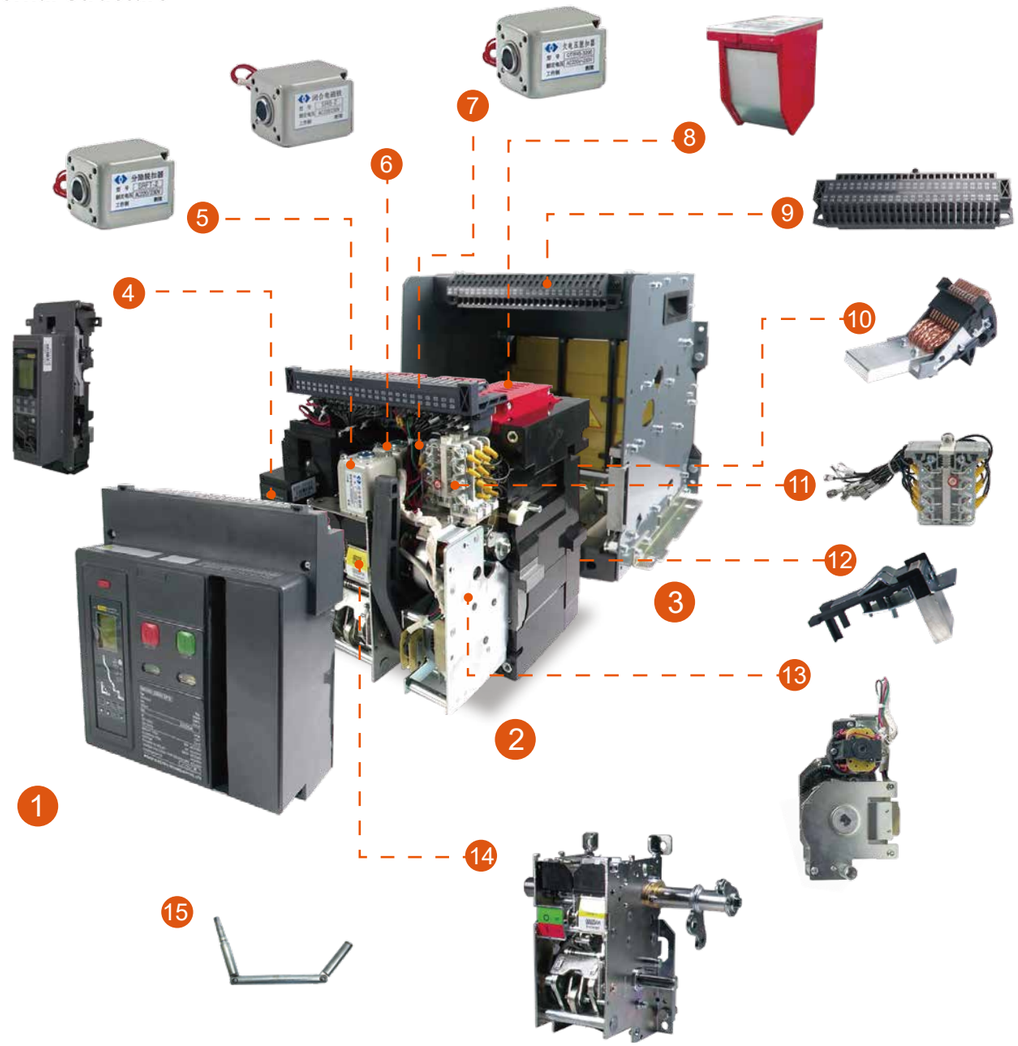
Synopsis Of Structure

■ External Structure



- Reset button/Fault tripping indication
- Breaking button
- Closing button
- Manual energy storage
- Energy storage/Energy release indication
- Breaking and closing indication
- Face
- Unlock button
- Nameplate
- Handle drive position
- Three position indication
- Handle storage position
- Intelligent controller

■ Internal Structure



DRAW-OUT CIRCUIT BREAKER				
1 Face	2 Body	3 Drawer base	4 Intelligent controller	5 Shunt release
6 Closing electromagnet	7 Under-voltage release	8 Arc chamber	9 Secondary terminals	10 Moving contact
11 Auxiliary switch	12 Fixed contact	13 Electric operating mechanism	14 Energy storage mechanism	15 Handle crank

Intelligent Controller

Characteristics			MGA6-2M	MGA6-3M	MGA6-3H
	Picture of product				
Rated current	Frame 1600	200,400,630,800,1000,1250,1600	O	O	O
	Frame 2000	630,800,1000,1250,1600,2000	O	O	O
	Frame 3200	1600,2000,2500,2900,3000,3200	O	O	O
	Frame 4000	2000,2500,2900,3000,3200,3600,4000	O	O	O
	Frame 6300	4000,5000,6300	O	O	O
	Frame 7500	5000,6300,7500	O	O	O
Auxiliary power supply voltage	220V AC		O	O	O
	380V AC		O	O	O
	90-300V DC		O	O	O
	50VAC (70V DC) ~480V AC (650V DC)		O	O	O
	AC200-AC450 universal use		O	O	O
	24V DC		O	O	O
	48V DC		O	O	O
	Other voltage can be customized		O	O	O
Human-computer interface	Display	LED current column	—	—	—
		Nixie+LED	√	—	—
		Segment LCD	—	—	—
	Operation	Chinese dot-matrix LCD+LED	—	√	√
		Button	√	√	√
		Rotary switch + button	—	—	—
	Language:Chinese/button		√	√	√
Communication functions	Modbus-RTU		—	—	√
	Profibus-DP		—	—	O
	HPLC (DL/T 645)		—	—	O
	wifi		—	—	O
	Device NET		—	—	O
	CAN		—	—	O
	Ethernet		—	—	O
	Profi NET		—	—	O
	IEC61850		—	—	O
	Bluetooth		—	—	O
	4G-LTE		—	—	O
Protection functions	Overload Long time delay (Ir) (Multiple curves are available)		√	√	√
	Short-circuit short time delay (Isd)		√	√	√
	Short-circuit instantaneous (Ii)		√	√	√
	Current unbalance protection		√	√	√
	Ground fault protection (Ig)	Residual ground fault protection / Zero sequence ground-fault protection	Residual ground fault protection by default	√	√	√
	Residual current protection (I△n)			O	O	O
	Neutral line overcurrent protection (3P+N, 4P)			O	O	O
	Overload pre-alarm			—	√	√
	Making Current Release (MCR)			O	√	√
	Out-of-limit tripping protection (HSISC)			O	√	√
	Overvoltage protection (Off by default)			—	√	√

