

# HP3 · Snap-In · 6000 h/85 °C

## Standard Performances

### > Specifications · Spezifikationen

Items	Characteristics
Temperature range	-40°C ~ + 85°C
Capacitance tolerance (at 20°C)	Standard +/- 20%, -10%/+30% on request
Surge voltage	Repetitive max. 30 sec per 6 Minutes
Leakage current max. I <sub>L</sub> (20°C, 5min)	0.02 • C • V <sub>r</sub> [μA] or 3 mA, which is smaller.
Useful life	6 000 hours at 85°C
Field failure rate	0.5 FIT = 0.5 • 10 <sup>-9</sup> Failures/hour
RoHS conform	Directive 2011/65/EU & (EU)2015/863
Specifications	JIS C 5101-4, AEC-Q200 qualified
Vibration	0.75mm, 10...55Hz, 10g, 3x2h



### > Outline Drawings · Bauformen

Refer to page 8 for available terminal shapes and dimensions. · Auf Seite 8 finden Sie die verfügbaren Bauformen und Maße.

### > Product Code · Bestellbezeichnung

**Example:** Series HP3 · 350 V · 1200 μF ± 20 % · 35x80 mm · 4-Pin terminal · without plate

HP3		2V		122		M		S		A		S13		WPEC															
Type of series		Capacitance code				Terminal symbol code		Diameter code		Outer design code																			
		The first two digits are significant. The last digit indicates the number of following zeros in μF.				R: 2-pin terminal S: 4-pin terminal C: 2-pin short terminal X: 4-pin short terminal E: 3-pin short terminal		<table border="1"> <thead> <tr> <th>Code</th> <th>ØD</th> </tr> </thead> <tbody> <tr><td>W</td><td>20</td></tr> <tr><td>X</td><td>22</td></tr> <tr><td>Y</td><td>25</td></tr> <tr><td>Z</td><td>30</td></tr> <tr><td>A</td><td>35</td></tr> <tr><td>B</td><td>40</td></tr> <tr><td>H</td><td>45</td></tr> <tr><td>C</td><td>50</td></tr> </tbody> </table>		Code	ØD	W	20	X	22	Y	25	Z	30	A	35	B	40	H	45	C	50	None: PET sleeve and PVC plate WPEC: PET sleeve without plate Others on request	
Code	ØD																												
W	20																												
X	22																												
Y	25																												
Z	30																												
A	35																												
B	40																												
H	45																												
C	50																												
Rated voltage code						Capacitance tolerance		Length code																					
Code	Voltage	Code	Voltage	Code	Voltage	M : ± 20% Q : -10% ~ +30%		Code	L	Code	L	Code	L	Code	L														
1C	16	2A	100	2G	400			S1	20	S8	55	S15	90																
1E	25	2C	160	420V	420			S2	25	S9	60	S16	95																
1V	35	2P	180	2W	450			S3	30	S10	65	S17	100																
1H	50	2D	200	2H	500			S4	35	S11	70	S18	105																
1J	63	2E	250					S5	40	S12	75	S19	110																
1K	80	2V	350					S6	45	S13	80																		
								S7	50	S14	85																		

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code # = variable value, see fixing code in the product code
<b>16 VDC</b> Code: 1C  Surge Voltage 20 VDC	6 800	1.96	3.72	51	0.5	22x25	HP31C682M#XS2
		2.13	4.06	41	0.5	22x30	HP31C103M#XS3
	10 000	2.11	4.02	41	0.5	25x25	HP31C103M#YS2
		2.92	5.54	28	0.5	22x40	HP31C153M#XS5
	15 000	2.77	5.27	28	0.5	25x30	HP31C153M#YS3
		3.87	7.36	22	0.5	25x45	HP31C223M#YS6
	22 000	3.55	6.75	22	0.5	30x30	HP31C223M#ZS3
		4.71	8.94	17	0.5	30x45	HP31C333M#ZS6
	33 000	4.53	8.61	17	0.5	35x35	HP31C333M#AS4
		5.67	10.77	12	0.5	35x40	HP31C473M#AS5
47 000	5.67	10.77	12	0.5	35x40	HP31C473M#AS5	
	68 000	7.12	13.52	12	0.9	35x60	HP31C683M#AS9
100 000	8.88	16.86	10	1.2	40x60	HP31C104M#BS9	
	4 700	1.63	3.09	88	0.4	22x25	HP31E472M#XS2
<b>25 VDC</b> Code: 1E  Surge Voltage 32 VDC	6 800	2.08	3.95	70	0.4	22x30	HP31E682M#XS3
		2.06	3.91	70	0.4	25x25	HP31E682M#YS2
	10 000	2.27	4.30	48	0.4	22x35	HP31E103M#XS4
		2.27	4.30	48	0.4	25x30	HP31E103M#YS3
		2.27	4.30	48	0.4	30x25	HP31E103M#ZS2
	15 000	2.94	5.58	32	0.4	25x35	HP31E153M#YS4
		2.94	5.58	32	0.4	30x30	HP31E153M#ZS3
		2.94	5.58	32	0.4	35x25	HP31E153M#AS2
	18 000	3.36	6.38	27	0.4	22x45	HP31E183M#XS6
		3.87	7.36	22	0.4	25x45	HP31E223M#YS6
22 000	3.75	7.13	22	0.4	30x35	HP31E223M#ZS4	
	4.90	9.31	17	0.4	30x50	HP31E333M#ZS7	
33 000	4.74	9.01	17	0.4	35x40	HP31E333M#AS5	
	3 300	1.52	2.88	165	0.35	22x25	HP31V332M#XS2
<b>35 VDC</b> Code: 1V  Surge Voltage 44 VDC	4 700	1.73	3.28	115	0.35	22x30	HP31V472M#XS3
		1.72	3.26	115	0.35	25x25	HP31V472M#YS2
	6 800	2.21	4.20	80	0.35	22x35	HP31V682M#XS4
		2.21	4.20	80	0.35	25x30	HP31V682M#YS3
		2.21	4.20	80	0.35	30x25	HP31V682M#ZS2
	10 000	2.50	4.74	55	0.35	22x45	HP31V103M#XS6
		2.40	4.55	55	0.35	25x35	HP31V103M#YS4
		2.40	4.55	55	0.35	30x30	HP31V103M#ZS3
	15 000	3.33	6.34	35	0.35	25x50	HP31V153M#YS7
		3.10	5.90	35	0.35	30x35	HP31V153M#ZS4
3.10		5.90	35	0.35	35x30	HP31V153M#AS3	
18 000	3.48	6.60	35	0.35	30x35	HP31V183M#ZS4	
	3.55	6.75	30	0.35	30x40	HP31V183M#ZS5	
20 000	3.34	6.36	28	0.35	30x40	HP31V203M#ZS5	
	4.10	7.80	25	0.35	30x45	HP31V223M#ZS6	
22 000	4.14	7.85	25	0.35	35x40	HP31V223M#AS5	
	7.48	14.21	25	0.35	35x35	HP31V273M#AS4	
33 000	5.14	9.76	20	0.4	35x50	HP31V333M#AS7	
	2 200	1.24	2.37	108	0.3	22x25	HP31H222M#XS2
<b>50 VDC</b> Code: 1H  Surge Voltage 63 VDC	3 300	1.62	3.07	72	0.3	22x30	HP31H332M#XS3
		1.61	3.05	72	0.3	25x25	HP31H332M#YS2
	4 700	1.84	3.49	50	0.3	22x35	HP31H472M#XS4
		1.84	3.49	50	0.3	25x30	HP31H472M#YS3

