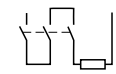
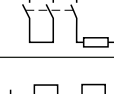
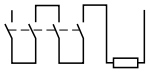
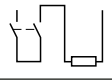
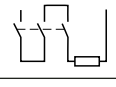
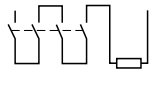
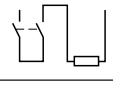
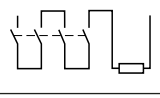
IEC Technical data
DC circuit switching
A/AE9 — GAE75

General

The arc switching on d.c. is more difficult than on a.c.

- For selecting a contactor it is essential to determine the current, the voltage and the L/R time constant of the controlled load.
- For information, typical time constant values are quoted hereafter: non inductive loads such as resistance furnaces (L/R ≃ 1 ms), inductive loads such as shunt motors (L/R ≃ 2 ms) or series motors (L/R ≃ 7.5 ms).
- The addition of a resistor in parallel with an inductive winding helps in the elimination of the arcs.
- All the poles required for breaking must be connected in series between the load and the source polarity not linked to earth (or chassis).

a.c. operated contactors **a.c. / d.c. operated (electronic coil interface)** **d.c. operated contactors**		**A9 – AE9**	**A12 – AE12**	**A16 – AE16**	**A26 – AE26**	**A30 – AE30**	**A40 – AE40**	**A45 AF45 AE45**	**A50 AF50 AE50**	**A63 AF63 AE63**	**A75 AF75 AE75**	**GA75 – GAE75**
Utilization category DC-1, L/R ≤ 1 ms												
≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	120
110 V	A	10	15	20	–	–	–	–	–	–	–	120
220 V	A	–	–	–	–	–	–	–	–	–	–	120
440 V	A	–	–	–	–	–	–	–	–	–	–	100
600 V	A	–	–	–	–	–	–	–	–	–	–	75
 ≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	–
110 V	A	25	27	30	45	55	60	70	100	110	120	–
220 V	A	10	15	20	–	–	–	–	–	–	–	–
 ≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	–
110 V	A	25	27	30	45	55	60	70	100	110	120	–
220 V	A	25	27	30	45	55	60	70	100	110	120	–
 ≤ 72 V	A	25	27	30	45	–	–	70	100	–	120	–
110 V	A	25	27	30	45	–	–	70	100	–	120	–
220 V	A	25	27	30	45	–	–	70	100	–	120	–
440 V	A	10	15	20	–	–	–	–	–	–	–	–
Utilization category DC-3, L/R ≤ 2 ms												
≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	120
 110 V	A	6	7	8	–	–	–	–	–	–	–	120
220 V	A	–	–	–	–	–	–	–	–	–	–	100
440 V	A	–	–	–	–	–	–	–	–	–	–	85
 ≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	–
110 V	A	25	27	30	45	55	60	70	100	110	120	–
220 V	A	6	7	8	–	–	–	–	–	–	–	–
 ≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	–
110 V	A	25	27	30	45	55	60	70	100	110	120	–
220 V	A	25	27	30	45	55	60	70	100	110	120	–
 ≤ 72 V	A	25	27	30	45	–	–	70	100	–	120	–
110 V	A	25	27	30	45	–	–	70	100	–	120	–
220 V	A	25	27	30	45	–	–	70	100	–	120	–
440 V	A	6	7	8	–	–	–	–	–	–	–	–
Utilization category DC-5, L/R ≤ 7.5 ms												
≤ 72 V	A	9	12	16	25	30	40	50	50	63	75	85
 110 V	A	4	4	4	–	–	–	–	–	–	–	85
220 V	A	–	–	–	–	–	–	–	–	–	–	85
440 V	A	–	–	–	–	–	–	–	–	–	–	35
 ≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	–
110 V	A	10	15	20	30	45	50	70	80	90	100	–
220 V	A	4	4	4	–	–	–	–	–	–	–	–
≤ 72 V	A	25	27	30	45	55	60	70	100	110	120	–
110 V	A	25	27	30	45	55	60	70	100	110	120	–
220 V	A	9	12	16	25	30	40	50	50	63	75	–
 ≤ 72 V	A	25	27	30	45	–	–	70	100	–	120	–
110 V	A	25	27	30	45	–	–	70	100	–	120	–
220 V	A	10	15	20	30	–	–	70	70	–	100	–
440 V	A	4	4	4	–	–	–	–	–	–	–	–