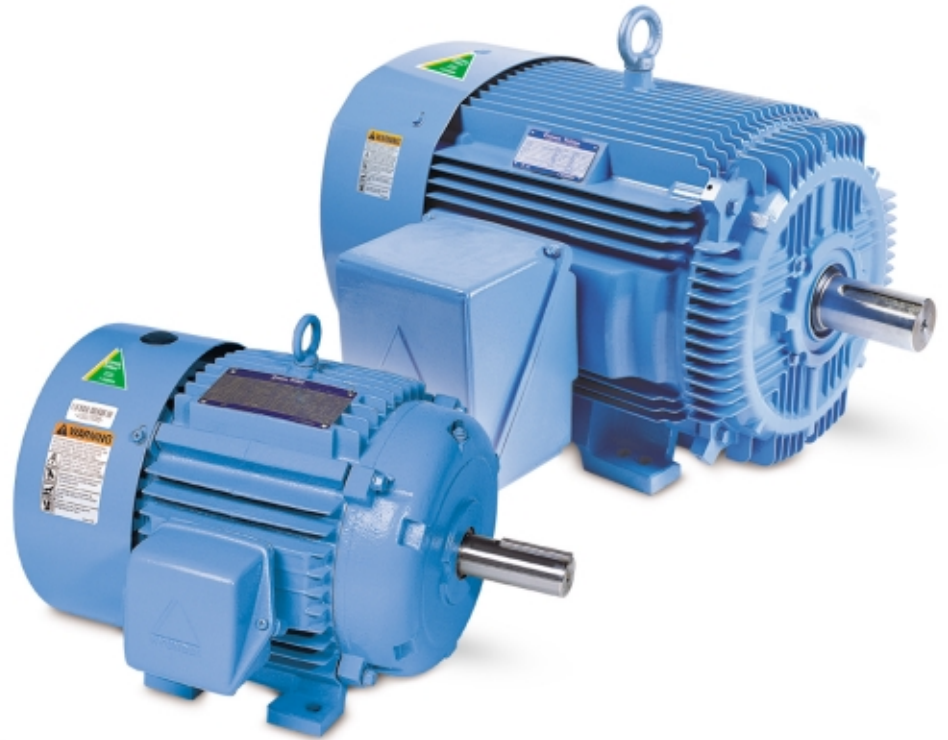




Crown Triton™ Series Motors

TEFC: Cast Iron Frame

- Premium Efficiency
- Exceeds Efficiency Levels Mandated by CSA C390 and EPACT '92



Experience Combined with Technology

Hyundai Induction Motors use Finite Element Analysis (FEA) and Computer Aided Design (CAD) methods to develop and produce the most innovative motors from state-of-the-art and fully automated manufacturing facilities.

Hyundai's Crown Triton™ cast iron frames greatly improve motor performance by maximizing heat dissipation.

The use of advanced technology to design and manufacture electric motors, results in a reasonably priced, top quality motor with superior performance characteristics.

Compared with other high efficiency motors, Hyundai's Crown Triton™ Premium Efficiency motors guarantee better performance.

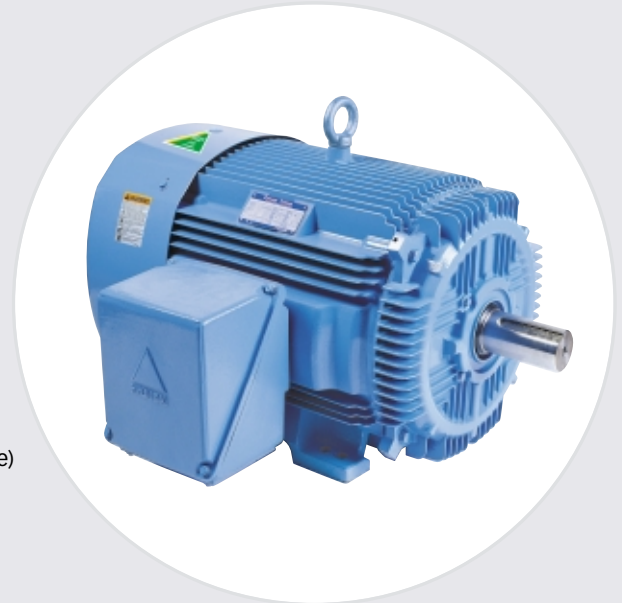
Approvals : CSA C US, EEV mark, CE, Class 1 Division 2, C-UL



