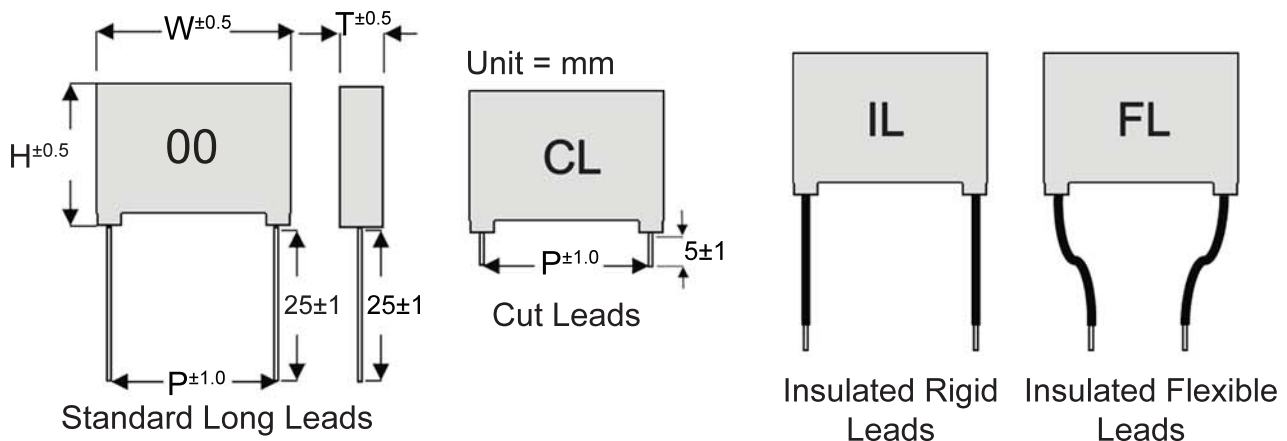


# EMI Suppression Capacitors



## Part Number Nomenclature

**M K P X 1 4 4 0 1 0 5 K 2 7 H 0 0**

**Type:**  
Metallized  
Polypropylene

**Rated Voltage (AC):**  
275 = 250 / 275  
300 = 250 / 300  
310 = 275 / 310  
440 = 440

**Class:**  
X1  
X2  
Y2

**Capacitance Code (pF):**  
First two digits are  
significant digits.  
Third digit is number  
of zeros.

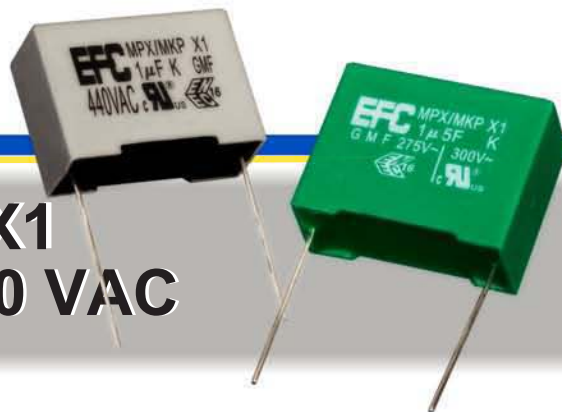
Ex: 105 = 1,000,000pF = 1 $\mu$ F

**Tolerance Code:**  
J -  $\pm 5\%$   
K -  $\pm 10\%$   
M -  $\pm 20\%$

**Color:**  
Y - Yellow  
H - Grey  
G - Green  
B - Blue  
K - Black

**Pitch (mm):**  
07 = 7.5  
10 = 10.0  
15 = 15.0  
22 = 22.5  
27 = 27.5  
37 = 37.5

**Lead Code:**  
00 - Standard Long  
CL - Cut  
IL - Insulated Rigid  
FL - Insulated Flexible



## Series MKPX1 X1 Class 440 / 300 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: EMI suppression, home appliances, lighting, audio and TV circuits, antenna coupling, across the line.



### Specifications

(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)



#### Temperature Range

-40°C - +110°C.