Intelligent Controller

Characteristics			MGA6-2M	MGA6-3M	MGA6-3H
Protection functions	Undervoltage protection (Off by default)		—	√	√
	Voltage unbalance protection (Off by default)		—	√	√
	Overfrequency protection (Off by default)		—	√	√
	Underfrequency protection (Off by default)		—	√	√
	Phase-sequence protection (Off by default)		—	√	√
	Reverse power protection (Off by default)		—	√	√
	Required current protection (Off by default)		—	√	√
	Load monitoring		√	√	√
	Zone interlocking		O	O	O
	Voltage-checking protection		—	O	O
	Overload reopening		—	O	O
	Generatrix/contact temperature protection		—	O	O
	Time-phased required current protection		—	—	—
	Thermal memory		√	√	√
	Payment (payment reminder) management		—	O	O
Measurement functions	Current	Three-phase current, maximum of instantaneous value, unbalance rate	√	√	√
		Ground/leakage current	√	√	√
		Neutral current	O	O	O
	Voltage: Line voltage, Phase voltage,average voltage, unbalance rate		—	√	√
	Frequency		—	√	√
	Power: active power		—	√	√
	Power: reactive power, apparent power		—	√	√
	Power factor		—	√	√
	Electrical energy: active electrical energy, reactive electrical energy, apparent electrical energy		—	√	√
	Phase-sequence		—	√	√
	Waveform capture		—	√	√
	Harmonic measurement		—	O	O
	System clock		—	√	√
	Long time delay heat capacity		—	√	√
Maintenance functions	Self-test function: overtemperature of controller, memory fault, A/D sampling		√	√	√
	Test function		√	√	√
	Button lock function		—	√	√
	Replacement with electricity		—	—	—
	Remote reset		O	O	O
	I/O faultily tripping function		O	O	O
	Contact wear rate		—	√	√
	Historic records	Tripping records	√ 10 times	√ 10 times	√ 10 times
		Alarm records	—	√ 10 times	√ 10 times
		Replacement records	—	√ 10 times	√ 10 times
Contact output	Quad programmble contact output		O	O	√
Data interface	Hand-held programmer interface		O	—	—

Notice: “√” means basic function; “O” means optional function; “ ”means no such function

Ratings and Specifications

Frame Size			
Characteristics	**MGW6-1600**	**MGW6-2000**	**MGW6-3200**
Frame size rated current In(A)	1600	2000	3200
Number of poles	3,4		
Rated current In(A)	200,400,630,800, 1000,1250,1600	630,800,1000, 1250,1600,2000	1600,2000,2500, 2900,3000,3200
Rated voltage Ue(V)	50/60Hz AC 380V, 400V, 415V, 440V		
Insulation voltage Ui(V)	1000V		
Impulse withstand voltage Uimp(V)	12		
Rated current of N-pole In(A)	50%/100%In		

Ultimate breaking capacity Icu(kA)	380/400/415/440	66	80	100
Operation breaking capacity Ics(kA)	380/400/415/440	66	65	85
Short-time withstand current (1s) RMS Icw(kA)	380/400/415/440	55	65	85
Max total tripping time(ms) without time delay		12-18		
Closing time(ms)	60(max)			

Characteristics			**MGW6-1600**	**MGW6-2000**	**MGW6-3200**
Closing time(ms)	Electrical life		8000	8000	7000
	Mechanical life	Maintenance free	15000	15000	10000
		Maintenance required	30000	30000	20000
Connection mode			Horizontal		
Overall dimension H(height)XW(width)XL(thickness)		Fixed type 3P	310X263X199	402X366X298	402X428X297
		Fixed type 4P	310X333X199	402X461X298	402X543X297
		Drawout type 3P	345X275X297	433X405X389	433X466X396
		Drawout type 4P	345X345X297	433X500X389	433X581X396

