

Aluminum Electrolytic Capacitor

KN series

KFSON

- ◆ Load life 2000 Hrs at 105℃
- ◆ RoHS Compliant

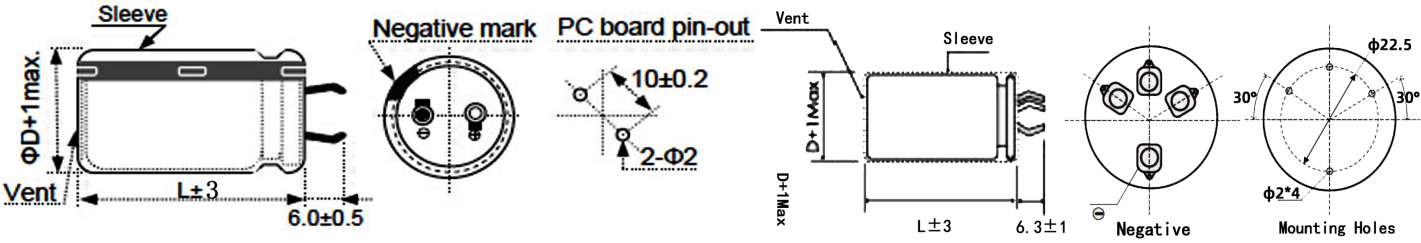


Specifications 規格表

Ltem 項目	Performance Characteristics 特性參數	
Operating Temperature Range 工作溫度範圍	-40 to +105℃	-25 to +105℃
Rated Voltage Range 額定電壓範圍	16 to 100 VDC	160 to 500 VDC
Capacitance Range 容量範圍	68 to 56000 µF	
Capacitance Tolerance 靜電容量偏差	±20% (120Hz, +20℃)	
Leakage Current 漏電流	After 5 minutes at 20° C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller C: Nominal Capacitance(µF) V: Rated Voltage(V)	
Dissipation Factor 損耗角正切值 tan δ (%)	rated voltage (V)	16 25 35 50 63 100 160-400 450-500
	tan δ (Max)	50 40 40 30 20 20 15 20
Low Temperature Characteristics 低溫特性	impedance ratio max 電容器最大阻抗比值	
	rated voltage (V)	16 25 35 50 63 100 160-400 450-500
	Z(-25℃)/Z(+20℃)	4 4 4 4 4 4 4 8
	Z(-40℃)/Z(+20℃)	15 15 15 15 15 15 - -
Load Life 使用壽命	105℃施加額定工作電壓2000小時，經恢復後，產品性能應滿足以下要求 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 for 2000H at 105℃	
	Capacitance change	≧±20% of the initial value
	D.F. (tan δ)	≧200% of the specified value
	Leakage current	≧The specified value
Shelf Life 存儲特性	105℃放置1000小時，經恢復後20℃后，產品性能應滿足以下要求 The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1000 hours at 105℃ without voltage applied.	
	Capacitance change	≧±20% of the initial value
	D.F. (tan δ)	≧150% of the specified value
	Leakage current	≧The specified value

Diagram of Dimensions 外形尺寸圖 (mm)

●Standard Terminal Type : S (Φ22 ~ Φ35)



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Frequency Coefficient

Frequency Voltage(v)	50/60 Hz	120 Hz	300 Hz	1K Hz	10K Hz	≥50K Hz
≤100V	0.95	1.00	1.07	1.13	1.19	1.20
160-250V	0.87	1.00	1.17	1.32	1.45	1.50
≥350	0.80	1.00	1.16	1.30	1.41	1.43

Standard Ratings

Rated Voltage	Rated Capacity	Size Φ D*L	Rated ripple current
V	μ F	mm	A
16V	3300	22*26	1.17
		22*26	1.53
	4700	25*26	1.55
		22*31	2.02
	6800	25*26	2.02
		30*26	2.02
		22*31	2.20
	8200	22*31	2.79
		25*26	2.79
		30*26	2.81
	10000	22*36	3.06
		30*26	3.06
	15000	22*41	3.24
		25*36	3.24
		30*26	3.24
		35*32	3.24
	18000	22*51	3.54
		25*46	3.51
		30*36	3.51
		35*32	3.54
	22000	25*51	4.25
		30*36	4.08
		35*32	4.08
	27000	25*51	4.30
		30*41	4.30
		35*32	4.30
	33000	30*46	4.83
		35*37	4.83
	39000	30*51	5.78
		35*42	5.78
	47000	35*45	6.32
	56000	35*47	6.48

