

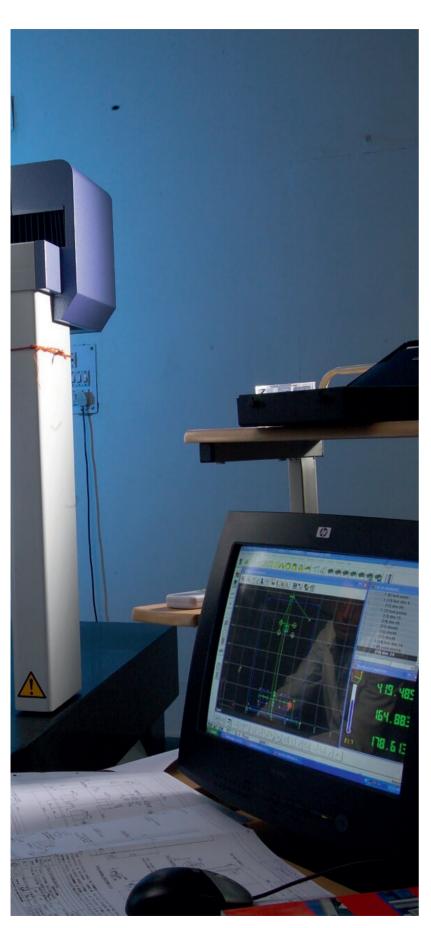




PROTECT YOUR FAMILY AND HOME WITH LUKER MCBS, RCCBS & DBS







Contents

Radium R3 - Miniature Circuit Breaker

Introduction	
Highlights	
Features - Construction	
Technical Data - Characteristics	
Technical Data - Tripping Curves	
Product Reference	
Product Reference - Isolator & Accessories	1
Dimensions	1
Radium R3 - Residual Current Circuit Breaker	
Introduction	1
Highlights	1
Technical Data - Characteristics	7.
Features - Performance	1
Product Reference - RCCB	1
Dimensions	1
Anti-dust 3 (Ad3) - Distribution Board	
Introduction	2
Features - Performance	2
SP&N Distribution Board	2
TP&N Distribution Board	2
Manual Phase Selector Horizontal DB	2



INTRODUCTION - MCB

Radium - R3

MINIATURE CIRCUIT BREAKER

As power distribution needs play a pivotal role in all the significant sectors namely Commercial, Industrial and Residential, improved Breaker performance through better electrical safety, higher operational endurance, continued service and reduced cost have become of paramount importance. LUKER Radium R3 MCBs have been engineered to constantly fulfill the above requirements. With these features LUKER is setting new standards for user friendly and superlative electrical circuit protection.

The LUKER Radium R3 MCB is a high performing Thermal Magnetic current limiting device with the ability to disconnect short circuits up to 10kA. The range is available in tripping characteristics types C for SP, SP&N, DP, TP, TP&N & FP configurations in 0.5 - 125A current ratings.

All metal components for operating mechanism of Radium R3 circuit breaker are specially treated for high self lubrication leading to repeat accuracy during service life. The MCBs conform to Standards: IEC 60898-1995 and IS/IEC 60898-1:2002 and stand guaranteed for best quality for optimum performance.

























HIGHLIGHTS

SAFE | CONVENIENT | ENERGY SAVING | WIDE RANGE

IP 20 Degree Protection

Terminals are finger touch proof. Prevents electrical shock by accidental touch.

Trip Free Mechanism

MCB trips even if held in ON position.



Padlocking Facility

Dolly can be padlocked in

- OFF position for personal safety during maintenance

- ON positing for extremely critical loads



Current Limiting Design - Class 3 Minimum let through energy under fault condition due to ultra fast contact separation and rapid quenching of the arc. This reduces stress on connected loads and cables.

High Terminal Capacity with Deep Serrations Ensures proper termination and firm connection to accommodate 35 sq mm cable.

Bi-connect Termination Possible Choice to use Busbar and/or cable in the same terminal, provides reliable termination.



Din Rail Mounting

Two stage snapping device for simple effortless and firm seating on 35 mm Din Rail, easy & efficient mounting.

Combination Head Captive Screws

Safe and provides the flexibility of both +/- Head screw driver.



Low Power Consumption Cost effective and energy saving. The Watt loss of Radium R3 MCBs is extremely low providing valuable energy savings over its entire life cycle.



Legend Plate

Ensures circuit identification and enhanced safety.



Wide range

0.5 to 125A 1P, 1P+N, 2P, 3P, 3P+N & 4P configurations B, C & D Tripping Characteristic



Air circulation

When two poles are placed adjacent to each other, these channels form a tunnel resulting in effective air circulation around individual poles.

2 Position dolly

Clear indication of the operational status of device.



FEATURES - CONSTRUCTION

HOUSING

Radium R3 MCBs are made up of engineered thermo plastic for self lubrication and critical performance. The housing and other moulded components are fire retardant having high melting point, low water absorption and high dielectric strength therefore enabling it to withstand high temperature.

OPERATING MECHANISM

Radium R3 Circuit Breakers are based on Thermal Magnetic technology. The protection is ensured by combining a temperature receptive mechanism (bimetal) and a current sensitive electro-magnetic device. The thermal operation provides protection from normal overload and the electro-magnetic device against large overloads and short circuits.

SUPERIOR CONTACT MECHANISM

The mechanism comprises of fixed and moving contacts made up of silver graphite for surety, extended life span and anti-weld properties. These contacts have low contact resistance resulting in reduced voltage drop and low watt loss commensurating to energy savings.