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [µF]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [mΩ]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code  # = variable value, see fixing code in the product code
<b>50 VDC Code: 1H</b>  Surge Voltage 63 VDC	<b>6 800</b>	2.54	4.83	35	0.3	22x50	HP31H682M#XS7
		2.43	4.62	35	0.3	25x40	HP31H682M#YS5
		2.34	4.46	35	0.3	30x30	HP31H682M#ZS3
		2.73	5.18	32	0.35	25x50	HP31H103M#YS7
		2.53	4.81	32	0.35	35x30	HP31H103M#AS3
	<b>15 000</b>	3.53	6.71	25	0.35	30x50	HP31H153M#ZS7
		3.41	6.48	25	0.35	35x40	HP31H153M#AS5
<b>63 VDC Code: 1J</b>  Surge Voltage 79 VDC	<b>1 500</b>	1.19	2.26	159	0.25	22x25	HP31J152M#XS2
	<b>2 200</b>	1.32	2.51	108	0.25	22x30	HP31J222M#XS3
		1.31	2.49	108	0.25	25x25	HP31J222M#YS2
	<b>3 300</b>	1.72	3.26	80	0.25	22x35	HP31J332M#XS4
		1.72	3.26	80	0.25	25x30	HP31J332M#YS3
		1.72	3.26	80	0.25	30x25	HP31J332M#ZS2
	<b>4 700</b>	2.02	3.85	60	0.25	22x45	HP31J472M#XS6
		1.95	3.70	60	0.25	25x35	HP31J472M#YS4
		1.95	3.70	60	0.25	30x30	HP31J472M#ZS3
	<b>6 800</b>	2.66	5.06	40	0.25	25x50	HP31J682M#YS7
		2.48	4.71	40	0.25	30x35	HP31J682M#ZS4
	<b>8 200</b>	2.68	5.10	42	0.25	35x30	HP31J822M#AS3
	<b>10 000</b>	2.77	5.27	42	0.35	30x45	HP31J103M#ZS6
		2.78	5.29	35	0.35	35x40	HP31J103M#AS5
	<b>15 000</b>	3.70	7.02	35	0.35	35x50	HP31J153M#AS7
<b>27 000</b>	5.90	11.20	20	0.35	40x80	HP31J273M#BS13	
<b>80 VDC Code: 1K</b>  Surge Voltage 100 VDC	<b>1 000</b>	0.97	1.84	230	0.2	22x25	HP31K102M#XS2
	<b>1 200</b>	1.06	2.00	155	0.2	22x25	HP31K122M#XS2
	<b>1 500</b>	1.27	2.41	155	0.2	22x30	HP31K152M#XS3
		1.24	2.37	105	0.2	25x25	HP31K152M#YS2
	<b>2 200</b>	1.47	2.81	105	0.2	22x40	HP31K222M#XS5
		1.41	2.67	105	0.2	25x30	HP31K222M#YS3
	<b>3 300</b>	1.98	3.76	70	0.25	22x50	HP31K332M#XS7
		1.89	3.60	70	0.25	25x40	HP31K332M#YS5
		1.82	3.45	70	0.25	30x30	HP31K332M#ZS3
	<b>4 700</b>	2.21	4.20	50	0.25	25x50	HP31K472M#YS7
		2.16	4.09	50	0.25	30x40	HP31K472M#ZS5
		2.06	3.91	50	0.25	35x30	HP31K472M#AS3
	<b>6 800</b>	2.82	5.35	35	0.25	30x50	HP31K682M#ZS7
		2.72	5.16	35	0.25	35x40	HP31K682M#AS5
	<b>8 200</b>	3.32	6.31	30	0.3	30x60	HP31K822M#ZS9
<b>10 000</b>	3.74	7.11	25	0.3	41x50	HP31K103M#BS7	
<b>12 000</b>	7.70	14.63	25	0.3	35x60	HP31K123M#AS9	
<b>100 VDC Code: 2A</b>  Surge Voltage 125 VDC	<b>1 000</b>	1.03	1.97	180	0.2	22x30	HP32A102M#XS3
		1.02	1.95	180	0.2	25x25	HP32A102M#YS2
	<b>1 500</b>	1.34	2.55	120	0.2	22x35	HP32A152M#XS4
		1.34	2.55	120	0.2	30x25	HP32A152M#ZS2
	<b>2 200</b>	1.62	3.07	82	0.2	22x50	HP32A222M#XS7
		1.55	2.95	82	0.2	25x40	HP32A222M#YS5
		1.49	2.83	82	0.2	30x30	HP32A222M#ZS3