Ratings and Specifications

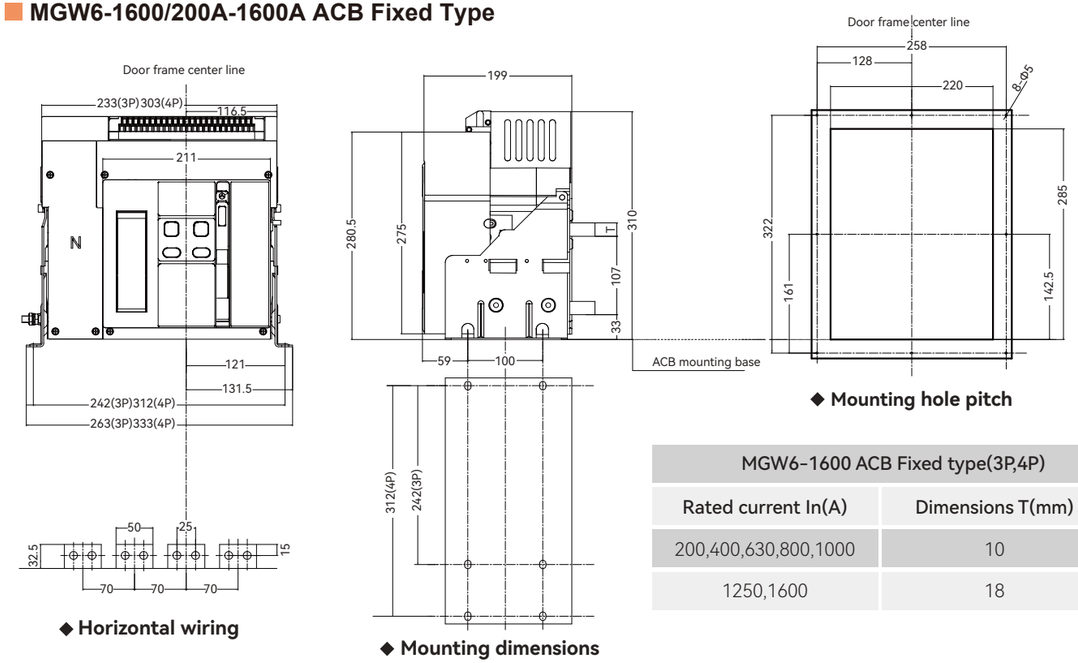
Frame Size			
Characteristics	**MGW6-4000**	**MGW6-6300**	**MGW6-7500**
Frame size rated current In(A)	4000	6300	7500
Number of poles	3,4		
Rated current In(A)	2000,2500,2900,3000, 3200,3600,4000	4000,5000,6300	5000,6300,7500
Rated voltage Ue(V)	50/60Hz AC 380V, 400V, 415V, 440V		
Insulation voltage Ui(V)	1000V		1250V
Impulse withstand voltage Uimp(V)	12		
Rated current of N-pole In(A)	50%/100%In		

Ultimate breaking capacity Icu(kA)	380/400/415/440	100	135/150	135/150
Operation breaking capacity Ics(kA)	380/400/415/440	100	135/150	135/150
Short-time withstand current (1s) RMS Icw(kA)	380/400/415/440	100	135/150	135/150
Max total tripping time(ms) without time delay		12-18		
Closing time(ms)	60(max)			

Characteristics			**MGW6-4000**	**MGW6-6300**	**MGW6-7500**
	Electrical life		6000	2500	2000
	Mechanical life	Maintenance free	10000	10000	8000
		Maintenance required	20000	15000	10000
Connection mode			Horizontal,Vertical	4000,5000A Horizontal,Vertical 6300A Vertical	Vertical
Overall dimension H(height)XW(width)XL(thickness)		Fixed type 3P	402X422X290.5	409.5X767X295	
		Fixed type 4P	402X537X290.5	409.5X997X295	
		Drawout type 3P	430X475X414.5	497X757X398	495X872X398
		Drawout type 4P	430X590X414.5	497X987X398	495X987X398

Overall and Mounting Dimensions MGW6-1600

MGW6-1600/200A-1600A ACB Fixed Type



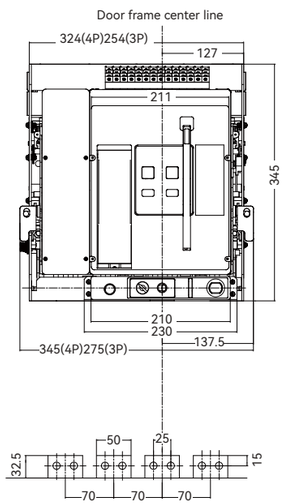
◆ Horizontal wiring

◆ Mounting dimensions

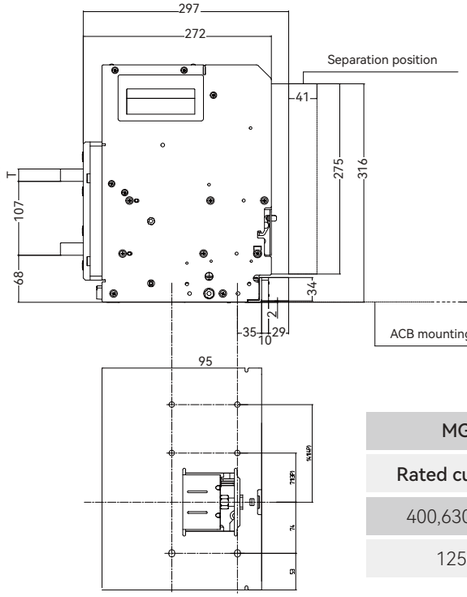
◆ Mounting hole pitch

MGW6-1600 ACB Fixed type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
200,400,630,800,1000	10
1250,1600	18

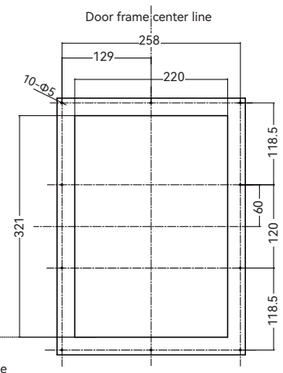
MGW6-1600/200A-1600A ACB Drawout Type



◆ Horizontal wiring



◆ Mounting dimensions

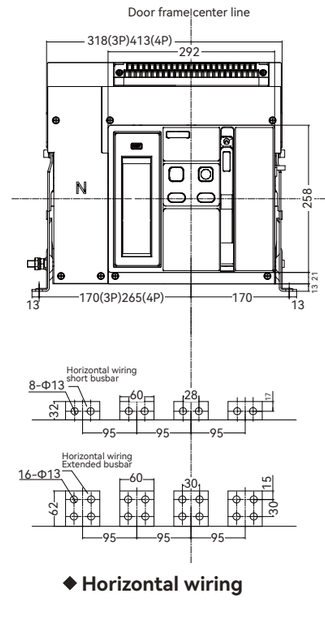


◆ Mounting hole pitch

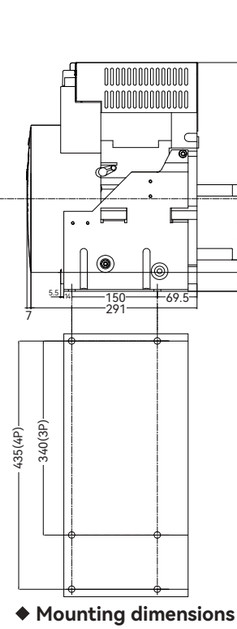
MGW6-1600 ACB Drawout type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
400,630,800,1000	10
1250,1600	18

