LIKON®

DC smart miniature circuit breaker

LKS3D-125

CONTENT

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Scope of Application

LKS3D-125 smart breakers are integrated and independently developed products to achieve smart control and Internet of Things applications. They are a new type of product composed of sensors, microelectronics, computers, and communication technology on the basis of traditional circuit breakersIn addition to traditional overload and short circuit protection functions, the product also has remote control, electrical parameter measurement, overvoltage/undervoltage auto reclosing, fault analysis, fault alarm, RS485 communication, etc. They are suitable for AC 50Hz, rated operational voltage 65Vd.c., rated operational current up to 100 A. It is widely used in various occasions such as 5G base stations, DC power distribution systems, etc.

Product characteristics

-**Mutiple functions**：With multiple functions such as overload protection, short circuit protection, remote control, electrical parameter measurement, overvoltage/undervoltage auto reclosing, fault analysis, fault alarm, and RS485 communication

-Compact size：The high combination of mechanical releases, contact systems, arc extinguishing devices, DC motors, speed reduction mechanisms, sensors, and electronic components makes the product compact in structure and concise in appearance.

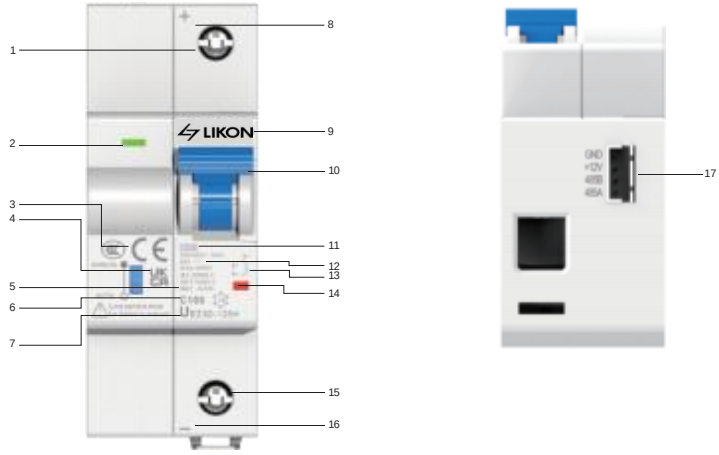
-Safety：Overload protection can be set and refined protection; short circuit protection adopts mechanical protection, with fast action and high breaking capacity.

-Intelligentization：Edge computing strategy, local processing protection; remote multiple type information collection and multiple scheme control to meet the needs of the Internet of Things

-High reliability：The operating mechanism uses efficient and reliable DC motors to provide stable power for opening and closing. The positioning system uses high-precision detection switches, which provide accurate positioning and strong anti-interference ability. The circuit board adopts anti-interference design to meet EMC requirements

-Easy installation：Adopt a modular design for MCB, which can be installed on a standard 35mm DIN rail; The control power supply and RS485 communication are connected with quick plug-in terminals, and there are various communication cable accessories available for selection.

Product sturcture



1. Tightening screw
2. Control modular indicator
3. CCC/CE/UKCA
4. Manual/auto switch
5. Standard
6. Tripping curve and rated
7. Series code
8. .+ pole mark
9. Brand
10. Handle
11. Breaking capacity
12. Rated voltage
13. Wiring diagram
14. Open/closed indicatio （Red：ON /green：OFF）
15. .Housing
16. - pole mark
17. Power and communication terminal
18. - pole terminal

