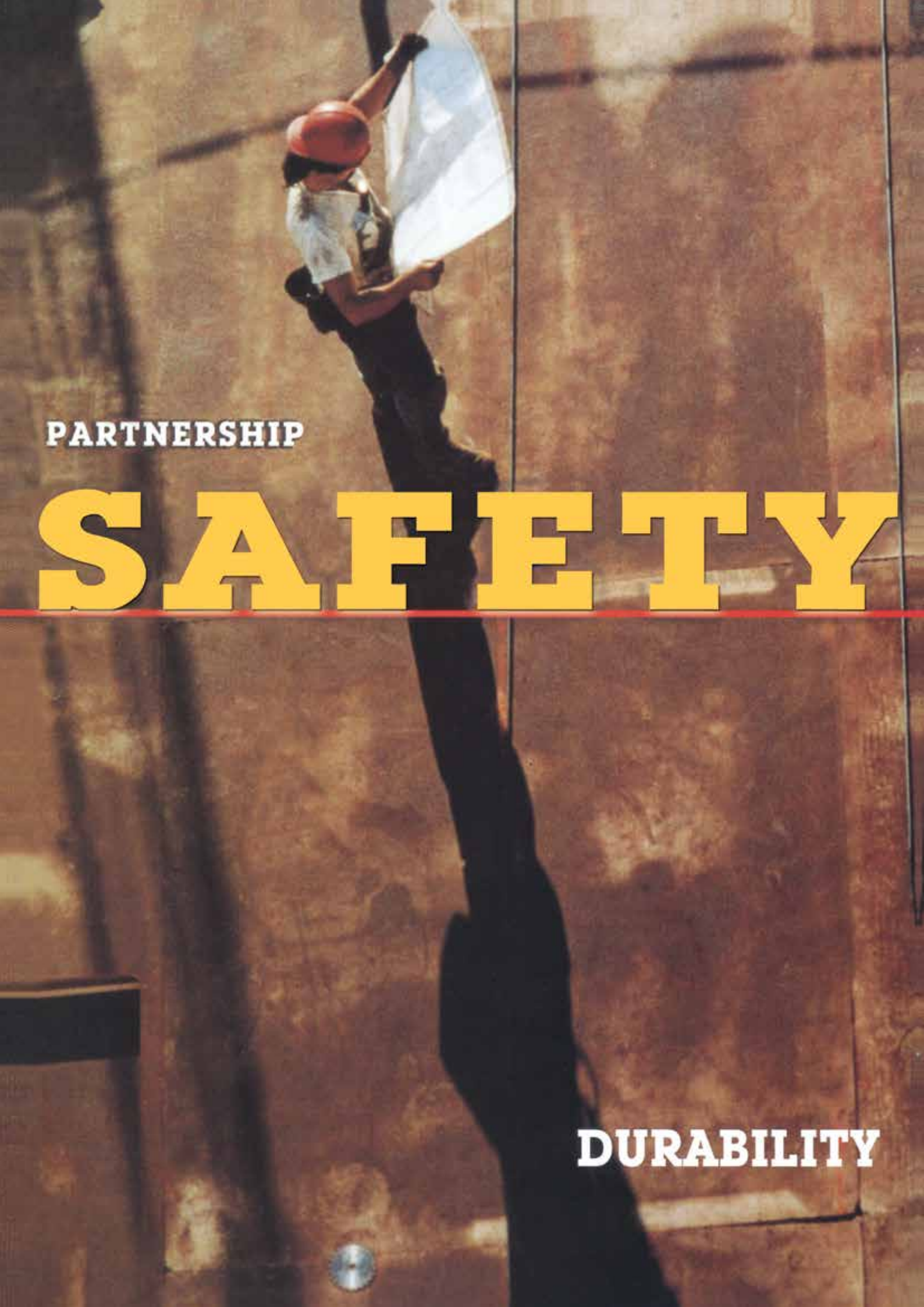


**alfanar**  
**ELETRA LOAD CENTERS (LA)**  
Plug-in



**PARTNERSHIP**

# **SAFETY**

**DURABILITY**

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# ELETRA Load Center Type LA - Plug-in

Knockouts of various sizes and removable top and bottom gland plate for ease of cable entry

Keyhole fixing for ease of wall mounting

Fully shrouded busbars

Tin plated etp copper busbars without any joints

Polycarbonate for busbar support and insulation

Ample earth terminals

Enclosure made of high quality electro-galvanized steel sheet

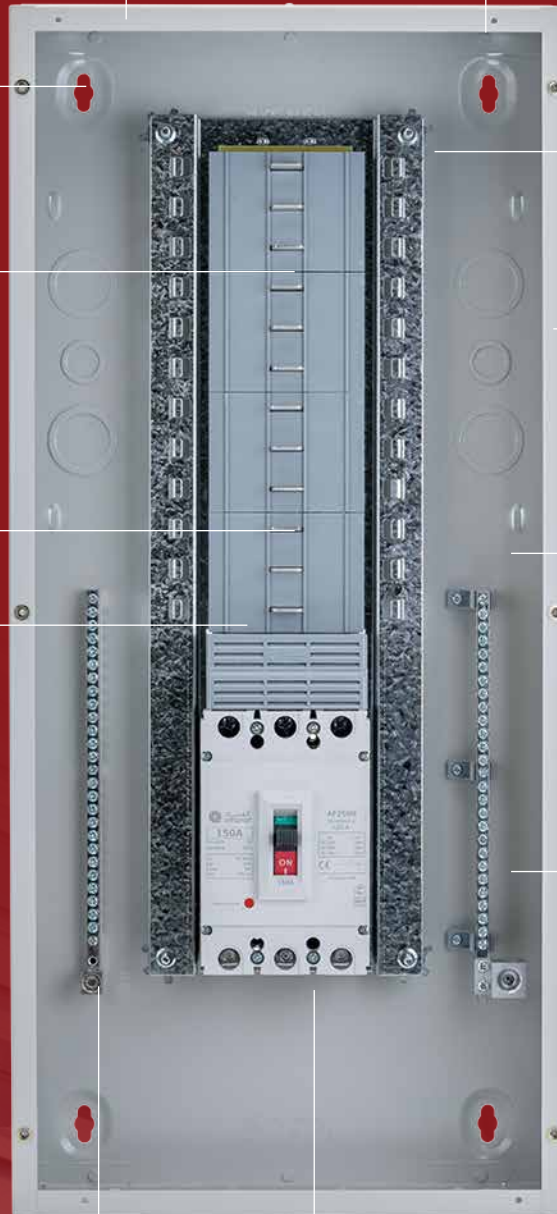
Depth of pan assembly is adjustable

Matt-finish polyester powder coated in ral-7035 light grey colour

Spacious enclosure for easy wiring

Ample neutral terminals

Main breakers



## Product Features

- Made of high quality electro-galvanized steel sheet
- Tin plated ETP copper busbar without any joints
- Polyester powder coating RAL-7035
- Available cable tie & cable holding for easy wiring installations