Overall and Mounting Dimensions MGW6-2000

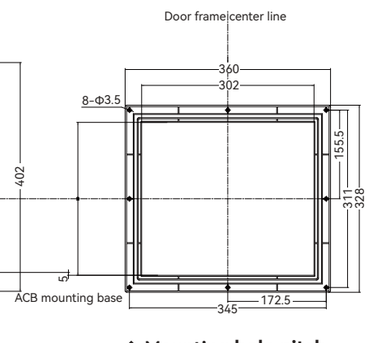
MGW6-2000/630A-2000A ACB Fixed Type



◆ Horizontal wiring



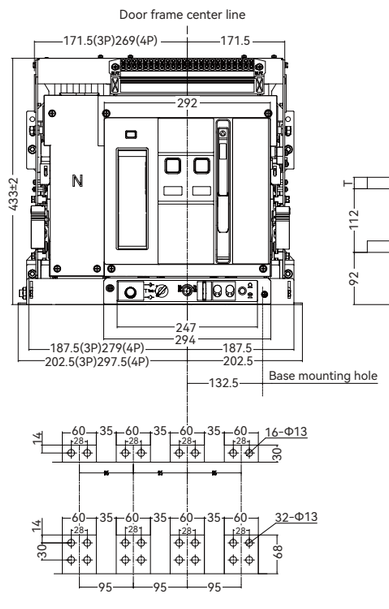
◆ Mounting dimensions



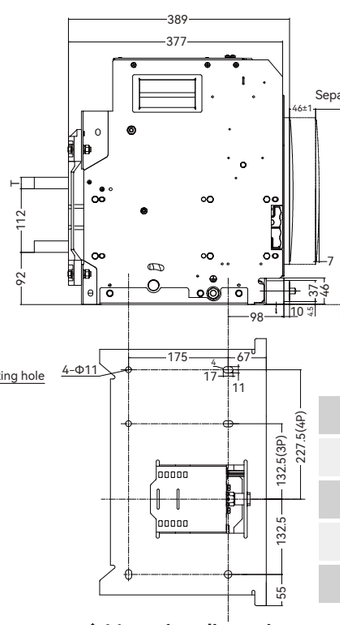
◆ Mounting hole pitch

MGW6-2000 ACB Fixed type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
630,800	10
1000,1250,1600	15
2000	20

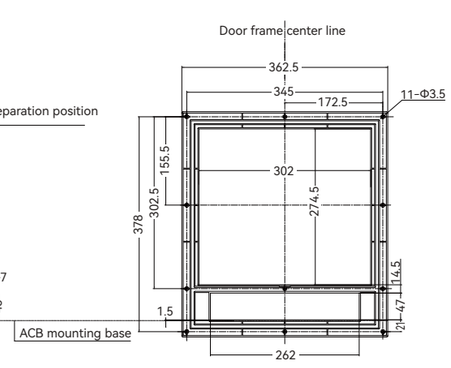
MGW6-2000/630A-2000A ACB Drawout Type



◆ Horizontal wiring



◆ Mounting dimensions

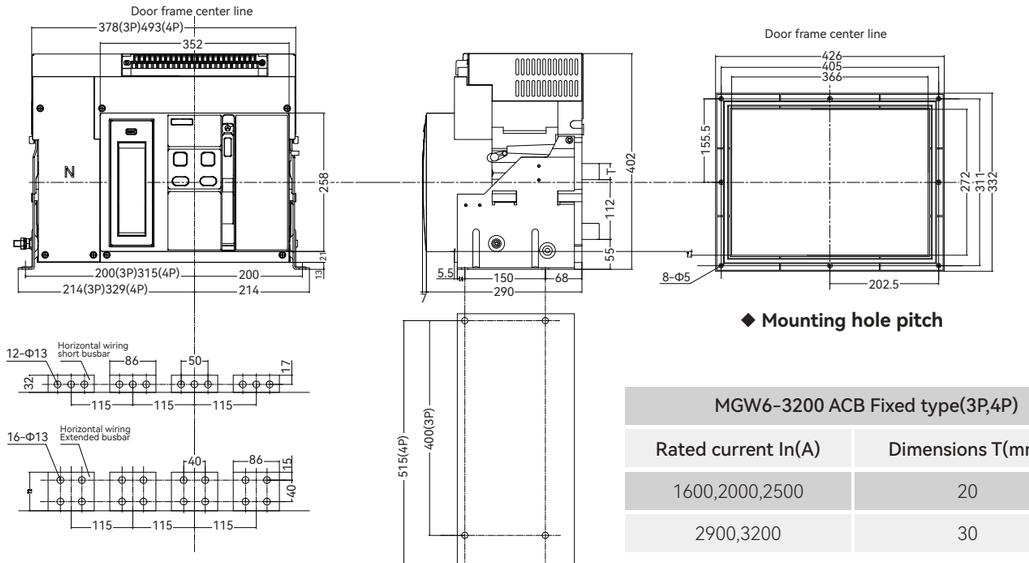


◆ Mounting hole pitch

MGW6-2000 ACB Drawout type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
400,630,800,1000	10
1000,1250,1600	15
2000	20

