

HP3 · Snap-In · 6000 h/85 °C

Standard Performances · Compact Design

> 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 _L (20°C, 5min)	0.02 • C • V, [μA] or 3 mA, which is smaller.
Useful life	6000 hours at 85°C
Field failure rate	0.5 FIT = 0.5 • 10 ⁻⁹ Failures/hour
Reference standards	IEC 60384-4, JIS C 5101-4, AEC-Q200 qualified
Vibration	0.75mm, 10...55Hz, 10g, 3x2h
Sleeve withstanding voltage	3000 Vac/1 min between terminals bundled and plate*
Product Compliance	RoHS, REACH, Conflict Minerals a.o. - refer to p. 14-15



* Typical value using sleeve which is free from any scratches and damages

> Outline Drawings · Bauformen

Refer to page 9 for available terminal shapes and dimensions. · Auf Seite 9 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-claw 6.3 mm S: 4-claw 6.3 mm C: 2-claw short 4.0 mm X: 4-claw short 4.0 mm E: 3-claw short 4.0 mm T: 2-lugs 4.5 mm		<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>46</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	46	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	46																																
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 [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 terminal code in the product code
16 VDC Code: 1C Surge Voltage 20 VDC	6 800	1.96	3.72	51	0.50	22x25	HP31C682M#XS2
	10 000	2.13	4.06	41	0.50	22x30	HP31C103M#XS3
		2.11	4.02	41	0.50	25x25	HP31C103M#YS2
	15 000	2.92	5.54	28	0.50	22x40	HP31C153M#XS5
		2.77	5.27	28	0.50	25x30	HP31C153M#YS3
	22 000	3.87	7.36	22	0.50	25x45	HP31C223M#YS6
		3.55	6.75	22	0.50	30x30	HP31C223M#ZS3
	33 000	4.71	8.94	17	0.50	30x45	HP31C333M#ZS6
		4.53	8.61	17	0.50	35x35	HP31C333M#AS4
	47 000	5.67	10.77	12	0.50	35x40	HP31C473M#AS5
68 000	7.12	13.52	12	0.90	35x60	HP31C683M#AS9	
100 000	8.88	16.86	10	1.20	40x60	HP31C104M#BS9	
25 VDC Code: 1E Surge Voltage 32 VDC	4 700	1.63	3.09	88	0.40	22x25	HP31E472M#XS2
	6 800	2.08	3.95	70	0.40	22x30	HP31E682M#XS3
		2.06	3.91	70	0.40	25x25	HP31E682M#YS2
	10 000	2.27	4.30	48	0.40	22x35	HP31E103M#XS4
		2.27	4.30	48	0.40	25x30	HP31E103M#YS3
		2.27	4.30	48	0.40	30x25	HP31E103M#ZS2
	15 000	2.94	5.58	32	0.40	25x35	HP31E153M#YS4
		2.94	5.58	32	0.40	30x30	HP31E153M#ZS3
		2.94	5.58	32	0.40	35x25	HP31E153M#AS2
	18 000	3.36	6.38	27	0.40	22x45	HP31E183M#XS6
	22 000	3.87	7.36	22	0.40	25x45	HP31E223M#YS6
		3.75	7.13	22	0.40	30x35	HP31E223M#ZS4
	33 000	4.90	9.31	17	0.50	30x50	HP31E333M#ZS7
		4.74	9.01	17	0.50	35x40	HP31E333M#AS5
35 VDC Code: 1V Surge Voltage 44 VDC	3 300	1.52	2.88	165	0.35	22x25	HP31V332M#XS2
	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
	22 000	4.10	7.80	25	0.40	30x45	HP31V223M#ZS6
		4.14	7.85	25	0.40	35x40	HP31V223M#AS5
	27 000	4.48	8.51	25	0.45	35x35	HP31V273M#AS4
	33 000	4.84	9.20	20	0.50	30x50	HP31V333M#ZS7
5.14		9.76	20	0.50	35x50	HP31V333M#AS7	

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
50 VDC Code: 1H Surge Voltage 63 VDC	2 200	1.24	2.37	108	0.30	22x25	HP31H222M#XS2
		1.62	3.07	72	0.30	22x30	HP31H332M#XS3
	3 300	1.61	3.05	72	0.30	25x25	HP31H332M#YS2
		1.84	3.49	50	0.30	22x35	HP31H472M#XS4
	4 700	1.84	3.49	50	0.30	25x30	HP31H472M#YS3
		6 800	2.54	4.83	35	0.30	22x50
	2.43		4.62	35	0.30	25x40	HP31H682M#YS5
	10 000	2.34	4.46	35	0.30	30x30	HP31H682M#ZS3
		2.73	5.18	32	0.35	25x50	HP31H103M#YS7
	12 000	2.53	4.81	32	0.35	35x30	HP31H103M#AS3
		15 000	2.90	5.51	31	0.40	30x40
	3.53		6.71	25	0.45	30x50	HP31H153M#ZS7
	3.41	6.48	25	0.45	35x40	HP31H153M#AS5	
	63 VDC Code: 1J Surge Voltage 79 VDC	1 500	1.19	2.26	159	0.25	22x25
1.32			2.51	108	0.25	22x30	HP31J222M#XS3
2 200		1.31	2.49	108	0.25	25x25	HP31J222M#YS2
		1.72	3.26	80	0.25	22x35	HP31J332M#XS4
3 300		1.72	3.26	80	0.25	25x30	HP31J332M#YS3
		1.72	3.26	80	0.25	30x25	HP31J332M#ZS2
3 900		1.86	3.53	70	0.25	25x30	HP31J392M#YS3
		4 700	2.02	3.85	60	0.25	22x45
1.95			3.70	60	0.25	25x35	HP31J472M#YS4
6 800		1.95	3.70	60	0.25	30x30	HP31J472M#ZS3
		2.66	5.06	40	0.25	25x50	HP31J682M#YS7
8 200		2.48	4.71	40	0.25	30x35	HP31J682M#ZS4
		10 000	2.68	5.10	42	0.25	35x30
2.77			5.27	42	0.35	30x45	HP31J103M#ZS6
15 000	2.78	5.29	35	0.35	35x40	HP31J103M#AS5	
	27 000	3.70	7.02	35	0.35	35x50	HP31J153M#AS7
5.90		11.20	20	0.35	40x80	HP31J273M#BS13	
80 VDC Code: 1K Surge Voltage 100 VDC	1 000	0.97	1.84	230	0.20	22x25	HP31K102M#XS2
		1.06	2.00	155	0.20	22x25	HP31K122M#XS2
	1 500	1.27	2.41	155	0.20	22x30	HP31K152M#XS3
		1.24	2.37	105	0.20	25x25	HP31K152M#YS2
	2 200	1.47	2.81	105	0.20	22x40	HP31K222M#XS5
		1.41	2.67	105	0.20	25x30	HP31K222M#YS3
	3 300	1.98	3.76	70	0.25	22x50	HP31K332M#XS7
		1.89	3.60	70	0.25	25x40	HP31K332M#YS5
	4 700	1.82	3.45	70	0.25	30x30	HP31K332M#ZS3
		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	

