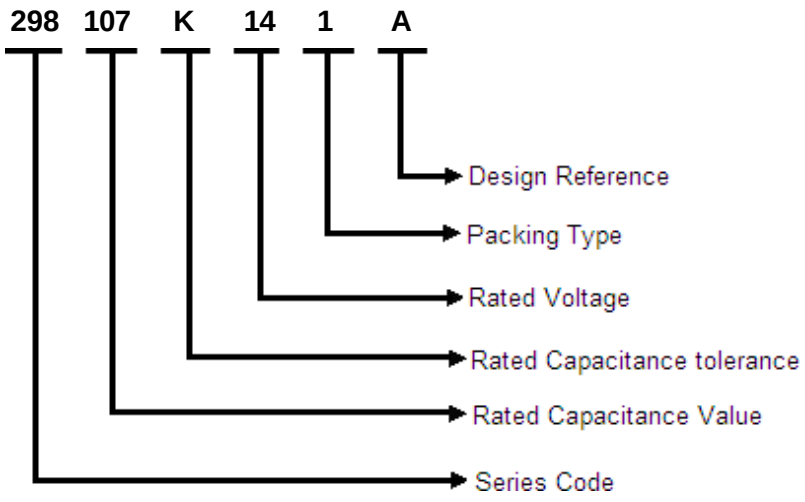
Power Electronic Capacitors

SERIES TYPE: METALLIZED POLYPROPYLENE AC FILTER CAPACITOR-Single phase

Series Code: 298

Date: November 2024

Item Code Description



Rated Capacitance

Three-digit (224) indicate rated capacitance in Pico Farad (First two digits indicate value & third digit indicates Number of zeroes to be suffixed to first two digits).

For example:

103	= 10 ×	10^3	=	10000 pF	=	10 nF	=0.01 µF
104	= 10 ×	10^4	=	100000 pF	=	100 nF	=0.1 µF
105	= 10 ×	10^5	=	1000000 pF	=	1000 nF	=1 µF
106	= 10 ×	10^6	=	10000000 pF	=	10000 nF	=10 µF

Capacitance Tolerance

F = ±1%, G = ±2%, H = ±2.5%, I = ±3.5%, J = ±5%, K = ±10%, L = ±15%, M = ±20%, N=±40%

Rated Voltage

One digit and one letter (2A) or two digits (05) indicate rated voltage

Rated Voltage Codification

For AC Rated Voltage(V_{RMS})													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
190	250	275	305	310	440	500	600	700	63	230	330	400	450
15	16	17	18	19	20	21	22	23	24	25	26	27	
350	300	415	420	460	480	530	660	720	780	850	900	1000	

General data

Typical Application

- UPS
- Wind Power
- Variable Frequency Drives
- Inverter

Construction

- Dielectric: Metallized Polypropylene Film
- Self-Healing Property
- Wound capacitor Technology
- Aluminum can
- Mounting and Grounding: Stud on bottom of Can
- Non PCB, Soft Polyurethane resin

Features

- Compact size
- Low Loss
- Low ESR and ESL
- Low leakage current
- Safety device: Over Pressure disconnector
- IP00, IP20