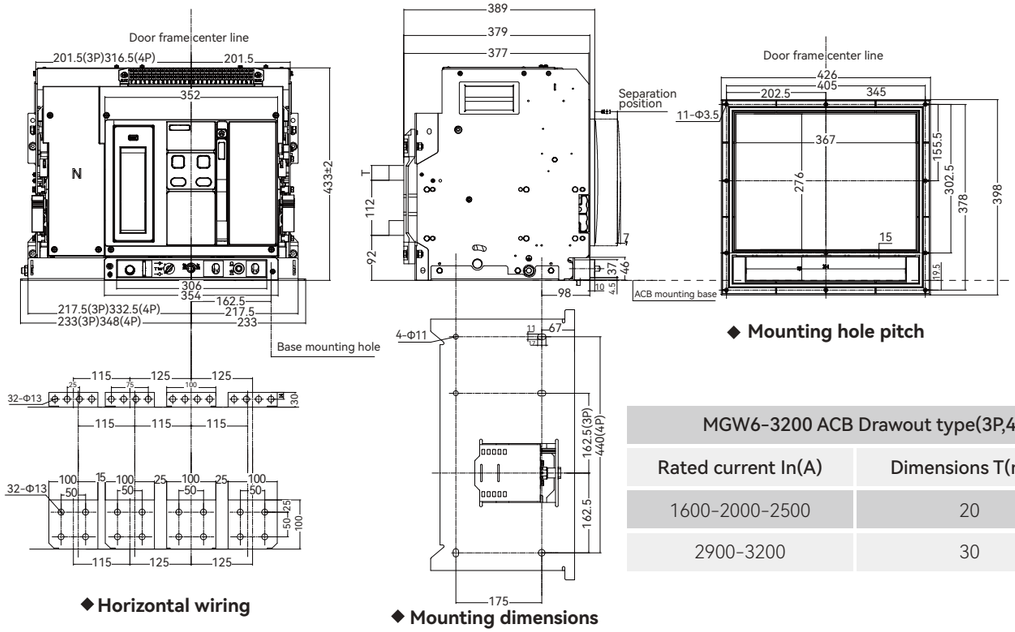
Overall and Mounting Dimensions MGW6-3200

MGW6-3200/2000A-3200A ACB Fixed Type



MGW6-3200 ACB Fixed type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
1600,2000,2500	20
2900,3200	30

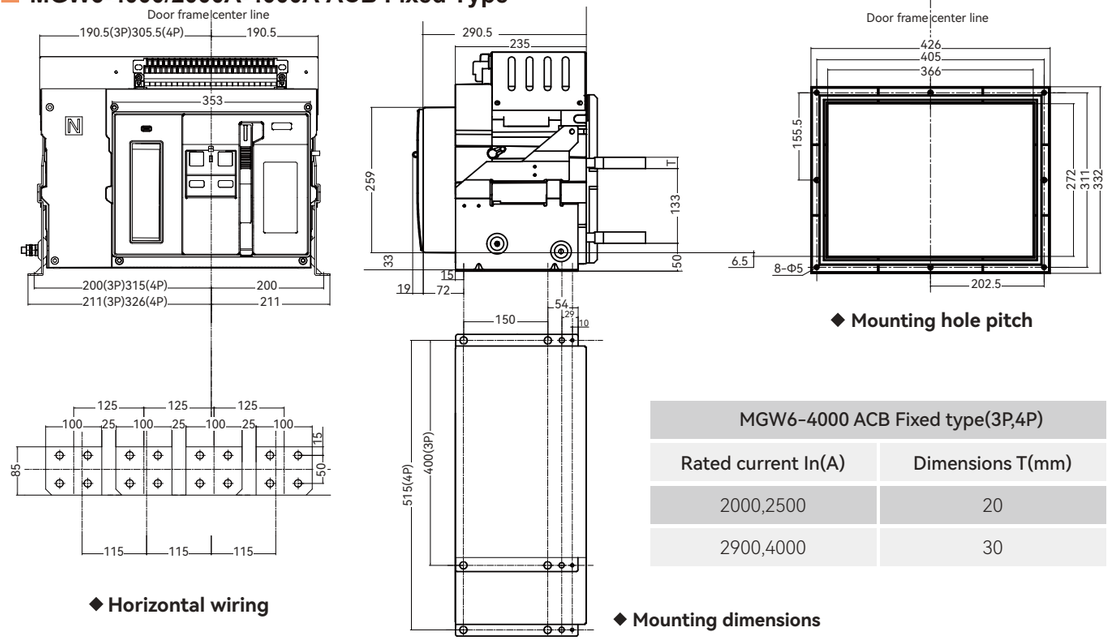
MGW6-3200/2000A-3200A ACB Drawout Type



MGW6-3200 ACB Drawout type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
1600-2000-2500	20
2900-3200	30

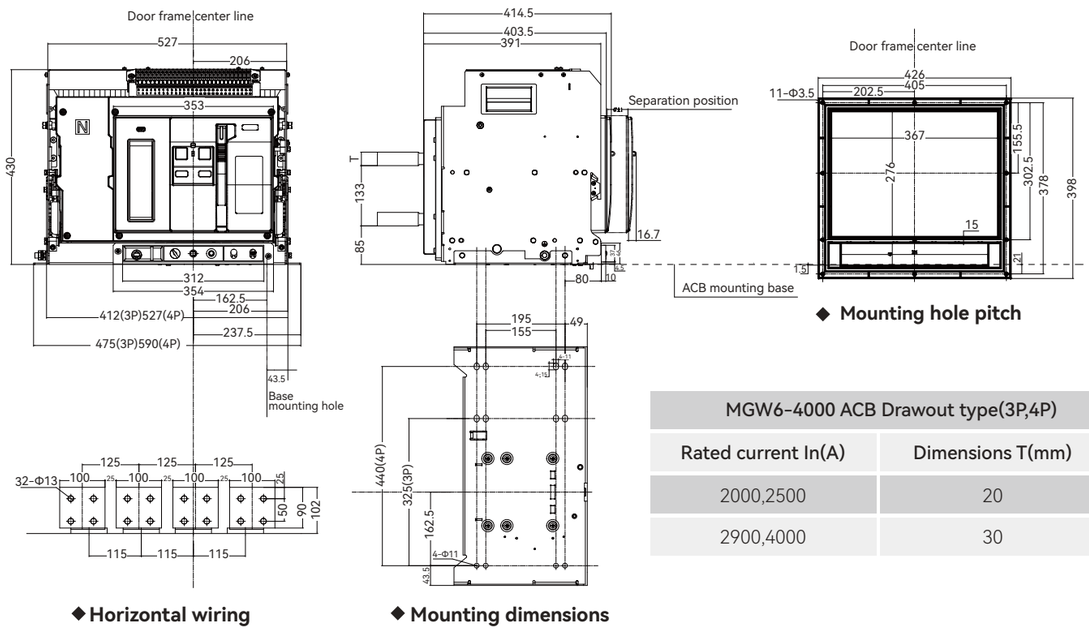
Overall and Mounting Dimensions MGW6-4000