HIGH TECH ARC BLOWER

Protects from hazards of overloads and short-circuits. The arc under the influence of magnetic field is moved into the arc chute where it is quickly extinguished and quenched.

MAXIMUM BACKUP PROTECTION

To protect the Radium R3circuit breakers against higher short circuit current, fuses should be installed at the incoming side. The current rating of these fuse links should not be more than the values stated in the table.

MCB RATING	BACK-UP FUSE RATING
1A	25A
4A	50A
6A	80A
10A	100A
63A	100A

LEGEND PLATE

Easy identification of circuits irrespective of position on the Distribution Board. Very useful during maintenance. A unique feature.

WATT LOSS

RATING (AMP)	AS PER IS/IEC60898-1:2002 MAXIMUM WATT LOSS	MAXIMUM WATT LOSS IN SP
6	3.0W	0.76W
10	3.0W	1.83W
16	3.5W	2.44W
20	4.5W	3.07W
25	4.5W	2.80W
32	6.0W	3.92W
40	7.5W	3.96W
63	13.0W	6.06W



TECHNICAL DATA - CHARACTERISTICS

MCB - AC		RADIUM R3 ISOLATOR		
Standard Conformity	IS/IEC60898-1-2002			IS/IEC60947-3
Туре	В	С	D	
Rated Current (In)	6-63A	0.5-125A	0.5-63A	25-125A
Rated Voltage AC (Ue)		240/415V		240/415V
Utilization Category				AC22A
Rated Frequency Hz		50/60Hz		50Hz
No. of Poles (Execution)	SP, S	P&N, DP, TP, TP&	N & FP	SP, DP, TP & FP
Rated Short Circuit Breaking Capacity	10kA	10kA	10kA	
Rated Insulation Voltage (Ui)		660V		660V
Magnetic Release Setting	(3-5) l n	(5-10) l n	(10-20)In	
Rated Impulse Voltage (Uimp)		4kV		6kV
Electrical/MechanicalLife <32A >32A		30,000 10,000		30,000 10,000
Ambient Temperature		-5°C to +55°C		-5°C to +55°C
Energy Limiting Class		ELC 3		
Mounting	Clip on	Din rail (35 mm	x 7.5 mm)	
Line Terminal Capacity		35 mm2		35 mm2
Degree of Protection	IP 20			IP 20
Resistance to Shock	40mm free fall			40mm free fall
Ambient reference temperature		30°C		
Installation Position	Vertical/Horizontal			Vertical/Horizontal

MCB - DC

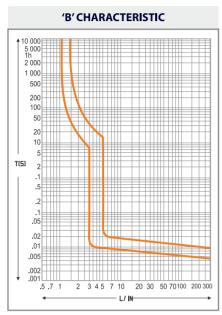
Circuit Breakers for DC application are engineered to fulfill tough arc quenching conditions. DC MCB incorporates built in magnet to direct the arc into the arc quenching chamber.

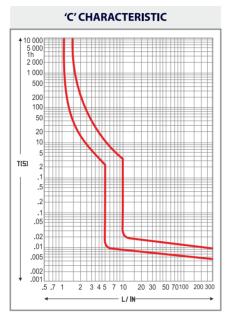
SPECIFICATIONS

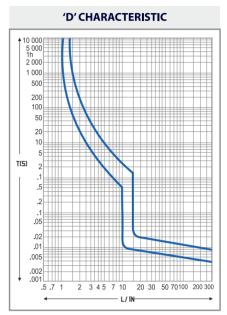
Standard Conformity	IEC 60898-2
Current Rating	0.5-63A
No. of Poles	SP & DP
Voltage Rating	220V (max.)
Short Circuit Breaking Capacity	10kA



TECHNICAL DATA - TRIPPING CURVES







TYPE	TYPE APPLICATION		RMAL URRENT	TRIPPING TIME IN≤63A	ELECRO MAGNETIC TEST CURRENT		TRIPPING TIME (T)
			HIGH	III 205A			111112 (1)
2	Lighting & Distribution with	1.13x l n		>1hour	3xln		>0.1s
	no surge Current		1.45x l n	<1hour		3x l n	<0.1s
6	Inductive Load with surge Current	1.13xln		>1hour	5xln		≥0.1s
			1.45xln	>1hour		5x l n	<0.1s
10	High Inductive Load &	1.13x l n		<1hour	10xln		≥0.1s
70	High Inrush Current		1.45xln	>1hour		20xln	<0.1s

TEMPERATURE DERATING

In plant engineering situations, where ambient temperature is higher than the regulatory reference temperature of 30°C, the circuit breakers may be subjected to untimely tripping, i.e. opening when not required, since the increase in temperature is interpreted as a current surge. Ambient temperature, as a matter of fact, affects the initial deformation of the bimetal. At a temperature above 30°C the thermal release trips faster, behaving like a relay with a lower nominal current. It is therefore imperative to take into account nominal current derating if the circuit breaker is installed in an ambient temperature above 30°C.

The table gives the max. operating current referring to the different temperatures.