Crown Triton™ Series - Premium Efficiency Motors

Typical Features & Construction

- AC 3 phase, squirrel cage induction motor
- Totally Enclosed Fan Cooled
- Premium efficiency exceeds CSA C390 and EPACT '92 efficiency requirements
- NEMA design B or C torque
- NEMA MG.1, EEMAC M1-6, CSA C390
- 60 Hz, 208-230/460 V and 575 V (Single voltage only for 150 HP & above)
- Class F insulation with Class B temperature rise
- 1.15 service factor
- Continuous duty
- Supply voltage $\pm 10\%$, frequency $\pm 5\%$
- Wye-delta start capability from 15 HP (254T) to 250 HP (449T)
- Part winding start capability at low voltage from 1 HP to 125 HP
- Bidirectional rotation
- Low temperature bearing grease (Mobil polyrex EM grease) allows ambient temperature's of -35°C to $+75^{\circ}\text{C}$
- Altitude below 3,300 feet (1,000 meters)
- Rigid cast iron construction
- F-1 mounting (F-2 field modifiable)
- Oversized gasketed conduit box, with neoprene lead seal
- Oversized vacuum degassed bearings
- Corrosion resistant zinc plated hardware
- Corrosion resistant polyurethane paint
- Drive end shaft slinger
- Stainless steel name plate
- Low temperature rise design will allow rating above 40°C ambient and altitudes above 3,300 feet, at 1.0 service factor
- Fully tested and documented per IEEE Std. 112, method B & CSA C390
- EEV mark on nameplate
- CE mark available
- CSA for Class 1, Division 2, Group A, B, C, D, temperature code T3 available



Crown Triton™ Series - Premium Efficiency Motors



Production Range

- Frame size : 143T to 449TZ
- Horsepower : 1 HP to 250 HP
- Poles : 2, 4, 6 pole
- Enclosure : TEFC, rigid cast iron construction

Typical Features

- Premium efficiency
reduces electrical & production costs
- Three year warranty
- Temperature rise
below Class B with Class F insulation provides longer winding life
- Bearings rated 100,000 hours L10 for coupled duty
and 50,000 hours L10 for belted duty
- Quiet running : Minimizing noise and vibration
- Dual rated service factors
1.15 at 40°C ambient and 1.00 at 65°C ambient
- Approvals : CSA C US, EEV mark, CE, Class 1, Division 2, C-UL
- C-face and D-flange kits
available



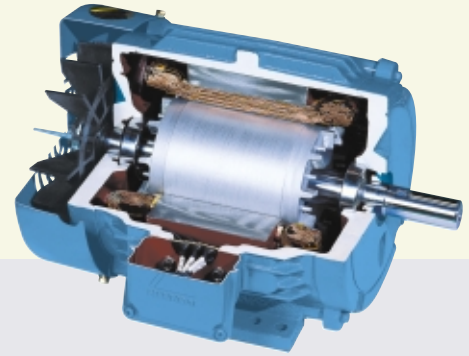
Frames 143T-286T



Frames 324T-326T



Frames 364T-449TZ



Improved and Optimized Materials with More Features & Performance Benefits

- High grade, low loss, insulated electro-magnetic steel laminations are punched and core loss is controlled for maximum efficiency.
- Heavy enamel coated copper windings with precise winding process ensure consistent motor performance and extended insulation life.
- Superior Class F non-hygroscopic insulation system, multidipped and baked with Class H insulation varnish.
- Clearly numbered leads make connection easy.
- Die cast rotor of high conductivity aluminum eliminates variations in bar & end ring resistance. This assures consistent motor performance.
- Dynamically balanced rotor with half key ensures smooth operation, exceeding standard NEMA vibration requirements.
- Rotor surface is coated with corrosion resistant paint for outstanding resistance to severe environments.
- Regreasable bearings with integral grease fittings are shielded against contaminants with internal cast iron bearing caps (324T & larger).
- Drive end shaft slinger protects bearing system against contaminants.
- Oversized gasketed conduit box exceeding CSA, NEMA & NEC minimum volumes is diagonally split and fully rotatable at 90° increments.
- Neoprene lead gasket on conduit box protects motors against moisture and dust.
- Non-sparking, corrosion resistant external polypropylene fan assures maximum cooling and quieter operation.
- Removable plastic drain plugs to allow condensation to drain from the motor.
- Corrosion resistant polyurethane paint and corrosion resistant zinc plated hardware protect motors against severe environments.

