

Power Film Capacitor, DC-Link Cylindrical Plastic

PF-8D3 Series

MERITEK

FEATURE

- Self-Healing Property
- High Ripple and Peak (dv/dt) Current Capability
- Optimized High Frequency Performance
- High Capacitance Density
- Applications: Renewable Energies Inverters, DC Fast Charging, UPS, Battery Charger, SiC Power High Switching



ELECTRICAL CHARACTERISTICS

Item	Characteristic					
Operating Temperature	-40~+85°C					
Capacitance Range	50μF ~ 280μF, ±5%(J), ±10%(K) at 25°C					
Climatic Category	40/85/56 IEC60068-1					
Operating DC Voltage, V _{NDC}	500	600	800	1000	1100	--
Max RMS Current, 50°C 10KHz	65~70	70~90	70~100	70~100	55	--
Dissipation Factor	≤0.0020 (0.2%), at 1KHz					
Overvoltage	110% of Vr	115% of Vr	120% of Vr	130% of Vr	150% of Vr	Max duration Per day
	30% On-Load	30mins	5mins	1min	100ms	
Insulation Resistance	IR°C ≥ 10,000sec		Between leads, at 100 Vdc, 60 sec, at +25°C ±5°C°			
Withstanding Voltage	1.5* V _R VDC for 10sec		Between Terminals			
	4000V _{AC} , 50/60Hz 60sec		Between Terminals and Enclosure			
Life Expectancy	≥100,000 hours		at rated voltage and Hot-Spot Temperature T=+70°C			

ENVIRONMENTAL TEST

Item	Test Condition	Performance
High Temperature Loading	Temperature: +85 +/-2 °C, Apply 130% of Rated Voltage for 1,000 +24/-0 hours. Duration: 500 hours 1000 charges and discharges at 1.3 x I peak (maximum respective peak current in continuous operation) , measurement at 24 ±4 hours after test.	ΔC/C: ≤ ± 3% IR: ≥ 50% of initial limit

Notes:

1. Storage needs to be kept indoors at -10~+40°C and relative humidity of under 75% without any sudden temperature changes, direct sunlight and corrosive gas around
2. Do not apply and exceeding vibration, shock (dropping) and pressure
3. Reference Standards: IEC 61071

PART NUMBERING SYSTEM

PF 107K 11 85 M55 D3
(1) (2) (3) (4) (5) (6)

No	Item	Code	Description
(1)	Product Code	PF	Metallized PP Film Capacitor, Cylinder Type
(2)	Nominal Capacitance	107K	100 μF ±10%(K)
(3)	Rated Voltage	11	11: 1100VDC
(4)	Dimension Code	85	85: Dimeter 85mm, Height 51mm
(5)	Terminal Option code	M55	M55: Male M5 terminal 5mm
(5)	Series Code	D3	DC Link Capacitor Series, Cylinder Type

Terminal type	Terminal Size	Terminal Length
M: Male, F: Female	5: M5, 6: M6, 8: M8	5: 5mm, 6: 6mm, 7: 7mm, A: 20mm, N: N/A

ELECTRICAL SPECIFICATION – Male Terminal

Votage Code	CAP	Dimensions (mm)			dv/dt	Peak Current	Surge Current	ESR 1KHz	ESL	Thermal Res	Irms 10KHz 50°C	No of Pin	Part Number
		D	H	P									
500	150	85	40	45	35	5250	15750	1.8	25	4.3	65	2	PF157%5084MxxD3
	220	85	51	45	25	5500	16500	1.8	40	4.8	65	2	PF227%5085MxxD3
	280	85	64	45	20	5600	16800	1.6	40	5.4	70	2	PF287%5086MxxD3
600	100	85	40	45	35	3500	10500	1.5	25	5.0	70	2	PF107%6084MxxD3
	150	85	51	45	25	3750	11250	1.4	30	6.5	80	2	PF157%6085MxxD3
	220	85	64	45	20	4400	13200	1.5	40	4.5	90	2	PF227%6086MxxD3
800	66	85	40	45	35	2310	6930	2.0	25	5.0	70	2	PF666%8084MxxD3
	100	85	51	45	25	2500	7500	1.8	30	5.0	75	2	PF107%8085MxxD3
	140	85	64	45	20	2800	8400	1.6	40	8.4	80	2	PF147%8086MxxD3
	220	85	64	45	20	4400	13200	1.4	40	4.8	100	2	PF227%8086MxxD3
1000	66	85	40	45	35	2310	6930	1.0	25	4.2	70	2	PF666%1084MxxD3
	120	85	51	45	25	3000	9000	2.2	30	5.2	85	2	PF127%1085MxxD3
	140	85	64	45	20	2800	8400	1.5	40	3.1	100	2	PF147%1086MxxD3
1100	50	85	40	45	35	1750	5250	2.4	30	4.5	55	2	PF506%1184MxxD3
	100	85	51	45	25	2500	7500	2.0	30	4.5	55	2	PF107%1185MxxD3

