

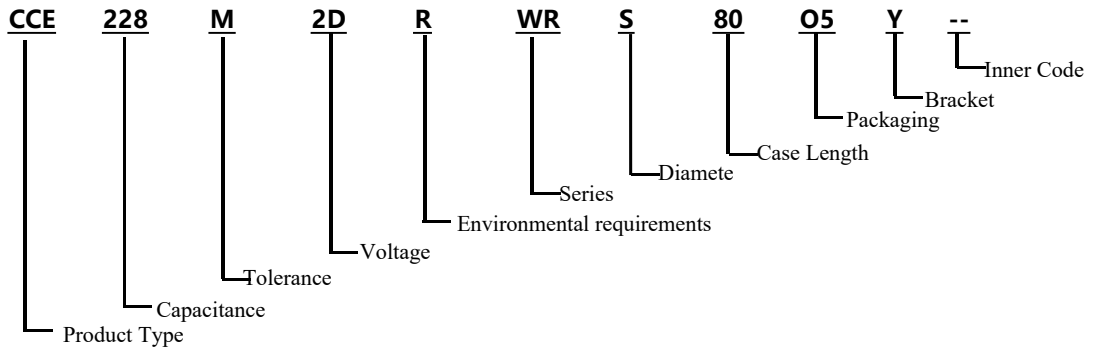
WR Series

- 105°C 5000hours Screw type
- 105°C standard purpose product
- RoHS Requirements

Specification

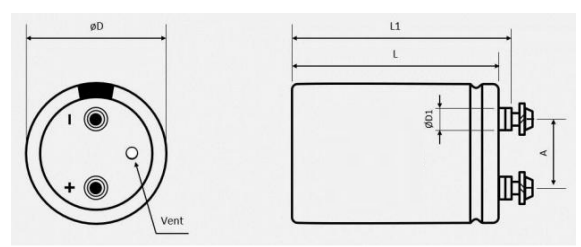
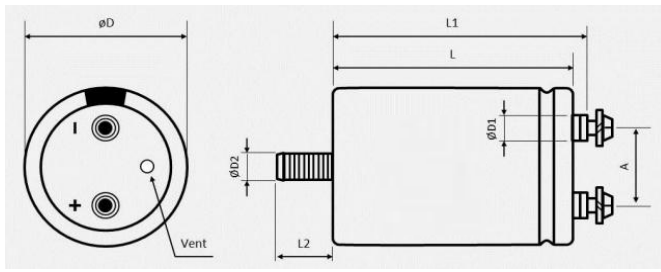
Item	Characteristics						
Rated Voltage Range	10~100V			160~500V			
Operating Temperature Range	-40~+105°C			-25~+105°C			
Capacitance Tolerance	±20% (M)						
Leakage Current(20°C)	I≤0.02CVμA or 5mA, whichever is smaller After 5 minutes at 20°C application of rated voltage, C: Nominal Capacitance (μF) V: Rated Voltage (V)						
Dissipation Factor (20°C,120Hz)	Less than values shown in the standard ratings						
Low Temperature Stability	Rated Voltage (V)	10~100	160~500				
	Z-25°C/Z+20°C (120Hz)	/	8				
	Z-40°C/Z+20°C (120Hz)	15	/				
Load Life	The capacitor is stored at a temperature of 105±2°C with DC bias voltage plus the rated ripple current for 5000+48/0 hours. (The sum of DC and ripple peak voltage shall not exceed the rated working voltage) Then the product should be tested after 16 hours recovering time at atmospheric conditions. The result should meet the following table:						
	Capacitance Change		Within ±20% of initial value				
	Dissipation Factor		Not more than 200% of the specified value				
	Leakage Current		Not more than the specified value				
Shelf Life	The capacitors are then stored with no voltage applied at a temperature of 105±2°C for 1000+48/0 hours. Next they shall be connected to a series limiting resistor(1k±100Ω) with D.C. rated voltage applied for 60min, After which the capacitors shall be stored at room temperature for more than 24 hours before testing,The result should meet the following table:						
	Capacitance Change		Within ±20% of initial value				
	Dissipation Factor		Not more than 175% of the specified value				
	Leakage Current		Not more than the specified value				
Ripple Current Coefficient	Voltage(V)	Freq.(Hz)	50/60	120	300	1K	≥10K
		<160V	0.80	1.00	1.08	1.15	1.15
	≥160V	0.80	1.00	1.08	1.15	1.20	
	Ambient Temp(°C)	40	60		85	105	
	Coefficient	2.44	2.16		2.00	1.00	