# Technical Specifications

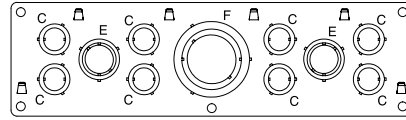
Technical Data – 3ph				
Standard	SASO & IEC 61439-3			
	Designed to be operated by an ordinary person			
Electrical				
Varieties	100A with MCB main	100A with MCCB main	225A with MCCB main	250A with MCCB main
Busbar rating	100A	100A	225A	250A
Icw for busbar	18 kA - 0.25 Sec	18 kA - 0.25 Sec	20 kA - 0.25 Sec	20 kA - 0.25 Sec
Rated current	32,40,50,63,80 & 100A	30,40,50,60,75 & 100A	125,150,175,200 & 225A	250A
Main breaker (Incomer)	AZM MCB, 3Pole 40,50,63,80 & 100A / TQL 3Pole MCB 60,100A	AF100N MCCB, 3Pole 30,40,50,60,75 & 100A	AF250N MCCB, 3Pole 125,150,175,200 & 225A	AF400N MCCB, 3Pole 250A
Busbar type	ETP copper tin plated, fully shrouded			
Voltage range	110-415V AC 50/60 Hz			
No. of ways	6,9,12,18,24, 30,36,42	12,18,24,30,36,42	18,24,30,36,42 & 48	42, 48
Ui / Uimp	500V / 4KV			
Type	Indoor			
Degree of protection	IP40 & IP54			
Mechanical impact	IK05			
Mounting	Flush/Surface			
Branches	1,2&3 Pole Plug-in MCBs 10,20,25,30,40,50,60,70,80,90 & 100A			
Terminal Capacity				
Main MCB/MCCB frame size 100A	50 sq.mm	50 sq.mm	120 sq.mm	185 sq.mm
Branch MCB frame size 63A	25 sq.mm	25 sq.mm	25 sq.mm	25 sq.mm
Neutral terminal bar	Incoming	50 sq.mm	50 sq.mm	120 sq.mm
	Outgoing	16 sq.mm	16 sq.mm	16 sq.mm
Earth terminal bar	Incoming	50 sq.mm	50 sq.mm	50 sq.mm
	Outgoing	16 sq.mm	16 sq.mm	16 sq.mm
No. of outgoing terminals	≥ no. of ways			
Environmental/General				
Average ambient temperature:	35°C			
Operational temperature range:	-5°C to 40°C (without derating as per the standard IEC 61439-3)			
Operational temperature range with derating:	Refer annexure			
Construction Features				
Door lock	Sliding lock – RAL 5015			
Enclosure material	Electro-galvanized steel sheet (Corrosion resistant)			
Steel thickness	Up to 1.2 mm			
Knockout sizes	See details on page 6			
Enclosure color	Polyester powder coated in RAL-7035			
Dimensions	Refer annexure			

# Knockout Dimensions

Each of our products undergoes a strict quality control check as per routine verification mentioned in the standard.

## Knockout Sizes

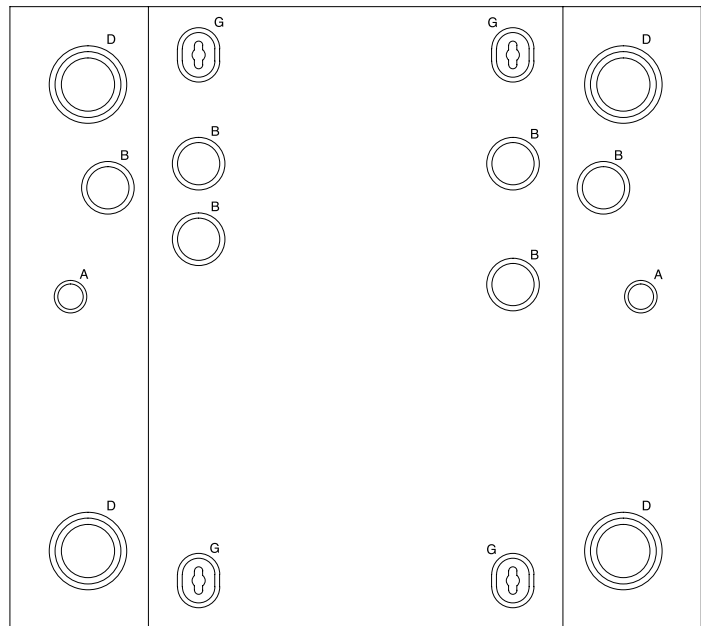
A - $\phi 21/\phi 27$	Double Knockout	2 Nos.
B - $\phi 38.5/\phi 44$	Double Knockout	6 Nos.
C - $\phi 19/\phi 25$	Double Knockout	16 Nos.
D - $\phi 44/\phi 54/\phi 64$	Triple Knockout	4 Nos.
E - $\phi 23/\phi 28/\phi 33$	Triple Knockout	4 Nos.
F - $\phi 44/\phi 50/\phi 60$	Triple Knockout	2 Nos.
G - Wall mounting emboss with key hole		4 Nos.



## Notes:

- All dimensions are in mm.
- The details in this drawing indicate dimensions and knockout positions for a typical LA load center.

Knockout details for other Load center types, shown in this catalogue, are available on request.



## CODING KEY

### 42 - L X X X X X (for LA load center)

42	Code
L	MCCB Main Breaker, T for MCB Main Breaker, WPL & WPT for Outdoor type.
X X	Number of ways
X X X -	Ampere rating

For example:

Item code 42-L12100 represents load center, 12-way, with 100AT main – Indoor type.

Item code 42-WPL12100 represents load center, 12-way, with 100AT main – Outdoor type.

### 4 2 - 00 X X X (for branch breaker)

42	Code
00	Branch Breaker
X	Number of Pole.
X X	Ampere rating

For example, item code 42-00130 represents TQL Branch Breaker, 1 Pole, and 30A.

