## Vishay ESTA



# **Capacitors for Power Electronics**



#### **FEATURES**

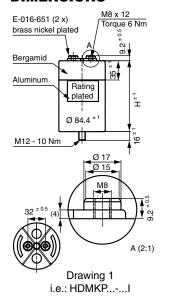
- High RMS current rating: up to 150 A
- High impulse current rating: up to 25 kA
- Low self-inductance of < 70 nH
- · High reliability and life expectancy
- Withstands heavy-duty shock and vibration
- Non-polar dielectric

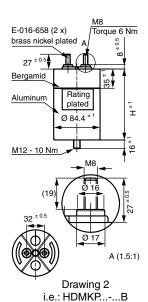
#### **APPLICATIONS**

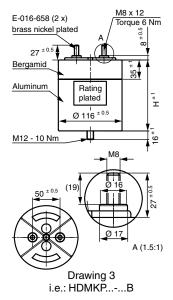
- DC-linking and DC-filtering in industry and traction converters
- DC-linking in low power drives
- DC-linking in windturbine converters
- Impulse discharge capacitors for magnetizing and welding
- Replacement of aluminum electrolytic capacitors (lower capacitance, higher currents)
- AC filter in UPS

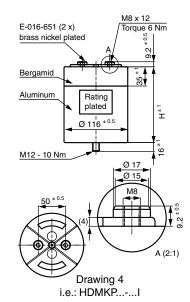
QUICK REFERENCE DATA							
DESCRIPTION	VALUE						
Dielectric	Metallized polypropylene						
Dissipation factor (tan $\delta_0$ )	< 2 x 10 <sup>-4</sup> /1 kHz						
Capacitance tolerance	± 5 %						
On a wating a tamon a water way (last a wat)	θ <sub>min.</sub> - 40 °C						
Operating temperature (hot spot)	θ <sub>max.</sub> + 80 °C						
Inductance	< 70 nH						
Lifetime expectancy	100 000 h at U <sub>R</sub> and < 70 °C hotspot						
Reliability	100 FIT						
Test voltage	Terminal/terminal = 1.5 x U <sub>RDC</sub> , 10 s terminal/case = 2 x U <sub>RDC</sub> + 1000 V <sub>AC</sub> , 60 s						
Casing material	Aluminum/bergamid 3700 UF						
Filling	Resin dry, UL 94 V-0						
Standards	IEC 61071-1, IEC 61881 and EN61071-1						

### **DIMENSIONS**











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## Capacitors for Power Electronics

