

THREE-PHASE CAPACITORS

PRT

Carefully check "GUIDE TO THE CHOISE OF THE PRODUCT" on page 124



CONSTRUCTION TECHNOLOGY

The self-healing capacitors in the PRT series consist of three single-phase elements made of wavy cut metallized polypropylene film at high gradient, treated under vacuum process, and then placed in a cylindrical casing of extruded aluminium along with biodegradable vegetable oil filler. The case has fixing stud M12 x 12 mm, that is used to earth the capacitor.

The capacitor is closed with the beading of the steel lid on the aluminium casing, ensuring perfect air and water tightness. The fibreglass-reinforced nylon strip is dielectrically assembled on the steel lid with an airtight fit. The strip accommodates the three terminals and provides IP20 degree of protection. IP54 terminal and capacitor degree of protection cover is available upon request.

The capacitors are equipped with external discharge resistors, permanently connected for safety to the faston terminals of the capacitor strip. All PRT capacitors are equipped with the overpressure disconnecter; in case of activation, the capacitor top lid bends and disconnect the internal electrical connection and smoothly separate the capacitor from the supply.

It is therefore recommended to leave at least 25 mm of clear space above the connecting strip to allow the overpressure device to work properly.

USES

Especially suited fixed or automatic power-factor correction systems equipped with PFC controller.

If used in automatic power-factor correction system, the PFC regulator reconnecting time must be compatible with the capacitor discharge time (never less than 30 sec).

If shorter discharge times are required, it is necessary to use fast discharge resistors (available upon request), that enable the capacitor to discharge in just a few seconds.

INSTALLATION

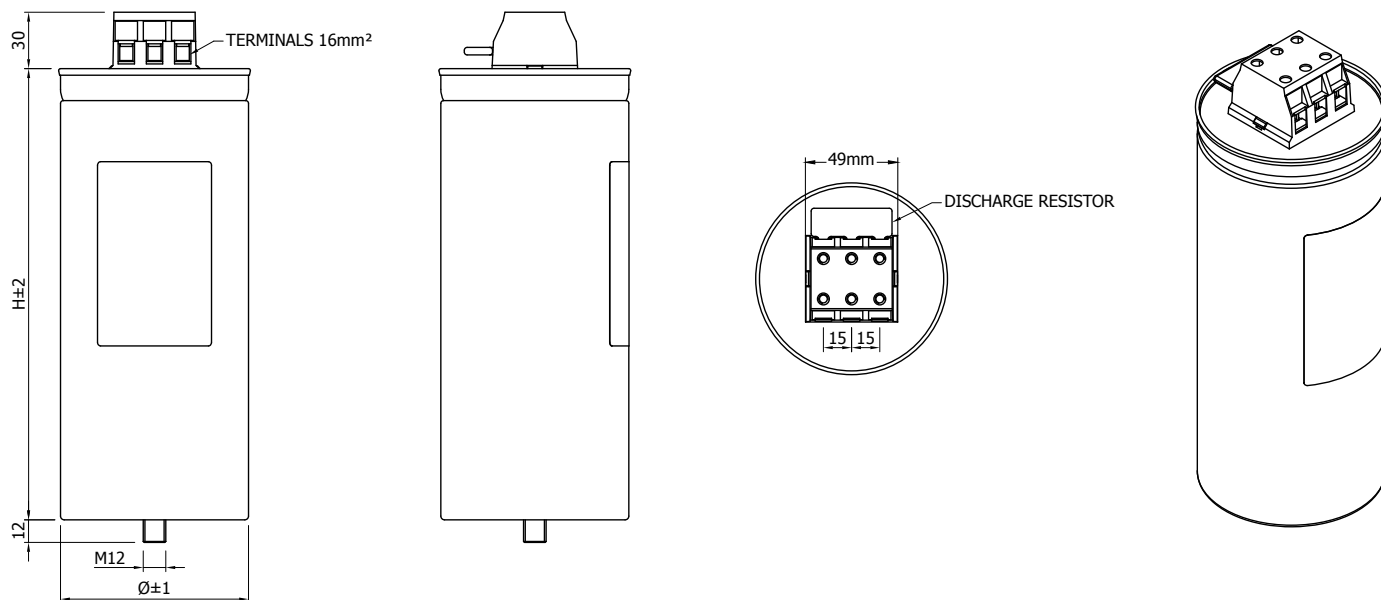
Installation must be performed by fixing the M12 stud of the Capacitor.