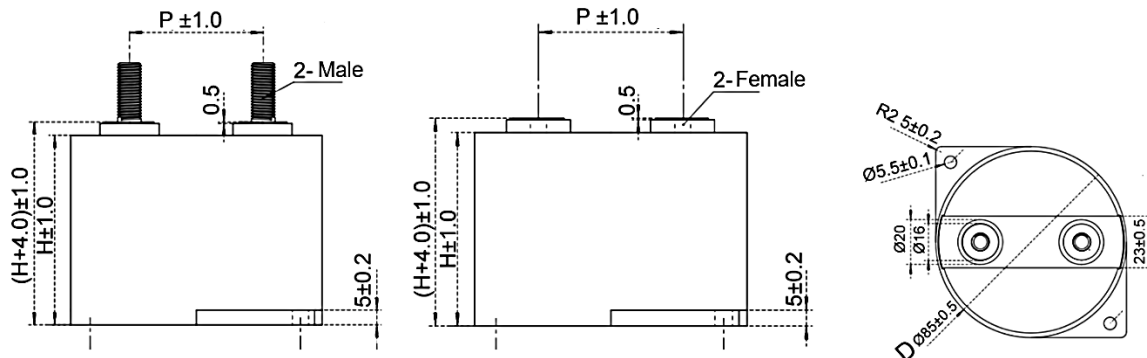
Note: % denoted to tolerance: ±5%(J), ±10%(K) at 25°C, Mxx denoted to Male Terminal option code, see the parts number system

ELECTRICAL SPECIFICATION – Female Terminal

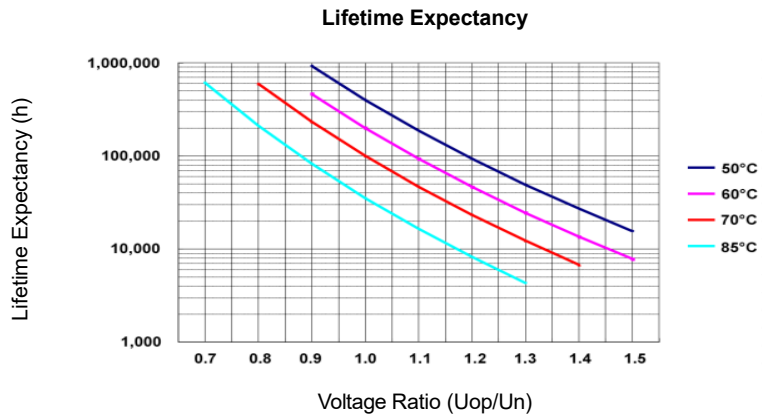
Votage Code	CAP	Dimensions (mm)			dv/dt	Peak Current	Surge Current	ESR 1KHz	ESL	Thermal Res	Irms 10KHz 50°C	No of Pin	Part Number
		D	H	P									
500	150	85	40	45	35	5250	15750	1.8	25	4.3	65	2	PF157%5084FxND3
	220	85	51	45	25	5500	16500	1.8	40	4.8	65	2	PF227%5085FxND3
	280	85	64	45	20	5600	16800	1.6	40	5.4	70	2	PF287%5086FxND3
600	100	85	40	45	35	3500	10500	1.5	25	5.0	70	2	PF107%6084FxND3
	150	85	51	45	25	3750	11250	1.4	30	6.5	80	2	PF157%6085FxND3
	220	85	64	45	20	4400	13200	1.5	40	4.5	90	2	PF227%6086FxND3
800	66	85	40	45	35	2310	6930	2.0	25	5.0	70	2	PF666%8084FxND3
	100	85	51	45	25	2500	7500	1.8	30	5.0	75	2	PF107%8085FxND3
	140	85	64	45	20	2800	8400	1.6	40	8.4	80	2	PF147%8086FxND3
	220	85	64	45	20	4400	13200	1.4	40	4.8	100	2	PF227%8086FxND3
1000	66	85	40	45	35	2310	6930	1.0	25	4.2	70	2	PF666%1084FxND3
	120	85	51	45	25	3000	9000	2.2	30	5.2	85	2	PF127%1085FxND3
	140	85	64	45	20	2800	8400	1.5	40	3.1	100	2	PF147%1086FxND3
1100	50	85	40	45	35	1750	5250	2.4	30	4.5	55	2	PF506%1184FxND3
	100	85	51	45	25	2500	7500	2.0	30	4.5	55	2	PF107%1185FxND3

Note: % denoted to tolerance: ±5%(J), ±10%(K) at 25°C, FxN denoted to Female terminal option code, see the parts number system

DIMENSIONS



CHARACTERISTIC CURVE



*Specifications subject to change without notice.