Product appearance

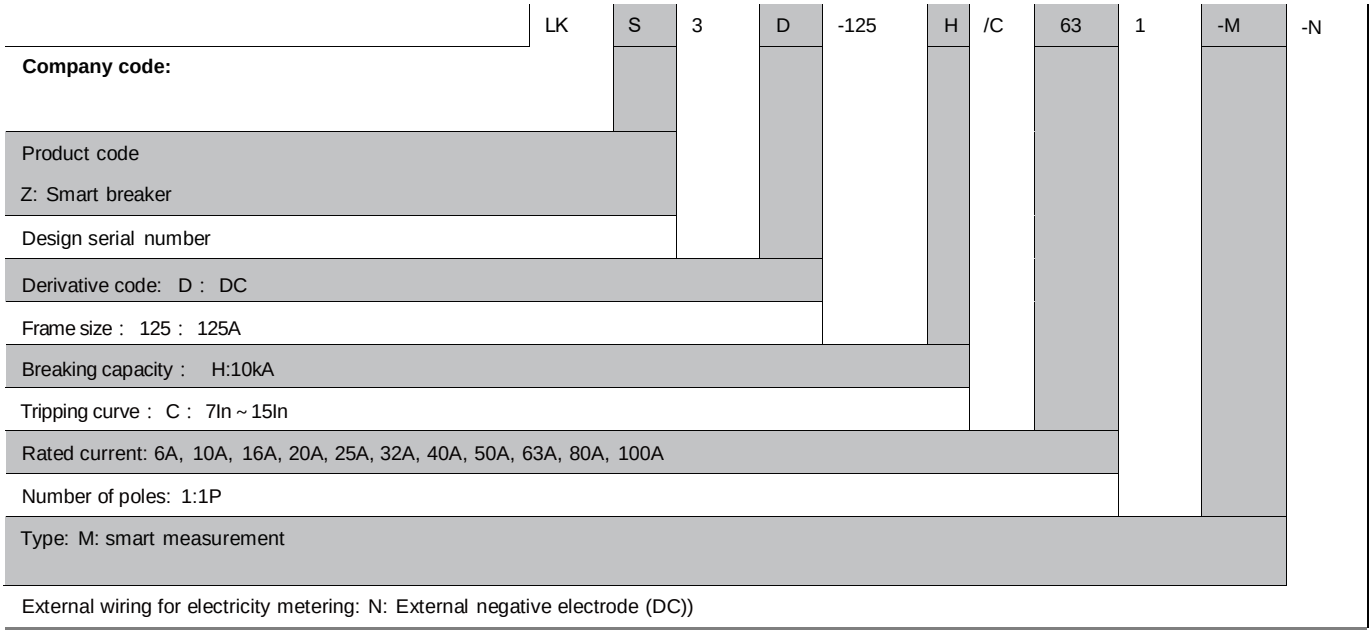
Standard

	CCC	GB/T 10963.2
CB	CB	IEC 60898-2
UK CA	UKCA	BS EN 60898-1;BS EN 60898-2
CE	CE	EN 60898-1;EN 60898-2

Standard Operation and Installation Conditions

- Operating temperature range: - 25 ℃~+70 ℃ (monthly average temperature ≤ 35 ℃)
- torage temperature range: - 40 ℃~+80 ℃
- Relative humidity: annual average: < 75%; 30 days (these days are naturally distributed throughout the year): 95%; accidental occurrence on other days: 85%
- Altitude: not exceeding 2000m
- Pollution degree: 2
- Installation category: II/III
- Installation conditions: 35mm standard DIN rail installation; No more than 5 times the geomagnetic field in any direction