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 terminal code in the product code	
80 VDC Code: 1K Surge Voltage 100 VDC	6 800	2.82	5.35	35	0.25	30x50	HP31K682M#ZS7	
		2.72	5.16	35	0.25	35x40	HP31K682M#AS5	
	8 200	3.32	6.31	30	0.30	30x60	HP31K822M#ZS9	
	10 000	3.74	7.11	25	0.30	41x50	HP31K103M#BS7	
	12 000	7.70	14.63	25	0.30	35x60	HP31K123M#AS9	
100 VDC Code: 2A Surge Voltage 125 VDC	1 000	1.03	1.97	180	0.20	22x30	HP32A102M#XS3	
		1.02	1.95	180	0.20	25x25	HP32A102M#YS2	
	1 500	1.34	2.55	120	0.20	22x35	HP32A152M#XS4	
		1.34	2.55	120	0.20	30x25	HP32A152M#ZS2	
	2 200	1.62	3.07	82	0.20	22x50	HP32A222M#XS7	
		1.55	2.95	82	0.20	25x40	HP32A222M#YS5	
		1.49	2.83	82	0.20	30x30	HP32A222M#ZS3	
	3 300	2.07	3.93	60	0.20	25x50	HP32A332M#YS7	
		2.01	3.83	60	0.20	30x40	HP32A332M#ZS5	
		1.93	3.66	60	0.20	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	
	160 VDC Code: 2C Surge Voltage 200 VDC	390	1.65	3.14	365	0.15	22x25	HP32C391M#XS2
			1.94	3.67	305	0.15	22x30	HP32C471M#XS3
		470	1.91	3.64	305	0.15	25x25	HP32C471M#YS2
2.23			4.25	255	0.15	22x35	HP32C561M#XS4	
560		2.22	4.22	255	0.15	25x30	HP32C561M#YS3	
		2.60	4.93	210	0.15	22x40	HP32C681M#XS5	
		2.46	4.69	210	0.15	25x30	HP32C681M#YS3	
680		2.46	4.69	210	0.15	30x25	HP32C681M#ZS2	
		2.99	5.69	175	0.15	22x45	HP32C821M#XS6	
		2.87	5.46	175	0.15	25x35	HP32C821M#YS4	
820		2.87	5.46	175	0.15	30x30	HP32C821M#ZS3	
		3.44	6.55	145	0.15	22x50	HP32C102M#XS7	
		3.30	6.27	145	0.15	25x40	HP32C102M#YS5	
1 000		3.17	6.02	145	0.15	30x30	HP32C102M#ZS3	
		3.78	7.19	120	0.15	25x45	HP32C122M#YS6	
1 200		3.67	6.99	120	0.15	30x35	HP32C122M#ZS4	
		4.30	8.17	95	0.15	30x40	HP32C152M#ZS5	
1 500		4.36	8.27	95	0.15	35x35	HP32C152M#AS4	
		4.92	9.34	80	0.15	30x45	HP32C182M#ZS6	
1 800		4.77	9.08	80	0.15	35x35	HP32C182M#AS4	
	4.51	8.57	95	0.15	35x40	HP32C222M#CAS51P		
2 200	6.35	12.07	40	0.15	35x41	HP32C252M#AL412PS		
2 500	6.98	13.27	35	0.15	35x46	HP32C332M#AL462PS		
	8.11	15.40	45	0.20	41x61	HP32C332M#BS9		

