

### Screw Terminal Type

# Discontinued

Series:GUP

- Features
  - Endurance: 85°C 2000, 5000 h
  - High-ripple-current product
  - Expanded case size up to  $\phi 90 \times 222$
  - High CV packed

Japan



### ■ Recommended Applications

For general-purpose inverter, power supply for backup system, motor-control, inverter

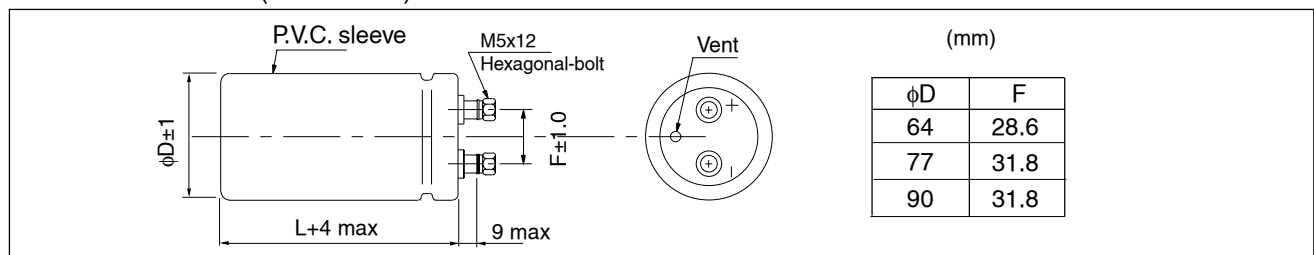
### ■ Specifications

Category temp. range	-25 to +85°C	
Rated W.V. Range	160 to 450 V .DC	
Nominal Cap. Range	2700 to 56000 $\mu$ F	
Capacitance Tolerance	$\pm 20\%$ (120Hz/+20°C)	
DC Leakage Current	33 $\sqrt{CV}$ ( $\mu$ A) or 5(mA) whichever, smaller, after 5 minutes application of rated working voltage at +20°C C:Capacitance( $\mu$ F) V: W.V. (V.DC)	
Dissipation Factor	Please see the attached standard products list	
Endurance	After 5000 hours application of DC voltage with specified ripple current ( $\leq$ rated DC working voltage) at +85°C, the capacitor shall meet the following limits.(160 to 250 W.V. : 2000 hours at +85°C)	
	Capacitance change	$\pm 20\%$ of initial measured value
	D.F.	$\leq 200\%$ of initial specified value
	DC leakage current	$\leq$ initial specified value
Shelf Life	After storage for 1000hours at +85 $\pm 2$ °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in iEndurancei.(With voltage treatment)	
Withstand Voltage	Application of 1500 V.AC between V-block and terminals for 1 minute, there shall be no abnormalities like destruction of insulator.	

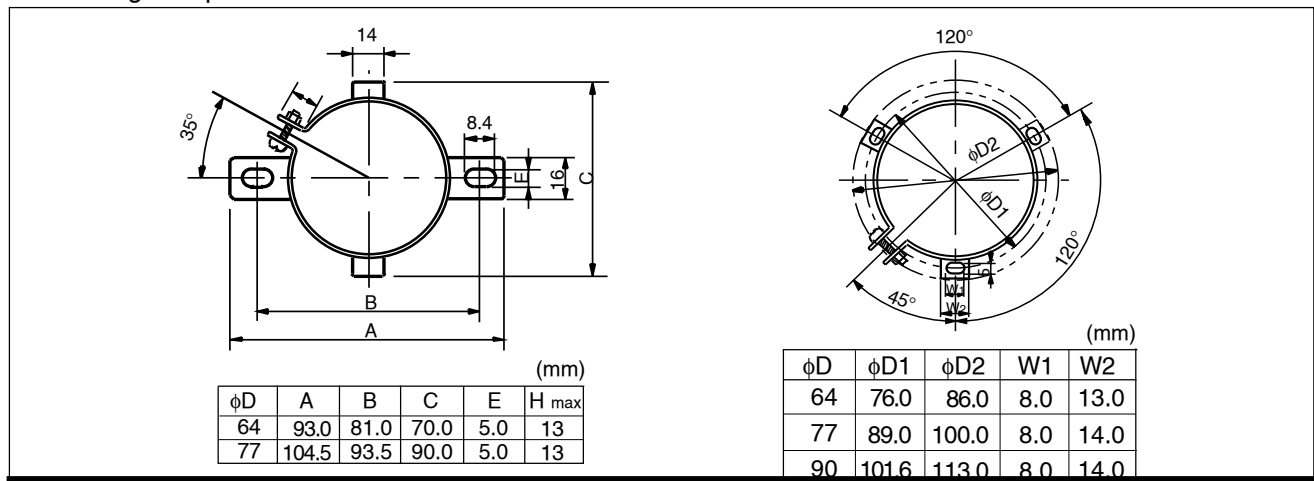
### ■ Frequency Correction Factor for Ripple Current