# alfanar ELETRA load Center

LA Type



# Ordering Information

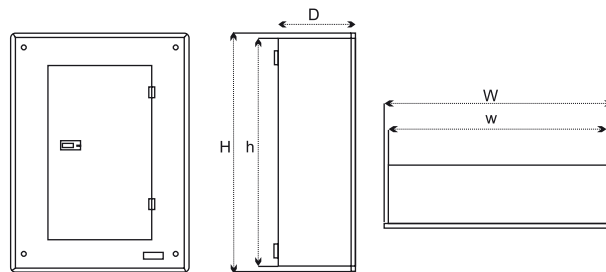
## Indoor Type

### LA Three-Phase LC with MCB Main AZM 40-100 AT ( Flush )

Ordering Number (for main breaker 100A), Type and Dimension							
NO.OF WAYS	Flush	H	h	W	w	D	d
06	42-T06100Z	445	415	370	343	116	114
12	42-T12100Z	545	515	370	343	116	114
18	42-T18100Z	621	590	370	343	116	114
24	42-T24100Z	697	667	370	343	116	114
30	42-T30100Z	773	743	370	343	116	114
36	42-T36100Z	878	848	370	343	116	114
42	42-T42100Z	960	930	370	343	116	114

### LA Three-Phase LC with MCB Main AZM 40-100 AT ( Surface )

Ordering Number (for main breaker 100A), Type and Dimension							
NO.OF WAYS	Surface	H	h	W	w	D	d
06	42-T06100SZ	423	415	351	343	116	114
12	42-T12100SZ	523	515	351	343	116	114
18	42-T18100SZ	598	590	351	343	116	114
24	42-T24100SZ	675	667	351	343	116	114
30	42-T30100SZ	751	743	351	343	116	114
36	42-T36100SZ	856	848	351	343	116	114
42	42-T42100SZ	938	930	351	343	116	114



### LA Three-Phase LC with MCB Main TQL 60-100 AT

Two phase alfancar LA load center without main							
NO.OF WAYS	Flush	H	h	W	w	D	d
9	42-090100	332	302	370	343	116	114

Two phase alfancar LA load center without main							
NO.OF WAYS	Surface	H	h	W	w	D	d
9	42-090100S	309.6	302	350.6	343	116	114

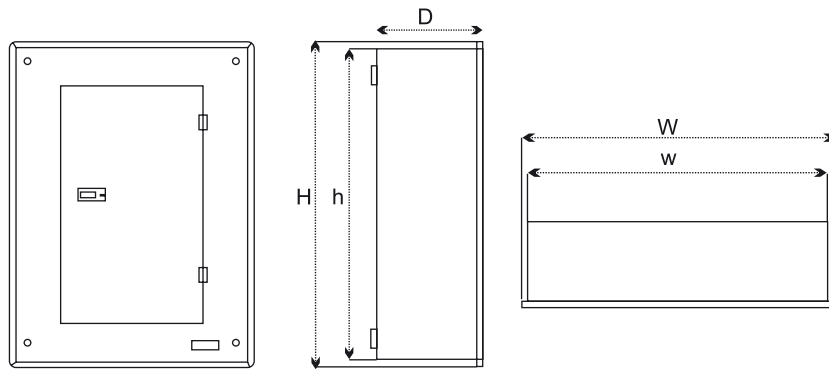
Note: All dimensions are in mm.



## Indoor Type

### LA Three-Phase LC with MCCB Main AF100N 30-100 AT ( Flush )

Ordering Number (for main breaker 100A), Type and Dimension							
NO.OF WAYS	Flush	H	h	W	w	D	d
12	42-L12100	620	590	370	343	116	114
18	42-L18100	700	670	370	343	116	114
24	42-L24100	773	743	370	343	116	114
30	42-L30100	878	848	370	343	116	114
36	42-L36100	960	930	370	343	116	114
42	42-L42100	1040	1010	370	343	116	114



### LA Three-Phase LC with MCCB Main AF100N 30-100 AT ( Surface )

Ordering Number (for main breaker 100A), Type and Dimension							
NO.OF WAYS	Surface	H	h	W	w	D	d
12	42-L12100S	598	590	351	343	116	114
18	42-L18100S	675	667	351	343	116	114
24	42-L24100S	751	743	351	343	116	114
30	42-L30100S	856	848	351	343	116	114
36	42-L36100S	938	930	351	343	116	114
42	42-L42100S	1018	1010	351	343	116	114

Note: All dimensions are in mm.

# Ordering Information

## Indoor Type

### LA Three-Phase LC with MCCB Main AF250N 125-225 AT ( Flush )

Ordering Number (for main breaker 225A), Type and Dimension							
NO.OF WAYS	Flush	H	h	W	w	D	d
12	42-L12225	620	590	370	343	116	114
18	42-L18225	700	670	370	343	116	114
24	42-L24225	773	743	370	343	116	114
30	42-L30225	878	848	370	343	116	114
36	42-L36225	960	930	370	343	116	114
42	42-L42225	1040	1010	370	343	116	114
48	42-L48225	1120	1090	370	343	116	114

### LA Three-Phase LC with MCCB Main AF250N 125-225 AT ( Surface )

Ordering Number (for main breaker 225A), Type and Dimension							
NO.OF WAYS	Surface	H	h	W	w	D	d
12	42-L12225	598	590	351	343	116	114
18	42-L18225	675	667	351	343	116	114
24	42-L24225	751	743	351	343	116	114
30	42-L30225	856	848	351	343	116	114
36	42-L36225	938	930	351	343	116	114
42	42-L42225	1018	1010	351	343	116	114
48	42-L48225	1098	1090	351	343	116	114

### LA Three-Phase LC with MCCB Main AF400N 250-250AT

Ordering Number (for main breaker 225A), Type and Dimension							
NO.OF WAYS	Flush	H	h	W	w	D	d
42	42-L42250	1340	1310	530	500	162	160
48	42-L48250	1340	1310	530	500	162	160

**Note:** All dimensions are in mm.

## Outdoor Type

### LA Three-Phase LC with MCB Main AZM 32-100 AT

Ordering Number (for main breaker 100A), Type and Dimension				
NO.OF WAYS	Surface	H	h	W
12	42-WPT12100Z	565	400	160
18	42-WPT18100Z	641	400	160
24	42-WPT24100Z	717	400	160
30	42-WPT30100Z	793	400	160
36	42-WPT36100Z	898	400	160
42	42-WPT42100Z	980	400	160

### LA Three-Phase LC with MCB Main TQL 60-100 AT

Ordering Number (for main breaker 36A), Type and Dimension				
NO.OF WAYS	Surface	H	h	W
09	42-WP09100	490	400	160