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code # = variable value, see fixing code in the product code	
<b>100 VDC</b> Code: 2A  Surge Voltage 125 VDC	3 300	2.07	3.93	60	0.2	25x50	HP32A332M#YS7	
		2.01	3.83	60	0.2	30x40	HP32A332M#ZS5	
		1.93	3.66	60	0.2	35x30	HP32A332M#AS3	
	4 700	2.33	4.43	45	0.25	30x50	HP32A472M#ZS7	
		2.26	4.29	45	0.25	35x40	HP32A472M#AS5	
	5 600	2.45	4.66	40	0.25	35x40	HP32A562M#AS5	
		2.57	4.90	40	0.25	35x45	HP32A562M#AS6	
	6 800	2.95	5.60	35	0.25	35x50	HP32A682M#AS7	
	<b>160 VDC</b> Code: 2C  Surge Voltage 200 VDC	390	1.65	3.14	365	0.15	22x25	HP32C391M#XS2
		470	1.94	3.67	305	0.15	22x30	HP32C471M#XS3
1.91			3.64	305	0.15	25x25	HP32C471M#YS2	
560		2.23	4.25	255	0.15	22x35	HP32C561M#XS4	
		2.22	4.22	255	0.15	25x30	HP32C561M#YS3	
680		2.60	4.93	210	0.15	22x40	HP32C681M#XS5	
		2.46	4.69	210	0.15	25x30	HP32C681M#YS3	
		2.46	4.69	210	0.15	30x25	HP32C681M#ZS2	
820		2.99	5.69	175	0.15	22x45	HP32C821M#XS6	
		2.87	5.46	175	0.15	25x35	HP32C821M#YS4	
		2.87	5.46	175	0.15	30x30	HP32C821M#ZS3	
1 000		3.44	6.55	145	0.15	22x50	HP32C102M#XS7	
		3.30	6.27	145	0.15	25x40	HP32C102M#YS5	
		3.17	6.02	145	0.15	30x30	HP32C102M#ZS3	
1 200		3.78	7.19	120	0.15	25x45	HP32C122M#YS6	
		3.67	6.99	120	0.15	30x35	HP32C122M#ZS4	
1 500		4.30	8.17	95	0.15	30x40	HP32C152M#ZS5	
		4.36	8.27	95	0.15	35x35	HP32C152M#AS4	
1 800		4.92	9.34	80	0.15	30x45	HP32C182M#ZS6	
		4.77	9.08	80	0.15	35x35	HP32C182M#AS4	
3 300	8.11	15.40	45	0.2	41x61	HP32C332M#BS9		
<b>180 VDC</b> Code: 2P  Surge Voltage 225 VDC	330	1.52	2.88	375	0.15	22x25	HP32P331M#XS2	
	390	1.76	3.34	320	0.15	22x30	HP32P391M#XS3	
		1.74	3.30	320	0.15	25x25	HP32P391M#YS2	
	470	1.94	3.67	265	0.15	22x30	HP32P471M#XS3	
		1.91	3.64	265	0.15	25x25	HP32P471M#YS2	
	560	2.23	4.25	225	0.15	22x35	HP32P561M#XS4	
		2.23	4.25	225	0.15	25x30	HP32P561M#YS3	
		2.23	4.25	225	0.15	30x25	HP32P561M#ZS2	
	680	2.60	4.93	185	0.15	22x40	HP32P681M#XS5	
		2.59	4.92	185	0.15	25x35	HP32P681M#YS4	
		2.46	4.69	185	0.15	30x25	HP32P681M#ZS2	
	820	2.99	5.69	155	0.15	25x40	HP32P821M#YS5	
		2.87	5.46	155	0.15	30x30	HP32P821M#ZS3	
	1 000	3.45	6.57	125	0.15	25x45	HP32P102M#YS6	
		3.17	6.02	125	0.15	35x25	HP32P102M#AS2	
	1 200	3.95	7.50	105	0.15	25x50	HP32P122M#YS7	
		3.84	7.29	105	0.15	30x40	HP32P122M#ZS5	
		4.49	8.53	85	0.15	30x45	HP32P152M#ZS6	
		4.36	8.27	85	0.15	35x35	HP32P152M#AS4	
		4.95	9.41	70	0.15	35x40	HP32P182M#AS5	
1 800	5.02	9.53	70	0.15	40x36	HP32P182M#BS4		

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code  # = variable value, see fixing code in the product code
200 VDC Code: 2D  Surge Voltage 250 VDC	220	1.50	2.84	485	0.15	22x25	HP32D221M#XS2
	270	1.65	3.14	395	0.15	22x25	HP32D271M#XS2
	330	1.82	3.45	325	0.15	22x25	HP32D331M#XS2
		1.94	3.67	325	0.15	22x30	HP32D331M#XS3
	390	2.09	3.97	275	0.15	25x25	HP32D391M#YS2
	470	2.13	4.06	230	0.15	22x30	HP32D471M#XS3
		2.11	4.02	230	0.15	25x25	HP32D471M#YS2
		2.45	4.66	230	0.15	25x30	HP32D471M#YS3
		2.45	4.66	230	0.15	30x25	HP32D471M#ZS2
	560	2.48	4.71	190	0.15	22x35	HP32D561M#XS4
		2.45	4.66	190	0.15	25x30	HP32D561M#YS3
	680	2.87	5.46	160	0.15	22x40	HP32D681M#XS5
		3.15	5.97	160	0.15	25x35	HP32D681M#YS4
		3.15	5.97	160	0.15	30x30	HP32D681M#ZS3
	820	3.59	6.81	130	0.15	25x40	HP32D821M#YS5
		3.81	7.23	110	0.15	25x45	HP32D102M#YS6
		3.44	6.55	130	0.15	30x30	HP32D821M#ZS3
		4.00	7.61	110	0.15	30x35	HP32D102M#ZS4
	1 200	4.61	8.76	90	0.15	30x40	HP32D122M#ZS5
		4.04	7.67	90	0.15	35x30	HP32D122M#AS3
	1 500	4.74	9.01	75	0.15	35x35	HP32D152M#AS4
		5.49	10.43	75	0.15	40x36	HP32D152M#BS4
	1 800	5.67	10.77	60	0.15	35x45	HP32D182M#AS6
		6.42	12.21	60	0.15	35x50	HP32D182M#AS7
		6.23	11.83	60	0.15	40x41	HP32D182M#BS5
	2 200	6.68	12.68	50	0.15	35x50	HP32D222M#AS7
	2 700	6.56	12.45	50	0.15	35x50	HP32D272M#AS7
	250 VDC Code: 2D  Surge Voltage 300 VDC	220	1.50	2.84	485	0.15	22x25
270		1.52	2.88	395	0.15	22x25	HP32E271M#XS2
		1.76	3.34	395	0.15	22x30	HP32E271M#XS3
330		1.79	3.41	325	0.15	22x30	HP32E331M#XS3
		2.06	3.91	325	0.15	22x35	HP32E331M#XS4
		1.76	3.34	325	0.15	25x25	HP32E331M#YS2
		2.05	3.88	325	0.15	25x30	HP32E331M#YS3
390		2.24	4.27	275	0.15	22x35	HP32E391M#XS4
		2.24	4.27	275	0.15	25x30	HP32E391M#YS3
470		2.59	4.92	230	0.15	22x40	HP32E471M#XS5
		2.59	4.92	230	0.15	25x35	HP32E471M#YS4
		2.62	4.97	230	0.15	35x25	HP32E471M#AS2
560		2.73	5.18	190	0.15	22x45	HP32E561M#XS6
		2.82	5.35	190	0.15	25x35	HP32E561M#YS4
		2.85	5.41	190	0.15	30x30	HP32E561M#ZS3
680		3.40	6.46	160	0.15	22x50	HP32E681M#XS7
		3.42	6.50	160	0.15	25x45	HP32E681M#YS6
		2.86	5.43	160	0.15	30x30	HP32E681M#ZS3
820		3.44	6.55	130	0.15	25x45	HP32E821M#YS6
		3.31	6.29	130	0.15	30x35	HP32E821M#ZS4
1 000		4.21	8.01	110	0.15	30x40	HP32E102M#ZS5
		4.27	8.11	110	0.15	35x35	HP32E102M#AS4