MGW6-4000/2000A-4000A ACB Fixed Type



MGW6-4000 ACB Fixed type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
2000,2500	20
2900,4000	30

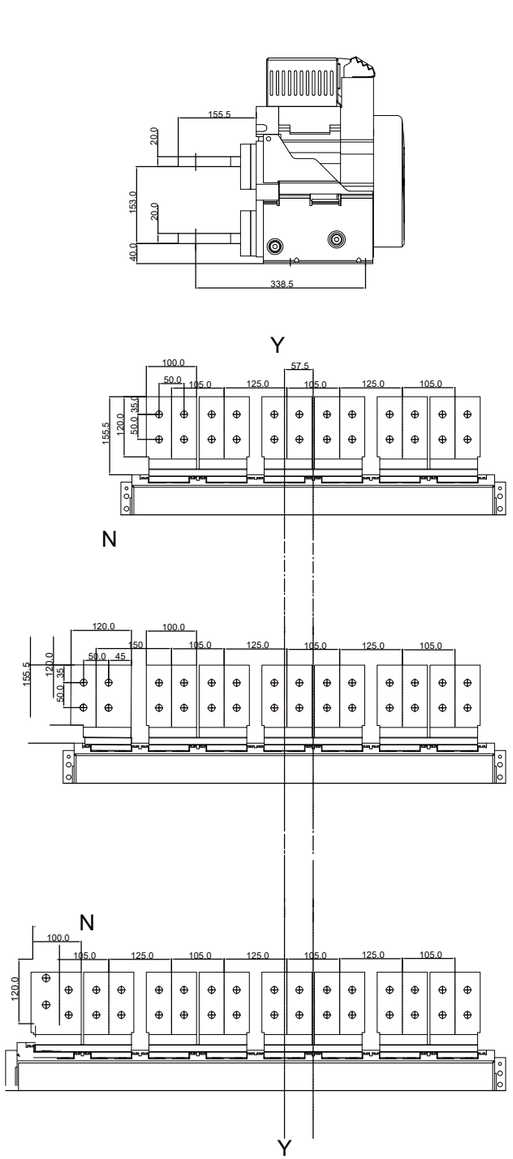
MGW6-4000/2000A-4000A ACB Drawout Type



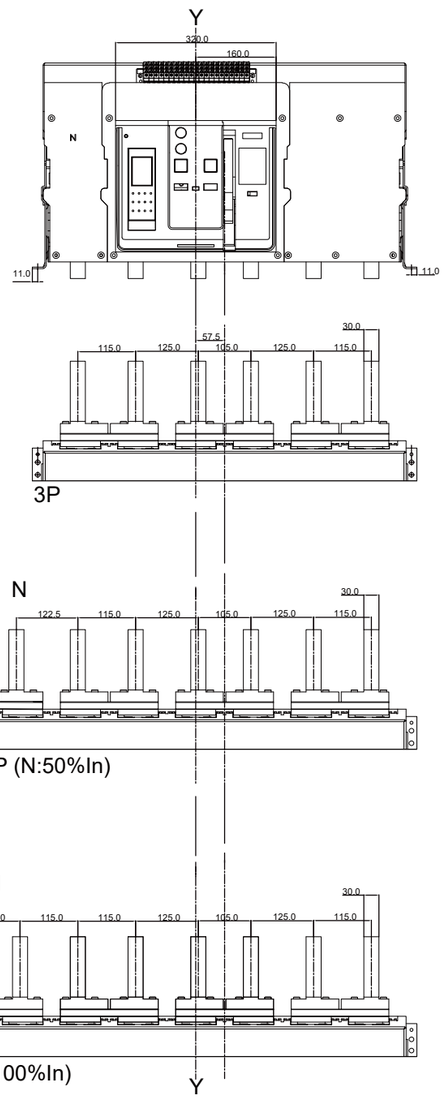
MGW6-4000 ACB Drawout type(3P,4P)	
Rated current In(A)	Dimensions T(mm)
2000,2500	20
2900,4000	30