Optional Features

- Cast iron fan guards
- Special voltages
- Two speed motors
- Special shaft designs and materials
- Space heaters
- Encoders
- Rotating labyrinth seal (PROTECH)
- Auxiliary conduit boxes
- Drip canopies for vertical applications
- Thermistors
- Thermostats
- Constant speed blowers

Crown Triton Premium Efficiency AC 3 Phase Motor					
MODEL		ENCL.		AMPS	
FRAME		CODE		HERTZ	
TYPE PLS		INS CLASS HD-F1		NEMA NOM. EFF.	
B R G S	DRIVE		S.F.		RPM
	OPP.		NEMA DESIGN		MAX. AMB °C
GUAR. MIN. EFF.		POWER FACTOR		Alternate Volts. @ SF1.0	
NO.			DATE		WEIGHT LB
NP249A7171RB			MADE IN KOREA		H1
  					



Foot Mounted Motors

TEFC, Crown Triton™ Series - Premium Efficiency Motors

- Cast iron construction
- Exceeds CSA C390 & EPACT '92 efficiency requirements
- NEMA design B or C torque
- Class F insulation with Class B temp. rise, 1.15 S.F.
- Diagonally split, gasketed conduit box, fully rotatable at 90° increments

(Unit : inch)

Frame Size	Overall						Shaft			Mounting			Conduit Box		Fig.	
	BA	C	D	O	P	U	N-W	Keyway			2E	2F1	2F2	AA		AB
								R	ES	S						
143T	2.25	12.88	3.50	7.44	7.44	0.875	2.25	0.771	1.41	0.188	5.50	(5.00)	4.00	0.75	6.46	A
145T	2.25	12.88	3.50	7.44	7.44	0.875	2.25	0.771	1.41	0.188	5.50	5.00	(4.00)	0.75	6.46	
182T	2.75	14.69	4.50	9.45	9.89	1.125	2.75	0.986	1.78	0.250	7.50	4.50	-	0.75	7.40	
184T	2.75	15.69	4.50	9.45	9.89	1.125	2.75	0.986	1.78	0.250	7.50	5.50	-	0.75	7.40	
213T	3.50	18.33	5.25	11.00	11.50	1.375	3.38	1.201	2.41	0.312	8.50	5.50	-	1.00	8.59	
215T	3.50	19.83	5.25	11.00	11.50	1.375	3.38	1.201	2.41	0.312	8.50	7.00	-	1.00	8.59	
254T	4.25	23.52	6.25	13.08	13.65	1.625	4.00	1.416	2.91	0.375	10.00	8.25	-	1.25	11.30	
256T	4.25	25.25	6.25	13.08	13.65	1.625	4.00	1.416	2.91	0.375	10.00	10.00	-	1.25	11.30	
284TS	4.75	24.76	7.00	14.74	15.48	1.625	3.25	1.416	1.91	0.375	11.00	9.50	-	1.50	11.85	
284T	4.75	26.13	7.00	14.74	15.48	1.875	4.62	1.591	3.28	0.500	11.00	9.50	-	1.50	11.85	
286TS	4.75	27.00	7.00	14.74	15.48	1.625	3.25	1.416	1.91	0.375	11.00	11.00	-	1.50	11.85	
286T	4.75	28.37	7.00	14.74	15.48	1.875	4.62	1.591	3.28	0.500	11.00	11.00	-	1.50	11.85	