### LA Three-Phase LC with MCCB Main AF100N 30-100 AT

Ordering Number (for main breaker 100A), Type and Dimension				
NO.OF WAYS	Surface	H	h	W
12	42-WPL12100	641	400	160
18	42-WPL18100	717	400	160
24	42-WPL24100	793	400	160
30	42-WPL30100	898	400	160
36	42-WPL36100	980	400	160
42	42-WPL42100	1060	400	160

### LA Three-Phase LC with MCB Main TQL 60-100 AT

Ordering Number (for main breaker 100A), Type and Dimension				
NO.OF WAYS	Surface	H	h	W
12	42-WPL12225	717	400	160
18	42-WPL18225	717	400	160
24	52-WPL24225	793	400	160
30	42-WPL30225	898	400	160
36	42-WPL36225	980	400	160
42	42-WPL42225	1060	400	160
48	42-WPL48225	1183	400	160

**Note:** All dimensions are in mm.

# AZM Main MCB



## AZM Features

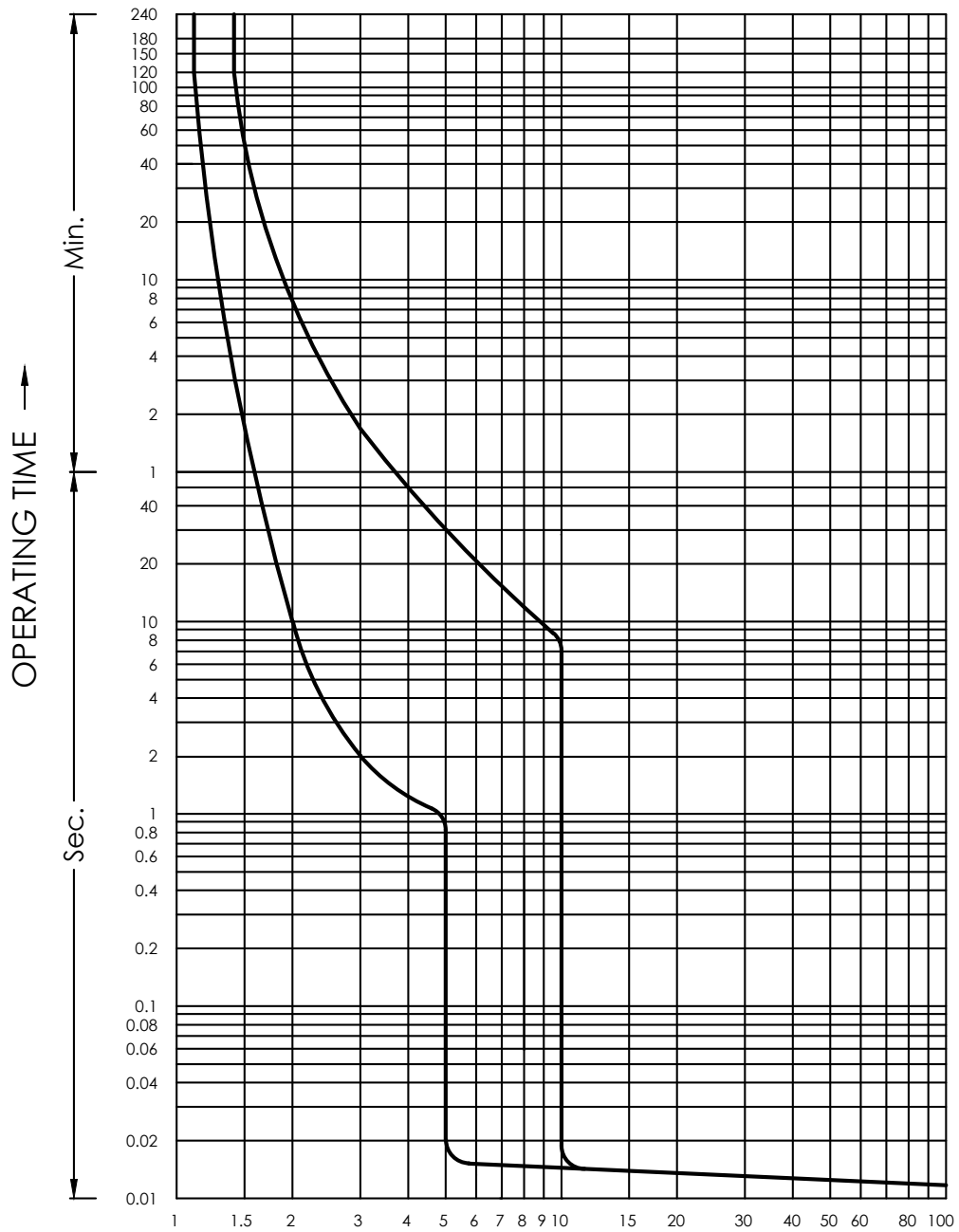
1. Let-through energy is considerably less resulting in enhanced lifespan of electrical installation.
2. Rapid closing design for quick make operation.
3. Uniform box terminals for connecting cables up to 50 mm<sup>2</sup> for input and output terminals for 32-100A MCB range.
4. Positive gripping features are provided on input terminals for cable termination.
5. Finger proof protection (IP20) for termination
6. Trip-free mechanism.
7. Critical operating mechanism parts and assemblies are made of special engineering plastics / Alloy steel with superior mechanical thermal properties facilitating accurate operation of MCBs during its service life.
8. Suitable for Busbar connection for incomer terminals.
9. Critical parts and assemblies are manufactured in-house with statistical process controls.
10. Assembly, calibration, and testing are done in controlled temperature and dust free environment.
11. ON/OFF positions are marked on handle and indicator show true contact position of MCB.
12. Unique identification through bar code system for traceability of internal testing result for individual breakers.
13. New and unique **alfanar** industrial design.
14. Seamless integration with **alfanar** load center.
15. Provide short circuit and overload protection for residential as well as commercial installations.

