TYPE MYH, Y2, EMI, RFI Suppression Capacitors, Harsh Environment

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200

The MYH series of Y2, line-to-ground EMI suppression capacitors are designed for the most challenging environments. The series passes a 2,000-hour THB test, twice the 1,000-hour industry standard for THB testing. The MYH series is AEC-Q200 qualified and possesses international agency approvals for safety and performance for Y2, line-to-ground applications.

Highlights

- Excels at EMI Suppression in harsh environmental conditions
- THB 2,000 Hr @ 85℃, 85% RH, and Vr
- Automotive Grade (AEC-Q200) qualified
- High operating temperature: up to 110 °C
- International agency approvals for safety and performance

Specifications

Capacitance Range	.001 µF to 1 µF
Capacitance Tolerance	±10 % (±20% optional)
Rated Voltage	300 Vac, 1500 Vdc
Operating Temperature Range	–40 ºC to +110 ºC (+85 °C to 110 °C, voltage derating factor of 1.35% per Deg. C)
Life Expectancy	100,000h at rated voltage and hot spot temperature ≤85 °C
Voltage Between Terminals UTT	AC Voltage: U_R+1200Vac for 60s or 2U_R+1200Vac for 2s DC Voltage: 4000VDC for 2s, charge current must be 1A maximum Withstanding (DC) voltage (cut off current 10mA), rise time 100V/S.
Voltage Between Terminals and Case UTC	2200Vac, 60s (at +20/±2°C)
Dissipation Factor	0.0020 @ 1KHz @ 20 ˚C
Insulation Resistance	C ≤0.33µF at 100V; 1 min. > 15000 MΩ C >0.33µF at 100V; 1 min. > 5000 MΩ*µF
IEC Climatic Category	40/110/56 IEC60068-1
Damp Heat, Steady State (Reference: IEC 60384-14; 2013/AMD1:2016)	+40ºC / 93% RH @ rated voltage for 1,344 hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±5% DF Change (Δtgδ): ≤80*10-4 at 10 KHz (C ≤ 1µF) DF Change (Δtgδ): ≤50*10-4 at 1 KHz (C > 1µF) IR: ≥ 50% of initial limit
THB Rating	+85ºC / 85% RH @ rated voltage for 2,000hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±10% DF Change (Δtgδ): ≤240*10-4 at 10 KHz (C ≤ 1µF) DF Change (Δtgδ): ≤150*10-4 at 1 KHz (C > 1µF) IR: ≥ 50% of initial limit
Storage Conditions	-10 °C to +40 °C ≤24 months with RH ≤70%
RoHS Compliant	

Safety Agency	Standard	File Number
UL	UL 60384-14 CSA-E60384-14	E171988
VDE	IEC 60384-14:2013/ AMD1:2016	40055905
CQC	IEC 60384- 14:2013+AMD1:2016	CQC23001381668

Construction Details	
Case Material	Plastic UL 94V-0
Resin Material	Epoxy Resin UL 94V-0
Terminal Material	Copper Clad Steel or Tinned Copper Wires

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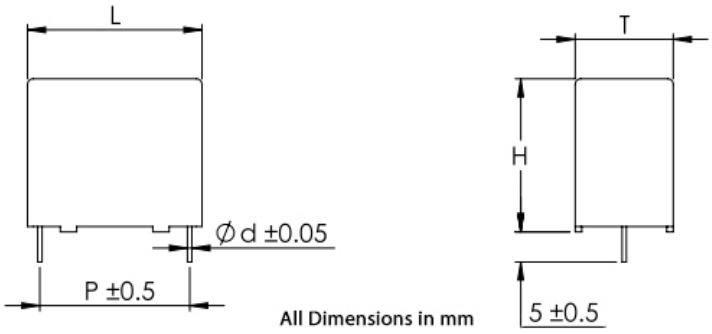
Dimensions



