DIN POP

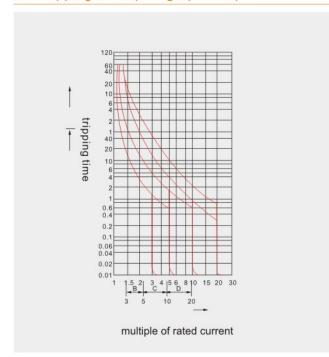
Miniature circuit breaker	
DL9-40	01-02
DL7-63	03-04
DL3-63	05
FDM16-125	06
Main switch	
FDD7-100	07
Residual current circuit breaker	
DLF7-63	08-09
Residual Current Cicuit breaker with Over current protection(RCBO)
DR6-40	-
DL7NL-40	
DRNL-32	
FDR16-40	16-17
DR7-40N	18
DL6-40N	19
Contactor	
FDC16	20
Timer	
FDT16-D/M	
FDT16-161N/Y	
FDT16-16D	
Meter	
	-



DL9-40



B, c tripping curve(see graphics 1)



INNOVATION

MICRO CIRCUIT BREAKER

- ●Width = 9mm
- ●Breaking Capacity = 6000A
- ●Approval: KEMA ★ 💩 🏤
- To be released on July.2014

Features and advantages

- ●The real 6kA Micro Circuit Breaker
- the slimmest, patented, and reliable circuit breaker.

 Genuine 6kA fault level after hundreds of seriously passed test.
- suit both residential and commercial applications.

 Half module(9mm) is ideal to save valuable switchboard space.
- Required by more and more electrical compliance, the household also need more and more circuit breaker to protect.
- All accessories available.
- All normal used accessories, such as contact, alarm, over-unver voltage protector, shunt release, are available for this micro circuit breaker;
- ●10 years R&D, wholely patent protected
- Easy to comply with a RCD or RCBO.

Instantaneous tripping current

B curve: 3In~5In, Circuits with low inductive load;

C curve: 5In~10In, Circuits with low inductive load or highly inductive illumination system;

D curve: 10In ~ 20In, Circuits with high inductive load or electric distribution system with high surge current

Technical data

SAA Approval No.: 142612 Standard: AS/NZS60898.1:2004 Poles:1, 1P+N, 2, 3, 3P+N, 4P

Magnetic tripping characteristics: B, C Rated current: 6, 10, 16, 20, 25, 32,40

Rated short-circuit capacity(Icn):3kA, 4.5kA, 6kA

Rated voltage: 230/400V

Frequency: 50/60

Maximum service voltage: 264

Contact position indication: Yes

Energy limiting class:3

Electrical Life:>6000

Mechanical Life:>15000

Connection terminal:Screw terminal

Pillar terminal with clamp

Connection capacity:1~16mm

Installation:Symmetrical DIN rail 35mm

Panel mounting

Accessories:OF: Auxiliary contact

FB: Auxiliary alarm

QY: under/over volage protector

FL: Shunt release



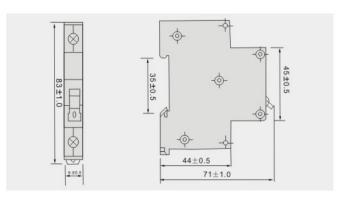
Micro Circuit Breaker 6000A

National∩LS[®]

Miniature Circuit Breaker 10KA

DL9-40



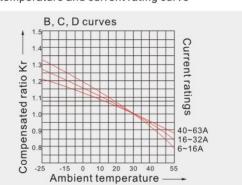


Mirco circuit breaker / 9mm /6ka

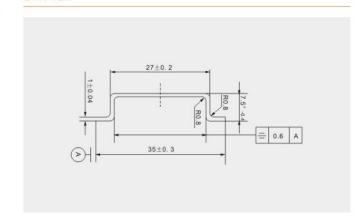
Magnetic Tripping	Breaking Capacity Rated Current (A) (A)	Rated Current		Order No.	
Characteristic			B curve	C curve	D curve
		6	DL9-40, B6, 6kA	DL9-40, C6, 6kA	DL9-40, D6, 6kA
		10	DL9-40, B10, 6kA	DL9-40, C10, 6kA	DL9-40, D10, 6kA
		16	DL9-40, B16, 6kA	DL9-40, C16, 6kA	DL9-40, D16, 6kA
	6000	20	DL9-40, B20, 6kA	DL9-40, C20, 6kA	DL9-40, D20, 6kA
		25	DL9-40, B25, 6kA	DL9-40, C25, 6kA	DL9-40, D25, 6kA
		32	DL9-40, B32, 6kA	DL9-40, C32, 6kA	DL9-40, D32, 6kA
		40	DL9-40, B40, 6kA	DL9-40, C40, 6kA	DL9-40, D40, 6kA
B,C,D curve	4500	6	DL9-40, B6, 4.5kA	DL9-40, C6, 4.5kA	DL9-40, D6, 4.5kA
1P		10	DL9-40, B10, 4.5kA	DL9-40, C10, 4.5kA	DL9-40, D10, 4.5kA
1P+N		16	DL9-40, B16, 4.5kA	DL9-40, C16, 4.5kA	DL9-40, D16, 4.5kA
2P		20	DL9-40, B20, 4.5kA	DL9-40, C20, 4.5kA	DL9-40, D20, 4.5kA
3P		25	DL9-40, B25, 4.5kA	DL9-40, C25, 4.5kA	DL9-40, D25, 4.5kA
3P+N		32	DL9-40, B32, 4.5kA	DL9-40, C32, 4.5kA	DL9-40, D32, 4.5kA
4P		40	DL9-40, B40, 4.5kA	DL9-40, C40, 4.5kA	DL9-40, D40, 4.5kA
		6	DL9-40, B6, 3kA	DL9-40, C6, 3kA	DL9-40, D6, 3kA
		10	DL9-40, B10, 3kA	DL9-40, C10, 3kA	DL9-40, D10, 3kA
		16	DL9-40, B16, 3kA	DL9-40, C16, 3kA	DL9-40, D16, 3kA
	3000	20	DL9-40, B20, 3kA	DL9-40, C20, 3kA	DL9-40, D20, 3kA
		25	DL9-40, B25, 3kA	DL9-40, C25, 3kA	DL9-40, D25, 3kA
		32	DL9-40, B32, 3kA	DL9-40, C32, 3kA	DL9-40, D32, 3kA
		40	DL9-40, B40, 3kA	DL9-40, C40, 3kA	DL9-40, D40, 3kA

