KYC Upgrade! Series

- 120WV model has been introduced to the product range.
- New highly reliable electrolyte is employed to minimize ESR and maximize ripple current.
- For motercycle ACG starter.
- Endurance with ripple current : 3,000 to 5,000 hours at 105℃
- Rated voltage range : 16 to 120V, Capacitance range : 68 to 12,000μF
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

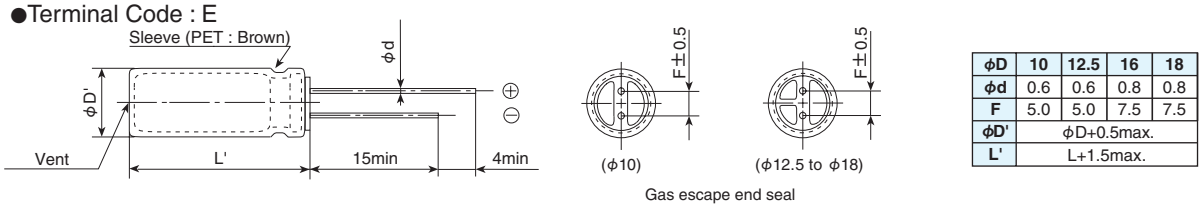
◆SPECIFICATIONS

Items	Characteristics									
Category Temperature Range	-40 to +105℃									
Rated Voltage Range	16 to 120Vdc									
Capacitance Tolerance	±20% (M)									(at 20℃, 120Hz)
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)									(at 20℃ after 2 minutes)
Dissipation Factor (tan δ)	Rated voltage (Vdc)	16V	25V	35V	50V	63V	80V	100V	120V	
	tan δ (Max.)	0.16	0.14	0.12	0.10	0.09	0.09	0.08	0.15	
	When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase.									(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	16V	25V	35V	50V	63V	80V	100V	120V	
	Z (-25℃) / Z (+20℃)	3	2	2	2	2	2	2	3	
	Z (-40℃) / Z (+20℃)	8	5	4	3	3	3	3	3	(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 5,000 hours (3,000 hours for φ10) at 105℃.									
	Capacitance change	≦±25% of the initial value								
	D.F. (tan δ)	≦200% of the initial specified value								
	Leakage current	≦The initial specified value								
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.									
	Capacitance change	≦±25% of the initial value								
	D.F. (tan δ)	≦200% of the initial specified value								
	Leakage current	≦The initial specified value								

*Note: If any doubts arises, measure the leakage current after carrying out the following voltage treatment.
Voltage treatment: DC rated voltage is applied to the capacitors for 30 to 60 minutes at room temperature.

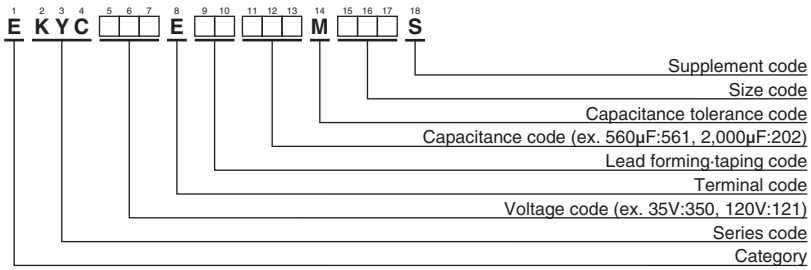
◆DIMENSIONS [mm]

●Terminal Code : E



φD	10	12.5	16	18
φd	0.6	0.6	0.8	0.8
F	5.0	5.0	7.5	7.5
φD'	φD+0.5max.			
L'	L+1.5max.			

