

Precision.
Performance.
Protection

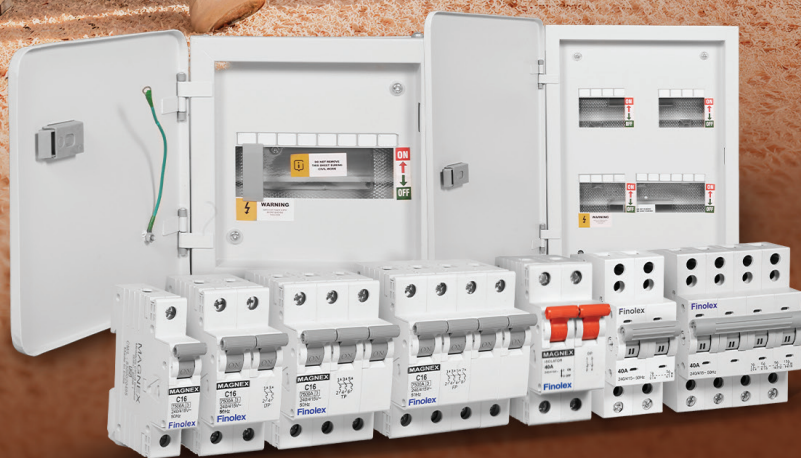
Finolex

XCEEDS XPECTATIONS



**MAGNEX
SWITCHGEAR**

7.5 kA MCB SERIES



WHY MCB?

Every electrical system requires reliable protection against abnormal current conditions. **Miniature Circuit Breakers (MCBs)** are essential protective devices designed to automatically disconnect a circuit during **overload or short-circuit conditions**.

By interrupting excessive current, an MCB helps protect **electrical wiring, connected equipment and the overall electrical installation**, while supporting safer and more reliable operation of the system.

HOW DOES AN MCB WORK?

An MCB continuously monitors the current flowing through the circuit and automatically trips when the current exceeds safe limits.



NORMAL OPERATION

Current flows within the permissible range and the MCB remains ON.



OVERLOAD

When excessive current continues for a certain period, the thermal protection mechanism responds and trips the MCB to disconnect the circuit.



SHORT CIRCUIT

A sudden and significantly higher fault current activates the magnetic protection mechanism, enabling rapid tripping and isolation of the faulty circuit.



