WIMA DC-LINK HC

Metallized Polypropylene (PP) - Capacitors for DC-Link Applications

Special Features

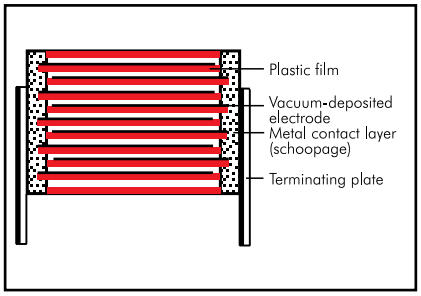
- **Very high volume/capacitance ratio**
- **Self-healing, internal safety disconnector**
- **Versatile and safe contact configurations by screwable plates**
- **Dry construction without electrolyte or oil**
- **Very low disipation factor**
- **Negative capacitance change versus temperature**
- **Very low dielectric absorption**
- **According to RoHS 2011/65/EC**
- **Customer-specific capacitances or voltages on request**

Typical Applications

As intermediate circuit capacitor e. g. in high power converter technology

Construction

Dielectric:
Polypropylene (PP) film
Capacitor electrodes:
Vacuum-deposited
Internal construction:



Encapsulation:
Solvent resistant, flame-retardant plastic case with resin seal (optional screw fixing) or moulded version (without screw fixing), UL 94 V-0.
Terminations:
Tinned plates, customized plate configurations are possible.
Marking:
Colour: Black. Marking: Gold.

Electrical Data

Capacitance range:
85 µF to 4500 µF
Rated voltages:
400 VDC, 800 VDC, 1600 VDC
Capacitance tolerances:
±20%, ±10%, (±5% available subject to special enquiry)
Operating temperature:
–55° C to +85° C
Insulation resistance at +20° C:
⩾ 30 000 sec (MΩ x µF)
(mean value: 100 000 sec)
Measuring voltage: 100 V/1 min.
Dissipation factors at +20° C:
See General Data.
Test voltage: 1.1 U_r, 2 sec
Dielectric absorption:
0.05 %
Voltage derating:
A voltage derating factor of 1.35 % per K must be applied from +75° C for DC voltages.
Reliability:
Operational life > 100 000 hours at 40° C
Failure rate < 36 fit (0.75 x U_r and 40° C)
Specific dissipation:
See General Data.

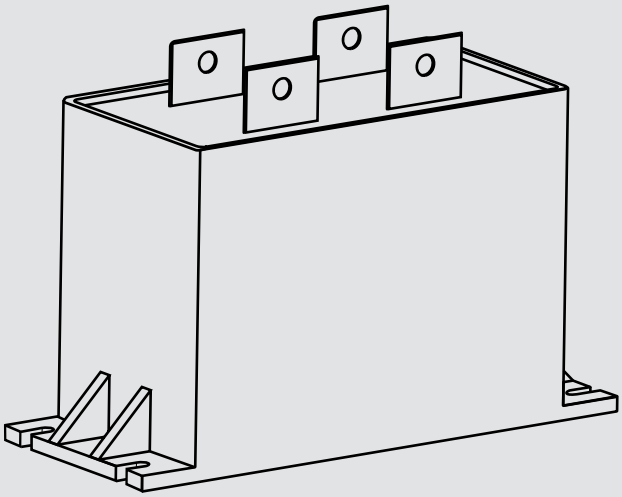
Mounting Recommendation

Excessive mechanical strain, e. g. pressure or shock onto the capacitor body, is to be avoided during mounting and usage of the capacitors. When fixing the capacitor the screw torque is to be limited to max. 5 Nm.

Packing

Transportation-safe packing in cardboard boxes.

For further details and graphs please refer to Technical Information.



