TWH Series



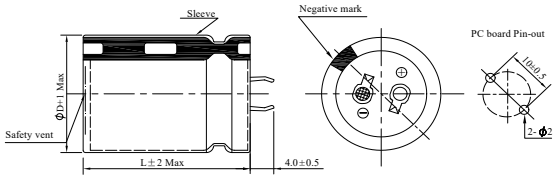
- **Load life 2,000 hours at 125℃**
- **High ripple current, high reliability**

◆ SPECIFICATIONS

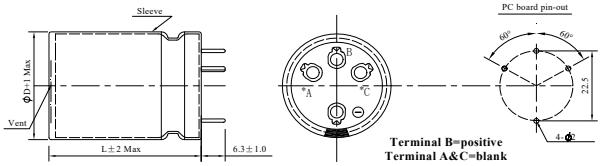
Item	Performance Characteristics
Category Temperature Range	-25 ~ +125℃
Working Voltage Range	400~450Vdc
Capacitance Range	82 ~ 820μF
Capacitance Tolerance	±20% (at 25℃ and 120Hz)
Dissipation Factor (tanδ) (at 25℃, 120Hz)	Rated Voltage (V): 400~450; tanδ(Max): 0.20 When nominal capacitance exceeds 1,000uF, add 0.02 to the value above for each 1,000uF increase.
Leakage Current	I=0.02CV or 3000μA,whichever is smaller I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Impress the rated voltage for 5 minutes
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V): 400~450; Z(-25℃)/Z(+20℃): 8 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 25℃ after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 125℃. Capacitance change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ specified value
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25℃ after exposing them for 1,000 hours at 125℃ without voltage applied. Capacitance change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ 200% of the specified value
Others	Conforms to JIS-C-5101-4 (1998)

◆ DIMENSIONS (mm)

Terminal Code : ND : Standard



Terminal Code :K6 (Φ35)



◆ PART NUMBER SYSTEM (Example : 420V 270μF)

T	W	H	2	S	2	7	1	M	N	D	2	5	4	5	Y					

- Special Request
- Size code(2545 : 25×45)
- Terminal length code
- Terminal type code
- Capacitance tolerance code(M:±20%)
- Capacitance code(270μF)
- Voltage code(420V)
- Series code (TWH)

TWH Series

◆ **STANDARD RATINGS**

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	Rated Ripple current (mA rms/ 125℃, 120Hz)	Part Number
400 (2G)	82	22×25	790	TWH2G820MNN2225Y
	100	22×30	910	TWH2G101MNN2230Y
	120	22×30	980	TWH2G121MNN2230Y
	120	25×25	960	TWH2G121MNN2525Y
	150	22×35	1140	TWH2G151MNN2235Y
	150	25×30	1120	TWH2G151MNN2530Y
	180	22×40	1280	TWH2G181MNN2240Y
	180	25×35	1280	TWH2G181MNN2535Y
	220	22×50	1500	TWH2G221MNN2250Y
	220	25×40	1450	TWH2G221MNN2540Y
	220	30×30	1350	TWH2G221MNN3030Y
	270	22×55	1690	TWH2G271MNN2255Y
	270	25×45	1640	TWH2G271MNN2545Y
	270	30×35	1550	TWH2G271MNN3035Y
	330	25×55	1900	TWH2G331MNN2555Y
	330	30×40	1750	TWH2G331MNN3040Y
	390	25×60	2090	TWH2G391MNN2560Y
	390	30×45	1940	TWH2G391MNN3045Y
	390	35×35	1750	TWH2G391MNN3535Y
	470	30×50	2140	TWH2G471MNN3050Y
	470	35×40	1960	TWH2G471MNN3540Y
	560	30×60	2450	TWH2G561MNN3060Y
	560	35×45	2160	TWH2G561MNN3545Y
	680	35×55	2520	TWH2G681MNN3555Y
	820	35×60	2720	TWH2G821MNN3560Y
420 (2S)	82	22×25	790	TWH2S820MNN2225Y
	100	22×30	910	TWH2S101MNN2230Y
	120	22×30	990	TWH2S121MNN2230Y
	120	25×25	960	TWH2S121MNN2525Y
	150	22×35	1140	TWH2S151MNN2235Y
	150	25×30	1120	TWH2S151MNN2530Y
	180	22×45	1340	TWH2S181MNN2245Y
	180	25×35	1280	TWH2S181MNN2535Y
	220	22×50	1510	TWH2S221MNN2250Y
	220	25×40	1450	TWH2S221MNN2540Y
	220	30×30	1350	TWH2S221MNN3030Y
	270	22×60	1740	TWH2S271MNN2260Y
	270	25×45	1640	TWH2S271MNN2545Y
	270	30×35	1540	TWH2S271MNN3035Y

WV (Vdc)	Cap (μF)	Case Size (mm) ΦD×L	Rated Ripple current (mA rms/ 125℃, 120Hz)	Part Number
420 (2S)	330	25×55	1900	TWH2S331MNN2555Y
	330	30×40	1740	TWH2S331MNN3040Y
	390	25×60	2090	TWH2S391MNN2560Y
	390	30×45	1930	TWH2S391MNN3045Y
	390	35×35	1740	TWH2S391MNN3535Y
	470	30×55	2240	TWH2S471MNN3055Y
	470	35×40	1950	TWH2S471MNN3540Y
	560	30×60	2440	TWH2S561MNN3060Y
	560	35×45	2150	TWH2S561MNN3545Y
	680	35×55	2510	TWH2S681MNN3555Y
450 (2W)	82	22×25	770	TWH2W820MNN2225Y
	100	22×30	890	TWH2W101MNN2230Y
	120	22×30	940	TWH2W121MNN2230Y
	120	25×25	930	TWH2W121MNN2525Y
	150	22×40	1170	TWH2W151MNN2240Y
	150	25×30	1100	TWH2W151MNN2530Y
	150	30×25	1060	TWH2W151MNN3025Y
	180	22×45	1320	TWH2W181MNN2245Y
	180	25×35	1250	TWH2W181MNN2535Y
	180	30×30	1240	TWH2W181MNN3030Y
	220	22×50	1490	TWH2W221MNN2250Y
	220	25×40	1420	TWH2W221MNN2540Y
	220	30×30	1310	TWH2W221MNN3030Y
	220	35×25	1230	TWH2W221MNN3525Y
	270	22×60	1730	TWH2W271MNN2260Y
	270	25×45	1590	TWH2W271MNN2545Y
	270	30×35	1500	TWH2W271MNN3035Y
	270	35×30	1450	TWH2W271MNN3530Y
	330	25×55	1880	TWH2W331MNN2555Y
	330	30×40	1700	TWH2W331MNN3040Y
	330	35×35	1650	TWH2W331MNN3535Y
	390	30×45	1880	TWH2W391MNN3045Y
	390	35×35	1690	TWH2W391MNN3535Y
	470	30×55	2210	TWH2W471MNN3055Y
	470	35×40	1900	TWH2W471MNN3540Y
	560	30×60	2390	TWH2W561MNN3060Y
	560	35×50	2260	TWH2W561MNN3550Y
	680	35×55	2470	TWH2W681MNN3555Y

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	≥50K
400 ~ 450	0.77	1.00	1.30	1.41	1.43