Additional designs on request · Weitere Designs auf Anfrage

# HP3 · Snap-In · 6000 h/85 °C

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code # = variable value, see fixing code in the product code	
<b>250 VDC</b> Code: 2D  Surge Voltage 300 VDC	1 200	4.39	8.34	90	0.15	30x45	HP32E122M#ZS6	
		4.84	9.20	90	0.15	35x40	HP32E122M#AS5	
	1 500	5.65	10.75	75	0.15	35x45	HP32E152M#AS6	
		5.82	11.06	75	0.15	40x41	HP32E152M#BS5	
	1 600	5.23	9.93	72	0.15	30x60	HP32E162M#ZS9	
	1 800	6.42	12.21	60	0.15	35x50	HP32E182M#AS7	
		6.72	12.77	60	0.15	40x51	HP32E182M#BS7	
	2 200	6.48	12.31	50	0.15	35x60	HP32E222M#AS9	
	<b>350 VDC</b> Code: 2V  Surge Voltage 400 VDC	100	0.84	1.58	1065	0.15	22x25	HP32V101M#XS2
		120	0.92	1.76	885	0.15	22x25	HP32V121M#XS2
			0.97	1.84	885	0.15	25x25	HP32V121M#YS2
		150	1.09	2.07	710	0.15	22x30	HP32V151M#XS3
1.08			2.05	710	0.15	25x25	HP32V151M#YS2	
180		1.20	2.28	590	0.15	22x30	HP32V181M#XS3	
		1.27	2.41	590	0.15	22x35	HP32V181M#XS4	
		1.19	2.26	590	0.15	25x25	HP32V181M#YS2	
		1.27	2.41	590	0.15	30x25	HP32V181M#ZS2	
220		1.41	2.67	485	0.15	22x35	HP32V221M#XS4	
		1.40	2.65	485	0.15	25x30	HP32V221M#YS3	
		1.41	2.67	485	0.15	30x25	HP32V221M#ZS2	
270		1.73	3.28	395	0.15	22x45	HP32V271M#XS6	
		1.64	3.11	395	0.15	25x35	HP32V271M#YS4	
		1.55	2.95	395	0.15	30x25	HP32V271M#ZS2	
330		1.97	3.74	325	0.15	25x40	HP32V331M#YS5	
		1.82	3.45	325	0.15	30x30	HP32V331M#ZS3	
		1.82	3.45	325	0.15	35x25	HP32V331M#AS2	
390		2.16	4.09	275	0.15	25x45	HP32V391M#YS6	
		2.08	3.95	275	0.15	30x35	HP32V391M#ZS4	
		2.09	3.97	275	0.15	35x30	HP32V391M#AS3	
470		2.28	4.32	230	0.15	30x35	HP32V471M#ZS4	
		2.30	4.37	230	0.15	35x30	HP32V471M#AS3	
560		2.73	5.18	190	0.15	30x45	HP32V561M#ZS6	
		2.63	4.99	190	0.15	35x35	HP32V561M#AS4	
		3.04	5.76	160	0.15	35x40	HP32V681M#AS5	
680		3.17	6.02	160	0.15	35x45	HP32V681M#AS6	
		3.19	6.06	160	0.15	40x41	HP32V681M#BS5	
		4.28	8.13	110	0.15	35x50	HP32V102M#AS7	
1 000		4.18	7.94	110	0.15	40x51	HP32V102M#BS7	
		4.86	9.24	90	0.15	35x75	HP32V122M#AS12	
1 200		4.88	9.28	90	0.15	40x61	HP32V122M#BS9	
		5.58	10.59	78	0.15	35x80	HP32V152M#AS13	
1 500		5.52	10.49	78	0.15	40x71	HP32V152M#BS11	
		7.95	15.11	50	0.15	40x110	HP32V222M#BS19	
<b>400 VDC</b> Code: 2G  Surge Voltage 450 VDC		82	0.89	1.69	1259	0.2	20x25	HP32G820M#WS2
			0.91	1.74	1259	0.2	22x25	HP32G820M#XS2
		100	0.98	1.86	1065	0.2	20x25	HP32G101M#WS2
			1.01	1.93	1065	0.2	22x25	HP32G101M#XS2
			1.06	2.00	1065	0.2	25x25	HP32G101M#YS2

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code  # = variable value, see fixing code in the product code
<b>400 VDC</b> Code: 2G  Surge Voltage 450 VDC	120	1.14	2.18	885	0.2	20x30	HP32G121M#WS3
		1.10	2.09	885	0.2	22x25	HP32G121M#XS2
		1.17	2.21	885	0.2	25x25	HP32G121M#YS2
	140	1.25	2.39	765	0.2	25x25	HP32G141M#YS2
		1.36	2.60	710	0.2	20x35	HP32G151M#WS4
	150	1.32	2.51	710	0.2	22x30	HP32G151M#XS3
		1.30	2.46	710	0.2	25x25	HP32G151M#YS2
		1.39	2.63	710	0.2	30x25	HP32G151M#ZS2
	180	1.45	2.76	590	0.2	22x30	HP32G181M#XS3
		1.61	3.05	590	0.2	22x40	HP32G181M#XS5
		1.42	2.70	590	0.2	25x25	HP32G181M#YS2
	220	1.69	3.22	485	0.2	22x35	HP32G221M#XS4
		1.94	3.67	485	0.2	22x50	HP32G221M#XS7
		1.67	3.18	485	0.2	25x30	HP32G221M#YS3
		1.86	3.53	485	0.2	25x40	HP32G221M#YS5
		1.67	3.18	485	0.2	30x25	HP32G221M#ZS2
	270	1.97	3.74	395	0.2	22x30	HP32G271M#XS3
		2.07	3.93	395	0.2	22x45	HP32G271M#XS6
		2.07	3.93	395	0.2	25x40	HP32G271M#YS5
		2.16	4.09	395	0.2	25x45	HP32G271M#YS6
		1.86	3.53	395	0.2	30x25	HP32G271M#ZS2
		2.09	3.97	395	0.2	30x35	HP32G271M#ZS4
	330	2.39	4.53	325	0.2	22x50	HP32G331M#XS7
		2.28	4.32	325	0.2	25x40	HP32G331M#YS5
		2.49	4.72	325	0.2	25x50	HP32G331M#YS7
		2.18	4.14	325	0.2	30x30	HP32G331M#ZS3
		2.29	4.35	325	0.2	30x35	HP32G331M#ZS4
		2.18	4.14	325	0.2	35x25	HP32G331M#AS2
	390	2.60	4.93	275	0.2	25x45	HP32G391M#YS6
		2.71	5.14	275	0.2	25x50	HP32G391M#YS7
		2.50	4.74	275	0.2	30x35	HP32G391M#ZS4
		2.75	5.23	275	0.2	30x45	HP32G391M#ZS6
		2.38	4.51	275	0.2	35x25	HP32G391M#AS2
	470	2.66	5.06	275	0.2	35x35	HP32G391M#AS4
		2.97	5.64	230	0.2	25x50	HP32G471M#YS7
		2.87	5.46	230	0.2	30x40	HP32G471M#ZS5
		3.18	6.04	230	0.2	30x50	HP32G471M#ZS7
		2.75	5.23	230	0.2	35x30	HP32G471M#AS3
		3.04	5.76	230	0.2	35x40	HP32G471M#AS5
	560	3.28	6.23	190	0.2	30x45	HP32G561M#ZS6
		3.41	6.48	190	0.2	30x50	HP32G561M#ZS7
		3.16	6.00	190	0.2	35x35	HP32G561M#AS4
		3.44	6.55	190	0.2	35x45	HP32G561M#AS6
		3.48	6.60	190	0.2	40x41	HP32G561M#BS5
	620	3.32	6.31	175	0.2	35x35	HP32G621M#AS4
	680	3.60	6.83	160	0.2	30x45	HP32G681M#ZS6
		3.91	7.43	160	0.2	30x55	HP32G681M#ZS8
		3.64	6.92	160	0.2	35x40	HP32G681M#AS5
4.24		8.05	160	0.2	35x60	HP32G681M#AS9	
	4.05	7.69	160	0.2	40x35	HP32G681M#BS4	