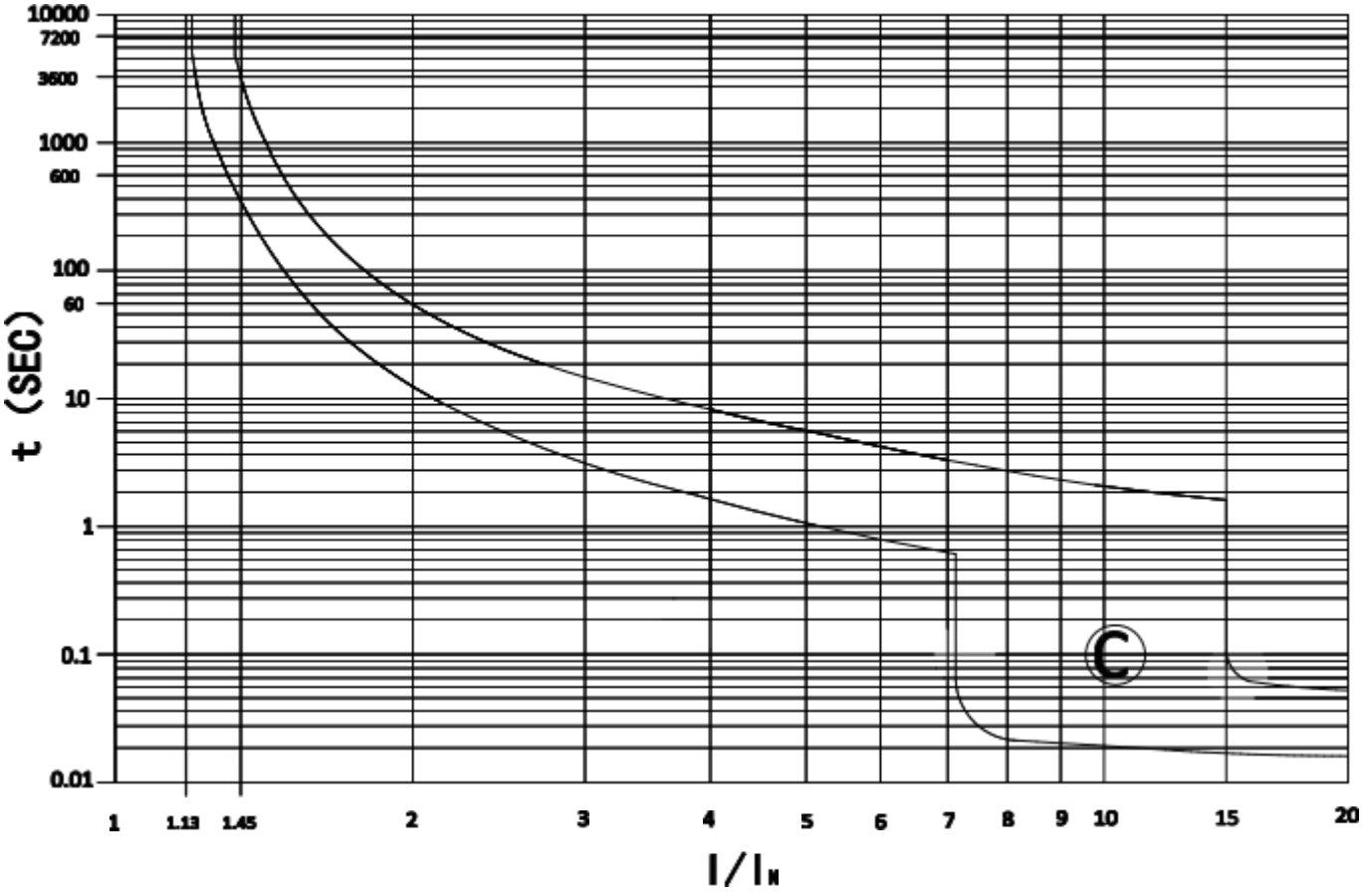
Ordering Information



Technical parameter

Part number	LKS3D-125
NO. of poles	1P
Tripping curve	C： 7In～15In
Breaking capacity	Icn=10KA Ics=7.5KA
Rated current In	6A、10A、16A、20A、25A、32A、40A、50A、63A、80A、100A
Rated voltage Ue	65Vd.c.
Rated insulation and withstand voltage Ui	500V
Rated impulse withstand voltage Uimp	4kV
Auto closing time	Tc=3s
Auto breaking time	Td=2s
Mechanical durability	10000
Electrical duratility	6000（In=6A-63A) 4000（In=80A-100A）
IP degree	IP20
Indication function	Closing indication: the indicator is in green; Opening indication: the indicator is in red; Fault indication: The indicator flashes in red; Fault waiting for closing: the indicator flashes in green; Manual state: the indicator flashes alternately in red and green.
Weight (g)	193
Packaging information	Carton： 405mm×223mm×248mm
Incoming line	Upper incoming

Tripping Characteristic



Derating coefficient

Altitude (m)	2000	3000	4000
Rated current In	1	0.97	0.91
Rated insulation voltage Ui	1	0.90	0.82
Power frequency withstand voltage	1	0.90	0.82
Rated impulse withstand voltage Uimp	1	0.90	0.82
Rated breaking capacity Icn	1	0.87	0.77
Electrical durability	1	0.87	0.77