TEMPERATURE							
In(A)	25°C	30°C	35°C	40°C	45°C	50°C	
2	2.04	2	1.96	1.9	1.86	1.82	
6	6.24	6	5.82	5.52	5.28	4.98	
10	10.40	10	9.7	9.2	8.8	8.3	
16	16.5	16	15.5	15	14.4	14.1	
20	20.6	20	19.4	18.8	18	17.1	
25	25.8	25	24.3	23.5	22.5	22	
32	33	32	31.04	30.1	28.8	28.2	
40	41.2	40	38.8	37.6	36	35.2	
63	64.89	63	61.79	60	58	56.07	



PRODUCT REFERENCE







C' Curve R3	Description	In(A)	Reference
1	Description	(, .,	'C' Curve R3
Single Pole		0.5	LDMC00SPC00P5
Single Pole		1	LDMC00SPC0001
Single Pole		2	LDMC00SPC0002
Single Pole A Single Pole Single Pole Single Pole Single Pole A Single Pole Single Pole Single Pole A Single Pole Single Pole Single Pole Single Pole A Single Pole Single Pole Single Pole Single Pole A Single Pole A Single Pole Single Pole Single Pole A Single Pole A Single Pole Single Pole A S		3	LDMC00SPC0003
Single Pole 1		4	LDMC00SPC0004
Single Pole 1		5	LDMC00SPC0005
Single Pole 16	1	6	LDMC00SPC0006
20	↓		
20	Single Pole		
1 N Single Pole	ξ		
1 N Single Pole	2		
Single Pole	۷		
63			
B0			
100			
125 LDMC00SPC0125 0.5 LDMC0SPNC00P5 1 LDMC0SPNC0001 2 LDMC0SPNC0002 3 LDMC0SPNC0003 4 LDMC0SPNC0004 4 LDMC0SPNC0006 10 LDMC0SPNC0006 10 LDMC0SPNC0010 16 LDMC0SPNC0016 20 LDMC0SPNC0016 20 LDMC0SPNC0025 32 LDMC0SPNC0025 32 LDMC0SPNC0032 40 LDMC0SPNC0032 40 LDMC0SPNC0032 40 LDMC0SPNC0063 10 LDMC0SPNC0063 10 LDMC0DPC0001 2 LDMC0DPC0001 2 LDMC0DPC0001 2 LDMC0DPC0001 2 LDMC0DPC0001 2 LDMC0DPC0001 3 LDMC0DPC0002 3 LDMC0DPC0003 4 LDMC0DPC0003 4 LDMC0DPC0003 4 LDMC0DPC0005 6 LDMC0DPC0005 6 LDMC0DPC0006 10 LDMC0DPC0010 20 LDMC0DPC0010 5 LDMC0DPC0010 5 LDMC0DPC0005 6 LDMC0DPC0010 5 LDMC0DPC0010			
Double Pole			
1		125	LDMC00SPC0125
Company		0.5	LDMC0SPNC00P5
Single Pole		1	LDMC0SPNC0001
Single Pole		2	LDMC0SPNC0002
Single Pole Neutral 5		3	LDMC0SPNC0003
Single Pole		4	LDMC0SPNC0004
10	1 N	5	LDMC0SPNC0005
16	$\downarrow \downarrow$	6	LDMC0SPNC0006
Neutral 20	•	10	LDMC0SPNC0010
Double Pole 2		16	LDMC0SPNC0016
32	Neutrai	20	LDMC0SPNC0020
Double Pole 40 LDMC0SPNC0040 50 LDMC0SPNC0050 63 LDMC0SPNC0063 0.5 LDMC00DPC00P5 1 LDMC00DPC0001 2 LDMC00DPC0002 3 LDMC00DPC0003 4 LDMC00DPC0004 5 LDMC00DPC0005 6 LDMC00DPC0006 LDMC00DPC0010 LDMC00DPC0010 16 LDMC00DPC0010 16 LDMC00DPC0010 16 LDMC00DPC0010 16 LDMC00DPC0020 LDMC00DPC0020 25 LDMC00DPC0020 10 LDMC00DPC0032 LDMC00DPC0032 LDMC00DPC0040 50 LDMC00DPC0050 63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0080	2 N	25	LDMC0SPNC0025
Double Pole Doubl		32	LDMC0SPNC0032
Double Pole Columbia		40	LDMC0SPNC0040
Double Pole 0.5 LDMC00DPC0001 1		50	LDMC0SPNC0050
Double Pole 1		63	LDMC0SPNC0063
Double Pole 1		0.5	I DMC00DPC00P5
Double Pole 2			
3 LDMC00DPC0003 4 LDMC00DPC0004 5 LDMC00DPC0005 6 LDMC00DPC0006 10 LDMC00DPC0010 16 LDMC00DPC0016 20 LDMC00DPC0020 25 LDMC00DPC0025 32 LDMC00DPC0032 40 LDMC00DPC0032 50 LDMC00DPC0050 63 LDMC00DPC0050 63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0100			
Double Pole 4			
Double Pole 5			
Double Pole 6			
Double Pole 10 10 16 16 10 10 10 10 10 10 10 10 10 10 10 10 10			
Double Pole 16 LDMC00DPC0016 20 LDMC00DPC0020 25 LDMC00DPC0032 40 LDMC00DPC0040 50 LDMC00DPC0050 63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0100	1 3		
Double Pole 20 LDMC00DPC0020 25 LDMC00DPC0025 32 LDMC00DPC0032 2 4 40 LDMC00DPC0040 50 LDMC00DPC0050 63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0100	× ×		
25 LDMC00DPC0025 32 LDMC00DPC0032 2 4 40 LDMC00DPC0040 50 LDMC00DPC0050 63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0100	Double Polo		
32 LDMC00DPC0032 2 4 40 LDMC00DPC0040 50 LDMC00DPC0050 63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0100	Pomple Lole C C		
50 LDMC00DPC0050 63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0100	7 7		LDMC00DPC0032
63 LDMC00DPC0063 80 LDMC00DPC0080 100 LDMC00DPC0100	2 4	40	LDMC00DPC0040
80 LDMC00DPC0080 100 LDMC00DPC0100		50	LDMC00DPC0050
100 LDMC00DPC0100		63	LDMC00DPC0063
		80	LDMC00DPC0080
		100	LDMC00DPC0100
125 LDMC00DPC0125		125	LDMC00DPC0125



