HCGW Series (Warranty of 2,000 hours at 85°C)

Features

- Product primarily designed for circuits requiring large energy momentarily like those for the uninterruptible power supply (UPS) and X-ray power supply
- Capacitance improved by 40%, comparison with the HCGF6 model (smallest model)

Product code : (Example) 450V 22,000 μF±20%

HCGWA	2W	223	Y	(F)
Type of series	Code for rated voltage (JIS symbol)	Code for capacitance (The last digit "3" indicates the number of 0s.)	Code for fixture	Case code

("Y" is the standard code but "I" may be used instead. "N" is used when no fixture is required.)

(This code is required when multiple kinds of cases are available. For standard products, only the first letter is used. For example, "F" is used for F24R.)

*( ) Case code in parentheses : If two types of shape exist for the same rating, enter the first English letter of case code.

Attachment of legs

- See page 43 for shapes and dimensions.
- Product names in the Standard Units Rating Table correspond to the attachment legs for Type Y (Type I for ø36 only), but Type I attachment legs may be used (Shape Code = I).
- If attachment legs are not necessary, enter "N" for the attachment leg shape code.
- Attachment legs will be delivered separately.

Product Specifications

Item	Specifications
Temperature range	–10°C ~ +85°C
Rated current	350 ~ 500V.DC
Capacitance tolerance	±20% (20℃,120Hz)
Leakage current	This current must be less than or equal to a smaller value of I=0.01CV and 7mA (20℃, 5 minutes). (I: Leakage current, C: μF), V: Rated voltage (VDC)
Dissipation factor	Must be less than or equal to 0.70 (20℃, 120Hz)
Withstand voltage	No abnormality must be found when 2,000 VDC is applied between the terminal block and the mount fixture (to be attached to the case which has been coated doubly with an armored sleeve).
Load at high temperature	The requirements shown in the following table must be met under conditions that allowable ripple currents are superposed at 85℃ within a range not exceeding a rated voltage, voltage is applied for 2,000 hours, then the temperature is lowered again to 20℃.
No load at high temperature	The requirements of the above table (shown in the column "Load at High Temperature") must be met under conditions that the capacitor is left at 85℃ for 500 hours with no voltage applied, the temperature is lowered again to 20℃ and preprocessing for tests (4.4 in JIS C5102) is performed.
Related standard	JIS C 5101-4

Characteristic	Requirements
Rate of change	Within ±15% of the initial value
Dissipation factor value	Within 175% of the initial standard
Leakage current	Within the initial standard value

Ripple current correction coefficient

Ambient temperature (℃)	40	60	70	85
Correction coefficient	1.0	0.75	0.62	0.37
Frequency (Hz)	120	300	1k	10K≦
Correction coefficient	1.0	1.1	1.3	1.4

* When using this capacitor at a frequency below 120 Hz, contact us in advance.

Standard value and case size

Rated Voltage V. DC	Capacitance (μF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
350V(2V)	13000	77×155	E16R	0.70	20.7	HCGWA2V133Y
	17000	90×157	F16R	0.70	25.4	HCGWA2V173Y
	18000	77×195	E20R	0.70	26.8	HCGWA2V183Y
	22000	77×235	E24R	0.70	32.1	HCGWA2V223Y
	24000	101×175	G18R	0.70	33.8	HCGWA2V243Y
	25000	90×196	F20R	0.70	33.6	HCGWA2V253Y
	31000	90×236	F24R	0.70	40.4	HCGWA2V313YF
		101×195	G20R	0.70	38.1	HCGWA2V313YG
	39000	101×237	G24R	0.70	46.2	HCGWA2V393Y

Rated Voltage V. DC	Capacitance (μF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
400V(2G)	11000	77×155	E16R	0.70	19.2	HCGWA2G113Y
	14000	77×195	E20R	0.70	23.9	HCGWA2G143Y
	16000	77×235	E24R	0.70	28.0	HCGWA2G163YE
		90×157	F16R	0.70	24.8	HCGWA2G163YF
	20000	90×196	F20R	0.70	30.3	HCGWA2G203Y
	22000	101×175	G18R	0.70	30.8	HCGWA2G223Y
	25000	90×236	F24R	0.70	36.6	HCGWA2G253YF
		101×195	G20R	0.70	34.5	HCGWA2G253YG
	32000	101×237	G24R	0.70	41.8	HCGWA2G323Y

Rated Voltage V. DC	Capacitance (μF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
450V(2W)	9500	77×155	E16R	0.70	17.9	HCGWA2W952Y
	12000	77×195	E20R	0.70	22.1	HCGWA2W123Y
	13000	90×157	F16R	0.70	21.0	HCGWA2W133Y
	15000	77×235	E24R	0.70	27.3	HCGWA2W153Y
	17000	90×196	F20R	0.70	27.9	HCGWA2W173Y
	18000	101×175	G18R	0.70	27.9	HCGWA2W183Y
	22000	90×236	F24R	0.70	34.3	HCGWA2W223YF
		101×195	G20R	0.70	32.2	HCGWA2W223YG
	27000	101×237	G24R	0.70	38.4	HCGWA2W273Y

Rated Voltage V. DC	Capacitance (μF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
500V(2H)	5600	77×155	E16R	0.70	13.7	HCGWA2H562Y
	8200	77×195	E20R	0.70	18.2	HCGWA2H822YE
		90×157	F16R	0.70	17.7	HCGWA2H822YF
	9500	77×235	E24R	0.70	21.7	HCGWA2H952Y
	11000	90×196	F20R	0.70	22.4	HCGWA2H113Y
	12000	101×175	G18R	0.70	22.7	HCGWA2H123Y
	14000	90×236	F24R	0.70	27.4	HCGWA2H143YF
		101×195	G20R	0.70	25.6	HCGWA2H143YG
	16000	101×237	G24R	0.70	29.6	HCGWA2H163Y