Additional designs on request · Weitere Designs auf Anfrage

# HP3 · Snap-In · 6000 h/85 °C

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code  # = variable value, see fixing code in the product code
<b>400 VDC</b> Code: 2G  Surge Voltage 450 VDC	770	4.25	8.06	150	0.2	35x50	HP32G771M#AS7
		4.17	7.92	130	0.2	35x45	HP32G821M#AS6
	820	4.64	8.82	130	0.2	35x60	HP32G821M#AS9
		4.53	8.61	130	0.2	40x51	HP32G821M#BS7
	870	4.47	8.48	130	0.2	35x50	HP32G871M#AS7
		4.79	9.10	110	0.2	35x50	HP32G102M#AS7
	1 000	5.13	9.74	110	0.2	35x60	HP32G102M#AS9
		4.57	8.68	110	0.2	40x50	HP32G102M#BS7
		5.13	9.74	110	0.2	35x60	HP32G112M#AS9
	1 100	5.48	10.41	110	0.2	35x81	HP32G112M#AS13
		4.86	9.24	100	0.2	35x75	HP32G122M#AS12
	1 200	5.89	11.19	90	0.2	40x60	HP32G122M#BS9
		6.07	11.54	90	0.2	40x76	HP32G122M#BS12
	1 400	6.23	11.83	80	0.2	35x100	HP32G142M#AS17
		6.82	12.96	80	0.2	40x80	HP32G142M#BS13
	1 500	6.45	12.24	75	0.2	35x100	HP32G152M#AS17
		6.58	12.50	75	0.2	40x81	HP32G152M#BS13
	1 600	6.88	13.07	70	0.2	40x60	HP32G162M#BS9
		6.88	13.07	70	0.2	40x85	HP32G162M#BS14
	1 800	8.00	15.19	62	0.2	40x100	HP32G182M#BS17
2 100	9.58	18.21	51	0.2	40x101	HP32G212M#BS17	
<b>420 VDC</b> Code: 420V  Surge Voltage 470 VDC	68	0.80	1.53	1620	0.2	20x25	HP3420V680M#WS2
		0.84	1.58	1620	0.2	22x25	HP3420V680M#XS2
	82	0.89	1.69	1340	0.2	20x25	HP3420V820M#WS2
		0.95	1.79	1340	0.2	22x30	HP3420V820M#XS3
	100	1.05	1.99	1100	0.2	20x30	HP3420V101M#WS3
		1.01	1.93	1100	0.2	22x25	HP3420V101M#XS2
		1.08	2.05	1100	0.2	22x30	HP3420V101M#XS3
	120	1.14	2.18	915	0.2	20x30	HP3420V121M#WS3
		1.22	2.32	915	0.2	20x35	HP3420V121M#WS4
		1.11	2.11	915	0.2	22x25	HP3420V121M#XS2
		1.24	2.37	915	0.2	22x35	HP3420V121M#XS4
		1.17	2.21	915	0.2	25x25	HP3420V121M#YS2
	150	1.36	2.60	735	0.2	20x35	HP3420V151M#WS4
		1.32	2.51	735	0.2	22x30	HP3420V151M#XS3
		1.46	2.78	735	0.2	22x40	HP3420V151M#XS5
		1.30	2.46	735	0.2	25x25	HP3420V151M#YS2
		1.45	2.76	735	0.2	25x35	HP3420V151M#YS4
	180	1.53	2.90	610	0.2	22x35	HP3420V181M#XS4
		1.67	3.18	610	0.2	22x45	HP3420V181M#XS6
		1.52	2.88	610	0.2	25x30	HP3420V181M#YS3
1.67		3.18	610	0.2	25x40	HP3420V181M#YS5	
1.52		2.88	610	0.2	30x25	HP3420V181M#ZS2	
1.61		3.05	610	0.2	35x25	HP3420V181M#AS2	
220	1.78	3.39	500	0.2	22x40	HP3420V221M#XS5	
	1.87	3.55	500	0.2	22x45	HP3420V221M#XS6	
	1.77	3.37	500	0.2	25x35	HP3420V221M#YS4	