B, C tripping curve

Ambient temperature and current rating curve



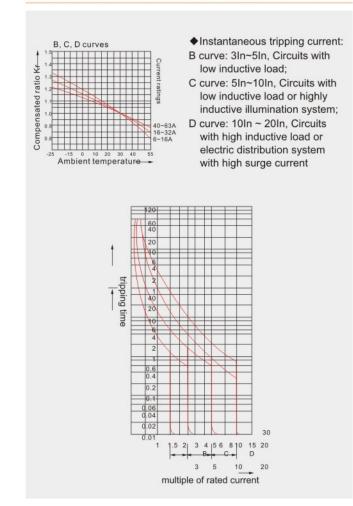
Din rail



DL7-63



B, C tripping curve(see graphics 1)





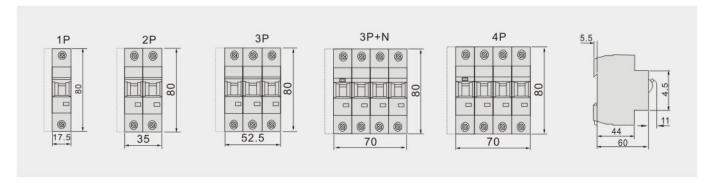
reciffical data	
SAA Approval NO.	130852
Standard	AS/NZ 61898 - 1
Poles	1, 1P+N, 2, 3, 3P+N, 4P
Magnetic tripping characteristi	cs B, C, D
Rated current 2	2, 4, 5, 6,10,16,20,25,32, 40, 50, 63A
Rated short-circuit capacity(Ic	n): 10kA
Rated voltage	230/400V
Frequency	50/60
Maximum service voltage	264
Contact position indication	Yes
Energy limiting class:	3
Electrical Life:	>8000
Mechanical Life:	>20000
Connection terminal:	■Screw terminal
	■Pillar terminal with clamp
Connection capacity:	1~16mm
Installation:	■Symmetrical DIN rail 35mm
	■Panel mounting
Accessories:	■OF: Auxiliary contact
	■FB: Auxiliary alarm
	■QY: under/over volage protector
	■FL: Shunt release

Miniature Circuit Breaker 10KA

DL7-63

Magnetic Tripping Breaki	Breaking Capacity	Rated Current	Order No.		
Characteristic	Characteristic (A)	(A)	B curve	C curve	D curve
		6	DL7-63, B6, 10KA	DL7-63, C6, 10KA	DL7-63, D6, 10KA
		10	DL7-63, B10, 10KA	DL7-63, C10, 10KA	DL7-63, D10, 10KA
		16	DL7-63, B16, 10KA	DL7-63, C16, 10KA	DL7-63, D16, 10KA
B,C,D curve		20	DL7-63, B20, 10KA	DL7-63, C20, 10KA	DL7-63, D20, 10KA
2P 3P	10000	25	DL7-63, B25, 10KA	DL7-63, C25, 10KA	DL7-63, D25, 10KA
4P		32	DL7-63, B32, 10KA	DL7-63, C32, 10KA	DL7-63, D32, 10KA
		40	DL7-63, B40, 10KA	DL7-63, C40, 10KA	DL7-63, D40, 10KA
		50	DL7-63, B50, 10KA	DL7-63, C50, 10KA	DL7-63, D50, 10KA
		63	DL7-63, B63, 10KA	DL7-63, C63, 10KA	DL7-63, D63, 10KA

Overall & installation dimensions





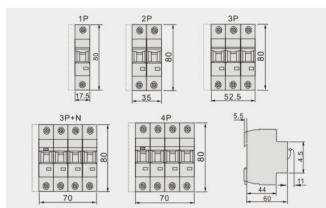
Miniature Circuit Breaker 6KA

DL3-63

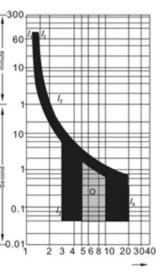


T=Thermal Trip M=Magnetic Trip

Overall &		Dimensions	
installation		С	D
I2(T≥1h)	1.13×In	1.13×In	1.13×In
I2(t < 1h)	1.45×In	1.45×In	1.45×In
I4(t≥0.1s)	3×In	5×In	10×In
I5(t < 0.1s)	5×In	10×In	20×In



- SAA Approval NO.: 142271
- Standard: AS/NZS60898.1:2004
- ●Poles: 1P, 2P, 3P, 4P
- Magnetic tripping characteristics: B, C, D
- Rated current: 6,10,16,20,25,40,50,63
- Rated short-circuit capacity(Icn): 6KA
- Rated voltage: 240/415V
- ●Frequency: 50/60HZ
- Maximum service voltage: 264
- Contact position indication: Yes
- Energy limiting class: 3
- Electrical Life: ≥ 8000 times make-break operation
- Mechanical Life: ≥ 20,000 times make break operation
- Connection terminal: Screw terminal
- Pillar terminal with clamp
- ■Connection capacity: 1~16mm
- ●Installation: symmetrical DIN rail 35mm
- ●Panel mounting
- Accessories: OF: Auxiliary contact
- ●FB: Auxiliary alarm
- QY: Under/Over voltage protector
- ●FL: shunt release



Magnetic	Breaking	Rated		Order No.	
Tripping Characteristic	Capacity (A)	Current – (A)	B curve	C curve	D curve
		6	DL3-63, B6, 6KA	DL3-63, C6, 6KA	DL3-63, D6, 6KA
		10	DL3-63, B10, 6KA	DL3-63, C10, 6KA	DL3-63, D10, 6KA
B,C,D curve		16	DL3-63, B16, 6KA	DL3-63, C16, 6KA	DL3-63, D16, 6KA
1P		20	DL3-63, B20, 6KA	DL3-63, C20, 6KA	DL3-63, D20, 6KA
2P	6000	25	DL3-63, B25, 6KA	DL3-63, C25, 6KA	DL3-63, D25, 6KA
3P		32	DL3-63, B32, 6KA	DL3-63, C32, 6KA	DL3-63, D32, 6KA
4P		40	DL3-63, B40, 6KA	DL3-63, C40, 6KA	DL3-63, D40, 6KA
		50	DL3-63, B50, 6KA	DL3-63, C50, 6KA	DL3-63, D50, 6KA
		63	DL3-63, B63, 6KA	DL3-63, C63, 6KA	DL3-63, D63, 6KA