Continuation

General Data

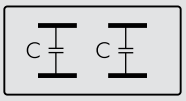
Capacitance			Size	Electrical parameters									Part number
400 VDC	400 VDC	800 VDC	182 x 94 x H	$I_{max.}$ A		I_{rms} (1 kHz)* A		ESR (1 kHz)* mΩ		k_T W/K	tan δ* [x 10^{-4}]		
	V1	V2	in mm	V1	V2	V1	V2	V1	V2		100 Hz	1 kHz	
2 x 250 µF	500 µF	125 µF	49	5000	1250	65.4	32.7	1.43	5.73	0.613	8	45	DCH3G06250__00____
2 x 500 „	1000 „	250 „	77	10 000	2500	103.5	51.7	0.72	2.87	0.767	8	45	DCH3G06500__00____
2 x 750 „	1500 „	375 „	105	15 000	3750	139.0	69.5	0.48	1.91	0.922	8	45	DCH3G06750__00____
2 x 1000 „	2000 „	500 „	133	20 000	5000	173.3	86.7	0.36	1.43	1.076	8	45	DCH3G07100__00____
2 x 1250 „	2500 „	625 „	161	25 000	6250	196.7	98.3	0.32	1.27	1.231	11	50	DCH3G07125__00____
2 x 1500 „	3000 „	750 „	189	30 000	7500	228.5	114.3	0.27	1.06	1.385	11	50	DCH3G07150__00____
2 x 1750 „	3500 „	875 „	217	35 000	8750	248.1	124.1	0.25	1.00	1.540	11	55	DCH3G07175__00____
2 x 2000 „	4000 „	1000 „	245	40 000	10 000	278.3	139.2	0.22	0.88	1.695	14	55	DCH3G07200__00____
2 x 2250 „	4500 „	1125 „	285	45 000	11 250	298.7	157.4	0.21	0.76	1.893	14	60	DCH3G07225__00____

Capacitance			Size	Electrical parameters									Part number
800 VDC	800 VDC	1600 VDC	182 x 94 x H	$I_{max.}$ A		I_{rms} (1 kHz)* A		ESR (1 kHz)* mΩ		k_T W/K	tan δ* [x 10^{-4}]		
	V1	V2	in mm	V1	V2	V1	V2	V1	V2		100 Hz	1 kHz	
2 x 170 µF	340 µF	85 µF	49	3740	935	61.2	30.6	1.64	6.55	0.613	7	35	DCH4L06170__00____
2 x 340 „	680 „	170 „	77	7480	1870	96.8	48.4	0.82	3.28	0.767	7	35	DCH4L06340__00____
2 x 510 „	1020 „	255 „	105	11 220	2805	129.9	65.0	0.55	2.18	0.922	7	35	DCH4L06510__00____
2 x 680 „	1360 „	340 „	133	14 960	3740	162.1	81.0	0.41	1.64	1.076	7	35	DCH4L06680__00____
2 x 850 „	1700 „	425 „	161	18 700	4675	181.3	90.7	0.37	1.50	1.231	10	40	DCH4L06850__00____
2 x 1020 „	2040 „	510 „	189	22 440	5610	210.7	105.3	0.31	1.25	1.385	10	40	DCH4L07102__00____
2 x 1190 „	2380 „	595 „	217	26 180	6545	226.2	113.1	0.30	1.20	1.540	10	45	DCH4L07119__00____
2 x 1360 „	2720 „	680 „	245	29 920	7480	253.7	126.9	0.26	1.05	1.695	12	45	DCH4L07136__00____
2 x 1530 „	3060 „	765 „	285	33 660	8415	269.8	134.9	0.26	1.04	1.893	12	50	DCH4L07153__00____

* General guide

Customized solutions can be realized on request.

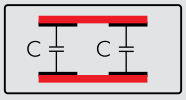
The capacitors will be delivered without interconnection.



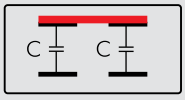
Insulated in the sense of a breakdown voltage of 2 x U_r between the individual capacitors.

