

Product Selection

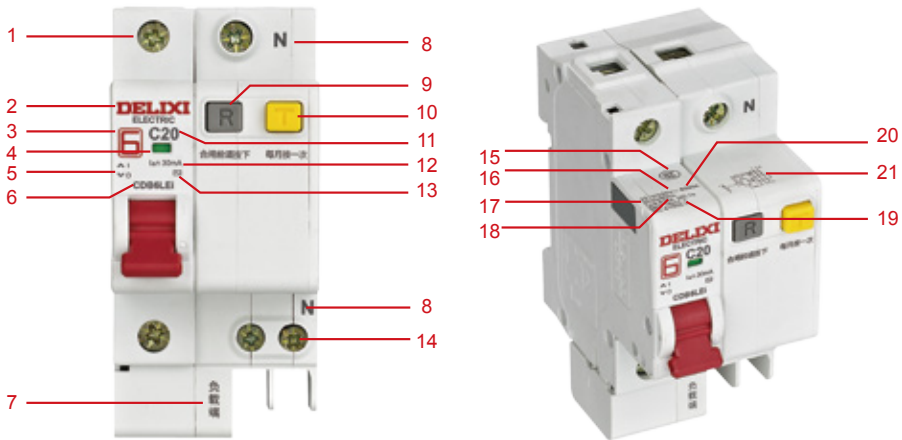
CDB6LEi Standard leakage protection circuit breaker



Product Selection						
product name	poles	trip type	rated current	residual current	other function	Assemblable accessory
CDB6LEi	1	C	6		G	OF6
	*1: 1P+N *2: 2P 3: 3P 4: 4P 6: 3P+N	C: C type D: D type	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	default: 30mA R50: 50mA R75: 75mA R100: 100mA R300: 300mA	default: AC type leakage protection, no overvoltage protection G: overvoltage protection A: A type leakage protection	OF6: auxiliary contact SD6: alarm contact FF6: Double auxiliary contacts FS6: Auxiliary+alarm contact MO6: Shunt +auxiliary MOWY6: Passive shunt+auxiliary MV6: Overvoltage protection release MN6: Undervoltage protection release MVMN6: Overvoltage and undervoltage release MSN6: no-voltage release

Note:
Only specifications with * have overvoltage function.
The above are the selection rules for non RoHS materials; If you need to comply with RoHS products, simply change the model to CDB6LER.

Product Details Display



- explain:
- | | | | | |
|--|--------------------------------------|--------------------------------------|----------------------|--------------------------|
| 1. Incoming terminal | 2. trademark | 3. Serial Number | 4. Indication window | 5. Close/open indication |
| 6. Product model (overvoltage model is CDB6LEiG) | 7. Load Sign | 8. N pole indication | 9. Reset button | |
| 10. test button | 11. Tripping curve and rated current | 12. rated residual operating current | 13. Current waveform | |
| 14. Outlet terminal | 15. certification mark | 16. rated voltage | 17. Rated frequency | |
| 18. Rated residual making and breaking capacity, rated breaking time | | | | |
| 19. Compliant standard | 20. Breaking Capacity | 21. Wiring diagram | | |

Technical Parameter

CDB6LEi Standard leakage protection circuit breaker



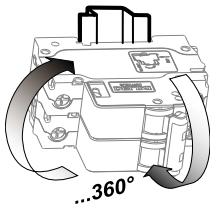
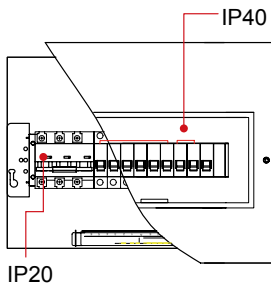
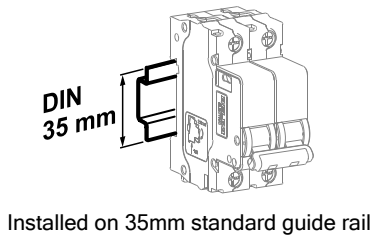
CDB6LEi circuit breaker	
The CDB6LEi standard leakage protection circuit breaker has the following functions	
• Short circuit protection • overload protection • Isolation function	• Leakage protection function • Overvoltage protection function (limited to overvoltage model products)
Main characteristics	
rated working voltage (V)	1P+N,2P: 230/240AC 3P,3P+N,4P: 400/415AC
Rated current (A)	6,10,16,20,25,32,40,50,63
Rated frequency (Hz)	50/60
poles	1P+N,2P,3P,3P+N,4P
breaking capacity (kA)	6
rated residual operating current (mA)	30,50,75,100,300
Leakage protection type	AC type, A type (only available with I Δ n=30mA specifications)
General leakage tripping time	t≤0.1S
S-type leakage tripping time (I Δ n)	0.13S ≤ t ≤ 0.5S (only applicable to 40-63A, I Δ n=100 mA products, S-type has A-type protection)
Overvoltage protection function (V)	(280±14) AC (Only applicable to 1P+N, 2P, C-type products, I Δ n=30 mA)

