



GPX 84 series

High Performance General Purpose Capacitor Cylindrical Aluminum Case

GPX 84 single-phase, cylindrical AC & DC Capacitors are the ideal solution for High Performance applications requiring very high current capability, higher operating temperatures and a lifecycle characterised by very stable capacity values.

In addition to the sturdy construction with Aluminum case and plastic lid, the wide range of available connections and the safety features based on the integrated UL-approved overpressure disconnecter and DRY resin impregnation, GPX 84 includes a fortified internal construction based on busbar connections and a special metallised film design resulting in superior current, temperature and capacity stability parameters.

Main characteristics:

- Self-Healing Metallized Polypropylene Film
- UL-Approved Overpressure Safety Device
- Aluminum Case
- DRY Resin filling
- Wide range of connections with high current capability

Main applications:

- AC Filtering
- High-Performance PFC (high harmonics, voltage and RMS/surge current)
- UPS and Wind-Power Applications



General Characteristics

Rated AC voltage (U_{RMS}) - effective	250V - 950V
Rated DC voltage (U_N)	490V - 1850V
Maximum effective current (I_{max}) - continuous	120 Arms
Capacitance tolerance	±10%
Series resistance (RS)	1 - 10 mΩ
Terminals	Screw type bolts - M6 / M10
Container	Aluminum
Cover	UL 94 V0 plastic cover
Film Dielectric type	Self-healing metallized polypropylene film
Maximum altitude	2000 m a.s.l.
Mounting	Any position / Indoor
Maximum torque for fixing stud	10 Nm
Maximum torque for M6 terminals	3 Nm
Maximum torque for M10 terminals	6 Nm
Working ambient temperature	-40 .. +50 °C
Operating temperature MIN/ MAX (case)	-25 .. +70 °C
Maximum Hotspot temperature	+85 °C
Storage temperature	-40 .. +85 °C
Humidity category class (DIN 40040)	F
AC test Voltage between terminals and container (to ground)	AC: 3 - 6 KV5 50Hz 10 s
Life expectancy (@ U_N / 70°C hot spot)	> 120.000 h
Failure quota	50FIT
Reference standards	IEC 1071-1/2
Material and insulation distance designed according to:	UL 810



Cn [μF]	I _{MAX} [A]	I _{PK} [kA]	I _S [kA]	R _{THC} natural cooling [°C/W]	R _S [mΩ]	L _S [nH]	Ø [mm]	H [mm]	Weight [g]	Technical solution	Code n. 416.84H	Pcs. / box	Box type
Urms= 250 V Un_{AC}= 350 V Un_{DC}= 490 V Us= 950 V													
100	45	3.0	11	2.2	4.5	150	60	40	390	D	2255	18	A
150	50	3.5	13	2.0	4.0	160	60	160	530	D	2355	18	A
200	55	4.5	15	1.8	3.7	180	65	160	560	E1	2556	16	A
250	60	5.0	20	1.4	4.0	190	75	170	850	E2	2656	6	B
300	70	6.0	20	1.2	3.5	210	75	205	1100	F1	2657	6	B
400	80	8.0	20	1.1	2.9	230	85	205	1300	F2	2757	6	B
500	90	10.0	20	0.9	2.8	240	90	220	1600	F3	2857	6	C
Urms= 350 V Un_{AC}= 510 V Un_{DC}= 700 V Us= 1200 V													
100	50	3.5	8	1.7	4.8	180	65	160	640	E1	3256	16	A
200	60	5.0	14	1.0	5.6	210	85	205	1150	F2	3497	6	C
250	80	5.5	15	1.0	3.2	230	85	205	1300	F2	3557	6	C
300	90	6.0	15	0.9	2.8	240	90	220	1450	F3	3687	6	C
400	110	8.0	16	0.7	2.4	280	100	245	2150	F3	3857	6	E
450	115	9.0	18	0.6	2.6	320	100	270	2350	F3	3957	6	E
500	120	10.0	20	0.6	2.4	320	100	270	2400	F3	3987	6	E
Urms= 450 V Un_{AC}= 630 V Un= 850 V Us= 1600 V													
50	45	2.0	6	2.1	4.8	150	60	140	490	D	4185	18	A
100	60	3.0	8	1-3	4.3	200	75	170	850	F1	4387	6	B
150	75	4.0	10	1.1	3.3	210	90	170	1150	F3	4487	6	B
200	95	6.0	12	0.9	2.5	240	90	220	1550	F3	4697	6	C
250	100	6.5	14	0.8	2.5	310	90	270	1950	F3	4757	6	D
300	110	6.8	15	0.6	2.8	320	100	270	2350	F3	4857	6	E
400	120	9.0	20	0.4	3.5	400	100	360	3050	F3	4957	6	F

(Cn) Standard values, other values on request.

