



## A25 Series Power Circuit Breakers

### Product Overview

NOARK Electric is proud to offer its A25 family of Power Circuit Breakers, Non-Automatic Disconnect Switches, and accessories. Our A25 products are optimized for OEMs and are manufactured under world-class quality systems in our ISO accredited factories. Like all NOARK products, these breakers are designed to deliver high quality, superior performance, and outstanding value.

A25 Power Circuit Breakers are available up to 2500 amps and are capable of IC ratings up to 85kA at 847 Volts. UL Listed and CSA Certified, the A25 family of products provide design standardization for OEM's no matter where they do business. A25 breakers offer a broad range of available trip units, accessories, and communications options. They are the ideal OEM solution for low voltage switchgear and customized power distribution assemblies used in Data Centers, Standby Power, Industrial, Healthcare and Commercial applications.

#### Ratings

- 600A through 2500A
- IC ratings up to 85kA at 847V
- Short-Time Withstand, 100kA at 635V
- 50 or 60 HZ operation
- 3 Pole and 4 Pole designs
- 10,000 Operations, before maintenance (Mechanical)
- 6000 Operations, before maintenance (Electrical)
- Meets ANSI C37.13, C37.16, C37.17 and C37.50
- 100% rated for continuous operation at maximum current rating.

#### Approvals

- UL 1066, Low-Voltage AC and DC Power Circuit Breakers
- CSA C22.2 No. 31
- ANSI C37.13 Low Voltage Power Circuit Breakers
- ANSI C37.16 Low Voltage Power Circuit Breakers Ratings, Related Requirements and Applications
- ANSI C37.17 – IEEE Standard for Trip Systems
- ANSI C37.50 – Low Voltage AC Power Circuit Breakers, Test Procedure

#### Protection & Control Options

- LI, LSI, or LSI Protection
- Standard LED display
- Color LCD display available
- Optional multi-metering trip unit with total harmonic distortion analysis and waveform capture
- Stored energy operating mechanism
- AC and DC rated motor operator, shunt trip and undervoltage release accessories
- Arc Flash Reduction Maintenance Mode
- Zone Selective Interlocking
- RS-485 Modbus Communication available

#### Design Features

- UL/CSA field-installable accessories
- Rear horizontal or vertical connections
- Through-the-door design
- 3 Pole and 4 Pole designs
- OEM optimized Cassette
- Phase barriers (optional)
- Available as Disconnect Switch (ASD25)

## A25 Series Power Circuit Breakers Product Selection Guide

### A25/ASD25 Product Selection Guide

A	25	H	3	F	H	800
<b>NOARK UL 1066 Power Circuit Breakers</b>	<b>Frame Size</b>	<b>Interrupting/Short time withstanding Rating<sup>3</sup></b>	<b>Poles</b>	<b>Mounting Type</b>	<b>Terminal Connection</b>	<b>Rated Current</b>
A: Circuit Breaker ASD: Non-Auto Switch	25: 2500A	Q R H	3: 3 Poles 4: 4 Poles	F: Fixed D: Drawout <sup>3</sup>	H: Horizontal <sup>1</sup> V: Vertical	600: 600A 800: 800A 1200: 1200A 2000: 2000A 2500: 2500A <sup>4</sup>



### Cassette Product Selection Guide

CAS11	N	3	H	1600
<b>Cassette</b>	<b>Device Category</b>	<b>Poles</b>	<b>Terminal Connection</b>	<b>Rated Current</b>
CAS11	N: UL	3: 3 Poles 4: 4 Poles	H: Horizontal <sup>1</sup> V: Vertical	1200: 600A, 800A, 1200A 2000: 1600A, 2000A



1. Horizontal terminal connection only available up to 2000A frame.
2. 2500A Frame is only available in in fixed type mounting.
3. Interrupting/Short time withstanding ratings vary depending on voltage. Refer to specifications on page 4 for ratings.
4. 2500A only available with fixed frame & vertical terminal connectors only.

## A25 Series Power Circuit Breakers

### Ratings

Model: A25 Power Circuit Breakers			A25Q	A25R	A25H	ASD25Q	ASD25R	ASD25H
Poles			3P/4P					
Mounting Type			Fixed/Drawout					
Rated current (A)			Fixed: 600/800/1200/1600/2000/2500 Drawout: 600/800/1200/1600/2000					
Rated Maximum Voltage(V)			254/508/635/847					
Frequency (Hz)			50/60					
Interrupting rating at rated maximum voltage (kA)	254V	65	85	100	/	/	/	
	508V	65	85	100	/	/	/	
	635V	65	75	85	/	/	/	
	847V	65	75	85	/	/	/	
Short time withstand current (kA)	254V	65	75	85	65	75	85	
	508V	65	75	85	65	75	85	
	635V	65	75	85	65	75	85	
	847V	65	75	85	65	75	85	
Operating time (ms)	Open	≤30						
	Close	≤70						
Life cycle (time)	Mechanical	Without maintenance	10000	10000	10000	10000	10000	10000
	Electrical	Without maintenance 635V	600	600	600	600	600	600
		Without maintenance 847V	300	300	300	300	300	300
Overall dimensions H×W×D (in/mm)	Drawout	3P	18.11×14.06×16.93 (460×357×430)					
		4P	18.113×17.80×16.93 (460×452×430)					
	Fixed	3P	14.49×12.52×12.05 (368×318×306)					
		4P	14.49×16.26×12.05 (368×413×306)					
Enclosure dimensions H×W×D (in/mm)	Drawout	3P	20.87×17.72×18.31 (530×450×465) Ventilation Area Top:0mm <sup>2</sup> Bottom:0mm <sup>2</sup>					
		4P	20.87×21.46×18.31 (530×545×465) Ventilation Area Top:0mm <sup>2</sup> Bottom:0mm <sup>2</sup>					

## A25 Series Power Circuit Breakers

### Trip Unit Overview

A25 Trip Units offer the advanced electronic protection and control functionality required for power distribution and feeder protection in today's increasingly complex power systems. The A25 trip unit's purpose-built electronic circuits and microprocessors measure the breaker's electrical values against pre-set or user-selected parameters for overload, short circuit, current unbalance, over/under voltage, and over/under frequency. When required, a residual ground current transformer provides sensing for ground fault protection.

In addition to the standard LS, LSI and LSIG circuit protection functions, A25 trip units can offer advanced Digital Metering, Arc Flash Reduction Mode and Zone Selective Interlocking. Communications capability is available, ensuring that the trip unit's metered values and status can be transmitted to any required monitoring or control networks.



A25 Trip Units consist of three models, each providing different levels of control, display, diagnostics, and communications options, meeting the requirements of a wide range of end-use applications. Each model can be ordered in one of three protection configurations.

#### Models:

- Model M – LED display
- Model A – Color LCD display with a 3-phase ammeter
- Model H – Color LCD display with multi-metering and total harmonic distortion waveform capture

#### Protection Configurations:

- LI: Long Time-delay Overload, Instantaneous Short Circuit.
- LSI: Long Time-delay Overload, Short Time-delay Short Circuit, Instantaneous Short Circuit
- LSIG: Long Time-delay Overload, Short Time-delay Short Circuit, Instantaneous Short Circuit, Equipment Ground Fault

#### Features:

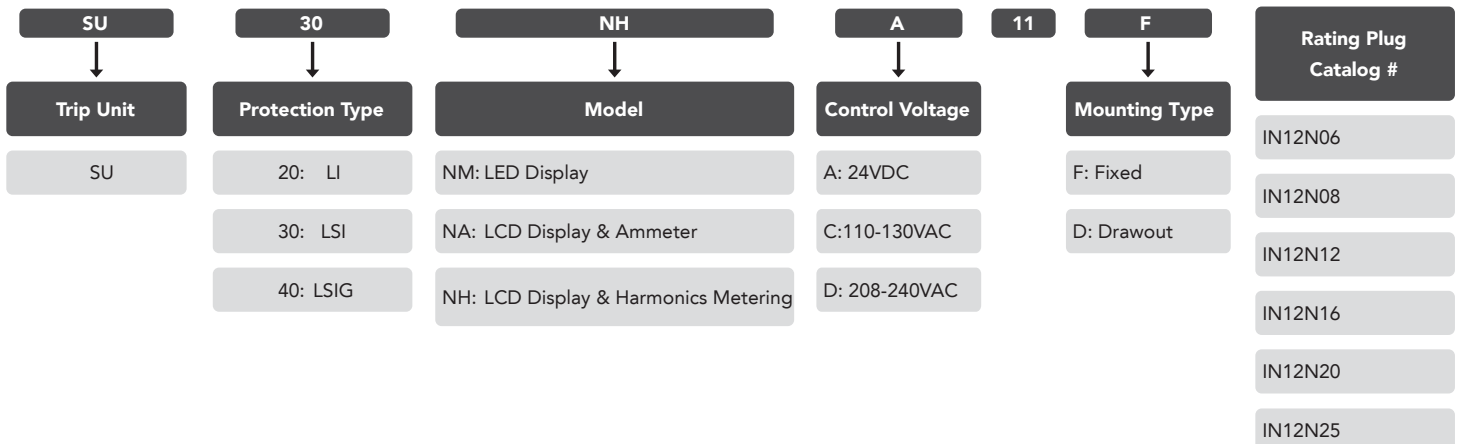
- Microprocessor based true rms sensing
- Discrete rotary trip setting dials
- Cause of trip LEDs
- Unit status LED
- Making / breaking protection (MCR)
- Ready-To-Close Indicator
- Available zone selective interlocking
- Available arc flash reduction mode
- Available RS-485 communications
- USB port for power & communication
- Service short circuit protection (HSISC)