Additional designs on request · Weitere Designs auf Anfrage



Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code  # = variable value, see fixing code in the product code
<b>420 VDC</b> Code: 420V  Surge Voltage 470 VDC	220	1.94	3.67	500	0.2	25x45	HP3420V221M#YS6
		1.67	3.18	500	0.2	30x25	HP3420V221M#ZS2
		1.78	3.39	500	0.2	30x30	HP3420V221M#ZS3
	270	2.07	3.93	407	0.2	22x45	HP3420V271M#XS6
		1.95	3.70	407	0.2	25x35	HP3420V271M#YS4
		1.97	3.74	407	0.2	30x30	HP3420V271M#ZS3
		2.00	3.81	407	0.2	35x25	HP3420V271M#AS2
	270	2.23	4.25	407	0.2	25x50	HP3420V271M#YS7
	330	2.39	4.53	335	0.2	25x45	HP3420V331M#YS6
		2.29	4.35	335	0.2	30x35	HP3420V331M#ZS4
		2.18	4.14	335	0.2	35x25	HP3420V331M#AS2
		2.45	4.66	335	0.2	35x35	HP3420V331M#AS4
	390	2.71	5.14	283	0.2	25x50	HP3420V391M#YS7
		2.50	4.74	283	0.2	30x35	HP3420V391M#ZS4
		2.85	5.41	283	0.2	30x50	HP3420V391M#ZS7
		2.51	4.76	283	0.2	35x30	HP3420V391M#AS3
		2.76	5.25	283	0.2	35x40	HP3420V391M#AS5
	470	2.87	5.46	235	0.2	30x40	HP3420V471M#ZS5
		3.00	5.71	235	0.2	30x45	HP3420V471M#ZS6
		2.89	5.50	235	0.2	35x35	HP3420V471M#AS4
		3.03	5.75	235	0.2	35x40	HP3420V471M#AS5
		3.17	6.02	235	0.2	35x45	HP3420V471M#AS6
		3.28	6.23	235	0.2	35x50	HP3420V471M#AS7
		3.18	6.04	235	0.2	40x41	HP3420V471M#BS5
	560	3.41	6.48	200	0.2	30x50	HP3420V561M#ZS7
		3.31	6.29	200	0.2	35x40	HP3420V561M#AS5
		3.44	6.55	200	0.2	35x45	HP3420V561M#AS6
		3.60	6.83	200	0.2	35x50	HP3420V561M#AS7
	680	3.75	7.13	170	0.2	30x50	HP3420V681M#ZS7
		3.80	7.22	165	0.2	35x45	HP3420V681M#AS6
		3.95	7.50	165	0.2	35x50	HP3420V681M#AS7
	820	3.84	7.29	135	0.2	30x75	HP3420V821M#ZS12
		4.33	8.24	135	0.2	35x50	HP3420V821M#AS7
	1 000	4.44	8.45	112	0.2	35x75	HP3420V102M#AS12
		4.30	8.17	112	0.2	40x56	HP3420V102M#BS8
		4.48	8.50	112	0.2	40x61	HP3420V102M#BS9
	1 200	4.99	9.49	135	0.2	35x80	HP3420V122M#AS13
		5.49	10.43	100	0.2	35x100	HP3420V122M#AS17
		5.05	9.59	100	0.2	40x76	HP3420V122M#BS12
	1 500	5.96	11.33	75	0.2	40x86	HP3420V152M#BS14
	1 800	6.95	13.21	70	0.2	40x101	HP3420V182M#BS17
	<b>450 VDC</b> Code: 2W  Surge Voltage 500 VDC	56	0.74	1.40	1965	0.2	20x25
68		0.80	1.53	1620	0.2	20x25	HP32W680M#WS2
82		0.89	1.69	1340	0.2	20x25	HP32W820M#WS2
		0.95	1.79	1340	0.2	20x30	HP32W820M#WS3
		0.91	1.74	1340	0.2	22x25	HP32W820M#XS2
		0.98	1.86	1340	0.2	22x30	HP32W820M#XS3
		0.97	1.84	1340	0.2	25x25	HP32W820M#YS2

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code  # = variable value, see fixing code in the product code
450 VDC Code: 2W  Surge Voltage 500 VDC	100	1.05	1.99	1100	0.2	20x30	HP32W101M#WS3
		1.01	1.93	1100	0.2	22x25	HP32W101M#XS2
		1.06	2.00	1100	0.2	25x25	HP32W101M#YS2
		1.13	2.16	1100	0.2	25x30	HP32W101M#YS3
		1.13	2.16	1100	0.2	30x25	HP32W101M#ZS2
	120	1.22	2.32	915	0.2	20x35	HP32W121M#WS4
		1.11	2.11	915	0.2	22x25	HP32W121M#XS2
		1.31	2.49	915	0.2	22x40	HP32W121M#XS5
		1.17	2.21	915	0.2	25x25	HP32W121M#YS2
		1.24	2.37	915	0.2	30x25	HP32W121M#ZS2
	150	1.32	2.51	735	0.2	22x30	HP32W151M#XS3
		1.39	2.63	735	0.2	22x35	HP32W151M#XS4
		1.53	2.90	735	0.2	22x45	HP32W151M#XS6
	150	1.39	2.63	735	0.2	25x30	HP32W151M#YS3
		1.47	2.81	735	0.2	25x35	HP32W151M#YS4
		1.39	2.63	735	0.2	30x25	HP32W151M#ZS2
		1.47	2.81	735	0.2	30x30	HP32W151M#ZS3
	180	1.53	2.90	610	0.2	22x35	HP32W181M#XS4
		1.76	3.34	610	0.2	22x50	HP32W181M#XS7
		1.52	2.88	610	0.2	25x30	HP32W181M#YS3
		1.67	3.18	610	0.2	25x40	HP32W181M#YS5
		1.52	2.88	610	0.2	30x25	HP32W181M#ZS2
		1.61	3.05	610	0.2	30x30	HP32W181M#ZS3
	220	1.61	3.05	610	0.2	35x25	HP32W181M#AS2
		1.78	3.39	500	0.2	22x40	HP32W221M#XS5
		1.77	3.37	500	0.2	25x35	HP32W221M#YS4
		1.94	3.67	500	0.2	25x45	HP32W221M#YS6
		1.67	3.18	500	0.2	30x25	HP32W221M#ZS2
	270	1.89	3.60	500	0.2	30x35	HP32W221M#ZS4
		2.07	3.93	407	0.2	22x45	HP32W271M#XS6
		2.06	3.91	407	0.2	25x40	HP32W271M#YS5
		2.16	4.09	407	0.2	25x45	HP32W271M#YS6
		1.97	3.74	407	0.2	30x30	HP32W271M#ZS3
		2.19	4.16	407	0.2	30x40	HP32W271M#ZS5
		1.97	3.74	407	0.2	35x25	HP32W271M#AS2
	330	2.22	4.22	407	0.2	35x35	HP32W271M#AS4
		2.27	4.30	340	0.2	25x40	HP32W331M#YS5
		2.49	4.72	335	0.2	25x50	HP32W331M#YS7
		2.29	4.35	335	0.2	30x35	HP32W331M#ZS4
		2.52	4.79	335	0.2	30x45	HP32W331M#ZS6
		2.18	4.14	335	0.2	35x25	HP32W331M#AS2
		2.45	4.66	335	0.2	35x35	HP32W331M#AS4
	390	2.71	5.14	283	0.2	25x50	HP32W391M#YS7
		2.50	4.74	283	0.2	30x35	HP32W391M#ZS4
		2.73	5.18	283	0.2	30x45	HP32W391M#ZS6
2.51		4.76	283	0.2	35x30	HP32W391M#AS3	
2.64		5.02	283	0.2	35x35	HP32W391M#AS4	
		2.76	5.25	283	0.2	35x40	HP32W391M#AS5

