



TYPE APPROVAL CERTIFICATE
N. ELE200211CS/004

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

<i>Description</i>	Circuit breaker
<i>Type</i>	Tmax T2N / S / H
<i>Applicant</i>	ABB SACE SpA Via Baioni, 35 24123 Bergamo ITALY
<i>Manufacturer</i>	ABB SACE SpA Via Enrico Fermi, 14 03100 Frosinone ITALY
<i>Testing Standards</i>	IEC 60947-2

Issued in **Genova** on **June 10, 2011**.

This certificate is valid until **June 10, 2016**

Valerio Bonanni

RINA

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Genova, June 10, 2011

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1/2



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Circuit breaker type		T2N				
Relay type		TMD / MA / PR221DSR25-R160				
Rated Voltage (Ue)	V	220/230	380/415	440	500	690
Rated Current (Iu)	A	160	160	160	160	160
Ambient Temperature	°C	45	45	45	45	45
Rated Frequency	Hz	50-60	50-60	50-60	50-60	50-60
Service short-circuit breaking capacity (Ics)	kA	65	36	30	25	6
Ultimate short-circuit breaking capacity (Icu)	kA	65	36	30	25	6
Short-circuit making capacity (Icm)	kA	143	75.6	63	52.5	9.2
Power Factor		0.2	0.25	0.25	0.25	0.7
Utilization Category		A	A	A	A	A

Circuit breaker type		T2S				
Relay type		TMD / MA / PR221DSR25-R160				
Rated Voltage (Ue)	V	220/230	380/415	440	500	690
Rated Current (Iu)	A	160	160	160	160	160
Ambient Temperature	°C	45	45	45	45	45
Rated Frequency	Hz	50-60	50-60	50-60	50-60	50-60
Service short-circuit breaking capacity (Ics)	kA	85	50	45	30	7
Ultimate short-circuit breaking capacity (Icu)	kA	85	50	45	30	7
Short-circuit making capacity (Icm)	kA	187	105	94.5	63	11.9
Power Factor		0.2	0.25	0.25	0.25	0.5
Utilization Category		A	A	A	A	A

Circuit breaker type		T2H				
Relay type		TMD / MA / PR221DSR25-R160				
Rated Voltage (Ue)	V	220/230	380/415	440	500	690
Rated Current (Iu)	A	160	160	160	160	160
Ambient Temperature	°C	45	45	45	45	45
Rated Frequency	Hz	50-60	50-60	50-60	50-60	50-60
Service short-circuit breaking capacity (Ics)	kA	100	70	55	36	8
Ultimate short-circuit breaking capacity (Icu)	kA	100	70	55	36	8
Short-circuit making capacity (Icm)	kA	220	154	121	75.6	13.6
Power Factor		0.2	0.2	0.2	0.25	0.5
Utilization Category		A	A	A	A	A

Documentation

Certificates of Conformity LOVAG n° IT 01.039, IT 01.052, IT 01.053, IT 01.054

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