## A25 Series Power Circuit Breakers Trip Unit Product Selection Guide

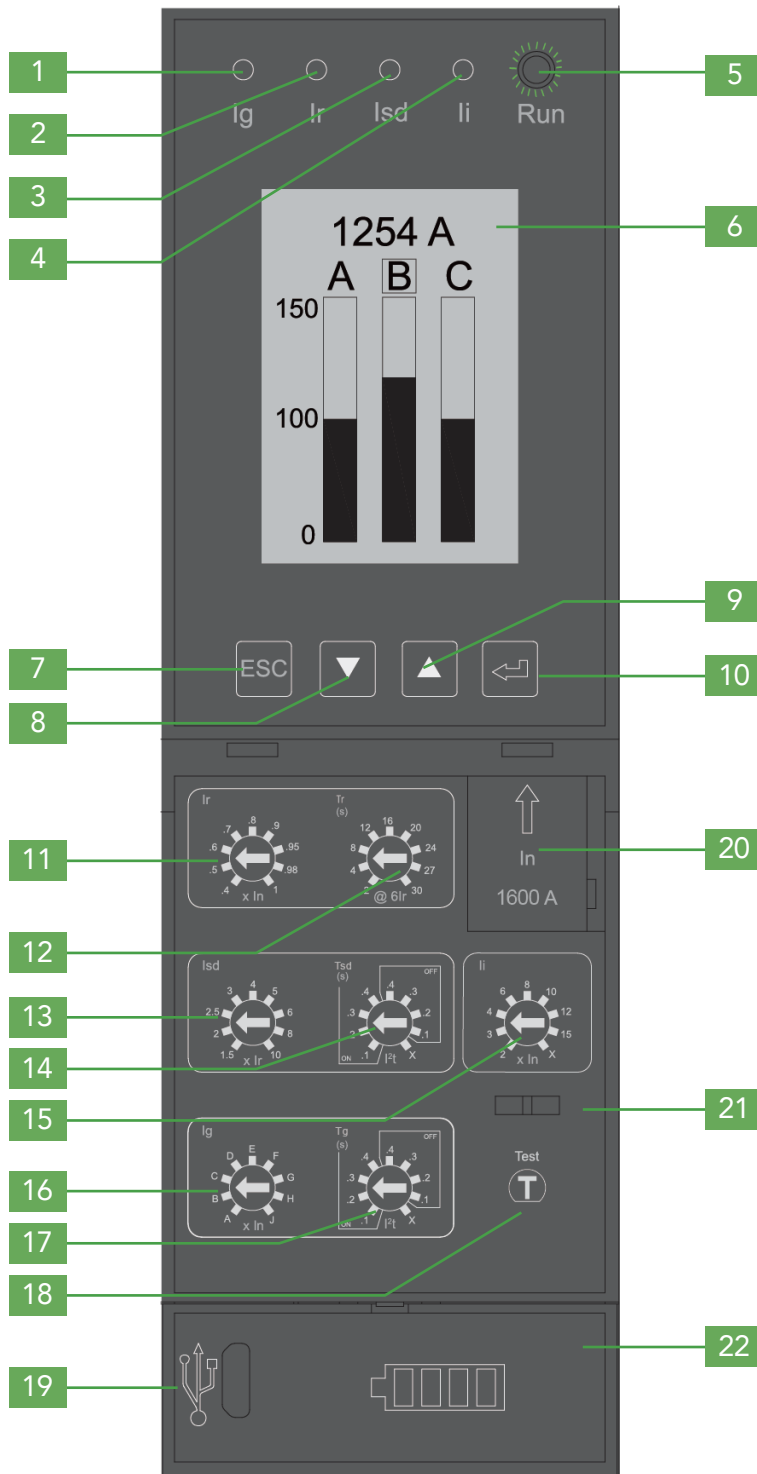
A25 Trip Unit Protection Features			
Type	Protection & Coordination	Setting	Setting Range
Series 2.0 (LI)	Long Delay (L)	Pickup	0.4 to 1.0 x In
		Time	2.0s to 30.0s
	Instantaneous (I)	Pickup	2.0 to 15.0 x @6Ir
Series 3.0 (LSI)	Long Delay (L)	Pickup	0.4 to 1.0 x In
		Time	2.0s to 30.0s
	Short Delay (S)	Pickup	1.5 to 10.0 x @6Ir
		Time	0.1s to 0.4s I <sup>2</sup> t or Definite Time
	Instantaneous (I)	Pickup	2.0 to 15.0 x In
Series 4.0 (LSIG)	Long Delay (L)	Long Delay Pickup	0.4 to 1.0 x In
		Long Delay Time	2.0s to 30.0s
	Short Delay (S)	Short Delay Pickup	1.5 to 10.0 x @6Ir
		Short Delay Time	0.1s to 0.4s I <sup>2</sup> t or Definite Time
	Instantaneous (I)	Instantaneous Pickup	2.0 to 15.0 x In
	Ground Fault (G)	Ground Fault Pickup	500A to 1200A
		Ground Fault Time	0.1s to 0.4s I <sup>2</sup> t or Definite Time

A25 Trip Unit Models Display Options									
Model	LED Trip Indicator	LCD Display	Alarm Indication	Phase Current Display	Arc Flash Maintenance Mode	Advanced Protection	Advanced Metering	Zone Selective Interlocking	RS485 Communications (Modbus)
M	Y	N	N	N	Y	N	N	N	N
A	Y	Y	Y	Y	Y	N	N	N	N
H	Y	Y	Y	Y	Y	Y	Y	Y	Y

## Trip Unit Product Selection Guide



## A25 Series Power Circuit Breakers Trip Unit Controls and Indicators Overview



### Indicators

- 1 LED cause of trip indicator (Ig)
- 2 LED cause of trip indicator (Ir)
- 3 LED cause of trip indicator (Isd)
- 4 LED cause of trip indicator (li)
- 5 Running LED indicator
- 6 Model A and Model H:  
Color LCD display with status indicator  
Green = Normal  
Yellow = Alarm  
Red = Trip  
Model M: Digital LED display

### Display Controls

- 7 Escape button ESC
- 8 Down selection button
- 9 Up selection button
- 10 Enter button

### Trip Setting Interface

- 11 Long time delay current setting (Ir)
- 12 Long time delay trip time setting (tr)
- 13 Short time delay current setting (Isd)
- 14 Short time delay trip time setting (tsd)
- 15 Instantaneous current setting (li)
- 16 Ground fault current setting (Ig)
- 17 Ground fault trip time setting (Tg)
- 18 Trip test button
- 19 USB port
- 20 Rating plug
- 21 Transparent cover lock hook
- 22 Battery

## A25 Series Power Circuit Breakers Trip Unit Selection Guide

Functions	Model M	Model A	Model H
<b>Protection functions</b>			
Long time	•	•	•
Overload pre-alarm	•	•	•
Short time	•	•	•
Instantaneous	•	•	•
Neutral (4-Pole only)	•	•	•
Ground-fault	•	•	•
Current unbalance	•	•	•
Voltage unbalance			•
Overvoltage protection			•
Undervoltage protection			•
Over-frequency			•
Under-frequency			•
Phase sequence			•
Reverse active power			•
Demand value			•
Total Harmonics Distortion			•
Thermal memory	•	•	•
<b>Measurement functions</b>			
Current	•	•	•
Voltage			•
Frequency			•
Power			•
Power factor			•
Ammeter and kilowatt hours			•
Average Demand			•
Total Harmonics Distortion			•
<b>Maintenance function</b>			
Trip records	•	•	•
Alarm records	•	•	•
Operations records	•	•	•
Contact wear records		•	•
Load monitoring			•
Zone Selective Interlocking			•
Arc reduction	•	•	•
Test Button	•	•	•
<b>Other functions</b>			
RS485 communication function			•
Digital input/output DI/DO			•
Real time clock		•	•
LED display	•		
Color LCD Display		•	•



## A25 Series Power Circuit Breakers Trip Unit Settings

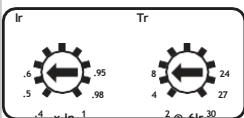
### Protection Functions and Settings

#### Long Delay protection (L)

Ir - Long Delay Pickup dial setting (multiples of In)	0.40	0.50	0.60	0.70	0.80	0.90	1.0	Tolerance = ±10%	
Tr - Long Delay Time dial setting (s)	2	4	8	12	16	20	24	27	30

#### Long Delay Trip Times (s)

t @1.2 x Ir	< 1h								
t @2.0 x Ir	18	36	72	108	114	180	216	243	270
t @6.0 x Ir	2	4	8	12	16	20	24	27	30



$$\text{Long time delay inverse time characteristics, } t = \frac{(6Ir)^2 \times Tr}{i^2}$$

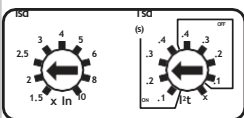
In = Rating plug value, Tr = Long time delay time, Ir = Long time delay current, i = Short circuit current Tolerance = ±40ms or ±10% whichever is greater

#### Short Delay protection (S)

I <sub>sd</sub> - Short Delay Pickup dial setting (multiples of In)	1.5	2	2.5	3	4	5	6	8	10	Tolerance = ±10%
T <sub>sd</sub> - Short Delay Time dial setting (s)	I <sup>2</sup> t ON				I <sup>2</sup> t OFF				X	Tolerance = ±40ms or ±10% whichever is greater
	0.1	0.2	0.3	0.4	0.4	0.3	0.2	0.1		

#### Short Delay Trip Times

Dial Range	Current Value	Trip Time (s)			
I <sup>2</sup> t OFF	< 0.9 x I <sub>sd</sub>	No Trip			
	> 1.1 x I <sub>sd</sub>	0.4	0.3	0.2	0.1
I <sup>2</sup> t ON	< 0.9 x I <sub>sd</sub>	No Trip			
	≥ 1.1 x I <sub>sd</sub> to ≥ 10 x I <sub>r</sub>	Inverse Time			
	> 10 x I <sub>r</sub>	0.1	0.2	0.3	0.4
X	Short Delay protection OFF				

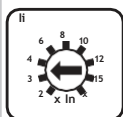


#### Instantaneous protection (I)

Instantaneous current I <sub>i</sub> pickup setting (multiples of I <sub>r</sub> )	2	3	4	6	8	10	12	15	X	Tolerance ±10%
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#### Instantaneous Trip Times

Dial Range	Current Value	Trip Time (s)
< 0.9 x I <sub>i</sub>		No Trip
≥ 1.1 x I <sub>i</sub>		Trip time ≥ 100ms
X	Instantaneous protection OFF	