Reference Standard

- IEC 61071, IEC 60831

Climatic Category

- 40/70/21

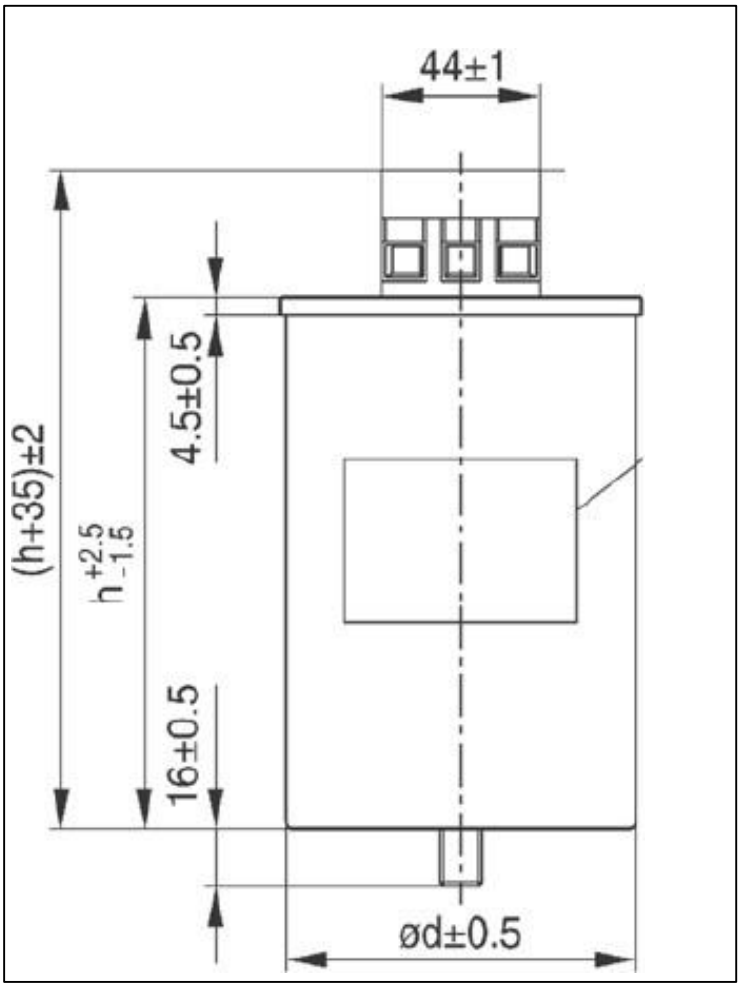
Terminals

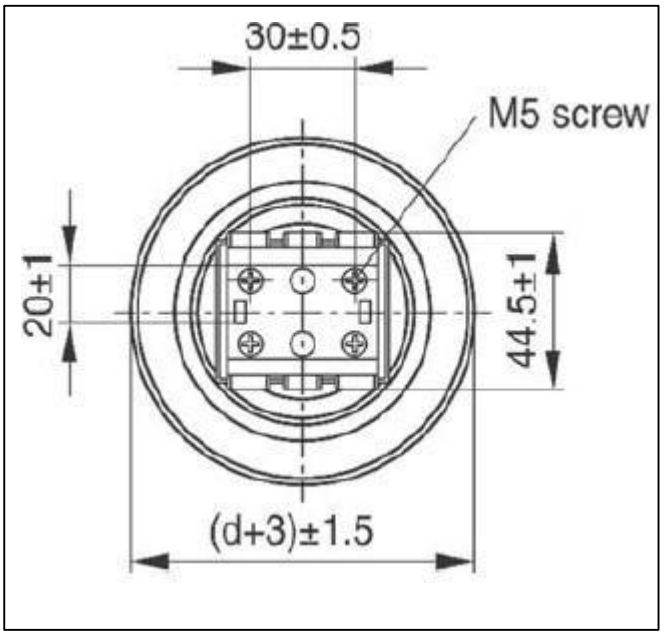
- 298 series: Clamp terminals

Technical data

Max. Operating Temperature	+70°C
Min. Operating temperature	-40°C
Max. Hotspot temperature	+85°C
Rated Capacitance CR	5…600µF (Upon request)
Rated Voltage VR	Upto 1000V AC
Voltage proof(VT-T)	2.15xVRMS, 2s
Voltage proof(VT-C)	4000VAC for 10sec
Dissipation factor tan δ (100Hz)	≤0.001
Life Test	Acc. To IEC 61071-2017
Tolerance	J, ±5%
Degree of Protection	IP00, IP20
Max. permissible altitude	2000m MSL
Safety device	Over pressure disconnector
Max. current(IRMS)	Refer to the chart
Self Inductance(ESL)	Refer to the chart
Service Life at V_{RMS} @ 85°C Hotspot	100000Hrs*

*For conversion at different hotspot temperature and Voltage please see graph





Series 298: Clamp terminals

Installation Space requirements:

- A minimum distance of 20 mm between the capacitors is necessary to maintain cooling.
- Keep at least 20 mm space above the capacitor and do not attach any mounting components at the crimp or on top to allow proper lateral extension in order to ensure that the over pressure disconnector can fully extend.