Standard capacitance tolerance: ±10%. Other tolerance values on request



Cn [μF]	I _{MAX} [A]	I _{PK} [kA]	I _S [kA]	R _{THC} natural cooling [°C/W]	R _S [mΩ]	L _S [nH]	Ø [mm]	H [mm]	Weight [g]	Technical solution	Code n. 416.84H	Pcs. / box	Box type
Urms= 550 V Un_{AC} = 790 V Un_{DC} = 940 V Us= 1800 V													
30	35	1.6	5	2.1	7.8	150	60	140	490	D	5185	18	A
50	45	2.4	7	1.3	7.6	200	75	170	870	E2	5256	6	B
70	60	3.2	8	1.1	5.1	230	75	205	1050	F1	5277	6	C
100	75	4.0	10	1.0	3.6	230	85	205	1300	F2	5387	6	C
150	90	5.0	12	0.8	3.1	310	90	270	1950	F3	5487	6	D
200	105	6.4	14	0.6	3.1	320	100	270	2350	F3	5567	6	E
250	110	8.2	15	0.4	4.2	400	100	360	3050	F3	5747	6	F
300	120	10.0	20	0.4	3.5	400	100	360	3100	F3	5897	6	F
Urms= 730 V Un_{AC} = 1050 V Un_{DC} = 1450 V Us= 2600 V													
10	35	0.8	2.2	2.1	7.8	150	60	140	490	D	6045	18	A
30	50	1.5	4	1.3	6.2	200	75	170	880	E2	6286	6	B
50	70	2.5	8	1.0	4.1	230	85	205	1350	F2	6357	6	B
70	90	3.6	10	0.9	2.8	250	90	245	1700	F3	6557	6	C
100	100	5.0	12	0.7	2.9	300	100	245	2150	F3	6697	6	E
125	110	6.2	12.6	0.6	2.8	320	100	270	2350	F3	6897	6	E
150	120	7.5	18	0.4	3.5	400	100	360	3100	F3	6977	6	F
Urms= 950 V Un_{AC} = 1350 V Un = 1850 V Us= 3300 V													
10	32	0.8	3.0	1.8	10.9	170	65	160	480	E1	9166	16	A
20	45	1.4	3.0	1.1	9.0	230	75	205	1050	F1	9287	6	B
30	55	1.8	5.0	1.0	6.7	230	85	205	1350	F2	9397	6	B
50	60	3.0	7.0	0.8	7.0	310	90	270	1950	F3	9597	6	E
65	80	4.2	10.0	0.6	5.3	320	100	270	2350	F3	9697	6	E
80	90	5.0	12.0	0.4	6.2	400	100	360	3050	F3	9797	6	F
90	110	6.0	15.0	0.4	4.2	400	100	360	3100	F3	9897	6	F

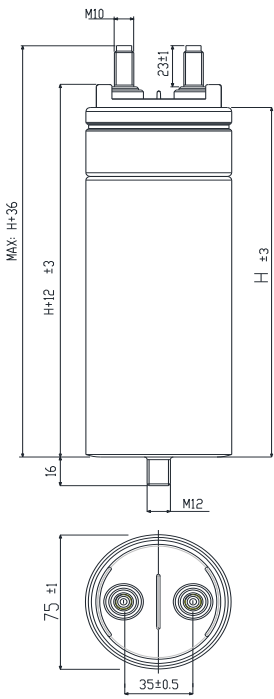
(Cn) Standard values, other values on request.

Standard capacitance tolerance: ±10%. Other tolerance values on request

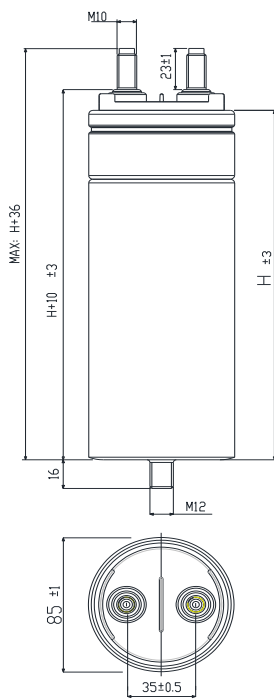
Box TYPE	Standard box dimensions
A	mm 190 x 250 x 386
B	mm 190 x 285 x 265
C	mm 190 x 285 x 325
D	mm 190 x 285 x 375
E	mm 220 x 335 x 375
F	mm 220 x 335 x 450