W.V.(V)	$\phi D$ (mm)	Freq.(Hz)	50	60	120	300	360	1k	10k to
160, 200	64		0.86	0.91	1.00	1.05	1.06	1.08	1.10
	77, 90		0.90	0.95	1.00	1.05	1.06	1.08	1.10
250, 350	64		0.83	0.88	1.00	1.07	1.08	1.13	1.20
	77, 90		0.85	0.90	1.00	1.05	1.06	1.11	1.20
400, 450	64		0.81	0.87	1.00	1.07	1.08	1.13	1.21
	77, 90		0.85	0.90	1.00	1.05	1.06	1.11	1.20

### ■ Dimensions in mm (not to scale)



### ■ Mounting clamp



Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

### Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification		Terminal Pitch (mm)	Part No.	():Mounting Clamp	
		Dia. (mm)	Length (mm)	Ripple current (120Hz) (+85°C) (A)	D.F. (120Hz) (+20°C)			No	Yes
160	12000	64	103	15.9	0.25	28.6	ECOG2CP123D()	N	F
	15000	64	125	17.2	0.25	28.6	ECOG2CP153D()	N	F
	18000	64	145	19.4	0.25	28.6	ECOG2CP183D()	N	F
	22000	64	168	21.3	0.25	28.6	ECOG2CP223D()	N	F
		77	125	21.3	0.25	31.8	ECOG2CP223E()	N	F
	27000	64	222	22.4	0.25	28.6	ECOG2CP273D()	N	F
		77	150	22.4	0.25	31.8	ECOG2CP273E()	N	F
	33000	77	168	23.7	0.25	31.8	ECOG2CP333E()	N	F
		90	150	25.0	0.30	31.8	ECOG2CP333F()	N	F
	39000	77	190	25.7	0.25	31.8	ECOG2CP393E()	N	F
		90	168	25.7	0.30	31.8	ECOG2CP393F()	N	F
	47000	77	222	28.2	0.25	31.8	ECOG2CP473E()	N	F
90		190	28.2	0.30	31.8	ECOG2CP473F()	N	F	
56000	90	222	30.7	0.30	31.8	ECOG2CP563F()	N	F	
200	10000	64	103	14.7	0.25	28.6	ECOG2DP103D()	N	F
	12000	64	125	15.8	0.25	28.6	ECOG2DP123D()	N	F
	15000	64	145	18.1	0.25	28.6	ECOG2DP153D()	N	F
	18000	64	168	19.8	0.25	28.6	ECOG2DP183D()	N	F
		77	125	19.8	0.25	31.8	ECOG2DP183E()	N	F
	22000	64	222	22.0	0.25	28.6	ECOG2DP223D()	N	F
		77	150	22.0	0.25	31.8	ECOG2DP223E()	N	F
	27000	77	168	23.0	0.25	31.8	ECOG2DP273E()	N	F
		90	150	23.0	0.30	31.8	ECOG2DP273F()	N	F
	33000	77	222	25.4	0.25	31.8	ECOG2DP333E()	N	F
		90	168	25.4	0.30	31.8	ECOG2DP333F()	N	F
	39000	90	190	27.6	0.30	31.8	ECOG2DP393F()	N	F
47000	90	222	30.3	0.30	31.8	ECOG2DP473F()	N	F	
250	8200	64	125	12.8	0.25	28.6	ECOG2EP822D()	N	F
	10000	64	145	14.7	0.25	28.6	ECOG2EP103D()	N	F
	12000	64	168	16.6	0.25	28.6	ECOG2EP123D()	N	F
		77	125	16.6	0.25	31.8	ECOG2EP123E()	N	F
	15000	64	222	19.0	0.25	28.6	ECOG2EP153D()	N	F
		77	150	19.0	0.25	31.8	ECOG2EP153E()	N	F
	18000	77	190	19.7	0.25	31.8	ECOG2EP183E()	N	F
		90	150	19.7	0.30	31.8	ECOG2EP183F()	N	F
	22000	77	222	21.8	0.25	31.8	ECOG2EP223E()	N	F
		90	168	21.7	0.30	31.8	ECOG2EP223F()	N	F
	27000	90	190	24.0	0.30	31.8	ECOG2EP273F()	N	F
	33000	90	222	26.5	0.30	31.8	ECOG2EP333F()	N	F
350	3900	64	103	10.3	0.20	28.6	ECOG2VP392D()	N	F
	4700	64	125	12.1	0.20	28.6	ECOG2VP472D()	N	F
	5600	64	145	14.3	0.20	28.6	ECOG2VP562D()	N	F

