

POLB-HD



Three-Phase Tubular Capacitor

Description

Heavy Duty (HD series) capacitors are designed to offer long time expectancy and outstanding performance with its higher electrical characteristics.

It is a self-healing capacitor with low losses metallized polypropylene dielectric, filled with inert gas N₂. They have an overpressure disconnection system which provides a high level of safety against internal defects cutting the 3 phases.

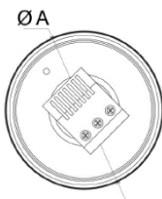
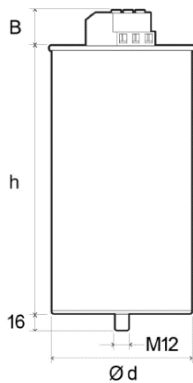
Capacitors are built in tubular aluminium case, provided with a M12 stud for fixing and earthing. Connection is made by a terminal block with clamp type terminals.

The name plate includes a QR code associated, allowing you to download the individual routine test certificate, and it also offers a copy protection.

Application

For Power Factor Correction. Compensation of inductive reactive energy in electrical installations, where the loads can be fixed or variable. Designed and manufactured to operate satisfactorily in difficult working conditions. Characterized by providing a longer useful life and good behaviour at high temperatures.

Dimensions



mm	Ø d	h	B	Ø A
85x175	85	175	31	90
85x245	85	245	31	90
100x245	100	245	31	105
116x245	116	245	35	121
136x220	136	220	35	141
136x261	136	261	35	141
136x355	136	355	46	141

Technical Data

Electrical Characteristics	Rated Voltage, U _N	230, 440, 460, 525 and 690 V.
	Rated Frequency	50 Hz
Rated Output, Q _N	From 2,5 to 50 kvar at U _N	
Overcurrent (permanent)	1,8 times the rated current I _N ⁽¹⁾	
Inrush Current	400 times the rated current I _N	
Overvoltage	10 %, up to 8 h daily	
	15 %, up to 30 minutes daily	
	20 %, up to 5 minutes daily	
30 %, up to 1 minute daily		
Insulation Level	3/8 kV	
Capacitance Tolerance	-5 / +10%	
Discharge Resistor	50 V 1 minut from 2,5 to 30 kvar	
	75 V 3 minuts from 33 to 50 kvar	
Losses	Dielectric (tanδ ₀) < 0,2 W / kvar	
	Totals: 0,4 W / kvar	
Protections	Self-Healing film	
	Inner Fuses elements	
	Overpressure disconnecter system	

Mechanical Characteristics	Enclosure material	Aluminium
	Dielectric material	Polypropylene film
Filling material	Non-PCB, type dry, inert Gas, N ₂	
Terminals		
Cross section	16 mm ² 25 mm ² 35 mm ²	
Maximum Torque	3 Nm 3 Nm 3,7 Nm	
Screw	M4x12; PH1; Pozidrive	
Fixation	Threaded bolt M12	
Maximum Torque	10Nm	
Protection degree	IP20	
	IP54, with cover terminals	
Life time expectancy	≥150.000 horas	

Climatic	Thermal Class	-40°C/D (60°C) ⁽²⁾
	Relative Humidity	95% no condensation
	Maximum Altitude	4000 m.a.s.l.

Mounting	Position	Vertical or Horizontal
	Cooling	Natural or forced (cabinet design)
	Capacitors distances	Minimum 20 mm

Standard	IEC60831-1/2:2014
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Notes

⁽¹⁾ Maximum current during 8 working hours, 2 time of I_N according IEC60831-1:2014 clause 13