GENERAL CHARACTERISTICS	
Rated voltage (Un)	230 - 690 V
Rated frequency	50 Hz (60 Hz on request)
Tolerance on capacitance	- 5 % / + 5 %
Temperature class	- 25 ° C / + 55° C
Dielectric losses	≤ 0,2 W/kvar
Total losses (at the terminals)	≤ 0,5 W/kvar
Insulation level	3/15 kV Ue ≤ 660 Vac
Max. permitted current	1,5 In
Maximum peak value of the current transient	≤ 200 In
Voltage test between the terminals	2.15 Un for 2"
Voltage test between the terminals and container	3 KV per 10"
Terminals	Terminal strip
Discharge resistors	External (reduction to 75 V within 3 min)
Service	Continuous
Installation	Indoor
Cooling	Natural or forced air
Max permissible humidity	95%
Altitude	≤ 2000 (m a.s.l.)
Degree of protection	IP20 (IP54 upon request)
Expected life	> 130.000 h (classe D) - > 150.000 h (classe C)
Fixing	With M12 stud
Reference standards	IEC 60831-1/2
Number of switching operation	Max 5000 switchings per year according to IEC 60831-1

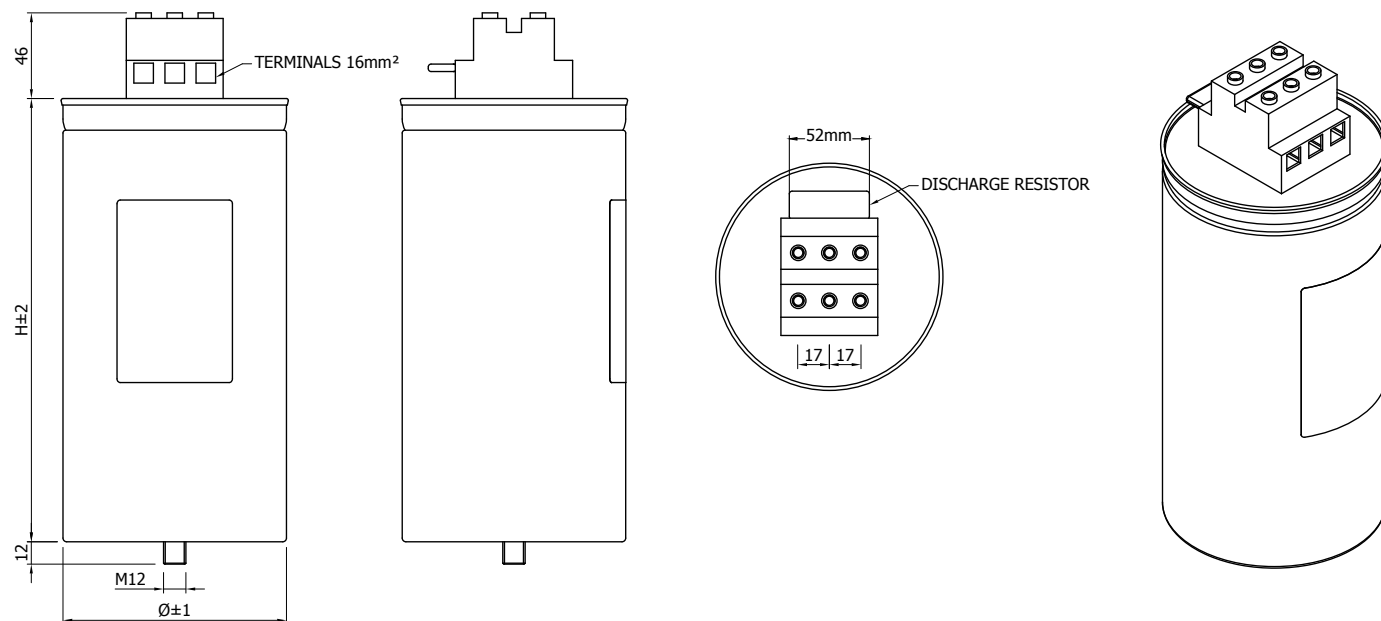
Un	Code	Rated Power	f	In	Capacitance	Ø	H	Weight	Terminal	Packaging
[V]		Qn [kvar]	[Hz]	[A]	[uF]	[mm]	[mm]	[kg]	Type	Qty
230	PRT.23050-VF6C	5	50	12,55	3 x 100,3	75	247,5	1,21	CB1	12
	PRT.23075-VG6C	7,5	50	18,83	3 x 150,4	85	247,5	1,56	CB1	12
	PRT.23100-VH6C	10	50	25,1	3 x 200,6	100	247,5	2,1	CB1	15
	PRT.23125-VH7C	12,5	50	31,38	3 x 250,7	100	285	2,37	CB1	15
	PRT.23150-VL6F	15	50	37,65	3 x 300,9	120	247,5	3,03	CB1	6
400	PRT.40025-VF4C	2,5	50	3,61	3 x 16,6	75	172,5	0,89	CB1	12
	PRT.40050-VF4C	5	50	7,22	3 x 33,2	75	172,5	0,92	CB1	12
	PRT.40075-VF4C	7,5	50	10,83	3 x 49,7	75	172,5	0,93	CB1	12
	PRT.40100-VF5C	10	50	14,43	3 x 66,3	75	210	1,07	CB1	12
	PRT.40125-VF6C	12,5	50	18,04	3 x 82,9	75	247,5	1,23	CB1	12
	PRT.40150-VG5C	15	50	21,65	3 x 99,5	85	210	1,37	CB1	12
	PRT.40200-VG6C	20	50	28,87	3 x 132,6	85	247,5	1,57	CB1	12