Compliant standard	GB/T16917.1, IEC61009-1
Compliant certification	
*RoHS compliant products have a separate material number. When placing an order, please pay attention to selecting	
* RoHS compliant products to comply with CE certification	

Electrical characteristics	
rated insulation voltage Ui (V)	500
rated working voltage Ue (V)	1P+N,2P: 230/240 AC 3P,3P+N,4P: 400/415 AC
Rated short-circuit capacity Icn (IEC/EN60898) (kA)	6
rated impulse withstand voltage Uimp (1.2/50) (kV)	4
Dielectric test voltage	2kV (50Hz,1 min.)
Isolation function	yes (except for 1P+N、3P+N)
pollution degree	2
Tripping form	Thermal magnetic release
Thermal magnetic tripping characteristics	
B curve (3In~5In)	-
C curve (5In~10In)	■
D curve (10In~14In)	■
Electrical and mechanical accessories	■

Technical Parameter

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Flexible installation direction

mechanical characteristic

Tripping indication	There is a residual current operation trip indicator on CDB6LEi, and the reset button pops up, indicating a leakage trip
manual control	Overcurrent fault: close the circuit breaker handle Leakage fault: The residual current operation device is reset first, and then the circuit breaker is reset
handle	red
On/off indication	ON-OFF indication
Mechanical life (times)	20000
Electrical life (times)	12000
protection level	Installed in the distribution box: IP40 direct installation: IP20
Resistance to mechanical shock	30g, 3 impacts, duration 11ms (without obvious vibration or impact)
Anti vibration (IEC/EN 60068-2-6)	without obvious vibration or impact
Damp heat resistance (IEC 60068-2) humidity (°C/RH)	Class 2, 28 cycles At a temperature of 55 ° C, the relative humidity is 90%~96%. At a temperature of 25 ° C, the relative humidity is 95%~100%
Reference ambient temperature	30°C
Operating ambient temperature (daily average temperature ≤+35 ° C)	-35°C~+70°C
storage temperature	-40°C~+85°C

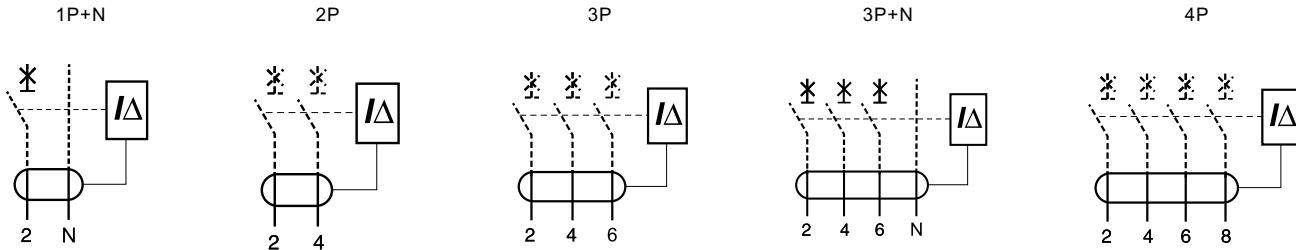
Installation characteristics

Wiring terminal form	U Wiring terminal
Maximum wiring capacity (A)	电流等级 6-32: 16mm ² 电流等级 40-63: 25mm ²
Maximum limit torque (A)	电流等级 6-32: 2 N.m 电流等级 40-63: 2.5 N.m
tool	Cross screwdriver or slotted screwdriver
install	Installed on standard DIN rail (35mm)
Incoming method	upper