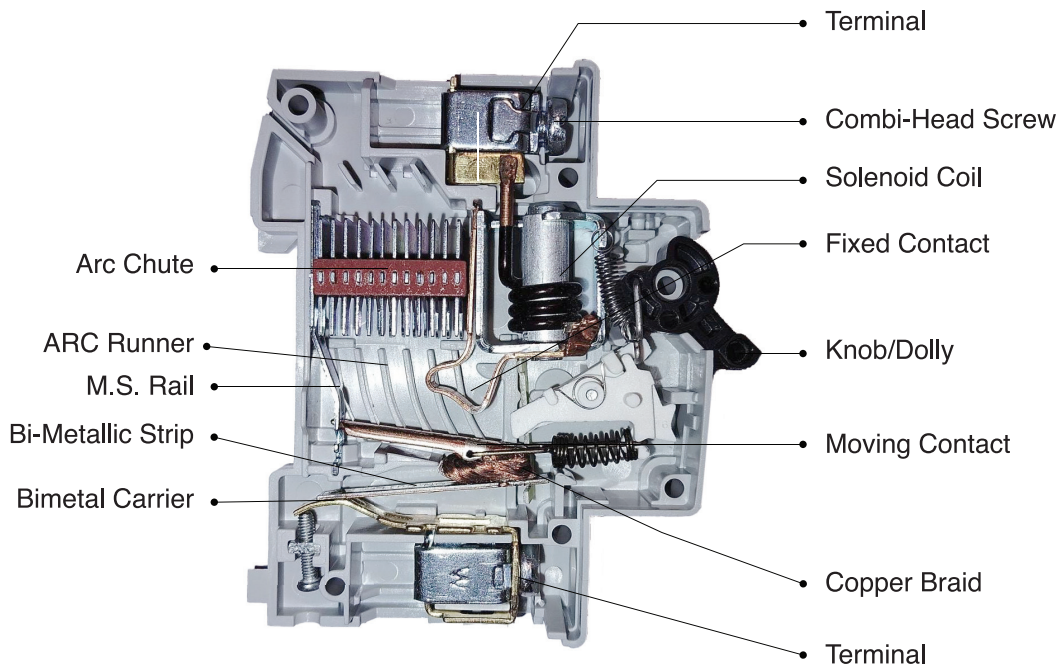
INTRODUCING FINOLEX MAGNEX 7.5 kA

NEXT-LEVEL CIRCUIT PROTECTION FOR MODERN ELECTRICAL SYSTEMS

Built on Finolex's long-standing electrical expertise, the **Magnex 7.5 kA Series** brings modern circuit protection technology to a wide range of electrical applications.

With an **Optimised 7.5 kA Breaking Capacity**, Magnex is designed to interrupt higher prospective fault currents within its specified application, providing enhanced protection and greater confidence in electrical installations.





INTERNAL COMPONENT BREAKDOWN

Component Name	Functional Description
Operating Knob & Mechanism	Ergonomic control lever with high-speed contact release
Arc Chute Assembly	Multi-plate arc chute to split, cool, and extinguish arc instantly
Thermostatic Bi-metal Strip	Precision-calibrated bi-metal for accurate overload tripping
Magnetic Solenoid & Plunger	High-speed electromagnetic coil for instant short-circuit response
Wiping Fixed & Moving Contacts	Silver-alloy contacts designed to resist contact welding
Bi-Connect Terminals	Heavy-duty terminals

MAGNEX 7.5 kA ENGINEERED FOR CONFIDENCE

7.5 kA Breaking Capacity » Enhanced fault interruption	Copper + Silver Inlay Contacts » Reliable current conduction & switching	Thermal + Magnetic Protection » Accurate overload & rapid short-circuit response
IP20 Finger Protection » Enhanced user safety	High Endurance Life » Reliable current conduction & switching	Laser Printing » Clear identification & traceability
Line Load Reversibility » Ease of connection		

KEY FEATURES & SYSTEM BENEFITS

- Optimised Breaking Capacity of 7.5 kA
- Enhanced Fault Interruption / Improved System Protection

The Magnex MCB is designed with an optimised 7.5 kA breaking capacity to effectively interrupt higher levels of prospective short-circuit current within its specified ratings. This helps isolate fault conditions quickly and supports enhanced protection of wiring, connected equipment and the overall electrical installation.

BENEFIT: _____

Higher fault-interruption capability provides greater protection and confidence in electrical systems.

- Copper Contacts with Silver Inlay
- Efficient Current Carrying / Reliable Contact Performance

High-quality copper contacts with silver inlay provide efficient current conduction and reliable switching performance. The silver inlay supports improved contact characteristics and helps maintain dependable electrical performance during repeated switching and fault interruption operations.

BENEFIT: _____

Helps achieve stable current flow, reliable switching and improved contact performance over the product's operating life.

- Accurate Thermal Tripping & Quick Magnetic Tripping Mechanism
- Precise Overload Protection / Rapid Short-Circuit Response

The Magnex MCB incorporates a thermal protection mechanism for accurate response to sustained overload conditions and a magnetic tripping mechanism for rapid response to high short-circuit currents.

Together, these mechanisms provide two levels of protection:

- THERMAL**
» Overload Protection
- MAGNETIC**
» Short-Circuit Protection

BENEFIT: _____

Helps protect electrical circuits from prolonged overloads and sudden fault currents, reducing the possibility of damage to cables and connected equipment.



Finger Protection IP20

Safer Handling / Reduced Risk of Accidental Contact

The MCB is designed with finger-protection features to minimise the possibility of accidental contact with live electrical parts during normal operation and handling.

BENEFIT: _____

Provides an additional level of user safety during operation and maintenance.

High Endurance Life

Long-Term Reliability / Consistent Performance

Designed for repeated switching operations, the Magnex MCB offers high mechanical and electrical endurance, supporting dependable performance throughout its service life.

BENEFIT: _____

Reduced need for frequent replacement and consistent circuit protection over extended operation.