	PRT.40250-VH6C	25	50	36,08	3 x 165,8	100	247,5	2,14	CB1	15
	PRT.40300-VL6F	30	50	43,3	3 x 198,9	120	247,5	3	CB2	6
	PRT.40400-VL6F	40	50	57,74	3 x 265,3	120	247,5	3,06	CB2	6
	PRT.40500-VL7F	50	50	72,17	3 x 331,6	120	285	3,46	CB2	6
415	PRT.41025-VF4C	2,5	50	3,48	3 x 15,4	75	172,5	0,89	CB1	12
	PRT.41050-VF4C	5	50	6,96	3 x 30,8	75	172,5	0,91	CB1	12
	PRT.41075-VF4C	7,5	50	10,43	3 x 46,2	75	172,5	0,94	CB1	12
	PRT.41100-VF5C	10	50	13,91	3 x 61,6	75	210	1,08	CB1	12
	PRT.41125-VF6C	12,5	50	17,39	3 x 77	75	247,5	1,23	CB1	12
	PRT.41150-VG6C	15	50	20,87	3 x 92,4	85	247,5	1,53	CB1	12
	PRT.41200-VH6C	20	50	27,82	3 x 123,2	100	247,5	2,1	CB1	15
	PRT.41250-VH6C	25	50	34,78	3 x 154	100	247,5	2,12	CB1	15
	PRT.41300-VL6F	30	50	41,74	3 x 184,8	120	247,5	3,04	CB2	6
	PRT.41400-VL6F	40	50	55,65	3 x 246,4	120	247,5	3,11	CB2	6
	PRT.41500-VL7F	50	50	69,56	3 x 308	120	285	3,5	CB2	6
440	PRT.44025-VF4C	2,5	50	3,28	3 x 13,7	75	172,5	0,88	CB1	12
	PRT.44050-VF4C	5	50	6,56	3 x 27,4	75	172,5	0,92	CB1	12
	PRT.44075-VF4C	7,5	50	9,84	3 x 41,1	75	172,5	0,92	CB1	12
	PRT.44100-VF5C	10	50	13,12	3 x 54,8	75	210	1,09	CB1	12
	PRT.44125-VF6C	12,5	50	16,4	3 x 68,5	75	247,5	1,24	CB1	12
	PRT.44150-VF6C	15	50	19,68	3 x 82,2	75	247,5	1,24	CB1	12
	PRT.44200-VG6C	20	50	26,24	3 x 109,6	85	247,5	1,56	CB1	12
	PRT.44250-VH6C	25	50	32,8	3 x 137	100	247,5	2,13	CB1	15
	PRT.44300-VH6F	30	50	39,36	3 x 164,4	100	247,5	2,18	CB2	15
	PRT.44400-VL6F	40	50	52,49	3 x 219,2	120	247,5	3,04	CB2	6
	PRT.44500-VL7F	50	50	65,61	3 x 274	120	285	3,44	CB2	6
460	PRT.46025-VF4C	2,5	50	3,14	3 x 12,5	75	172,5	0,88	CB1	12
	PRT.46050-VF4C	5	50	6,28	3 x 25,1	75	172,5	0,91	CB1	12
	PRT.46075-VF4C	7,5	50	9,41	3 x 37,6	75	172,5	0,93	CB1	12
	PRT.46100-VF5C	10	50	12,55	3 x 50,1	75	210	1,07	CB1	12
	PRT.46125-VF6C	12,5	50	15,69	3 x 62,7	75	247,5	1,22	CB1	12