PRODUCT REFERENCE







Description	In(A)	Reference
Description	III(A)	'C' Curve
Three Pole	0.5 1 2 3 4 5 6 10 16 20	LDMC00TPC00P5 LDMC00TPC0001 LDMC00TPC0002 LDMC00TPC0003 LDMC00TPC0004 LDMC00TPC0005 LDMC00TPC0006 LDMC00TPC0010 LDMC00TPC0016 LDMC00TPC0020
2 4 6	ر ر ر	LDMC00TPC0025 LDMC00TPC0032 LDMC00TPC0040 LDMC00TPC0050 LDMC00TPC0063 LDMC00TPC0080 LDMC00TPC0100 LDMC00TPC0125
Three Pole H Neutral 2 4 6 N	0.5 1 2 3 4 5 6 10 16 20 25 32 40 50 63	LDMCOTPNCOOP5 LDMCOTPNCOOO1 LDMCOTPNCOOO2 LDMCOTPNCOOO3 LDMCOTPNCOOO4 LDMCOTPNCOOO5 LDMCOTPNCOOO6 LDMCOTPNCOO10 LDMCOTPNCOO16 LDMCOTPNCOO20 LDMCOTPNCOO25 LDMCOTPNCOO25 LDMCOTPNCOOO32 LDMCOTPNCOOO40 LDMCOTPNCOOOO05 LDMCOTPNCOOOO000000000000000000000000000000000
1 3 5 7	0.5 1 2 3 4 5 6 10 16 20 25 32 40 50 63 80 100 125	LDMC00FPC00P5 LDMC00FPC0001 LDMC00FPC0002 LDMC00FPC0003 LDMC00FPC0004 LDMC00FPC0006 LDMC00FPC0010 LDMC00FPC0016 LDMC00FPC0020 LDMC00FPC0025 LDMC00FPC0032 LDMC00FPC0032 LDMC00FPC0032 LDMC00FPC0040 LDMC00FPC0040 LDMC00FPC0050 LDMC00FPC0050 LDMC00FPC0063 LDMC00FPC0080 LDMC00FPC0100 LDMC00FPC0125



PRODUCT REFERENCE - ISOLATOR & ACCESSORIES







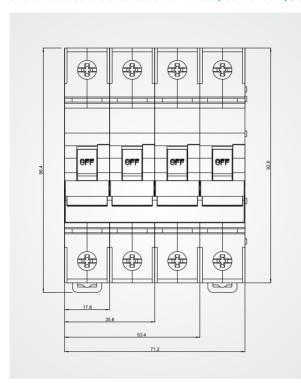


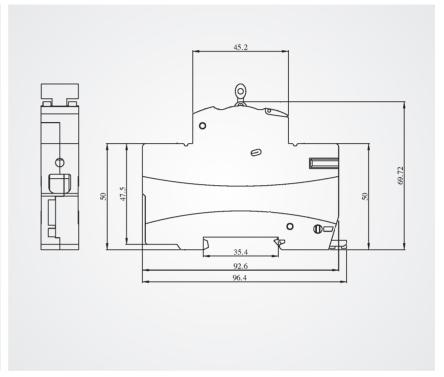
Description	In(A)	Reference
	25	LDSD000SP0025
	40	LDSD000SP0040
	63	LDSD000SP0063
Single Pole	80	LDSD000SP0080
	100	LDSD000SP0100
	125	LDSD000SP0125
	25	LDSD000DP0025
	40	LDSD000DP0040
1 3	63	LDSD000DP0063
Double Pole	80	LDSD000DP0080
2 4	100	LDSD000DP0100
	125	LDSD000DP0125
	25	LDSD000TP0025
1 3 5	40	LDSD000TP0040
Three Pole	63	LDSD000TP0063
2 4 6	80	LDSD000TP0080
2 4 0	100 125	LDSD000TP0100
	125	LDSD000TP0125
	25	LDSD000FP0025
1 3 5 7	40	LDSD000FP0040
	63	LDSD000FP0063
Four Pole	80	LDSD000TP0080
2 4 6 8	100	LDSD000FP0100
	125	LDSD000FP0125



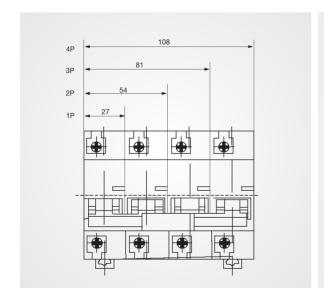
DIMENSIONS

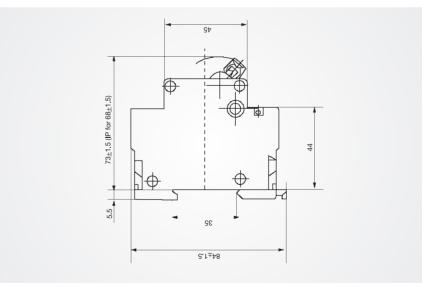
INSTALLATION DIMENSIONS - MCB (.05 TO 63A) / ISOLATOR (25 TO 63A)





INSTALLATION DIMENSIONS MCB (80 TO 125A)







INTRODUCTION - RCCB





Radium - R3

RESIDUAL CURRENT CIRCUIT BREAKER

From Bungalows to High Risers, from Trade Centres to Hotels, from Clinics to Hospitals, from escalators to elevators electricity is the foremost requirement. Electricity has become an integral part of our life so common to our daily requirements that we forget its intricacies and hazardous behaviour.