Rated Voltage	Rated Capacity	Size Φ D*L	Rated ripple current
V	μ F	mm	A
25V	3300	22*26	1.48
		25*26	1.48
	4700	22*26	1.88
		25*26	1.90
	6800	22*31	2.60
		25*26	2.60
		30*26	2.60
	8200	22*36	3.14
		25*31	3.14
		30*26	3.14
	10000	22*41	3.50
		25*36	3.50
		30*31	3.50
		35*27	3.50
	12000	22*46	4.02
		25*41	4.02
		30*31	4.02
		35*27	4.02
	15000	25*46	4.58
		30*36	4.58
		35*32	4.58
	18000	25*51	4.82
		30*41	4.82
		35*32	4.79
	22000	30*46	5.12
		35*37	5.12
	27000	35*42	5.30
	33000	35*52	6.09
	39000	35*52	6.20
	47000	35*52	6.30

Rated ripple current (A,rms) at 105℃, 120Hz

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Standard Ratings

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
35V	1500	22*26	1.26
	2200	22*26	1.35
		25*26	1.45
	2700	22*26	1.55
		25*26	1.65
	3300	22*26	1.80
		25*26	1.90
	4700	22*36	2.42
		25*26	2.30
		30*26	2.54
	6800	22*41	3.24
		25*36	3.24
		30*26	3.21
		35*27	3.24
	10000	25*46	3.96
		30*36	3.96
		35*27	3.75
	12000	25*51	4.21
		30*41	4.21
		35*32	4.21
	15000	30*46	4.69
		35*37	4.69
	22000	35*52	5.50
	27000	35*52	5.80
		35*45	5.60
	33000	35*52	5.90

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
50V	1500	22*26	1.10
		25*26	1.02
	2200	22*31	1.65
		25*26	1.65
	2700	22*31	1.85
		25*26	1.85
		30*26	1.95
	3300	22*36	2.24
		25*31	2.24
		30*26	2.24
	4700	22*46	2.95
		25*36	2.80
		30*31	2.95
		35*27	2.95
	6800	25*46	3.23
		30*41	3.20
		35*32	3.26
	8200	30*46	3.58
		35*37	3.58
	10000	30*51	4.11
		30*45	4.01
		35*42	4.11
		30*40	4.00
		25*50	3.90
		35*30	3.86
	15000	35*52	5.05
	18000	35*52	5.30
	22000	35*60	5.50

Rated ripple current (A,rms) at 105℃, 120Hz

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Standard Ratings

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
63V	820	22*26	0.75
	1000	22*26	0.85
		25*26	0.85
	1500	22*26	1.10
		25*26	1.12
		30*26	1.14
	1800	22*31	1.40
		25*26	1.40
	2200	22*36	1.65
		25*31	1.65
		30*26	1.65
	2700	22*41	2.07
		25*36	2.07
		30*26	2.07
	3300	22*46	2.46
		25*36	2.40
		30*31	2.48
		35*27	2.48
	3900	25*41	2.92
		30*36	3.05
		35*27	3.05
	4700	25*51	3.43
		30*41	3.43
		35*32	3.43
	5600	30*46	3.86
		35*37	3.86
	6800	30*51	4.64
		35*42	4.64
	8200	35*47	5.05
	10000	35*52	5.75
		30*60	5.65
		30*50	5.35
	15000	35*52	5.40
		35*60	5.56

