

Large Size Stacked Capacitors-87106 Style

DSC Series



◆ Features

- ❑ Inherently low ESR, Can effectively replace Tantalum & Aluminum Electrolytic caps of much higher values.
- ❑ Very high CV, MLCC design.
- ❑ Available as through-hole (N-lead) or surface mount (J or L lead configurations)
- ❑ High reliability testing available including space level screening.
- ❑ Custom sizes and CV values available—Contact the factory to define your custom needs.

◆ Applications

- ❑ Ideal for C.O.T.S. applications
- ❑ 87106—All dash numbers available.
- ❑ Switch-mode power supply filtering.
- ❑ Other HIREL or high end industrial uses.

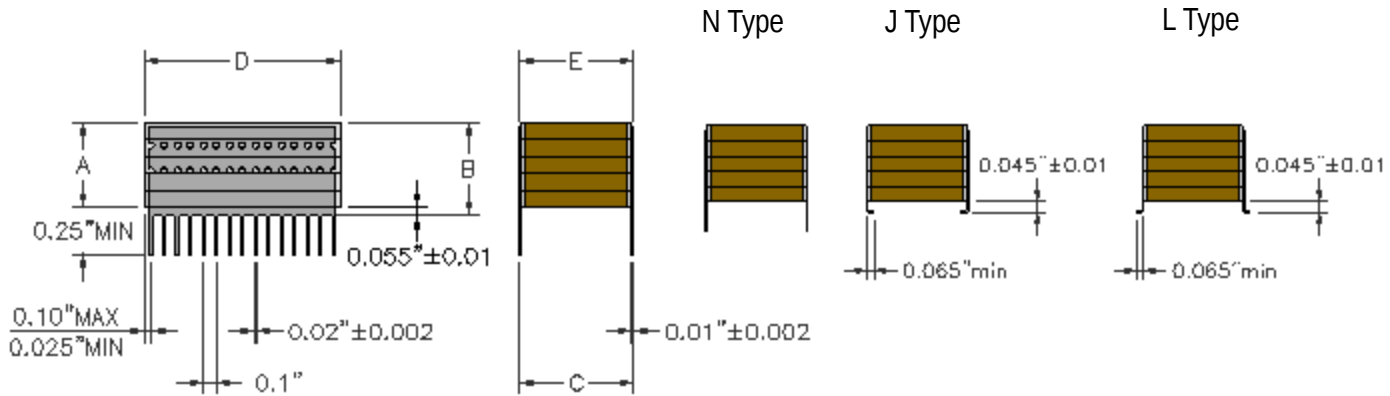
◆ Summary of Specifications

Operating Temperature	-55 to +125 °C (Optional to 200 °C)
Rated Voltage	50Vdc to 500Vdc
Temperature Coefficient of Capacitance	NPO : $\leq \pm 30\text{ppm}/^\circ\text{C}$, -55 to +125 °C (EIA Class I)
	X7R : $\leq \pm 15\%$, -55 to +125 °C (EIA Class II)
Voltage Coefficient	BX/BR/BQ : $\leq \pm 15\%$, -55 to +125 °C (EIA Class II)
Capacitance Range	NPO: 20nF to 20uF
	X7R : 500nF to 800uF
	BX/BR/BQ : 170nF to 330uF
Dissipation Factor :	NPO : $Q \geq 1000$ at 1KHz
	X7R : 2.5%max. at 1KHz
	BX/BR/BQ : 2.5%max. at 1KHz
Insulation Resistance	100GΩ or 1000/C Ω whichever is smaller
Aging	NPO : 0% , X7R, BX/BR/BQ : 2.5% per decade of time
Dielectric Withstanding Voltage	$V \leq 50V$; 250% Rated Voltage
	$100V \leq V < 500V$; 250% Rated Voltage
	$500V \leq V < 1KV$; 150% Rated Voltage

