

Type HES Computer Grade Capacitors

MALLORY



- High Reliability
- 105°C Operation
- Custom Designs Available Upon Request
- Charge-Discharge Applications
 - Welders
 - Photoflash
 - Strobe Lights
 - Magnetizers
 - Demagnetizers
 - Laser Activation
- Ideal for High Power Input Filter Applications

GENERAL SPECIFICATIONS

Operating Temperature:
-40°C to +105°C

Voltage Range:
350 WVDC to 450 WVDC

Capacitance Range:
300 μ F to 5,600 μ F

Capacitance Tolerance:
-0 +50%

DC Leakage Current:

$$I = \leq 3 \sqrt{CV} \text{ mA}$$

Not to exceed 4.0 mA

C = Capacitance in μ F

V = Rated Voltage

I = Leakage Current in mA

QA Stability Test:

- Life Test:
1000 Hrs. @+105°C
- Ripple Test:
2000 Hrs. full load
@+85°C
- Shelf Test:
500 Hrs. @+105°C

The maximum ripple current at 85°C and 120 Hz for HES capacitors is shown in the Standard Rating Table. Maximum ripple current may be adjusted by the multipliers in the following tables:

Rated WVDC	Ripple Multipliers				
	120Hz	400Hz	1000Hz	2500Hz	10kHz
350 to 450	1.00	1.08	1.113	1.175	1.23

Ambient Temperature	Ripple Multiplier
+85°C	1.00
+65°C	1.42
+55°C	1.58
+45°C	1.72
+35°C	1.88
+25°C	2.00

Cap μ F	Max ESR (ohms) @ 120 Hz	Max Ripple RMS Amps @ 120 Hz +85°C	Dia	Length	Catalog Number
350 WVDC; 400 VDC Surge					
600	0.173	2.60	2.000	2.125	HES601G350V2C
900	0.110	4.60	2.000	5.125	HES901G350V5C
1,100	0.099	4.00	2.000	3.125	HES112G350V3C
1,400	0.080	6.20	2.500	5.125	HES142G350W5C
1,600	0.062	5.60	2.000	4.125	HES162G350V4C
1,900	0.053	6.40	2.000	4.625	HES192G350V4L
2,500	0.045	7.40	2.500	4.125	HES252G350W4C
3,100	0.040	8.60	3.000	3.625	HES312G350X3L
3,400	0.034	9.40	2.500	5.125	HES342G350W5C
3,700	0.034	9.80	3.000	4.125	HES372G350X4C
4,400	0.029	11.00	3.000	4.625	HES442G350X4L
5,000	0.026	12.10	3.000	5.125	HES502G350X5C
5,600	0.024	13.20	3.000	5.625	HES562G350X5L

Cap μ F	Max ESR (ohms) @ 120 Hz	Max Ripple RMS Amps @ 120 Hz +85°C	Dia	Length	Catalog Number
450 WVDC; 525 VDC Surge					
300	0.268	2.40	2.000	3.125	HES301G450V3C
400	0.203	2.90	2.000	3.625	HES401G450V3L
550	0.150	3.60	2.000	4.125	HES551G450V4C
700	0.125	3.50	2.000	3.125	HES701G450V3C
1,200	0.069	7.10	3.000	4.625	HES122G450X4L
1,500	0.056	8.50	3.000	5.625	HES152G450X5L
1,600	0.053	6.90	2.000	5.625	HES162G450V5L
1,700	0.051	7.10	2.500	4.125	HES172G450W4C
2,000	0.041	9.70	3.000	5.625	HES202G450X5L
2,200	0.040	10.10	3.000	5.625	HES222G450X5L
2,400	0.038	9.00	2.500	5.125	HES242G450W5C
2,700	0.034	9.90	2.500	5.625	HES272G450W5L
3,600	0.028	11.70	3.000	5.125	HES362G450X5C
4,000	0.025	12.70	3.000	5.625	HES402G450X5L

400 WVDC; 450 VDC Surge					
300	0.275	2.20	1.750	3.125	HES301G400U3C
500	0.180	2.60	2.000	2.125	HES501G400V2C
1,300	0.066	5.40	2.000	4.125	HES132G400V4C
2,000	0.044	14.30	2.000	5.625	HES202G400V5L
2,000	0.048	7.30	2.500	4.125	HES202G400W4C
2,100	0.045	9.50	3.000	5.625	HES212G400X5L
3,000	0.033	9.90	2.500	5.625	HES302G400W5L
3,500	0.031	10.70	3.000	4.625	HES352G400X4L
4,100	0.027	11.90	3.000	5.125	HES412G400X5C
4,600	0.025	13.00	3.000	5.625	HES462G400X5L