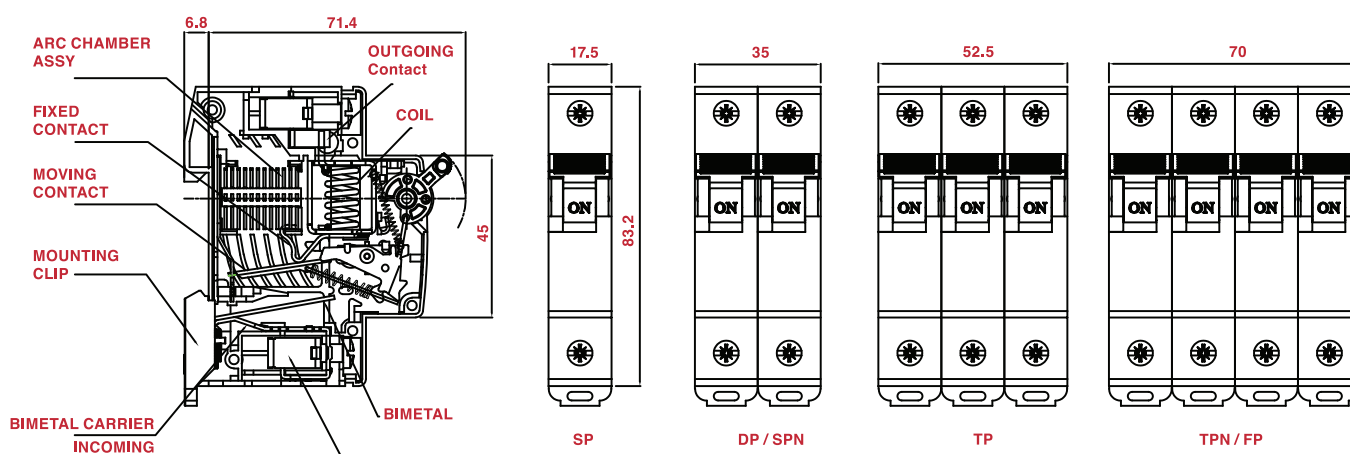
Laser Printing for Identification

Permanent Identification / Easy Product Traceability

Clear laser-printed markings provide durable product identification that is designed to remain legible during the product's service life. Key product information can be identified quickly for selection, installation and maintenance.

BENEFIT: _____

Supports easy identification, faster maintenance and improved product traceability.



TECHNICAL SPECIFICATIONS

Parameter / Specification	Functional Description
Standard Conformity	IS/IEC 60898-1:2015,
Rated Short Circuit Capacity (Icn)	7,500A (7.5kA)
Energy Limiting Class	Class 3
Tripping Characteristics / Curves	B Curve (3-5 In), C Curve (5-10 In),
Number of Poles (Execution)	SP, SP+N, DP, TP, TP+N, FP
Rated Current (In)	6A, 10A, 16A, 20A, 25A, 32A, 40A, 63A
Rated Short Circuit Capacity (Icn)	7500A
Rated Service Short-Circuit capacity (Ics)	6000A
Rated Operating Voltage (Ue)	240/415V AC
Rated Frequency (f)	50 Hz
Tripping Mechanism	Dual: Thermal (Overload) & Magnetic (Short Circuit)
Rated Impulse Withstand Voltage (Uimp)	4 kV
Protection Class / Degree of Ingress	IP20 (Finger-touch proof)
Mounting Type	On standard DIN Rail (35mm x 7.5mm)
Terminal Cross-Section (Cu Conductor)	1 sq.mm to 25 sq.mm
Ambient Operating Temperature	-5°C to +55°C (Calibration ref: 30°C)
Dimensions (Single Pole)	84 mm (H) x 18 mm (W) x 76 mm (D)

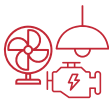
TRIPPING CHARACTERISTICS CURVES

Finolex Magnex MCBs feature dual thermal-magnetic release mechanisms providing optimized protection across different load profiles:



B Curve (3-5 In):

Designed for resistance - heavy circuits with low/no surge currents, such as domestic lighting, residential outlets, and heating equipment.