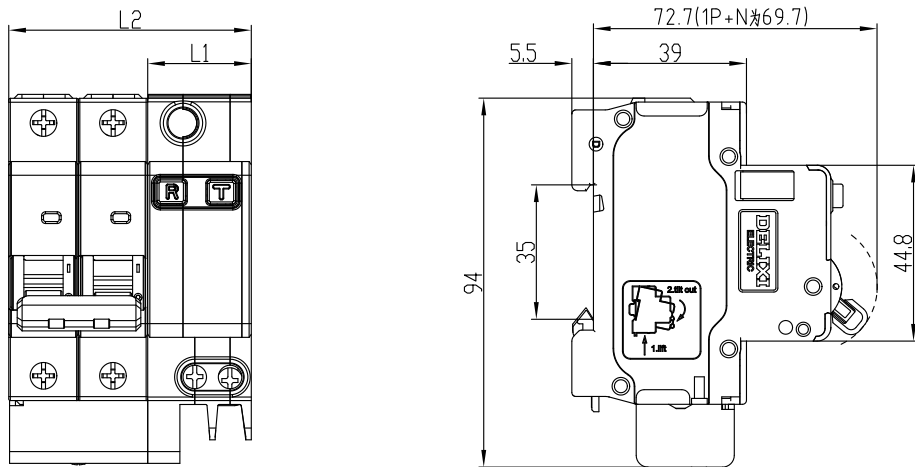
Wiring drawing and dimensions

CDB6LEi Standard leakage protection circuit breaker

Wiring drawing



Appearance and installation dimensions



specifications	L1 (mm)	L2 (mm)
1P+N 32A	26.4	44.5
1P+N 63A	35.9	53.8
2P 32A	26.4	62.2
2P 63A	35.9	71.6
3P 32A	35.4	89.0
3P 63A	53.5	107.0
3P+N 32A	44.4	98.0
3P+N 63A	71.1	124.7
4P 32A	44.4	115.7
4P 63A	71.1	142.5

Tripping curve

CDB6LEi Standard leakage protection circuit breaker

Tripping characteristics

B characteristics

The B tripping characteristic standard circuit breaker complies with the GB/T 10963.1 IEC 60898-1 standard and is suitable for providing protection for resistive loads or loads without impulse current.

C characteristics

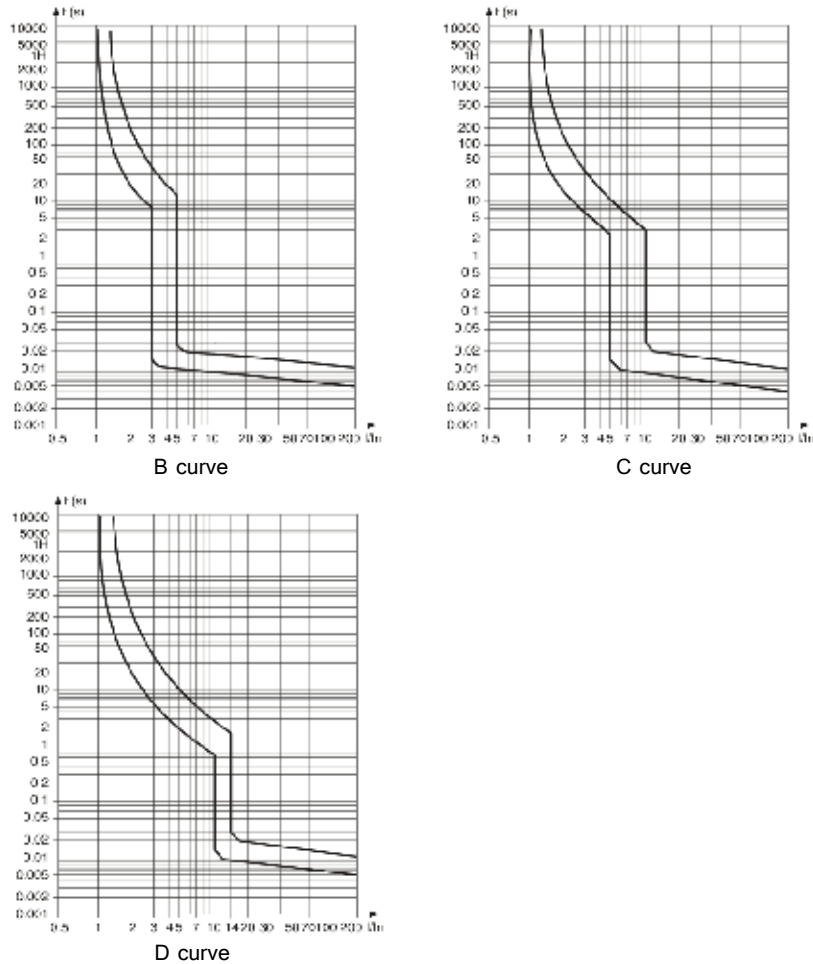
The C tripping characteristic standard circuit breaker complies with the GB/T 10963.1 IEC 60898-1 standard and is suitable for providing protection for resistive loads and inductive loads with lower impulse currents.