#### Rated Voltage

300 VAC/440 VAC.

#### Capacitance Range

0.0047µF to 2.2µF - 300 VAC

0.01µF to 2.2µF - 440 VAC

#### Capacitance Tolerance

±10%, ±20%

#### Dissipation

$C_R \leq 1.0\mu\text{F}$  : .3% max at 10KHz

$C_R > 1.0\mu\text{F}$  : .1% max at 1KHz

At 20°C

#### Dv/Dt

Up to 300V/µs - 300 VAC

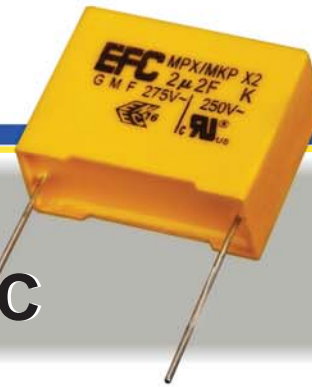
Up to 440V/µs - 440 VAC

#### Dielectric Withstanding Voltage

2200 VDC 2 sec.

Cap.		300 VAC				
µF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0047	MKPX1300472-10-00	10.0	13.0	9.0	4.0	0.6
0.0056	MKPX1300562-10-00	10.0	13.0	9.0	4.0	0.6
0.0068	MKPX1300682-10-00	10.0	13.0	11.0	4.0	0.6
0.01	MKPX1300103-10-00	10.0	13.0	11.0	4.0	0.6
0.01	MKPX1300103-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX1300333-10-00	10.0	13.0	11.0	5.0	0.6
0.033	MKPX1300333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX1300473-15-00	15.0	18.0	11.0	5.0	0.8
0.1	MKPX1300104-15-00	15.0	18.0	12.0	6.0	0.8
0.15	MKPX1300154-22-00	22.5	26.5	15.0	6.0	0.8
0.22	MKPX1300224-22-00	22.5	26.5	16.5	7.0	0.8
0.33	MKPX1300334-22-00	15.0	18.0	18.0	10.0	0.8
0.33	MKPX1300334-22-00	22.5	26.5	16.5	7.0	0.8
0.47	MKPX1300474-22-00	22.5	26.5	17.0	8.5	0.8
0.68	MKPX1300684-27-00	27.5	32.0	20.0	11.0	0.8
1.0	MKPX1300105-27-00	27.5	32.0	23.0	13.0	0.8
1.5	MKPX1300155-27-00	27.5	32.0	25.0	14.0	0.8
2.2	MKPX1300225-27-00	27.5	31.5	27.5	17.5	0.8

Cap.		440 VAC				
µF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.01	MKPX1440103-10-00	10.0	13.0	9.0	4.0	0.6
0.015	MKPX1440153-10-00	10.0	13.0	11.0	5.0	0.6
0.022	MKPX1440223-10-00	10.0	13.0	12.0	6.0	0.6
0.022	MKPX1440223-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX1440333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX1440473-15-00	15.0	18.0	11.0	5.0	0.8
0.068	MKPX1440683-15-00	15.0	18.0	12.0	6.0	0.8
0.1	MKPX1440104-15-00	15.0	18.0	13.0	7.0	0.8
0.15	MKPX1440154-15-00	15.0	18.0	14.5	8.5	0.8
0.15	MKPX1440154-22-00	22.5	26.0	15.0	6.0	0.8
0.22	MKPX1440224-15-00	15.0	18.0	16.0	10.0	0.8
0.22	MKPX1440224-22-00	22.5	26.5	16.5	7.0	0.8
0.33	MKPX1440334-22-00	22.5	26.5	17.0	8.5	0.8
0.47	MKPX1440474-22-00	22.5	26.0	20.0	11.0	0.8
0.47	MKPX1440474-27-00	27.5	32.0	20.0	11.0	0.8
0.68	MKPX1440684-27-00	27.5	32.0	22.0	11.0	0.8
1.0	MKPX1440105-27-00	27.5	32.0	25.0	14.0	0.8
1.5	MKPX1440155-27-00	27.5	32.0	27.5	17.5	0.8
2.2	MKPX1440225-31-00	31.0	38.0	32.0	23.0	0.8



# Series MKPX2 X2 Class 275 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: EMI suppression, SPS, audio and TV circuits, antenna coupling and line-by-pass, radio and across the line suppression.