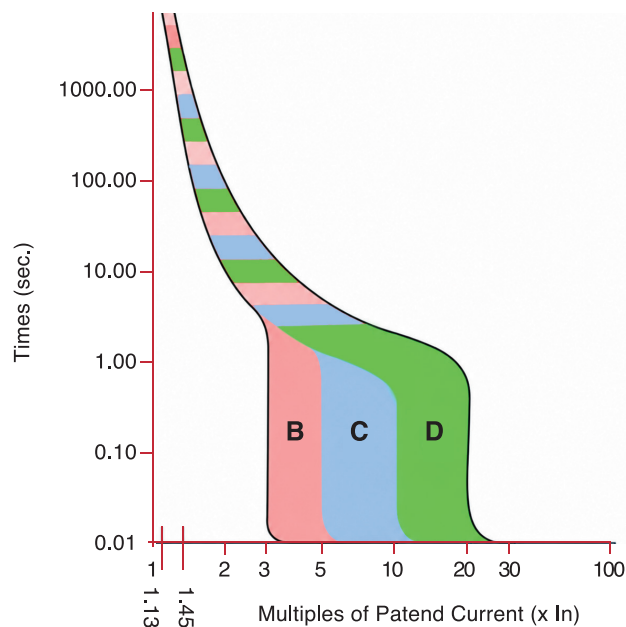
C Curve (5-10 In):

Ideal for general commercial and industrial distribution with inductive loads, commercial lighting, fans, small pumps, and motor circuits.



D Curve (10-20 In):

Specifically engineered for circuits experiencing high inrush/surge currents, such as transformers, heavy motors, UPS systems, and X-ray machinery.



