



CERTIFICATE NUMBER

05-GE113638/2-PDA

DATE

02 March 2009

ABS TECHNICAL OFFICE

Genoa Engineering

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
ABB S.P.A. - ABB SACE DIVISION - SESTO S. GIOVANNI (MI)

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Circuit Breaker

MODEL: Tmax T1, T2, T3, T4, T5, T6 and T7 (UL489)

ABS RULE: 2009 Steel Vessel Rules 1-1-4/7.7, 4-8-3/5.3.3

OTHER STANDARD: UL 489;

AMERICAN BUREAU OF SHIPPING

Giorgio Barbini
Engineering Type Approval Co-ordinator

ATTACHMENT TO CERTIFICATE 05-GE113638/2-PDA

Type Tmax - UL489			T1 1p	T1	T2		T3		T4					T5					T6				T7						
Frame size		[A]	100	100	100	225		250					400-600 (3)					800				1200							
Number of poles		[Nr]	1	3-4	3-4	3-4		2-3-4 (4)					2-3-4 (4)					3-4				3-4							
Rated voltage	AC (50-60Hz)	[V]	347	600Y/347	480	600Y/347		600					600					600				600							
	DC	[V]		500		500		600					600					600				600							
Interrupting ratings			B	N	S	H	N	S	N	S	H	L	V	N	S	H	L	V	N	S	H	L	S	H	L	S-M	H-M	L-M	
	240V AC	[kA rms]		50 (2)	65	150	50	65	65	100	150	200	200	65	100	150	200	200	65	100	150	200	65	100	200	200	65	100	200
	277V AC	[kA rms]	18 (1)																										
	347V AC	[kA rms]	14 (1)																										
	480V AC	[kA rms]		22 (2)	35	65	25	35	25	35	65	100	150	25	35	65	100	150	35	50	65	100	50	65	100	50	65	100	
	600Y/347V AC	[kA rms]		10			10	10																					
	600V AC	[kA rms]							18	25	35	65	85	18	25	35	65	85	20	25	35	42	25	50	65	25	50	65	
	250V DC (2 poles in series)	[kA rms]		25			25	35																					
	500V DC (3 poles in series)	[kA rms]		25			25	35											35	35	50	65	-	-	-			-	
	500V DC (2 poles in series)	[kA rms]							25	35	50	65	100	25	35	50	65	100	-	-	-	-	-	-	-			-	
	600V DC (3 poles in series)	[kA rms]							16	25	35	50	65	16	25	35	50	65	20	20	35	50	-	-	-			-	
	Trip units	TMF	*	*	*	*																							
		TMD/TMA								*					*					*									
		PR221DS-LS/I			*					*					*					*									
		PR222DS/P-LSI								*					*					*									
		PR222DS/P-LSIG								*					*					*									
		PR222DS/PD-A-LSI								*					*					*									
		PR222DS/PD-A-LSIG								*					*					*									
		PR231/P																									*		
		PR232/P																									*		
		PR331/P																									*		
		PR332/P																									*		

(1) In15A= 10kA@277VAC 10kA@347VAC
 (2) In15A= 35kA@240VAC 14kA@480Y/277 VAC
 (3) T5 600 with electronic trip units only and in three pole version
 (4) 2p breakers: available only in N interrupting rating