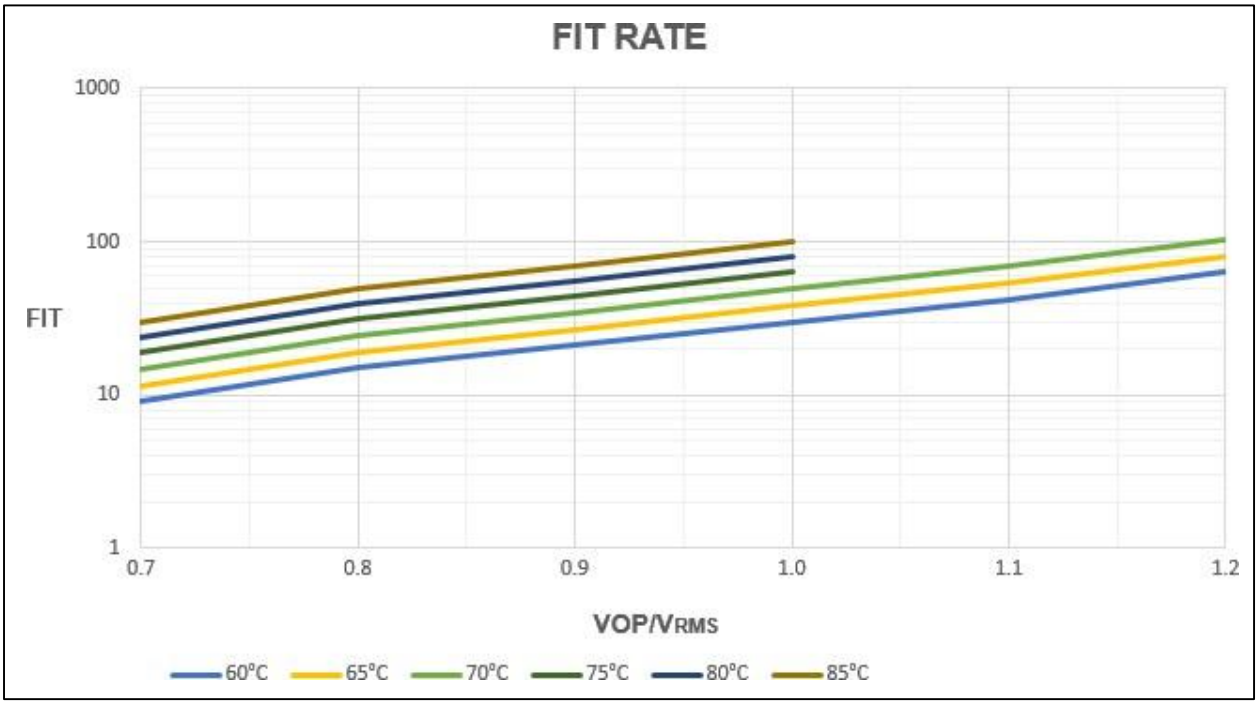
Series 298 - Clamp Terminals

VR/VRMS (V)	CR(µF)	Irms (A)	Ipeak(kA)	D mm	H mm	Item Code
350/250	100	38	1850	75	92	298 107 J 02 1 *
	120	40	2150	75	92	298 127 J 02 1 *
	150	42.5	2050	75	102	298 157 J 02 1 *
	200	44.5	2160	75	117	298 207 J 02 1 *
	250	45	2000	75	142	298 257 J 02 1 *
	300	46	2400	75	152	298 307 J 02 1 *
	330	47.5	3560	75	195	298 337 J 02 1 *
	400	50	4300	75	195	298 407 J 02 1 *
	500	50	4690	85	245	298 507 J 02 1 *
460/330	100	37	1800	75	107	298 107 J 12 1 *
	120	39	1585	75	117	298 127 J 12 1 *
	150	40	1600	75	142	298 157 J 02 1 *
	200	50	2850	75	195	298 207 J 12 1 *
	250	50	2650	75	245	298 257 J 12 1 *
	300	50	3500	75	245	298 307 J 12 1 *
590/420	60	32.5	1270	75	102	298 606 J 18 1 *
	70	33.5	1175	75	117	298 706 J 18 1 *
	80	35	1340	75	117	298 806 J 18 1 *
	100	35.5	1245	75	142	298 107 J 18 1 *
	120	50	2550	75	165	298 127 J 18 1 *
	150	50	1690	85	152	298 157 J 18 1 *
	200	50	3360	85	195	298 207 J 18 1 *
680/480	40	28	1070	75	102	298 406 J 20 1 *
	50	30.5	1030	75	107	298 506 J 20 1 *
	60	32	1150	75	117	298 606 J 20 1 *
	70	38	1550	85	107	298 706 J 20 1 *
	80	39	1540	85	117	298 806 J 20 1 *
	100	46	2370	96	117	298 107 J 20 1 *
	150	50	2050	96	142	298 157 J 20 1 *
	200	50	3750	116	142	298 207 J 20 1 *
	250	50	3450	116	165	298 257 J 20 1 *
750/530	50	30.5	1100	75	117	298 506 J 21 1 *
	60	33	1315	75	117	298 606 J 21 1 *
	100	50	3400	96	145	298 107 J 21 1 *
	120	50	3050	85	175	298 127 J 21 1 *
	150	50	5100	116	145	298 157 J 21 1 *
	200	50	5570	116	165	298 207 J 21 1 *
850/600	100	50	2660	96	195	298 107 J 08 1 *
	120	50	3195	96	195	298 127 J 08 1 *
	150	50	2875	96	245	298 157 J 08 1 *