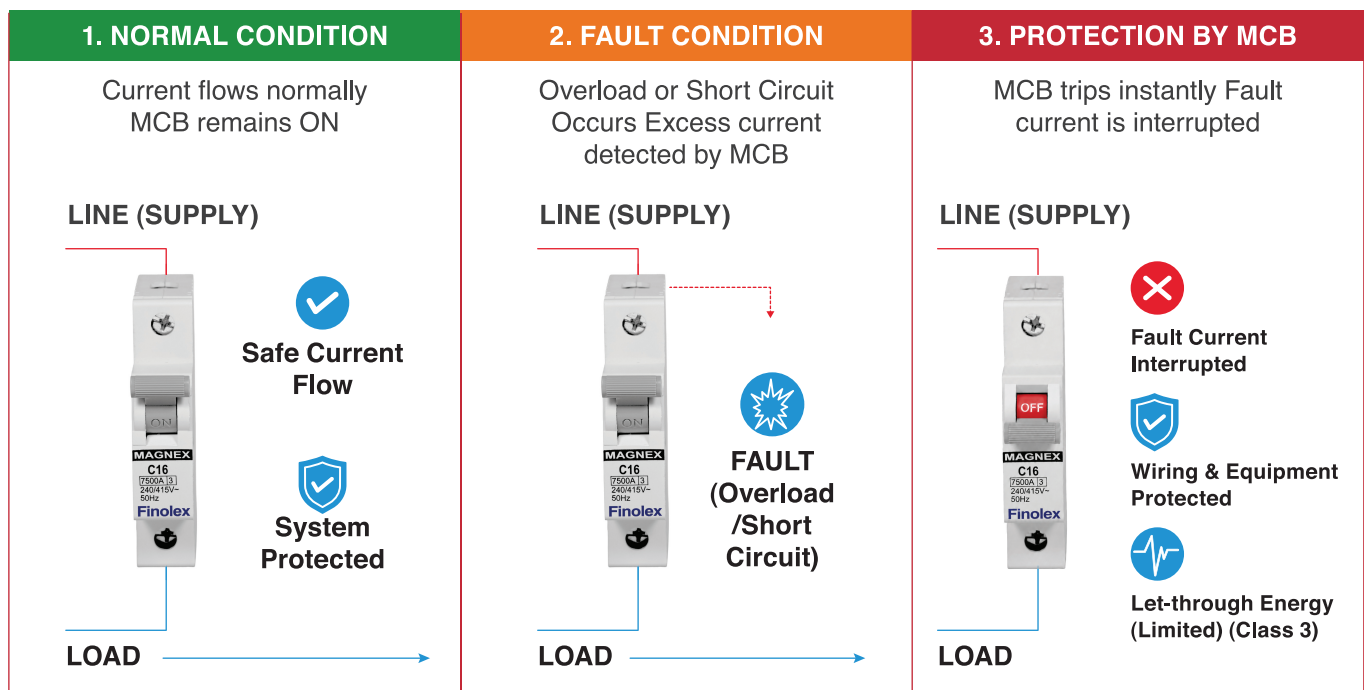
CLASS 3 PROTECTION – MCB

Protection in Case of Fault

MCB provides Class 3 protection as per IEC 60898-1, ensuring safe disconnection during overcurrent or short circuit conditions.

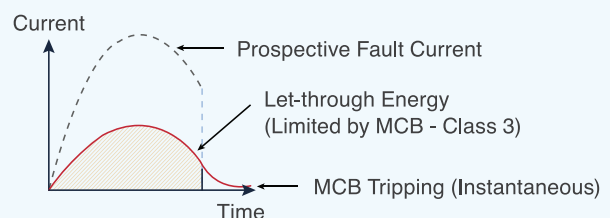
CLASS 3 PROTECTION

Limits let-through energy Ensures protection of wiring and equipment



LIMITED LET-THROUGH ENERGY

MCB of Class 3 limits the let-through energy to a low level during fault, reducing thermal and mechanical stress on cables and connected equipment.



FINOLEX MAGNEX MCB - CLASS 3 PROTECTION FOR A SAFER ELECTRICAL SYSTEM

Detects Fault. Trips Instantly. Limits Energy. Protects What Matters.

MAGNEX – KEY FEATURES

- High Breaking Capacity:** 7.5 kA as per IEC 60898-1 and IS/IEC 60898-1, Icn = 7.5 kA
- Energy Limitation Class 3:** Enhanced protection with reduced let-through energy during short-circuit conditions
- Fast Closure Mechanism:** Quick and reliable switching operation
- Silver Inlay Technology:** Ensures reliable and durable electrical contact performance
- Accurate Thermal & Fast Magnetic Tripping:** Provides dependable overload and short-circuit protection
- IP20 Finger Protection:** Enhanced safety against accidental contact with live parts
- Biconnect Terminal:** Enables ease, speed and flexibility of installation
- Line-Load Reversible:** Flexible installation without polarity constraints
- High Endurance:** Electrical & mechanical operations as per IS/IEC 60898-1, 2015
- Laser Marking:** Clear and durable product identification
- Rated Operating Voltage:** 240/415 V AC
- Wide Range of Applications:** Suitable for residential, commercial and light industrial applications



ITEM CODIFICATION & ORDERING GUIDE

Order designation structured for Finolex Magnex 7.5kA Series MCBs:

SP MCB 'B' CURVE 6-32A

SAP CODE	DESCRIPTION	PRODUCT
9306101060	MCB SP B-6A Magnex 7.5kA	
9306101100	MCB SP B-10A Magnex 7.5kA	
9306101160	MCB SP B-16A Magnex 7.5kA	
9306101200	MCB SP B-20A Magnex 7.5kA	
9306101250	MCB SP B-25A Magnex 7.5kA	
9306101320	MCB SP B-32A Magnex 7.5kA	

DP MCB 'B' CURVE 6-63A

SAP CODE	DESCRIPTION	PRODUCT
9306102060	MCB DP B-6A Magnex 7.5kA	
9306102100	MCB DP B-10A Magnex 7.5kA	
9306102160	MCB DP B-16A Magnex 7.5kA	
9306102200	MCB DP B-20A Magnex 7.5kA	
9306102250	MCB DP B-25A Magnex 7.5kA	
9306102320	MCB DP B-32A Magnex 7.5kA	
9306102320	MCB DP B-40A Magnex 7.5kA	
9306102320	MCB DP B-63A Magnex 7.5kA	