◆ How To Order

DSC	3	6	N	M	224	K	501	8	H	01
Product Code	Stack	Case Size (per 87106)	Lead Configuration	Material	Capacitance (pF)	Tolerance	Rated Voltage	Marking	Special Test Requirement	Special Requirement
DSC: Manufactured to DSCC Drawings 87106 & 88011	EX : 1: one stack 2: two stack 3: three stack 4: four stack 5: five stack 6: six stack	Ex.: 1 : Case size 1 2 : Case size 2 3 : Case size 3 4 : Case size 4 5 : Case size 5 6 : Case size 6	Ex.: J : J Lead L : L Lead N: Straight Lead	Ex.: N: NPO X: X7R M: BX/BR/BQ	Ex.: 103:10x10 ³ 224:22x10 ⁴ 475:47x10 ⁵	Ex.: J: +/-5.0% K: +/- 10% M: +/- 20%	Ex.: 050:50Vdc 101:100Vdc 201:200Vdc 501:500Vdc	Ex.: N: No Marking S: Special Marking 8: 87106 M: Marked (cap & Tolerance)	Blank: Standard electrical test H: 87106 Testing ,	Blank: No special requirement 01~99 Customer special requirement

◆ Dimensions



Case Size	A (Max “)	B (Max “)	C (± .025”)	D(± .025”)	E(Max “)	Leads pre size
11	.130	.195				
21	.260	.325				
31	.390	.455	.450	2.050	.500	20
41	.520	.585				
51	.650	.715				
12	.130	.195				
22	.260	.325				
32	.390	.455	.800	1.510	.870	15
42	.520	.585				
52	.650	.715				
13	.130	.195				
23	.260	.325				
33	.390	.455	.450	1.050	.500	10
43	.520	.585				
53	.650	.715				
14	.130	.195				
24	.260	.325				
34	.390	.455	.400	.400	.440	4
44	.520	.585				
54	.650	.715				
15	.130	.195				
25	.260	.325				
35	.390	.455	.250	.250	.300	3
45	.520	.585				
55	.650	.715				
16	.130	.195				
26	.260	.325				
36	.390	.455	1.250	2.050	1.350	20
46	.520	.585				
56	.650	.715				

◆ Capacitance Range

Size Code	NPO Maximum Capacitanc				BX Maximum Capacitance				X7R Maximum Capacitance			
	50V	100V	200V	500V	50V	100V	200V	500V	50V	100V	200V	500V
11	145	105	754	444	206	136	705	305	486	336	196	685
21	285	205	155	884	406	266	146	605	966	666	386	136
31	425	305	225	135	606	396	216	905	147	996	576	206
41	565	405	305	185	806	526	286	126	197	137	766	276
51	705	505	375	225	107	656	356	156	247	167	956	346
12	205	145	105	604	306	196	106	425	756	556	256	116
22	405	285	205	125	606	386	206	845	157	117	506	226
32	605	425	305	185	906	576	306	126	227	167	756	336
42	805	565	405	245	127	766	406	166	307	227	107	446
52	106	705	505	305	157	956	506	216	377	277	127	556
13	704	504	394	224	106	605	335	145	286	206	955	395
23	145	105	784	444	206	126	665	285	566	406	196	785
33	215	155	125	664	306	186	995	425	846	606	286	116
43	285	205	155	884	406	246	136	565	117	806	386	156
53	355	255	205	115	506	306	166	705	147	107	476	196
14	224	154	124	703	305	205	115	504	905	655	305	155
24	444	304	244	144	605	405	225	105	186	136	605	305
34	664	454	364	214	905	605	335	155	276	196	905	455
44	884	604	484	284	126	805	445	205	366	266	126	605
54	115	754	604	354	156	106	555	255	456	326	156	755
15	703	503	403	203	135	704	374	174	305	225	105	504
25	144	104	803	403	265	145	744	344	605	445	205	105
35	214	154	124	603	395	215	115	514	905	665	305	155
45	284	204	164	803	525	285	145	684	126	885	405	205
55	354	254	204	104	655	355	185	854	156	116	505	255
16	405	285	225	125	666	406	206	905	167	117	506	256
26	805	565	445	245	137	806	406	186	327	227	107	506
36	126	845	665	365	197	127	606	276	487	337	157	756
46	166	116	885	485	267	167	806	366	647	447	207	107
56	206	146	116	605	337	207	107	456	807	557	257	127