## A25 Series Power Circuit Breakers Trip Unit Settings

### Protection Functions and Settings

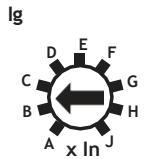
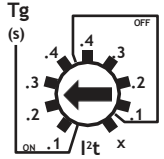
Ground Fault protection (G)

I<sub>g</sub> – Ground Fault Pickup dial setting

Dial Position	A	B	C	D	E	F	G	H	J	Tolerance = ±10%
400A < I <sub>n</sub> and ≤1200A	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
I <sub>n</sub> > 1200	500A	640A	720A	800A	880A	960A	1040A	1120A	1200A	

T <sub>g</sub> – Ground Fault Delay Time dial setting (s)	I <sup>2</sup> t ON					I <sup>2</sup> t OFF			X	Tolerance = ±40ms or ±10% whichever is greater
	0.1	0.2	0.3	0.4	0.4	0.3	0.2	0.1		

Ground Fault Trip Times

I <sub>g</sub>	Dial Range	Ground Current Value	Trip Time (s)				I <sub>n</sub> = Rating plug value I <sub>g</sub> = Ground Fault Pickup T <sub>g</sub> = Ground Fault Time Delay i <sub>g</sub> = Ground Current
		I <sup>2</sup> t OFF(s)	<0.9 x I <sub>g</sub>	No Trip			
>1.1 x I <sub>g</sub>			0.4	0.3	0.2	0.1	
	I <sup>2</sup> t ON (s)	<0.9 x I <sub>g</sub>	No Trip				
		≥1.1 x I <sub>g</sub> or (i <sub>g</sub> < I <sub>n</sub> and i <sub>g</sub> < 1200A)	$t = \frac{(1.0I_n)^2 \times T_g}{T_g i_g^2}$ or $t = \frac{(1200)^2 \times T_g}{i_g^2}$				
	X	Ground Fault protection OFF					

### Optional Settings – Model H Only

Function	Parameter	Min	Max	Step
Over Voltage	Pickup	100V	1200V	1V
	Pickup Delay	0.2s	60s	0.1s
	Drop Out	0.2I <sub>n</sub>	Pickup	1V
	Drop Out Delay	0.2s	60s	0.1s
Under Voltage	Pickup	100V	1200V	1V
	Pickup Delay	0.2s	60s	0.1s
	Drop Out	Pickup	Pickup~1200V	1V
	Drop Out Delay	0.2s	60s	0.1s
Voltage Unbalance	Pickup	2%	30%	1%
	Pickup Delay	0.2s	60s	0.1s
	Drop Out	2%	Pickup	1%
	Drop Out Delay	0.2s	60s	0.1s
Current Unbalance	Pickup	5%	60%	1%
	Pickup Delay	0.1s	40s	0.1s
	Drop Out	5%	Pickup	1%
	Drop Out Delay	10s	200s	1s

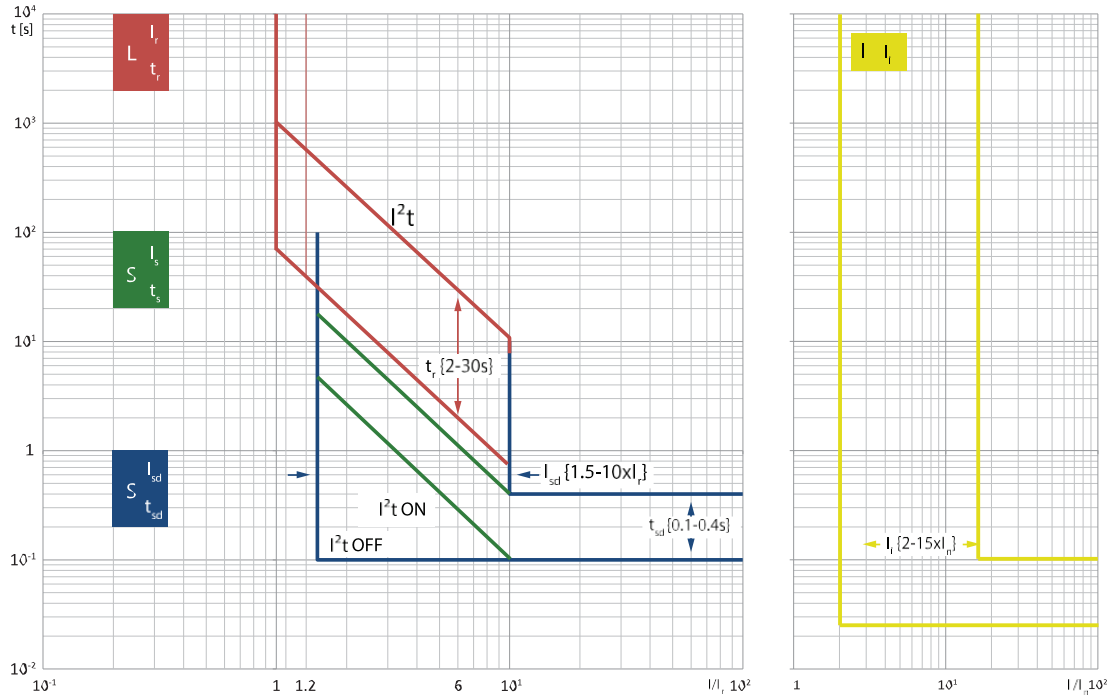
# A25 Series Power Circuit Breakers

## Trip Unit Settings

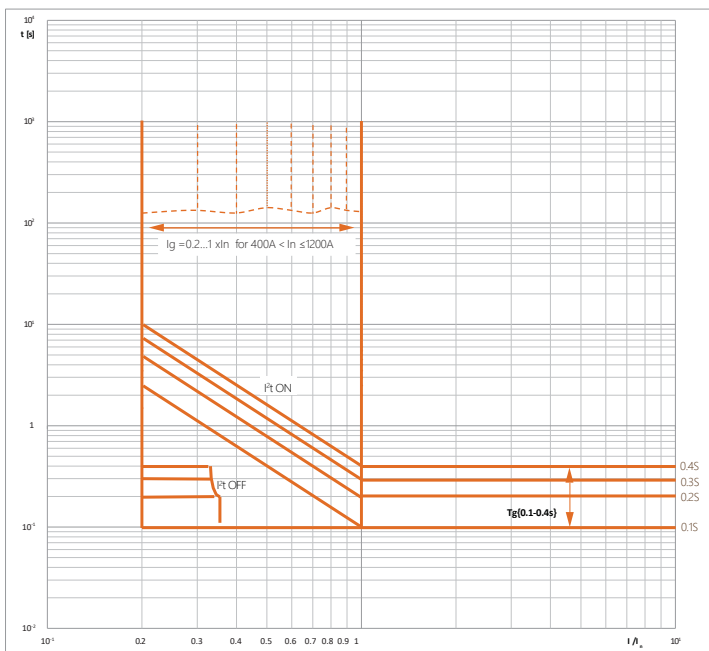
Optional Settings – Model H Only (continued)				
Function	Parameter	Min	Max	Step
Demand Unbalance	Pickup	0.2In	In	1A
	Pickup Delay	15s	1500s	1s
	Drop Out	0.2In	Pickup setting	1A
	Drop Out Delay	15s	3000s	1s
Total Harmonic Distortion (Current)	Pickup	8%	60%	0.5%
	Pickup Delay	1s	120s	1s
	Drop Out	8%	Pickup setting	0.5%
	Drop Out Delay	1s	120s	1s
Total Harmonic Distortion (Voltage)	Pickup	4%	10%	0.1%
	Pickup Delay	1s	120s	1s
	Drop Out	4%	Pickup setting	0.1%
	Drop Out Delay	1s	120s	1s
Load Shedding Method 1 (Control two branch loads independently)	Load 1 Pickup	0.2Ir	1.0Ir	1A
	Load 1 Pickup Delay	20%Tr	80%Tr	1%Tr
	Load 2 Pickup	0.2Ir	1.0Ir	1A
	Load 2 Pickup Delay	20%Tr	80%Tr	1%Tr
Load Shedding Method 2 (Control one branch load)	Pickup	0.2Ir	1.0Ir	1A
	Pickup Delay	20%Tr	80%Tr	1%Tr
	Drop Out	0.2Ir	Pickup setting	1A
	Drop Out Delay	10s	600s	1s
Under Frequency	Pickup	45Hz	65Hz	0.5Hz
	Pickup Delay	0.2s	5s	0.1s
	Drop Out	Start setting	65Hz	0.5Hz
	Drop Out Delay	0.2s	36s	0.1s
Over Frequency	Pickup	45Hz	65Hz	0.5Hz
	Pickup Delay	0.2s	5s	0.1s
	Drop Out	45Hz	65Hz	0.5Hz
	Drop Out Delay	0.2s	36s	0.1s
Reverse Active Power	Pickup	5KW	500KW	1V
	Pickup Delay	0.2s	20s	0.1s
	Drop Out	5KW	Pickup setting	1V
	Drop Out Delay	1s	36s	0.1s
Phase Sequence			Settings: ABC or ACB Instantaneous Trip	

## A25 Series Power Circuit Breakers Trip Curves

### Selective Protection LSI

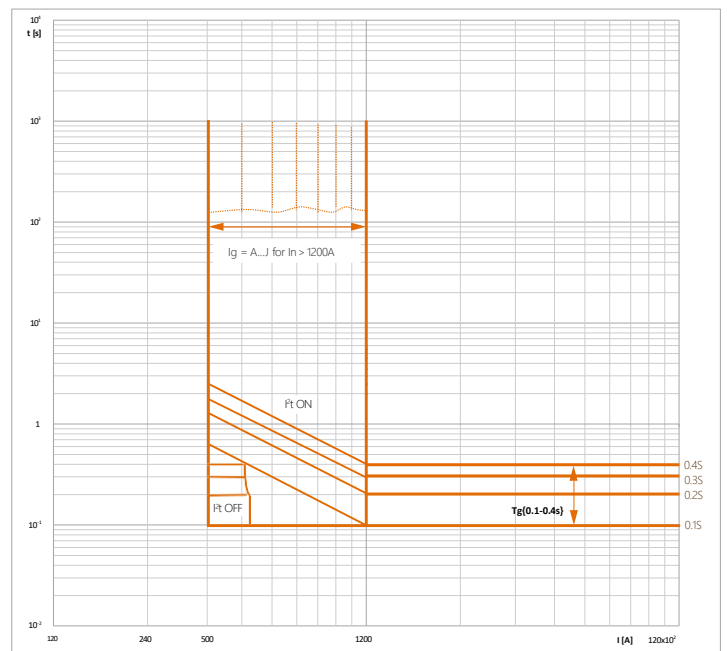


### Ground protection curve



( $400A < I_n \leq 1200A$ )

Setting range of G protection curve



( $I_n > 1200A$ )

Setting range of G protection curve

## A25 Series Power Circuit Breakers Accessories Product Overview

An extensive range of accessories are available for the A25 power (air) circuit breakers. Each accessory can be installed as an independent unit, making thanks to the modular architecture of the A25. This makes installation and maintenance fast and simple. for technicians.

