

TYPE APPROVAL CERTIFICATE
No. ELE568208CS/005



This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

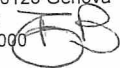
<i>Description</i>	Moulded-case circuit breaker
<i>Type</i>	T7/ML & T7 M/ML series equipped with electronic release type PR331/P-PR332/P-PR231/P-PR232/P T7S/ML T7S M/ML T7H/ML T7H M/ML T7L/ML T7L M/ML T7V/ML T7V M/ML
<i>Applicant</i>	ABB S.P.A. - ABB SACE DIVISION VIA BAIONI, 35 24123 BERGAMO (BG) ITALY
<i>Manufacturer</i>	ABB S.P.A. - ABB SACE DIVISION
<i>Place of manufacture</i>	VIA ENRICO FERMI, 14 03100 FROSINONE (FR) ITALY
<i>Reference standards</i>	IEC 60947-2 (2003)

Issued in **Genoa** on **July 15, 2009**. This Certificate is valid until **July 15, 2014**

RINA

Valerio Bonanni

This certificate consists of this page and 2 enclosures





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T7/ML & T7 M/ML series equipped with electronic release type PR331/P-PR332/P-PR231/P-PR232/P

Product Description

Moulded-case circuit-breakers type T7/ML fitted with electronic releases type PR231/P, PR232/P, PR331/P and PR332/P with:
- manual operating mechanism or
- motorized stored energy operating mechanism (series M).

Technical Data

- Ambient temperature: 40°C (**).
- Rated frequency: 50/60 Hz.
- Number of poles: 3, 4.
- Rated operational voltage (Ue).
- Rated current (In).
- Utilization Category: B.
- Rated short-circuit capacity:

Rated service short circuit breaking capacity (Ics)

Rated ultimate short circuit breaking capacity (Icu)

Rated short circuit making capacity (Icm)

Rated short-time withstand current (Icw)

**T7S 800/ML;T7S 1000/ML;T7S 1250/ML;T7S 1600/ML & T7S 800 M/ML;T7S 1000 M/ML;T7S 1250 M/ML;T7S 1600 M/ML -
In = 800, 1000, 1250, 1600 A**

Ue (V)	Ics (kA)	Icu (kA)	Icm (kA)	Icw (kA)
230	85	85	187	20
415	50	50	105	20
440	50	50	105	20
500	40	40	84	20
690	30	30	63	20

**T7H 800/ML;T7H 1000/ML;T7H 1250/ML;T7H 1600/ML & T7H 800 M/ML;T7H 1000 M/ML;T7H 1250 M/ML;T7H 1600 M/ML -
In = 800, 1000, 1250, 1600 A**

Ue (V)	Ics (kA)	Icu (kA)	Icm (kA)	Icw (kA)
230	100	100	220	20
415	70	70	154	20
440	65	65	143	20
500	50	50	105	20
690	31.5	42	88.2	20

**T7L 800/ML;T7L 1000/ML;T7L 1250/ML;T7L 1600/ML & T7L 800 M/ML;T7L 1000 M/ML;T7L 1250 M/ML;T7L 1600 M/ML -
In = 800, 1000, 1250, 1600 A**

Ue (V)	Ics (kA)	Icu (kA)	Icm (kA)	Icw (kA)
230	200	200	440	20
415	120	120	264	20
440	100	100	220	20
500	63.7	85	187	20
690	37.5	50	105	20





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T7/ML & T7 M/ML series equipped with electronic release type PR331/P-PR332/P-PR231/P-PR232/P

T7V 800/ML;T7V 1000/ML;T7V 1250/ML & T7V 800 M/ML;T7V 1000 M/ML;T7V 1250 M/ML - In = 800, 1000, 1250A

Ue (V)	Ics (kA)	Icu (kA)	Icm (kA)	Icw (kA)
230	200	200	440	15
415	150	150	330	15
440	130	130	286	15
500	100	100	220	15
690	45	60	132	15

(**) A derating of the rated current is to be considered with an ambient temperature of 45 °C according to ABB SACE Catalogue n° cat_ml_e_2009-07.doc IL-PM/sc (ref. is to made also to ABB Catalogue n° 1SDC210015D0903 Ed.2008).

Release system

Electronic release type PR331/P, PR332/P, PR231/P and PR232/P.

Documents

- CESI Test Report n° A07027438 issued on 26/02/2008 for vibration tests.
- ABB SACE Test Report n° LBRP 7876/01 issued on 20.12.2007 for inclination tests.
- ABB SACE Test Report n° LBRP 8013/00 issued on 08.09.2008 & n° LBRS 8014/00 Rev.1 issued on 11.05.2009 for climatic tests.
- INTERTEK Test Report n° E133S2207/G5_25bR issued on 25/06/200, n° E133S2207G5_25aR issued on 28/06/2007, n° E133S2207G5_25a issued on 28/06/2007 & n° E133S2207G5_25b issued on 28/06/2007 for EMC test.
- LOVAG Test Reports n° IT 07.002, IT 07.005, IT 07007, IT 07.008, IT 07.009, IT 07.013, IT 07.012, IT 07.003, IT 07.011, IT 07.006, IT 07.014, IT 07.010, IT 07.040, IT 07.062, IT 07.077, IT 07.078, IT 07.075, IT 07.076, IT 08.019, IT 08.010, IT 08.018, IT 08.020, IT 08.009, IT 08.051, IT 08.052, IT 08.053, IT 08.054, IT 08.079, IT 08.074, IT 08.075, IT 08.078.
- INTERTEK Test Report n° 706686 issued on 04.02.2009.
- INTERTEK Tes Report n° 706688 issued on 06.02.2009.

Remarks

The product is subject to the compliance with RINA MIL Rules Pt. C, Ch. 3, Sec. 6, Tab. 1, where applicable, and with the Standard mentioned on the certificate.

Genoa 15/07/2009

