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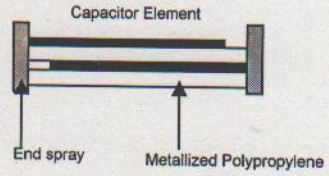
ALCON ELECTRONICS PRIVATE LIMITED

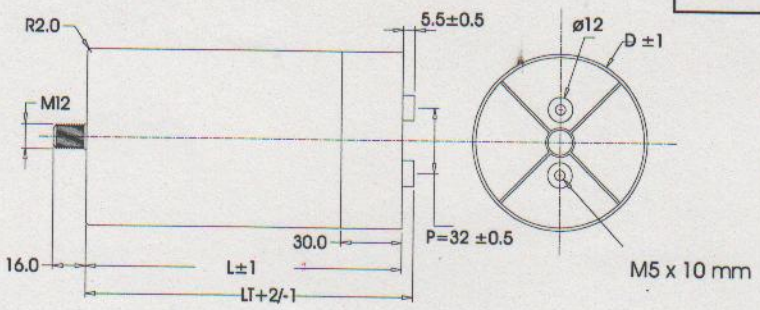
Capacitor specifications	**DCL-30/31 Metallized Polypropylene Film Capacitors**
Application	**General use in Power Electronics also for nonsinusoidal voltages and currents**
Reference Standard	**IEC 61071:2007**
Design Ref. no.* **	DCL-30-022 Rev 00 *** To be mentioned during ordering
Description	500 uF ±% 800Vdc 85 x 136

Date 03.09.2012

Customer : Semic Trade

Construction





D ± 1	85.0
L ± 1	136.0
P ± 0.5	32.0
LT +2/ - 1	141.5

Mechanical Characteristics

Enclosure	Aluminum can ,plastic top cover UL94V0
Terminations	M5 x10mm deep female
Internal Protection	No internal fuse
Encapsulation	Non liquid , No PCB , filled with PU resin
Fire load	0.025 MJ / KG
Weight	0.8 KG
Reliability	
Failure Rate	50FIT
Reference Life @ $\Theta_{hotspot}$	100,000hrs @ ≤ Θ70˚C

Thermal Conditions

Lowest operating temp	Θ_{min}	-40˚C
Maximum operating temp	Θ_{max}	+85˚C
Maximum hotspot temp	Θ_{max}	+85˚C
Storage temperature	$\Theta_{storage}$	-40˚C to +85˚C

Thermal resistance (natural cooled) $R_{TH\ na}$	**Thermal resistance (forced cooled) $R_{TH\ fc}$**	**Thermal resistance (forced cooled) $R_{TH\ fc}$**
4.2˚C/W	3.9˚C/W (0.5m/s)	3.5˚C/W (3m/s)

Fire Load	32MJ
Humidity	Class F :Max. relative humidity 75% annual means , 85% occasional ,95% 30 days /year , condensation not permitted
Mounting	Any position without restrictions
Earthing	Mounting stud to be earthed

Max. ripple current Imax vs Ambient Temp Derating

Natural Cooled	
Θamb	Imax
+40˚C	55 A
+50˚C	48 A
+60˚C	36 A
+70˚C	28 A

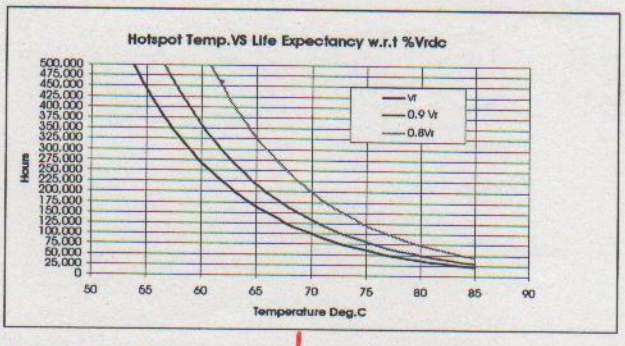
Forced Cooled : 0.5 m/s	
Θamb	Imax
+40˚C	61 A
+50˚C	51 A
+60˚C	41 A
+70˚C	29 A

Electrical Characteristics

Rated Capacitance	C_N	500 µF
Capacitance Tolerance		±10%
Rated voltage d.c.	U_{NDC}	800V
Ripple voltage Max.	Ur	200V
Non-recurrent surge voltage	u_s	1040V
Maximum peak current	I_{pk}	2000 A
Maximum surge current	I_s	15 K A
Maximum current (rms)*	Imax	65A
Effective Series resistance	R_s@ 10Khz	2.1mΩ
Tangent of loss angle	$Tan\delta_{f\ @\ 100Hz}$	0.001
IR after 2 min with 100Vdc	C x MFD	10000S
Self inductance	Ls	40nH

Routine Test

Voltage test between terminals 10 secs	U_{TT}	1040Vdc
Voltage test between terminals to case 2 secs	U_{TC}	2500 Vac / 50 Hz



Prepared by

Checked by

Approved by

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ALCON ELECTRONICS PRIVATE LIMITED REGISTERED FIRM ISO 9001:2008 QS 9000:QS1

ICS ISO 14001 : 2004 Reg No. : RU91 / 6173

JAS-ANZ