MGW6 Series Overall and Mounting Dimensions

MGW6-6300/3 Poles-4 Poles ACB Fixed Type



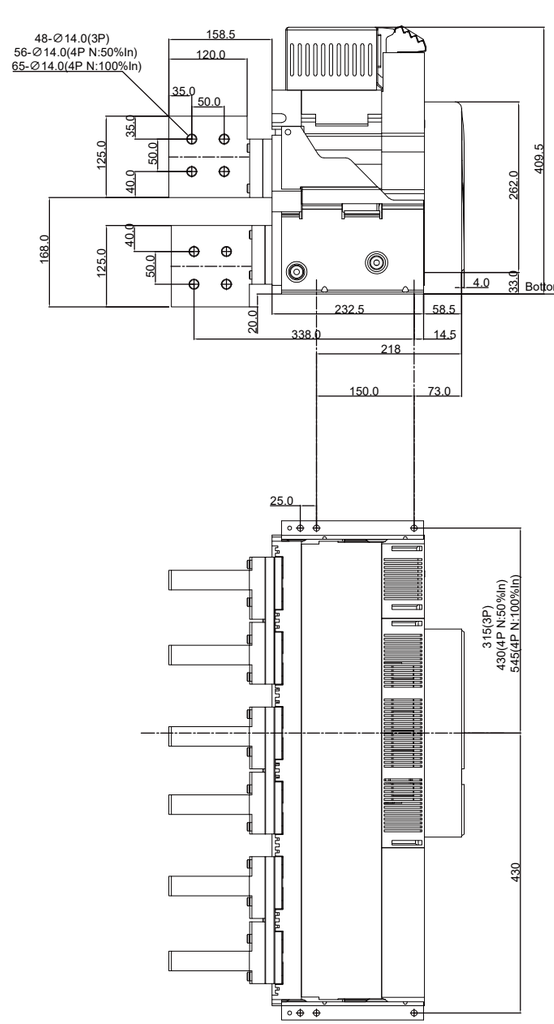
Y is the centre of the operating panel



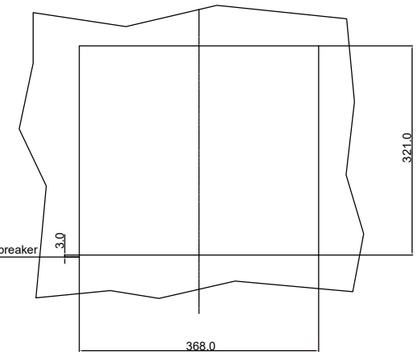
In=4000A 5000A Horizontal

MGW6 Series Overall and Mounting Dimensions

MGW6-6300/3 Poles-4 Poles ACB Fixed Type



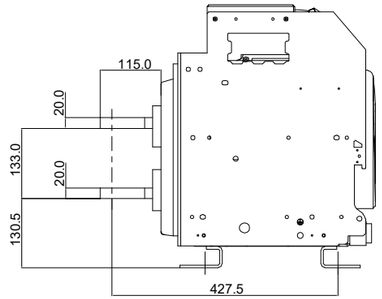
Installation dimensions of Door frame

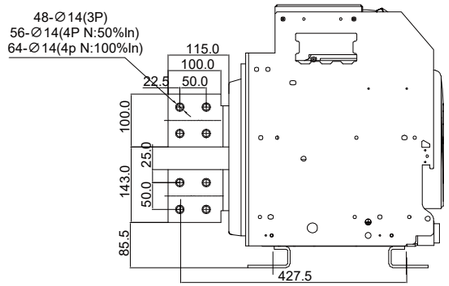


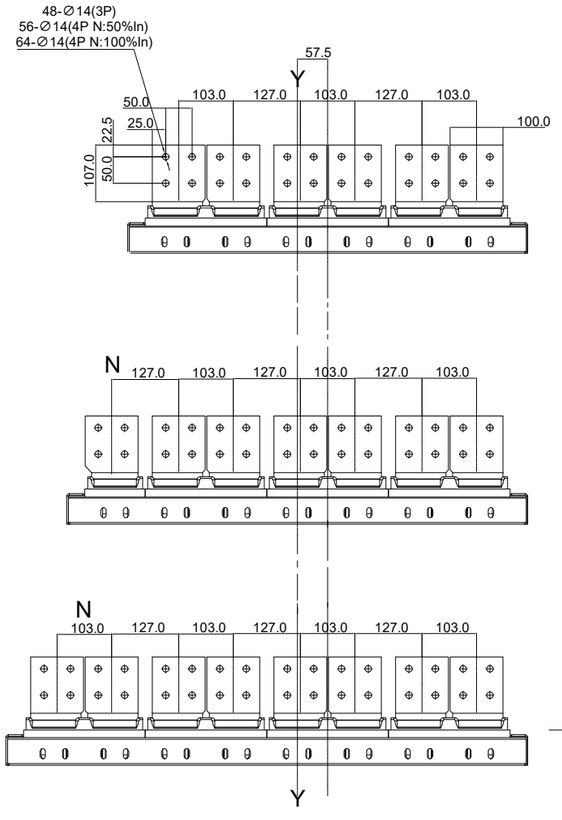
Y is the centre of the operating panel

MGW6 Series Overall and Mounting Dimensions

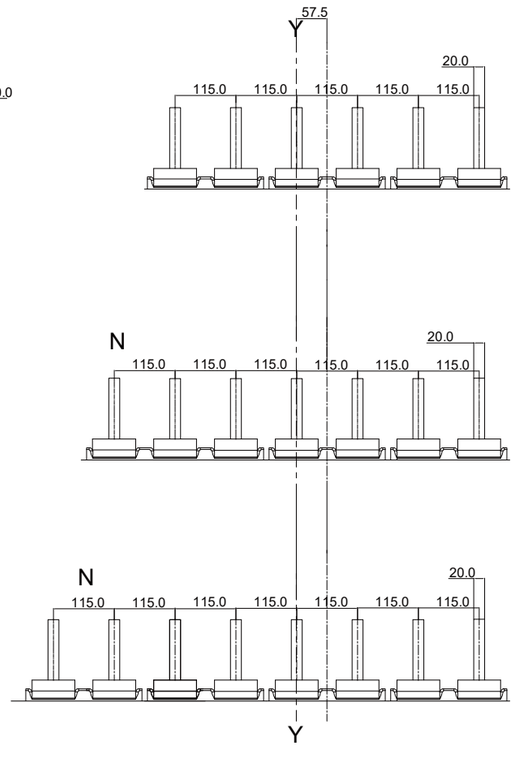
MGW6-6300/3 Poles-4 Poles ACB Drawout Type