- 1 Rear connection plate
- 2 Cassette
- 3 Position indicator
- 4 Ready to close contact
- 5 Auxiliary contact
- 6 Pushbutton lock device
- 7 OFF position key lock
- 8 Trip unit
- 9 Racking handle
- 10 Door frame
- 11 Motor Operator
- 12 Accessory Compartment  
Under-voltage release  
Shunt trip release  
Closing release
- 13 Mechanical interlocks with cables
- 14 Door interlocks for drawout type

## A25 Series Power Circuit Breakers Electrical Accessories Selection Guide

### Shunt Release

Opens the breaker instantaneously when the coil is energized by a voltage input.



#### Shunt Trip Release

Catalog Number	Part Number	Control Voltage	Inrush/Continuous Power Consumption (W or VA)	Field Installable	
				Operational Voltage Range (70-110%)	Operating time (ms)
SHT11NAF	1800983	24-30VDC	500 / 4.5	17~33Vdc	≤50ms
SHT11NBF	1800984	48-60VAC/DC	500 / 4.5	34~66Vac/dc	≤50ms
SHT11NCF	1800985	110-130VAC/DC	500 / 4.5	77~143Vac/dc	≤50ms
SHT11NDF	1800986	200-240VAC/DC	500 / 4.5	146~264Vac/dc	≤50ms
SHT11NEF	1800987	380-440VAC	500 / 4.5	266~484Vac	≤50ms
SHT11NAD	1800988	24-30VDC	500 / 4.5	17~33Vdc	≤50ms
SHT11NBD	1800989	48-60VAC/DC	500 / 4.5	34~66Vac/dc	≤50ms
SHT11NCD	1800990	110-130VAC/DC	500 / 4.5	77~143Vac/dc	≤50ms
SHT11NDD	1800991	200-240VAC/DC	500 / 4.5	146~264Vac/dc	≤50ms
SHT11NED	1800992	380-440VAC	500 / 4.5	266~484Vac	≤50ms

### Closing Release

Remotely closes the circuit breaker when the coil is energized by a voltage input.



#### Closing Release

Catalog Number	Part Number	Control Voltage	Inrush/Continuous Power Consumption (W or VA)	Field Installable	
				Operational Voltage Range (70-110%)	Operating time (ms)
XF11NAF	1800963	24-30VDC	500 / 4.5	17~33Vdc	≤50ms
XF11NBF	1800964	48-60VAC/DC	500 / 4.5	34~66Vac/dc	≤50ms
XF11NCF	1800965	110-130VAC/DC	500 / 4.5	77~143Vac/dc	50ms
XF11NDF	1800966	200-240VAC/DC	500 / 4.5	146~264Vac/dc	≤50ms
XF11NEF	1800967	380-440VAC	500 / 4.5	266~484Vac	≤50ms
XF11NAD	1800968	24-30VDC	500 / 4.5	17~33Vdc	≤50ms
XF11NBD	1800969	48-60VAC/DC	500 / 4.5	34~66Vac/dc	≤50ms
XF11NCD	1800970	110-130VAC/DC	500 / 4.5	77~143Vac/dc	≤50ms
XF11NDD	1800971	200-240VAC/DC	500 / 4.5	146~264Vac/dc	≤50ms
XF11NED	1800972	380-440VAC	500 / 4.5	266~484Vac	≤50ms

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### Undervoltage Release

Opens the breaker when the supply voltage falls to 30–60% of rated voltage. If the release is not energized to 85% of its supply voltage, the circuit breaker cannot be closed electrically or manually.



#### Undervoltage Release

Catalog Number	Part Number	Control Voltage	Inrush/Continuous Power Consumption (W or VA)	Field Installable		
				Operational Voltage Range (85-110%)	Dropout Voltage (30-60%)	Operating time (ms)
UVT11NAF	1801003	24-30VDC	500 / 4.5	20~33Vdc	7-14 Vdc	≤70ms
UVT11NBF	1801004	48-60VAC/DC	500 / 4.5	41~66Vac/dc	14- 29 Vdc	≤70ms
UVT11NCF	1801005	110-130VAC/DC	500 / 4.5	94~143Vac/dc	33-78 Vac/Vdc	≤70ms
UVT11NDF	1801006	200-240VAC/DC	500 / 4.5	170~264Vac/dc	60-144 Vac/Vdc	≤70ms
UVT11NEF	1801007	380-440VAC	500 / 4.5	323~484Vac	114- 264 Vac	≤70ms
UVT11NAD	1801008	24-30VDC	500 / 4.5	20~33Vdc	7-14 Vdc	≤70ms
UVT11NBD	1801009	48-60VAC/DC	500 / 4.5	41~66Vac/dc	14- 29 Vdc	≤70ms
UVT11NCD	1801010	110-130VAC/DC	500 / 4.5	94~143Vac/dc	33-78 Vac/Vdc	≤70ms
UVT11NDD	1801011	200-240VAC/DC	500 / 4.5	170~264Vac/dc	60-144 Vac/Vdc	≤70ms
UVT11NED	1801012	380-440VAC	500 / 4.5	323~484Vac	114- 264 Vac	≤70ms

## A25 Series Power Circuit Breakers Electrical Accessories Selection Guide

### Auxiliary Contact

Monitors ON/OFF status of the circuit breaker or non-automatic switch and provides contacts to electrically indicate its position remotely.

Contact configuration:

44: 4NO and 4NC; 66: 6NO and 6NC;

44C: 4 Form C; 66C: 6 Form C



### Auxiliary Contact

### Field Installable

Frame Size	Breaker/ Switch	Contacts	Catalog Number	Part Number
A25/ASD25	Fixed	4NO+4NC	AX11NF44	1801021
		6NO+6NC	AX11NF66	1801022
		4NO/NC	AX11NF44C	1801023
		6NO/NC	AX11NF66C	1801024
	Drawout	4NO+4NC	AX11ND44	1801025
		6NO+6NC	AX11ND66	1801026
		4NO/NC	AX11ND44C	1801027
		6NO/NC	AX11ND66C	1801028

	Voltage (V)	Rated Current (A)
AC	240	5
	480	2
DC	110	0.25
	220	0.25

### Position Indicator

Indicates the position of the breaker - connected, testing, disconnected. For drawout type devices only. 3 CO Form C contacts, one contact for each breaker position.

Connected to secondary terminals #58, 59, 60 (Connected), #61, 62, 63 (Test), #64, 65, 66 (Disconnected). Factory installed only. - in the scope of delivery there are additional secondary terminals #58-66



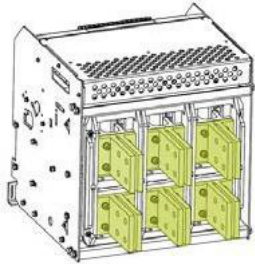
### Position Indicator

### Field Installable

Frame Size	Catalog Number	Part Number
A25/ASD25	+EF11N	1801030

## A25 Series Power Circuit Breakers Electrical Accessories Selection Guide

### Rear Terminal Connectors Rear Connection Plate



Rear Connection Plate			Field Installable		
Frame Size	Poles	Breaker/ Switch	Rated Current	Catalog Number	Part Number
A25/ASD25	3P	Fixed type	600A/800A/1200A	RCP11N3F1200	1801065
		Fixed type	1600A/2000A	RCP11N3F2000	1801066
		Fixed type	2500A	RCP11N3F2500	1801067
		Drawout type	600A/800A/1200A	RCP11N3D1200	1801068
		Drawout type	1600A/2000A	RCP11N3D2000	1801069
	4P	Fixed type	600A/800A/1200A	RCP11N4F1200	1801070
		Fixed type	1600A/2000A	RCP11N4F2000	1801071
		Fixed type	2500A	RCP11N4F2500	1801072
		Drawout type	600A/800A/1200A	RCP11N4D1200	1801073
		Drawout type	1600A/2000A	RCP11N4D2000	1801074

Note: This item is included with every new A25 Breaker. Renewal part only.

### Motor Operator

Charges the closing spring of mechanism when the circuit breaker is closed. Factory installed only. Mechanical charging handle can be used with or without power supply. Equipped with a limit switch contact signals that spring is charged.



Catalog Number	Part Number	Control Voltage	Inrush/Continuous Power Consumption (W or VA)	Operational Voltage Range (85-110%)	Charging time (s)
MD11NAF	1801041	24-30VDC	800 / 200	20~33Vdc	≤4s
MD11NBF	1801042	48-60VAC/DC	1200 / 200	41~66Vdc	≤4s
MD11NCF	1801043	110-130VAC/DC	1800 / 180	94~143Vac/dc	≤4s
MD11NDF	1801044	200-240VAC/DC	1800 / 180	170-264Vac/dc	≤4s
MD11NEF	1801045	380-440VAC	1800 / 180	170-264Vac/dc	≤4s
MD11NAD	1801046	24-30VDC	800 / 200	20~33Vdc	≤4s
MD11NBD	1801047	48-60VAC/DC	1200 / 200	41~66Vdc	≤4s
MD11NCD	1801048	110-130VAC/DC	1800 / 180	94~143Vac/dc	≤4s
MD11NDD	1801049	200-240VAC/DC	1800 / 180	170-264Vac/dc	≤4s
MD11NED	1801050	380-440VAC	1800 / 180	323-484Vac	≤4s

### Ready To Close Contact

This device is intended to be installed in A25 series power circuit breaker depending on customer's requirements. It is used to indicate whether the operating mechanism can be closed.



