

## Power Electronic Capacitors (PEC)



### FEATURES

- High ripple current
- High impulse current
- Low inductance
- High reliability and long life time
- Shock and vibration proof

### APPLICATIONS

- DC link and DC filter in industrial converters and traction converters
- DC link in low-power drives
- DC link in wind turbine converters
- Impulse discharge capacitors for magnetizing and welding

### ADDITIONAL RESOURCES


[3D Models](#)

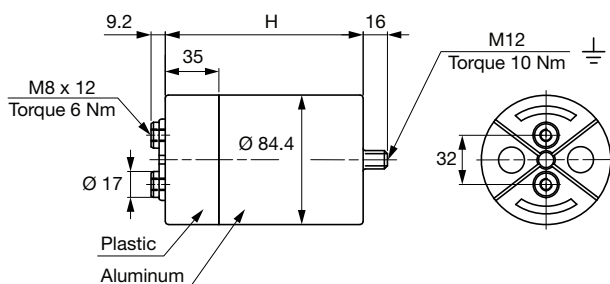
QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Rated DC voltage min.	900 V <sub>DC</sub>
Rated DC voltage max.	2700 V <sub>DC</sub>
Capacitance min.	40 µF
Capacitance max.	2235 µF
Capacitance tolerance	± 5 % or ± 10 %
Technology	Metallized polypropylene film, self-healing
Dielectric dissipation factor	< 2 x 10 <sup>-4</sup>
Operating temperature min.	-40 °C
Operating temperature max.	+85 °C (hotspot)
Inductance	< 100 nH
Lifetime expectancy	> 100 000 h at U <sub>NDC</sub> and < 70 °C hotspot
Reliability	< 100 FIT
Test voltage	U <sub>tt</sub> = 1.5 x U <sub>NDC</sub> /10 s; U <sub>tc</sub> = 2 x U <sub>NDC</sub> + 1000 V <sub>AC</sub> /10 s
Casing	Aluminum / plastic
Filling	Dry resin (UL 94 V-0)
Standard	IEC 61071, IEC 61881-1



