ABB 1SDA051266R1

Engineering Installation, Diagnostic and Acceptance Guide

ABB 1SDA051266R1 is a SACE Tmax T3S three-pole molded-case circuit breaker with a fixed 125 A thermomagnetic trip unit. Its 50 kA rating and required T3 front terminals define the offered switching device and connection arrangement.

01 Job scope and identity

Complete model	1SDA051266R1
Product type	three-pole thermomagnetic molded-case circuit breaker
Manufacturer	ABB
Technical source	ABB SACE Tmax T Generation Technical Catalogue, 1SDC210015D0208

Field decisions

1 Decode the offered identity

Record 1SDA051266R1 and reconcile the selected mechanical, electrical and environmental fields before removal.

2 Preserve the installed reference

Use 1SDA051266R1 only where the panel drawing calls for a T3S three-pole 125 A thermomagnetic breaker and its required front connection arrangement.

3 Inspect the decisive interface

T3S molded-case breaker; three poles; fixed 125 A thermomagnetic release.

4 Prove the product-specific function

Verify frame, fixed current, pole continuity, mechanism, terminal torque and coordinated protection before energization.

5 Retain traceable evidence

Nameplate, terminals, torque and protection-coordination record.

Installation relationships

Nameplate proof	Confirm T3S, three poles, 125 A and complete ABB article number.
Mechanical proof	Operate the mechanism through the approved test sequence and inspect all pole contact paths.
Installation proof	Record front terminals, conductor sizes, torque values and protection-coordination approval.

Pre-work evidence

Verified field	Breaker family: SACE Tmax T3S
Verified field	Number of poles: 3
Verified field	Trip technology: Thermomagnetic
Verified field	Rated current: 125 A
Verified field	Breaking capacity: 50 kA, catalogue table value
Verified field	Connection requirement: Front connection terminal sets required for T3 outgoing devices

02 Pre-installation readiness

Model-specific installation decisions

Exact identity

1SDA051266R1 and every delivered revision or approval marking must be recorded before removal.

Installed system

SACE Tmax T3 molded-case circuit breaker family companion components, channel assignment and approved machine reference must remain traceable.

Mechanical baseline

Record the as-found mounting datum, reach, lock position, target clearance, routing and connector support.

Electrical baseline

Record the applicable stopped-machine gap, bias, continuity or channel value together with test conditions.

As-left configuration

Document the final mechanical position, cable protection, connector condition and complete companion-component identities.

Functional release

Compare the final monitor indication and controlled operating response with the approved baseline before handover.

Installation precautions

Verify system voltage

Interpret the 50 kA catalogue value only at the applicable rated-voltage condition.

Do not omit front terminals

The T3 outgoing arrangement requires the specified connection terminal set.

Confirm fixed trip rating

The offered thermomagnetic unit is 125 A and is not an adjustable electronic release.

Prove isolation

Follow the approved lockout and dead-test process before handling line or load conductors.

Check discrimination

Review upstream and downstream protective-device coordination before release.

Inspect all poles

Reject heat damage, cracked molding, loose terminals or uneven mechanism movement.

Pre-installation release gates

Release gate	Verify system voltage: Interpret the 50 kA catalogue value only at the applicable rated-voltage condition.
Release gate	Do not omit front terminals: The T3 outgoing arrangement requires the specified connection terminal set.
Release gate	Confirm fixed trip rating: The offered thermomagnetic unit is 125 A and is not an adjustable electronic release.
Release gate	Prove isolation: Follow the approved lockout and dead-test process before handling line or load conductors.
Release gate	Check discrimination: Review upstream and downstream protective-device coordination before release.
Release gate	Inspect all poles: Reject heat damage, cracked molding, loose terminals or uneven mechanism movement.

03 Installation and commissioning

Controlled installation sequence

01 Outgoing feeder protection	Apply on a three-phase feeder whose design current and prospective fault level match the T3S selection.
02 Motor branch isolation	Use only with separately coordinated motor protection and contactor equipment.
03 Distribution-panel retrofit	Check cutout, bus spacing, terminal orientation and upstream discrimination before exchange.
04 Fixed-load circuit protection	Confirm conductor size and thermal setting assumptions against the fixed 125 A release.

Commissioning acceptance criteria

Acceptance point	Nameplate proof: Confirm T3S, three poles, 125 A and complete ABB article number.
Acceptance point	Mechanical proof: Operate the mechanism through the approved test sequence and inspect all pole contact paths.
Acceptance point	Installation proof: Record front terminals, conductor sizes, torque values and protection-coordination approval.

04 Diagnostics and escalation

Which breaker family does 1SDA051266R1 identify?	It identifies an ABB SACE Tmax T3S molded-case circuit breaker.
How many poles are fitted to 1SDA051266R1?	The catalogue article is a three-pole device.
What current rating is listed for 1SDA051266R1?	The thermomagnetic trip unit is rated 125 A.
What breaking-capacity value is listed for 1SDA051266R1?	The referenced catalogue table gives 50 kA under its stated selection conditions.

Additional diagnostic decisions

Does 1SDA051266R1 use an electronic trip unit?	No. The selected article is thermomagnetic.
Which connection hardware is required for 1SDA051266R1?	ABB notes front connection terminal sets for the T3 outgoing arrangement.
Can 1SDA051266R1 be selected from current alone?	No. Verify voltage, fault level, poles, frame, coordination and terminal geometry.

What should be recorded after installing 1SDA051266R1?	Record label, terminals, conductor sizes, torque, mechanism test and coordination reference.

05 Handover and evidence package

Model-specific handover evidence

Evidence source	Log the revision of ABB SACE Tmax T Generation Technical Catalogue, 1SDC210015D0208 used for the release review.
Applicability record	State how the delivered marking satisfies this boundary: The ABB catalogue table identifies 1SDA051266R1 as a T3S three-pole thermomagnetic 125 A breaker with 50 kA breaking capacity and notes the front-terminal requirement for T3 outgoing devices.
Installed-system record	Photograph and identify the interfaces needed to apply this decision: Use 1SDA051266R1 only where the panel drawing calls for a T3S three-pole 125 A thermomagnetic breaker and its required front connection arrangement.
Functional acceptance	Attach measured results showing that the team completed this proof: Verify frame, fixed current, pole continuity, mechanism, terminal torque and coordinated protection before energization.

Model-specific application limits

Exact article	T3S, three poles, 125 A thermomagnetic breaker.
Catalogue value	50 kA selection under the documented table conditions.
Connection boundary	T3 front-terminal set and panel clearances.
Handover evidence	Nameplate, terminals, torque and protection-coordination record.

Product-specific acceptance records

Article evidence	Photograph the complete ABB article and T3S frame marking.
Release evidence	Confirm the fixed 125 A thermomagnetic identity on the device.
Pole evidence	Check continuity and physical condition on all three poles.
Terminal evidence	Identify the required T3 front-terminal set and conductor arrangement.
Torque evidence	Record every line and load terminal value used during assembly.
Fault-level evidence	Attach the approved prospective-current and voltage calculation.
Coordination evidence	Reference the upstream and downstream selectivity review.
Mechanism evidence	Log the approved open-close-trip exercise before energization.

Verified related product references

Related product	ABB PM511V16 3BSE011181R1
Related product	ABB BCU-12 3AUA0000110430
Related product	ABB ZINT-571 3AUA0000077333
Related product	ABB CI858K01 3BSE018135R1

Engineering contact

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