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
180 VDC Code: 2P Surge Voltage 225 VDC	330	1.52	2.88	375	0.15	22x25	HP32P331M#XS2
		1.76	3.34	320	0.15	22x30	HP32P391M#XS3
	390	1.74	3.30	320	0.15	25x25	HP32P391M#YS2
		1.94	3.67	265	0.15	22x30	HP32P471M#XS3
	470	1.91	3.64	265	0.15	25x25	HP32P471M#YS2
		2.23	4.25	225	0.15	22x35	HP32P561M#XS4
	560	2.23	4.25	225	0.15	25x30	HP32P561M#YS3
		2.23	4.25	225	0.15	30x25	HP32P561M#ZS2
		2.60	4.93	185	0.15	22x40	HP32P681M#XS5
	680	2.59	4.92	185	0.15	25x35	HP32P681M#YS4
		2.46	4.69	185	0.15	30x25	HP32P681M#ZS2
		2.99	5.69	155	0.15	25x40	HP32P821M#YS5
	820	2.87	5.46	155	0.15	30x30	HP32P821M#ZS3
		3.45	6.57	125	0.15	25x45	HP32P102M#YS6
	1 000	3.17	6.02	125	0.15	35x25	HP32P102M#AS2
		3.95	7.50	105	0.15	25x50	HP32P122M#YS7
	1 200	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
	1 800	4.95	9.41	70	0.15	35x40	HP32P182M#AS5
5.02		9.53	70	0.15	40x36	HP32P182M#BS4	
200 VDC Code: 2D Surge Voltage 250 VDC	220	1.50	2.84	485	0.15	22x25	HP32D221M#XS2
		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
		2.13	4.06	230	0.15	22x30	HP32D471M#XS3
	470	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
		3.44	6.55	130	0.15	30x30	HP32D821M#ZS3
	1 000	3.81	7.23	110	0.15	25x45	HP32D102M#YS6
		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	4.42	8.40	75	0.15	25x51	HP32D152M#YL51	
	4.74	9.01	75	0.15	35x35	HP32D152M#AS4	
	5.49	10.43	75	0.15	40x36	HP32D152M#BS4	

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code	
200 VDC Code: 2D Surge Voltage 250 VDC	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	
	4 700	9.36	17.78	27	0.15	35x80	HP32D472M#AS13	
250 VDC Code: 2E Surge Voltage 300 VDC	220	1.50	2.84	485	0.15	22x25	HP32E221M#XS2	
	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	
	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	
	2 100	6.94	13.19	50	0.15	30x80	HP32E212M#ZS13	
	2 200	6.48	12.31	50	0.15	35x60	HP32E222M#AS9	
	2 300	7.46	14.17	50	0.15	30x85	HP32E232M#ZS14	
	2 700	8.67	16.47	45	0.15	30x100	HP32E272M#ZS17	
	350 VDC 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	

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
350 VDC Code: 2V Surge Voltage 400 VDC	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
	680	3.04	5.76	160	0.15	35x40	HP32V681M#AS5
		3.17	6.02	160	0.15	35x45	HP32V681M#AS6
		3.19	6.06	160	0.15	40x41	HP32V681M#BS5
	1 000	4.28	8.13	110	0.15	35x50	HP32V102M#AS7
		4.18	7.94	110	0.15	40x51	HP32V102M#BS7
	1 200	4.86	9.24	90	0.15	35x75	HP32V122M#AS12
		4.88	9.28	90	0.15	40x61	HP32V122M#BS9
	1 500	5.58	10.59	78	0.15	35x80	HP32V152M#AS13
5.52		10.49	78	0.15	40x71	HP32V152M#BS11	
1 800	6.44	12.24	65	0.15	40x80	HP32V182M#BS13	
2 200	7.95	15.11	50	0.15	40x110	HP32V222M#BS19	
400 VDC Code: 2G Surge Voltage 450 VDC	82	0.89	1.69	1259	0.20	20x25	HP32G820M#WS2
		0.91	1.74	1259	0.20	22x25	HP32G820M#XS2
	100	0.98	1.86	1065	0.20	20x25	HP32G101M#WS2
		1.01	1.93	1065	0.20	22x25	HP32G101M#XS2
		1.06	2.00	1065	0.20	25x25	HP32G101M#YS2
	120	1.14	2.18	885	0.20	20x30	HP32G121M#WS3
		1.10	2.09	885	0.20	22x25	HP32G121M#XS2
		1.17	2.21	885	0.20	25x25	HP32G121M#YS2
	140	1.25	2.39	765	0.20	25x25	HP32G141M#YS2
	150	1.36	2.60	710	0.20	20x35	HP32G151M#WS4
		1.32	2.51	710	0.20	22x30	HP32G151M#XS3
		1.30	2.46	710	0.20	25x25	HP32G151M#YS2
1.39		2.63	710	0.20	30x25	HP32G151M#ZS2	

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
400 VDC Code: 2G Surge Voltage 450 VDC	180	1.45	2.76	590	0.20	22x30	HP32G181M#XS3
		1.61	3.05	590	0.20	22x40	HP32G181M#XS5
		1.42	2.70	590	0.20	25x25	HP32G181M#YS2
		1.65	3.14	500	0.20	30x25	HP32G181M#ZS22P
	220	1.69	3.22	485	0.20	22x35	HP32G221M#XS4
		1.94	3.67	485	0.20	22x50	HP32G221M#XS7
		1.67	3.18	485	0.20	25x30	HP32G221M#YS3
		1.86	3.53	485	0.20	25x40	HP32G221M#YS5
		1.67	3.18	485	0.20	30x25	HP32G221M#ZS2
		1.97	3.74	395	0.20	22x30	HP32G271M#XS3
	270	2.07	3.93	395	0.20	22x45	HP32G271M#XS6
		1.96	3.72	395	0.20	25x35	HP32G271M#YS4
		2.07	3.93	395	0.20	25x40	HP32G271M#YS5
		2.16	4.09	395	0.20	25x45	HP32G271M#YS6
		1.86	3.53	395	0.20	30x25	HP32G271M#ZS2
		2.09	3.97	395	0.20	30x35	HP32G271M#ZS4
	330	2.39	4.53	325	0.20	22x50	HP32G331M#XS7
		2.28	4.32	325	0.20	25x40	HP32G331M#YS5
		2.49	4.72	325	0.20	25x50	HP32G331M#YS7
		2.18	4.14	325	0.20	30x30	HP32G331M#ZS3
		2.29	4.35	325	0.20	30x35	HP32G331M#ZS4
		2.18	4.14	325	0.20	35x25	HP32G331M#AS2
	390	2.48	4.71	275	0.20	25x40	HP32G391M#YS5
		2.60	4.93	275	0.20	25x45	HP32G391M#YS6
		2.71	5.14	275	0.20	25x50	HP32G391M#YS7
		2.50	4.74	275	0.20	30x35	HP32G391M#ZS4
		2.75	5.23	275	0.20	30x45	HP32G391M#ZS6
		2.38	4.51	275	0.20	35x25	HP32G391M#AS2
	470	2.66	5.06	275	0.20	35x35	HP32G391M#AS4
		2.97	5.64	230	0.20	25x50	HP32G471M#YS7
		2.87	5.46	230	0.20	30x40	HP32G471M#ZS5
		3.18	6.04	230	0.20	30x50	HP32G471M#ZS7
		2.75	5.23	230	0.20	35x30	HP32G471M#AS3
		3.04	5.76	230	0.20	35x40	HP32G471M#AS5
	560	3.28	6.23	190	0.20	30x45	HP32G561M#ZS6
		3.41	6.48	190	0.20	30x50	HP32G561M#ZS7
		3.16	6.00	190	0.20	35x35	HP32G561M#AS4
		3.44	6.55	190	0.20	35x45	HP32G561M#AS6
	620	3.48	6.60	190	0.20	40x41	HP32G561M#BS5
		3.32	6.31	175	0.20	35x35	HP32G621M#AS4
	680	3.60	6.83	160	0.20	30x45	HP32G681M#ZS6
		3.91	7.43	160	0.20	30x55	HP32G681M#ZS8
		3.64	6.92	160	0.20	35x40	HP32G681M#AS5
		4.24	8.05	160	0.20	35x60	HP32G681M#AS9
		4.05	7.69	160	0.20	40x35	HP32G681M#BS4