## Specifications



(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)

**Temperature Range**  
-40°C - +110°C.

**Rated Voltage**  
275 VAC.

**Capacitance Range**  
0.0047µF to 3.3µF

**Capacitance Tolerance**  
±5%, ±10%, ±20%

**Dissipation**

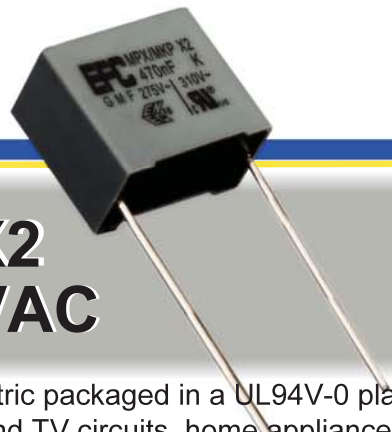
$C_R \leq 1.0\mu F$  : .3% max at 10KHz.  
 $C_R > 1.0\mu F$  : .1% max at 10KHz.

**Dv/Dt**

400 V/µs 7.5 mm Pitch; 350 V/µs 10 mm Pitch; 250 V/µs 15 mm Pitch; 150 V/µs 22.5 mm Pitch; 100 V/µs 27.5 mm Pitch.

**Dielectric Withstanding Voltage**  
1800 VDC 2 sec.

Cap.		275 VAC				
µF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0047	MKPX2275472-10-00	10.0	13.0	9.0	4.0	0.6
0.0056	MKPX2275562-10-00	10.0	13.0	9.0	4.0	0.6
0.0068	MKPX2275682-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2275103-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2275103-15-00	15.0	18.0	11.0	5.0	0.8
0.015	MKPX2275153-10-00	10.0	13.0	11.0	4.0	0.6
0.015	MKPX2275153-15-00	15.0	18.0	11.0	5.0	0.8
0.022	MKPX2275223-10-00	10.0	13.0	11.0	4.0	0.6
0.022	MKPX2275223-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX2275333-10-00	10.0	13.0	11.0	5.0	0.8
0.033	MKPX2275333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX2275473-10-00	10.0	13.0	12.0	6.0	0.8
0.047	MKPX2275473-15-00	15.0	18.0	11.0	5.0	0.8
0.068	MKPX2275683-15-00	15.0	18.0	11.0	5.0	0.8
0.082	MKPX2275823-15-00	15.0	18.0	11.0	5.0	0.8
0.10	MKPX2275104-15-00	15.0	18.0	12.0	6.0	0.8
0.15	MKPX2275154-15-00	15.0	18.0	13.0	7.0	0.8
0.22	MKPX2275224-15-00	15.0	18.0	14.5	7.5	0.8
0.22	MKPX2275224-22-00	22.5	26.5	15.0	6.0	0.8
0.33	MKPX2275334-15-00	15.0	18.0	18.0	10.0	0.8
0.33	MKPX2275334-22-00	22.5	26.5	16.5	7.0	0.8
0.47	MKPX2275474-22-00	22.5	26.5	17.0	8.5	0.8
0.68	MKPX2275684-22-00	22.5	26.5	19.0	10.0	0.8
0.68	MKPX2275684-27-00	27.5	32.0	17.5	8.5	0.8
1.0	MKPX2275105-27-00	27.5	32.0	20.0	11.0	0.8
1.5	MKPX2275155-27-00	27.5	32.0	25.0	14.0	0.8
2.2	MKPX2275225-27-00	27.5	32.0	27.5	17.5	0.8
2.2	MKPX2275225-27-00	27.5	32.0	30.0	15.0	0.8
3.3	MKPX2275335-27-00	27.5	32.0	27.5	17.5	0.8



# Series MKPX2 X2 Class 310 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: EMI suppression, audio and TV circuits, home appliances (mixers, fans etc.), electric tools and EMI filters.