Miniature Circuit Breaker 10KA

National∩LS[®]

Main Switch / Isolator

FDM16-125



Technical data

SAA Approval NO.: 142324

Standard: AS60947.2:2005

●AS60947.1:2004

Breaking capacity: 10KA

● Rated current: 32, 40, 50, 63, 80, 100, 125A

●Rated voltage: 1P 230V

2, 3, 4P 400V

• Frequency: 50/60HZ

● Characteristic: thermal operating limit: (1.13-1.45)xln

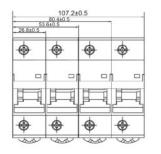
● Magnetic operating: C: (5-10) xIn

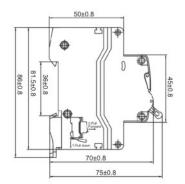
D: (10-20) xln

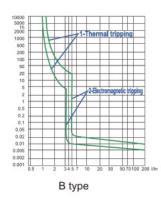
● Poles: 1P, 2P, 3P, 4P

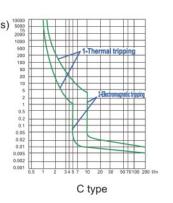
● Type of trip: Thermal/Magnetic release

●Installation: DIN rail 35mm









Magnetic				Order No.	
Tripping Characteristic	(A)	Current (A)	B curve	C curve	D curve
	B,C,D curve 1P 2P 10000 3P 4P	32	FDM16-32, B32, 10KA	FDM16-32, C32, 10KA	FDM16-32, D32, 10KA
		40	FDM16-40, B40, 10KA	FDM16-40, C40, 10KA	FDM16-40, D40, 10KA
		50	FDM16-50, B50, 10KA	FDM16-50, C50, 10KA	FDM16-50, D50, 10KA
2P		63	FDM16-63, B63, 10KA	FDM16-63, C63, 10KA	FDM16-63, D63, 10KA
		80	FDM16-80, B80, 10KA	FDM16-80, C80, 10KA	FDM16-80, D80, 10KA
		100	FDM16-32, B100, 10KA	FDM16-32, C100, 10KA	FDM16-32, D100, 10KA
	125	FDM16-32, B125, 10KA	FDM16-32, C125, 10KA	FDM16-32, D125, 10KA	

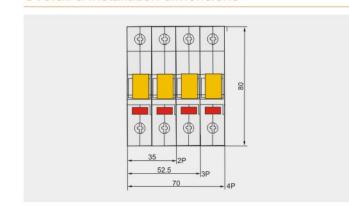
FDD7-100



Application

It is a main switch only, without overload protection. It works to connect to cut off the load circuit. When it works as main switch, it may also trip when some of it's sub-circuit faulty. In such situation, it functions as main switch to function as earlier circuit protection.

Overall & installation dimensions





Technical data

Standard: IEC60947-3

●Rated current: 100 A

●Rated voltage: 50 Hz, 230V/400V

Rated operating current: 32A, 63A, 100A

 Rated short time withstand capacity: 25 KA(connect 100A fuse protector)

• Pole: 1P, 2P, 3P, 4P

●Electric life: ≥1500 times

Mechanical life: ≥1000 times

●Using type: AC-22

● Protection class: IP 20

Operating temperature: -5 + 40 °C
Altitude: ≤ 2000m

Allitude.

2000III

Pollution level: grade 3

Installation: IEC standard, DIN rail 35mm
 Installation: the main switch be vertically installed,handle up means

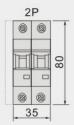
current connection.

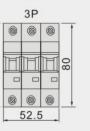
Place: no obvious or frequent vibration or impact

Magnetic Tripping Characteristic	Rated Current (A)	Order No.
1P 2P 3P 4P	32	FDD7-100,32
	40	FDD7-100,40
	50	FDD7-100,50
	63	FDD7-100,63
	80	FDD7-100,80
	100	FDD7-100,100

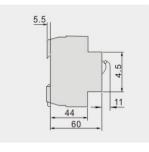
Overall & installation dimensions







	4	Р		
8	0	8	8	
Ħ	П	Ħ	H	OB
(8)	8	0	0	
	7	0		



Residual Current Circuit Breaker 6KA

National∩LS®

Residual Current Circuit Breaker 6KA

DLF7-63

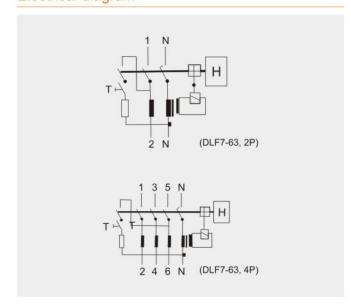




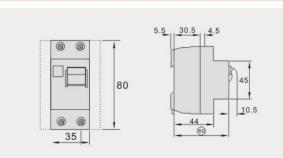
Technical data

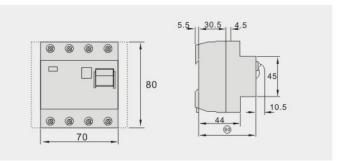
130867
AS/NZS61008.1:2004
2P, 4P
30, 100, 300
6,10,16,25,32, 40, 50, 63A
AC / A type
230/400V
50/60
electro-magnetic type
Yes
3
>4000
>20000
■Screw terminal
■Pillar terminal with clamp
1~16mm
■Symmetrical DIN rail 35mm
■Panel mounting
■OF:Auxiliary contact
■FB:Auxiliary alarm
■QY:under/over volage protector
■FL:Shunt release

