

C20 Series
POLYPROPYLENE FILM CAPACITOR

Aluminium Can
Safety Device - FPU

CAPACITORS FOR POWER
ELECTRONICS APPLICATIONS

GENERAL TECHNICAL DATA

Reference Standards : IEC 1071 EN 61071 VDE 0560-12
Dielectric : Polypropylene film
Winding : Non-inductive type
Impregnated oil: PCB FREE, biodegradable and not pollutant
Terminations: Plastic insulator with screw terminals M10.
IEC climatic category : 25/70/56 according to IEC 68-1
Application class: HSF/LR according to DIN 40040
Temperature range (Case): -25 to +70 °C
Temperature storage: -55 to + 85 °C

Case : Aluminium
Fixing: Threaded stud M12x16.
Grounding: The metal case of capacitors must be grounded when installing. The case stud should be used for grounding.
Safety device: Overpressure disconnecter.
Installation: Space for safety device ≥ 15 mm.

All dimensions are in mm

GENERAL ELECTRICAL CHARACTERISTICS

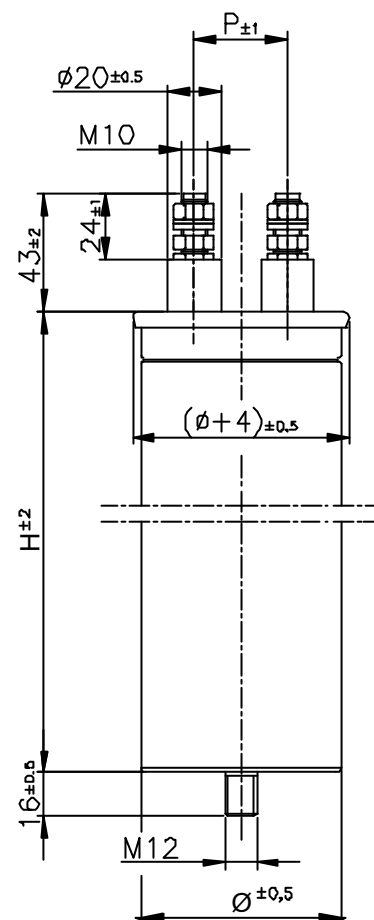
Code	See table
Rated Capacitance Cn	See table
Rated Tolerance	$\pm 10\%$
Rated A.C. Voltage Vrms	See table
Rated Insulation Voltage Vi	See table
Rated Current In	See table
Dielectric Dissipation Factor $\text{tg}\delta_0$	2×10^{-4}

MAXIMUM RATINGS

Repetitive Peak Voltage Vmax	See table
Surge Peak Voltage Vs	See table
Repetitive dv/dt	See table
Peak Value of dv/dt	See table
Repetitive Peak Current i_{max}	See table
Surge Peak Current i_s	See table

DIMENSIONS AND MECHANICAL DATA (mm)

See table	
Approx. Weight	See table
Max Stud Torque	14 Nm
Max Terminals Torque	14 Nm
Creepage Distance	> 10 mm
Clearance in air	> 10 mm
Insulation Group	D



TEST METHODS AND PERFORMANCES

A.C. Test voltage terminal to terminal (Vtt)	$2,15 * V_{\text{rms}} \text{ Vac}$ for 10s. at 25°C
A.C. Test voltage terminal to case (Vtc)	3600 Vac for 10s. at 25°C for Vrms < 600Vac 6000Vac for 10s at 25°C for Vrms ≥ 600 Vac
Insulation Resistance	$\geq 10000 \text{ M}\Omega \times \mu\text{F}$
Dissipation Factor $\text{tg}\delta$	$\leq 3 \times 10^{-4} (V_n, 50\text{Hz})$
Damp heat test	Permissible relative humidity: Annual average $\leq 95\%$ on 30 days/year continuously 100% on other days occasionally 90%. Dewing not admissible.
Life expectancy	$\geq 100\,000$ hours at Vrms
Failure quota	$300/10^9$ components hours
Capacitance deviation in temperature range (-40..+70°C)	$\pm 1.5\%$ max on capacitance value at 20°C
Changes of capacitance versus operating time	-3% after 100000 hours at Vrms

ELECTRICAL AND MECHANICAL CHARACTERISTICS

CODE	Rated Vrms [V~]	Rated Cn [mF]	Rated Irms @ 70[°C] case - nat.cool. [A]	Rated In @ 70°C / 50Hz amb. - nat.cool. [A]	Insulation Voltage Vi [V~]	Rep.Peak Voltage V _{rp} [V-]	Surge Voltage V _s [V-]	dV/dt Repetitive [V/us]	dV/dt Peak [V/us]	Rep.Peak Current i _{max} [A]	Surge Current i _s [A]	Approx. Weight [gr]	F [mm]	H [mm]	P [mm]
C20AQGR6100AASK	780	100	60	24,5	980	1380	1890	100	250	10000	25000	2500	95	280	35
C20AQGR5680AASK	780	68	60	17	980	1380	1890	100	250	6800	17000	2000	85	250	35
C20AQGR5470AASK	780	47	55	12	980	1380	1890	100	250	4700	11750	1500	75	250	35
C20AQGR5330AASK	780	33	50	8	980	1380	1890	100	250	3300	8250	1250	85	150	35
C20AQGR5220AASK	780	22	45	5,4	980	1380	1890	100	250	2200	5500	800	75	150	35
C20AQGR5150AASK	780	15	45	3,7	980	1380	1890	100	250	1500	3750	500	75	120	35
C20AQGR5100AASK	780	10	30	2,5	980	1380	1890	100	250	1000	2500	400	65	120	28
C20ALGR6150AASK	640	150	60	30,2	800	1130	1550	90	225	13500	33750	3000	116	280	35
C20ALGR6120AASK	640	120	60	24,1	800	1130	1550	90	225	10800	27000	2500	95	280	35
C20ALGR6100AASK	640	100	60	20,1	800	1130	1550	90	225	9000	22500	2300	95	250	35
C20ALGR5680AASK	640	68	60	13,7	800	1130	1550	90	225	6120	15300	1500	75	250	35
C20ALGR5470AASK	640	47	55	9,5	800	1130	1550	90	225	4230	10575	1000	65	250	28
C20ALGR5330AASK	640	33	50	6,6	800	1130	1550	90	225	2970	7425	800	75	150	35
C20ALGR5220AASK	640	22	45	4,4	800	1130	1550	90	225	1980	4950	500	75	120	35
C20ALGR5150AASK	640	15	45	3	800	1130	1550	90	225	1350	3375	400	65	120	28
C20AKGR6150AASK	550	150	60	25,9	660	940	1290	70	175	10500	26250	2300	95	250	35
C20AKGR6120AASK	550	120	60	20,7	660	940	1290	70	175	8400	21000	2000	85	250	35
C20AKGR6100AASK	550	100	60	17,3	660	940	1290	70	175	7000	17500	1500	75	250	35
C20AKGR5680AASK	550	68	55	11,8	660	940	1290	70	175	4760	11900	1000	65	250	28
C20AKGR5470AASK	550	47	50	8,1	660	940	1290	70	175	3290	8225	800	65	200	28
C20AKGR5330AASK	550	33	45	8,1	660	940	1290	70	175	2310	5775	500	75	120	35
C20AKGR5220AASK	550	22	40	3,8	660	940	1290	70	175	1540	3850	400	65	120	28