Day after day we come across many un to do events hampering human lives due to negligent usage of electricity. Even large number of Industrial and Domestic fire are attributed to and caused by electricity.

Faulty insulated equipments or wrong usage of electrical devices cause current to flow through insulation to the earth. This is leakage current. This current poses two severe risk factors which are

- Fire Risk
- Electrocution Risk

Residual Current Circuit Breaker provides the function of isolation switching and earth leakage protection of electrical circuits. It also provides the indirect protection of the human body against the dangerous effects of electric current. It is also a protective device against fire caused by the electrical circuit fault.

PHYSIOLOGICAL EFFECT OF ELECTRIC CURRENT ON HUMAN BODY

500 mA	*	Immediate cardiac arrest resulting in death
70-100 mA	*	Cardiac fibrillation; the heart begins to vibrate and and no longer beats at a steady rate. This situation is dangerous since it is irreversible
20-30 mA	(1)	Muscle contraction can cause respiratory paralysis
10 mA		Muscle contraction: the person remains "stuck" to the conductor
1-10 mA		Prickling sensations

As per Indian Electricity Rules 1956 at all installations with load above 5 KW use of RCCB is compulsory













HIGHLIGHTS

A state-of-the art product fit for Industrial, Residential and Commercial applications. It is one piece residual current circuit breaker which is used both for control and isolation of electrical circuits. It provides total protection to all living beings against direct and indirect contact as well as to installations, big or small, against insulation faults. **Human life is valueless and Radium R3 RCCB is the solution provider for safeguarding it.**

Majority of mishaps occur due to current leakage consequently leading to fire. Radium R3 RCCB of the required rating instantly detects this leakage and terminates the supply reducing the risk of any kind of fire. The range is available in AC Residual Tripping Characteristics in 2 & 4 Pole configurations in 10, 16, 20, 25, 32, 40, 63, 80 & 100Amps in 30, 100 & 300mA sensitivity.

- Provides protection against earth fault/leakage current and also fulfill the function of isolation.
- Automatically measures and disconnect the circuit when earth fault/leakage current occurs and exceeds the rated sensitivity.
- High short-circuit current withstand capacity 10kA
- Dual termination possible for cable and comb type busbar connection
- Equipped with finger protected connection terminals (IP20)
- Fire resistant plastic parts to withstand abnormal heating and strong impact
- Independent of power supply and line voltage. Also free from external voltage fluctuation.
- Incorporates a filtering device for prevention of nuisance tripping due to transient voltage
- Easy padlocking facility.









TECHNICAL DATA - CHARACTERISTICS

Standards			IS 12640-1:2008
Residual tripping chara	cteristics		AC
Tripping time at Iδn	Instantaneous	ms	<40
	Selective	ms	>150
Rated current		Α	10, 16, 20, 25, 32, 40, 63, 80 & 100
Rated residual current/	an .	mA	30, 100, 300
Calibration temperature		°C	30
Number of poles versus	modules		1
Rated voltage Un	2P AC	V	240
	4P AC	V	415
Frequency		Hz	50/60
Maximum service voltag	ge Ubmax	V	2P=265 / 4P=455
Minimum service voltag	e Ubmin	V	2P=100 / 4P=190
Power supply			Top / Bottom
Rated making and breal	king capacity (lm)	Α	500 (or 10xln)
Residual making and br	eaking capacity (I ∆n)	А	500 (or 10xln)
Conditional short-circui	t capacity (Inc)	А	6000 Fuse 100A gLgG
Conditional residual sho	ort-circuit capacity (I∆n)	А	6000 Fuse 100A gLgG
Grid distance (safety dis	stance between two devices)	mm	35
Isolator application	,		yes
Insulation degree	Insulation voltage	D	660
· ·	Shock voltage (1.2/50μs)	kV	6
	Insulation resistance	mΩ	1000
	Dielectric strength	V	2500
Shock resistance (in x, y, z direction) (EN / IEC 60077/16.3)		40g	18 shocks 5 ms
•	x, y, z direction; EN / IEC 60068-2-6)	1.5g	30 min, 0~80Hz
Endurance	electrical at Un, In		10000
	mechanical at Un, In		20000
Protection degree (outs	ide/inside electrical enclosure) with door		IP20 / IP40
Self extinguish degree (V2
	EN/IEC 60068-2, DIN 40046)	°C/RH	+55/95%
Pollution degree (acc_E			3
Operating temperature			AC (-5 ~ +60)
Storage temperature			-25~+70
Terminals capacity	Rigid cable min/max (top)	°C mm²	1.5/25
	Flexible cable min*/max (top)	mm²	1.5/25
	Rigid cable min/max (bottom)	mm²	1.5/25
	Flexible cable min*/max (bottom)	mm²	1,5/25
	(*Flexible cable 0.75/1/1.5 mm2 with c		
Busbars systems	Pin	- 13/	yes
	Fork		yes
CE marking			yes
Torque	Top / Bottom	Nm	5/5
Torquo	TOP / BOLLOTT	T VIII	0/0