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [ $\mu$ F]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [m $\Omega$ ]	Dissipation Factor at 20°C/100Hz Tan $\delta$	DxL [mm]	Product Code  # = variable value, see fixing code in the product code
<b>450 VDC</b> Code: 2W  Surge Voltage 500 VDC	<b>470</b>	2.87	5.46	235	0.2	30x40	HP32W471M#ZS5
		3.00	5.71	235	0.2	30x45	HP32W471M#ZS6
		3.12	5.94	235	0.2	30x50	HP32W471M#ZS7
		2.89	5.50	235	0.2	35x35	HP32W471M#AS4
		3.03	5.75	235	0.2	35x40	HP32W471M#AS5
		3.17	6.02	235	0.2	35x45	HP32W471M#AS6
		3.18	6.04	235	0.2	40x41	HP32W471M#BS5
	<b>560</b>	3.41	6.48	200	0.2	30x50	HP32W561M#ZS7
		3.31	6.29	200	0.2	35x40	HP32W561M#AS5
		3.44	6.55	200	0.2	35x45	HP32W561M#AS6
		3.41	6.48	200	0.2	35x50	HP32W561M#ZS7
		3.75	7.13	200	0.2	40x51	HP32W561M#BS7
	<b>630</b>	4.04	7.67	170	0.2	30x60	HP32W631M#ZS9
		3.45	6.57	170	0.2	35x50	HP32W631M#AS7
		3.36	6.38	170	0.2	40x41	HP32W631M#BS5
	<b>680</b>	4.19	7.96	165	0.2	30x75	HP32W681M#ZS12
		3.80	7.22	165	0.2	35x45	HP32W681M#AS6
		3.94	7.48	165	0.2	35x50	HP32W681M#AS7
		4.24	8.05	165	0.2	35x60	HP32W681M#AS9
		4.13	7.84	165	0.2	40x51	HP32W681M#BS7
	<b>820</b>	4.33	8.24	135	0.2	35x50	HP32W821M#AS7
		4.64	8.82	135	0.2	35x60	HP32W821M#AS9
		4.95	9.41	135	0.2	35x80	HP32W821M#AS13
		4.85	9.22	135	0.2	40x61	HP32W821M#BS9
	<b>1 000</b>	5.05	9.59	115	0.2	35x70	HP32W102M#AS11
		5.50	10.45	115	0.2	35x70	HP32W102M#AS112P
		5.47	10.38	115	0.2	35x80	HP32W102M#AS13
		6.45	12.24	115	0.2	35x80	HP32W102M#AS132P
		5.37	10.20	110	0.2	40x60	HP32W102M#BS9
	<b>1 100</b>	5.18	9.85	100	0.2	40x75	HP32W112M#BS12
	<b>1 200</b>	5.23	9.93	100	0.2	35x70	HP32W122M#AS11
		5.70	10.82	97	0.2	40x76	HP32W122M#BS12
		5.78	10.98	97	0.2	40x80	HP32W122M#BS13
		6.06	11.52	97	0.2	40x85	HP32W122M#BS14
	<b>1 400</b>	5.59	10.62	86	0.2	40x80	HP32W142M#BS13
	<b>1 500</b>	5.81	11.03	80	0.2	40x80	HP32W152M#BS13
		6.34	12.03	75	0.2	40x100	HP32W152M#BS17
	<b>1 600</b>	6.55	12.44	70	0.2	40x100	HP32W162M#BS17
	<b>2 200</b>	8.34	15.84	53	0.2	46x100	HP32W222M#HS17
	<b>500 VDC</b> Code: 2H  Surge Voltage 550 VDC	<b>56</b>	0.68	1.30	2135	0.2	22x30
0.65			1.23	2135	0.2	25x25	HP32H560M#YS2
<b>68</b>		0.79	1.51	1758	0.2	22x35	HP32H680M#XS4
<b>82</b>		0.92	1.76	1458	0.2	22x40	HP32H820M#XS5
		0.85	1.61	1458	0.2	25x30	HP32H820M#YS3
<b>100</b>		1.07	2.02	960	0.2	22x45	HP32H101M#XS6
		0.98	1.86	960	0.2	25x35	HP32H101M#YS4
	0.95	1.79	960	0.2	30x25	HP32H101M#ZS2	

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) $V_r$ [V DC]	Capacitance $C_r$ [μF]	Ripple Current at 85°C/120Hz $I_r$ [A RMS]	Ripple Current at 40°C/120Hz [A RMS]	ESR (typ) at 20°C/100Hz [mΩ]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see fixing code in the product code
<b>500 VDC</b> Code: 2H  Surge Voltage 550 VDC	120	1.22	2.32	800	0.2	22x50	HP32H121M#XS7
		1.13	2.16	800	0.2	25x40	HP32H121M#YS5
		1.10	2.09	800	0.2	30x30	HP32H121M#ZS3
		1.10	2.09	800	0.2	35x25	HP32H121M#AS2
	150	1.32	2.51	640	0.2	25x45	HP32H151M#YS6
		1.30	2.46	640	0.2	30x35	HP32H151M#ZS4
		1.43	2.72	640	0.2	35x30	HP32H151M#AS3
	180	1.52	2.88	535	0.2	25x50	HP32H181M#YS7
		1.50	2.84	535	0.2	30x40	HP32H181M#ZS5
		1.43	2.72	535	0.2	35x30	HP32H181M#AS3
	220	1.73	3.28	434	0.2	30x45	HP32H221M#ZS6
		1.66	3.16	434	0.2	35x35	HP32H221M#AS4
	270	1.99	3.78	360	0.2	30x50	HP32H271M#ZS7
		1.93	3.66	360	0.2	35x40	HP32H271M#AS5
	330	2.12	4.04	365	0.2	35x40	HP32H331M#AS5
		2.21	4.20	290	0.2	35x45	HP32H331M#AS6
	390	2.40	4.55	308	0.2	35x45	HP32H391M#AS6
		2.50	4.74	245	0.2	35x50	HP32H391M#AS7
	470	2.51	4.76	240	0.2	35x50	HP32H471M#AS7
		2.94	5.58	210	0.2	35x60	HP32H471M#AS9
		3.14	5.96	210	0.2	35x80	HP32H471M#AS13
		3.10	5.90	210	0.2	40x50	HP32H471M#BS7
	560	3.65	6.94	170	0.2	40x76	HP32H561M#BS12
	680	4.53	8.61	140	0.2	40x100	HP32H681M#BS17
	820	3.72	7.06	140	0.2	40x70	HP32H821M#BS11
		4.69	8.90	140	0.2	40x100	HP32H821M#BS17
	1 000	5.18	9.85	100	0.2	40x100	HP32H102M#BS17
	1 200	5.91	11.22	90	0.2	40x110	HP32H122M#BS19
1 500	6.89	13.08	77	0.2	46x100	HP32H152M#HS17	
1 600	7.26	13.79	65	0.15	50x90	HP32H162M#CS15	