## Specifications



(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)

**Temperature Range**  
-40°C - +110°C.

**Dissipation**  
 $C_R \leq 1.0\mu\text{F}$  : .3% max at 10KHz.  
 $C_R > 1.0\mu\text{F}$  : .1% max at 10KHz.

**Rated Voltage**  
310 VAC  
630 VDC

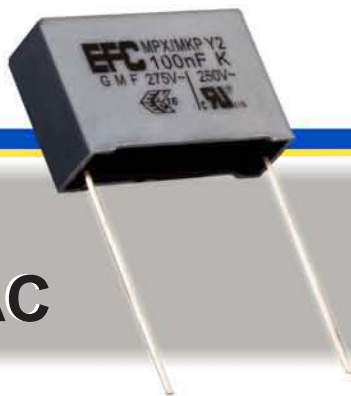
**Dv/Dt**  
Up to 100V/ $\mu\text{s}$ .

**Capacitance Range**  
0.0047 $\mu\text{F}$  to 10 $\mu\text{F}$

**Dielectric Withstanding Voltage**  
1800 VDC 2 sec.

**Capacitance Tolerance**  
 $\pm 5\%$ ,  $\pm 10\%$ ,  $\pm 20\%$

Cap.	310 VAC					
$\mu\text{F}$	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0047	MKPX2310472-10-00	10.0	13.0	9.0	4.0	0.6
0.0056	MKPX2310562-10-00	10.0	13.0	9.0	4.0	0.6
0.0068	MKPX2310682-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2310103-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2310103-15-00	15.0	18.0	11.0	5.0	0.8
0.015	MKPX2310153-10-00	10.0	13.0	11.0	4.0	0.6
0.015	MKPX2310153-15-00	15.0	18.0	11.0	5.0	0.8
0.022	MKPX2310223-10-00	10.0	13.0	11.0	4.0	0.6
0.022	MKPX2310223-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX2310333-10-00	10.0	13.0	11.0	4.0	0.8
0.033	MKPX2310333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX2310473-10-00	10.0	13.0	11.0	5.0	0.8
0.047	MKPX2310473-15-00	15.0	18.0	11.0	5.0	0.8
0.068	MKPX2310683-15-00	15.0	18.0	11.0	5.0	0.8
0.082	MKPX2310823-15-00	15.0	18.0	11.0	5.0	0.8
0.10	MKPX2310104-15-00	15.0	18.0	11.0	5.0	0.8
0.15	MKPX2310154-15-00	15.0	18.0	12.0	6.0	0.8
0.22	MKPX2310224-15-00	15.0	18.0	13.0	7.0	0.8
0.22	MKPX2310224-22-00	22.5	26.5	15.0	6.0	0.8
0.33	MKPX2310334-15-00	15.0	18.0	14.5	8.5	0.8
0.33	MKPX2310334-22-00	22.5	26.5	15.0	6.0	0.8
0.47	MKPX2310474-15-00	15.0	18.0	16.0	10.0	0.8
0.47	MKPX2310474-22-00	22.5	26.5	16.5	7.0	0.8
0.68	MKPX2310684-22-00	22.5	26.5	17.0	8.5	0.8
0.68	MKPX2310684-27-00	27.5	32.0	17.5	8.5	0.8
1.0	MKPX2310105-27-00	27.5	31.0	20.0	11.0	0.8
1.5	MKPX2310155-22-00	22.5	26.5	20.0	11.0	0.8
1.5	MKPX2310155-27-00	27.5	32.0	22.0	11.0	0.8
2.2	MKPX2310225-27-00	27.5	31.0	25.0	14.0	0.8
3.3	MKPX2310335-27-00	27.5	32.0	27.5	17.5	0.8
4.7	MKPX2310475-27-00	27.5	32.0	37.0	22.0	1.0
8.2	MKPX2310825-37-00	37.5	45.0	40.5	20.5	1.0
10.0	MKPX2310106-37-00	37.5	41.0	41.0	26.0	1.0



## Series MKPY2 Y2 Class 300 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: Lighting, audio and TV circuits, home appliances (mixers, fans, etc.), electric tools and EMI filters.