FEATURES - PERFORMANCE



Test Button



Rated current In / Iδnn



DIN Rail Mounting

TYPE AC		\sim
Rated Current setting In	Α	10, 16, 20, 25, 32, 40, 63, 80, 100
Residual current IDn	mA	30, 100, 300
Rated voltage AC Un	V	2P : 240; 4P : 415
Minimum operating voltage Ubmin	V	2P:100;4P:190
Mechanical/electrical endurance		20000 / 10000
Tropicalisation acc.to		
EN/IEC 60068-2-28/2-30 and DIN 40046		95% RH at 55 °C
Terminal capacity flexible/rigid cable	mm2	25/25
Poles		DP, FP
Nuisance tripping resistance		250A 8/20us;
		200A 0.5us - 100kHz
Ambient temperature	°C	-5 upto 40
Weight	g	2P- 224.5; 4P-409

SHORT-CIRCUIT CAPACITY	
Acc. to EN/IEC 61008-1	Im = 500A
Making and breaking capacity	IDm > 500A from 16 upto 40A
	IDm = 10In from 63 upto 100A
Short-circuit capacity	Inc = 10000A at 240/415V
	Fuse 80A gG

NORMAL OPERATION AND MOUNTING REQUIREMENT

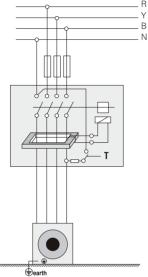
- 1. Ambient temperature $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ •Altitude above sea level less than 2000 m.
- 2. Humidity not exceeding 50% at 40°C and not exceeding 90% at 25°C.
- 3. Installation class II or III.
- 4. Pollution degree 3.
- 5. All equipments used should be properly earthed.
- 6. For right operation should ensure that the neutral conductor on the load side of the RCCB must not be linked to earth. Otherwise tripping may be impaired or nuisance tripping may occur.
- 7. Installation method DIN Rail mounting type.
- 8. Product should be installed vertically at the place where there shall be no severe impact and vibration.
- 9. The product is switched on when the handle is at upper position.

RCCB TRIPPING CAUSE DETECTION & REMEDY

- 1. Switch OFF all the MCBs connected to the circuit downstream the RCCB.
- 2. Switch ON the RCCB and switch ON the MCBs one by one.
- 3. During switching ON of a particular circuit RCCB keeps tripping frequently.
- 4. In this circuit the fault persists.
- 5. Isolate the faulty circuit, correct the fault. Now the RCCB will not trip.



FEATURES - PERFORMANCE





WORKING PRINCIPLE

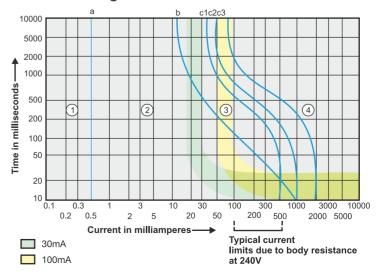
The RCCB works on the current balance principle. The supply conductors are passed through a torroid and form the primary windings of a current transformer. Its secondary winding is connected to a highly sensitive electromagnetic trip relay, which operates the trip mechanism.

In a healthy circuit, sum of the current in phases, is equal to the current in the neutral and the vector sum of all current is equal to zero. If there is any insulation fault in the current and leakage current fows to earth, the current do not balance and their vector sum is not equal to zero. This imbalance is detected by the core balanced current transformer, the RCCB is tripped and supply to load is interrupted.

SENSITIVITY SELECTION CRITERIA

SENSITIVITY	APPLICATION
30mA	Designed for additional protection against direct contact. The 30 mA RCCB protects against leakage currents and indirect contact with earth loop impedance up to 1667 Ohms.
100mA	Is suitable for protection against indirect contact and leakage current for larger installations. The 100 mA RCCB's operate within 30 ms, but do not provide the same level of personal protection as the 30 mA units. The 100 mA RCCB protects against leakage currents and indirect contact with earth loop impedance up to 500 ohms.
300mA	A less sensitive protection device suitable for large installations having high levels of leakage current. 300 mA RCCB's protect against leakage current and indirect contact up to 167 ohms earth loop impedance.

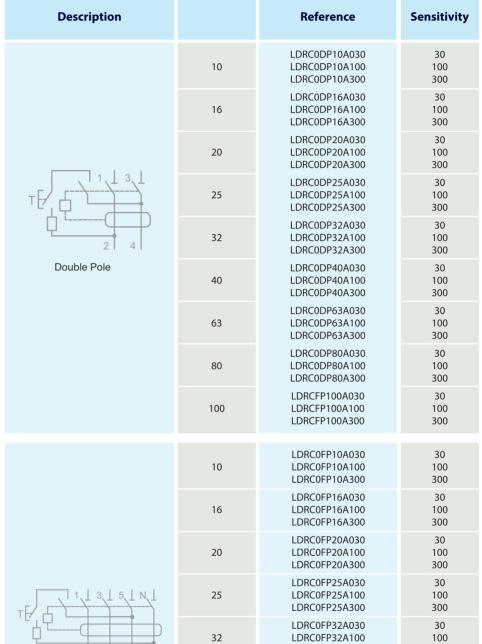
Current Limiting Curve





PRODUCT REFERENCE - RCCB







	10	LDRC0FP10A100 LDRC0FP10A300	100 300
	16	LDRC0FP16A030 LDRC0FP16A100 LDRC0FP16A300	30 100 300
	20	LDRC0FP20A030 LDRC0FP20A100 LDRC0FP20A300	30 100 300
1 1 3 1 5 1 N 1	25	LDRC0FP25A030 LDRC0FP25A100 LDRC0FP25A300	30 100 300
Four Pole	32	LDRC0FP32A030 LDRC0FP32A100 LDRC0FP32A300	30 100 300
	40	LDRC0FP40A030 LDRC0FP40A100 LDRC0FP40A300	30 100 300
	63	LDRC0FP63A030 LDRC0FP63A100 LDRC0FP63A300	30 100 300
	80	LDRC0FP80A030 LDRC0FP80A100 LDRC0FP80A300	30 100 300
		LDRCFP100A030 LDRCFP100A100 LDRCFP100A300	30 100 300



