

GWH Screw terminal, 105°C Standard series



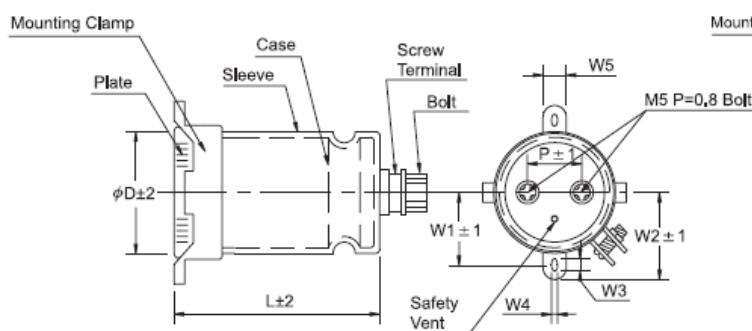
- High ripple current & reliability for industrial equipments use.
- Voltage range: 10 ~ 450V
- Capacitance range: 1000 ~ 330,000 μF
- Life guaranteed 2,000 hours/105°C.

• Specifications

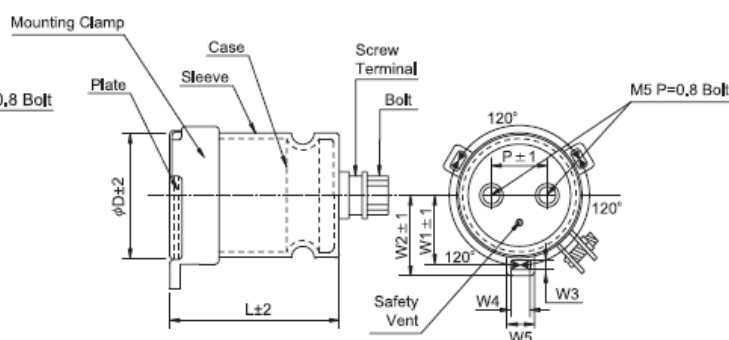
Item	Performance Characteristics										
Operating Temperature range	-40 + 105°C					-25 + 105°C					
Rated Voltage	10V ~ 100V					160V ~ 450V					
Capacitance Range	1000 ~ 330,000 μF										
Capacitance Tolerance	$\pm 20\%$ (120Hz, 20°C)										
Leakage Current	$I \leq 0.02CV$ or 5 mA, whichever is greater after 5 minutes application of rated voltage.										
Dissipation Factor (Tan δ) 120 Hz, 20°C	Case D ϕ \WV	10	16	25	35	50	63	100	160~50	400~450	
	35 ϕ	0.80	0.80	0.35 (0.40)	0.30 (0.35)	0.25 (0.30)	0.20 (0.25)	0.15	0.15	0.15	
	51 ϕ	1.00	0.90	0.40 (0.50)	0.45 (0.50)	0.35 (0.40)	0.25 (0.30)	0.15	0.15	0.15	
	64 ϕ	1.20	1.00	0.60 (0.80)	0.55 (0.60)	0.40 (0.45)	0.30 (0.35)	0.20	0.15	0.15	
	77 ϕ	2.00	1.20	1.00	0.70	0.50	0.40	0.25	0.15	0.15	
	90 ϕ	2.00	1.20	1.00	0.70	0.50	0.40	0.25	0.15	0.15	
The values in blank are for body height which more than 100 mm.											
Temperature Characteristics (120 Hz)	Impedance Ratio / Stability at Low Temperature										
	Rated voltage (V)	10 ~ 100					160 ~ 450				
	Z (-25°C) / Z (20°C)	-----					8				
	Z (-40°C) / Z (20°C)	12					-----				
Load Life	After 2,000 hours application of WV at 105°C, capacitor shall meet the characteristics requirements mentioned below.										
	Capacitance change	Within $\pm 20\%$ of initial value									
	Tan δ	$\leq 200\%$ of initial specified value									
	Leakage current	\leq Initial specified value									
Shelf Life	At 105°C, no voltage applied for 1,000 hours, the capacitor shall meet the limits as in load life.										