◆ Cross Reference to HEC Part Number

87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)	87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)
1	DSC15NM105K0508H	61	DSC25NM125K1018H
2	DSC15NM105M0508H	62	DSC25NM125M1018H
3	DSC15NM125K0508H	63	DSC35NM155K1018H
4	DSC15NM125M0508H	64	DSC35NM155M1018H
5	DSC25NM155K0508H	65	DSC35NM185K1018H
6	DSC25NM155M0508H	66	DSC35NM185M1018H
7	DSC25NM185K0508H	67	DSC45NM225K1018H
8	DSC25NM185M0508H	68	DSC45NM225M1018H
9	DSC25NM225K0508H	69	DSC45NM275K1018H
10	DSC25NM225M0508H	70	DSC45NM275M1018H
11	DSC35NM275K0508H	71	DSC55NM335K1018H
12	DSC35NM275M0508H	72	DSC55NM335M1018H
13	DSC35NM335K0508H	73	DSC34NM395K1018H
14	DSC35NM335M0508H	74	DSC34NM395M1018H
15	DSC45NM395K0508H	75	DSC34NM475K1018H
16	DSC45NM395M0508H	76	DSC34NM475M1018H
17	DSC45NM475K0508H	77	DSC44NM565K1018H
18	DSC45NM475M0508H	78	DSC44NM565M1018H
19	DSC55NM565K0508H	79	DSC44NM685K1018H
20	DSC55NM565M0508H	80	DSC44NM685M1018H
21	DSC34NM825K0508H	81	DSC54NM825K1018H
22	DSC34NM825M0508H	82	DSC54NM825M1018H
23	DSC44NM106K0508H	83	DSC23NM126K1018H
24	DSC44NM106M0508H	84	DSC23NM126M1018H
25	DSC44NM126K0508H	85	DSC33NM156K1018H
26	DSC44NM126M0508H	86	DSC33NM156M1018H
27	DSC54NM156K0508H	87	DSC33NM186K1018H
28	DSC54NM156M0508H	88	DSC33NM186M1018H
29	DSC23NM186K0508H	89	DSC43NM226K1018H
30	DSC23NM186M0508H	90	DSC43NM226M1018H
31	DSC33NM226K0508H	91	DSC53NM276K1018H
32	DSC33NM226M0508H	92	DSC53NM276M1018H
33	DSC33NM276K0508H	93	DSC31NM336K1018H
34	DSC33NM276M0508H	94	DSC31NM336M1018H
35	DSC33NM336K0508H	95	DSC41NM396K1018H
36	DSC33NM336M0508H	96	DSC41NM396M1018H
37	DSC43NM396K0508H	97	DSC41NM476K1018H
38	DSC43NM396M0508H	98	DSC41NM476M1018H
39	DSC53NM476K0508H	99	DSC51NM566K1018H
40	DSC53NM476M0508H	100	DSC51NM566M1018H
41	DSC41NM686K0508H	101	DSC42NM686K1018H
42	DSC41NM686M0508H	102	DSC42NM686M1018H
43	DSC41NM826K0508H	103	DSC52NM826K1018H
44	DSC41NM826M0508H	104	DSC52NM826M1018H
45	DSC51NM107K0508H	105	DSC36NM107K1018H
46	DSC51NM107M0508H	106	DSC36NM107M1018H
47	DSC52NM157K0508H	107	DSC36NM127K1018H
48	DSC52NM157M0508H	108	DSC36NM127M1018H
49	DSC46NM187K0508H	109	DSC46NM157K1018H
50	DSC46NM187M0508H	110	DSC46NM157M1018H
51	DSC46NM227K0508H	111	DSC56NM187K1018H
52	DSC46NM227M0508H	112	DSC56NM187M1018H
53	DSC56NM277K0508H	113	DSC45NM474K2018H
54	DSC56NM277M0508H	114	DSC45NM474M2018H
55	DSC15NM684K1018H	115	DSC45NM564K2018H
56	DSC15NM684M1018H	116	DSC45NM564M2018H
57	DSC25NM824K1018H	117	DSC45NM684K2018H
58	DSC25NM824M1018H	118	DSC45NM684M2018H
59	DSC25NM105K1018H	119	DSC45NM824K2018H
60	DSC25NM105M1018H	120	DSC45NM824M2018H