⁽²⁾ Maximum punctual temperature according IEC60831-1:2014 clause 4.1

Capacitors POLB HD Range

PART NUMBER	U _N = 220V; 50 Hz		U _N = 230V; 50 Hz		U _N = 240V; 50 Hz		C _N (µF) (*)	Dimensions (mm)	Weight (kg)	Cross section Terminal (mm ²)
	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)				
POLB23025HD	2,3	6,0	2,5	6,3	2,7	6,5	3 x 75,2	85 x 175	0,9	16
POLB23050HD	4,6	12	5	12,6	5,4	13,1	3 x 150,4	85 x 175	1,2	16
POLB23075HD	6,9	18	7,5	18,8	8,2	19,6	3 x 225,6	85 x 245	1,7	16
POLB23100HD	9,1	24	10	25,1	11	26,2	3 x 300,9	100 x 245	2,0	16
POLB23125HD	11	30	12,5	31,4	14	32,7	3 x 376,1	100 x 245	3,3	16
POLB23150HD	14	36	15	37,7	16	39,3	3 x 451,3	116 x 245	3,3	25

(*) Capacitance measured values (See Technical Note TS 03-020)

PART NUMBER	U _N = 400V; 50 Hz		U _N = 415V; 50 Hz		U _N = 440V; 50 Hz		C _N (µF) (*)	Dimensions (mm)	Weight (kg)	Cross section Terminal (mm ²)
	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)				
POLB44100HD	8,3	11,9	8,9	12,4	10,0	13,1	3 x 82,2	85 x 245	1,0	16
POLB44125HD	10,3	14,9	11,1	15,5	12,5	16,4	3 x 102,8	85 x 245	1,2	16
POLB44150HD	12,4	17,9	13,3	18,6	15,0	19,7	3 x 123,3	85 x 245	1,3	16
POLB44182HD	15,0	21,7	16,2	22,5	18,2	23,9	3 x 149,6	100 x 245	1,9	16
POLB44200HD	16,5	23,9	17,8	24,8	20,0	26,2	3 x 164,4	100 x 245	1,9	16
POLB44250HD	20,7	29,8	22,2	30,9	25,0	32,8	3 x 205,5	100 x 245	3,1	25
POLB44300HD	24,8	35,8	26,7	37,1	30,0	39,4	3 x 246,6	116 x 245	3,3	25
POLB44364HD	30,1	43,4	32,4	45,0	36,4	47,8	3 x 299,2	136 x 220	3,3	25
POLB44400HD	33,1	47,7	35,6	49,5	40,0	52,5	3 x 328,8	136 x 261	4,0	25
POLB44500HD	41,3	59,6	44,5	61,9	50,0	65,6	3 x 411,0	136 x 355	5,5	35
POLB40500HD	50,0	72,2	-	-	-	-	3 x 497,4	136 x 355	5,5	35

(*) Valor de Capacidad Medida (ver Nota Técnica TS 03-020)

PART NUMBER	U _N = 400V; 50 Hz		U _N = 440V; 50 Hz		U _N = 460V; 50 Hz		C _N (µF) (*)	Dimensions (mm)	Weight (kg)	Cross section Terminal (mm ²)
	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)				
POLB46025HD	1,9	2,7	2,3	3,0	2,5	3,1	3 x 18,8	85 x 175	0,9	16
POLB46050HD	3,8	5,5	4,6	6,0	5	6,3	3 x 37,6	85 x 175	0,9	16
POLB46062HD	4,7	6,8	5,7	7,5	6,25	7,8	3 x 47,0	85 x 175	1,1	16
POLB46075HD	5,7	8,2	6,9	9,0	7,5	9,4	3 x 56,4	85 x 175	1,1	16
POLB46100HD	7,6	10,9	9,1	12,0	10	12,6	3 x 75,2	85 x 245	1,1	16
POLB46125HD	9,5	13,6	11,4	15,0	12,5	15,7	3 x 94,0	85 x 245	1,6	16
POLB46150HD	11,3	16,4	13,7	18,0	15	18,8	3 x 112,8	85 x 245	1,7	16
POLB46185HD	14,0	20,2	16,9	22,2	18,5	23,2	3 x 139,1	100 x 245	2,2	16
POLB46200HD	15,1	21,8	18,3	24,0	20	25,1	3 x 150,4	100 x 245	2,4	16
POLB46250HD	18,9	27,3	22,9	30,0	25	31,4	3 x 188,0	116 x 245	2,6	25
POLB46300HD	22,7	32,7	27,4	36,0	30	37,7	3 x 225,6	136 x 220	2,7	25
POLB46333HD	25,0	36,0	30,2	39,6	33	41,4	3 x 248,2	136 x 261	2,9	25
POLB46370HD	28,0	40,4	33,9	44,4	37	46,4	3 x 278,3	136 x 261	3,1	25