324TS	5.25	29.78	8.00	15.91	15.82	1.875	3.75	1.591	2.03	0.500	12.50	(12.00)	10.50	2.00	14.25	
324T	5.25	31.28	8.00	15.91	15.82	2.125	5.25	1.845	3.91	0.500	12.50	(12.00)	10.50	2.00	14.25	
326TS	5.25	29.78	8.00	15.91	15.82	1.875	3.75	1.591	2.03	0.500	12.50	12.00	(10.50)	2.00	14.25	
326T	5.25	31.28	8.00	15.91	15.82	2.125	5.25	1.845	3.91	0.500	12.50	12.00	(10.50)	2.00	14.25	
364TS	5.88	31.88	9.00	18.50	18.23	1.875	3.75	1.591	2.03	0.500	14.00	(12.25)	11.25	2.50	17.13	
364T	5.88	34.01	9.00	18.50	18.23	2.375	5.88	2.021	4.28	0.625	14.00	(12.25)	11.25	2.50	17.13	
365TS	5.88	31.88	9.00	18.50	18.23	1.875	3.75	1.591	2.03	0.500	14.00	12.25	(11.25)	2.50	17.13	
365T	5.88	34.01	9.00	18.50	18.23	2.375	5.88	2.021	4.28	0.625	14.00	12.25	(11.25)	2.50	17.13	
404T	6.62	39.42	10.00	20.79	20.16	2.875	7.25	2.450	5.65	0.750	16.00	(13.75)	12.25	3.00	20.28	
405TS	6.62	36.42	10.00	20.79	20.16	2.125	4.25	1.845	2.80	0.500	16.00	13.75	(12.25)	3.00	20.28	
405T	6.62	39.42	10.00	20.79	20.16	2.875	7.25	2.450	5.65	0.750	16.00	13.75	(12.25)	3.00	20.28	
444TS	7.50	41.46	11.00	23.19	22.40	2.375	4.75	2.021	3.03	0.625	18.00	(16.50)	14.50	3.00	21.26	
444T	7.50	45.21	11.00	23.19	22.40	3.375	8.50	2.880	6.93	0.875	18.00	(16.50)	14.50	3.00	21.26	
445TS	7.50	41.46	11.00	23.19	22.40	2.375	4.75	2.021	3.03	0.625	18.00	16.50	(14.50)	3.00	21.26	
445T	7.50	45.21	11.00	23.19	22.40	3.375	8.50	2.880	6.93	0.875	18.00	16.50	(14.50)	3.00	21.26	
447TS	7.50	44.96	11.00	23.19	22.40	2.375	4.75	2.021	3.03	0.625	18.00	20.00	(17.99)	3.00	21.26	
447T	7.50	48.71	11.00	23.19	22.40	3.375	8.50	2.880	6.93	0.875	18.00	20.00	(17.99)	3.00	21.26	
447TZ	7.50	50.34	11.00	23.19	22.40	3.375	10.125	2.880	8.50	0.875	18.00	20.00	(17.99)	3.00	21.26	
449TS	7.50	50.08	11.00	23.19	22.40	2.375	4.75	2.021	3.03	0.625	18.00	25.00	(20.00)	3.00	21.26	
449T	7.50	53.83	11.00	23.19	22.40	3.375	8.50	2.880	6.93	0.875	18.00	25.00	(20.00)	3.00	21.26	
449TZ	7.50	55.46	11.00	23.19	22.40	3.375	10.125	2.880	8.50	0.875	18.00	25.00	(20.00)	3.00	21.26	

Note: 1. Dimension "D" Tolerance
 140T-360T : +0.00, -0.03
 400T-440T : +0.00, -0.06
 2. Dimension "U" Tolerance
 Up to 1.500 Dia. : +0.000, -0.0005
 1.625 Dia. & Larger : +0.000, -0.001