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
400 VDC Code: 2G Surge Voltage 450 VDC	770	4.25	8.06	150	0.20	35x50	HP32G771M#AS7
		3.80	7.22	130	0.20	30x60	HP32G821M#ZS9
	820	4.17	7.92	130	0.20	35x45	HP32G821M#AS6
		4.64	8.82	130	0.20	35x60	HP32G821M#AS9
		4.53	8.61	130	0.20	40x51	HP32G821M#BS7
	870	4.47	8.48	130	0.20	35x50	HP32G871M#AS7
	1 000	4.79	9.10	110	0.20	35x50	HP32G102M#AS7
		5.13	9.74	110	0.20	35x60	HP32G102M#AS9
		4.57	8.68	110	0.20	40x50	HP32G102M#BS7
	1 100	5.13	9.74	110	0.20	35x60	HP32G112M#AS9
		5.48	10.41	110	0.20	35x81	HP32G112M#AS13
	1 200	4.86	9.24	100	0.20	35x75	HP32G122M#AS12
		4.72	8.97	100	0.20	40x56	HP32G122M#BS8
		4.91	9.35	90	0.20	40x60	HP32G122M#BS9
	1 400	5.04	9.57	90	0.20	40x76	HP32G122M#BS12
		6.23	11.83	80	0.20	35x100	HP32G142M#AS17
		6.82	12.96	80	0.20	40x80	HP32G142M#BS13
	1 500	6.45	12.24	75	0.20	35x100	HP32G152M#AS17
		5.64	10.70	75	0.20	40x76	HP32G152M#BS12
		6.58	12.50	75	0.20	40x81	HP32G152M#BS13
1 600	6.88	13.07	70	0.20	40x60	HP32G162M#BS9	
	6.88	13.07	70	0.20	40x85	HP32G162M#BS14	
1 800	8.00	15.19	62	0.20	40x101	HP32G182M#BS17	
2 000	8.22	15.61	60	0.20	45x76	HP32G202M#HS12	
2 100	9.58	18.21	51	0.20	40x101	HP32G212M#BS17	
420 VDC Code: 420V Surge Voltage 470 VDC	68	0.80	1.53	1620	0.20	20x25	HP3420V680M#WS2
		0.84	1.58	1620	0.20	22x25	HP3420V680M#XS2
	82	0.89	1.69	1340	0.20	20x25	HP3420V820M#WS2
		0.95	1.79	1340	0.20	22x30	HP3420V820M#XS3
	100	1.05	1.99	1100	0.20	20x30	HP3420V101M#WS3
		1.01	1.93	1100	0.20	22x25	HP3420V101M#XS2
		1.08	2.05	1100	0.20	22x30	HP3420V101M#XS3
	120	1.14	2.18	915	0.20	20x30	HP3420V121M#WS3
		1.22	2.32	915	0.20	20x35	HP3420V121M#WS4
		1.11	2.11	915	0.20	22x25	HP3420V121M#XS2
		1.24	2.37	915	0.20	22x35	HP3420V121M#XS4
		1.17	2.21	915	0.20	25x25	HP3420V121M#YS2
	150	1.36	2.60	735	0.20	20x35	HP3420V151M#WS4
		1.32	2.51	735	0.20	22x30	HP3420V151M#XS3
		1.46	2.78	735	0.20	22x40	HP3420V151M#XS5
		1.30	2.46	735	0.20	25x25	HP3420V151M#YS2
		1.45	2.76	735	0.20	25x35	HP3420V151M#YS4
	180	1.53	2.90	610	0.20	22x35	HP3420V181M#XS4
1.67		3.18	610	0.20	22x45	HP3420V181M#XS6	
1.52		2.88	610	0.20	25x30	HP3420V181M#YS3	

