GENERAL DESCRIPTION

The E50 series capacitors can be universally used for the assembly of low-inductance DC buffer circuits and DC filters; with its high energy density it can replace banks of series-connected electrolytic capacitors as well as large film capacitors in rectangular cases. Thanks to its compact cylindrical aluminium (N1/N5) or plastic (N4) can design this capacitor is ideal for both the electrical and mechanical requeriments of high-speed IGBT converters. Its robust terminals and the robust fixing stud allow for very simple and reliable mounting that unites lowest inductance an highest current strength.



Photo non-contractual

The particularly large clearance and creepage distances make this design suitable for a wide range of operating voltages. As a result, existing standard converter concepts can easily be adapted to new applications without having to change the principal construction and to re-approve the entire system.

GENERAL CHARACTERISTICS

Standars:	IEC 61071
Can:	aluminium/plastic (UL94:V0)
Mounting position:	optional
Filling material:	solid, based on vegetable oil, non-PCB
Internal proteccion:	none
Fire load:	40 MJ/Kg
C_N tolerance:	±10% (optional ±5%)
Insulation strengh (CxRis):	5000 s
tanδ_0:	$2x10^{-4}$
Operating temperatures (min/max):	-25ºC / +85ºC
Operating temperatures (hotspot):	≤85ºC
Storing temperature:	-40 to 85ºC
service life (hotspot £65ºC):	100000 h.

130107 Rev.:1

Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

STANDARD TYPES												
C_N (µF)	R_S (mΩ)	R_{th} (K/W)	I_{max} (A)	Î (kA)	I_S (kA)	W_n (Ws)	L_e (nH)	D_1xH (mm)	Design	m (kg)	Order code	Box
U_N 600V DC U_S 900V U_r 100V U_{BB} 900V DC U_{BG} 3000V AC												
500	2,5	5,8	20	1,5	5	90	50	Ø 67x114	N4	0,4	E50.L11-504N4G	10
900	1,3	4,3	35	3	10	162	55	Ø 85x136	N5	0,8	E50.N13-904N5G	10
1800	0,47	2,3	60	5,5	17	324	60	Ø 85x232	N5	1,5	E50.N23-185N5G	5
U_N 700V DC U_S 1050V U_r 200V U_{BB} 1050V DC U_{BG} 3000V AC												
350	3	5,8	20	1,5	5	86	50	Ø 67x114	N4	0,4	E50.L11-354N4G	10
760	1,3	4,3	35	3,3	10	186	55	Ø 85x136	N5	0,8	E50.N13-764N5G	10
1450	1,1	2,1	60	5,5	17	355	60	Ø 85x252	N5	1,6	E50.N25-155N5G	5
1450	0,65	2,3	80	11	33	355	40	Ø 116x165	N1	1,9	E50.R16-155N1G	3
2100	0,6	1,7	100	16,5	50	515	50	Ø 116x230	N1	2,5	E50.R23-215N1G	3
2900	0,5	1,3	100	16,5	50	711	70	Ø 116x295	N1	3,2	E50.R29-295N1G	3
U_N 900V DC U_S 1350V U_r 200V U_{BB} 1350V DC U_{BG} 3000V AC												
300	3	5,8	20	1,5	5	122	50	Ø 67x114	N4	0,4	E50.L11-304N4G	10
500	1,6	3,9	35	3	10	203	55	Ø 85x136	N5	0,8	E50.N13-504N5G	10
580	1,4	3,9	35	3	10	235	55	Ø 85x136	N5	0,8	E50.N13-584N5G	10
1060	1,4	2,6	60	5	25	429	60	Ø 85x232	N5	1,5	E50.N23-115N5G	5
1100	0,47	2,3	80	10	30	446	40	Ø 116x165	N1	1,9	E50.R16-115N1G	3
1160	1,1	2,1	60	5	25	470	60	Ø 85x252	N5	1,6	E50.N25-125N5G	5
1700	0,63	1,7	100	15	45	689	50	Ø 116x230	N1	2,5	E50.R23-175N1G	3
2000	0,5	1,3	100	15	45	810	70	Ø 116x295	N1	3,2	E50.R29-205N1G	3
U_N 1100V DC U_S 1650V U_r 250V U_{BB} 1650V DC U_{BG} 3000V AC												
200	2,8	5,8	20	1,5	5	121	50	Ø 67x114	N4	0,4	E50.L11-204N4G	10
370	1,7	3,9	35	2,3	7	224	55	Ø 85x136	N5	0,8	E50.N13-374N5G	10
420	1,05	5,4	40	4,5	15	254	45	Ø 85x136	N5	1	E50.N15-424N5G	5
650	1,1	2,2	60	4	24	393	60	Ø 85x232	N5	1,5	E50.N23-654N5G	5
750	1,7	2,1	60	3,7	23	454	60	Ø 85x252	N5	1,6	E50.N25-754N5G	5
750	0,55	2,3	80	8	24	454	40	Ø 116x165	N1	1,9	E50.R16-754N1G	3
1100	0,4	1,7	100	12	35	666	50	Ø 116x230	N1	2,5	E50.R23-115N1G	3
1670	0,75	1,1	100	10	30	676	70	Ø 116x345	N1	3,5	E50.R34-175N1G	3
U_N 1300V DC U_S 1950V U_r 300V U_{BB} 1950V DC U_{BG} 3000V AC												
500	0,6	2,3	80	6,8	20	423	40	Ø 116x165	N1	1,9	E50.R16-504N1G	3
750	0,45	1,7	100	10	30	634	50	Ø 116x230	N1	2,5	E50.R23-754N1G	3
1000	0,5	1,4	120	12	36	845	60	Ø 116x295	N1	3,2	E50.R29-105N1G	3