Electrical diagram



Overall & installation dimensions





10 DLF7-1610A2 DLF7-1610AC2 16 30 DLF7-1630A2 DLF7-1630AC2 100 DLF7-16100A2 DLF7-16100AC2 DLF7-2510A2 DLF7-2510AC2 25 DLF7-2530AC2 30 DLF7-2530A2 DLF7-25100A2 DLF7-25100AC2 100 10 DLF7-3210A2 DLF7-3210AC2 32 30 DLF7-3230A2 DLF7-3230AC2 100 DLF7-32100A2 DLF7-32100AC2 2P 10 DLF7-4010AC2 DLF7-4010A2 40 30 DLF7-4030A2 DLF7-4030AC2 100 DLF7-40100A2 DLF7-40100AC2 10 DLF7-5010A2 DLF7-5010AC2 50 30 DLF7-5030A2 DLF7-5030AC2 100 DLF7-50100A2 DLF7-50100AC2 10 DLF7-6310A2 DLF7-6310AC2 63 30 DLF7-6330A2 DLF7-6330AC2 Α, 100 DLF7-63100A2 DLF7-63100AC2 AC Type 2P, DLF7-1610A4 DLF7-1610AC4 10 4P 16 30 DLF7-1630A4 DLF7-1630AC4 100 DLF7-16100A4 DLF7-16100AC4 DLF7-2510A4 DLF7-2510AC4 10 30 DLF7-2530AC4 25 DLF7-2530A4 100 DLF7-25100A4 DLF7-25100AC4 10 DLF7-3210A4 DLF7-3210AC4 32 30 DLF7-3230A4 DLF7-3230AC4 100 DLF7-32100A4 DLF7-32100AC4 4P 10 DLF7-4010A4 DLF7-4010AC4 40 30 DLF7-4030A4 DLF7-4030AC4 100 DLF7-40100A4 DLF7-40100AC4 DLF7-5010A4 DLF7-5010AC4 10 50 30 DLF7-5030A4 DLF7-5030AC4 100 DLF7-50100A4 DLF7-50100AC4 10 DLF7-6310A4 DLF7-6310AC4 63 30 DLF7-6330A4 DLF7-6330AC4 100 DLF7-63100A4 DLF7-63100AC4

Single Pole (1P+N) RCBO 6KA&4.5KA

National∩LS[®]

Single Pole (1P+N) RCBO 6KA&4.5KA

DR6-40

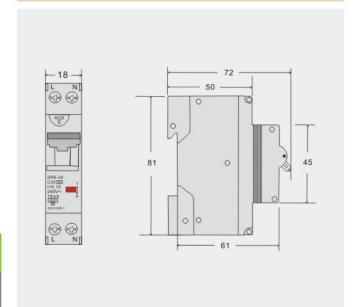


Features & advantages

- The slimest 6kA RCBO in this world.the newest design compared with competitors.
- Genuine 6kA fault level declared after hundreds of seriously passed test. Suit both residential and commercial applications.

 Translated the declared after hundreds of seriously passed test. Suit both residential and commercial applications.
- Top and bottom line and load compatible newest design for ease of installation.
- Two pole safety feature allows switching of both Active and Neutral contacts. Active contacts always connect later and break earlier;
- Single module is ideal to save valuable switchboard space.

Overall & installation dimensions



INNOVATION

RCBO

- ●Width = 18mm
- ●Breaking Capacity = 6000A
- ●Approval: △ ← CB ⑤

ESV Approval NO.	130696
Standard	AS/NZS61009.1:2004
Magnetic tripping characteristics	B, C
Residual tripping characteristics	A, AC
Rated current(A)	6,10,16,25,32,40
Rated residual current	10mA, 30 mA, 100mA
Calibration temperature	30℃
Rated voltage 1P	240V
Frequency	50/60
Tripping Duration:	Instaneous<0.1s
Power supply	Top or bottom
Selectivity class	3
Short circuit capacity	6000&4500A
Isolation application (IEC 60947-2)	Yes
Insulation resistance (Mohm)	1,000
Insulation voltage (V)	500
Endurance (operations) electrical	>6,000
mechanical	>10,000
Protection degree outside	IP20
Self extinguishing degree (UL 94)	V2
Tropicalisation (IEC 60068-2)	+55℃/95% RH
Operating temperature	-5/+55℃
Storage temperature	-25/+70℃
Terminal capacity (top & bottom) min/max	1-16mm
Terminal torque (top / bottom)	3
Busbar systems	Yes
Accessories	No
Dimensions (mm)	72(H)81(L)18(W)
Weight (g)	105

Magnetic Tripping	Breaking Capacity (A)	Rated Current	nacity Rated Current Residual Current		Cat. No.		
Characteristic		(A)	(mA)	A type	AC type		
				10	DR6-0610AN	DR6-0610ACN	
		6	30	DR6-0630AN	DR6-0630ACN		
			100	DR6-06100AN	DR6-06100ACN		
			10	DR6-1010AN	DR6-1010ACN		
		10	30	DR6-1030AN	DR6-1030ACN		
	0000		100	DR6-10100AN	DR6-10100ACN		
	6000		10	DR6-1610AN	DR6-1610ACN		
		16	30	DR6-1630AN	DR6-1630ACN		
			100	DR6-16100AN	DR6-16100ACN		
			10	DR6-2010AN	DR6-2010ACN		
		20	30	DR6-2030AN	DR6-2030ACN		
			100	DR6-20100AN	DR6-20100ACN		
			10	DR6-0610AL	DR6-0610ACL		
		6	30	DR6-0630AL	DR6-0630ACL		
			100	DR6-06100AL	DR6-06100ACL		
B, C		_	_		10	DR6-1010AL	DR6-1010ACL
curve		10	30	DR6-1030AL	DR6-1030ACL		
			100	DR6-10100AL	DR6-10100ACL		
		16	10	DR6-1610AL	DR6-1610ACL		
			30	DR6-1630AL	DR6-1630ACL		
			100	DR6-16100AL	DR6-16100ACL		
			10	DR6-2010AL	DR6-2010ACL		
	4500	20	30	DR6-2030AL	DR6-2030ACL		
			100	DR6-20100AL	DR6-20100ACL		
			10	DR6-2510AL	DR6-2510ACL		
		25	30	DR6-2530AL	DR6-2530ACL		
			100	DR6-25100AL	DR6-25100ACL		
			10	DR6-3210AL	DR6-3210ACL		
		32	30	DR6-3230AL	DR6-3230ACL		
			100	DR6-32100AL	DR6-32100ACL		
			10	DR6-4010AL	DR6-4010ACL		
		40	30	DR6-4030AL	DR6-4030ACL		
			100	DR6-40100AL	DR6-40100ACL		

Single Pole (1P+N) RCBO 6KA&4.5KA



Single Pole (1P+N) RCBO 6KA&4.5KA

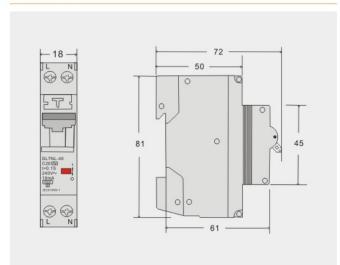
DL7NL-40



Features & advantages

- 1. Top and bottom line and load compatiblenewest design for ease of installation.
- 2.Two pole safety feature allows switching of both Active and Neutral contacts. Active contacts always connect later and break earlier;
- 3. Single module is ideal to save valuable switchboard space.

