ALCON ELECTRONICS PRIVATE LIMITED

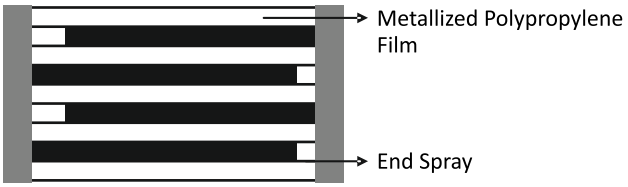
DEFIBRILLATOR CAPACITORS

DFC-11

Highlights

- High charge/discharge cycles 2000 to 10,000
- Very low ESR
- Very low dissipation factor
- Silicon insulated wire termination and Faston terminations
- Plastic and Aluminum enclosures round and oval
- High energy density
- Monophasic and Biphasic designs
- RoHS compliant
- Flame retardancy UL94-V0

Construction



Applications

- Automated external defibrillator
- Pulse power applications

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Technical Specifications

Dielectric material	Polypropylene film
Electrode material	Metallised polypropylene film
Winding construction	Polypropylene film, metallised polypropylene
Enclosure	Preformed UL 94-V0 plastic with thermosetting resin-fill
Terminals	Flexible Silicon insulated UL 94V0 cable .

Physical Characteristics

Electrical Characteristics

Capacitance range (Cr @ 1KHz)	32 uF to 195 uF
Voltage range (Vrdc @ 25°C)	1750Vdc to 5000 Vdc
Capacitance tolerance	± 5%(J), ± 10%(K)
Tan D @ 100 Hz ,25°C	0.015 max.
Operating DV/DT	1.275 V/uS @ 4 pulses/minute , 25°C
Maximum DV/DT	2.55 V/uS @ 0.8 Vrdc , 25°C
Voltage Bleed down (Δ V)	2% after 10 seconds after charged to Vrdc , 25°C
Normal voltage reversal (Vrev)	10%
Test Voltage terminal to terminal V t-t	1.1 x Vrdc for 1 minute
Test Voltage terminal to case V t-c	5000 Vdc 10 Seconds
Self inductance	> 1 uH
Typical operating cycles	2000 to 10,000 cycles
Operating temperature	-20°C to +65°C
Storage temperature	-40°C to +65°C
Altitude	MSL to 15000 feet approximate
Mechanical Shock (IEC 68-2-27)	50 G peak half sinusoidal shock wave , 11 mSec. on 3 axis both directions 3 Shocks / axis
Humidity IEC 61071	Class F: Max. relative humidity 75% annual means , 85% occasional ,95% 30 days /year , condensation not permitted.

Marking on Capacitors

Each capacitor will have the following information printed on it, sequentially:

- Polarity , if required - Terminal connected to Top of element is (+)
- The Company's name in words ALCON
- The capacitor grade viz DFC-11
- The capacitance value MFD
- The rated voltage VDC
- Capacity tolerance and manufacturing code
- Ordering code
- Part number on non-standard capacitors
- Serial number
- Warning

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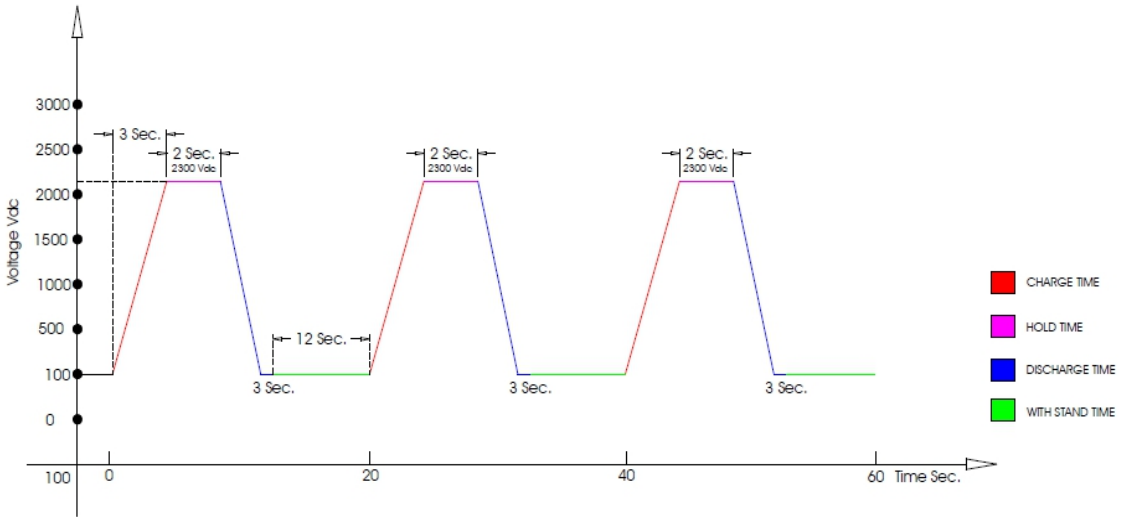
Type test