Frame Size	Breaker/Switch	Catalog Number	Part Number
A25/ASD25	Fixed Type	PF11NF	1801053
	Drawout Type	PF11ND	1801054



## A25 Series Power Circuit Breakers Electrical Accessories Selection Guide

### OFF Position Keylock Operated Lock

For A25 Power circuit breaker and ASD25 Non-automatic switch. Blocks Locks the breaker in the OFF position to ensure the breaker can not be closed. One circuit breaker is provided with one lock and one key. Two circuit breakers are provided with two locks and one key. Three circuit breakers are provided with three locks and two keys.



#### Off Position Keylock

#### Field Installable

Frame Size	Configuration	Catalog Number	Part Number
A25/ASD25	1 lock 1 key	KLK12N1	1800319
	2 locks 1 key	KLK12N2	1800320
	3 locks 2 keys	KLK12N3	1800321

### External current transformer for Neutral

An external transformer for N-pole protection of three-pole circuit breakers in four-wire network, installed on the neutral conductor, the current transformer enables measurement and protection of the neutral conductor.



Frame Size	Catalog Number	Part Number
A25/ASD25	+NCT11N	1801077

Note: External neutral protection for three-pole breaker only.

### Energy-limiting maintenance switch

ELM10 is used to mitigate arc hazards and protect personal safety during product maintenance. It should be used in coordination with Power Circuit Breakers with arc reduction. While the Energy limiting function can be set and turned on in all trip unit models (M, A & H), the ELM10 is programmable only with the Harmonic 'H' version trip unit and the applicable software should be 0.91 or higher.



Description	ELM10
Ambient temp (°C)	-20°C+70°C
Pollution class	Class 3
Installation category	II
Rated voltage Ue(V)	AC480V/DC24
Rated frequency (Hz)	50/60
Enclosure protection class	IP40
Electrical/mechanical endurance(times)	1500

Frame Size	Catalog Number	Part Number
A25/ASD25	ELM10	1800448

## A25 Series Power Circuit Breakers Mechanical Accessories Selection Guide

### Door Frame IP40 Protection



#### IP40 Door Frame Doorframes for Fixed Type

Field Installable

Frame Size	Breaker/ Switch	Catalog Number	Part Number
A25/ASD25	Fixed	CDP11N	1800439
	Drawout	DDP11N	1801060

Note: This item is included with every new A25 Breaker. Renewal part only.

### Pushbutton Locking Cover

Prevents access to the control push buttons of the breaker. Factory installed only. Lock is not included



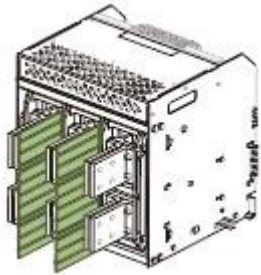
#### Pushbutton Locking Cover

Factory Installable

Frame Size	Catalog Number	Part Number
A25/ASD25	+VBP12N	1800314

### Phase Barrier

Provides improved isolation between the terminal connectors on the back of the breaker or cassette.  
3 Pole or 4 Pole kit.



#### Phase Barrier

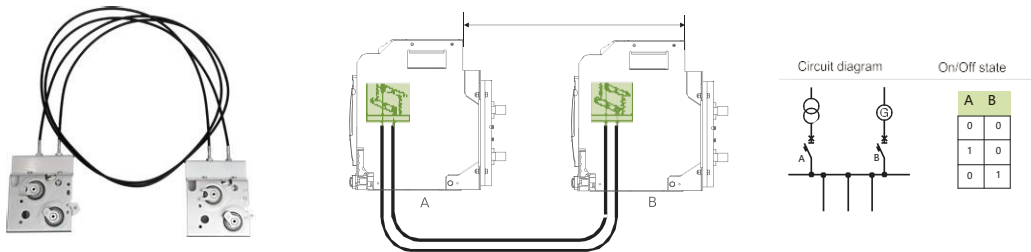
Field Installable Only

Frame Size	Breaker/ Switch	Quantity	Catalog Number	Part Number
A25/ASD25	Fixed	2 pcs for 3 poles	PHS12N2	1800334
	Fixed	3 pcs for 4 poles	PHS12N3	1800335
	Drawout	2 pcs for 3 poles	DPS12N2	1800336
	Drawout	3 pcs for 4 poles	DPS12N3	1800337

## A25 Series Power Circuit Breakers Mechanical Accessories Selection Guide

### Mechanical Interlocking With Cables

Cable-connected mechanical interlock mechanism that is used to prevent two interlocked breakers from closing at the same time. interlocking of 2 or 3 (in preparation) breakers. Cable length for Maximum distance between mounting positions of the interlocks is 78in(2m). Suitable for A25 Power circuit breaker and ASD25 Non-automatic switch 2 interlocks and 2 cables (2 breakers version), 3 interlocks and 6 cables (3 breakers version)



### Mechanical Interlocks with Cables

### Field Installable

Frame Size	Catalog Number	Part Number
A25/ASD25	IPA12N	1800339

### Door Interlock

Ensures that the door or cover of distribution board the breaker compartment cannot be opened when the circuit breaker is closed or in its test position.



### Door Interlocks for Drawout Type

### Field Installable Only

Frame Size	Interlock type	Catalog Number	Part Number
A25/ASD25	Position interlock	+VPEC11NP	1801061
	Status interlock	+VPEC11NS	1801062

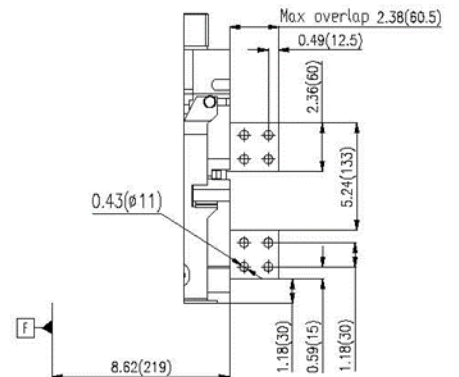
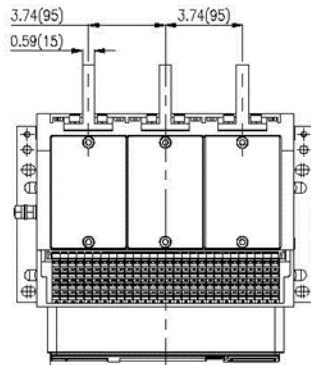
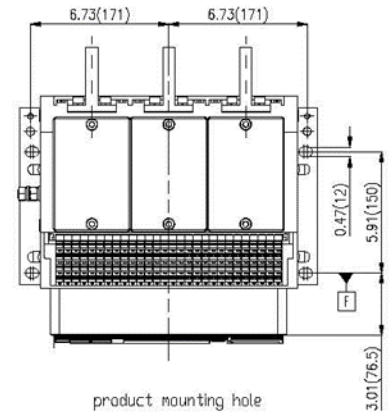
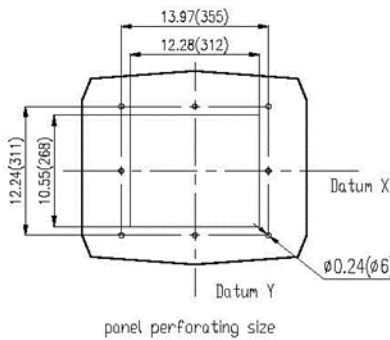
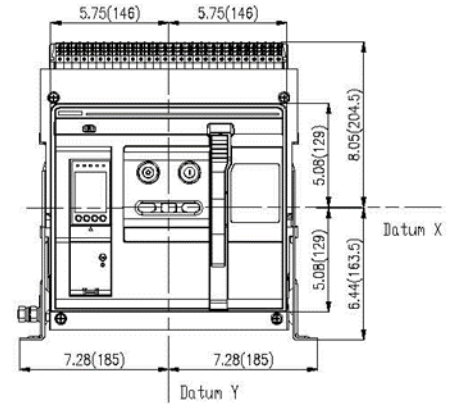
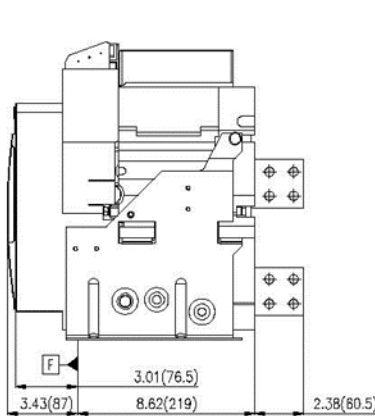
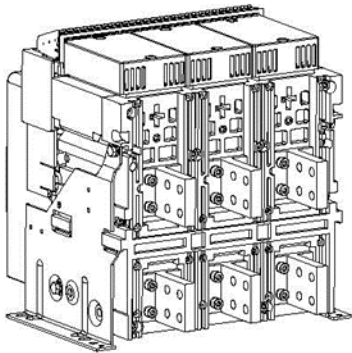
## A25 Series Power Circuit Breakers Dimensions

### Fixed type

A25-600/800A/1200A-3P

Vertical connection

in(mm)