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

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KYC Upgrade! Series

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	ESR (Ω max./ 20℃, 100kHz)	Rated ripple current (mArms/ 105℃, 100kHz)	Part No.
16	910	10×12.5	0.14	1,120	EKYC160E□□911MJC5S
	1,300	10×16	0.10	1,570	EKYC160E□□132MJ16S
	2,000	10×20	0.065	1,940	EKYC160E□□202MJ20S
	3,300	12.5×20	0.050	2,150	EKYC160E□□332MK20S
	4,700	12.5×25	0.037	2,820	EKYC160E□□472MK25S
	5,600	12.5×30	0.029	3,120	EKYC160E□□562MK30S
	5,600	16×20	0.038	2,530	EKYC160E□□562ML20S
	6,800	18×20	0.037	2,700	EKYC160E□□682MM20S
	7,500	16×25	0.031	3,240	EKYC160E□□752ML25S
	9,100	16×30	0.025	3,580	EKYC160E□□912ML30S
	10,000	18×25	0.030	3,350	EKYC160E□□103MM25S
	12,000	18×30	0.024	3,710	EKYC160E□□123MM30S
25	560	10×12.5	0.14	1,120	EKYC250E□□561MJC5S
	820	10×16	0.10	1,570	EKYC250E□□821MJ16S
	1,300	10×20	0.065	1,940	EKYC250E□□132MJ20S
	2,000	12.5×20	0.050	2,150	EKYC250E□□202MK20S
	3,000	12.5×25	0.037	2,820	EKYC250E□□302MK25S
	3,600	16×20	0.038	2,530	EKYC250E□□362ML20S
	3,900	12.5×30	0.029	3,120	EKYC250E□□392MK30S
	4,700	18×20	0.037	2,700	EKYC250E□□472MM20S
	5,100	16×25	0.031	3,240	EKYC250E□□512ML25S
	6,200	16×30	0.025	3,580	EKYC250E□□622ML30S
	6,200	18×25	0.030	3,350	EKYC250E□□622MM25S
	8,200	18×30	0.024	3,710	EKYC250E□□822MM30S
35	390	10×12.5	0.14	1,120	EKYC350E□□391MJC5S
	560	10×16	0.10	1,570	EKYC350E□□561MJ16S
	820	10×20	0.065	1,940	EKYC350E□□821MJ20S
	1,300	12.5×20	0.050	2,150	EKYC350E□□132MK20S
	1,800	12.5×25	0.037	2,820	EKYC350E□□182MK25S
	2,200	16×20	0.038	2,530	EKYC350E□□222ML20S
	2,400	12.5×30	0.029	3,120	EKYC350E□□242MK30S
	3,000	18×20	0.037	2,700	EKYC350E□□302MM20S
	3,300	16×25	0.031	3,240	EKYC350E□□332ML25S
	3,900	16×30	0.025	3,580	EKYC350E□□392ML30S
	4,300	18×25	0.030	3,350	EKYC350E□□432MM25S
	5,100	18×30	0.024	3,710	EKYC350E□□512MM30S
50	180	10×12.5	0.14	1,120	EKYC500E□□181MJC5S
	300	10×16	0.10	1,570	EKYC500E□□301MJ16S
	430	10×20	0.065	1,940	EKYC500E□□431MJ20S
	680	12.5×20	0.050	2,150	EKYC500E□□681MK20S
	910	12.5×25	0.037	2,820	EKYC500E□□911MK25S
	1,200	16×20	0.038	2,530	EKYC500E□□122ML20S
	1,300	12.5×30	0.029	3,120	EKYC500E□□132MK30S
	1,500	18×20	0.037	2,700	EKYC500E□□152MM20S
	1,600	16×25	0.031	3,240	EKYC500E□□162ML25S
	2,000	16×30	0.025	3,580	EKYC500E□□202ML30S
	2,200	18×25	0.030	3,350	EKYC500E□□222MM25S
	2,700	18×30	0.024	3,710	EKYC500E□□272MM30S
63	150	10×12.5	0.14	1,120	EKYC630E□□151MJC5S
	220	10×16	0.10	1,570	EKYC630E□□221MJ16S
	330	10×20	0.065	1,940	EKYC630E□□331MJ20S
	470	12.5×20	0.050	2,150	EKYC630E□□471MK20S
	680	12.5×25	0.037	2,820	EKYC630E□□681MK25S
	820	16×20	0.038	2,530	EKYC630E□□821ML20S
	910	12.5×30	0.029	3,120	EKYC630E□□911MK30S
	1,000	12.5×35	0.025	3,300	EKYC630E□□102MK35S
	1,200	16×25	0.031	3,240	EKYC630E□□122ML25S
	1,200	18×20	0.037	2,700	EKYC630E□□122MM20S
	1,300	12.5×40	0.021	3,600	EKYC630E□□132MK40S
	1,500	16×30	0.025	3,580	EKYC630E□□152ML30S
	1,600	18×25	0.030	3,350	EKYC630E□□162MM25S
	1,800	16×35	0.022	3,800	EKYC630E□□182ML35S
	2,000	18×30	0.024	3,700	EKYC630E□□202MM30S
	2,400	16×40	0.018	4,100	EKYC630E□□242ML40S