Overall & installation dimensions



DL's newly released 6kA RCBO is based on 10 years committed R&D. The whole series cover 3kA, 4.5kA and this latest 6kA RCBO.

SAA Approval NO.	120946
Standard	AS/NZS61009.1:2004
Magnetic tripping characteristics	B, C
Residual tripping characteristics	A, AC
Rated current(A)	6,10,16,25,32,40
Rated residual current	10mA,30 mA,100mA
Calibration temperature	30℃
Rated voltage 1P	240V
Frequency	50/60
Tripping Duration:	Instaneous<0.1s
Power supply	Top or bottom
Selectivity class	3
Short circuit capacity	6000&4500A
Isolation application (IEC 60947-2)	Yes
Insulation resistance (Mohm)	1,000
Insulation voltage (V)	500
Endurance (operations) electrical	>6,000
mechanical	>10,000
Protection degree outside	IP20
Self extinguishing degree (UL 94)	V2
Tropicalisation (IEC 60068-2)	+55°C/95% RH
Operating temperature	-5/+55℃
Storage temperature	-25/+70℃
Terminal capacity (top & bottom) min/max	1-16mm
Terminal torque(top / bottom)	3
Busbar systems	Yes
Accessories	No
Dimensions (mm)	72(H)81(L)18(W)
Weight (g)	105

Magnetic Tripping	Breaking Capacity	Rated Current	Residual Current	Cat. No.		
Characteristic	(А)	(A)	(mA)	A type	AC type	
			10	DL7NL-0610AN	DL7NL-0610ACN	
		6	30	DL7NL-0630AN	DL7NL-0630ACN	
			100	DL7NL-06100AN	DL7NL-06100ACN	
			10	DL7NL-1010AN	DL7NL-1010ACN	
		10	30	DL7NL-1030AN	DL7NL-1030ACN	
	0000		100	DL7NL-10100AN	DL7NL-10100ACN	
	6000		10	DL7NL-1610AN	DL7NL-1610ACN	
		16	30	DL7NL-1630AN	DL7NL-1630ACN	
			100	DL7NL-16100AN	DL7NL-16100ACN	
			10	DL7NL-2010AN	DL7NL-2010ACN	
		20	30	DL7NL-2030AN	DL7NL-2030ACN	
			100	DL7NL-20100AN	DL7NL-20100ACN	
			10	DL7NL-0610AL	DL7NL-0610ACL	
		6	30	DL7NL-0630AL	DL7NL-0630ACL	
			100	DL7NL-06100AL	DL7NL-06100ACL	
B, C			10	DL7NL-1010AL	DL7NL-1010ACL	
curve		10	30	DL7NL-1030AL	DL7NL-1030ACL	
			100	DL7NL-10100AL	DL7NL-10100ACL	
			10	DL7NL-1610AL	DL7NL-1610ACL	
		16	30	DL7NL-1630AL	DL7NL-1630ACL	
			100	DL7NL-16100AL	DL7NL-16100ACL	
			10	DL7NL-2010AL	DL7NL-2010ACL	
	4500	20	30	DL7NL-2030AL	DL7NL-2030ACL	
			100	DL7NL-20100AL	DL7NL-20100ACL	
			10	DL7NL-2510AL	DL7NL-2510ACL	
		25	30	DL7NL-2530AL	DL7NL-2530ACL	
			100	DL7NL-25100AL	DL7NL-25100ACL	
			10	DL7NL-3210AL	DL7NL-3210ACL	
		32	30	DL7NL-3230AL	DL7NL-3230ACL	
			100	DL7NL-32100AL	DL7NL-32100ACL	
			10	DL7NL-4010AL	DL7NL-4010ACL	
		40	30	DL7NL-4030AL	DL7NL-4030ACL	
			100	DL7NL-40100AL	DL7NL-40100ACL	

Single Pole (1P+N) RCBO 3KA

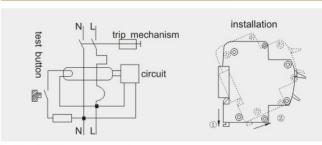
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Single Pole (1P+N) RCBO 3KA

DRNL-32

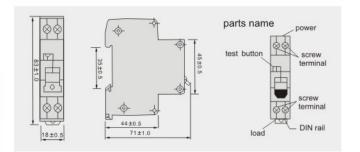


Electrical diagram & installation





Overall & installation dimensions





SAA Approval NO.	122389
Standard	AS/NZS61009.1:2004
Magnetic tripping characteristics	B,C
Residual tripping characteristics	AC
Rated current	6, 10, 16, 20, 25, 32
Rated residual current	30mA, 100mA
Calibration temperature	30℃
Rated voltage 1P	240V
Frequency	50/60
Tripping Duration:	Instaneous<0.1s
Power supply	Line & Load
Selectivity class	3
Short circuit capacity	3000A
Isolation application (IEC 60947-2)	Yes
Insulation resistance (Mohm)	1,000
Insulation voltage (V)	500
Endurance (operations) electrical	>6,000
mechanical	>10,000
Protection degree outside	IP20
Self extinguishing degree (UL 94)	V2
Tropicalisation (IEC 60068-2)	+55℃/95% RH
Operating temperature	-5/+55℃
Storage temperature	-25/+70 °C
Terminal capacity (top & bottom) min/max	1-16mm
Terminal torque (top / bottom)	3
Busbar systems	No
Accessories	No
Dimensions (mm)	71(H)81(L)18(W)
Weight (g)	85

Magnetic Tripping	Breaking	Rated Current	Residual Current	Cat. No.										
Characteristic	Capacity (A)	(A)	(mA)	A type	AC type									
		2	30	DRNL-0630AD	DRNL-0630ACD									
		6	100	DRNL-06100AD	DRNL-06100ACD									
		10	30	DRNL-1030AD	DRNL-1030ACD									
		10	100	DRNL-10100AD	DRNL-10100ACD									
		3000 20	30	DRNL-1630AD	DRNL-1630ACD									
C curve	2000		100	DRNL-16100AD	DRNL-16100ACD									
Ccurve	3000		30	DRNL-2030AD	DRNL-2030ACD									
			100	DRNL-20100AD	DRNL-20100ACD									
	_										25	30	DRNL-2530AD	DRNL-2530ACD
		25	100	DRNL-25100AD	DRNL-25100ACD									
		22	30	DRNL-3230AD	DRNL-3230ACD									
		32	100	DRNL-32100AD	DRNL-32100ACD									