FIG. A

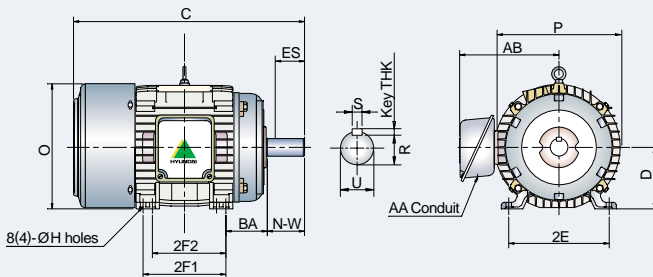
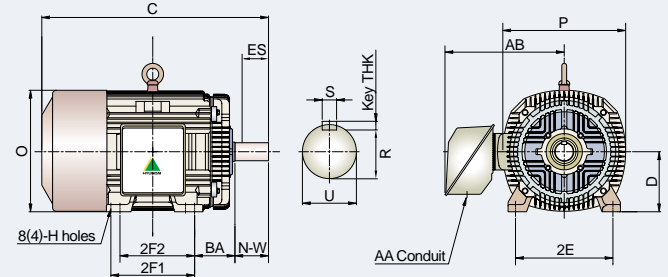


FIG. B





Performance Data

TEFC, Crown Triton™ Series - Premium Efficiency Motors

3-phase, 60 Hz, 230/460 V (usable on 208 V) , 575 V, 1.15 S.F., continuous duty
 NEMA design B or C, Class F, 40°C amb.