Part Number System:



Dimensions:

				Unit: mm	
O Type Terminal	D Type Terminal	T Type Terminal	Sample	Screw type	Ring clip mounting
I Type (2-legs Bracket)		Y Type (3-legs Bracket)		Screw type	Threaded stud mounting
				Screw type Threaded stud mounting	
				Screw type Ring clip mounting	



Terminal	D±2	L±3	L1±3	D ₁ ±0.3	A±0.5	L2±1	D2	Min. Full Thread (mm)	Terminal type
M5	35	50~120	56.5~126.5	8	12.7	12	M8	8	O Type
M5	51	50~140	56.5~126.5	10	22	16	M8	8	O Type
M5	63.5	80~140	86.5~146.5	10	28.6	16	M8	8	O Type
M5	76	100~240	106.5~246.5	10	31.8	16	M12	12	O Type
M5	90	100~240	106.5~246.5	10	31.8	16	M12	12	O Type
M5	76	100~240	106.5~246.5	17.2	31.8	16	M12	12	D Type
M5	90	100~240	106.5~246.5	17.2	31.8	16	M12	12	D Type
M6	76	100~240	106.5~246.5	17.2	31.8	16	M12	12	D Type
M6	90	100~240	106.5~246.5	17.2	31.8	16	M12	12	D Type
M5	51	50~140	55.5~125.5	13(a=10)	28.6	16	M8	8	T Type
M5	63.5	80~140	86.5~146.5	15(a=10)	31.8	16	M12	12	T Type
M6	76	100~240	106.5~246.5	15(a=10)	31.8	16	M12	12	T Type