# AZM Technical Data

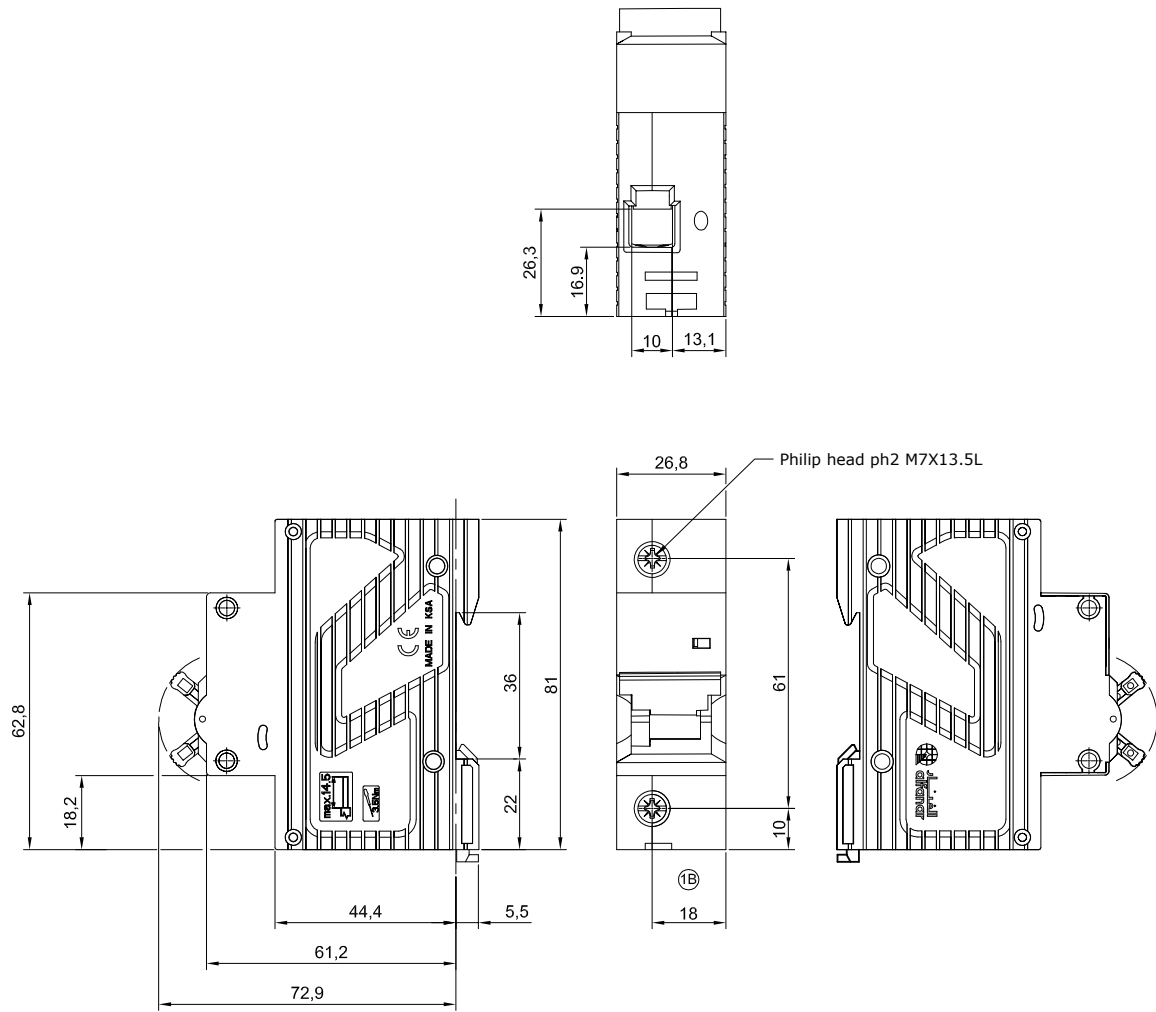
AZM Technical data		
Product standard	IEC 60898-1	
Tripping characteristics	C Curve	
Electrical		
Rated current range (A)	30, 40, 50, 63, 80, 100	
Number of poles	2P, 3P	
Rated operational voltage (Ue) V AC	415	
Rated insulation voltage (Ui) V AC	600	
Rated impulse voltage (Uimp) kV	4	
Rated ultimate short circuit breaking capacity Icn (A) at 415V AC	10000	
Rated service short circuit breaking capacity Ics (A) at 415V AC	7500	
Rated frequency (Hz)	50/60	
Suitability for isolation	Yes	
Thermal tripping characteristics	> 2 hour @ 1.13 In @ 50°C	
	< 2 hour @ 1.45 In @ 50°C	
Magnetic operating limit	(5-10)×In	
Endurance (Number of operations cycles)	Mechanical	10000
	Electrical	4000
Environmental/General		
Reference ambient air temperature	50°C	
Operating temperature range	- 5°C to + 65°C	
Storage temperature range	- 5°C to + 70°C	
Mechanical		
Protection degree	For Housing	IP 40
	For Terminals	IP 20
Terminal capacity (mm <sup>2</sup> )	50	
Tightening torque (Nm)	3.5	
Mounting type	Din Rail	
Type of termination incoming	Cables, Busbar	
Type of termination outgoing	Cables, Busbar	
Frame width (mm)	27 mm per pole	
Dimensions 2 Pole (W × H × D) (mm)	(53.7 × 80.5 × 83.5)	
Dimensions 3 Pole (W × H × D) (mm)	(80.4 × 80.5 × 83.5)	
Weight 2P (g)	335	
Weight 3P (g)	500	

# AZM I-T Characteristics

MCB C-curve Time Current Characteristics  
Calibration temperature 50°C

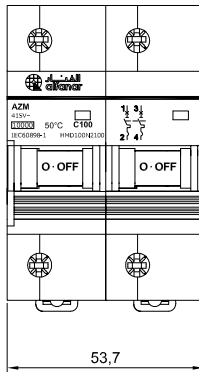


# AZM Dimensions

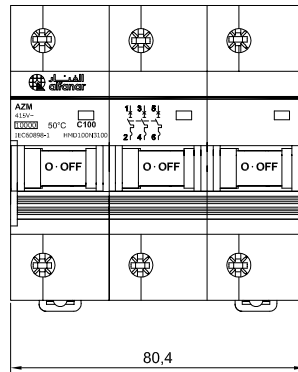


Single Pole Details

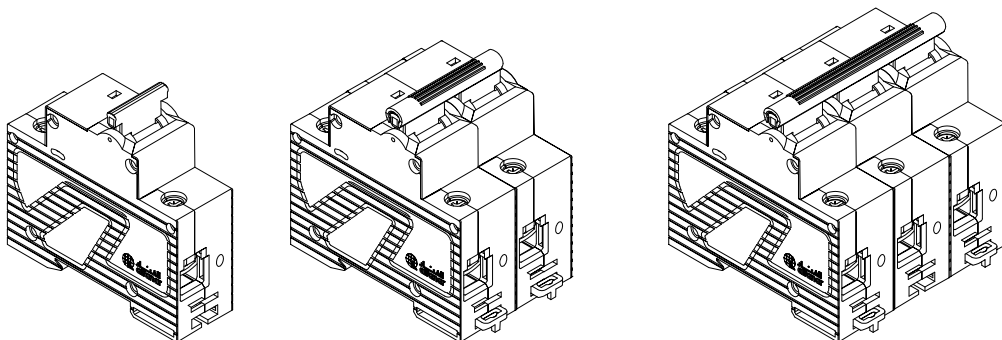
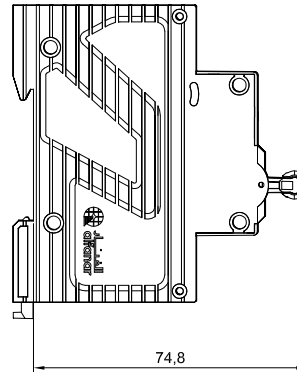
2 POLE