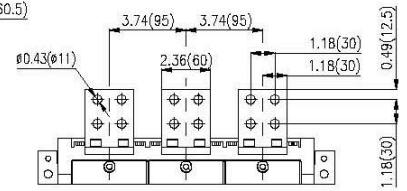
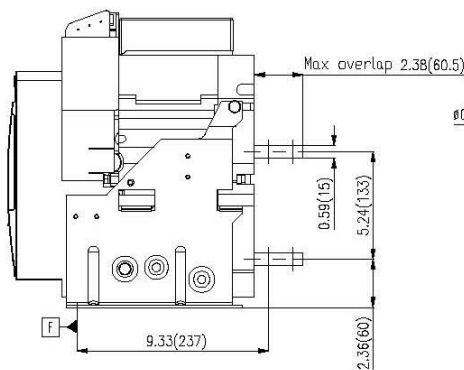
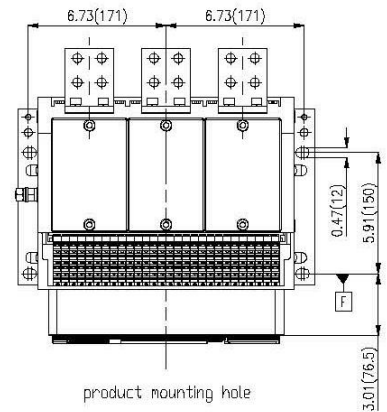
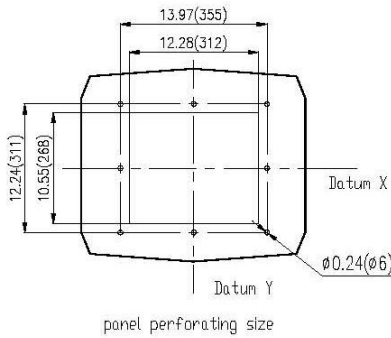
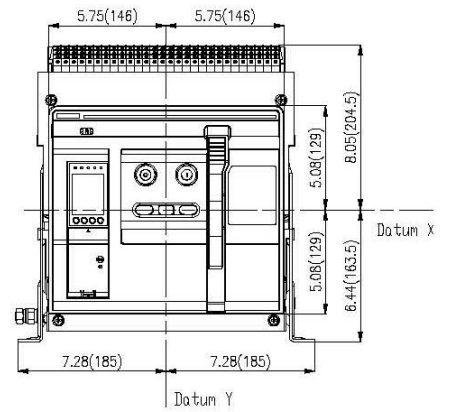
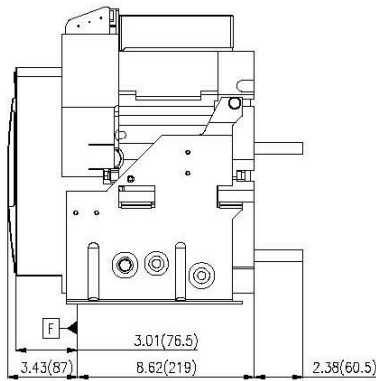
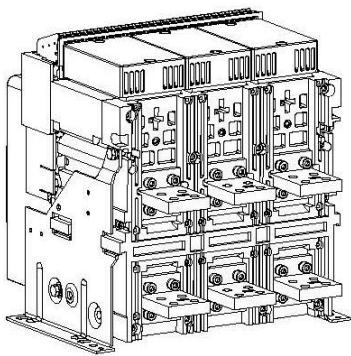
## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

### Fixed type

A25-600/800A/1200A-3P

Horizontal connection

in(mm)



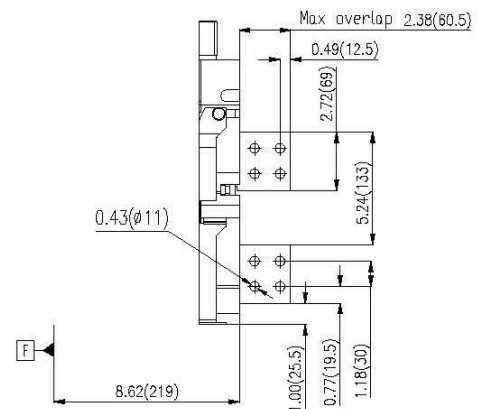
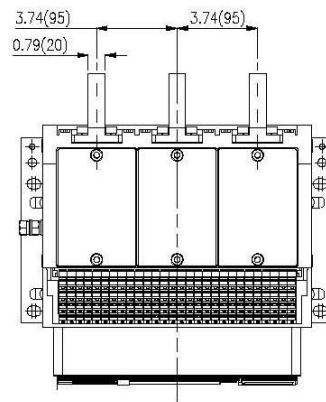
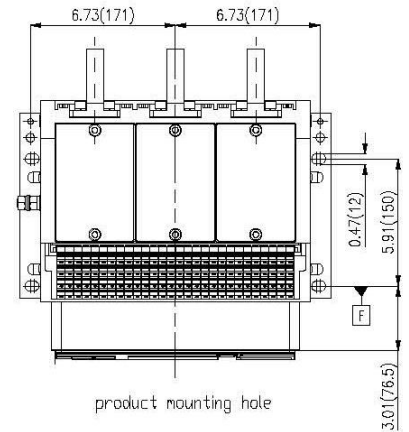
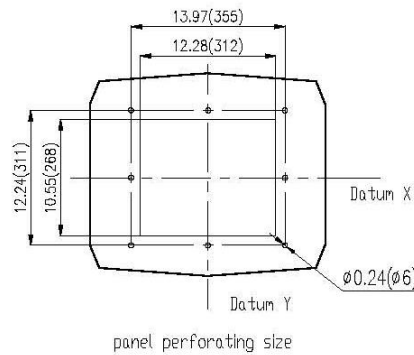
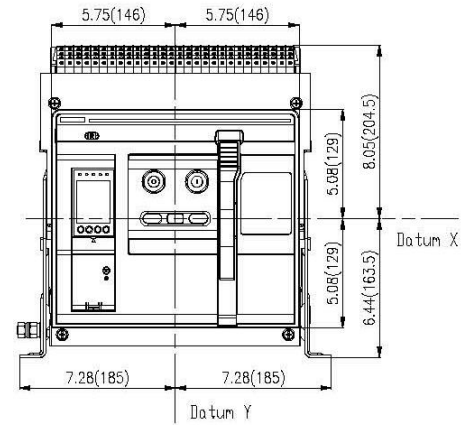
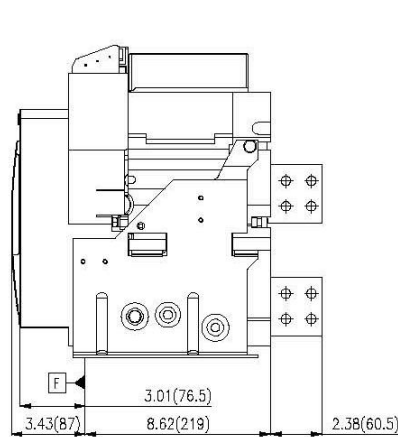
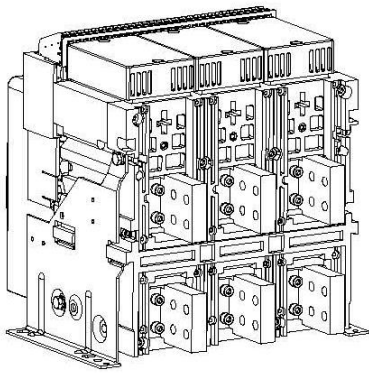
## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

### Fixed type

A25-1600A/2000A-3P

Vertical connection

in(mm)



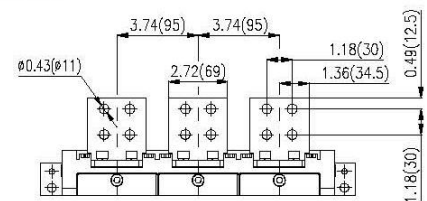
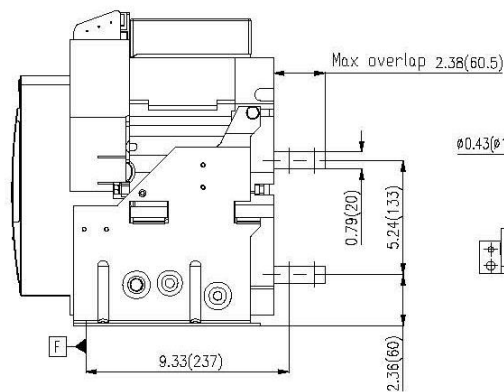
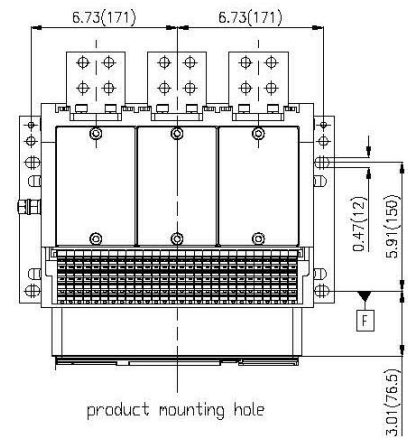
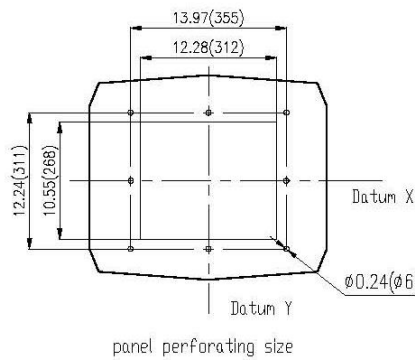
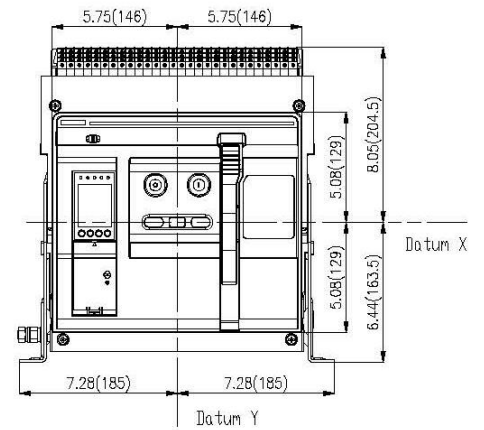
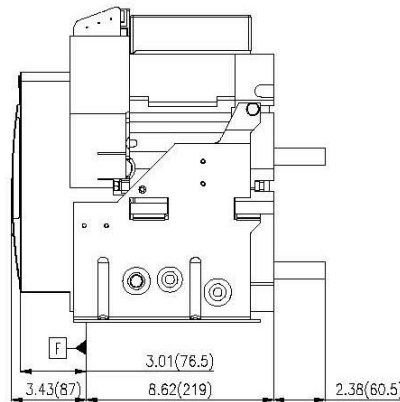
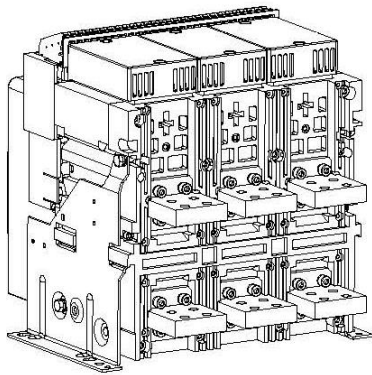
## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