### Specifications



(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)

**Temperature Range**

-40°C - +110°C.

**Dissipation**

.3% max at 10KHz.

**Rated Voltage**

300 VAC (UL) 300 VAC (CQC & ENEC).

**Pulse Voltage**

Up to 5000 VDC.

**Capacitance Range**

0.001µF to 0.1 µF

**Dv/Dt**

Up to 300V/µs.

**Capacitance Tolerance**

±10%, ±20%

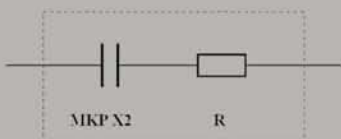
**Dielectric Withstanding Voltage**

2000 VAC / 3500 VDC

Cap.	300 VAC					
µF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0010	MKPY2300102-10-00	10.0	13.0	9.0	4.0	0.6
0.0022	MKPY2300222-10-00	10.0	13.0	11.0	4.0	0.6
0.0033	MKPY2300332-10-00	10.0	13.0	11.0	4.0	0.6
0.0047	MKPY2300472-10-00	10.0	13.0	11.0	4.0	0.6
0.0056	MKPY2300562-10-00	10.0	13.0	11.0	5.0	0.6
0.0068	MKPY2300682-10-00	10.0	13.0	11.0	5.0	0.6
0.01	MKPY2300103-10-00	10.0	13.0	12.0	6.0	0.6
0.01	MKPY2300103-15-00	15.0	18.0	11.0	5.0	0.8
0.015	MKPY2300153-15-00	15.0	18.0	11.0	5.0	0.8
0.022	MKPY2300223-15-00	15.0	18.0	12.0	6.0	0.8
0.033	MKPY2300333-15-00	15.0	18.0	13.0	7.0	0.8
0.047	MKPY2300473-15-00	15.0	18.0	14.5	8.5	0.8
0.068	MKPY2300683-15-00	15.0	18.0	16.0	10.0	0.8
0.068	MKPY2300683-22-00	22.5	26.5	16.5	7.0	0.8
0.10	MKPY2300104-22-00	22.5	26.5	17.0	8.5	0.8



### Internal Connection



## Series MKP RCS X2 Class 250 VAC / 275 VAC

Metallized Polypropylene dielectric capacitor and series with resistor packaged in a UL94V-0 plastic case and epoxy resin. Features include: Low DF & excellent high frequency characteristics, self-healing property and small size, withstand high pulse voltage and interference suppression, and excellent temperature characteristics. Applications include: Relay connector protective, spark and over voltage absorb circuits, and high frequency and high pulse voltage electronic circuits.



## Specifications

### Temperature Range

-40°C - +100°C.

### Capacitance Tolerance

±10%, ±20%

### Insulation Resistance

C ≤ 0.33μF IR ≥ 15000MΩ  
C > 1.0μF IR > 5000S  
at 20°C/100VDC/60s

### Rated Voltage

250 VAC / 275 VAC.

### Withstand Voltage

2200 VDC 2S

### Pulse Voltage

U<sub>p</sub> 2500VDC

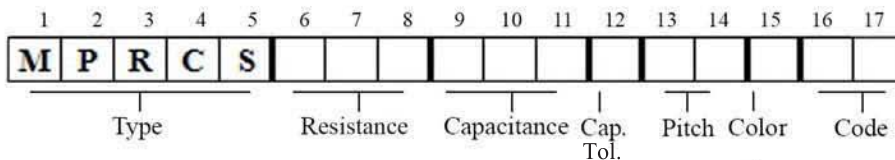
### Capacitance Range

X2: 0.01μF to 1μF  
at 20°C/1KHz

### Dv/Dt

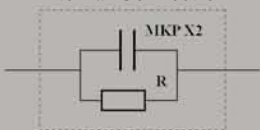
100V/μs.