3 POLE



2 POLE / 3 POLE



# AF series MCCBs



## AF Series MCCB Features

- 1 - Handle is protected for IP30 protection where  $>2.5\text{mm}$  wires unable to enter inside breaker and touches to live parts.
- 2 - MCCB can be easily identified for the “OFF”, “ON” and “Tripped” positions.
- 3 - Trip Free Mechanism – The breaker trips in case of fault and ensure safety even if padlock used to hold handle in ON position.
- 4 - All Position of circuit breakers are suitable for isolation as defined in IEC standard 60947-2.
- 5 - MCCB arc chamber is specially designed with an arc channel as a flow guide to Improve the capability of extinguishing the arc and reducing the arc distance.
- 6 - Arc chutes are designed for efficient and faster arc quenching.
- 7 - Optimized arc runner profile for effective arc pulling.
- 8 - Fixed contacts with serrations for better grip.
- 9 - Accelerate movable contact speed by arcing gas generated from special resin located closely to movable contact.
- 10 - Line Load Reversibility – Incoming supply can be connected to both upper and lower side and load to the opposite side without compromising on breaking capacity and isolation.
- 11 - Current limiting Breaker - Low let through energy.
- 12 - MCCB's are designed for easy installation in the various types of switchboards. They can be mounted vertically/ horizontally / Flat on their back without any de-rating of characteristics.
- 13 - Box clamps made of higher strength material which withstand 40% Higher torque values More than standard specification.
- 14 - Fixed contacts with serrations for better grip.
- 15 - 100A & 250A MCCB grub screw rivets with box clamp assembly, no possibility of missing from product.
- 16 - Higher Electrical & Mechanical life – (Ensured Minimum 2 times higher than specified in the standard).
- 17 - Low watt loss through optimally designed current carrying path.



# AF series Technical Data

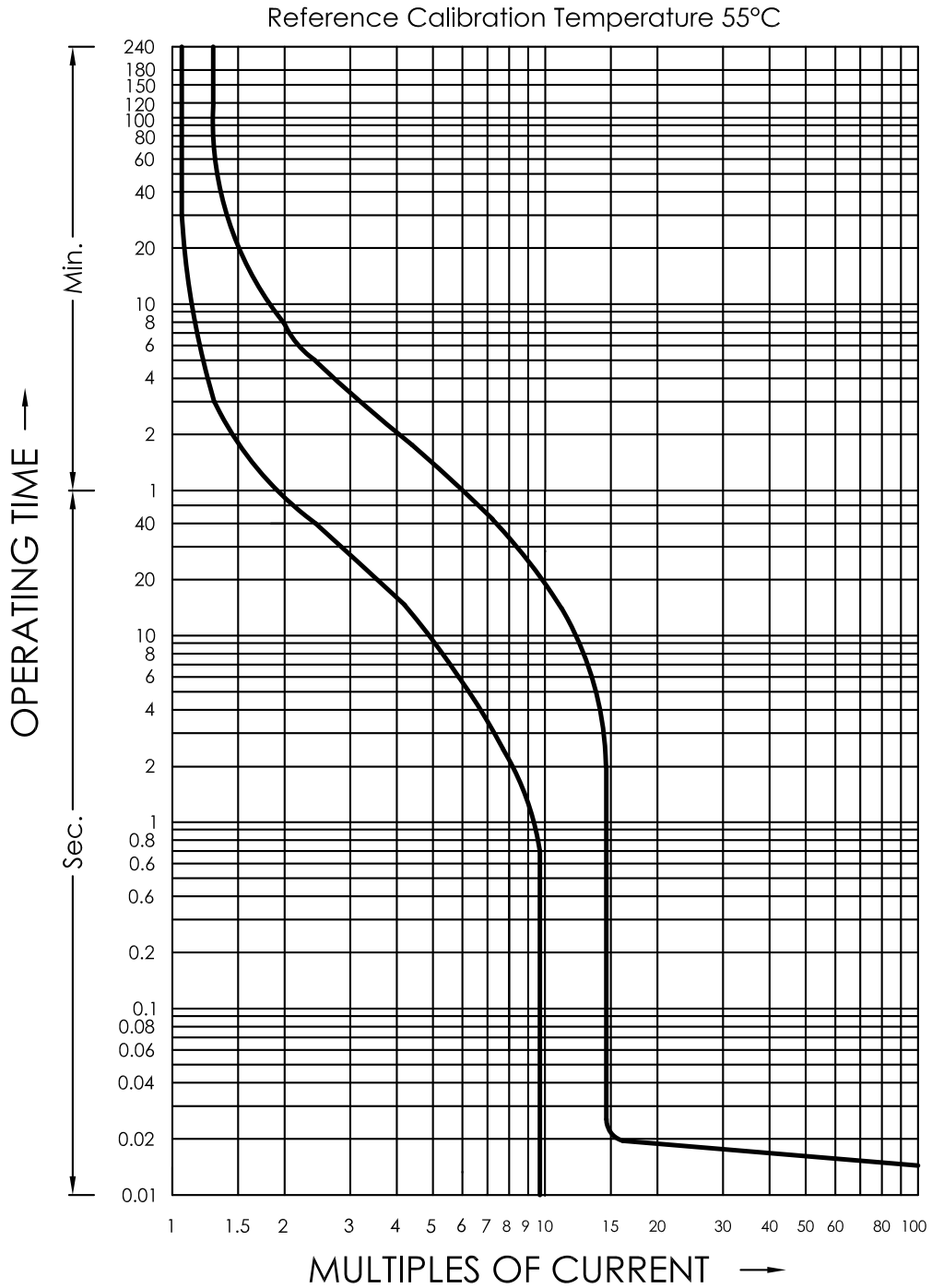
AF100N	
Product standard	IEC 60947-2
Frame size (AF)	AF100N
Rated current range (A)	30, 40,50,60,75,100
Number of poles	3P
Rated operational voltage (Ue) V	415
Rated insulation voltage (Ui) V AC	690
Rated impulse voltage (Uimp) kV	8
Ambient temperature (°C)	55
Rated frequency (Hz)	50/60
Utilization category	Cat. A
Pollution degree	3
Rated Ultimate short circuit breaking capacity Icu (kA)	
@ 415 V	15
@ 230 V	25
Rated Service short circuit breaking capacity Ics (A)	
@ 415V	75 % Icu
@ 230V	75 % Icu
Trip Release type	Fixed - Thermal & Magnetic
Magnetic release setting (In)	12In ± 20%
Electrical endurance life (No. of operations cycles)	1500
Mechanical endurance life (No. of operations cycles)	8500
Phase Barrier	Yes
Operating temperature range (without de-rating)	- 5°C to + 55°C
Storage temperature range	- 5°C to + 70°C
Method of connection	Cables / Bus bar
Terminal width for flat copper connection (mm)	16
Screw size for flat bar / Tightening torque (N.m)	M8 / 6
Box clamp screw size (mm) / Tightening torque (N.m)	Allen key 4 / 7
Maximum Terminal capacity - Copper cable (mm <sup>2</sup> )	50
Weight of the breaker (kg)	1.2
Dimensions (W × H × D) (mm) (max.)	91 x 150 x 66