SP MCB 'C' CURVE 6-63A

SAP CODE	DESCRIPTION	PRODUCT
9310101060	MCB SP C-6A Magnex 7.5kA	
9310101100	MCB SP C-10A Magnex 7.5kA	
9310101160	MCB SP C-16A Magnex 7.5kA	
9310101200	MCB SP C-20A Magnex 7.5kA	
9310101250	MCB SP C-25A Magnex 7.5kA	
9310101320	MCB SP C-32A Magnex 7.5kA	
9310101400	MCB SP C-40A Magnex 7.5kA	
9310101630	MCB SP C-63A Magnex 7.5kA	

SPN MCB 'C' CURVE 6-63A

SAP CODE	DESCRIPTION	PRODUCT
9310111060	MCB SPN C-6A Magnex 7.5kA	
9310111100	MCB SPN C-10A Magnex 7.5kA	
9310111160	MCB SPN C-16A Magnex 7.5kA	
9310111200	MCB SPN C-20A Magnex 7.5kA	
9310111250	MCB SPN C-25A Magnex 7.5kA	
9310111320	MCB SPN C-32A Magnex 7.5kA	
9310111400	MCB SPN C-40A Magnex 7.5kA	
9310111630	MCB SPN C-63A Magnex 7.5kA	

DP MCB 'C' CURVE 6-63A

SAP CODE	DESCRIPTION	PRODUCT
9310102060	MCB DP C-6A Magnex 7.5kA	
9310102100	MCB DP C-10A Magnex 7.5kA	
9310102160	MCB DP C-16A Magnex 7.5kA	
9310102200	MCB DP C-20A Magnex 7.5kA	
9310102250	MCB DP C-25A Magnex 7.5kA	
9310102320	MCB DP C-32A Magnex 7.5kA	
9310102400	MCB DP C-40A Magnex 7.5kA	
9310102630	MCB DP C-63A Magnex 7.5kA	

TP MCB 'C' CURVE 6-63A

SAP CODE	DESCRIPTION	PRODUCT
9310103060	MCB TP C-6A Magnex 7.5kA	
9310103100	MCB TP C-10A Magnex 7.5kA	
9310103160	MCB TP C-16A Magnex 7.5kA	
9310103200	MCB TP C-20A Magnex 7.5kA	
9310103250	MCB TP C-25A Magnex 7.5kA	
9310103320	MCB TP C-32A Magnex 7.5kA	
9310103400	MCB TP C-40A Magnex 7.5kA	
9310103630	MCB TP C-63A Magnex 7.5kA	

TPN MCB 'C' CURVE 6-63A

SAP CODE	DESCRIPTION	PRODUCT
9310133060	MCB TPN C-6A Magnex 7.5kA	
9310133100	MCB TPN C-10A Magnex 7.5kA	
9310133160	MCB TPN C-16A Magnex 7.5kA	
9310133200	MCB TPN C-20A Magnex 7.5kA	
9310133250	MCB TPN C-25A Magnex 7.5kA	
9310133320	MCB TPN C-32A Magnex 7.5kA	
9310133400	MCB TPN C-40A Magnex 7.5kA	
9310133630	MCB TPN C-63A Magnex 7.5kA	

FP MCB 'C' CURVE 6-63A

SAP CODE	DESCRIPTION	PRODUCT
9310104060	MCB FP C-6A Magnex 7.5kA	
9310104100	MCB FP C-10A Magnex 7.5kA	
9310104160	MCB FP C-16A Magnex 7.5kA	
9310104200	MCB FP C-20A Magnex 7.5kA	
9310104250	MCB FP C-25A Magnex 7.5kA	
9310104320	MCB FP C-32A Magnex 7.5kA	
9310104400	MCB FP C-40A Magnex 7.5kA	
9310104630	MCB FP C-63A Magnex 7.5kA	