DIMENSIONS

Double Pole

LDRC0DP10A030	LDRC0DP40A030
LDRC0DP10A100	LDRC0DP40A100
LDRC0DP10A300	LDRC0DP40A300
LDRC0DP16A030	LDRC0DP63A030
LDRC0DP16A100	LDRC0DP63A100
LDRC0DP16A300	LDRC0DP63A300
LDRC0DP20A030	LDRC0DP80A030
LDRC0DP20A100	LDRC0DP80A100
LDRC0DP20A300	LDRC0DP80A300
LDRC0DP25A030	LDRCFP100A030
LDRC0DP25A100	LDRCFP100A100
LDRC0DP25A300	LDRCFP100A300
LDRC0DP32A030	
LDRC0DP32A100	

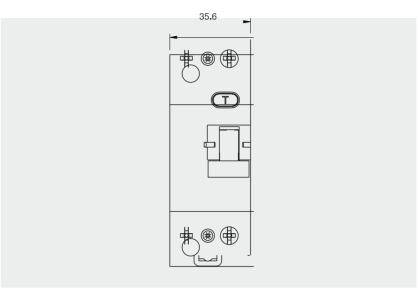
Four Pole

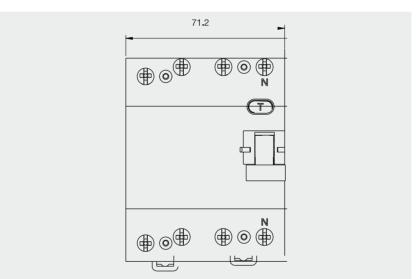
LDRC0DP32A300

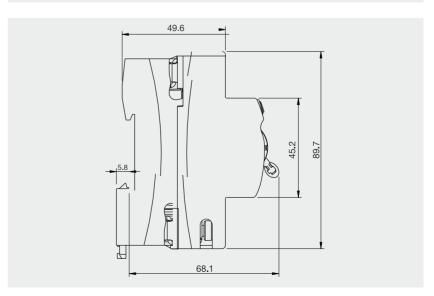
LDRC0FP10A030	LDRC0FP40A030
LDRC0FP10A100	LDRC0FP40A100
LDRC0FP10A300	LDRC0FP40A300
LDRC0FP16A030	LDRC0FP63A030
LDRC0FP16A100	LDRC0FP63A100
LDRC0FP16A300	LDRC0FP63A300
LDRC0FP20A030	LDRC0FP80A030
LDRC0FP20A100	LDRC0FP80A100
LDRC0FP20A300	LDRC0FP80A300
LDRC0FP25A030	LDRCFP100A030
LDRC0FP25A100	LDRCFP100A100
LDRC0FP25A300	LDRCFP100A300
LDRC0FP32A030 LDRC0FP32A100	

Side view - Double & Four Pole

LDRC0FP32A300









NO MORE DUSTING...



USE "ANTI-DUST" MCB DBS FROM LUKER







INTRODUCTION - DB

ANTI-DUST 3 (AD3)

DISTRIBUTION BOARD

The Board design is specially engineered for meeting the requirements of all the segments namely industrial, commercial and residential.

For effective and safe power distribution/sub distribution, insulated neutral links, insulated copper bus bar, earth bar and inter connecting links with lugs are part of the unit. These Boards are equipped with top and bottom removable gland plates with adequate number of knock outs, which enable easy installation and connection of conduits of all sizes. Double door construction of Distribution Boards enables easy removal and reversal of the door by just unscrewing 4 screw. These boards are a comprehensive system in itself.

The Boards are backed by the technological expertise of LUKER which excels globally in all low voltage products. The boards are of universal type, which means they can be both flush or wall mounted based on the requirement. These Distribution Boards undergo a seven tank phosphating process to ensure an anti rust conditioning, superior finish and long lasting strength. 60 micron premium quality powder coating is applied for extra smooth finish.

In addition to complying with all necessary minute technical parameters, LUKER anti-dust (AD3) Distribution Boards are highly user friendly and aesthetically par excellence. Double Door DBs meet all the requirements of IP 42/43.

FEATURES-PERFORMANCE

- Door frame assembly can be detached from the DB and it can be fixed later at our convenience
- Door frame reversibility
- Door frame reversibility is achieved by simply rotating the frame 180 degree
- Even without door frame assembly line supply can be given with adequate safety
- Anti-dust coating over the powder coating prevents accumulation of dust. It also act as a paint protector which ensures longer life
- Because of Anti-dust coating better corrosion resistance than normal conventional coating
- Door earthing is done with properly crimped wire to ensure adequate safety
- Generous wiring space with minimum partition
- Bus bar for rotary switch is insulated with electrical grade sheet shrinkable sleeves for required electrical safety
- Crimped pin type socket with crimped wires are provided for better continuity with less stress in the electrical system



- Easy removable incoming and rotary sheet cover independently without depending on other
- Aesthetically superior Distribution Boards to suit the style of your interior decor.
- 3 Piece Concept for ease of maintenance where instead of removing door assembly (Inner & Outer) only the intermediate plate needs to be removed for the purpose of maintenance, without spoiling the alignment & associated plastering / paint work.