• Dimension (mm)

(▲ $\phi 35$)



(▲ $\phi 51, \phi 64, \phi 77, \phi 90$)



D ϕ	W ₁	W ₂	W ₃	W ₄	W ₅	P
35	24.0	30.0	7.0	3.5	10.0	12.7
51	32.5	37.5	4.5	7.0	13.0	21.8
64	38.5	42.8	4.5	7.0	13.0	28.2
77	44.8	49.0	4.5	7.0	13.0	31.4
90	52.3	58.8	5.0	8.0	16.0	31.4

• Frequency coefficient of allowable ripple current

Frequency	60 Hz	120 Hz	1 KHz	10 KHz	100 KHz
6.3 ~ 35V	0.90	1.00	1.05	1.10	1.10
50 ~ 100V	0.90	1.00	1.10	1.15	1.15
160 ~ 450V	0.80	1.00	1.20	1.30	1.35

• Allowable ripple vs. Ambient temperature

Ambient Temp. (°C)	45	55	70	85	105	
Multiplier	$\leq 250V$	3.00	2.50	2.00	1.40	1.00
	$\geq 350V$	2.50	2.00	1.50	1.20	1.00

• Standard Products Table

Dφ x L (mm)

WV(SV) Cap (μF)	10 (13)		16 (20)		25 (32)		35 (44)		50 (63)	
8200									35 x 60	3.18
10000									35 x 70	3.75
15000							35 x 60	4.09	35 x 80	4.88
22000			35 x 50	3.25	35 x 60	4.59	35 x 80	5.63	51 x 70	5.57
33000	35 x 50	3.72	35 x 60	4.31	35 x 80	6.39	51 x 70	6.56	51 x 90	7.60
47000	35 x 60	4.81	35 x 80	5.84	35 x 90	8.04	51 x 80	8.29	64 x 96	9.48
56000	35 x 70	5.61	35 x 90	6.72	51 x 70	8.31	51 x 90	9.53	64 x 96	10.34
68000	35 x 80	6.57	51 x 70	6.66	51 x 90	10.21	51 x 115	11.11	64 x 115	11.62
100000	51 x 70	7.67	51 x 90	9.00	64 x 96	11.28	64 x 115	12.20	77 x 115	14.14
150000	51 x 90	10.46	64 x 96	11.22	64 x 115	12.94	77 x 115	13.90	90 x 130	19.02
220000	64 x 96	13.53	64 x 115	14.69	77 x 115	14.83	90 x 130	17.42		
330000	64 x 115	17.92	77 x 115	18.24	90 x 130	19.94			Case size	Ripple

WV(SV) Cap (μF)	63 (75)		100 (125)		160 (200)		200 (250)		250 (300)	
1000					35 x 60	1.50	35 x 60	1.62	35 x 70	1.73
1500					35 x 60	1.98	35 x 70	2.12	35 x 90	2.38
2200					35 x 70	2.57	35 x 90	2.88	51 x 70	2.94
3300					35 x 90	3.52	51 x 80	3.49	51 x 90	4.01
4700					51 x 80	4.54	51 x 90	4.38	64 x 115	5.29
5600			35 x 90	4.59	51 x 90	5.22	64 x 96	5.34	77 x 96	5.94
6800	35 x 70	3.31	51 x 70	5.16	64 x 96	5.89	64 x 115	6.37	77 x 115	7.07
8200	35 x 80	3.86	51 x 80	6.00	64 x 96	6.46	77 x 96	6.85	77 x 130	8.18
10000	35 x 90	4.50	51 x 90	6.97	77 x 96	7.56	77 x 115	8.16	77 x 155	9.76
15000	51 x 70	4.95	64 x 96	7.57	77 x 130	10.54	90 x 130	10.98	90 x 157	11.87
22000	51 x 90	6.68	77 x 96	8.69	90 x 130	13.30				
33000	64 x 96	8.73	77 x 130	12.11						
47000	64 x 115	10.43	90 x 130	15.05						
56000	77 x 96	10.96								
68000	77 x 115	13.03								
100000	90 x 130	17.36							Case size	Ripple

WV(SV) Cap (μF)	350 (400)		400 (450)		450 (500)	
1000	51 x 65	2.40	51 x 70	2.47	51 x 90	2.94
1500	51 x 70	3.03	51 x 90	3.38	51 x 115	4.02
2200	51 x 96	4.21	64 x 96	4.46	64 x 115	5.17
3300	64 x 96	5.47	64 x 130	6.24	64 x 130	6.69
3900	64 x 115	6.43	64 x 155	7.34	77 x 120	7.82
4700	64 x 130	7.45	77 x 130	7.97	77 x 144	9.26
5600	77 x 115	7.94	77 x 155	9.39	90 x 145	11.06
6800	77 x 130	9.23	90 x 157	10.94	90 x 196	13.93
8200	77 x 155	10.95	90 x 157	12.01		
10000	90 x 157	12.25	90 x 196	14.64	Case size	Ripple

Allowable ripple current (A rms) at 105°C 120Hz