DESIGN & DIMENSIONS



N4



N5

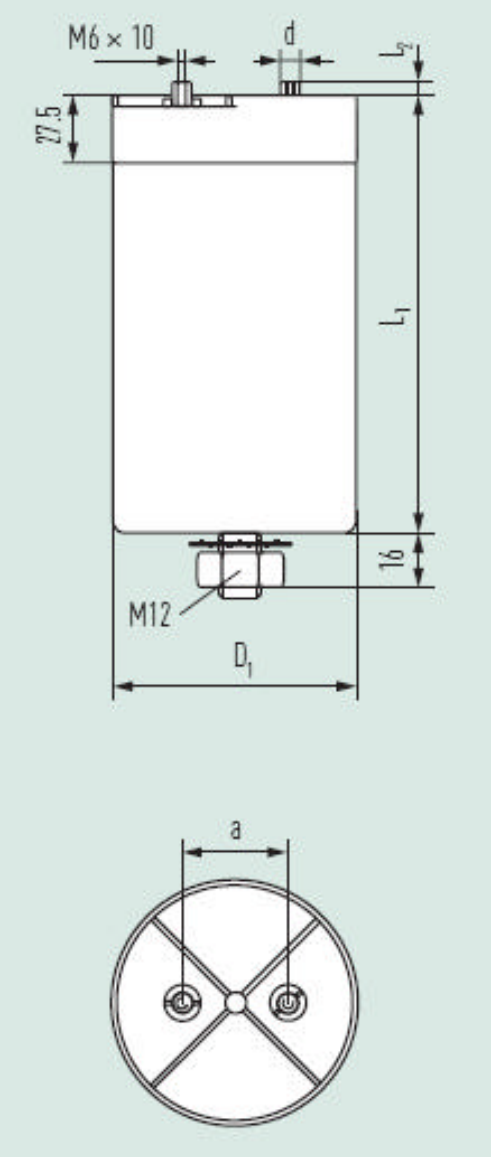


N1

130107 Rev.:1

Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

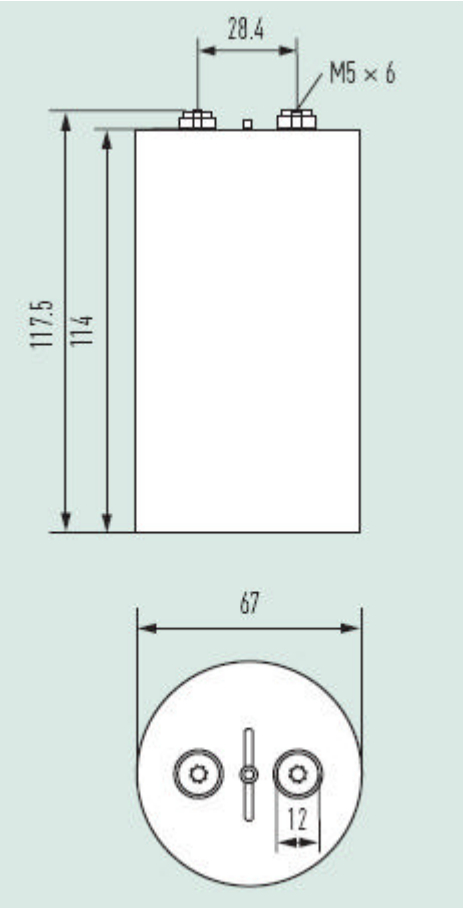
N1/N5



	D_1	a	d	L_2	K	L
N1	116	50	14	5	45	35
N5	85	32	12	6	36	20

Can material ..... aluminium, filled with solidified PUR resin
Base mounting stud M12
Lid ..... plastic (UL94: V0)
Terminals ..... internal thread M6 × 10 mm
I_{max} (Terminals)
N5 ..... 60 A
N1 ..... 100 A
Degree of protection ..... IP 00
K/L ..... see chart
Humidity class C

N4



Can material ..... plastic, filled with solidified PUR resin
..... (UL94: V0)
Terminals ..... internal thread M5 × 6 mm
I_{max} (Terminals) ..... 30 A
Degree of protection ..... IP 00
K ..... 25 mm
L ..... 16 mm
Humidity class C

130107 Rev.:1

Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

Cost Effective Products

SEMICODE ELECTRONICA

offers to the market a comprehensive range of products from recognized manufacturers at the best price/ quality relationship, this products are provided with a basic reference code that allows maintaining the same product reference even if the original device manufacturer is replaced. SEMICODE product reference has to be considered as a generic brand.

Seeking the market needs and trends, we are constantly increasing the product portfolio with new products and suppliers, please ask for the updated information available to our local contacts.

SEMICODE products include semiconductors, passive components and accessories focused in power electronics market.

Datasheet Annotations:

SEMICODE ELECTRONICA annotate datasheets in the top left hard corner of the front page, to indicate product status. The annotations are as follows:
Tentative information: This is the most tentative form of information and represents a very preliminary specification. No actual design work on the product has been started.
Preliminary Information: The product is in design and development. The datasheet represents the product as it is understood but details may change.
Advance Information: The product design is complete and final characterisation for volume production is well in hand.
No Annotation: The product parameters are fixed and the product is available to datasheet specification.

NOTICE: The technical data are to specify components, not to guarantee their properties.No warranty or guarantee expressed or implied is made regarding delivery or performance. The Company reserves the right to alter without prior notice the specification of any product. Information concerning possible methods of use is provided as a guide only and does not constitute any guarantee that such methods of use will be satisfactory in a specific piece of equipment. It is the user's responsibility to fully determine the performance and suitability of any equipment using such information and to ensure that any publication or data used is up to date.

All brand names and product names used in this publication are trademarks, registered trademarks or trade names of their respective owners.

© SEMICODE ELECTRONICA 2008. TECHNICAL DOCUMENTATION – NOT FOR RESALE

130107 Rev.:1

Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.