

HD - Heavy Duty

Three phase power capacitors, selfhealing, dry - gas filled



General technical parameters

Standards	IEC EN 60831-1/2, VDE 0560-46/47, GOST 1282-88
Rated Voltage	230 - 800 V / 50 Hz
Rated Power	1 - 50 kvar
Capacitance Tolerance	-5 / + 10%
Max. Permissible Current	1,5 x I _N Continuous, 2 x I _N Short period *
Max. inrush Current	400 x I _N
Capacitor Losses	cca 0,4 W / kvar
Discharge Resistors	built-in 75 V / 3 min (50 V / 1 min up to 30 kvar)
Statistical Life Expectancy	> 150 000 hours according to operating conditions
Protection Degree	IP 20 (IP 54 selected types on request)
Max. Relative humidity	95 %
Cooling	Natural Air or forced
Max. Altitude	4 000 m
Mounting position	Any position
Case	Aluminium can
Dielectric System	Dry metallized polypropylene, selfhealing
Impregnant / Filling	Inert gas N ₂ or semi-dry resin (50 kvar)
Safety Device	3 Fuses overpressure disconnecter
Terminals	One side - 3 clamps
Temperature category	-40/D (60°C)

Note: * Maximum current for 48 hours continuous operation with relation to highest mean ambient temperature of 45°C over period of 24 h.

Routine test

U _N	U _{TT}	U _{TC}
≤ 500 V	2,15 x U _N AC (2s)	3000 V AC (10 s) or 1,2 x U _{TC} AC (2 s)
≥ 500 V	2,15 x U _N AC (2s)	2 x U _N + 2000V AC (10 s) or 1,2 x U _{TC} AC (2 s)

Max. permissible voltage

RMS overvoltage	Max. period
1,1 x U _N	8 h/d
1,15 x U _N	30 min/d
1,20 x U _N	5 min (200x)
1,30 x U _N	1 min (200x)

Temperature category

Temperature category	Ambient temperature		
	Max.	24 h*	1 year*
C	50°C	40°C	30°C
D	55°C	45°C	35°C
D (60°C)	60°C	45°C	35°C

* Max. mean value during period



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Three phase power capacitors for Power Factor Correction (Delta connection).