D characteristics

The D tripping characteristic standard circuit breaker complies with the GB/T 10963.1 IEC 60898-1 standard and is suitable for protecting loads with high impulse current when the line is connected.

trip type	standard	Thermal tripping characteristics				Electromagnetic tripping characteristics			
		Test current	Test time	Starting state	Expected results	AC test current	Test time	Starting state	Expected results
B	IEC 60898-1 GB/T 10963.1	1.13In	≤1h(In≤63A) ≤2h(In>63A)	cold	no trip	3In	≤0.1s		no trip
		1.45In	<1h(In≤63A) <2h(In>63A)	hot	trip	5In	<0.1s		trip
C	IEC 60898-1 GB/ 10963.1	1.13In	≤1h(In≤63A) ≤2h(In>63A)	cold	no trip	5In	≤0.1s	cold	no trip
		1.45In	<1h(In≤63A) <2h(In>63A)	hot	trip	10In	<0.1s		trip
D	IEC 60898-1 GB/ 10963.1	1.13In	≤1h(In≤63A) ≤2h(In>63A)	cold	no trip	10In	≤0.1s		no trip
		1.45In	<1h(In≤63A) <2h(In>63A)	hot	trip	14In	<0.1s		trip

Tripping curve



Temperature and altitude correction coefficient

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温度修正系数表

额定电流 A	额定电流修正值 A											
	-35℃	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃	70℃	
1	1.35	1.22	1.18	1.15	1.1	1.05	1	0.94	0.9	0.84	0.78	
2	2.69	2.43	2.31	2.25	2.17	2.06	2	1.93	1.85	1.63	1.59	
3	4.07	3.68	3.57	3.43	3.29	3.18	3	2.82	2.63	2.57	2.33	
4	5.59	4.89	4.75	4.67	4.48	4.24	4	3.98	3.52	3.25	2.97	
5	6.80	6.21	5.98	5.83	5.77	5.42	5	4.85	4.57	4.19	3.80	
6	8.19	7.33	7.05	6.84	6.62	6.3	6	5.64	5.42	5.06	4.65	
8	11.00	9.78	9.44	9.15	8.51	7.98	8	7.1	6.92	6.75	6.20	
10	14.72	12.25	11.87	11.64	11.15	10.62	10	9.3	8.96	8.48	6.55	
13	18.00	15.78	15.34	14.83	14.22	13.75	13	12.1	11.75	10.93	9.88	
16	22.07	19.49	18.72	18.06	17.98	16.96	16	15.04	14.42	13.47	12.17	
20	27.32	24.35	23.68	22.82	22.47	21.2	20	18.8	17.85	16.78	15.49	
25	34.28	30.52	29.61	28.78	28.09	26.5	25	23.25	22.52	21.02	19.21	
32	43.72	38.96	37.68	36.62	35.96	33.92	32	30.08	28.81	26.84	24.79	
40	54.96	48.85	47.13	46.32	45.8	42.8	40	36.8	36.21	33.5	30.66	
50	69.12	61.58	59.52	57.35	55.04	52.59	50	46	44.25	42.36	37.90	
63	88.66	76.86	74.25	71.18	69.13	67.41	63	58.59	56.83	52.93	46.08	

Derating Tables in High Altitude Areas

- The IEC60947.2 standard specifies the relationship between altitude and dielectric characteristics. When the altitude is below 2000 meters, it has no significant impact on the performance of circuit breakers.
- When the altitude exceeds 2000 meters, it is necessary to consider conditions such as air cooling and decreased dielectric properties. Therefore, manufacturers should negotiate working conditions with users or carry out special designs.
- The following table provides the correction values for the rated current when the breaking capacity remains unchanged above an altitude of 2000 meters

Altitude (m)	2000	3000	4000
dielectric strength	2500	2200	1950
Maximum working voltage (V)	440	440	440
Rated current	In	0.96In	0.93In