Size Code Table

Size	Dimensions (mm)						Pitch (mm)	Lead Wire (mm)
Code	L	Tol. ±	H	Tol. ±	T	Tol. ±	P	Ød
D10	13	0.5	11	0.5	5	0.5	10	0.6
D11	13	0.5	12	0.5	6	0.5	10	0.6
D16	13	0.5	9	0.5	4	0.5	10	0.6
E10	18	0.5	11	0.5	5	0.5	15	0.6
E11	18	0.5	12	0.5	6	0.5	15	0.6
E13	18	0.5	13.5	0.5	7.5	0.5	15	0.8
E14	18	0.5	14.5	0.5	8.5	0.5	15	0.8
E21	18	0.5	19	0.5	11	0.5	15	0.8
G10	26	0.8	15.5	0.8	6	0.8	22.5	0.6
G11	26	0.5	16.5	0.5	7	0.5	22.5	0.8
G12	26	0.8	17	0.8	8.5	0.8	22.5	0.8
G20	26	0.5	19	0.5	10	0.5	22.5	0.8
G22	26	0.5	22	0.5	12	0.5	22.5	0.8
G25	26	0.5	25	0.5	15	0.5	22.5	0.8
H11	32	0.8	18	0.8	9	0.8	27.5	0.8
H20	32	0.8	20	0.8	11	0.8	27.5	0.8
H21	32	0.8	22	0.8	13	0.8	27.5	0.8
H24	32	0.8	28	0.8	14	0.8	27.5	0.8
H27	32	0.8	28	0.8	18	0.8	27.5	0.8
H28	32	0.8	33	0.8	18	0.8	27.5	0.8
H30	32	0.8	37	0.8	22	0.8	27.5	0.8
N21	42	0.8	24	0.8	13	0.8	37.5	1
N24	42	0.8	28	0.8	17	0.8	37.5	1
N26	42	0.8	32	0.8	19	0.8	37.5	1
N30	42	0.8	40	0.8	20	0.8	37.5	1

Part Numbering System

MYH	104	K	300	E10
Series	Capacitance	Tolerance	Voltage	Case size
MYH	EIA Cap Code 472 = 0.0047 µF 183 = 0.018 µF 564 = 0.56 µF 105 = 1 µF	K = ±10% Standard M = ±20% Optional	300 = 300 VAC	See Size Code

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Ratings

Part Number	Cap (µF)	Dimensions W mm	H mm	T mm	P mm	dv/dt V/µs	Lead Wire mm
			300 VAC				
MYH102K300D16	0.0010	13	9	4	10	800	0.6
MYH152K300D16	0.0015	13	9	4	10	800	0.6
MYH222K300D16	0.0022	13	9	4	10	800	0.6
MYH332K300D10	0.0033	13	11	5	10	800	0.6
MYH472K300D10	0.0047	13	11	5	10	800	0.6
MYH472K300D11	0.0047	13	12	6	10	800	0.6
MYH472K300E10	0.0047	18	11	5	15	600	0.6
MYH562K300E10	0.0056	18	11	5	15	600	0.6
MYH682K300D11	0.0068	13	12	6	10	800	0.6
MYH682K300E10	0.0068	18	11	5	15	600	0.6
MYH822K300E10	0.0082	18	11	5	15	600	0.6
MYH103K300D11	0.010	13	12	6	10	800	0.6
MYH103K300E10	0.010	18	11	5	15	600	0.6
MYH153K300D11	0.015	13	12	6	10	800	0.6
MYH153K300E10	0.015	18	11	5	15	600	0.6
MYH183K300E11	0.018	18	12	6	15	600	0.6
MYH223K300E11	0.022	18	12	6	15	600	0.6
MYH333K300E13	0.033	18	13.5	7.5	15	600	0.8
MYH393K300E13	0.039	18	13.5	7.5	15	600	0.8
MYH473K300E14	0.047	18	14.5	8.5	15	600	0.8
MYH473K300G10	0.047	26	15.5	6	22.5	500	0.6
MYH563K300G10	0.056	26	15.5	6	22.5	500	0.6
MYH683K300E21	0.068	18	19	11	15	600	0.8
MYH683K300G11	0.068	26	16.5	7	22.5	500	0.8
MYH823K300E21	0.082	18	19	11	15	600	0.8
MYH823K300G11	0.082	26	16.5	7	22.5	500	0.8
MYH104K300G12	0.10	26	17	8.5	22.5	500	0.8
MYH104K300H11	0.10	32	18	9	27.5	400	0.8
MYH154K300G20	0.15	26	19	10	22.5	500	0.8
MYH154K300H11	0.15	32	18	9	27.5	400	0.8
MYH184K300H20	0.18	32	20	11	27.5	400	0.8
MYH224K300G22	0.22	26	22	12	22.5	500	0.8
MYH224K300H20	0.22	32	20	11	27.5	400	0.8
MYH274K300H21	0.27	32	22	13	27.5	400	0.8
MYH334K300G25	0.33	26	25	15	22.5	500	0.8
MYH334K300H24	0.33	32	28	14	27.5	400	0.8
MYH474K300H27	0.47	32	28	18	27.5	400	0.8
MYH474K300N21	0.47	42	24	13	37.5	300	1
MYH564K300H28	0.56	32	33	18	27.5	400	0.8
MYH684K300H28	0.68	32	33	18	27.5	400	0.8
MYH684K300N24	0.68	42	28	17	37.5	300	1
MYH824K300H30	0.82	32	37	22	27.5	400	0.8
MYH824K300N26	0.82	42	32	19	37.5	300	1
MYH105K300H30	1	32	37	22	27.5	400	0.8
MYH105K300N30	1	42	40	20	37.5	300	1