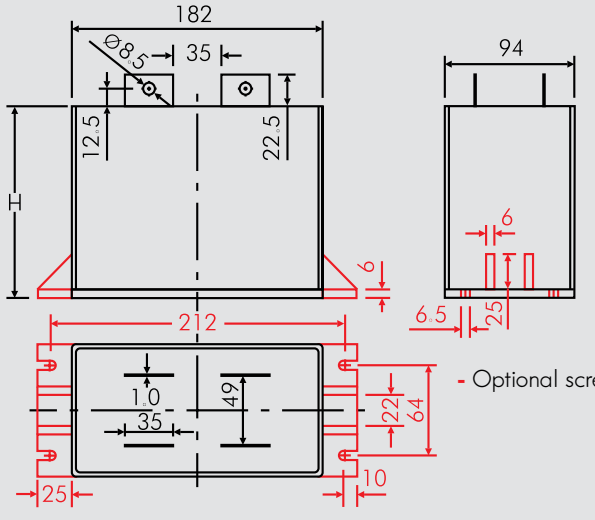
External wiring versions (to be implemented by user):

V1



V2





- Optional screw fixing

Part number completion:					
Size			Part number code for digit 11-12		
W	H	L	moulded	boxed	box with screw fixing
94	49	182	**H0**	**I0**	**J0**
94	77	182	**H1**	**I1**	**J1**
94	105	182	**H2**	**I2**	**J2**
94	133	182	**H3**	**I3**	**J3**
94	161	182	**H4**	**I4**	**J4**
94	189	182	**H5**	**I5**	**J5**
94	217	182	**H6**	**I6**	**J6**
94	245	182	**H7**	**I7**	**J7**
94	285	182	**H8**	**I8**	**J8**

Tolerance: 20 % = M
10 % = K
5 % = J
Packing: bulk = S
Pin length: none = 00

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WIMA Part Number System

A WIMA part number consists of 18 digits and is composed as follows:

Field 1 - 4: Type description
Field 5 - 6: Rated voltage
Field 7 - 10: Capacitance
Field 11 - 12: Size and PCM
Field 13 - 14: Version code (e.g. Snubber versions)
Field 15: Capacitance tolerance
Field 16: Packing
Field 17 - 18: Pin length (untaped)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
M	**K**	**S**	**2**	**C**	**0**	**2**	**1**	**0**	**0**	**1**	**A**	**0**	**0**	**M**	**S**	**S**	**D**
MKS 2				63 VDC		0.01 µF				2.5 x 6.5 x 7.2		-		20%	bulk	6 -2	

Type description:

SMD-PET	= SMDT
SMD-PPS	= SMDI
FKP 02	= FKP0
MKS 02	= MKS0
FKS 2	= FKS2
FKP 2	= FKP2
MKS 2	= MKS2
MKP 2	= MKP2
FKS 3	= FKS3
FKP 3	= FKP3
MKS 4	= MKS4
MKP 4	= MKP4
MKP 10	= MKP1
FKP 4	= FKP4
FKP 1	= FKP1
MKP-X2	= MKX2
MKP-X2 R	= MKXR
MKP-Y2	= MKY2
MP 3-X2	= MPX2
MP 3-X1	= MPX1
MP 3-Y2	= MPY2
MP 3R-Y2	= MPRY
Snubber MKP	= SNMP
Snubber FKP	= SNFP
GTO MKP	= GTOM
DC-LINK MKP 3	= DCP3
DC-LINK MKP 4	= DCP4
DC-LINK MKP 4S	= DCPS
DC-LINK MKP 5	= DCP5
DC-LINK MKP 6	= DCP6
DC-LINK HC	= DCH_
DC-LINK HY	= DCHY
SuperCap C	= SCSC
SuperCap MC	= MC_ _
SuperCap C60	= SCSC
SuperCap R	= SCSR
SuperCap MR	= MRPP

Rated voltage:

2.5 VDC	= A1
4 VDC	= A2
14 VDC	= A3
28 VDC	= A4
40 VDC	= A5
5 VDC	= A6
50 VDC	= B0
63 VDC	= C0
100 VDC	= D0
160 VDC	= E0
250 VDC	= F0
400 VDC	= G0
450 VDC	= H0
600 VDC	= I0
630 VDC	= J0
700 VDC	= K0
800 VDC	= L0
850 VDC	= M0
900 VDC	= N0
1000 VDC	= O1
1100 VDC	= P0
1200 VDC	= Q0
1250 VDC	= R0
1500 VDC	= S0
1600 VDC	= T0
2000 VDC	= U0
2500 VDC	= V0
3000 VDC	= W0
4000 VDC	= X0
6000 VDC	= Y0
250 VAC	= 0W
275 VAC	= 1W
300 VAC	= 2W
400 VAC	= 3W
440 VAC	= 4W
500 VAC	= 5W
...	