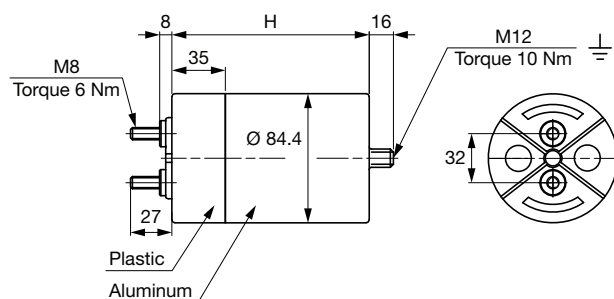
<b>TYPE DESCRIPTION</b>											
<b>TYPE</b> <b>HDMKP...-...B / I</b>	<b>C<sub>N</sub></b> <b>(μF)</b>	<b>U<sub>NDC</sub></b> <b>(V<sub>DC</sub>)</b>	<b>R<sub>S</sub></b> <b>(mΩ)</b>	<b>R<sub>th</sub></b> <b>(K/W)</b>	<b>I<sub>max.</sub></b> <b>(A)</b>	<b>Î</b> <b>(kA)</b>	<b>Î<sub>S</sub></b> <b>(kA)</b>	<b>H</b> <b>(mm)</b>	<b>DIA.</b> <b>(mm)</b>	<b>MOQ / PU</b> <b>(pcs)</b>	<b>DRAWING</b> <b>NO.</b>
<b>HDMKP 900, U<sub>NDC</sub> = 900 V</b>											
900-360	360	900	1.8	8.5	39	1.4	4.1	105	84.4	4	1 and 4
900-460	460	900	2.6	6.9	37	1.3	3.8	135	84.4	4	1 and 2
900-720	720	900	1.3	4.1	78	2.7	8.1	185	84.4	4	3 and 4
900-950	950	900	1.7	3.3	66	2.6	7.8	235	84.4	4	1 and 2
900-1080	1080	900	0.8	2.9	100	4.1	12.2	260	84.4	4	1 and 4
900-2050	2050	900	1.0	2.4	100	5.3	15.9	235	116	4	5 and 6
900-2235	2235	900	0.5	2.2	150	7.9	23.7	260	116	4	5 and 6
<b>HDMKP 1.1, U<sub>NDC</sub> = 1100 V</b>											
1.1-240	240	1100	2.1	8.5	36	1.1	3.4	105	84.4	4	1 and 2
1.1-325	325	1100	2.9	6.8	35	1.1	3.3	135	84.4	4	1 and 4
1.1-480	480	1100	1.3	4.4	65	2.3	6.8	185	84.4	4	1 and 2
1.1-650	650	1100	1.7	3.5	64	2.2	6.7	235	84.4	4	1 and 2
1.1-720	720	1100	0.8	3.3	93	3.4	10.1	260	84.4	4	1 and 2
1.1-1310	1310	1100	1.2	2.5	92	4.1	12.4	235	116	4	5 and 6
1.1-1425	1425	1100	0.6	2.3	136	6.2	18.6	260	116	4	5 and 6
<b>HDMKP 1.35, U<sub>NDC</sub> = 1350 V</b>											
1.35-160	160	1350	2.6	8.7	32	0.9	2.7	105	84.4	4	3 and 4
1.35-200	200	1350	1.1	5.9	57	1.8	5.4	135	84.4	4	1 and 4
1.35-320	320	1350	1.7	4.3	57	1.8	5.4	185	84.4	4	3 and 4
1.35-400	400	1350	2.4	3.5	54	1.6	4.9	235	84.4	4	1 and 2
1.35-480	480	1350	1.1	3.1	84	2.7	8.1	260	84.4	4	1 and 2
1.35-910	910	1350	1.3	2.6	84	3.5	10.5	235	116	4	5 and 6
1.35-990	990	1350	0.6	2.3	126	5.2	15.5	260	116	4	5 and 6
<b>HDMKP 1.5, U<sub>NDC</sub> = 1500 V</b>											
1.5-120	120	1500	2.9	8.7	31	0.8	2.4	105	84.4	4	1 and 2
1.5-165	165	1500	4.0	6.9	30	0.8	2.4	135	84.4	4	1 and 2
1.5-240	240	1500	1.8	4.3	56	1.6	4.8	185	84.4	4	1 and 2
1.5-330	330	1500	2.4	3.4	55	1.6	4.8	235	84.4	4	1 and 2
1.5-360	360	1500	1.2	3.1	81	2.4	7.2	260	84.4	4	1 and 2
1.5-620	620	1500	1.5	2.6	80	2.9	8.6	235	116	4	5 and 6
1.5-675	675	1500	0.7	2.4	121	4.3	12.9	260	116	4	5 and 6
<b>HDMKP 1.7, U<sub>NDC</sub> = 1700 V</b>											
1.7-90	90	1700	3.2	8.7	28	0.7	2.1	105	84.4	4	1 and 2
1.7-125	125	1700	4.3	6.9	28	0.7	2.1	135	84.4	4	1 and 2
1.7-180	180	1700	1.9	4.4	51	1.4	4.2	185	84.4	4	1 and 2
1.7-250	250	1700	2.6	3.5	50	1.4	4.2	235	84.4	4	1 and 2
1.7-270	270	1700	1.2	3.2	76	2.1	6.3	260	84.4	4	1 and 2
1.7-460	460	1700	1.6	2.7	74	2.5	7.6	235	116	4	5 and 6
1.7-495	495	1700	0.8	2.4	111	3.8	11.4	260	116	4	5 and 6
<b>HDMKP 2.0, U<sub>NDC</sub> = 2000 V</b>											
2.0-70	70	2000	3.6	8.8	26	0.6	1.8	105	84.4	4	1 and 2
2.0-90	90	2000	5.3	7.1	25	0.6	1.7	135	84.4	4	1 and 2
2.0-140	140	2000	2.1	4.5	48	1.2	3.6	185	84.4	4	1 and 2
2.0-180	180	2000	3.1	3.6	45	1.1	3.4	235	84.4	4	3 and 4
2.0-210	210	2000	1.3	3.3	71	1.8	5.4	260	84.4	4	1 and 4
2.0-390	390	2000	1.7	2.7	72	2.3	6.8	235	116	4	5 and 6
2.0-420	420	2000	0.8	2.4	106	3.4	10.3	260	116	4	5 and 6
<b>HDMKP 2.25, U<sub>NDC</sub> = 2250 V</b>											
2.25-55	55	2250	4.1	8.9	24	0.5	1.6	105	84.4	4	1 and 2
2.25-75	75	2250	5.7	7.1	23	0.5	1.6	135	84.4	4	3 and 4
2.25-110	110	2250	2.4	4.6	44	1.1	3.2	185	84.4	4	1 and 4
2.25-150	150	2250	3.3	3.6	44	1.1	3.2	235	84.4	4	1 and 2
2.25-165	165	2250	1.5	3.3	65	1.6	4.8	260	84.4	4	1 and 4
2.25-320	320	2250	1.8	2.7	68	2.1	6.2	235	116	4	5 and 6
2.25-345	345	2250	0.9	2.5	99	3.1	9.3	260	116	4	5 and 6

