AD47/AD47-1 - MINI CIRCUIT BREAKER

DESCRIPTION / APPLICATION

A circuit breaker is an automatically operated electrical switch designed to protect an electrical circuit from damage caused by excess current from an overload or short circuit. Its basic function is to interrupt current flow after a fault is detected. Circuit breakers are rated both by the normal current that they are expected to carry, and the maximum short-circuit current that they can safely interrupt. This latter figure is the ampere interrupting capacity (AIC) of the breaker. It is in conformity with IEC 60947 standard.

MAIN TECHNICAL DATA

Electrical Features	Standard		SANS556-1 IEC60947-2
	Rated current	A	AD47 - 63A,80A, 100A AD47-1 - 63A,80A, 100A,125A
	Poles		1P, 2P, 3P, 4P*
	AC Volts	V	230V, 400V
	Rated frequency	Hz	50/60
	Rated breaking capacity	kA	AD47 - 6kA,10kA AD47-1 - 6kA
Mechanical Features	Thermo-magnetic release characteristic	Curve	B*, C (white toggle), D* (orange toggle)
	Electrical life expectancy	h	4000
	Mechanical life expectancy	h	10000
	Protection degree		IP20
	Best Ambient temperature	℃	30
Installation	Ambient temperature (with daily average≤35℃)	℃	-30℃ to +60℃
	Terminal connection type		Cable/Pin-type busbar
	Connection		Top and bottom
	Tighten torque (max)	Nm	2.5Nm
	Mounting		DIN Rail EN 60715(35mm) by means of fast clip device

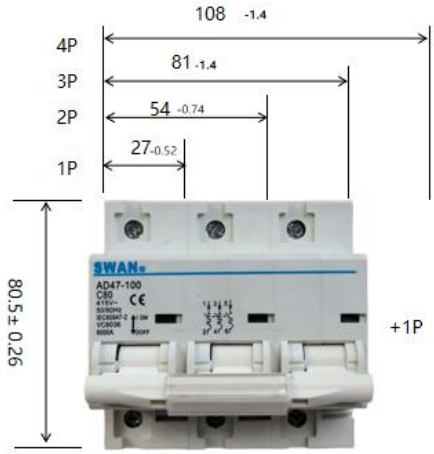
TEMPERATURE DERATING

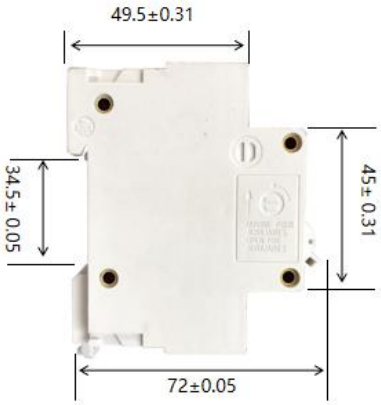
The maximum permissible current in a circuit breaker depends on the ambient temperature where the circuit breaker is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the circuit breakers are installed. South Africa is calibrated at 40°C.

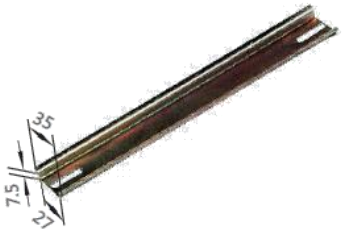
Rated Current In(A)	Temperature compensation rate corresponding to different temperatures											
	-35℃	-30℃	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃	70℃
63A	1.435	1.405	1.345	1.275	1.215	1.150	1.075	1.000	0.915	0.825	0.735	0.650
80A	1.435	1.400	1.335	1.270	1.205	1.135	1.070	1.000	0.925	0.845	0.755	0.665
100A	1.435	1.405	1.345	1.275	1.210	1.135	1.075	1.000	0.925	0.845	0.755	0.665
125A	1.430	1.390	1.315	1.250	1.190	1.125	1.080	1.000	0.930	0.860	0.780	0.680

Eg.: When 63A breaker working on -10℃, 80.33A current is required(80.33A=63Ax1.28 as above chart)

DIMENSIONS AND MOUNTING

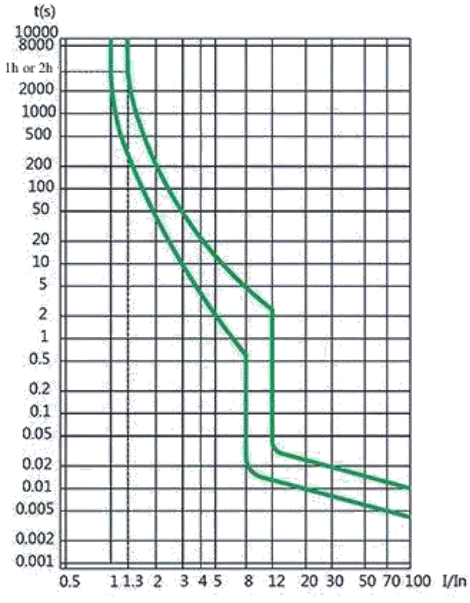






TRIPPING CURVES

C Curve



D Curve