Un		Rated Power	f	In	Capacitance	Ø	H	Weight	Terminal	Packaging
[V]	Code	Qn [kvar]	[Hz]	[A]	[µF]	[mm]	[mm]	[kg]	Type	Qty
460	PRT.46150-VG5C	15	50	18,83	3 x 75,2	85	210	1,38	CB1	12
	PRT.46200-VG6C	20	50	25,1	3 x 100,3	85	247,5	1,57	CB1	12
	PRT.46250-VH6C	25	50	31,38	3 x 125,4	100	247,5	2,1	CB1	15
	PRT.46300-VL6F	30	50	37,65	3 x 150,4	120	247,5	2,94	CB2	6
	PRT.46400-VL6F	40	50	50,2	3 x 200,6	120	247,5	3,07	CB2	6
	PRT.46500-VL7F	50	50	62,76	3 x 250,7	120	285	3,47	CB2	6
480	PRT.48025-VF4C	2,5	50	3,01	3 x 11,5	75	172,5	0,87	CB1	12
	PRT.48050-VF4C	5	50	6,01	3 x 23	75	172,5	0,92	CB1	12
	PRT.48075-VF4C	7,5	50	9,02	3 x 34,5	75	172,5	0,94	CB1	12
	PRT.48100-VF5C	10	50	12,03	3 x 46,1	75	210	1,08	CB1	12
	PRT.48125-VF6C	12,5	50	15,04	3 x 57,6	75	247,5	1,22	CB1	12
	PRT.48150-VG5C	15	50	18,04	3 x 69,1	85	210	1,38	CB1	12
	PRT.48200-VH6C	20	50	24,06	3 x 92,1	100	247,5	2,06	CB1	15
	PRT.48250-VH6C	25	50	30,07	3 x 115,1	100	247,5	2,12	CB1	15
	PRT.48300-VL6F	30	50	36,08	3 x 138,2	120	247,5	2,91	CB2	6
	PRT.48400-VL6F	40	50	48,11	3 x 184,2	120	247,5	3,1	CB2	6
525	PRT.48500-VL7F	50	50	60,14	3 x 230,3	120	285	3,5	CB2	6
	PRT.52025-VF4C	2,5	50	2,75	3 x 9,6	75	172,5	0,87	CB1	12
	PRT.52050-VF4C	5	50	5,5	3 x 19,2	75	172,5	0,9	CB1	12
	PRT.52075-VF4C	7,5	50	8,25	3 x 28,9	75	172,5	0,93	CB1	12
	PRT.52100-VF5C	10	50	11	3 x 38,5	75	210	1,08	CB1	12
	PRT.52125-VF6C	12,5	50	13,75	3 x 48,1	75	247,5	1,22	CB1	12
	PRT.52150-VG5C	15	50	16,5	3 x 57,7	85	210	1,37	CB1	12
	PRT.52200-VH6C	20	50	21,99	3 x 77	100	247,5	2,04	CB1	15
	PRT.52250-VH6C	25	50	27,49	3 x 96,2	100	247,5	2,1	CB1	15
	PRT.52300-VL6C	30	50	32,99	3 x 115,5	120	247,5	2,9	CB1	6
690	PRT.52400-VL6F	40	50	43,99	3 x 154	120	247,5	3,07	CB2	6
	PRT.52500-VL7F	50	50	54,99	3 x 192,5	120	285	3,47	CB2	6
	PRT.69050-VF4C	5	50	4,18	3 x 11,1	75	172,5	0,92	CB1	12
	PRT.69075-VF4C	7,5	50	6,28	3 x 16,7	75	172,5	0,93	CB1	12
	PRT.69100-VF5C	10	50	8,37	3 x 22,3	75	210	1,07	CB1	12
	PRT.69125-VF5C	12,5	50	10,46	3 x 27,9	75	247,5	1,22	CB1	12
	PRT.69150-VG5C	15	50	12,55	3 x 33,4	85	210	1,37	CB1	12
	PRT.69200-VH6C	20	50	16,73	3 x 44,6	100	247,5	2,05	CB1	15
	PRT.69250-VH6C	25	50	20,92	3 x 55,7	100	247,5	2,1	CB1	15
	PRT.69300-VL6C	30	50	25,1	3 x 66,9	120	247,5	2,94	CB1	6
	PRT.69400-VL6C	40	50	33,47	3 x 89,1	120	247,5	3,07	CB1	6
	PRT.69500-VL7F	50	50	41,84	3 x 111,4	120	285	3,45	CB2	6

CB1



CB2



IP54 PRT arrangement