87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)	87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)
121	DSC45NM105K2018H	181	DSC45NM334K5018H
122	DSC45NM105M2018H	182	DSC45NM334M5018H
123	DSC45NM125K2018H	183	DSC45NM394K5018H
124	DSC45NM125M2018H	184	DSC45NM394M5018H
125	DSC45NM155K2018H	185	DSC45NM474K5018H
126	DSC45NM155M2018H	186	DSC45NM474M5018H
127	DSC44NM185K2018H	187	DSC45NM564K5018H
128	DSC44NM185M2018H	188	DSC45NM564M5018H
129	DSC44NM225K2018H	189	DSC45NM684K5018H
130	DSC44NM225M2018H	190	DSC45NM684M5018H
131	DSC44NM275K2018H	191	DSC44NM105K5018H
132	DSC44NM275M2018H	192	DSC44NM105M5018H
133	DSC44NM335K2018H	193	DSC44NM125K5018H
134	DSC44NM335M2018H	194	DSC44NM125M5018H
135	DSC44NM395K2018H	195	DSC44NM155K5018H
136	DSC44NM395M2018H	196	DSC44NM155M5018H
137	DSC43NM475K2018H	197	DSC44NM185K5018H
138	DSC43NM475M2018H	198	DSC44NM185M5018H
139	DSC43NM565K2018H	199	DSC43NM275K5018H
140	DSC43NM565M2018H	200	DSC43NM275M5018H
141	DSC43NM685K2018H	201	DSC43NM335K5018H
142	DSC43NM685M2018H	202	DSC43NM335M5018H
143	DSC43NM825K2018H	203	DSC43NM395K5018H
144	DSC43NM825M2018H	204	DSC43NM395M5018H
145	DSC43NM106K2018H	205	DSC43NM475K5018H
146	DSC43NM106M2018H	206	DSC43NM475M5018H
147	DSC43NM126K2018H	207	DSC43NM565K5018H
148	DSC43NM126M2018H	208	DSC43NM565M5018H
149	DSC41NM156K2018H	209	DSC41NM825K5018H
150	DSC41NM156M2018H	210	DSC41NM825M5018H
151	DSC41NM186K2018H	211	DSC41NM106K5018H
152	DSC41NM186M2018H	212	DSC41NM106M5018H
153	DSC41NM226K2018H	213	DSC41NM126K5018H
154	DSC41NM226M2018H	214	DSC41NM126M5018H
155	DSC41NM276K2018H	215	DSC42NM186K5018H
156	DSC41NM276M2018H	216	DSC42NM186M5018H
157	DSC42NM336K2018H	217	DSC46NM276K5018H
158	DSC42NM336M2018H	218	DSC46NM276M5018H
159	DSC42NM396K2018H	219	DSC46NM336K5018H
160	DSC42NM396M2018H	220	DSC46NM336M5018H
161	DSC46NM476K2018H	221	DSC46NM396K5018H
162	DSC46NM476M2018H	222	DSC46NM396M5018H
163	DSC46NM566K2018H	223	DSC34NM685K0508H
164	DSC46NM566M2018H	224	DSC34NM685M0508H
165	DSC46NM686K2018H	225	DSC31NM566K0508H
166	DSC46NM686M2018H	226	DSC31NM566M0508H
167	DSC46NM826K2018H	227	DSC42NM127K0508H
168	DSC46NM826M2018H	228	DSC42NM127M0508H
169	DSC46NM107K2018H	229	DSC23NM106K1018H
170	DSC46NM107M2018H	230	DSC23NM106M1018H
171	DSC46NM127K2018H	231	DSC44NM824K5018H
172	DSC46NM127M2018H	232	DSC44NM824M5018H
173	DSC45NM154K5018H	233	DSC43NM225K5018H
174	DSC45NM154M5018H	234	DSC43NM225M5018H
175	DSC45NM184K5018H	235	DSC41NM685K5018H
176	DSC45NM184M5018H	236	DSC41NM685M5018H
177	DSC45NM224K5018H	237	DSC42NM156K5018H
178	DSC45NM224M5018H	238	DSC42NM156M5018H
179	DSC45NM274K5018H	239	DSC46NM226K5018H
180	DSC45NM274M5018H	240	DSC46NM226M5018H