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
420 VDC Code: 420V Surge Voltage 470 VDC	180	1.67	3.18	610	0.20	25x40	HP3420V181M#YS5
		1.52	2.88	610	0.20	30x25	HP3420V181M#ZS2
		1.61	3.05	610	0.20	35x25	HP3420V181M#AS2
	220	1.78	3.39	500	0.20	22x40	HP3420V221M#XS5
		1.87	3.55	500	0.20	22x45	HP3420V221M#XS6
		1.77	3.37	500	0.20	25x35	HP3420V221M#YS4
		1.94	3.67	500	0.20	25x45	HP3420V221M#YS6
		1.67	3.18	500	0.20	30x25	HP3420V221M#ZS2
		1.78	3.39	500	0.20	30x30	HP3420V221M#ZS3
		2.07	3.93	407	0.20	22x45	HP3420V271M#XS6
	270	1.95	3.70	407	0.20	25x35	HP3420V271M#YS4
		1.97	3.74	407	0.20	30x30	HP3420V271M#ZS3
		2.00	3.81	407	0.20	35x25	HP3420V271M#AS2
		2.23	4.25	407	0.20	25x50	HP3420V271M#YS7
		2.39	4.53	335	0.20	25x45	HP3420V331M#YS6
	330	2.29	4.35	335	0.20	30x35	HP3420V331M#ZS4
		2.18	4.14	335	0.20	35x25	HP3420V331M#AS2
		2.45	4.66	335	0.20	35x35	HP3420V331M#AS4
		2.71	5.14	283	0.20	25x50	HP3420V391M#YS7
	390	2.50	4.74	283	0.20	30x35	HP3420V391M#ZS4
		2.85	5.41	283	0.20	30x50	HP3420V391M#ZS7
		2.51	4.76	283	0.20	35x30	HP3420V391M#AS3
		2.76	5.25	283	0.20	35x40	HP3420V391M#AS5
		2.87	5.46	235	0.20	30x40	HP3420V471M#ZS5
	470	3.00	5.71	235	0.20	30x45	HP3420V471M#ZS6
		2.50	4.75	240	0.20	35x30	HP3420V471M#AS3
		2.89	5.50	235	0.20	35x35	HP3420V471M#AS4
		3.03	5.75	235	0.20	35x40	HP3420V471M#AS5
		3.17	6.02	235	0.20	35x45	HP3420V471M#AS6
		3.28	6.23	235	0.20	35x50	HP3420V471M#AS7
		3.18	6.04	235	0.20	40x41	HP3420V471M#BS5
		3.41	6.48	200	0.20	30x50	HP3420V561M#ZS7
	560	3.31	6.29	200	0.20	35x40	HP3420V561M#AS5
		3.44	6.55	200	0.20	35x45	HP3420V561M#AS6
		3.60	6.83	200	0.20	35x50	HP3420V561M#AS7
		3.75	7.13	170	0.20	30x50	HP3420V681M#ZS7
	680	3.80	7.22	165	0.20	35x45	HP3420V681M#AS6
		3.95	7.50	165	0.20	35x50	HP3420V681M#AS7
		3.84	7.29	135	0.20	30x75	HP3420V821M#ZS12
	820	4.33	8.24	135	0.20	35x50	HP3420V821M#AS7
		4.44	8.45	112	0.20	35x75	HP3420V102M#AS12
	1 000	4.30	8.17	112	0.20	40x56	HP3420V102M#BS8
		4.48	8.50	112	0.20	40x61	HP3420V102M#BS9
		4.99	9.49	135	0.20	35x80	HP3420V122M#AS13

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 [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code	
420 VDC Code: 420V Surge Voltage 470 VDC	1 200	5.49	10.43	100	0.20	35x100	HP3420V122M#AS17	
		5.05	9.59	100	0.20	40x76	HP3420V122M#BS12	
	1 500	5.96	11.33	75	0.20	40x86	HP3420V152M#BS14	
		7.12	13.52	80	0.20	45x76	HP3420V152M#HS12	
	1 800	6.95	13.21	70	0.20	40x101	HP3420V182M#BS17	
		7.79	14.80	70	0.20	45x76	HP3420V182M#HS12	
	2 000	8.22	15.61	60	0.20	45x76	HP3420V202M#HS12	
	450 VDC Code: 2W Surge Voltage 500 VDC	56	0.74	1.40	1965	0.20	20x25	HP32W560M#WS2
		68	0.80	1.53	1620	0.20	20x25	HP32W680M#WS2
		82	0.89	1.69	1340	0.20	20x25	HP32W820M#WS2
0.95			1.79	1340	0.20	20x30	HP32W820M#WS3	
0.91			1.74	1340	0.20	22x25	HP32W820M#XS2	
0.98			1.86	1340	0.20	22x30	HP32W820M#XS3	
0.97			1.84	1340	0.20	25x25	HP32W820M#YS2	
1.05			1.99	1100	0.20	20x30	HP32W101M#WS3	
100		1.01	1.93	1100	0.20	22x25	HP32W101M#XS2	
		1.06	2.00	1100	0.20	25x25	HP32W101M#YS2	
		1.13	2.16	1100	0.20	25x30	HP32W101M#YS3	
		1.13	2.16	1100	0.20	30x25	HP32W101M#ZS2	
		1.22	2.32	915	0.20	20x35	HP32W121M#WS4	
120		1.11	2.11	915	0.20	22x25	HP32W121M#XS2	
		1.31	2.49	915	0.20	22x40	HP32W121M#XS5	
		1.17	2.21	915	0.20	25x25	HP32W121M#YS2	
		1.24	2.37	915	0.20	30x25	HP32W121M#ZS2	
		1.32	2.51	735	0.20	22x30	HP32W151M#XS3	
150		1.39	2.63	735	0.20	22x35	HP32W151M#XS4	
		1.53	2.90	735	0.20	22x45	HP32W151M#XS6	
		1.30	2.47	735	0.20	25x25	HP32W151M#YS2	
		1.39	2.63	735	0.20	25x30	HP32W151M#YS3	
		1.47	2.81	735	0.20	25x35	HP32W151M#YS4	
		1.39	2.63	735	0.20	30x25	HP32W151M#ZS2	
		1.47	2.81	735	0.20	30x30	HP32W151M#ZS3	
180		1.53	2.90	610	0.20	22x35	HP32W181M#XS4	
		1.76	3.34	610	0.20	22x50	HP32W181M#XS7	
		1.52	2.88	610	0.20	25x30	HP32W181M#YS3	
		1.67	3.18	610	0.20	25x40	HP32W181M#YS5	
		1.52	2.88	610	0.20	30x25	HP32W181M#ZS2	
		1.61	3.05	610	0.20	30x30	HP32W181M#ZS3	
		1.61	3.05	610	0.20	35x25	HP32W181M#AS2	
		1.78	3.39	500	0.20	22x40	HP32W221M#XS5	
220		1.77	3.37	500	0.20	25x35	HP32W221M#YS4	
		1.94	3.67	500	0.20	25x45	HP32W221M#YS6	
		1.67	3.18	500	0.20	30x25	HP32W221M#ZS2	
		1.89	3.60	500	0.20	30x35	HP32W221M#ZS4	