Single Pole (1P+N) RCBO 6KA&10KA



Single Pole (1P+N) RCBO 6KA&10KA

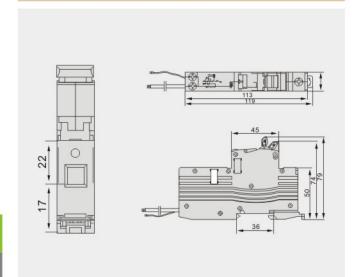
FDR16-40



Construction and feature

- Provides protection against earth fault / leakage current and function of isolation
- Provides protection against over-voltage
- Applicable to terminal and pin/fork type busbar connection
- Contact position indication
- Fire resistant plastic parts endures abnormal heating and strong impact
- Automatically disconnect the circuit when earth fault / leakage current occurs and exceeds the rated sensitivity.
- Independent of power supply and line voltage and free from external interference, voltage fluctuation.

Overall & installation dimensions



Toolii ilda data	
SAA Approval NO.	140979
Standard	AS/NZS61009.1:2001
Magnetic tripping characteristics	B, C
Residual tripping characteristics	AC
Rated current(A)	6,10,16,20,25,32,40
Rated residual current(mA)	30, 100,300
Calibration temperature	30 ℃
Rated voltage 1P	240V
Frequency	50/60
Maximum service voltage	264
Tripping duration:	Instaneous<0.1s
Power supply	Line & Load
Selectivity class	3
Residual making and breaking capacity	2000A
Short circuit capacity	6000A, 10000A
Isolation application (IEC 60947-2)	Yes
Insulation resistance (Mohm)	1,000
Insulation voltage (V)	500
Endurance (operations) electrical	>5,000
mechanical	>10,000
Protection degree outside	IP20
Self extinguishing degree (UL 94)	V2
Tropicalisation (IEC 60068-2)	+55℃/95% RH
Operating temperature	-5/+55℃
Storage temperature	-25/+70℃
Terminal capacity (top & bottom) min / max	1-16mm
Terminal torque (top / bottom)	3
Busbar systems	Yes
Accessories	No
Dimensions (mm)	72(H)107(L)18(W)
Weight (g)	125

Magnetic Tripping	Breaking Capacity	Rated Current	Residual Current	Cat. No.		
Characteristic	eristic (A)	(A)	(mA)	A type	AC type	
			10	FDR16-0610AN	FDR16-0610ACN	
		6	30	FDR16-0630AN	FDR16-0630ACN	
			100	FDR16-06100AN	FDR16-06100ACN	
			10	FDR16-1010AN	FDR16-1010ACN	
		10	30	FDR16-1030AN	FDR16-1030ACN	
	6000		100	FDR16-10100AN	FDR16-10100ACN	
			10	FDR16-1610AN	FDR16-1610ACN	
		16	30	FDR16-1630AN	FDR16-1630ACN	
			100	FDR16-16100AN	FDR16-16100ACN	
			10	FDR16-2010AN	FDR16-2010ACN	
		20	30	FDR16-2030AN	FDR16-2030ACN	
			100	FDR16-20100AN	FDR16-20100ACN	
		25	10	FDR16-2510AN	FDR16-2510ACN	
			30	FDR16-2530AN	FDR16-2530ACN	
B, C curve			100	FDR16-25100AN	FDR16-25100ACN	
			10	FDR16-3210AN	FDR16-3210ACN	
		32	30	FDR16-3230AN	FDR16-3230ACN	
			100	FDR16-32100AN	FDR16-32100ACN	
			10	FDR16-4010AN	FDR16-4010ACN	
		40	30	FDR16-40330AN	FDR16-40330ACN	
			100	FDR16-40100AN	FDR16-40100ACN	
		6	30	FDR16-0630AH	FDR16-0630ACH	
		10	30	FDR16-1030AH	FDR16-1030ACH	
		16	30	FDR16-1630AH	FDR16-1630ACH	
	10000	20	30	FDR16-2030AH	FDR16-2030ACH	
		25	30	FDR16-2530AH	FDR16-2530ACH	
		32	30	FDR16-3230AH	FDR16-3230ACH	
		40	30	FDR16-4030AH	FDR16-4030ACH	

RCBO (MCB+RCD) 10KA

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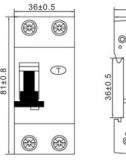
RCBO (MCB+RCD) 6KA

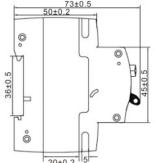
DR7-40N

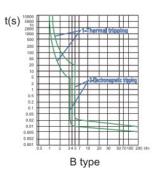


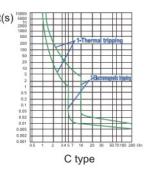
Technical data

- SAA Approval NO.: 140978
- Standard: AS/NZS61009.1:2001
- Breaking capacity: 10KA
- ●Rated current: 3, 6, 10, 16, 20, 25, 32, 40A
- ●Operating I△n: 10, 30, 100, 300mA
- Characteristic: B, C
- Rated residual current operated making & breaking capacity: 500A
- ●Rated residual non-operated current: 0.5 I△n
- ●Poles: 1P+N
- ●Rated voltage: 230V
- Ambient temperature: -25-+45 °C. Max 95% humidity
- ■Residual current off-time: ≤0.1 sec
- Protection degree: IP20
- ●Installation: DIN rail 35mm