Specification Sheet

Rated voltage(V)	Capacitance (μF)	Case Size DxL(mm)	tan δ (120Hz, +20°C)	Leakage Current (μA)max	Ripple Current +85°C 120Hz (A rms)	P/N
10	27000	35x80	0.45	5,000	4.30	CCE279M1ARWRQ80**
10	33000	35x80	0.45	5,000	4.70	CCE339M1ARWRQ80**
10	39000	35x80	0.45	5,000	5.30	CCE399M1ARWRQ80**
10	47000	35x100	0.45	5,000	6.10	CCE479M1ARWRQ11**
10	56000	35x100	0.50	5,000	6.20	CCE569M1ARWRQ11**
10	68000	35x120	0.60	5,000	6.80	CCE689M1ARWRQA2**
10	82000	51x80	0.60	5,000	7.80	CCE829M1ARWRS80**
10	100000	51x100	0.70	5,000	8.50	CCE10AM1ARWRS11**
10	120000	51x100	0.70	5,000	9.50	CCE12AM1ARWRS11**
10	150000	63.5x100	0.80	5,000	11.0	CCE15AM1ARWRT11**
10	180000	63.5x100	0.80	5,000	12.1	CCE18AM1ARWRT11**
10	220000	76x100	1.00	5,000	13.2	CCE22AM1ARWRT11**
10	270000	76x120	1.20	5,000	14.4	CCE27AM1ARWRT11**
10	330000	76x140	1.20	5,000	17.0	CCE33AM1ARWRT11**
10	390000	90x140	1.40	5,000	18.6	CCE39AM1ARWRT11**
16	15000	35x50	0.45	4,800	2.90	CCE159M1CRWRQ50**
16	18000	35x80	0.45	5,000	3.50	CCE189M1CRWRQ80**
16	22000	35x80	0.45	5,000	3.90	CCE229M1CRWRQ80**
16	27000	35x80	0.45	5,000	4.30	CCE279M1CRWRQ80**
16	33000	35x100	0.50	5,000	4.80	CCE339M1CRWRQ11**
16	39000	35x100	0.50	5,000	5.30	CCE399M1CRWRQ11**
16	47000	35x120	0.50	5,000	6.20	CCE479M1CRWRQA2**
16	56000	51x80	0.60	5,000	6.30	CCE569M1CRWRS80**
16	68000	51x100	0.60	5,000	7.60	CCE689M1CRWRS11**
16	82000	51x120	0.70	5,000	8.30	CCE829M1CRWRS21**
16	100000	51x120	0.70	5,000	9.20	CCE10AM1CRWRS21**
16	120000	63.5x100	0.80	5,000	9.90	CCE12AM1CRWRT11**
16	150000	76x100	0.80	5,000	12.3	CCE15AM1CRWRT11**
16	180000	76x120	0.80	5,000	14.5	CCE18AM1CRWRT11**
16	220000	76x140	1.00	5,000	15.2	CCE22AM1CRWRT11**
16	270000	90x140	1.20	5,000	16.8	CCE27AM1CRWRT11**
25	12000	35x80	0.35	5,000	3.30	CCE129M1ERWRQ80**
25	15000	35x80	0.35	5,000	3.70	CCE159M1ERWRQ80**
25	18000	35x80	0.35	5,000	4.00	CCE189M1ERWRQ80**
25	22000	35x80	0.35	5,000	4.50	CCE229M1ERWRQ80**
25	27000	35x100	0.40	5,000	5.00	CCE279M1ERWRQ11**
25	33000	35x120	0.40	5,000	5.90	CCE339M1ERWRQA2**
25	39000	51x80	0.40	5,000	6.50	CCE399M1ERWRS80**
25	47000	51x100	0.40	5,000	7.90	CCE479M1ERWRS11**