Box TYPE	D	E1	E2	F1	F2	F3
Min. Creepage distance (mm)	30	32	32	28	28	28
Min. Clearance distance (mm)	14	21	21	20	20	20

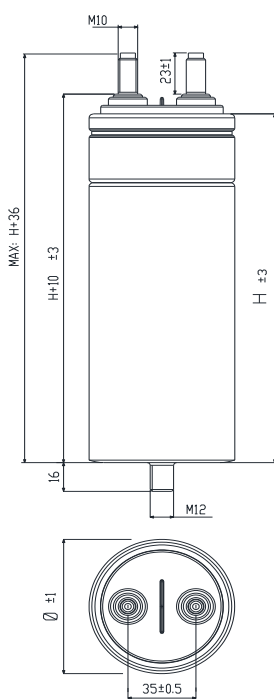




Ø75 M10 F1



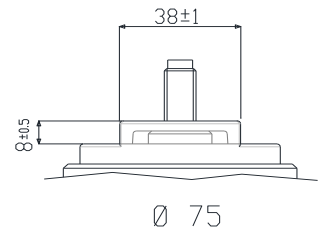
Ø85 M10 F2



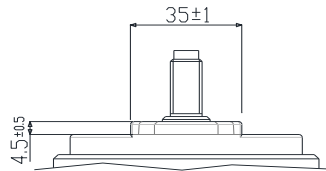
Ø90 - 100 - (116)
M10 F3

Overpressure safety device

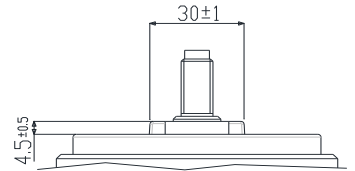
In order to ensure proper device operation, when the capacitor is installed, a clearance of at least the values given on drawing below must be left above terminals.



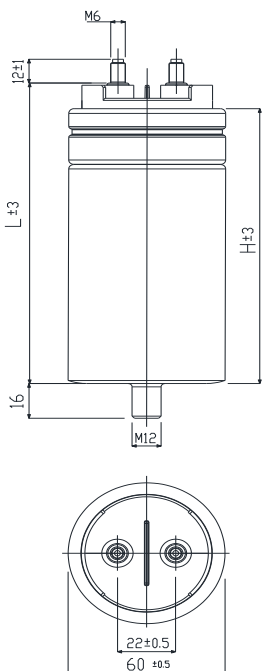
Ø 75



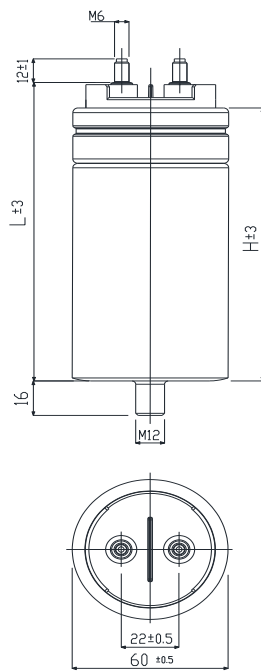
Ø 85



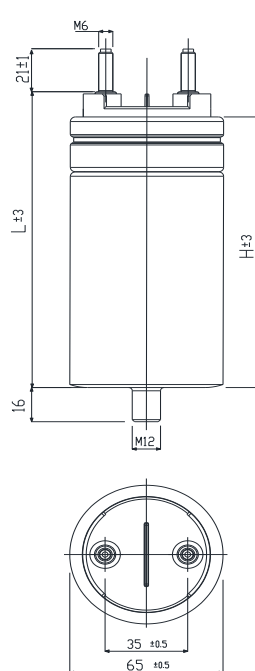
Ø 90 - 100



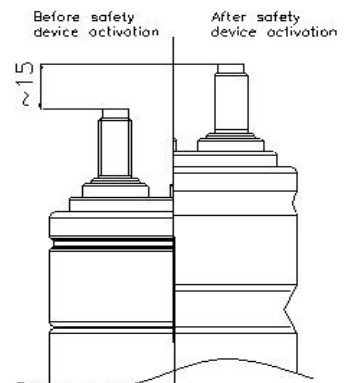
Ø60 M6 D



Ø65 M6 E1



Ø75 M6 E2



Dimension with overpressure device activated