

ABB Protective releases

Thermal-magnetic S1, S3, S5, S6

The S1 – S3 Isomax series uses a non-interchangeable tripping mechanism with a fixed thermal and magnetic trip. These breakers utilize a heat sensitive bimetal for protection against overload currents. The magnetic element is an instantaneous acting device for protection against short circuit faults. The S5, S6 Isomax series with thermal-magnetic tripping mechanism are adjustable from .7 to 1.



S3 150 – S3 225

L

Fixed thermal

I_{th} = 15 – 150A

I_{th} = 175 – 225A

+

L

Fixed magnetic

I₃ = 10 x I_{th}

500A min.

Variation in thermal element setting currents according to ambient temperature

Circuit breaker frame	Trip release	Variation in current					
		10°C	20°C	30°C	40°C	50°C	60°C
S1 100, S3 100	R15	18	17	16	15	14	13
	R20	24	22	21	20	19	17
	R25	30	28	27	25	23	21
	R30	35	33	32	30	28	26
	R35	41	39	37	35	33	30
	R40	47	44	42	40	37	34
	R45	53	50	48	45	42	38
	R50	59	56	53	50	47	43
	R60	71	67	64	60	56	51
	R70	83	78	74	70	66	60
	R80	94	90	85	80	75	68
R90	106	101	95	90	85	77	
R100	118	112	106	100	95	85	
S3 150	R125	148	140	133	125	119	106
	R150	177	168	159	150	143	127
S3 225	R175	207	196	186	175	166	149
	R200	236	224	212	200	190	170
	R225	266	252	239	225	214	191
S5 400	R300	345	328	314	300	286	267
	R400	465	442	420	400	380	355
S6 600	R600	690	656	628	600	572	534
	R800	965	90	855	800	740	670