	2,400	18×35	0.021	4,000	EKYC630E□□242MM35S
	3,300	18×40	0.017	4,300	EKYC630E□□332MM40S
80	100	10×12.5	0.14	1,120	EKYC800E□□101MJC5S
	150	10×16	0.10	1,570	EKYC800E□□151MJ16S
	220	10×20	0.065	1,940	EKYC800E□□221MJ20S
	330	12.5×20	0.050	2,150	EKYC800E□□331MK20S
	470	12.5×25	0.037	2,820	EKYC800E□□471MK25S
	620	16×20	0.038	2,530	EKYC800E□□621ML20S
	680	12.5×30	0.029	3,120	EKYC800E□□681MK30S
	680	12.5×35	0.025	3,300	EKYC800E□□681MK35S
	820	18×20	0.037	2,700	EKYC800E□□821MM20S
	910	16×25	0.031	3,240	EKYC800E□□911ML25S
	1,000	12.5×40	0.021	3,600	EKYC800E□□102MK40S
	1,200	16×30	0.025	3,580	EKYC800E□□122ML30S
	1,200	18×25	0.030	3,350	EKYC800E□□122MM25S
	1,300	16×35	0.022	3,800	EKYC800E□□132ML35S
	1,500	18×30	0.024	3,700	EKYC800E□□152MM30S
	1,800	16×40	0.018	4,100	EKYC800E□□182ML40S
	1,800	18×35	0.021	4,000	EKYC800E□□182MM35S
	2,400	18×40	0.017	4,300	EKYC800E□□242MM40S
100	68	10×12.5	0.14	1,120	EKYC101E□□680MJC5S
	100	10×16	0.10	1,570	EKYC101E□□101MJ16S
	150	10×20	0.065	1,940	EKYC101E□□151MJ20S
	220	12.5×20	0.050	2,150	EKYC101E□□221MK20S
	330	12.5×25	0.037	2,820	EKYC101E□□331MK25S
	390	12.5×30	0.029	3,120	EKYC101E□□391MK30S
	390	16×20	0.038	2,530	EKYC101E□□391ML20S
	470	12.5×35	0.025	3,300	EKYC101E□□471MK35S
	560	12.5×40	0.021	3,600	EKYC101E□□561MK40S
	560	16×25	0.031	3,240	EKYC101E□□561ML25S
	560	18×20	0.037	2,700	EKYC101E□□561MM20S
	680	16×30	0.025	3,580	EKYC101E□□681ML30S
	820	16×35	0.022	3,800	EKYC101E□□821ML35S
	820	18×25	0.030	3,350	EKYC101E□□821MM25S
	1,000	18×30	0.024	3,700	EKYC101E□□102MM30S
	1,200	16×40	0.018	4,100	EKYC101E□□122ML40S
	1,200	18×35	0.021	4,000	EKYC101E□□122MM35S
	1,500	18×40	0.017	4,300	EKYC101E□□152MM40S
120	82	10×20	0.53	1,590	EKYC121E□□820MJ20S
	120	12.5×20	0.29	2,090	EKYC121E□□121MK20S
	180	12.5×25	0.21	2,590	EKYC121E□□181MK25S
	220	12.5×30	0.16	3,030	EKYC121E□□221MK30S
	220	16×20	0.19	2,150	EKYC121E□□221ML20S
	270	12.5×35	0.15	3,330	EKYC121E□□271MK35S
	270	18×20	0.15	2,530	EKYC121E□□271MM20S
	330	12.5×40	0.12	3,840	EKYC121E□□331MK40S
	330	16×25	0.14	2,730	EKYC121E□□331ML25S
	390	16×30	0.11	3,200	EKYC121E□□391ML30S
	390	18×25	0.11	3,120	EKYC121E□□391MM25S
	470	16×35	0.10	3,470	EKYC121E□□471ML35S
	510	18×30	0.090	3,620	EKYC121E□□511MM30S
	560	16×40	0.080	3,930	EKYC121E□□561ML40S
	620	18×35	0.080	3,940	EKYC121E□□621MM35S
	820	18×40	0.060	4,520	EKYC121E□□821MM40S

□□ : Enter the appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
68 to 150	0.40	0.75	0.90	1.00
180 to 220	0.40	0.82	0.93	1.00
270 to 560	0.50	0.85	0.94	1.00
620 to 2,000	0.60	0.87	0.95	1.00
2,200 to 4,300	0.75	0.90	0.95	1.00
4,700 to 12,000	0.85	0.95	0.98	1.00

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

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■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

■ The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.

■ The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

■ We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.

■ We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

■ We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

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