Rated ripple current (A,rms) at 105℃, 120Hz

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
100V	330	22*26	0.54
	470	22*26	0.79
		25*26	0.81
	560	22*26	0.90
		25*26	0.95
	680	22*31	1.02
		25*26	1.02
		30*26	1.14
	820	22*31	1.26
		25*26	1.26
		30*26	1.32
	1000	22*36	1.38
		25*31	1.38
		30*26	1.38
	1200	22*41	1.65
		25*36	1.65
		30*31	1.65
	1500	22*46	1.83
		25*41	1.83
		30*31	1.83
		35*27	1.83
	1800	25*41	2.52
		30*36	2.52
		35*32	2.52
	2200	25*51	3.03
		30*41	3.03
		35*32	3.03
	2700	30*46	4.10
		35*37	4.10
	3300	30*56	4.59
		35*47	4.59
	3900	35*47	4.98
	4700	35*52	5.03
		35*40	4.80
		30*50	4.65
	5600	35*60	5.10
	5600	35*52	5.09
	6800	35*60	5.20

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Standard Ratings

Rated Voltage	Rated Capacity	Size Φ D*L	Rated ripple current
V	μ F	mm	A
160V	220	22*26	0.42
	330	22*31	0.98
		25*26	0.98
		30*26	1.00
	470	22*36	1.21
		25*31	1.21
		30*26	1.21
		22*31	1.15
	560	22*41	1.40
		25*36	1.40
		30*31	1.40
		35*27	1.40
	680	22*46	1.64
		25*36	1.58
		30*31	1.65
		35*27	1.71
		22*36	1.49
	820	25*41	1.76
		30*36	1.85
		35*32	1.85
	1000	25*51	2.15
		30*41	2.15
		35*32	2.15
	1200	25*56	2.46
		30*46	2.46
		35*37	2.46
	1500	30*51	2.80
		35*42	2.80
	1800	30*51	3.13
		35*42	3.13
	2200	35*52	3.26
		35*42	3.18
	3300	35*52	3.50
		35*45	3.35
200V	330	22*36	1.21
		25*31	1.21
		30*26	1.21
	390	22*36	1.33
		25*31	1.34
		30*31	1.45

Rated Voltage	Rated Capacity	Size Φ D*L	Rated ripple current
V	μ F	mm	A
200V	470	22*41	1.57
		25*36	1.59
		30*31	1.65
		35*27	1.65
		22*30	1.55
		22*36	1.65
		25*30	1.65
	560	22*46	1.81
		25*41	1.85
		30*31	1.85
		35*27	1.85
	680	22*51	2.04
		25*46	2.07
		30*30	2.04
		35*32	2.17
		25*35	2.00
		25*30	1.98
		22*40	2.00
	820	25*51	2.30
		30*35	2.30
		25*35	2.20
		25*40	2.20
		25*45	2.25
	1000	22*50	2.20
		30*40	2.62
		35*37	2.62
		25*45	2.55
		25*40	2.51
		35*30	2.50
		25*50	2.55
	1200	30*30	2.45
		30*35	2.51
		30*50	3.00
	1500	35*42	3.00
		35*47	3.28
	1800	35*50	4.01
		35*50	4.10
	2200	30*50	3.85
		35*50	4.10
	2700	35*50	4.10
		35*45	3.80

Rated ripple current (A,rms) at 105℃, 120Hz

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Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
250V	220	22*36	1.00
		25*31	1.00
		22*30	0.95
	330	22*46	1.28
		25*36	1.28
		30*31	1.28
	390	35*27	1.28
		22*46	1.48
		30*31	1.48
	470	35*27	1.48
		25*41	1.76
		30*36	1.76
		35*32	1.76
		25*30	1.56
		25*35	1.60
		22*36	1.56
		30*30	1.68
		22*40	1.68
	560	25*51	1.93
		30*41	1.93
		35*32	1.93
	680	25*40	2.15
		30*46	2.22
		35*37	2.22
		30*51	2.48
		22*45	2.15
	820	30*35	2.20
		25*45	2.46
		30*35	2.43
		30*51	2.48
		35*42	2.48
		25*40	2.20
	1000	35*30	2.25
		30*50	2.74
		30*40	2.65
		35*47	2.80
	1200	30*45	2.70
		35*50	3.00
	1500	35*55	3.00
		35*50	3.50
	2200	35*55	3.50
		35*55	5.00
		35*60	5.10
		35*70	5.10