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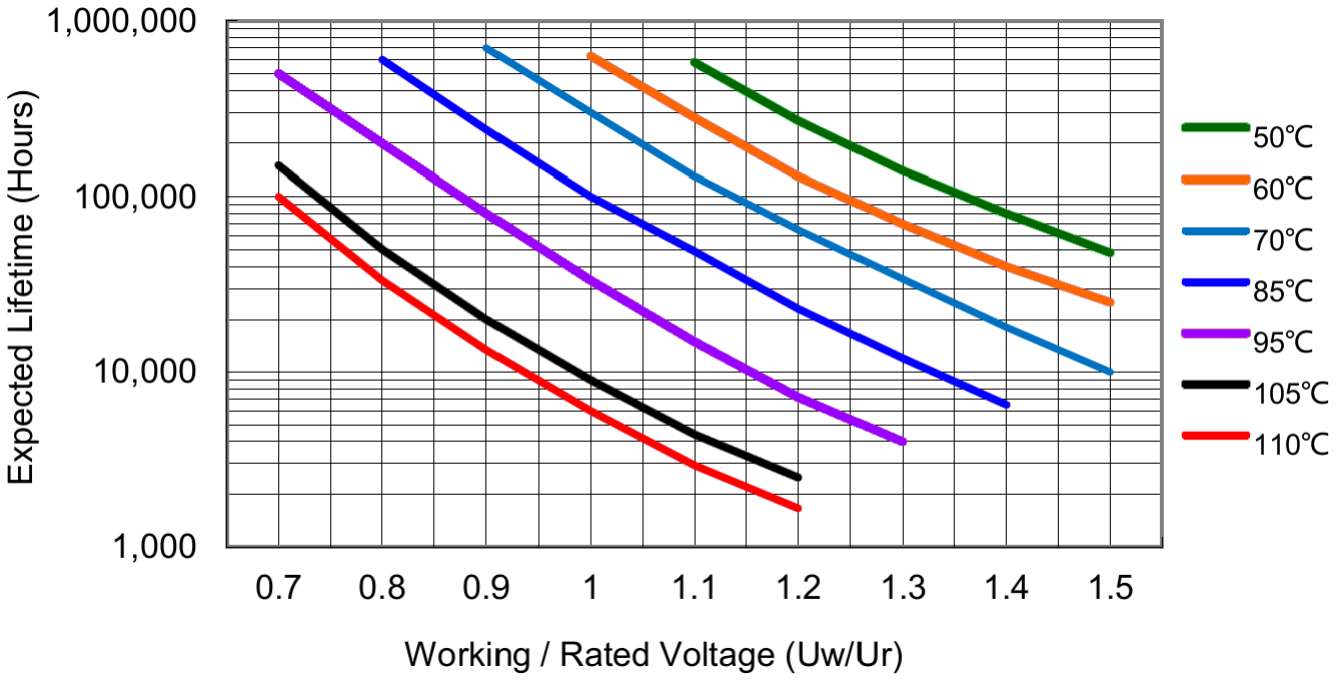
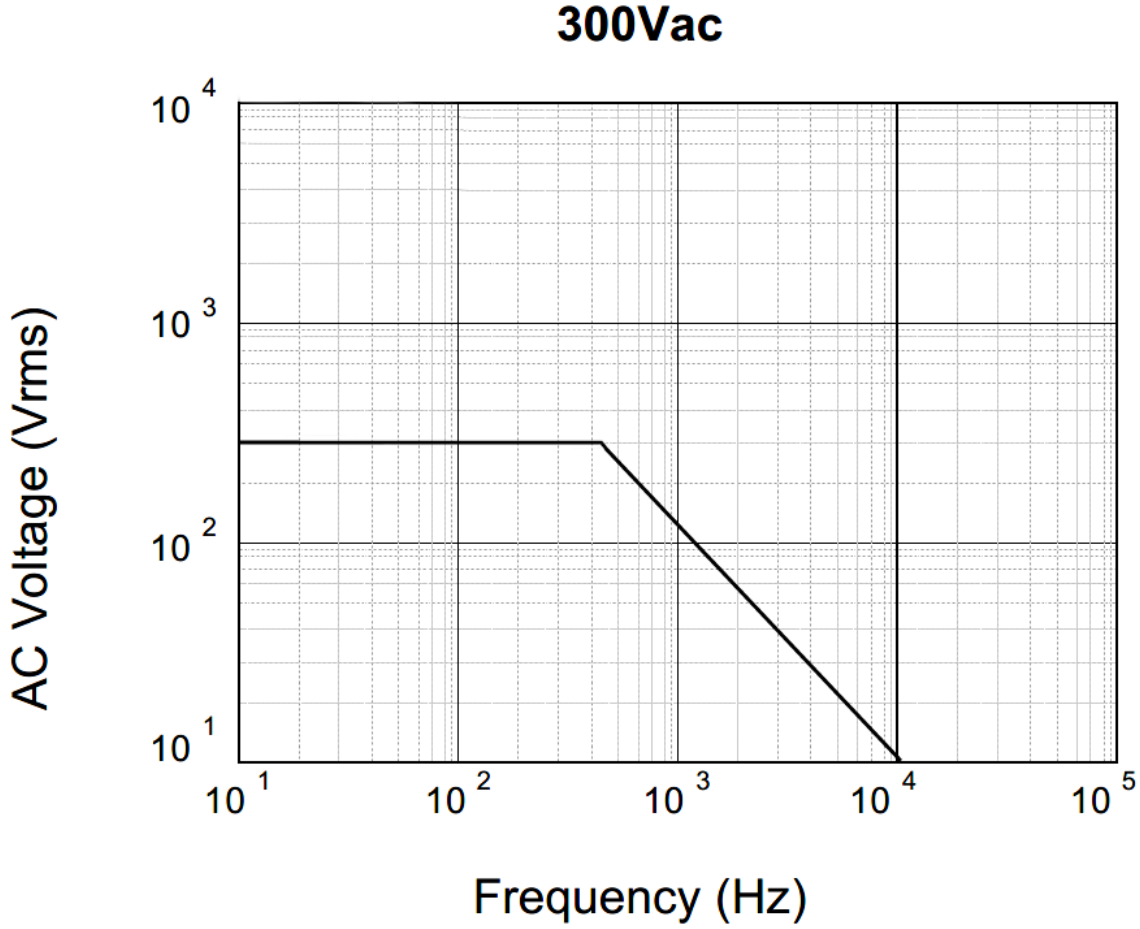
Expected Life Curve



Maximum Voltage (Vrms) Versus Frequency



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