### Fixed type

A25-1600A/2000A-3P

Horizontal connection

in(mm)

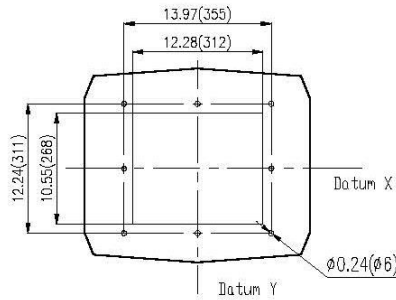
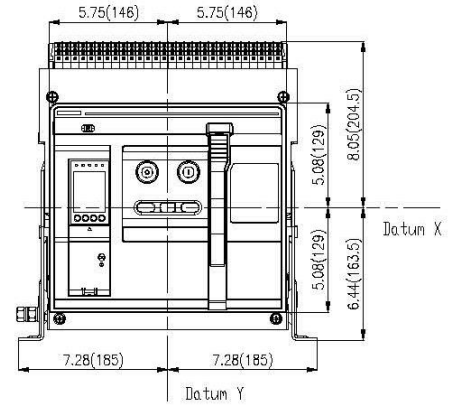
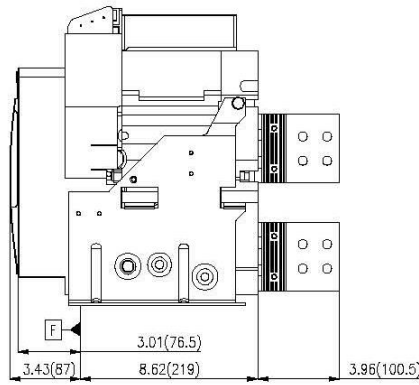
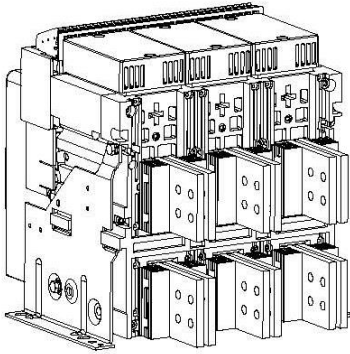


## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

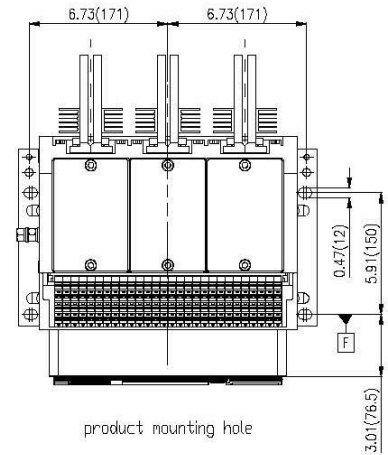
Fixed type

A25-2500A-3P  
Vertical connection

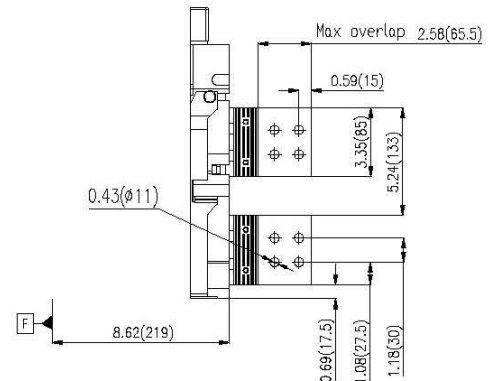
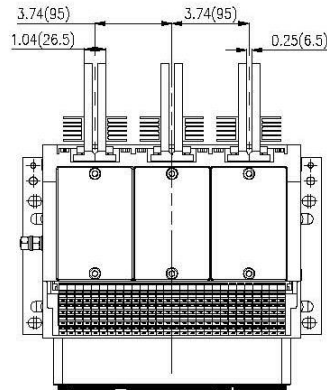
in(mm)



panel perforating size



product mounting hole





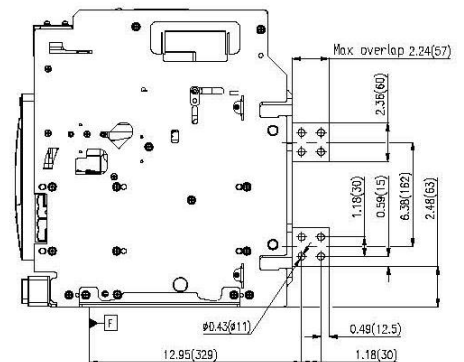
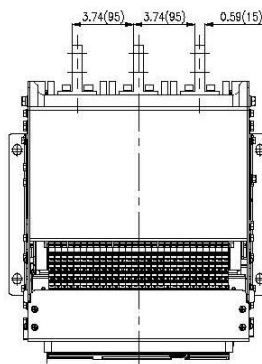
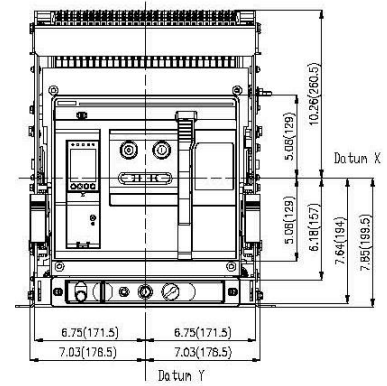
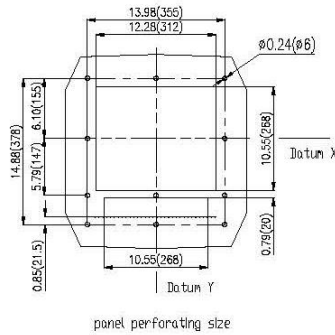
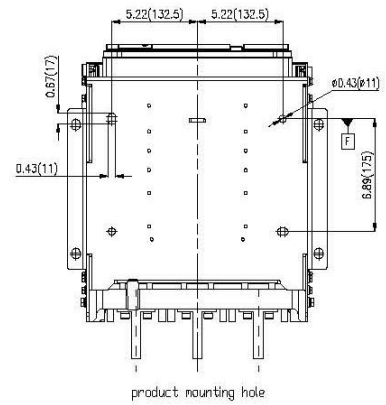
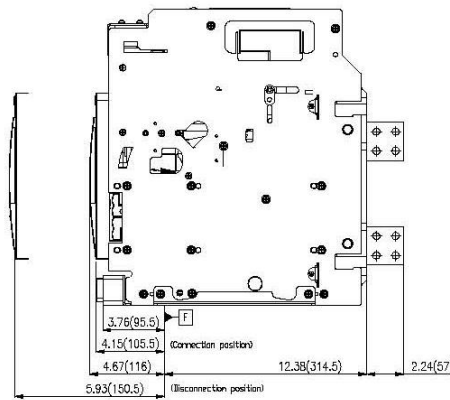
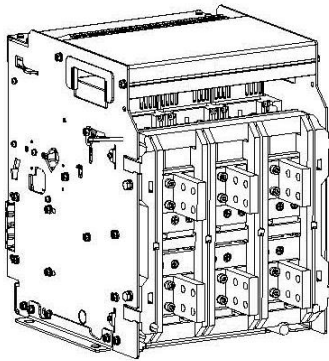
## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

Draw out type

A25-600/800/1200A 3P

Vertical connection

in(mm)



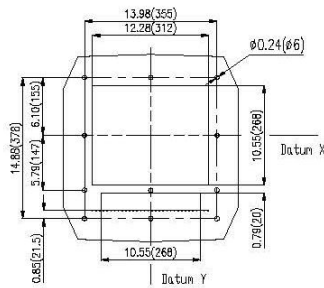
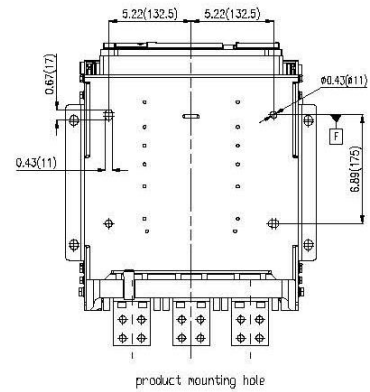
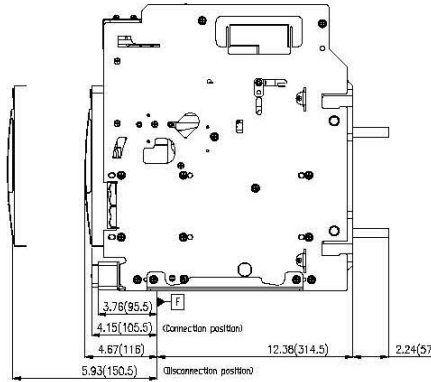
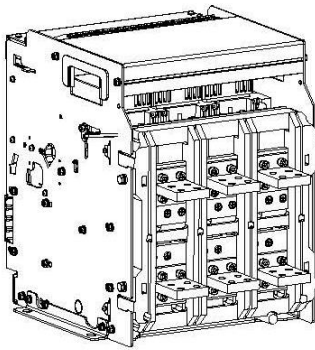
## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

Draw out type

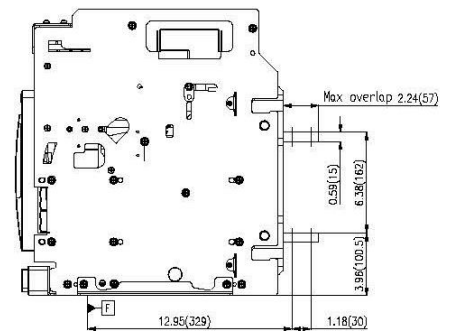
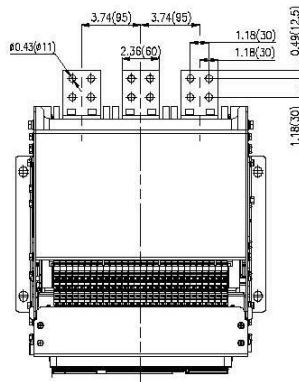
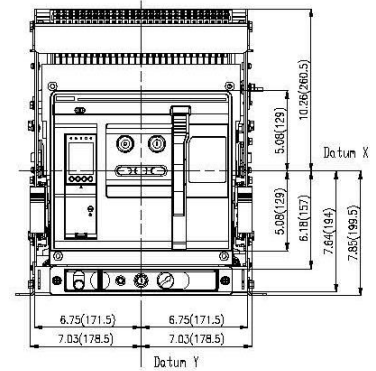
A25-600/800/1200A 3P

