



ALUMINUM ELECTROLYTIC CAPACITORS

159 PUL-SI Compact Series

Aluminum Electrolytic Capacitors Power, Long Life, Snap-In



KEY BENEFITS

- 500 V products with a useful life of 3000 h at +105 °C
- High ripple current capability, robust design
- High peak ripple current capability at low frequencies

APPLICATIONS

- Solar PV inverters
- High end Industrial applications, such as:
 - Motor drives
 - Power supplies

RESOURCES

- Datasheet: 159 PUL-SI Compact - www.vishay.com/doc?28431
- For technical questions contact aluminumcaps2@vishay.com
- Material categorization: For definitions please see www.vishay.com/doc?99912



RoHS
COMPLIANT

A WORLD OF
SOLUTIONS

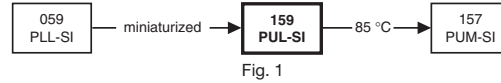


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QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case size (Ø D x L in mm)	22 x 30 to 35 x 55
Rated capacitance range (E6 / E12 series), C _R	68 µF to 470 µF
Tolerance on C _R	± 20 %
Rated voltage range, U _R	500 V
Category temperature range	-25 °C to +105 °C
Endurance test at 105 °C	2000 h
Load life at 105 °C	2000 h
Useful life at 105 °C	3000 h
Useful life at 40 °C and 1.6 x I _R applied	300 000 h
Shelf life at 0 V, 105 °C	1000 h
Max. RMS value of ripple voltage	n/a
Based on sectional specification	IEC 60384-4 / EN130300
Climatic category IEC 60068	25 / 105 / 56



MARKING

The capacitors are marked (where possible) with the following information:

- Rated capacitance (in µF)
- Tolerance code on rated capacitance, code letter in accordance with IEC 60062 (M for ± 20 %)
- Rated voltage (in V)
- Date code (YYMM or in 2 digits according to IEC 60062)
- Name of manufacturer
- Code for factory of origin
- “-” sign to identify the negative terminal, visible from the top and side of the capacitor
- Code number, last 8 digits 159 xxxxx
- Climatic category in accordance with IEC 60068



RoHS COMPLIANT

DIMENSIONS in millimeters, MASS AND PACKAGING QUANTITIES					
NOMINAL CASE SIZE Ø D x L	Ø D _{max.}	L _{max.}	MASS (g)	PACKAGING QUANTITIES (units per box)	CARDBOARD BOX DIMENSIONS L x W x H
22 x 30	23	32	≈ 16	100	260 x 250 x 44
22 x 35	23	37	≈ 20	100	260 x 250 x 49
25 x 35	26	37	≈ 24	100	290 x 280 x 49
25 x 40	26	42	≈ 27	100	290 x 280 x 54
25 x 45	26	47	≈ 32	100	290 x 280 x 59
30 x 35	31	37	≈ 35	100	340 x 330 x 49
30 x 40	31	42	≈ 40	100	340 x 330 x 54
30 x 50	31	52	≈ 50	100	340 x 330 x 64
35 x 45	36	47	≈ 63	50	390 x 198 x 59
35 x 50	36	52	≈ 72	50	390 x 198 x 64
35 x 55	36	57	≈ 80	50	390 x 198 x 69

ELECTRICAL DATA AND ORDERING INFORMATION										
U _R (V)	C _R 100 Hz (µF)	NOMINAL CASE SIZE Ø D x L (mm)	I _R 120 Hz 105 °C (A)	I _{L5} 5 min (mA)	TYP. ESR 100 Hz ⁽¹⁾ (mΩ)	MAX. ESR 100 Hz ⁽¹⁾ (mΩ)	TYP. Z 10 kHz (mΩ)	MAX. Z 10 kHz (mΩ)	ORDERING CODE MAL2159.....	
									2-TERM.	3-TERM.
500	68	22 x 30	0.60	0.34	1540	2000	1200	1500	59689E3	79689E3
	82	22 x 35	0.69	0.41	1280	1660	990	1240	59829E3	79829E3
	100	25 x 35	0.80	0.50	1050	1370	820	1030	59101E3	79101E3
	120	25 x 40	0.91	0.60	880	1140	690	860	59121E3	79121E3
	150	25 x 45	1.08	0.75	700	920	550	690	59151E3	79151E3
	150	30 x 35	1.06	0.75	710	930	560	700	49151E3	69151E3
	180	30 x 35	1.13	0.90	600	780	480	600	59181E3	79181E3
	220	30 x 40	1.30	1.10	500	640	390	490	59221E3	79221E3
	270	30 x 50	1.58	1.35	400	520	320	400	59271E3	79271E3
	330	35 x 45	1.74	1.65	340	440	270	340	49331E3	69331E3
390	35 x 50	1.94	1.95	290	380	230	290	59391E3	79391E3	
470	35 x 55	2.15	2.35	240	320	200	250	59471E3	79471E3	

Note

⁽¹⁾ ESR at 120 Hz is approximately 0.95 x ESR 100 Hz

Revision 20-Sep-16