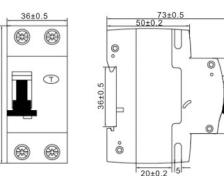


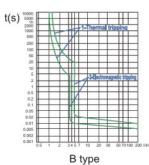
Magnetic Tripping	Breaking Capacity (A)	Rated Current (A)	t Residual Current	Cat. No.		
Characteristic			(mA)	A Type	AC Type	
			10	DR7-0610AN	DR7-0610ACN	
		6	30	DR7-0630AN	DR7-0630ACN	
			100	DR7-06100AN	DR7-06100ACN	
			10	DR7-1010AN	DR7-1010ACN	
		10	30	DR7-1030AN	DR7-1030ACN	
			100	DR7-10100AN	DR7-10100ACN	
			10	DR7-1610AN	DR7-1610ACN	
	10000	16	30	DR7-1630AN	DR7-1630ACN	
			100	DR7-16100AN	DR7-16100ACN	
		20	10	DR7-2010AN	DR7-2010ACN	
B, C curve			30	DR7-2030AN	DR7-2030ACN	
			100	DR7-20100AN	DR7-20100ACN	
		25	10	DR7-2510AN	DR7-2510ACN	
			30	DR7-2530AN	DR7-2530ACN	
			100	DR7-25100AN	DR7-25100ACN	
			10	DR7-3210AN	DR7-3210ACN	
		32	30	DR7-3230AN	DR7-3230ACN	
			100	DR7-32100AN	DR7-32100ACN	
			10	DR7-4010AN	DR7-4010ACN	
		40	30	DR7-40330AN	DR7-40330ACN	
			100	DR7-40100AN	DR7-40100ACN	

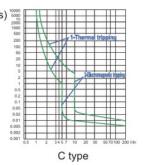
DL6-40N



- SAA Approval NO.: 142429
- Standard: AS/NZS61009.1:2001
- Breaking capacity: 6KA
- ●Rated current: 3, 6, 10, 16, 20, 25, 32, 40A
- Operating I△n: 10, 30, 100, 300mA
- Characteristic: B, C
- Rated residual current operated making&breaking capacity: 500A
- ●Rated residual non-operated current: 0.5 I△n
- Poles: 1P+N
- ●Rated voltage: 230V
- Ambient temperature: -25-+45 °C. Max 95% humidity
- ■Residual current off-time: ≤0.1 sec
- Protection degree: IP20
- ●Installation: DIN rail 35mm







Magnetic Tripping	Breaking Capacity	Rated Current	Residual Current	Cat. No.		
Characteristic	(A)	(A)	(mA)	A Type	AC Type	
		6	30	DL6-0630AN	DL6-0630ACN	
			100	DL6-06100AN	DL6-06100ACN	
			300	DL6-06300AN	DL6-06300ACN	
		7	30	DL6-1030AN	DL6-1030ACN	
		10	100	DL6-10100AN	DL6-10100ACN	
			300	DL6-10300AN	DL6-10300ACN	
			30	DL6-1630AN	DL6-1630ACN	
	6000	16	100	DL6-16100AN	DL6-16100ACN	
			300	DL6-16300AN	DL6-16300ACN	
		20	30	DL6-2030AN	DL6-2030ACN	
B, C curve			100	DL6-20100AN	DL6-20100ACN	
			300	DL6-20300AN	DL6-20300ACN	
		25	30	DL6-2530AN	DL6-2530ACN	
			100	DL6-25100AN	DL6-25100ACN	
			300	DL6-25300AN	DL6-25300ACN	
	2		30	DL6-3230AN	DL6-3230ACN	
		32	100	DL6-32100AN	DL6-32100ACN	
			300	DL6-32300AN	DL6-32300ACN	
			30	DL6-4030AN	DL6-4030ACN	
		40	100	DL6-403100AN	DL6-403100ACN	
			300	DL6-40300AN	DL6-40300ACN	



FDC16



Construction and Feature

- Compact and modular design
- Electro-magnetic mechanism free of noise
- Contact position indication
- Big contact capacity and long endurance

Application

FDC16 modular contactor is applicable to alternative circuit with rated voltage up to 400V, rated currentup to 24A and rated frequency 50/60Hz. The product is used for remote switching and controlling of power circuit.

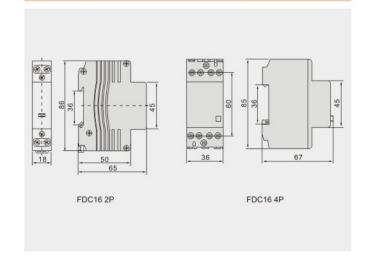
Technical Data

- ●Power circuit
- Rated current: 10,16,20,25A
- Rated voltage: 24V/230V 2pole 24V/230V 4pole
- ●Rated frequency: 50/60Hz
- Remote control circuit(coil)
- ●Rated voltage:230V:-15~+6%
- Detailed specifications:
- Rated frequency: 50/60Hz
- Mechanical endurance: 100,000 cyclesElectrical endurance: 30,000 cycles
- Ambient temperature: -5°C~+60°C
- Connection terminal: pillar terminal with clamp
- Installation:
- On symmetrical din rail Panel mounting

Modular Contactor

Poles	Rated Current	Contact	Order Code
	10A	1NO+1NC	FDC16-2-1011
	10A	2NO	FDC16-2-1020
	16A	1NO+1NC	FDC16-2-1611
2P	16A	2NO	FDC16-2-1620
26	20A	1NO+1NC	FDC16-2-2011
	20A	2NO	FDC16-2-2020
	25A	1NO+1NC	FDC16-2-2511
	25A	2NO	FDC16-2-2520
	10A	2NO+2NC	FDC16-4-1022
	10A	3NO+1NC	FDC16-4-1031
	10A	4NO	FDC16-4-1040
	10A	4NC	FDC16-4-1004
	16A	2NO+2NC	FDC16-4-1622
	16A	3NO+1NC	FDC16-4-1631
	16A	4NO	FDC16-4-1640
4P	16A	4NC	FDC16-4-1604
41	20A	2NO+2NC	FDC16-4-2022
	20A	3NO+1NC	FDC16-4-2031
	20A	4NO	FDC16-4-2040
	20A	4NC	FDC16-4-2004
	25A	2NO+2NC	FDC16-4-2522
	25A	3NO+1NC	FDC16-4-2531
	25A	4NO	FDC16-4-2540
	25A	4NC	FDC16-4-2504

Overall & installation dimensions



FDT16-D/M



Construction and Feature

- Suitable to control wide range lightings include incandescent lamp, halogen lamp and fluorescent lamp
- Simple time setting
- With time delay
- Extremely compact and modular size

Application

The time switch, applicable to circuit with rated voltage 230V AC and rated current 16A, "opens" after a predetermined time from actuation.