Cycles of rated Vdc charge discharge 30 seconds hold time short circuit into 50 Ohm or 20 Ohm resistor at 25°C and 65°C

5000 to 10000 cycles @ 25 °C
>500 Cycles @ 60°C
Acceptance criteria : °C/C < 5%



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Standard Capacitors Values

Aluminum Enclosure

Rated voltage VDC	Nominal Capacitance MFD at 1 Khz	Energy Joules (J)	Operating peak current A	Case Code	Typical Style	Enclosure type and filling	Dimensions in mm				Ordering Code
							W/D	L	H	P	
5000	32	400	40	AV1	FE1,FE2	Oval (Oil)	47.5	73	172	30	SB000325000DFAV1_ _ _ _K01
4800	48	423	60	AV2	FE1,FE2	Oval (Oil)	47.5	73	146	30	SB000484800DFAV2_ _ _ _K01
2300	120	317	150	AV3	FE1,FE2	Oval (Oil)	47.5	73	95	30	SB001202300DFAV3_ _ _ _K01
2300	195	516	250	AV2	FE1,FE2	Oval (Oil)	47.5	73	146	30	SB001952300DFAV2_ _ _ _K01
2000	130	260	162	AV4	FE1,FE2	Oval (Oil)	35	51	120	30	SB001302000DFAV4_ _ _ _K01
2500	90	281	112	AR1	FE3	Round (Oil)	67	-	120	30	SB000902500DFAR1_ _ _ _K01
2200	105	254	131	AR2	FE3	Round (Oil)	54	-	120	30	SB001052200DFAR2_ _ _ _K01
1760	105	163	131	AR3	FE3	Round (Oil)	47.5	-	120	30	SB001051760DFAR3_ _ _ _K01
2300	195	516	250	AR4	FE3	Round (Oil)	60	-	142	30	SB001952300DFAR4_ _ _ _K01
2200	195	472	250	AR5	FE3	Round (Oil)	60	-	120	30	SB001952200DFAR5_ _ _ _K01

Plastic Enclosure

Rated voltage VDC	Nominal Capacitance MFD at 1 Khz	Energy Joules (J)	Operating peak current A	Case Code	Typical Style	Enclosure type and filling	Dimensions in mm			Ordering Code
							W/D	L	H	
2300	195	516	250	PV1	FW1	Oval (Dry)	46	68	145	SB001952300DFPV1_ _ _ _K01
2300	130	343	162	PV1	FW1	Oval (Dry)	46	68	145	SB001302300DFPV1_ _ _ _K01
2300	195	516	250	PR1	FW2	Round (Dry)	65	-	120	SB001952300DFPR1_ _ _ _K01
2300	120	317	150	PR2	FW2	Round (Dry)	60	-	120	SB001202300DFPR2_ _ _ _K01