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
400V	100	22*36	0.82
		25*31	0.82
		22*25	0.70
		25*25	0.80
	120	22*36	0.90
		25*31	0.90
		22*25	0.80
		25*25	0.85
	150	22*41	0.98
		25*36	0.98
		30*31	0.95
		35*27	0.95
		22*30	0.90
		25*25	0.90
	180	25*36	1.05
	220	30*30	1.21
		30*41	1.21
		25*40	1.21
		25*35	1.21
		35*32	1.21
		22*40	1.10
		25*30	1.10
	270	30*25	1.10
		30*40	1.40
		25*40	1.30
	330	30*35	1.30
		30*40	1.57
		35*30	1.57
		22*45	1.50
		25*40	1.50
		30*35	1.50
		35*35	1.60
	390	30*30	1.50
		30*40	1.68
	470	35*42	1.71
		35*45	1.94
		25*50	1.80
		30*40	1.80
		35*35	1.80
		30*50	1.85
		30*45	1.85
		35*40	1.85
		35*50	1.98

Rated ripple current (A,rms) at 105℃, 120Hz

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Standard Ratings

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
400V	560	35*50	2.23
		30*45	2.23
		35*45	2.40
		35*40	2.40
	680	35*62	2.85
		35*50	2.83
		35*45	2.80
		30*50	2.70
		35*40	2.65
	820	35*62	2.90
		35*45	2.83
		35*50	2.85
	1000	35*70	3.20
		35*65	3.15
		35*60	3.15
		35*50	3.10
	1200	35*70	3.30
		35*65	3.30
		35*60	3.30
450V	100	22*41	0.74
		25*31	0.74
		30*31	0.74
		22*25	0.70
		22*35	0.72
		25*25	0.72
	120	22*46	0.82
		25*36	0.82
		30*31	0.82
		22*30	0.80
		25*25	0.80
		25*30	0.80
		30*25	0.80
	150	22*51	0.96
		25*41	0.96
		30*36	0.96
		35*27	0.96
		22*30	0.90
		22*35	0.90
		25*30	0.90
		25*35	0.95
		30*25	0.95
		30*30	0.95
	180	25*46	1.14
		30*36	1.10
		35*32	1.14

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
450V	220	25*35	1.20
		30*40	1.24
		35*37	1.24
		22*40	1.20
		25*40	1.20
		25*50	1.20
		30*30	1.20
	270	30*50	1.48
		35*40	1.48
	330	30*40	1.60
		30*50	1.64
		25*50	1.60
		30*35	1.60
		35*30	1.60
		35*45	1.70
	390	30*30	1.60
		35*40	1.80
		35*50	1.86
		35*35	1.65
	470	35*30	1.60
		35*40	1.80
		35*50	1.90
		35*45	1.90
		30*50	1.90
		30*60	1.90
	560	35*50	2.40
		35*45	2.40
		35*40	2.40
		30*50	2.40
	680	35*60	2.90
		35*55	2.85
		35*50	2.85
		35*45	2.80
	820	30*55	2.80
		35*70	3.20
		35*65	3.20
		35*60	3.20
	1000	35*55	3.10
		35*70	3.30
		35*65	3.30
	1200	35*80	3.60
	1500	40*100	4.80
	2200	50*100	7.00

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Standard Ratings

Rated Voltage	Rated Capacity	Size ΦD*L	Rated ripple current
V	μ F	mm	A
500V	100	22*40	0.90
		22*45	0.94
		25*40	0.94
		30*30	0.94
	120	25*40	0.94
		30*30	0.94
		35*25	0.94
	150	25*40	1.10
		30*35	1.13
		35*30	1.13
	180	25*50	1.39
		30*40	1.40
	220	30*40	1.50
		30*45	1.60
		35*35	1.60
		35*40	1.60
	270	30*50	1.70
		35*40	1.70
	330	30*55	2.10
		30*60	2.10
		35*50	2.10
	390	35*55	2.50
		35*50	2.47
	470	35*55	2.60
		35*60	2.65
	680	35*70	3.10
		35*60	2.90
	820	35*70	3.60
		35*80	3.80
		40*70	3.80
	1000	40*80	4.70

Rated ripple current (A,rms) at 105℃, 120Hz