Horizontal connection

in(mm)



panel perforating size



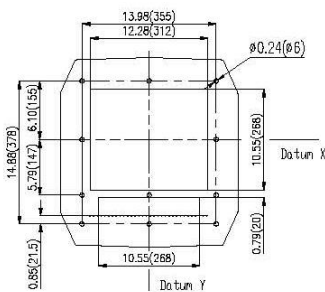
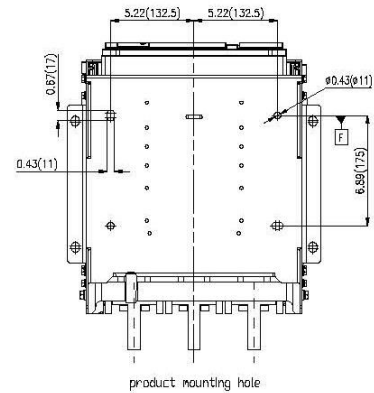
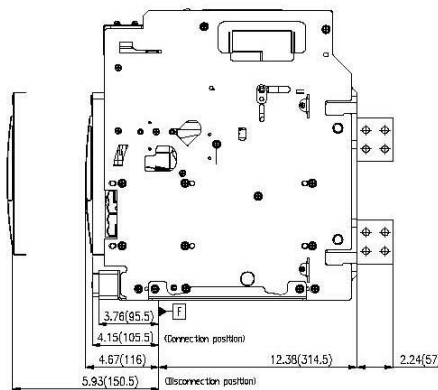
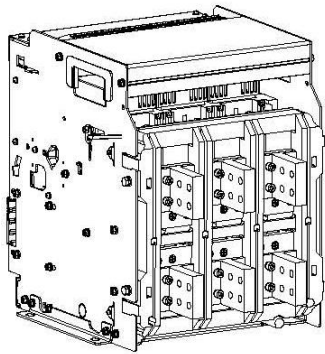
## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

Draw out type

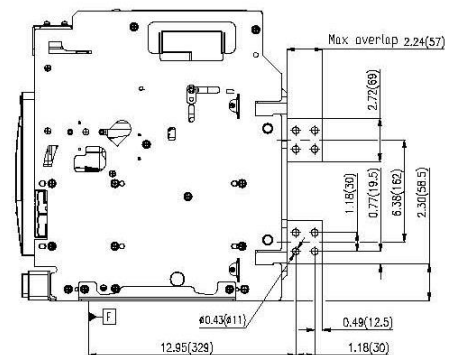
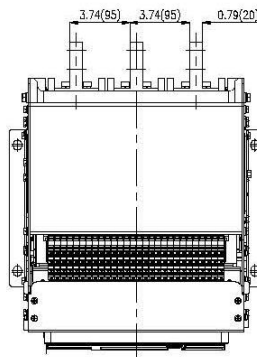
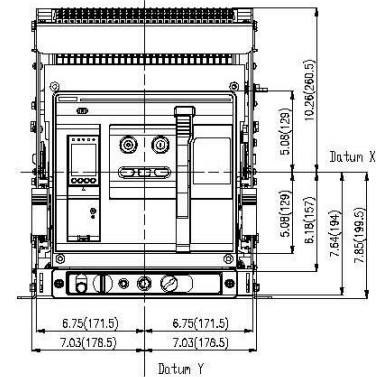
A25-1600/2000A 3P

Vertical connection

In(mm)



panel perforating size



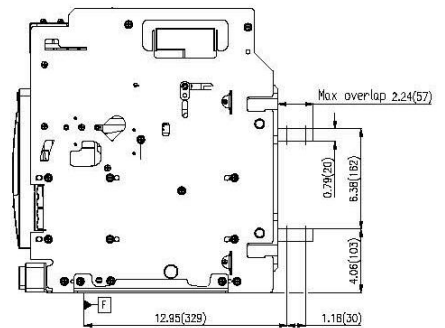
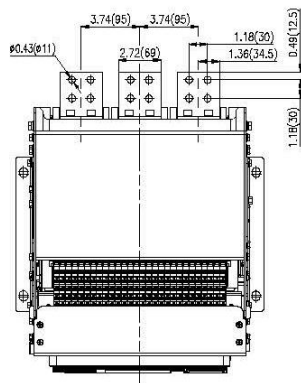
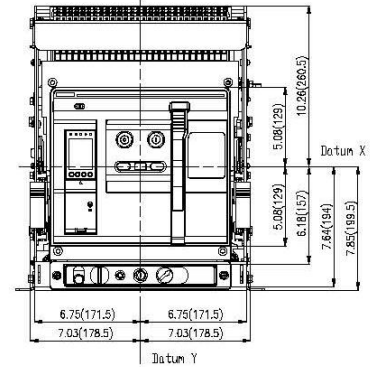
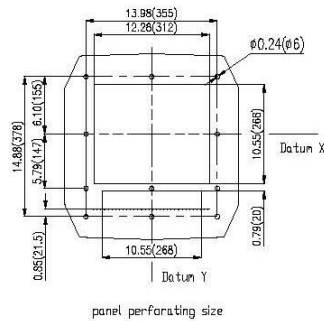
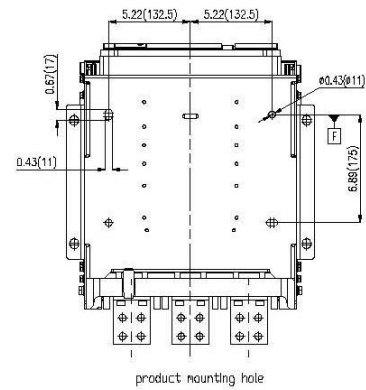
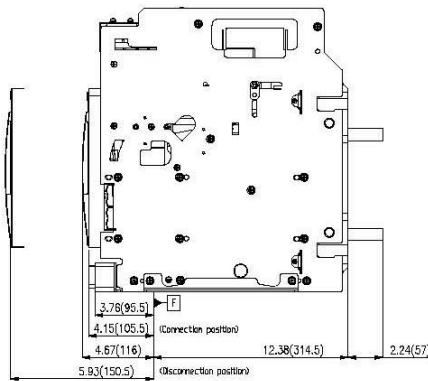
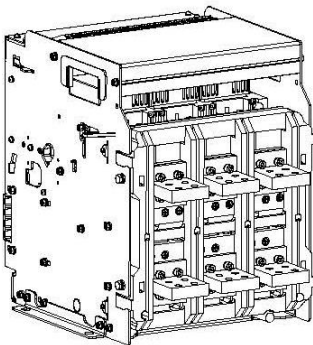
## A25 / ASD25 A25 Series Power Circuit Breakers Dimensions

Draw out type

A25-1600/2000A 3P

Horizontal connection

In(mm)

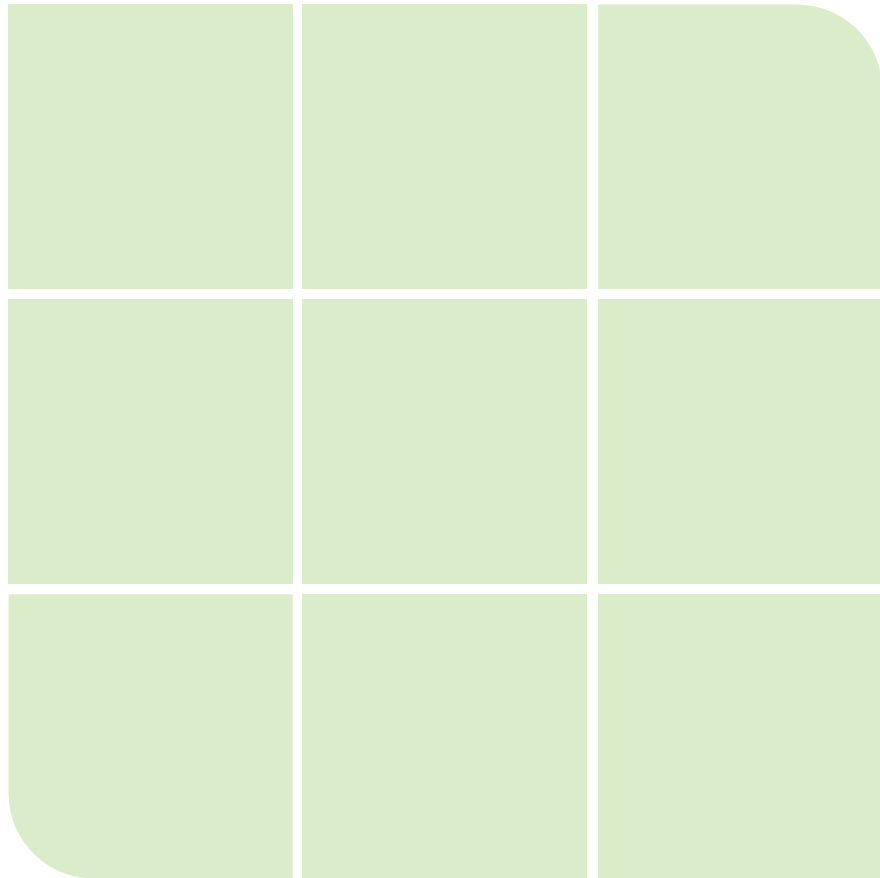
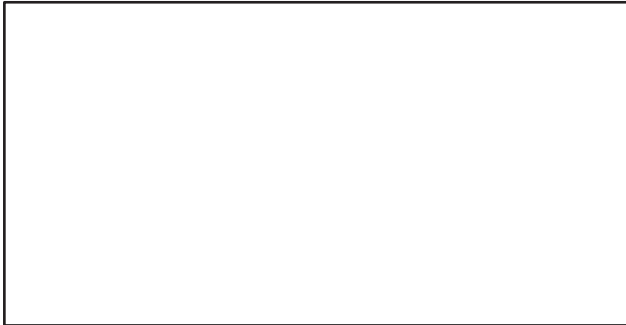


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