87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)	87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)
241	DSC15JM105K0508H	301	DSC15JM684K1018H
242	DSC15JM105M0508H	302	DSC15JM684M1018H
243	DSC15JM125K0508H	303	DSC25JM824K1018H
244	DSC15JM125M0508H	304	DSC25JM824M1018H
245	DSC25JM155K0508H	305	DSC25JM105K1018H
246	DSC25JM155M0508H	306	DSC25JM105M1018H
247	DSC25JM185K0508H	307	DSC25JM125K1018H
248	DSC25JM185M0508H	308	DSC25JM125M1018H
249	DSC25JM225K0508H	309	DSC35JM155K1018H
250	DSC25JM225M0508H	310	DSC35JM155M1018H
251	DSC35JM275K0508H	311	DSC35JM185K1018H
252	DSC35JM275M0508H	312	DSC35JM185M1018H
253	DSC35JM335K0508H	313	DSC45JM225K1018H
254	DSC35JM335M0508H	314	DSC45JM225M1018H
255	DSC45JM395K0508H	315	DSC45JM275K1018H
256	DSC45JM395M0508H	316	DSC45JM275M1018H
257	DSC45JM475K0508H	317	DSC55JM335K1018H
258	DSC45JM475M0508H	318	DSC55JM335M1018H
259	DSC55JM565K0508H	319	DSC34JM395K1018H
260	DSC55JM565M0508H	320	DSC34JM395M1018H
261	DSC34JM685K0508H	321	DSC34JM475K1018H
262	DSC34JM685M0508H	322	DSC34JM475M1018H
263	DSC34JM825K0508H	323	DSC44JM565K1018H
264	DSC34JM825M0508H	324	DSC44JM565M1018H
265	DSC44JM106K0508H	325	DSC44JM685K1018H
266	DSC44JM106M0508H	326	DSC44JM685M1018H
267	DSC44JM126K0508H	327	DSC54JM825K1018H
268	DSC44JM126M0508H	328	DSC54JM825M1018H
269	DSC54JM156K0508H	329	DSC23JM106K1018H
270	DSC54JM156M0508H	330	DSC23JM106M1018H
271	DSC23JM186K0508H	331	DSC23JM126K1018H
272	DSC23JM186M0508H	332	DSC23JM126M1018H
273	DSC33JM226K0508H	333	DSC33JM156K1018H
274	DSC33JM226M0508H	334	DSC33JM156M1018H
275	DSC33JM276K0508H	335	DSC33JM186K1018H
276	DSC33JM276M0508H	336	DSC33JM186M1018H
277	DSC33JM336K0508H	337	DSC43JM226K1018H
278	DSC33JM336M0508H	338	DSC43JM226M1018H
279	DSC43JM396K0508H	339	DSC53JM276K1018H
280	DSC43JM396M0508H	340	DSC53JM276M1018H
281	DSC53JM476K0508H	341	DSC31JM336K1018H
282	DSC53JM476M0508H	342	DSC31JM336M1018H
283	DSC31JM566K0508H	343	DSC41JM396K1018H
284	DSC31JM566M0508H	344	DSC41JM396M1018H
285	DSC41JM686K0508H	345	DSC41JM476K1018H
286	DSC41JM686M0508H	346	DSC41JM476M1018H
287	DSC41JM826K0508H	347	DSC51JM566K1018H
288	DSC41JM826M0508H	348	DSC51JM566M1018H
289	DSC51JM107K0508H	349	DSC42JM686K1018H
290	DSC51JM107M0508H	350	DSC42JM686M1018H
291	DSC42JM127K0508H	351	DSC52JM826K1018H
292	DSC42JM127M0508H	352	DSC52JM826M1018H
293	DSC52JM157K0508H	353	DSC36JM107K1018H
294	DSC52JM157M0508H	354	DSC36JM107M1018H
295	DSC46JM187K0508H	355	DSC36JM127K1018H
296	DSC46JM187M0508H	356	DSC36JM127M1018H
297	DSC46JM227K0508H	357	DSC46JM157K1018H
298	DSC46JM227M0508H	358	DSC46JM157M1018H
299	DSC56JM277K0508H	359	DSC56JM187K1018H
300	DSC56JM277M0508H	360	DSC56JM187M1018H