TYPE	C <sub>N</sub>	VOLTAGE	R <sub>s</sub>	R <sub>th</sub>	I <sub>max</sub> .	l <sub>P</sub>	Î	HEIGHT	DIA.	WEIGHT	PACKAGING	DRAWING
000 000	[uF]	V <sub>DC</sub>	[mΩ]	[K/W]	[A]	[A]	[A]	[mm]	[mm]	[kg]	UNIT	NO.
900-360	360	900	2.4	6.0	32.0	1309	3928	105	84.4	0.7	4	1 and 3
900-460	460	900	3.2	5.4	29.0	1258	3775	135	84.4	0.9	4	1 and 3
900-720	720	900	1.3	3.2	59.0	1329	3988	185	84.4	1.2	4	1 and 3
900-950	950	900	1.7	2.7	56.0	1300	3899	235	84.4	1.6	4	1 and 3
900-1080	1080	900	0.9 1.3	2.2 1.7	85.0	1316	3948	260	84.4	1.7	4	1 and 3
900-2050	2050	900		1.6	75.0	5610 8385	16 830	235 260	116	3.0	4	2 and 4
900-2235	2235		0.6		120.0		25 155	260	116	3.3	4	2 and 4
1.1-240	240	J <sub>NDC</sub> = 11	2.9	N = 275 $4.1$	28.0	1125	3375	105	84.4	0.7	4	1 and 3
1.1-240	325	1100	3.8	4.1	27.0	11123	3335	135	84.4	0.7	4	1 and 3
1.1-325	480		1.6	2.5		2250	6750	185		1.2	4	_
1.1-460	650	1100 1100	0.8	2.5	50.0 50.0	2220	6660	235	84.4 84.4	1.6	4	1 and 3 1 and 3
1.1-650	720	1100	0.6	2.7	75.0	3375	10 125	260	84.4	1.7	4	1 and 3
1.1-720	1310	1100	1.5	1.8	72.0	4485	13 455	235	116	3.0	4	2 and 4
1.1-1310	1425	1100	0.6	1.7	114.0	6680	20 045	260	116	3.3	4	2 and 4
	1			<u> </u>	L		20 045	200	116	3.3	4	2 anu 4
	1	U <sub>NDC</sub> = 1		1	1	1	2600	105	01.1	0.7	1	1 and 2
1.35-160	160	1350	3.2	6.7	26.0	900	2699	105	84.4	0.7	4	1 and 3
1.35-200	200	1350	1.2	4.6	51.0	893	2680	135	84.4	0.9	4	1 and 3
1.35-320	320	1350	1.7	3.5	50.0	900	2699	185	84.4	1.2	4	1 and 3
1.35-400	400 480	1350 1350	2.4 1.2	3.1 2.4	45.0 72.0	820 900	2460 2699	235 260	84.4 84.4	1.6 1.7	4	1 and 3 1 and 3
1.35-480	910	1350	1.6	1.9	70.0	3735	11 205	235	116	3.0	4	2 and 4
1.35-910	990	1350	0.7	1.8	108.0	5565	16 695	260	116	3.3	4	2 and 4
		J <sub>NDC</sub> = 20					10 093	200	110	0.0	4	2 4114
	_						1770	105	04.4	0.7	1 4	4
2.0-70	70	2000	4.4	7.2 5.9	21.0	593	1778	105	84.4	0.7	4	1 and 3
2.0-90	90	2000	5.8		20.0	585	1755	135	84.4	0.9	4	1 and 3
2.0-140	140	2000	2.3	3.8	41.0	593	1778	185	84.4	1.3	4	1 and 3
2.0-180	180 210	2000 2000	3.0 1.6	3.1 2.7	39.0 60.0	586 593	1757 1780	235 260	84.4 84.4	1.6 1.7	4	1 and 3 1 and 3
2.0-210	390	2000	2.0	2.1	60.0	2455	7365	235	116	3.0	4	2 and 4
2.0-390	420	2000	0.9	1.9	90.0	3650	10 955	260	116	3.3	4	2 and 4
							10 955	200	116	3.3	4	2 anu 4
2.25-55	55	U <sub>NDC</sub> = 2	4.8	7.4	20.0	<b>IS</b> 530	1590	105	84.4	0.7	4	1 and 2
2.25-75	75	2250	6.4	6.0	19.0	523			84.4	0.7	4	1 and 3 1 and 3
2.25-75	110	2250	2.5	3.9	39.0	530	1568 1590	135 185	84.4	1.2	4	1 and 3
2.25-110	150	2250	3.3	3.2	37.0	523	1568	235	84.4	1.6	4	1 and 3
2.25-165	165	2250	1.7	2.7	56.0	530	1590	260	84.4	1.7	4	1 and 3
2.25-103	320	2250	2.4	2.4	56.0	2235	6705	235	116	3.0	4	2 and 4
2.25-345	345	2250	1.1	2.0	90.0	3330	9990	260	116	3.3	4	2 and 4
		J <sub>NDC</sub> = 27		<u> </u>	<u> </u>	<u> </u>	3330	200	110	0.0		Z and T
2.7-40	40	2700	5.1	8.4	18.0	464	1391	105	84.4	0.7	4	1 and 3
2.7-40	+	2700		6.5	17.0	419	1258	135	84.4	0.7	+	1 and 3
	50		7.4								4	
2.7-80	100	2700	5.1	6.8	20.0	464	1391	185	84.4	1.2	4	1 and 3
2.7-100	100	2700	7.4	5.3	19.0	419	1258	235	84.4	1.6		1 and 3
2.7-120	120	2700	5.2	6.2	21.0	450	1349	260	84.4	1.7	4	1 and 3
2.7-220 2.7-240	220 240	2700 2700	2.4 1.1	2.4	52.0 84.0	925 927	2775 2781	235 260	116 116	3.0	4	2 and 4 2 and 4

• Other voltage, current and capacitance values are available on request





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