(*) Capacitance measured values (See Technical Note TS 03-020)

PART NUMBER	U _N = 480V; 50 Hz		U _N = 525V; 50 Hz		U _N = 550V; 50 Hz		C _N (µF) (*)	Dimensions (mm)	Weight (kg)	Cross section Terminal (mm ²)
	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)				
POLB52050HD	4,2	5,0	5,0	5,5	5,5	5,8	3 x 28,9	85 x 175	0,8	16
POLB52075HD	6,3	7,5	7,5	8,2	8,2	8,6	3 x 43,3	85 x 175	0,9	16
POLB52100HD	8,4	10,1	10,0	11,0	11,0	11,5	3 x 57,7	85 x 245	1,0	16
POLB52125HD	10,4	12,6	12,5	13,7	13,7	14,4	3 x 72,2	85 x 245	1,1	16
POLB52150HD	12,5	15,1	15,0	16,5	16,5	17,3	3 x 86,6	85 x 245	1,3	16
POLB52187HD	15,6	18,8	18,7	20,6	20,5	21,5	3 x 108,3	100 x 245	2,1	16
POLB52200HD	16,7	20,1	20,0	22,0	22,0	23,0	3 x 115,5	100 x 245	2,1	16
POLB52250HD	20,9	25,1	25,0	27,5	27,4	28,8	3 x 144,4	116 x 245	2,1	25
POLB52300HD	25,1	30,2	30,0	33,0	32,9	34,6	3 x 173,2	116 x 245	3,1	25
POLB52375HD	31,3	37,7	37,5	41,2	41,2	43,2	3 x 216,5	116 x 245	3,1	25
POLB52400HD	33,4	40,2	40,0	44,0	43,9	46,1	3 x 231,0	136 x 261	3,8	25
POLB52500HD	41,8	50,3	50,0	55,0	54,9	57,6	3 x 288,7	136 x 355	5,5	35

(*) Capacitance measured values (See Technical Note TS 03-020)

Capacitors POLB HD Range

PART NUMBER	U _N = 600V; 50 Hz		U _N = 660V; 50 Hz		U _N = 690V; 50 Hz		C _N (µF) (*)	Dimensions (mm)	Weight (kg)	Cross section Terminal (mm ²)
	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)	Q _N (kvar)	I _N (A)				
POLB69050HD	3,8	3,6	4,6	4,0	5,0	4,2	3 x 16,7	85 x 175	0,8	16
POLB69062HD	4,7	4,5	5,7	5,0	6,2	5,2	3 x 20,9	85 x 175	0,9	16
POLB69100HD	7,6	7,3	9,1	8,0	10,0	8,4	3 x 33,4	85 x 245	1,0	16
POLB69125HD	9,5	9,1	11,4	10,0	12,5	10,5	3 x 41,8	85 x 245	1,1	16
POLB69150HD	11,3	10,9	13,7	12,0	15,0	12,6	3 x 50,1	85 x 245	1,3	16
POLB69200HD	15,1	14,6	18,3	16,0	20,0	16,7	3 x 66,9	100 x 245	2,1	16
POLB69250HD	18,9	18,2	22,9	20,0	25,0	20,9	3 x 83,6	116 x 245	2,1	25
POLB69300HD	22,7	21,8	27,4	24,0	30,0	25,1	3 x 100,3	136 x 220	2,1	25
POLB69400HD	30,2	29,1	36,6	32,0	40,0	33,5	3 x 133,7	136 x 355	3,1	35
POLB69500HD	37,8	36,4	45,7	40,0	50,0	41,8	3 x 167,1	136 x 355	5,5	35

(*) Capacitance measured values (see Technical Note TS 03-020)

Accessories POLB HD

PART NUMBER	Plastic Terminal covers
H19090601	Tubular Capacitor diameter Ø85 mm
H19100601	Tubular Capacitor diameter Ø100 mm
H19116601	Tubular Capacitor diameter Ø110 y Ø116 mm