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
450 VDC Code: 2W Surge Voltage 500 VDC	270	2.07	3.93	407	0.20	22x45	HP32W271M#XS6
		2.06	3.91	407	0.20	25x40	HP32W271M#YS5
		2.16	4.09	407	0.20	25x45	HP32W271M#YS6
		1.97	3.74	407	0.20	30x30	HP32W271M#ZS3
		2.19	4.16	407	0.20	30x40	HP32W271M#ZS5
		1.97	3.74	407	0.20	35x25	HP32W271M#AS2
		2.22	4.22	407	0.20	35x35	HP32W271M#AS4
	330	2.27	4.30	340	0.20	25x40	HP32W331M#YS5
		2.49	4.72	335	0.20	25x50	HP32W331M#YS7
		2.29	4.35	335	0.20	30x35	HP32W331M#ZS4
		2.52	4.79	335	0.20	30x45	HP32W331M#ZS6
		2.18	4.14	335	0.20	35x25	HP32W331M#AS2
		2.45	4.66	335	0.20	35x35	HP32W331M#AS4
		390	2.71	5.14	283	0.20	25x50
	2.50		4.74	283	0.20	30x35	HP32W391M#ZS4
	2.73		5.18	283	0.20	30x45	HP32W391M#ZS6
	2.51		4.76	283	0.20	35x30	HP32W391M#AS3
	2.64		5.02	283	0.20	35x35	HP32W391M#AS4
	2.76		5.25	283	0.20	35x40	HP32W391M#AS5
	470	2.87	5.46	235	0.20	30x40	HP32W471M#ZS5
		3.00	5.71	235	0.20	30x45	HP32W471M#ZS6
		3.12	5.94	235	0.20	30x50	HP32W471M#ZS7
		2.89	5.50	235	0.20	35x35	HP32W471M#AS4
		3.03	5.75	235	0.20	35x40	HP32W471M#AS5
		3.17	6.02	235	0.20	35x45	HP32W471M#AS6
		3.18	6.04	235	0.20	40x41	HP32W471M#BS5
	560	3.41	6.48	200	0.20	30x50	HP32W561M#ZS7
		3.16	6.00	200	0.20	35x36	HP32W561M#AL36
		3.31	6.29	200	0.20	35x40	HP32W561M#AS5
		3.44	6.55	200	0.20	35x45	HP32W561M#AS6
		3.41	6.48	200	0.20	35x50	HP32W561M#ZS7
		3.75	7.13	200	0.20	40x51	HP32W561M#BS7
		4.74	9.01	110	0.20	40x51	HP32W561M#BS7CCR
	630	4.04	7.67	170	0.20	30x60	HP32W631M#ZS9
		3.45	6.57	170	0.20	35x50	HP32W631M#AS7
		3.36	6.38	170	0.20	40x41	HP32W631M#BS5
	680	3.75	7.13	170	0.20	30x51	HP32W681M#ZS7
		4.19	7.96	165	0.20	30x75	HP32W681M#ZS12
		3.80	7.22	165	0.20	35x45	HP32W681M#AS6
		3.94	7.48	165	0.20	35x50	HP32W681M#AS7
		4.24	8.05	165	0.20	35x60	HP32W681M#AS9
		4.13	7.84	165	0.20	40x51	HP32W681M#BS7
	820	4.33	8.24	135	0.20	35x50	HP32W821M#AS7
		4.64	8.82	135	0.20	35x60	HP32W821M#AS9