25	56000	51x120	0.40	5,000	8.80	CCE569M1ERWRS2**
25	68000	51x120	0.50	5,000	9.10	CCE689M1ERWRS2**
25	82000	63.5x100	0.50	5,000	10.6	CCE829M1ERWRT1L**
25	100000	63.5x120	0.60	5,000	11.4	CCE10AM1ERWRTA2**
25	120000	76x100	0.60	5,000	12.8	CCE12AM1ERWRU1L**
25	150000	76x120	0.75	5,000	13.7	CCE15AM1ERWRUA2**
25	180000	76x140	0.76	5,000	16.1	CCE18AM1ERWRUA4**
25	220000	90x140	1.00	5,000	16.6	CCE22AM1ERWRXA4**
35	8200	35x80	0.30	5,000	3.00	CCE828M1VRWRQ80**
35	10000	35x80	0.30	5,000	3.30	CCE109M1VRWRQ80**
35	12000	35x80	0.30	5,000	3.60	CCE129M1VRWRQ80**
35	15000	35x80	0.30	5,000	4.10	CCE159M1VRWRQ80**
35	18000	35x100	0.30	5,000	4.80	CCE189M1VRWRQ1L**
35	22000	35x120	0.35	5,000	5.20	CCE229M1VRWRQA2**
35	27000	51x80	0.40	5,000	5.90	CCE279M1VRWRS80**
35	33000	51x100	0.40	5,000	6.60	CCE339M1VRWRS1L**
35	39000	51x120	0.40	5,000	7.80	CCE399M1VRWRS2**
35	47000	51x120	0.45	5,000	8.00	CCE479M1VRWRS2**
35	56000	63.5x100	0.45	5,000	9.20	CCE569M1VRWRT1L**
35	68000	63.5x120	0.45	5,000	11.0	CCE689M1VRWRTA2**
35	82000	76x120	0.50	5,000	12.7	CCE829M1VRWRUA2**
35	100000	76x140	0.60	5,000	13.5	CCE10AM1VRWRUA4**
35	120000	90x140	0.60	5,000	16.1	CCE12AM1VRWRXA4**
50	3900	35x50	0.20	3,900	2.00	CCE398M1HRWRQ50**
50	4700	35x50	0.25	4,700	2.20	CCE478M1HRWRQ50**
50	5600	35x80	0.25	5,000	2.80	CCE568M1HRWRQ80**
50	6800	35x80	0.25	5,000	3.00	CCE688M1HRWRQ80**
50	8200	35x80	0.25	5,000	3.30	CCE828M1HRWRQ80**
50	10000	35x80	0.25	5,000	3.70	CCE109M1HRWRQ80**
50	12000	35x100	0.25	5,000	4.40	CCE129M1HRWRQ1L**
50	15000	35x120	0.30	5,000	4.70	CCE159M1HRWRQA2**
50	18000	51x80	0.35	5,000	4.80	CCE189M1HRWRS80**
50	22000	51x100	0.35	5,000	5.90	CCE229M1HRWRS1L**