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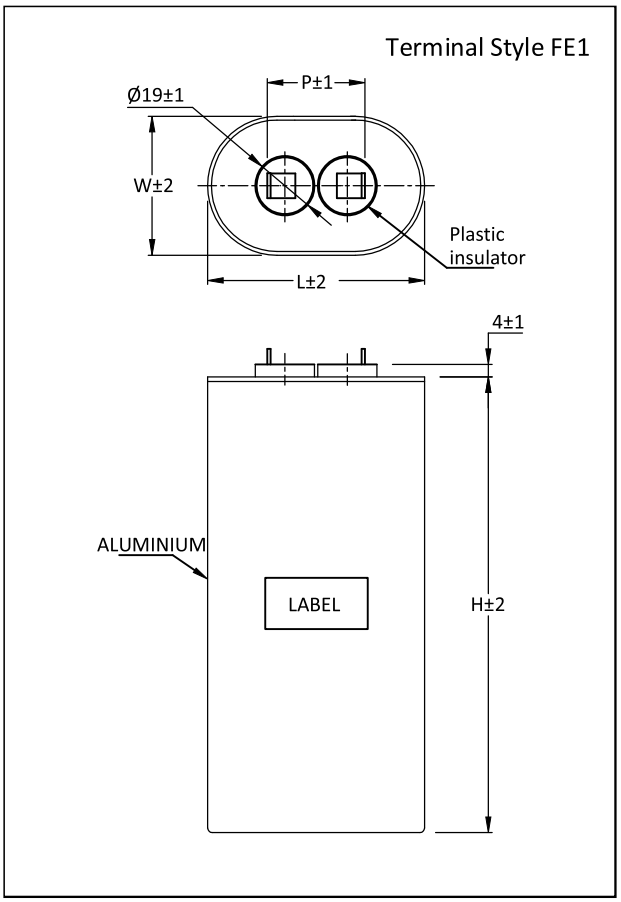
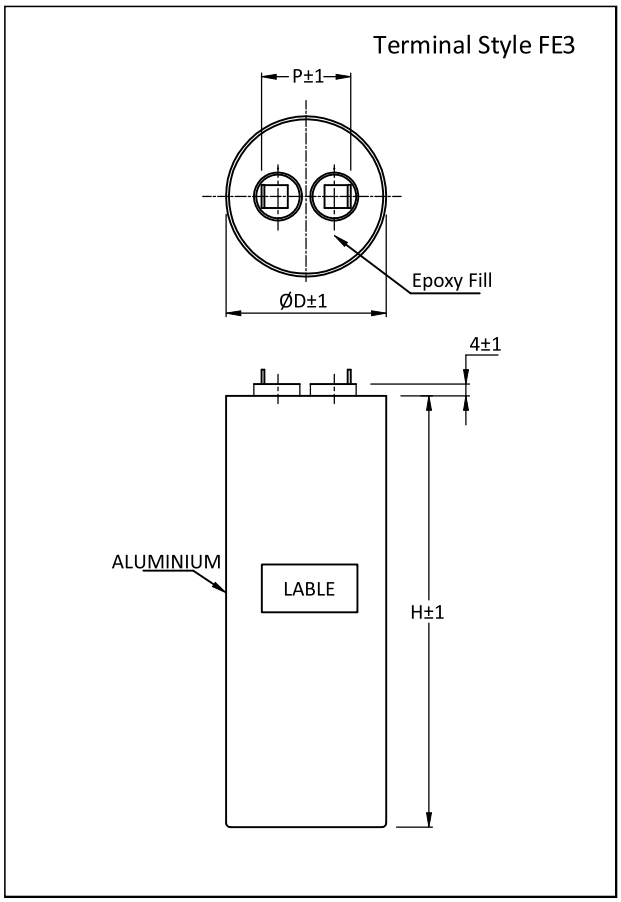
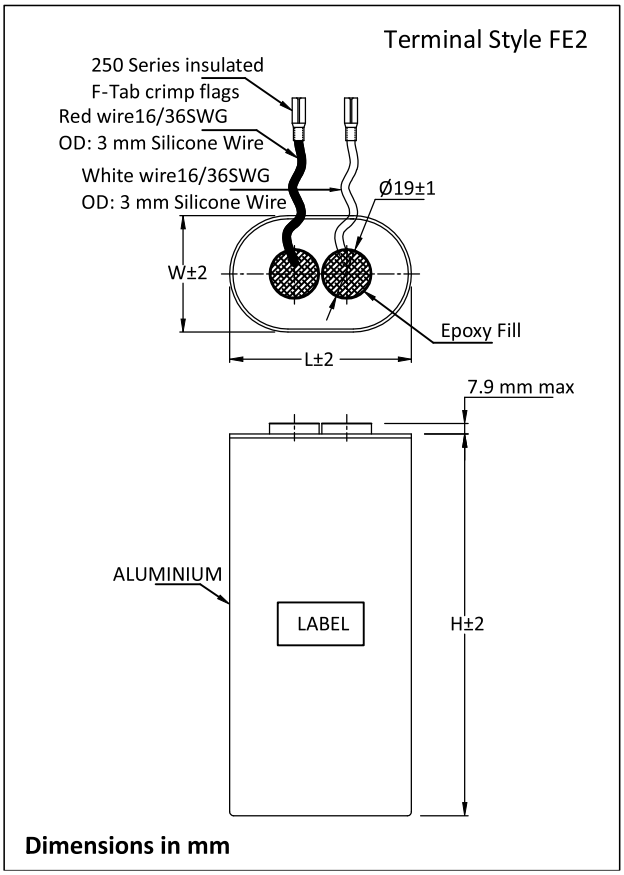
Capacitor Drawing and Terminal Styles