Cap.	250 VAC / 275 VAC						
μF	Part #	Ω	P	W (max)	H (max)	T (max)	LD (dia)
0.01	MPRCS100103-15-00	100	15.0	18.0	11.0	5.0	0.6
0.033	MPRCS100333-15-00	100	15.0	18.0	11.0	5.0	0.6
0.047	MPRCS100473-15-00	100	15.0	18.0	14.5	7.5	0.6
0.047	MPRCS100473-22-00	100	22.5	26.5	15.0	6.0	0.6
0.1	MPRCS100104-22-00	100	22.5	26.5	15.0	6.0	0.6
0.22	MPRCS100224-22-00	100	22.5	26.5	17.0	8.5	0.6
0.33	MPRCS100334-22-00	100	22.5	26.5	17.0	8.5	0.6
0.47	MPRCS100474-27-00	100	27.5	32.0	20.0	11.0	0.6
0.68	MPRCS100684-27-00	100	27.5	32.0	20.0	11.0	0.6
0.68	MPRCP100684-27-00	100	27.5	32.0	20.0	11.0	0.6
0.82	MPRCS100824-27-00	100	27.5	32.0	23.0	13.0	0.6
1.0	MPRCS100105-27-00	100	27.5	32.0	23.0	13.0	0.6



J	±5%	Y	Yellow	B	Blue
K	±10%	H	Grey	K	Black
		G	Green		

Internal Connection



# Series MKP RCP X2 Class 250 VAC / 275 VAC

Metallized Polypropylene dielectric capacitor and parallel with resistor packaged in a UL94V-0 plastic case and epoxy resin. Features include: Low DF & excellent high frequency characteristics, self-healing property and small size, withstand high pulse voltage and interference suppression, and excellent temperature characteristics. Applications include: Electric motor & starting pulse phase-shifting, energy suck in circuit and high frequency and high pulse voltage electronic circuits.

## Specifications

### Temperature Range

-40°C - +100°C.

### Rated Voltage

250 VAC / 275 VAC.

### Capacitance Range

X2: 0.047µF to 1µF  
at 20°C/1KHz

### Capacitance Tolerance

±5%, ±10%, ±20%

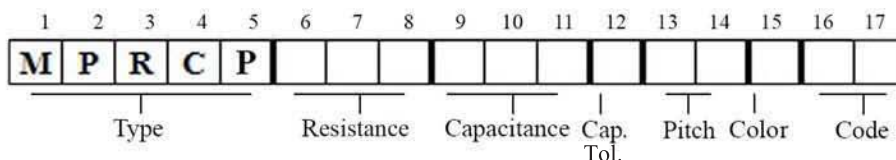
### Dissipation

$C_R \leq 1.0\mu\text{F}$ : .3% max at 20°C/10KHz.  
 $C_R > 1.0\mu\text{F}$ : .1% max at 20°C/1KHz.

### Dv/Dt

100V/µs.

Cap.	250 VAC / 275 VAC						
µF	Part #	MΩ	P	W (max)	H (max)	T (max)	LD (dia)
0.047	MPRCP1M0473-15-00	1.0	15.0	18.0	14.5	7.5	0.6
0.1	MPRCP1M0104-15-00	1.0	15.0	18.0	14.5	8.5	0.6
0.22	MPRCP1M0224-22-00	1.0	22.5	26.5	17.0	8.5	0.6
0.33	MPRCP1M0334-22-00	1.0	22.5	26.5	17.0	8.5	0.6
0.47	MPRCP1M0474-27-00	1.0	27.5	32.0	20.0	11.0	0.6
0.82	MPRCS1M0824-27-00	1.0	27.5	32.0	23.0	13.0	0.6
1.0	MPRCP1M0105-27-00	1.0	27.5	32.0	23.0	13.0	0.6



J	±5%	Y	Yellow	B	Blue
K	±10%	H	Grey	K	Black
		G	Green		