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
450 VDC Code: 2W Surge Voltage 500 VDC	820	4.95	9.41	135	0.20	35x80	HP32W821M#AS13
		4.85	9.22	135	0.20	40x61	HP32W821M#BS9
	1 000	5.13	9.75	120	0.20	35x60	HP32W102M#AS9
		5.05	9.59	115	0.20	35x70	HP32W102M#AS11
		5.50	10.45	115	0.20	35x70	HP32W102M#AS112P
		5.47	10.38	115	0.20	35x80	HP32W102M#AS13
		6.45	12.24	115	0.20	35x80	HP32W102M#AS132P
		5.37	10.20	110	0.20	40x60	HP32W102M#BS9
	1 100	5.18	9.85	100	0.20	40x75	HP32W112M#BS12
	1 200	5.23	9.93	100	0.20	35x70	HP32W122M#AS11
		5.49	10.43	100	0.20	35x100	HP32W122M#AS17
		5.70	10.82	97	0.20	40x76	HP32W122M#BS12
		5.78	10.98	97	0.20	40x80	HP32W122M#BS13
		6.06	11.52	97	0.20	40x85	HP32W122M#BS14
	1 400	5.59	10.62	86	0.20	40x80	HP32W142M#BS13
	1 500	5.81	11.03	80	0.20	40x80	HP32W152M#BS13
		6.34	12.03	75	0.20	40x101	HP32W152M#BS17
		7.12	13.53	80	0.20	46x76	HP32W152M#HS12
	1 600	6.55	12.44	70	0.20	40x100	HP32W162M#BS17
	1 800	7.79	14.80	70	0.20	45x76	HP32W182M#HS12
	2 000	8.22	15.61	60	0.20	45x76	HP32W202M#HS12
		8.61	16.36	55	0.20	45x76	HP32W222M#HS12CC
	2 200	8.34	15.84	53	0.20	46x100	HP32W222M#HS17
	2 700	7.70	14.63	45	0.20	45x100	HP32W272M#HS17
500 VDC Code: 2H Surge Voltage 550 VDC	56	0.68	1.30	2135	0.20	22x30	HP32H560M#XS3
		0.65	1.23	2135	0.20	25x25	HP32H560M#YS2
	68	0.64	1.22	1410	0.20	22x25	HP32H680M#XS2
		0.79	1.51	1758	0.20	22x35	HP32H680M#XS4
	82	0.92	1.76	1458	0.20	22x40	HP32H820M#XS5
		0.85	1.61	1458	0.20	25x30	HP32H820M#YS3
	100	0.83	1.58	960	0.20	22x30	HP32H101M#XS3
		1.07	2.02	960	0.20	22x45	HP32H101M#XS6
		0.79	1.50	960	0.20	25x25	HP32H101M#YS2
		0.98	1.86	960	0.20	25x35	HP32H101M#YS4
		0.95	1.79	960	0.20	30x25	HP32H101M#ZS2
		0.96	1.82	800	0.20	22x35	HP32H121M#XS4
	120	1.22	2.32	800	0.20	22x50	HP32H121M#XS7
		0.93	1.77	800	0.20	25x30	HP32H121M#YS3
		1.13	2.16	800	0.20	25x40	HP32H121M#YS5
		1.06	2.02	800	0.20	30x25	HP32H121M#ZS2
		1.10	2.09	800	0.20	30x30	HP32H121M#ZS3
		1.10	2.09	800	0.20	35x25	HP32H121M#AS2
	150	1.13	2.15	640	0.20	22x40	HP32H151M#XS5
		1.09	2.07	640	0.20	25x35	HP32H151M#YS4

Additional designs on request · Weitere Designs auf Anfrage

Rated VoltageCode (Surge Voltage) V_r [V DC]	Capacitance C_r [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
500 VDC Code: 2H Surge Voltage 550 VDC	150	1.32	2.51	640	0.20	25x45	HP32H151M#YS6
		1.06	2.02	640	0.20	30x25	HP32H151M#ZS2
		1.30	2.46	640	0.20	30x35	HP32H151M#ZS4
		1.43	2.72	640	0.20	35x30	HP32H151M#AS3
	180	1.35	2.56	540	0.20	22x50	HP32H181M#XS7
		1.26	2.40	540	0.20	25x40	HP32H181M#YS5
		1.52	2.88	535	0.20	25x50	HP32H181M#YS7
		1.23	2.34	535	0.20	30x30	HP32H181M#ZS3
		1.50	2.84	535	0.20	30x40	HP32H181M#ZS5
		1.23	2.35	535	0.20	35x25	HP32H181M#AS2
		1.43	2.72	535	0.20	35x30	HP32H181M#AS3
		1.46	2.78	440	0.20	25x45	HP32H221M#YS6
	220	1.43	2.72	440	0.20	30x35	HP32H221M#ZS4
		1.73	3.28	434	0.20	30x45	HP32H221M#ZS6
		1.66	3.16	434	0.20	35x35	HP32H221M#AS4
		1.69	3.22	360	0.20	25x50	HP32H271M#YS7
	270	1.57	2.99	360	0.20	30x30	HP32H271M#ZS3
		1.66	3.16	360	0.20	30x40	HP32H271M#ZS5
		1.99	3.78	360	0.20	30x50	HP32H271M#ZS7
		1.59	3.03	360	0.20	35x30	HP32H271M#AS3
		1.93	3.66	360	0.20	35x40	HP32H271M#AS5
		1.92	3.65	290	0.20	30x45	HP32H331M#ZS6
	330	1.84	3.50	290	0.20	35x35	HP32H331M#AS4
		2.12	4.04	290	0.20	35x40	HP32H331M#AS5
		2.21	4.20	290	0.20	35x45	HP32H331M#AS6
		1.94	3.68	265	0.20	35x30	HP32H371M#AS3
	390	2.17	4.12	250	0.20	30x50	HP32H391M#ZS7
		2.10	4.00	250	0.20	35x40	HP32H391M#AS5
		2.40	4.56	250	0.20	35x45	HP32H391M#AS6
		2.50	4.74	245	0.20	35x50	HP32H391M#AS7
	470	2.40	4.56	240	0.20	35x45	HP32H471M#AS6
		2.51	4.76	240	0.20	35x50	HP32H471M#AS7
		2.94	5.58	210	0.20	35x60	HP32H471M#AS9
		3.14	5.96	210	0.20	35x80	HP32H471M#AS13
		3.10	5.90	210	0.20	40x50	HP32H471M#BS7
	560	3.65	6.94	170	0.20	40x76	HP32H561M#BS12
	630	3.10	5.89	165	0.20	30x60	HP32H631M#ZS9
	650	3.45	6.55	175	0.20	35x61	HP32H651M#AS9
	680	3.30	6.27	150	0.20	35x50	HP32H681M#AS7
		3.25	6.17	150	0.20	40x56	HP32H681M#BS8
		4.53	8.61	140	0.20	40x100	HP32H681M#BS17
	820	3.67	6.97	140	0.20	35x75	HP32H821M#AS12
3.72		7.06	140	0.20	40x70	HP32H821M#BS11	
4.69		8.90	140	0.20	40x100	HP32H821M#BS17	