50	27000	51x120	0.35	5,000	7.00	CCE279M1HRWRS2**
50	33000	63.5x100	0.40	5,000	7.60	CCE339M1HRWRT1L**
50	39000	63.5x120	0.40	5,000	8.90	CCE399M1HRWRTA2**
50	47000	63.5x120	0.40	5,000	9.80	CCE479M1HRWRTA2**
50	56000	76x120	0.40	5,000	11.9	CCE569M1HRWRUA2**
50	68000	76x140	0.45	5,000	13.1	CCE689M1HRWRUA4**
50	82000	90x140	0.50	5,000	14.8	CCE829M1HRWRXA4**
63	2700	35x50	0.20	3,402	1.90	CCE278M1JRWRQ50**
63	3300	35x50	0.20	4,158	2.10	CCE338M1JRWRQ50**
63	3900	35x80	0.20	4,914	2.70	CCE398M1JRWRQ80**
63	4700	35x80	0.20	5,000	2.90	CCE478M1JRWRQ80**
63	5600	35x80	0.20	5,000	3.20	CCE568M1JRWRQ80**
63	6800	35x80	0.20	5,000	3.50	CCE688M1JRWRQ80**
63	8200	35x100	0.25	5,000	4.20	CCE828M1JRWRQ1L**
63	10000	35x120	0.25	5,000	4.50	CCE109M1JRWRQA2**
63	12000	51x80	0.25	5,000	4.80	CCE129M1JRWRS80**
63	15000	51x100	0.25	5,000	5.90	CCE159M1JRWRS1L**
63	18000	51x120	0.30	5,000	6.30	CCE189M1JRWRS2**
63	22000	51x120	0.30	5,000	6.70	CCE229M1JRWRS2**
63	27000	63.5x120	0.30	5,000	8.80	CCE279M1JRWRTA2**
63	33000	76x120	0.35	5,000	10.0	CCE339M1JRWRTA2**
63	39000	76x140	0.35	5,000	12.5	CCE399M1JRWRTA4**
63	47000	90x140	0.40	5,000	13.8	CCE479M1JRWRTA4**
80	2200	35x50	0.15	3,520	1.90	CCE228M1KRWRQ50**
80	2700	35x80	0.15	4,320	2.20	CCE278M1KRWRQ80**
80	3300	35x80	0.15	5,000	2.50	CCE338M1KRWRQ80**
80	3900	35x80	0.15	5,000	2.90	CCE398M1KRWRQ80**
80	4700	35x100	0.15	5,000	3.10	CCE478M1KRWRQ1L**
80	5600	35x100	0.15	5,000	3.60	CCE568M1KRWRQ1L**
80	6800	35x120	0.20	5,000	4.10	CCE688M1KRWRQA2**
80	8200	51x80	0.20	5,000	4.80	CCE828M1KRWRS80**
80	10000	51x100	0.20	5,000	5.60	CCE109M1KRWRS1L**
80	12000	51x100	0.20	5,000	6.10	CCE129M1KRWRS1L**
80	15000	51x120	0.20	5,000	7.40	CCE159M1KRWRS2**