87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)	87106 Dash #	HEC Part Number (8 in 14th position indicates marked per 87106)
361	DSC45JM474K2018H	421	DSC45JM154K5018H
362	DSC45JM474M2018H	422	DSC45JM154M5018H
363	DSC45JM564K2018H	423	DSC45JM184K5018H
364	DSC45JM564M2018H	424	DSC45JM184M5018H
365	DSC45JM684K2018H	425	DSC45JM224K5018H
366	DSC45JM684M2018H	426	DSC45JM224M5018H
367	DSC45JM824K2018H	427	DSC45JM274K5018H
368	DSC45JM824M2018H	428	DSC45JM274M5018H
369	DSC45JM105K2018H	429	DSC45JM334K5018H
370	DSC45JM105M2018H	430	DSC45JM334M5018H
371	DSC45JM125K2018H	431	DSC45JM394K5018H
372	DSC45JM125M2018H	432	DSC45JM394M5018H
373	DSC45JM155K2018H	433	DSC45JM474K5018H
374	DSC45JM155M2018H	434	DSC45JM474M5018H
375	DSC44JM185K2018H	435	DSC45JM564K5018H
376	DSC44JM185M2018H	436	DSC45JM564M5018H
377	DSC44JM225K2018H	437	DSC45JM684K5018H
378	DSC44JM225M2018H	438	DSC45JM684M5018H
379	DSC44JM275K2018H	439	DSC44JM824K5018H
380	DSC44JM275M2018H	440	DSC44JM824M5018H
381	DSC44JM335K2018H	441	DSC44JM105K5018H
382	DSC44JM335M2018H	442	DSC44JM105M5018H
384	DSC44JM395K2018H	443	DSC44JM125K5018H
385	DSC44JM395M2018H	444	DSC44JM125M5018H
386	DSC43JM475K2018H	445	DSC44JM155K5018H
386	DSC43JM475M2018H	446	DSC44JM155M5018H
387	DSC43JM565K2018H	447	DSC44JM185K5018H
388	DSC43JM565M2018H	448	DSC44JM185M5018H
389	DSC43JM685K2018H	449	DSC43JM225K5018H
390	DSC43JM685M2018H	450	DSC43JM225M5018H
391	DSC43JM825K2018H	451	DSC43JM275K5018H
392	DSC43JM825M2018H	452	DSC43JM275M5018H
393	DSC43JM106K2018H	453	DSC43JM335K5018H
394	DSC43JM106M2018H	454	DSC43JM335M5018H
395	DSC43JM126K2018H	455	DSC43JM395K5018H
396	DSC43JM126M2018H	456	DSC43JM395M5018H
397	DSC41JM156K2018H	457	DSC43JM475K5018H
398	DSC41JM156M2018H	458	DSC43JM475M5018H
399	DSC41JM186K2018H	459	DSC43JM565K5018H
400	DSC41JM186M2018H	460	DSC43JM565M5018H
401	DSC41JM226K2018H	461	DSC41JM685K5018H
402	DSC41JM226M2018H	462	DSC41JM685M5018H
403	DSC41JM276K2018H	463	DSC41JM825K5018H
404	DSC41JM276M2018H	464	DSC41JM825M5018H
405	DSC42JM336K2018H	465	DSC41JM106K5018H
406	DSC42JM336M2018H	466	DSC41JM106M5018H
407	DSC42JM396K2018H	467	DSC41JM126K5018H
408	DSC42JM396M2018H	468	DSC41JM126M5018H
409	DSC46JM476K2018H	469	DSC42JM156K5018H
410	DSC46JM476M2018H	470	DSC42JM156M5018H
411	DSC46JM566K2018H	471	DSC42JM186K5018H
412	DSC46JM566M2018H	472	DSC42JM186M5018H
413	DSC46JM686K2018H	473	DSC46JM226K5018H
414	DSC46JM686M2018H	474	DSC46JM226M5018H
415	DSC46JM826K2018H	475	DSC46JM276K5018H
416	DSC46JM826M2018H	476	DSC46JM276M5018H
417	DSC46JM107K2018H	477	DSC46JM336K5018H
418	DSC46JM107M2018H	478	DSC46JM336M5018H
419	DSC46JM127K2018H	479	DSC46JM396K5018H
420	DSC46JM127M2018H	480	DSC46JM396M5018H