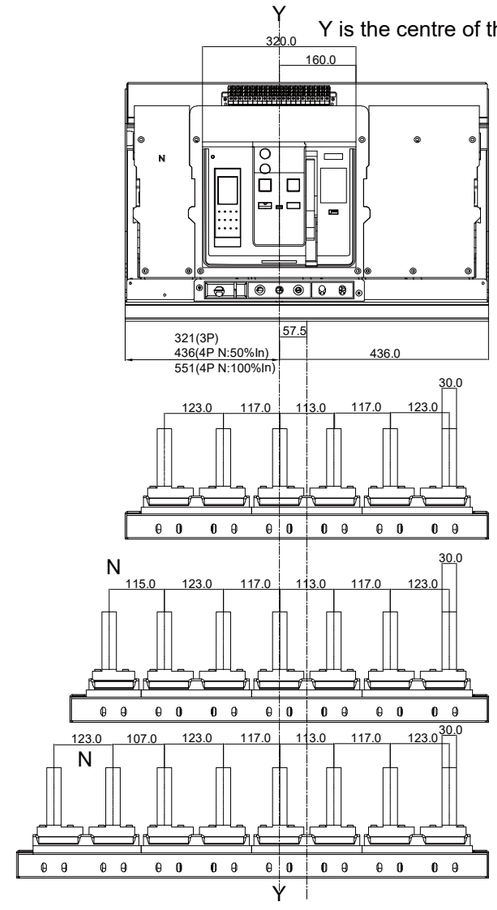


In=4000A 5000A

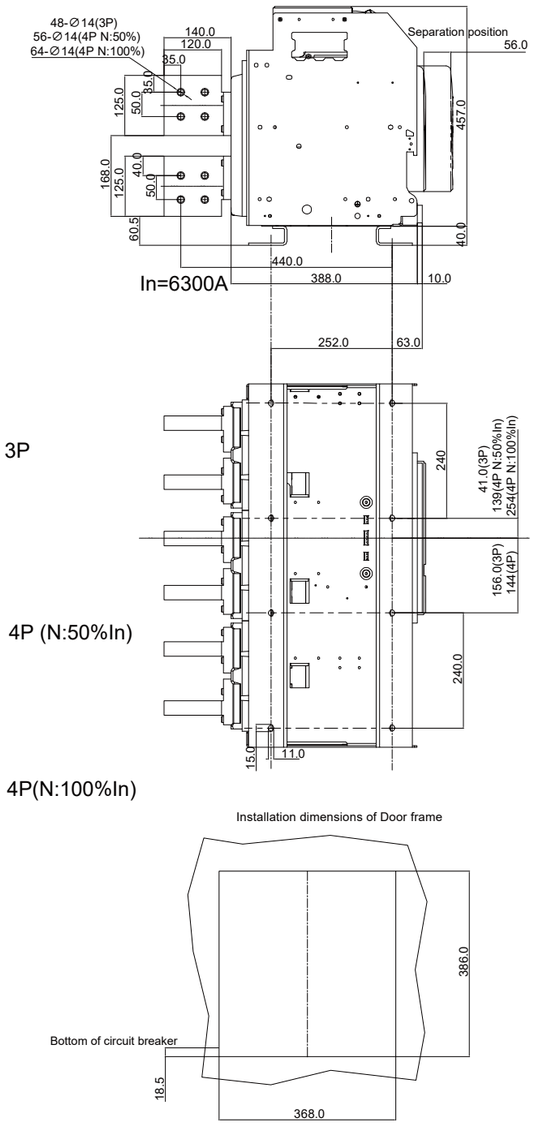


In=4000A 5000A

MGW6-6300/3 Poles-4 Poles ACB Drawout Type



In=6300A

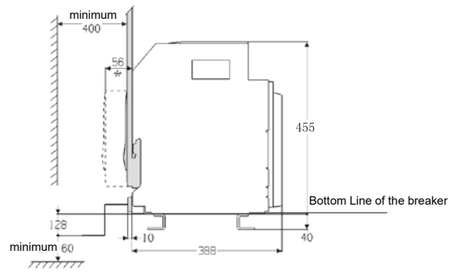


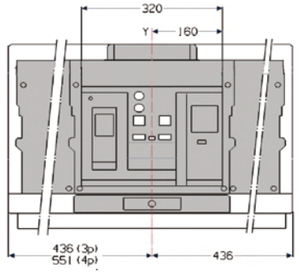
Y is the centre of the operating panel

MGW6 Series Overall and Mounting Dimensions

MGW6-7500/3 Poles-4 Poles ACB Drawout Type

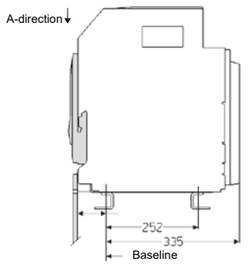
◆ Dimensions



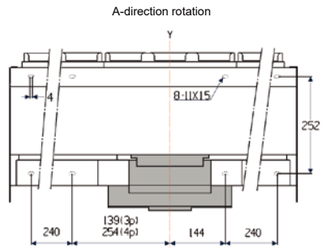


(*) indicates the separation position

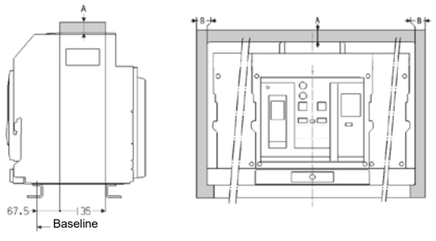
◆Mounting dimensions



A-direction

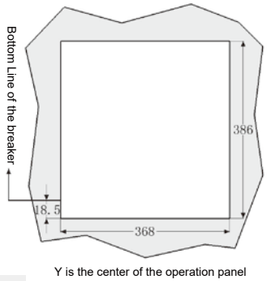


◆ Safety distance



	To insulator	To metal body	To live conductor
A	0	0	0
B	0	0	60

◆ Door frame installation dimensions



Y is the center of the operation panel

International certifications

ISO-9001

ISO-14001

ISO-45001

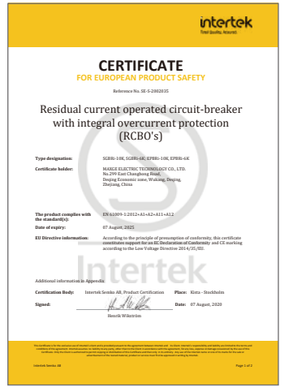
KEMA

KEMA

KEMA

SEMKO

SEMKO



SEMKO