Capacitance:

22 pF	= 0022
47 pF	= 0047
100 pF	= 0100
150 pF	= 0150
220 pF	= 0220
330 pF	= 0330
470 pF	= 0470
680 pF	= 0680
1000 pF	= 1100
1500 pF	= 1150
2200 pF	= 1220
3300 pF	= 1330
4700 pF	= 1470
6800 pF	= 1680
0.01 µF	= 2100
0.022 µF	= 2220
0.047 µF	= 2470
0.1 µF	= 3100
0.22 µF	= 3220
0.47 µF	= 3470
1 µF	= 4100
2.2 µF	= 4220
4.7 µF	= 4470
10 µF	= 5100
22 µF	= 5220
47 µF	= 5470
100 µF	= 6100
220 µF	= 6220
1 F	= A010
2.5 F	= A025
50 F	= A500
100 F	= B100
110 F	= B110
600 F	= B600
1200 F	= C120
...	

Size:

4.8 x 3.3 x 3 Size 1812	= KA
4.8 x 3.3 x 4 Size 1812	= KB
5.7 x 5.1 x 3.5 Size 2220	= QA
5.7 x 5.1 x 4.5 Size 2220	= QB
7.2 x 6.1 x 3 Size 2824	= TA
7.2 x 6.1 x 5 Size 2824	= TB
10.2 x 7.6 x 5 Size 4030	= VA
12.7 x 10.2 x 6 Size 5040	= XA
15.3 x 13.7 x 7 Size 6054	= YA
2.5 x 7 x 4.6 PCM 2.5	= 0B
3 x 7.5 x 4.6 PCM 2.5	= 0C
2.5 x 6.5 x 7.2 PCM 5	= 1A
3 x 7.5 x 7.2 PCM 5	= 1B
2.5 x 7 x 10 PCM 7.5	= 2A
3 x 8.5 x 10 PCM 7.5	= 2B
3 x 9 x 13 PCM 10	= 3A
4 x 9 x 13 PCM 10	= 3C
5 x 11 x 18 PCM 15	= 4B
6 x 12.5 x 18 PCM 15	= 4C
5 x 14 x 26.5 PCM 22.5	= 5A
6 x 15 x 26.5 PCM 22.5	= 5B
9 x 19 x 31.5 PCM 27.5	= 6A
11 x 21 x 31.5 PCM 27.5	= 6B
9 x 19 x 41.5 PCM 37.5	= 7A
11 x 22 x 41.5 PCM 37.5	= 7B
94 x 49 x 182 DCH_	= H0
94 x 77 x 182 DCH_	= H1
...	

Version code:

Standard	= 00
Version A1	= 1A
Version A1.1.1	= 1B
Version A2	= 2A
...	

Tolerance:

20%	= M
10%	= K
5%	= J
2.5%	= H
1%	= E
...	

Packing:

AMMO H16.5 340 x 340	= A
AMMO H16.5 490 x 370	= B
AMMO H18.5 340 x 340	= C
AMMO H18.5 490 x 370	= D
REEL H16.5 360	= F
REEL H16.5 500	= H
REEL H18.5 360	= I
REEL H18.5 500	= J
ROLL H16.5	= N
ROLL H18.5	= O
BLISTER W12 180	= P
BLISTER W12 330	= Q
BLISTER W16 330	= R
BLISTER W24 330	= T
Bulk/TPS Standard	= S
...	

Pin length (untaped)

3.5 ±0.5	= C9
6 -2	= SD
16 ±1	= P1
...	

The data on this page is not complete and serves only to explain the part number system. Part number information is listed on the pages of the respective WIMA range.

11.12

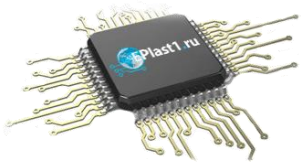
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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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