DOUBLE POLE MCB 'C' CURVE 40-63A

SAP CODE	DESCRIPTION	PRODUCT
9321102400	DP 40A ISOLATOR Magnex	
9321102630	DP 63A ISOLATOR Magnex	

FOUR POLE ISOLATOR 40-63A

SAP CODE	DESCRIPTION	PRODUCT
9321104400	FP 40A ISOLATOR Magnex	
9321104630	FP 63A ISOLATOR Magnex	

MCB SELECTION CHART

Appliances	Capacity / watt (Load) (240V-1ph)	Current Rating of MCB	Type of MCB
Air Conditiner 	1.0 tonnes 1.5 tonnes 2.0 tonnes	10A 16A 20A	"C" Series "C" Series "C" Series
Refrigerator 	165 litres 285 litres 320 litres and Above	6A 10A 16A	"C" Series "C" Series "C" Series
Oven cum Griller 	1750W 2000W	10A 32A	"B" Series "B" Series
Oven only 	750W	6A	"B" Series
Hot Plate Only 	2000W	10A	"B" Series
Room Heater 	1000W 2000W	6A 10A	"B" Series "B" Series
Washing Machine 	300W	2A	"C" Series
Washing Machine (with heater) 	1300W	10A	"C" Series
Water Heater 	1000W 2000W 3000W 6000W	10A 10A 16A 32A	"B" Series
Electric Iron 	750W 1250W	10A 16A	"B" Series "B" Series
Auto Toaster (2 Slices) 	1200W	16A	"B" Series
Electric Kettle 	1500W	10A	"B" Series

Decades Of Electrical Expertise...

Evolving With Every Generation.

Started in 1958, Finolex Cables Limited is India's largest and leading electrical and telecommunication cables manufacturer. Finolex Cables has always believed in enhancing capabilities and augmenting the product basket. In the last few years, besides the cables business the company has forayed into new segments and added new products under the Finolex brand. The company offers Total Electrical Solutions with products like electrical wires, 3 core flat cables, communication cables, telecommunication cables, flexible cables, auto cables, switch gear, conduits, room heaters, LED lights, switches, fans, irons and water heaters. Finolex Cables Limited has four manufacturing facilities viz. at Pimpri (Pune), Urse (near Pune), Verna (Goa) and Roorkee (Uttarakhand).

The company is known for their unmatched quality and safety standard which has made it amongst the most reliable brands of the country. Over the six-decade long journey, Finolex Cables has cemented its reputation as an innovative leader and quality manufacturer by continuously upgrading technology, modernizing manufacturing facilities and maintaining the highest standards in quality and service.

Finolex
Cables Limited
AN IS/ISO 9001 CERTIFIED COMPANY

26-27, Mumbai-Pune Road, Pimpri, Pune - 411018, India.
Tel: 020-27506200 | Customer Care No.: 1800-209-0166
Visit us at: www.finolex.com | Email: sales@finolex.com
CIN: L31300MH1967PLC016531

FOR TECHNICAL LITERATURE PLEASE CONTACT OUR BRANCH OFFICES: Ahmedabad: Tel: 9974014724 | Bengaluru: Tel: 9901456143 | Bhubaneswar: Tel: 8763042850 | Chennai: Tel: 6383063725 | Chandigarh: Tel: 9316034670 | Cochin: Tel: 9746472263 | Coimbatore: Tel: 9843255339 | Dehradun: Tel: 9760045003 | Dharwad: Tel: 9060080339 | Goa: Tel: 9370144212 | Gurgaon: Tel: 9250062004 | Guwahati: Tel: 9435324398 | Indore: Tel: 9039939692 | Jaipur: Tel: 9919483377 | Kolkata: Tel: 9804204724 | Lucknow: Tel: 9560299393 | Maharashtra: Tel: 9922935674 | Mumbai: Tel: 9702021345 | New Delhi: Tel: 9870170171 | Noida: Tel: 9310949219 | Patna: Tel: 9860375887 | Pune: Tel: 8237724544 | Raipur: Tel: 7008336581 | Ranchi: Tel: 9771408866 | Secunderabad: Tel: 8757554040 | Uttarakhand: Tel: 9760045003 | Vadodara: Tel: 9825022131 | Vijayawada: Tel: 9866599150



/finolexcables



/finolexcables



/finolex.cables

ALL INFORMATION GIVEN HEREIN IS IN GOOD FAITH. FINOLEX SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF INCORRECT USE OR INTERPRETATION. In order to derive maximum benefit and utilisation of our products, we advise that these products are stored, installed and commissioned as per the norms prevailing in the place of installation. When decommissioned, these should be disposed using appropriate methods/process specified in respective state / location of use so as not to affect the environment adversely.