80	18000	63.5x120	0.25	5,000	8.00	CCE189M1KRWRTA2**
80	22000	76x100	0.25	5,000	9.10	CCE229M1KRWRU1L**
80	27000	76x120	0.30	5,000	9.70	CCE279M1KRWRUA2**
80	33000	76x140	0.30	5,000	11.5	CCE339M1KRWRUA4**
80	39000	90x140	0.30	5,000	12.5	CCE399M1KRWRXA4**
100	1200	35x50	0.15	2,400	1.40	CCE128M2ARWRQ50**
100	1500	35x80	0.15	3,000	1.60	CCE158M2ARWRQ80**
100	1800	35x80	0.15	3,600	1.80	CCE188M2ARWRQ80**
100	2200	35x80	0.15	4,400	2.00	CCE228M2ARWRQ80**
100	2700	35x80	0.15	5,000	2.40	CCE278M2ARWRQ80**
100	3300	35x100	0.15	5,000	2.80	CCE338M2ARWRQ1L**
100	3900	35x120	0.15	5,000	3.10	CCE398M2ARWRQA2**
100	4700	51x80	0.15	5,000	3.60	CCE478M2ARWRS80**
100	5600	51x100	0.15	5,000	4.30	CCE568M2ARWRS1L**
100	6800	51x120	0.15	5,000	5.00	CCE688M2ARWRS2**
100	8200	51x120	0.15	5,000	5.50	CCE828M2ARWRS2**
100	10000	63.5x100	0.15	5,000	6.40	CCE109M2ARWRT1L**
100	12000	63.5x120	0.20	5,000	6.60	CCE129M2ARWRTA2**
100	15000	76x100	0.20	5,000	7.50	CCE159M2ARWRU1L**
100	18000	76x120	0.25	5,000	8.00	CCE189M2ARWRUA2**
100	22000	76x140	0.25	5,000	9.40	CCE229M2ARWRUA4**
100	27000	90x140	0.30	5,000	10.4	CCE279M2ARWRXA4**
160	680	35x50	0.15	2,176	1.10	CCE687M2CRWRQ50**
160	820	35x80	0.15	2,624	1.20	CCE827M2CRWRQ80**
160	1000	35x80	0.15	3,200	0.30	CCE108M2CRWRQ80**
160	1200	35x80	0.15	3,840	1.50	CCE128M2CRWRQ80**
160	1500	35x80	0.15	4,800	1.70	CCE158M2CRWRQ80**
160	1800	35x100	0.15	5,000	2.00	CCE188M2CRWRQ1L**
160	2200	35x120	0.15	5,000	2.30	CCE228M2CRWRQA2**
160	2700	35x120	0.15	5,000	2.70	CCE278M2CRWRQA2**
160	3300	51x100	0.15	5,000	3.30	CCE338M2CRWRS1L**
160	3900	51x120	0.15	5,000	3.80	CCE398M2CRWRS2**
160	4700	51x120	0.15	5,000	4.20	CCE478M2CRWRS2**
160	5600	51x120	0.15	5,000	4.70	CCE568M2CRWRS2**
160	6800	63.5x120	0.15	5,000	5.70	CCE688M2CRWRTA2**
160	8200	76x100	0.20	5,000	6.40	CCE828M2CRWRU1L**
160	10000	76x120	0.20	5,000	6.60	CCE109M2CRWRUA2**
160	12000	76x140	0.20	5,000	7.80	CCE129M2CRWRUA4**
160	15000	90x140	0.20	5,000	9.50	CCE159M2CRWRXA4**
200	470	35x50	0.15	1,880	0.90	CCE477M2DRWRQ50**
200	560	35x80	0.15	2,240	1.00	CCE567M2DRWRQ80**
200	680	35x80	0.15	2,720	1.10	CCE687M2DRWRQ80**
200	820	35x80	0.15	3,280	1.30	CCE827M2DRWRQ80**
200	1000	35x80	0.15	4,000	1.50	CCE108M2DRWRQ80**
200	1200	35x100	0.15	4,800	1.70	CCE128M2DRWRQ1L**
200	1500	35x120	0.15	5,000	1.90	CCE158M2DRWRQA2**
200	1800	35x120	0.15	5,000	2.20	CCE188M2DRWRQA2**
200	2200	51x80	0.15	5,000	2.70	CCE228M2DRWRS80**
200	2700	51x100	0.15	5,000	3.20	CCE278M2DRWRS1L**
200	3300	51x120	0.15	5,000	3.50	CCE338M2DRWRS2**
200	3900	63.5x100	0.15	5,000	4.00	CCE398M2DRWRT1L**
200	4700	63.5x120	0.15	5,000	4.70	CCE478M2DRWRTA2**
200	5600	76x100	0.15	5,000	5.30	CCE568M2DRWRU1L**
200	6800	76x120	0.15	5,000	6.30	CCE688M2DRWRUA2**
200	8200	76x140	0.20	5,000	6.40	CCE828M2DRWRUA4**
200	10000	90x140	0.20	5,000	7.70	CCE109M2DRWRXA4**
250	330	35x50	0.15	1,650	0.70	CCE337M2ERWRQ50**
250	390	35x80	0.15	1,950	0.80	CCE397M2ERWRQ80**
250	470	35x80	0.15	2,350	0.90	CCE477M2ERWRQ80**
250	560	35x80	0.15	2,800	1.00	CCE567M2ERWRQ80**
250	680	35x100	0.15	3,400	1.20	CCE687M2ERWRQ1L**
250	820	35x100	0.15	4,100	1.40	CCE827M2ERWRQ1L**
250	1000	35x120	0.15	5,000	1.60	CCE108M2ERWRQA2**
250	1200	51x80	0.15	5,000	1.80	CCE128M2ERWRS80**
250	1500	51x90	0.15	5,000	2.10	CCE158M2ERWRS90**
250	1800	51x100	0.15	5,000	2.40	CCE188M2ERWRS1L**
250	2200	51x120	0.15	5,000	2.80	CCE228M2ERWRS2**