**TYPE DESCRIPTION**

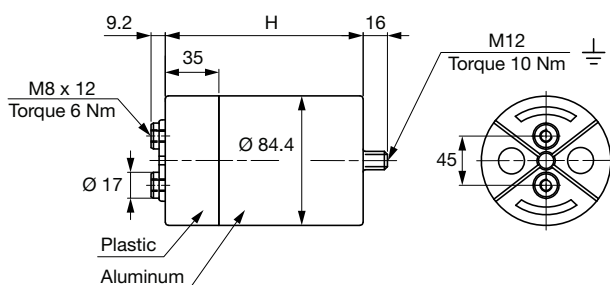
TYPE HDMKP...-...B / I	C <sub>N</sub> (μF)	U <sub>NDC</sub> (V <sub>DC</sub> )	R <sub>S</sub> (mΩ)	R <sub>th</sub> (K/W)	I <sub>max.</sub> (A)	Î (kA)	Î <sub>S</sub> (kA)	H (mm)	DIA. (mm)	MOQ / PU (pcs)	DRAWING NO.
<b>HDMKP 2.7, U<sub>NDC</sub> = 2700 V</b>											
2.7-40	40	2700	4.6	8.8	22	0.5	1.4	105	84.4	4	1 and 4
2.7-50	50	2700	7.0	7.2	21	0.4	1.3	135	84.4	4	2 and 3
2.7-80	80	2700	2.7	4.6	41	0.9	2.8	185	84.4	4	3 and 4
2.7-100	100	2700	3.9	3.7	39	0.8	2.5	235	84.4	4	1 and 4
2.7-120	120	2700	1.7	3.3	61	1.4	4.2	260	84.4	4	1 and 4
2.7-220	220	2700	2.1	2.8	62	1.7	5.1	235	116	4	5 and 6
2.7-240	240	2700	1.0	2.5	91	2.6	7.7	260	116	4	5 and 6

**DIMENSIONS** in millimeters


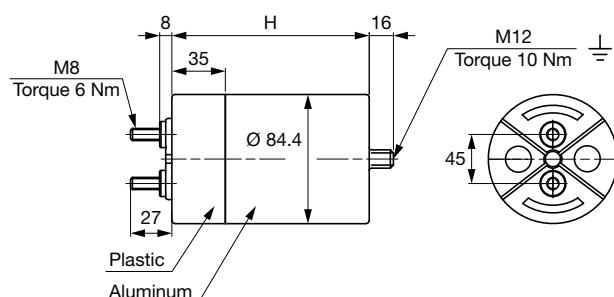
Drawing 1  
i.e.: HDMKP...-...I



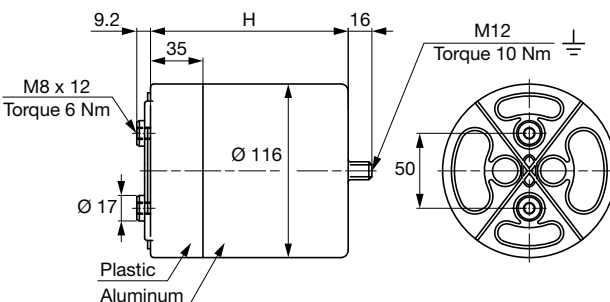
Drawing 2  
i.e.: HDMKP...-...B



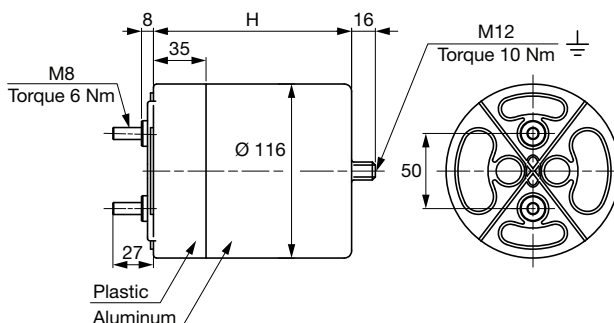
Drawing 3  
i.e.: HDMKP...-...I



Drawing 4  
i.e.: HDMKP...-...B



Drawing 5  
i.e.: HDMKP...-...I



Drawing 6  
i.e.: HDMKP...-...B

**Contact Us**

Other voltage, current, and capacitance values are available on request without additional cost and lead time for the individual design.



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

[5191-45737-03-00](#)