Dimensions in mm

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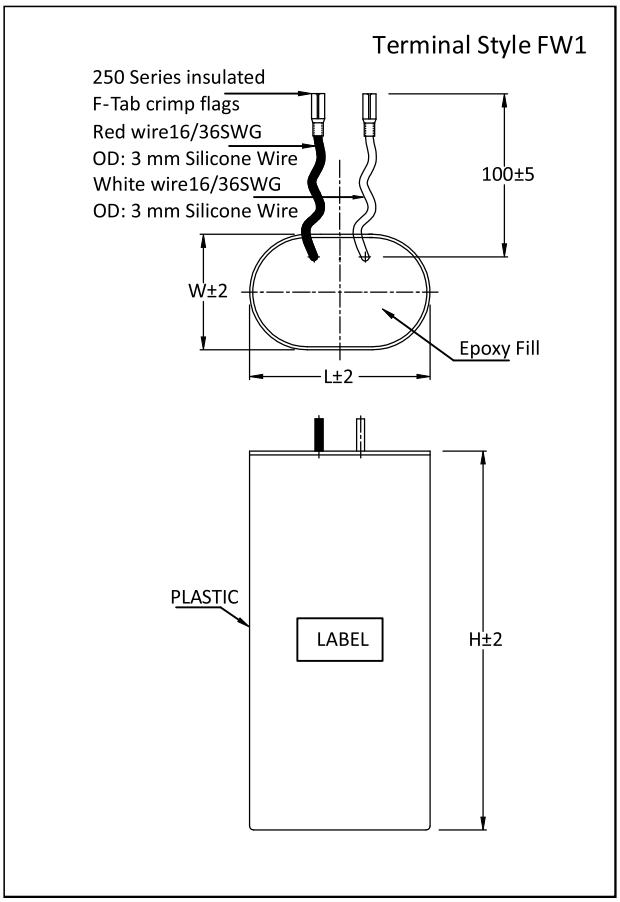
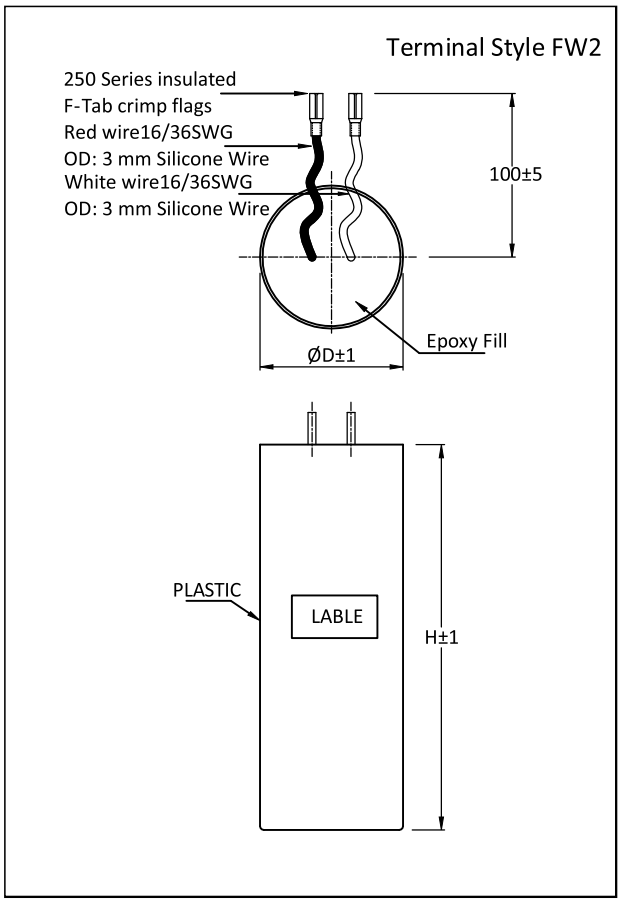
Capacitor Drawing and Terminal Styles





Catalogue No. AEPL DFC-11-JUNE-2020 (Rev 01)
The specification shown herein (page 1 to 6) pertain to the current manufacturing range of the Company. The Company reserves the right to change and /or modify any part of or whole of the specifications as a result of research and development and as may be necessary, without prior notice.