250	2700	63.5x90	0.15	5,000	3.20	CCE278M2ERWRT90**
250	3300	63.5x120	0.15	5,000	4.00	CCE338M2ERWRTA2**
250	3900	76x90	0.15	5,000	4.20	CCE398M2ERWRU90**
250	4700	76x120	0.15	5,000	5.20	CCE478M2ERWRTA2**
250	5600	76x140	0.15	5,000	6.10	CCE568M2ERWRTA4**
250	6800	76x140	0.15	5,000	6.70	CCE688M2ERWRTA4**
350	820	51x80	0.25	5,000	3.30	CCE827M2VRWRS80**
350	1500	51x90	0.25	5,000	5.20	CCE158M2VRWRS90**
350	2200	51x115	0.25	5,000	7.20	CCE228M2VRWRS2A**
350	2700	51x130	0.25	5,000	8.40	CCE278M2VRWRS2C**
350	2700	63.5x90	0.25	5,000	8.10	CCE278M2VRWRT90**
350	3300	76x100	0.25	5,000	10.0	CCE338M2VRWRTU1L**
350	3900	76x100	0.25	5,000	11.0	CCE398M2VRWRTU1L**
350	4700	76x130	0.25	5,000	15.0	CCE478M2VRWRTU2C**
350	5600	76x140	0.25	5,000	17.4	CCE568M2VRWRTU4**
350	8200	76x150	0.25	5,000	19.6	CCE828M2VRWRTU1R**
350	10000	76x190	0.25	5,000	23.0	CCE109M2VRWRTU9**
350	15000	90x190	0.25	5,000	30.6	CCE159M2VRWRTX9**
400	680	51x80	0.25	5,000	3.00	CCE687M2GRWRS80**
400	1200	51x90	0.25	5,000	4.70	CCE128M2GRWRS90**
400	1800	51x110	0.25	5,000	6.30	CCE188M2GRWRTA0**
400	2200	51x130	0.25	5,000	7.50	CCE228M2GRWRS2C**
400	2200	63.5x90	0.25	5,000	7.30	CCE228M2GRWRT90**
400	2700	63.5x110	0.25	5,000	8.80	CCE278M2GRWRTA0**
400	3300	63.5x130	0.25	5,000	10.5	CCE338M2GRWRT2C**
400	3300	76x90	0.25	5,000	9.90	CCE338M2GRWRTU90**
400	4700	76x130	0.25	5,000	13.9	CCE478M2GRWRTU2C**
400	6800	76x150	0.25	5,000	17.9	CCE688M2GRWRTU1R**
400	8200	90x150	0.25	5,000	20.1	CCE828M2GRWRTX1R**
400	12000	90x190	0.25	5,000	27.4	CCE129M2GRWRTX9**
450	560	51x80	0.25	5,000	2.60	CCE567M2WRWRS80**
450	1000	51x90	0.25	5,000	4.00	CCE108M2WRWRS90**
450	1200	51x110	0.25	5,000	4.80	CCE128M2WRWRTA0**
450	1800	51x130	0.25	5,000	6.40	CCE188M2WRWRS2C**
450	1800	63.5x90	0.25	5,000	6.20	CCE188M2WRWRT90**
450	2200	63.5x110	0.25	5,000	7.50	CCE228M2WRWRTA0**
450	2700	63.5x130	0.25	5,000	8.90	CCE278M2WRWRT2C**
450	2700	76x110	0.25	5,000	9.10	CCE278M2WRWRTU0**
450	3300	76x110	0.25	5,000	10.6	CCE338M2WRWRTU0**
450	3900	76x130	0.25	5,000	11.9	CCE398M2WRWRTU2C**
450	4700	76x140	0.25	5,000	13.6	CCE478M2WRWRTU4**
450	5600	76x150	0.25	5,000	13.8	CCE568M2WRWRTU1R**
450	6800	90x150	0.25	5,000	16.7	CCE688M2WRWRTX1R**
500	470	51x80	0.25	4,700	2.40	CCE477M2HRWRS80**
500	820	51x90	0.25	5,000	3.60	CCE827M2HRWRS90**
500	1000	51x110	0.25	5,000	4.40	CCE108M2HRWRTA0**
500	1200	51x130	0.25	5,000	5.20	CCE128M2HRWRS2C**
500	1200	63.5x90	0.25	5,000	5.00	CCE128M2HRWRT90**
500	1800	63.5x110	0.25	5,000	6.80	CCE188M2HRWRTA0**
500	2700	76x110	0.25	5,000	9.20	CCE278M2HRWRTU0**
500	3300	76x150	0.25	5,000	12.7	CCE338M2HRWRTU1R**
500	3300	90x130	0.25	5,000	11.9	CCE338M2HRWRTX2C**
500	6800	90x190	0.25	5,000	18.8	CCE688M2HRWRTX9**

Remark:

1)Specification are subject to change without notice should a safety or technical concern arise regarding the product , please be sure to contact our sales offices ;

2)The sizes in the above table are all general specifications. If you need other specifications,please contact us.

3)"**"indicates packaging method