

TYPE APPROVAL CERTIFICATE
No. ELE474207CS



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>	Tmax
	T1 / T2 / T3
<i>Applicant</i>	ABB SACE S.P.A.
	Via Baioni 35
	24123 BERGAMO
	ITALY
<i>Manufacturer</i>	ABB SACE S.p.A.
<i>Place of manufacture</i>	Via Enrico Fermi 14
	03100 FROSINONE
	ITALY
<i>Reference standards</i>	IEC 60947-2

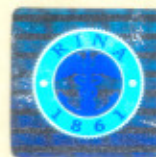
Issued in Genoa on October 11, 2007. This Certificate is valid until October 11, 2012

Valerio Bonanni

RINA

Valerio Bonanni

This certificate consists of this page and 2 enclosures





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Tmax

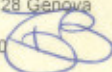
Components

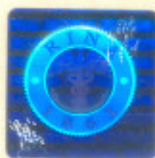
- Circuit breaker type T1.

Circuit breaker type		T1B	T1C	T1N
Relay type		TMD R16-R160	TMD R25-R160	TMD R32-R160
Rated Voltage (Ue)	V	440	440	440
Rated Current (Iu)	A	160	160	160
Ambient temperature	°C	45	45	40
Rated Frequency	Hz	50-60	50-60	50-60
Service short circuit breaking capacity (Ics)	kA	10	11	11
Ultimate short circuit breaking capacity (Icu)	kA	10	15	22
Rated short circuit making capacity (Icm)	kA	17	30	46.2
Power Factor		0.5	0.3	0.25
Utilization Category		A	A	A

- Circuit breaker type T2.

Circuit breaker type		T2N	T2S	T2H	T2L
Relay type		TMD MA PR221DS R25-R160	TMD MA PR221DS R25-R160	TMD MA PR221DS R25-R160	TMD MA PR221DS R25-R160
Rated Voltage (Ue)	V	440	440	440	440
Rated Current (Iu)	A	160	160	160	160
Ambient temperature	°C	45	45	45	40
Rated Frequency	Hz	50-60	50-60	50-60	50-60
Service short circuit breaking capacity (Ics)	kA	30	45	55	56
Ultimate short circuit breaking capacity (Icu)	kA	30	45	55	75
Rated short circuit making capacity (Icm)	kA	63	94.5	121	165
Power Factor		0.25	0.25	0.2	0.2
Utilization Category		A	A	A	A





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- Circuit breaker type T3.

Circuit breaker type		T3N	T3S
Relay type		TMD MA R63-R250	TMD MA R63-R250
Rated Voltage (Ue)	V	440	440
Rated Current (Iu)	A	250	250
Ambient temperature	°C	40	40
Rated Frequency	Hz	50-60	50-60
Service short circuit breaking capacity (Ics)	kA	19	20
Ultimate short circuit breaking capacity (Icu)	kA	25	40
Rated short circuit making capacity (Icm)	kA	52.5	84
Power Factor		0.25	0.25
Utilization Category		A	A

Genoa October 11, 2007