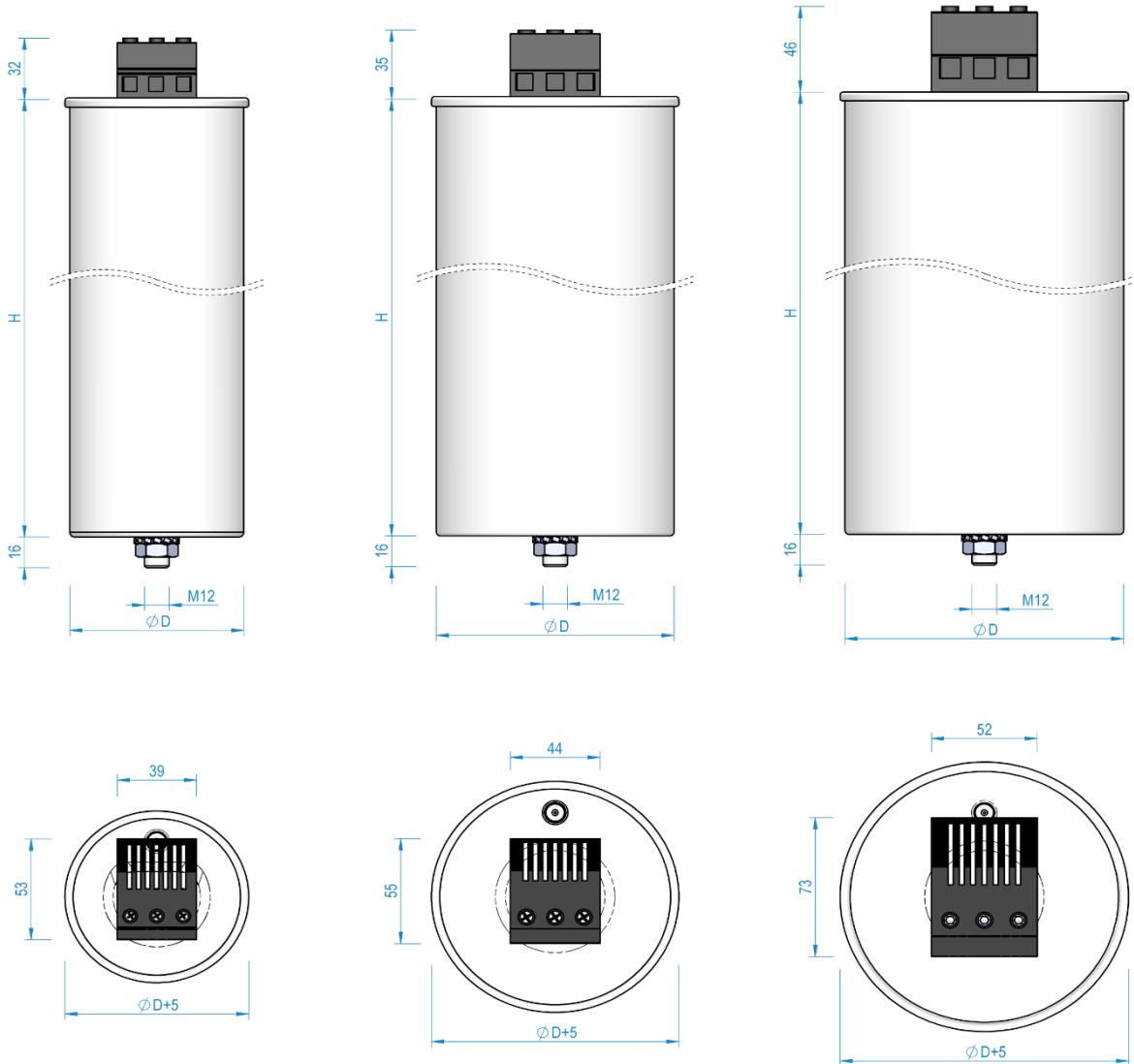
690 - 660 - 600 V / 50 Hz

Q _c (kvar)			Type	C _N (Δ) (μF)	I _N (A)			Ø D x H (mm)	m (kg)	Term.
690 V	660 V	600 V			690 V	660 V	600 V			
2,5	2,3	1,9	CSADG-0,69/2,5-HD	3 x 5,6	2,1	2,0	1,8	85 x 175	0,7	A
5	4,6	3,8	CSADG-0,69/5-HD	3 x 11,1	4,2	4,0	3,6	85 x 175	0,8	A
7,5	6,9	5,7	CSADG-0,69/7,5-HD	3 x 16,7	6,3	6,0	5,5	85 x 175	0,9	A
10	9,1	7,6	CSADG-0,69/10-HD	3 x 22,3	8,4	8,0	7,3	85 x 245	1,0	A
12,5	11,4	9,5	CSADG-0,69/12,5-HD	3 x 27,9	10,5	10,0	9,1	85 x 245	1,1	A
15	13,7	11,3	CSADG-0,69/15-HD	3 x 33,4	12,6	12,0	10,9	85 x 245	1,3	A
18	16,5	13,6	CSADG-0,69/18-HD	3 x 40,1	15,1	14,4	13,1	100 x 245	1,8	A
20	18,3	15,1	CSADG-0,69/20-HD	3 x 44,6	16,7	16,0	14,6	100 x 245	1,9	A
25	23	19	CSADG-0,69/25-HD	3 x 55,7	20,9	20,0	18,2	116 x 245	2,1	B
30	27,4	22,7	CSADG-0,69/30-HD	3 x 66,9	25,1	24,0	21,8	116 x 245	2,3	B
37,5	34,3	28,4	CSADG-0,69/37,5-HD	3 x 83,6	31,4	30,0	27,3	136 x 261	3,6	B
40	36,6	30,2	CSADG-0,69/40-HD	3 x 89,2	33,5	32,0	29,1	136 x 261	3,7	B
45	41,2	40	CSADG-0,69/45-HD	3 x 100	37,7	36,0	35,5	136 x 355	5,2	C
50	45,7	37,8	CSADG-0,69/50-HD	3 x 111	41,8	40,0	36,4	136 x 355	5,2	C
55	50	41,6	CSADG-0,69/55-HD	3 x 123	46,0	43,7	40,0	136 x 355	5,2	C

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Drawing



Terminal	A	B	C
Max. cross section (mm ²)	16	25	35
Recommended torque (Nm)	1,2 - 1,7	2,0 - 2,5	2,5 - 4,0
Screw head type	PH1	PH2	Hex