Endurance : 160 to 250V.W. : 85°C 2000 h

350 to 450V.W. : 85°C 5000 h

### ■ Standard Products

W.V. (V)	Cap. (±20%) (μF)	Case size		Specification		Terminal Pitch (mm)	Part No.	():Mounting Clamp	
		Dia. (mm)	Length (mm)	Ripple current (120Hz) (+85°C) (A)	D.F. (120Hz) (+20°C)			No	Yes
350	6800	64	168	16.7	0.20	28.6	ECOG2VP682D( )	N	F
		77	125	16.4	0.20	31.8	ECOG2VP682E( )	N	F
	8200	64	222	18.5	0.20	28.6	ECOG2VP822D( )	N	F
		77	150	18.1	0.20	31.8	ECOG2VP822E( )	N	F
	10000	77	168	22.4	0.20	31.8	ECOG2VP103E( )	N	F
		90	125	19.3	0.20	31.8	ECOG2VP103F( )	N	F
	12000	77	190	26.1	0.20	31.8	ECOG2VP123E( )	N	F
		90	150	22.8	0.20	31.8	ECOG2VP123F( )	N	F
	15000	77	222	30.4	0.20	31.8	ECOG2VP153E( )	N	F
		90	190	28.6	0.20	31.8	ECOG2VP153F( )	N	F
18000	90	222	33.6	0.20	31.8	ECOG2VP183F( )	N	F	
400	3300	64	103	9.5	0.20	28.6	ECOG2GP332D( )	N	F
	3900	64	125	11.0	0.20	28.6	ECOG2GP392D( )	N	F
	4700	64	145	13.1	0.20	28.6	ECOG2GP472D( )	N	F
	5600	64	168	15.1	0.20	28.6	ECOG2GP562D( )	N	F
		77	125	14.6	0.20	31.8	ECOG2GP562E( )	N	F
	6800	64	222	17.8	0.20	28.6	ECOG2GP682D( )	N	F
		77	150	17.4	0.20	31.8	ECOG2GP682E( )	N	F
	8200	77	168	20.3	0.20	31.8	ECOG2GP822E( )	N	F
		90	125	18.0	0.20	31.8	ECOG2GP822F( )	N	F
	10000	77	190	23.8	0.20	31.8	ECOG2GP103E( )	N	F
		90	150	21.5	0.20	31.8	ECOG2GP103F( )	N	F
	12000	77	222	27.0	0.20	31.8	ECOG2GP123E( )	N	F
90		168	24.9	0.20	31.8	ECOG2GP123F( )	N	F	
15000	90	222	31.8	0.20	31.8	ECOG2GP153F( )	N	F	
450	2700	64	103	8.6	0.20	28.6	ECOG2WP272D( )	N	F
	3300	64	125	10.1	0.20	28.6	ECOG2WP332D( )	N	F
	3900	64	145	11.9	0.20	28.6	ECOG2WP392D( )	N	F
	4700	64	168	13.9	0.20	28.6	ECOG2WP472D( )	N	F
		77	125	13.4	0.20	31.8	ECOG2WP472E( )	N	F
	5600	64	222	16.1	0.20	28.6	ECOG2WP562D( )	N	F
		77	150	15.8	0.20	31.8	ECOG2WP562E( )	N	F
	6800	77	168	18.5	0.20	31.8	ECOG2WP682E( )	N	F
		90	125	17.1	0.20	31.8	ECOG2WP682F( )	N	F
	8200	77	190	21.6	0.20	31.8	ECOG2WP822E( )	N	F
		90	150	18.8	0.20	31.8	ECOG2WP822F( )	N	F
	10000	77	222	25.6	0.20	31.8	ECOG2WP103E( )	N	F
		90	168	22.0	0.20	31.8	ECOG2WP103F( )	N	F
	12000	90	222	27.5	0.20	31.8	ECOG2WP123F( )	N	F

Endurance : 160 to 250V.W. : 85°C 2000 h  
 350 to 450V.W. : 85°C 5000 h