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 [μ 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 Ω]	Dissipation Factor at 20°C/100Hz Tan δ	DxL [mm]	Product Code # = variable value, see terminal code in the product code
500 VDC Code: 2H Surge Voltage 550 VDC	870	3.81	7.23	120	0.20	35x60	HP32H871M#AS9
	1 000	4.56	8.66	115	0.20	35x100	P32H102M#AS17
		4.50	8.55	115	0.20	40x80	HP32H102M#BS13
		4.94	9.39	115	0.20	40x80	HP32H102M#BS13CC
		5.18	9.85	100	0.20	40x100	HP32H102M#BS17
	1 200	5.18	9.85	90	0.20	40x101	HP32H122M#BS17
		5.91	11.22	90	0.20	40x110	HP32H122M#BS19
	1 500	6.89	13.08	77	0.20	46x100	HP32H152M#HS17
	1 600	7.26	13.79	65	0.15	50x90	HP32H162M#CS15

Additional designs on request · Weitere Designs auf Anfrage

> Ripple Current Multiplier · Wechselstrommultiplikator

Frequency [Hz]		50/60	120	300	1k	≥ 10k
Multiplier	16V – 100V	0.70	1.00	1.10	1.20	1.20
	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

Forced cooling – Wind speed [m/sec]	v < 0.25	v ≥ 0.25	v ≥ 0.5	v ≥ 1.0	v ≥ 2.0	v ≥ 3.0
Multiplier	1.00	1.05	1.10	1.15	1.20	1.25

> Life Time Table · Brauchbarkeitsdauer – Tabelle

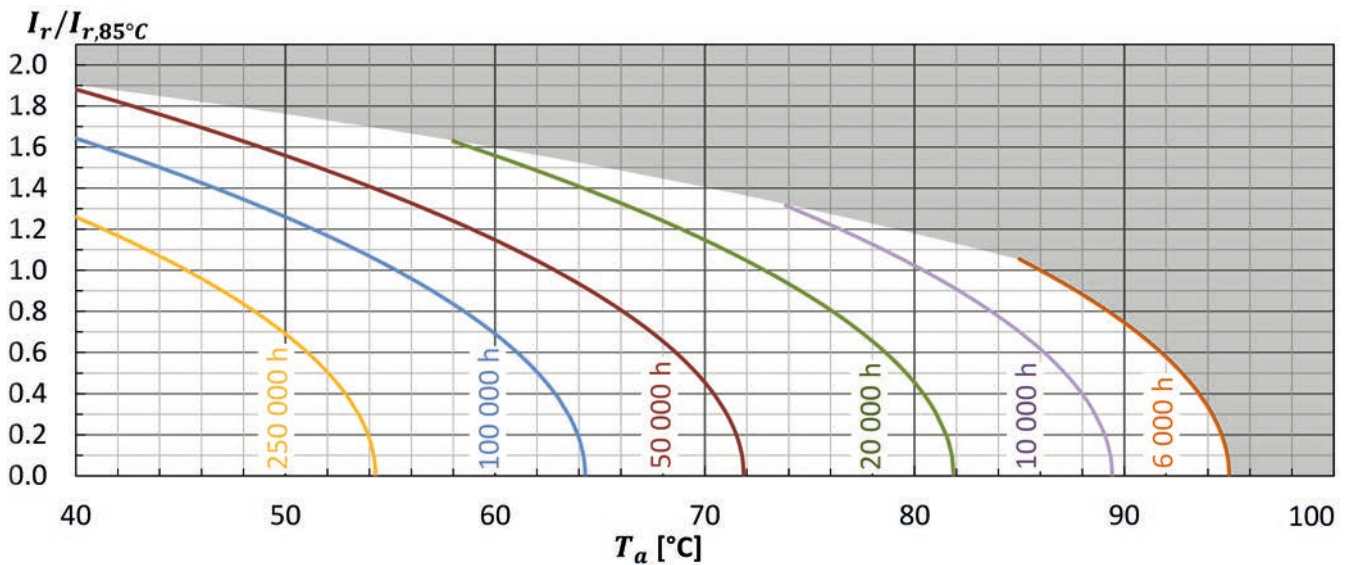
HP3 I _r at 85°C	Useful life as function of ambient temperature and ripple current									
	x 1.0	x 1.1	x 1.2	x 1.3	x 1.4	x 1.5	x 1.6	x 1.7	x 1.8	x 1.9
T _a = 40°C	250	250	250	229	184	144	112	85	64	47
T _a = 45°C	250	216	178	145	116	91	70	54	40	
T _a = 50°C	162	136	113	91	73	57	44	34		
T _a = 55°C	102	86	71	58	46	36	28			
T _a = 60°C	64	54	45	36	29	23				
T _a = 65°C	41	34	28	23	18					
T _a = 70°C	25	21	18	14						
T _a = 75°C	16	13	11							
T _a = 80°C	10	8								
T _a = 85°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°C, 120Hz}

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



> Life Time Tests and Requirements · Anforderungen Brauchbarkeitsdauer

Life time test	Test procedure	End of Life criteria
Endurance test	T _a = 85°C; V _r , I _r applied 4000 hours	ΔC/C ≤ 15% (of initial value) Tanδ ≤ 175% (of specified value) I _L ≤ specified value
Useful life 16~350VDC	T _a = 85°C; V _r , I _r applied 6000 hours	ΔC/C ≤ 20% (of initial value) Tanδ < 200% (of specified value) I _L ≤ specified value
Useful life 400~500VDC	T _a = 85°C; V _r , I _r applied 6000 hours	ΔC/C ≤ 30% (of initial value) Tanδ < 300% (of specified value) I _L ≤ specified value

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