Technical Data

- Rated voltage: 230V~
- ■Rated frequency: 50Hz
- Consumption: 1VA
- Contact capacity: 16A 250V AC(COS ϕ =1)
- Electrical endurance: 10⁵ cycles
- Mechanical endurance: 10⁷ cycles
- Ambient temperature: -20°C~+50°C
- Connection terminal: pillar terminal with clamp
- Installation:

On symmetrical DIN rail Panel mounting

FDT16-D timer switch

- Type:electronic time delay
- Time setting range: 20 minutes
- Min.setting interval: 5 minutes
- Slide switch: manual / automatic
- Controlled lighting load:
- Incandescent lamp: 2300W Halogen lamp: 2300W

Fluorescent lamp load with electronic ballast: 800W

Switching: immediae reset

FDT16-M timer switch

- Type: electromechanical type with time delay
- Time setting range: 7 minutes
- Min.setting interval: 30 seconds
- ●Toggle switch: manual / automatic
- Controlled lighting load:
 Incandescent lamp: 2300W

Halogen lamp: 2300W

●Fluorescent lamp:

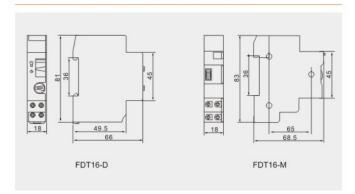
Uncompensated 2300w

Compensated in series: 2300w

Compensated in parallel: 1300w

Switching: reset after 30s

Overall & installation dimensions



Timer

National∩LS®

FDT16-161N/Y



Construction and Feature

- Available with or without power reserve
- ●24 hour dial with 15 min segments
- 7 days dial with 2 hours segments
- Permanent ON/OFF switch
- Switching status indication

Application

Switches "ON" and "OFF" automatically following a predetermined program. The product is suitable in use for domestic, commercial and industrial installations.

Technical Data

- Rated voltage: 230V AC
- Rated frequency: 50/60Hz
- Consumption: 2.5VA
- Contact: 1 NO
- ●Contact capacity: 16A/250V AC(COS Φ =1) 4A/250V AC(COS Φ =0.6)
- Electrical endurance: 10 cycles
- Mechanical endurance: 10 cycles
- 24 hours or 7 days program
- ●96 segments
- •Min.programmable interval: 15 minutes
- ●Ambient temperature: -10°C~+50°C
- Connection terminal: pillar terminal with clamp
- Connection capacity: rigid conductor 6mm²
- Installation:

On symmetrical DIN rail Panel mounting

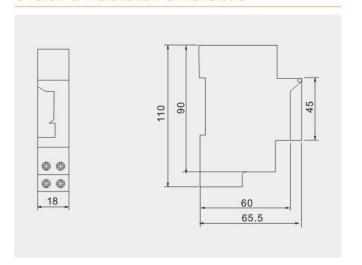
FDT16-161N Synchronous timer switch

- Drive: synchronous motor
- Frequency: 50/60Hz

FDT16-161Y Quartz timer switch with power reserve

- Drive: quartz-controlled motor
- ●Frequency: 50/60Hz
- Accuracy: with in ±1s per day at 20 °C
- Reserve: 70 hours

Overall & installation dimensions



FDT16-16D



Construction and Feature

- Compact modular size
- ●LCD Display
- Equipped with back-up battery
- Permanent switch ON/OFF

Application

The product is applicable to circuit with rated current 16A, rated voltage 250V and rated frequency 50/60Hz. It provides independent electrical control to switch on-off the circuit at programmed timesand days of the week.

Technical Data

- Type: electronic with LCD display
- Rated voltage: 230V AC
- Rated frequency: 50/60Hz
- ●Contact: 1 NO+1 NC
- ■Consumption: maximum 4VA
- Contact capacity:
- 16A/250V AC(COS φ =1)
- 2.5A/250V AC(COS φ =0.6)
- Electrical endurance: 10⁵ cycles
- Mechanical endurance: 10⁷ cycles
- ●Time basis: quartz
- ●24 hours + week program
- ■Working precision: ≤2 sec/day (25°C)
- •Min.programmable interval: 1 minutes
- Power reserve: min.15 days
- Ambient temperature: -10~40 °C

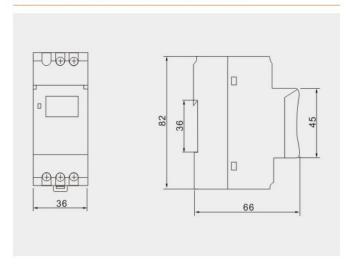
Humidity: 35-85% RH

- Connection terminal: pillar terminal with clamp
- ■Connection capacity: rigid conductor 6mm²
- Installation:

On symmetrical DIN rail

Panel mounting

Overall & installation dimensions







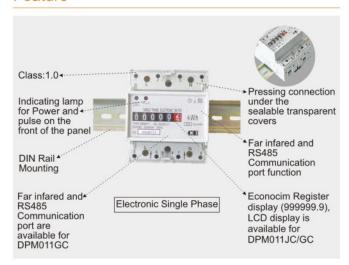
Meter

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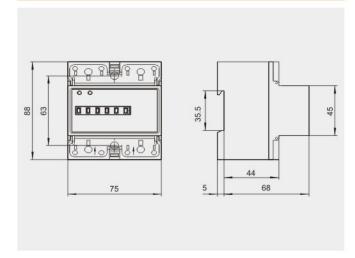
FDPM011



Feature



Dimensions

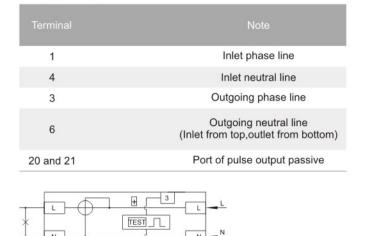


Technical Data

Model	Rated Voltage (V)	Basic Current (A)	Max. Current (A)	Display Range	Case Qty. (Pcs)
FDPM011AG	127 230	5 10 20	30 50 100	999999.9 Register	64
FDPM011JC	127 230	5 10 20	30 50 100	999999.9 LCD	64
FDPM011GC	127 230	5 10 20	30 50 100	999999.9 LCD	64

Note: Please mention the voltage and current when ordering, Special specifications upon request.

Wiring diagram



National Light Sources Pty Ltd 15 Coombes Drive, Penrith, NSW, 2750, AUSTRALIA

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Contact: sales@nlslight.com.au