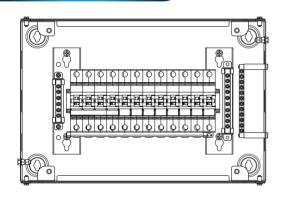


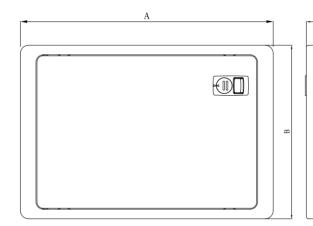
SP&N DISTRIBUTION BOARD

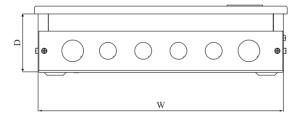


NO. OF WAYS	I/C+O/G	CAT NO. (DD)
4	4	LDDB00SPN004WDD
6	6	LDDB00SPN006WDD
8	8	LDDB00SPN008WDD
12	12	LDDB00SPN012WDD
16	16	LDDB00SPN016WDD

DIMENSIONS









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SINGLE PHASE DISTRIBUTION BOARD WITH DOOR

SL.NO	DB OVERALL ITEMS DESCRIPTION DIMENSIONS (MM)			BASE OVERALL DIMENSIONS (MM)			MOUNTING HOLE DETAILS		TOP KNOCKOUT	TOP KNOCKOUT	TOP KNOCKOUT		
		Α	В	С	W	Н	D	W	Н	25MM	25MM	25MM	25MM
1	4 WAY	305	250	98	265	220	95	205	120	4	4	2	2
2	6 WAY	305	250	98	265	220	95	205	120	4	4	2	2
3	8 WAY	340	250	98	300	220	95	240	120	5	5	2	2
4	12 WAY	410	250	98	370	220	95	310	120	6	6	2	2
5	16 WAY	480	250	98	440	220	95	380	120	8	8	2	2

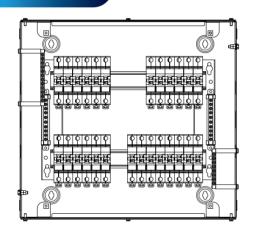


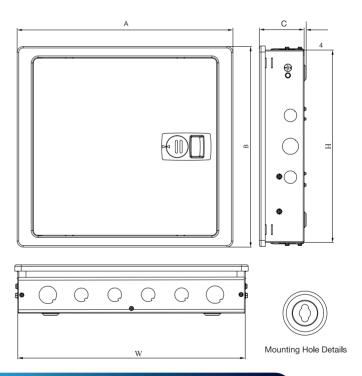
TP&N DISTRIBUTION BOARD



NO. OF WAYS	I/C+O/G	CAT NO. (DD)	MRP ₹
4	8+12	LDDB00TPN004WDD	3,890/-
6	8+18	LDDB00TPN006WDD	4,680/-
8	8+24	LDDB00TPN008WDD	5,790/-
12	8+36	LDDB00TPN012WDD	8,680/-

DIMENSIONS





THREE PHASE DISTRIBUTION BOARD WITH DOOR

SL.NO	DB OVERALL LNO ITEMS DESCRIPTION DIMENSIONS (MM)		BASE OVERALL DIMENSIONS (MM)			MOUNTING HOLE DETAILS		TOP KNOCKOUT	TOP KNOCKOUT	TOP KNOCKOUT	TOP KNOCKOUT		
		Α	В	С	W	Н	D	W	Н	25MM	25MM	25MM	25MM
1	4 WAY	425	410	98	385	380	95	325	280	6	6	3	3
2	6 WAY	460	410	98	420	380	95	360	280	7	7	3	3
3	8 WAY	495	410	98	455	380	95	395	280	8	8	3	3
4	12 WAY	640	410	98	600	380	95	540	280	11	11	3	3



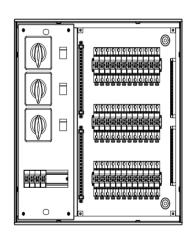
MANUAL PHASE SELECTOR HORIZONTAL DB

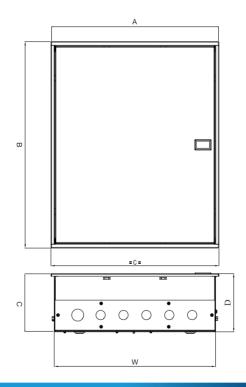
FITTED WITH 3NOS ROTARY SWITCH

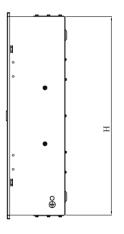


NO. OF WAYS	I/C+O/G	CAT NO. (DD)	MRP ₹
4	63A	LDDB0PH4W0063DD	13,310/-
6	63A	LDDB0PH6W0063DD	13,590/-
8	63A	LDDB0PH8W0063DD	14,590/-
12	63A	LDDB0PH12W0063DD	16,900/-

DIMENSIONS









TPN PHASE SELECTOR DISTRIBUTION BOARD WITH DOOR

SL.NO	ITEMS DESCRIPTION	DB OVERALL DIMENSIONS (MM)		BASE OVERALL DIMENSIONS (MM)			MOUNTING HOLE DETAILS		TOP KNOCKOUT	TOP KNOCKOUT	TOP KNOCKOUT	TOP KNOCKOUT	
		W	Н	D	W	Н	D	W	Н	25MM	25MM	25MM	25MM
1	4 WAY	470	585	143	430	555	140	330	455	7	7	3	3
2	6 WAY	470	585	143	430	555	140	330	455	7	7	3	3
3	8 WAY	505	585	143	465	555	140	365	455	8	8	3	3
4	12 WAY	575	585	143	535	555	140	135	455	9	9	3	3



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