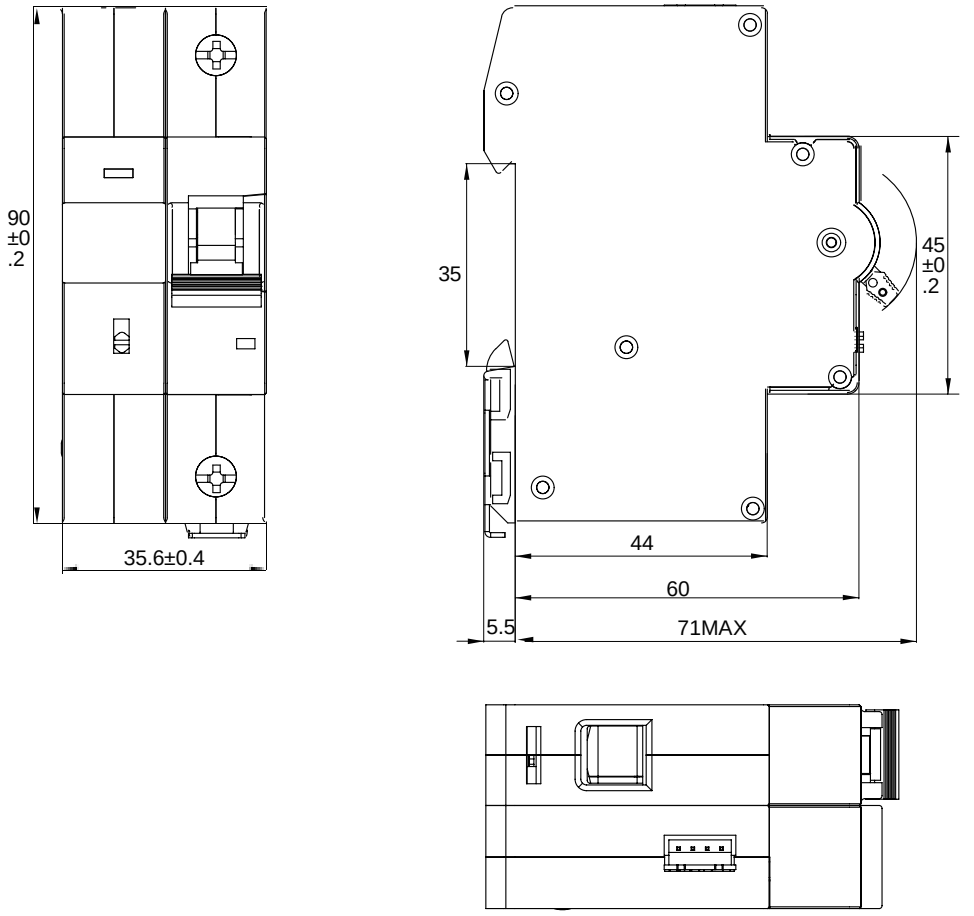
Wiring Capability

Clamped type, capable 1.0 mm^2 ~35 mm^2

Screw specification	Rated torque	iL mit torque	Standard torque	Rigid cable (Solid or stranded)	Flexible cable
M7	3.5N·m	4.5N·m	3.5N·m	1.0mm^2～35mm^2	1.0mm^2～25mm^2

Overall Dimensions

Unit: mm



Selection table

LKS3D-125/M

NO.of poles	Tripping curve (C)	Breaking capacity
1P	LKS3D-125H/C061-M-N	10kA
	LKS3D-125H/C101-M-N	
	LKS3D-125H/C161-M-N	
	LKS3D-125H/C201-M-N	
	LKS3D-125H/C251-M-N	
	LKS3D-125H/C321-M-N	
	LKS3D-125H/C401-M-N	
	LKS3D-125H/C501-M-N	
	LKS3D-125H/C631-M-N	
	LKS3D-125H/C801-M-N	
	LKS3D-125H/C1001-M-N	