# AF series Technical Data

AF250N	
Product standard	IEC 60947-2
Frame size (AF)	AF250N
Rated current range (A)	125,150,175, 200, 225
Number of poles	3P
Rated operational voltage (Ue) V	415
Rated insulation voltage (Ui) V AC	690
Rated impulse voltage (Uimp) kV	8
Ambient temperature (°C)	55
Rated frequency (Hz)	50/60
Utilization category	Cat. A
Pollution degree	3
Rated Ultimate short circuit breaking capacity Icu (kA)	
@ 415 V	15
@ 230 V	25
Rated Service short circuit breaking capacity Ics (A)	
@ 415V	75 % Icu
@ 230V	75 % Icu
Trip Release type	Fixed - Thermal & Magnetic
Magnetic release setting (In)	12In ± 20%
Electrical endurance life (No. of operations cycles)	1000
Mechanical endurance life (No. of operations cycles)	7000
Phase Barrier	Yes
Operating temperature range (without de-rating)	- 5°C to + 55°C
Storage temperature range	- 5°C to + 70°C
Method of connection	Cables / Bus bar
Terminal width for flat copper connection (mm)	25
Screw size for flat bar / Tightening torque (N.m)	M8 / 6
Box clamp screw size (mm) / Tightening torque (N.m)	Allen key 5 / 12
Maximum Terminal capacity - Copper cable (mm <sup>2</sup> )	120
Weight of the breaker (kg)	1.9
Dimensions (W × H × D) (mm) (max.)	106 165 x 104