*Internal design code

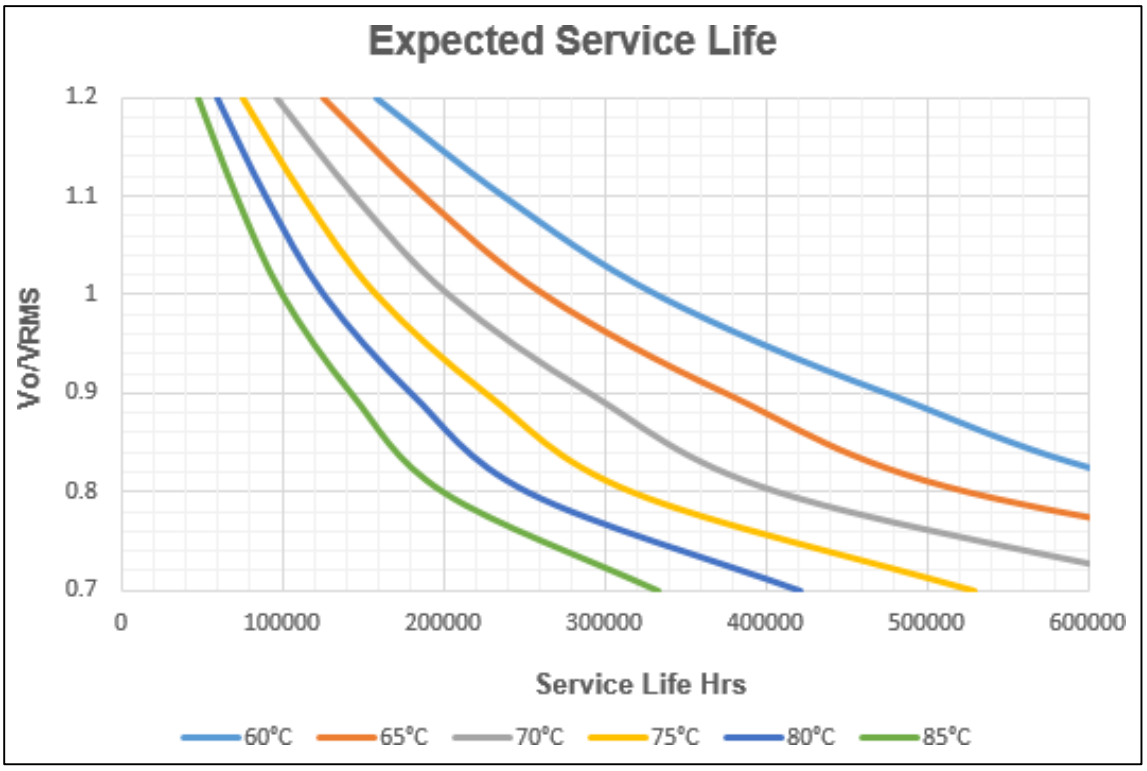
Expected FIT Rate at different hotspot temperature and Voltage

The Expected Failure rate are typical theoretical values derived from lifetime tests. The FIT (Failure in Time) of a component is defined as the number of expected failures in 10^9 hours of operation.



Service life expectancy at different hotspot temperature and Voltage

Lifetime estimations are typical theoretical values derived from lifetime tests based on Deki's internal standards and IEC 61709.



Disclaimer

All our capacitors are designed, manufactured and tested to specifications. We strictly adhere to standards in procurement of materials, in the laid down manufacturing processes and consistently apply stringent process controls and testing parameters. This ensures that our capacitors always perform to the offered specifications. Appropriateness of use in a specific circuit and fitness to a particular application however needs to be verified and its reliability through expected lifetime is required to be validated by the customer. Deki's responsibility is limited to ensuring that the capacitor performs as claimed in the specification/ data sheets provided by Deki. Deki specifically disclaims any implied warranties of fitness for any particular purpose. Liability, in any case is limited to the price paid for the capacitors.