## > Ripple Current Multiplier · Wechselstrommultiplikator

Frequency [Hz]		50/60	120	300	1k	≥ 10k	Forced cooling [m/sec]		v < 1.0	v ≥ 1.0
Multiplier	16V – 100V	0.70	1.00	1.10	1.20	1.20	Multiplier		1.0	1.1
	160V – 500V	0.70	1.00	1.18	1.34	1.45				

Temperature [°C]	40	45	50	55	60	65	70	75	80	85
Multiplier	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0

Additional designs on request · Weitere Designs auf Anfrage

> Life Time Table · Brauchbarkeitsdauer – Tabelle

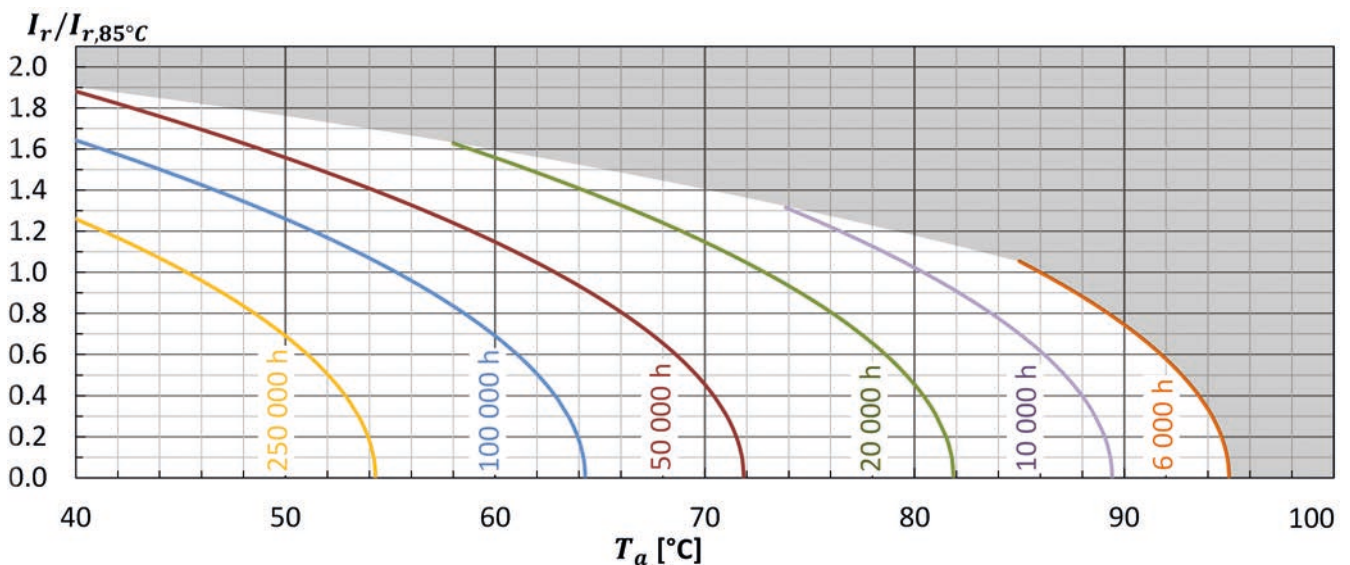
HP3 $I_r$ at 85°C	Useful life as function of ambient temperature and ripple current									
	x 1.0	x 1.1	x 1.2	x 1.3	x 1.4	x 1.5	x 1.6	x 1.7	x 1.8	x 1.9
$T_a = 40^\circ\text{C}$	250	250	250	229	184	144	112	85	64	47
$T_a = 45^\circ\text{C}$	250	216	178	145	116	91	70	54	40	
$T_a = 50^\circ\text{C}$	162	136	113	91	73	57	44	34		
$T_a = 55^\circ\text{C}$	102	86	71	58	46	36	28			
$T_a = 60^\circ\text{C}$	64	54	45	36	29	23				
$T_a = 65^\circ\text{C}$	41	34	28	23	18					
$T_a = 70^\circ\text{C}$	25	21	18	14						
$T_a = 75^\circ\text{C}$	16	13	11							
$T_a = 80^\circ\text{C}$	10	8								
$T_a = 85^\circ\text{C}$	6									

khrs      Max. value limited to 250 000 hours.

> Life Time Graph · Brauchbarkeitsdauer – Diagramm

Useful life depending on ambient temperature  $T_a$  and ripple current operating conditions  $I_r$  versus rated ripple current at the upper category temperature  $I_{r, 85^\circ\text{C}, 120\text{Hz}}$

Brauchbarkeitsdauer in Abhängigkeit von Umgebungstemperatur  $T_a$  und Wechselstrombelastung  $I_r$  im Verhältnis zur max. Wechselstrombelastung bei oberer Kategorie-temperatur  $I_{r, 85^\circ\text{C}, 120\text{Hz}}$



> Life Time Tests and Requirements · Anforderungen Brauchbarkeitsdauer

Life time test	Test procedure	Life time criteria
Endurance test	$T_a = 85^\circ\text{C}$ ; $V_r, I_r$ applied 4000 hours	$\Delta C/C \leq 15\%$ (of initial value) $\text{Tan}\delta \leq 175\%$ (of specified value) $I_L \leq$ specified value
Useful life 16~350VDC	$T_a = 85^\circ\text{C}$ ; $V_r, I_r$ applied 6000 hours	$\Delta C/C \leq 20\%$ (of initial value) $\text{Tan}\delta < 200\%$ (of specified value) $I_L \leq$ specified value
Useful life 400~500VDC	$T_a = 85^\circ\text{C}$ ; $V_r, I_r$ applied 6000 hours	$\Delta C/C \leq 30\%$ (of initial value) $\text{Tan}\delta < 300\%$ (of specified value) $I_L \leq$ specified value

Reference Specification: JIS C 5101-4, JIS C 5102, IEC 60384-4