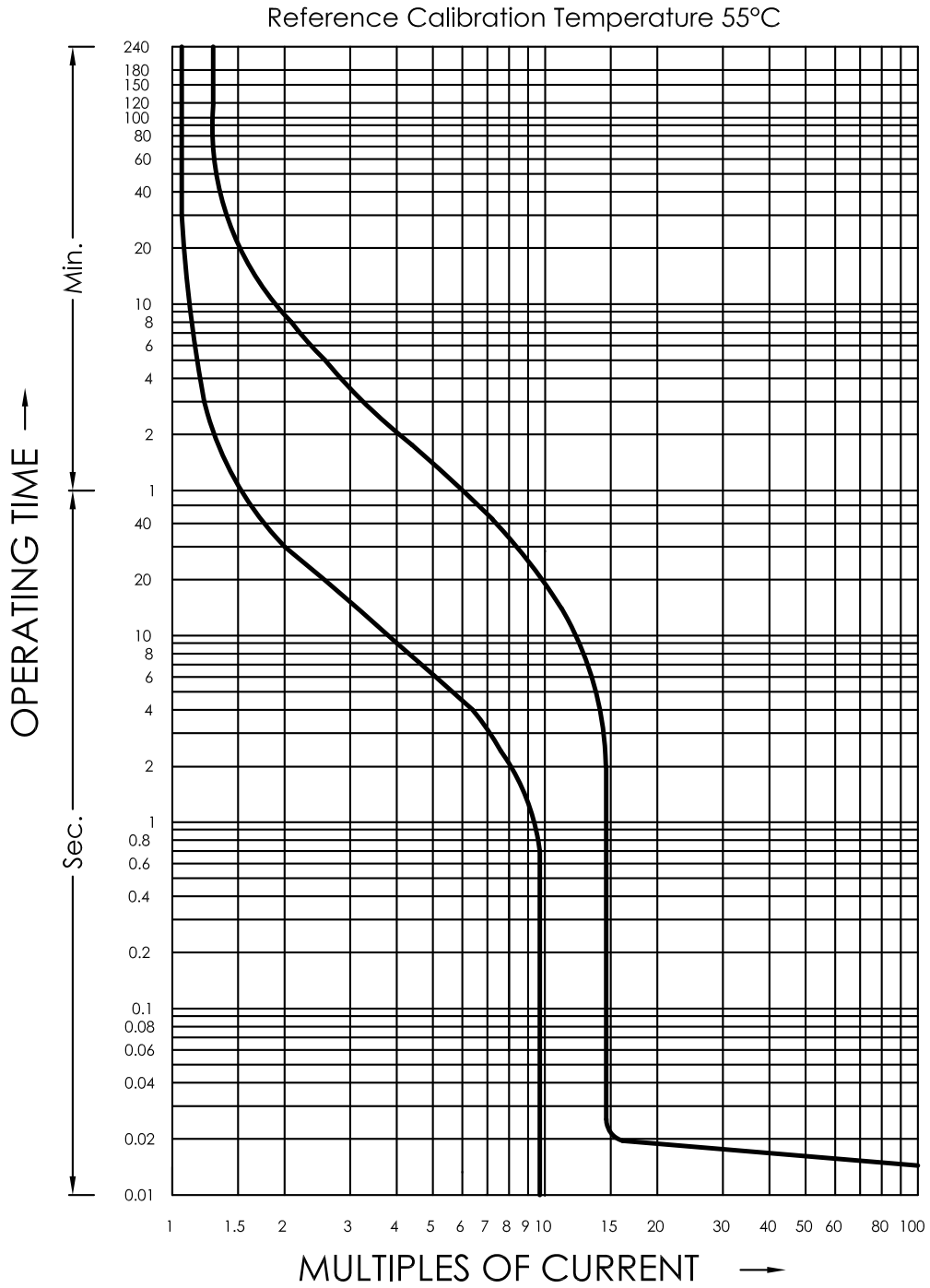
# AF series I-T Characteristics

AF100N



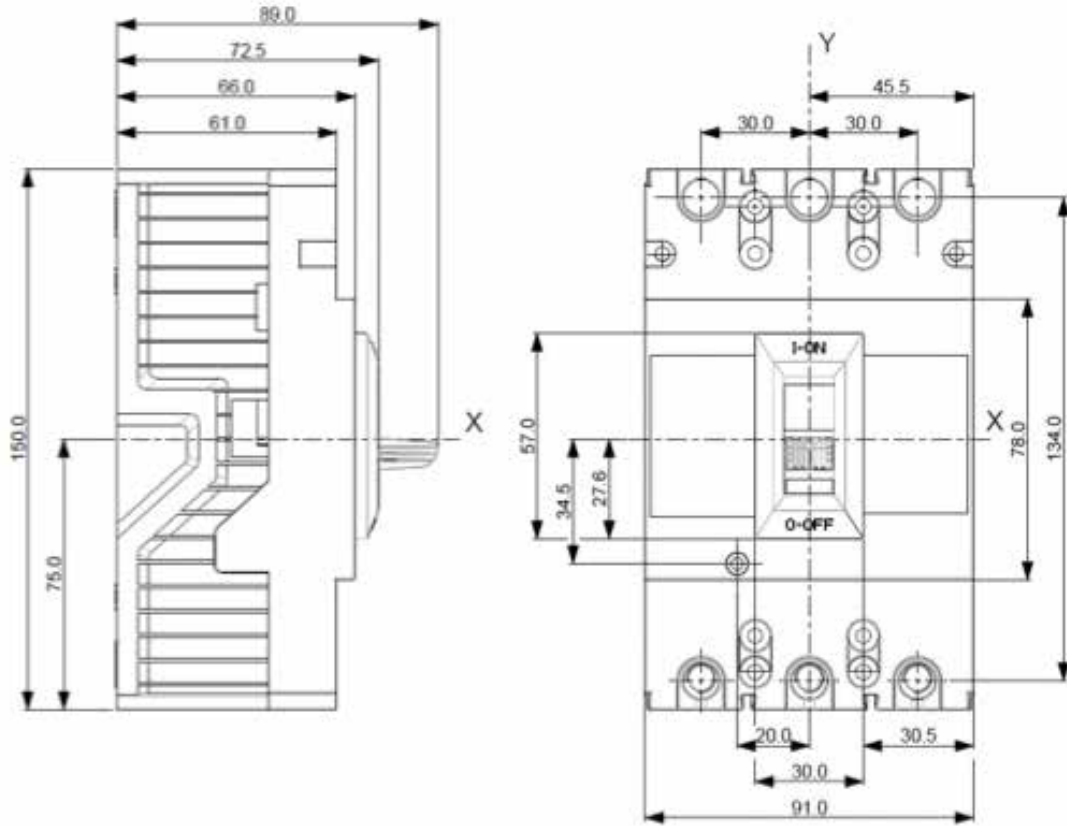
# AF series I-T Characteristics

AF250N

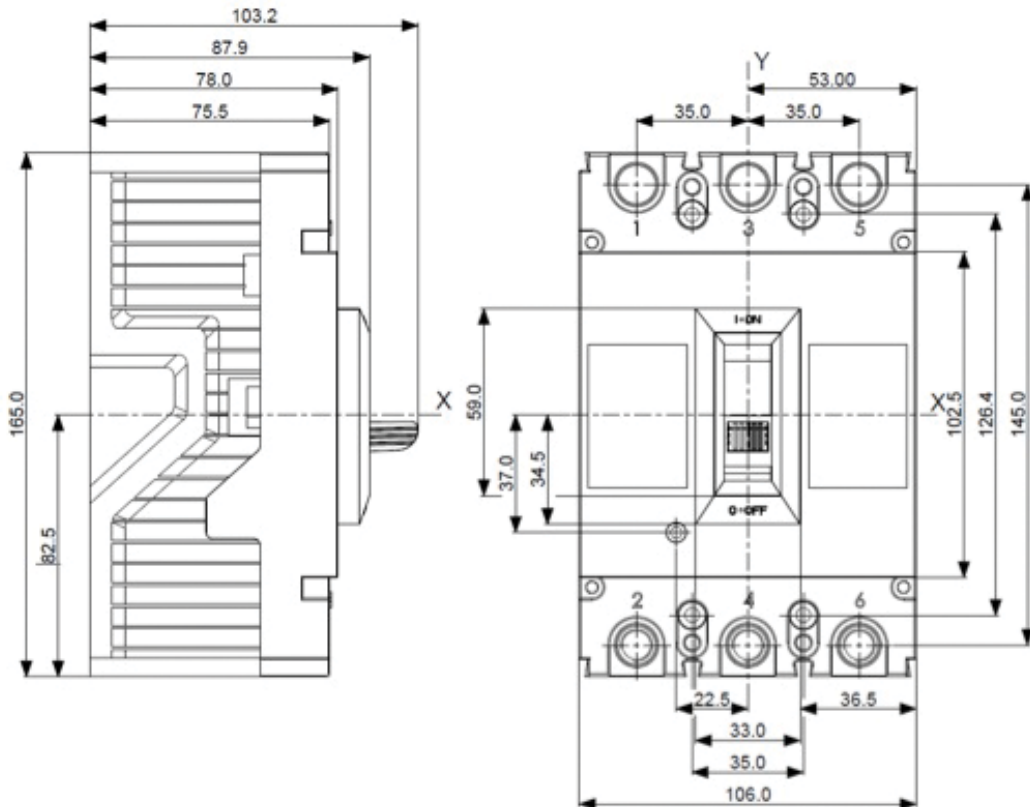


# AF series Dimensions

## AF100N Dimensions



## AF250N Dimensions



# Free Maintenance Service at Home for alfanar Products

Switches, Sockets, Distribution Boards, & Circuit Breakers



Our customer satisfaction rate was 94.4%  
on services delivered by our Technical Support team.

Customer Service  
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to learn more about our  
free maintenance service



# Notes

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# Notes

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