Rated Output (HP)	Pole	Frame Size	Characteristics at Rated Output							Locked Rotor Current		Torque			Moment of Inertia WK ² (lb.ft ²)	NEMA Code Letter	Approx. Weight (lbs)	Brg. Sizes			
			Full Load Speed (RPM)	Efficiency			Power Factor	Full Load Current		460 V (A)	575 V (A)	460 V (A)	575 V (A)	Full Load (lb.ft)				Locked Rotor (%FLT)	Break-down (%FLT)	D.E.	N-D.E.
				Nom. (%)	Min. (%)	3/4 Load (%)		Full Load (%)	460 V (A)												
1	4	143T	1750	86.5	84.0	86.0	77.0	1.4	1.1	12.9	10.3	3.0	350	400	0.128	M	52	6205ZC3	6204ZC3		
	6	145T	1145	82.5	80.0	80.0	67.5	1.7	1.3	10.2	8.2	4.6	270	320	0.138	K	52	6205ZC3	6204ZC3		
1.5	2	143T	3500	85.5	83.0	84.0	85.0	1.9	1.5	19.1	15.3	2.3	300	375	0.071	M	52	6205ZC3	6204ZC3		
	4	145T	1735	86.5	84.0	84.0	81.0	2.0	1.6	16.2	13.0	4.5	300	330	0.123	K	53	6205ZC3	6204ZC3		
2	6	182T	1170	87.5	85.5	87.1	73.0	2.2	1.8	18.3	14.6	6.7	200	290	0.266	L	71	6206ZC3	6206ZC3		
	2	145T	3500	85.5	83.0	85.0	85.0	2.6	2.1	20.8	16.6	3.0	310	320	0.071	K	52	6205ZC3	6204ZC3		
3	4	145T	1735	86.5	84.0	84.5	79.5	2.7	2.2	21.7	17.4	6.1	305	355	0.138	K	53	6205ZC3	6204ZC3		
	6	184T	1160	88.5	86.5	88.6	74.0	2.9	2.3	21.8	17.3	9.1	210	270	0.308	K	86	6206ZC3	6206ZC3		
5	2	182T	3515	87.5	86.5	86.3	86.0	3.7	3.0	26.9	21.9	4.5	200	340	0.119	J	67	6206ZC3	6206ZC3		
	4	182T	1760	89.5	87.5	88.6	83.0	3.8	3.0	29.8	23.3	9.0	240	350	0.284	J	71	6206ZC3	6206ZC3		
7.5	6	213T	1170	89.5	87.5	89.7	73.0	4.3	3.4	32.0	25.4	13.5	200	280	0.853	K	119	6307ZC3	6307ZC3		
	2	184T	3500	89.5	88.5	90.2	88.0	5.9	4.8	43.4	35.0	7.5	205	320	0.147	H	82	6206ZC3	6206ZC3		
10	4	184T	1750	89.5	88.5	91.3	84.0	6.2	5.0	46.0	36.9	15.0	230	300	0.355	J	82	6206ZC3	6206ZC3		
	6	215T	1170	89.5	88.5	89.8	74.0	7.1	5.7	46.0	36.9	22.4	200	250	1.055	J	140	6307ZC3	6307ZC3		
15	2	213T	3530	91.0	90.2	92.6	87.0	8.9	7.1	63.5	50.5	11.2	180	320	0.479	G	115	6307ZC3	6307ZC3		
	4	213T	1765	91.7	91.0	92.5	81.5	9.4	7.5	60.7	48.8	22.3	200	260	1.110	H	134	6307ZC3	6307ZC3		
20	6	254T	1175	91.7	90.4	92.4	75.0	10.2	8.2	63.3	50.6	33.5	210	250	2.259	H	242	6309ZC3	6309ZC3		
	2	215T	3535	91.7	91.0	93.6	88.5	11.5	9.2	75.0	59.8	14.9	190	310	0.539	G	151	6307ZC3	6307ZC3		
25	4	215T	1765	91.7	91.0	92.7	81.5	12.5	10.0	78.4	63.0	29.8	200	260	1.315	H	146	6307ZC3	6307ZC3		
	6	256T	1175	91.7	91.0	92.7	78.0	13.1	10.5	79.4	63.3	44.7	210	250	2.432	H	267	6309ZC3	6309ZC3		
30	2	254T	3555	91.7	91.0	92.0	89.0	17.1	13.7	111.9	89.7	22.2	190	230	1.262	G	267	6309ZC3	6309ZC3		
	4	254T	1775	92.4	91.7	93.4	83.0	18.3	14.7	116.0	92.6	44.4	200	240	2.432	G	257	6309ZC3	6309ZC3		
40	6	284T	1180	91.7	91.0	92.4	82.5	18.6	14.9	116.0	92.5	66.8	200	270	4.362	G	377	6310ZC3	6310ZC3		
	2	256T	3555	92.4	91.7	93.7	89.5	22.6	18.1	141.9	113.4	29.6	180	220	1.384	G	293	6309ZC3	6309ZC3		
50	4	256T	1775	93.0	92.4	94.1	83.0	24.3	19.4	140.7	112.5	59.2	200	230	2.918	G	293	6309ZC3	6309ZC3		
	6	286T	1175	92.4	91.7	93.6	82.5	24.6	19.7	144.2	115.4	89.4	200	270	5.434	G	403	6310ZC3	6310ZC3		
75	2	284TS	3555	93.0	92.4	93.8	91.0	27.7	22.1	179.8	143.7	36.9	190	250	2.941	G	373	6310ZC3	6310ZC3		
	4	284T	1775	93.6	93.0	94.0	84.5	29.6	23.7	182.5	146.2	74.0	200	230	4.619	G	386	6310ZC3	6310ZC3		
100	6	324T	1180	93.0	92.4	92.8	81.0	31.1	24.9	182.5	146.2	111.3	200	230	13.288	G	481	6313ZC3	6211ZC3		
	2	286TS	3555	93.0	92.4	94.1	91.5	33.0	26.4	215.7	172.4	44.3	190	240	3.087	G	406	6310ZC3	6310ZC3		
125	4	286T	1775	93.6	93.0	94.8	84.5	35.5	28.4	217.5	174.1	88.8	210	230	4.773	G	412	6310ZC3	6310ZC3		
	6	326T	1180	93.6	92.5	93.4	82.0	36.6	29.3	217.5	174.0	133.5	200	230	17.086	G	525	6313ZC3	6211ZC3		
150	2	324TS	3560	93.6	93.0	92.7	89.0	45.0	36.0	287.7	230.2	59.0	160	220	5.410	G	513	6313ZC3	6211ZC3		
	4	324T	1770	94.1	93.2	93.6	84.0	47.4	37.9	279.6	223.7	118.7	190	240	9.777	G	515	6313ZC3	6211ZC3		
200	6	364T	1180	94.1	93.1	94.0	85.0	46.8	37.7	290.0	232.0	178.0	200	250	29.180	G	820	6314C3	6213C3		
	2	326TS	3560	93.6	93.0	92.7	89.5	55.9	44.7	362.5	290.0	73.8	160	230	6.075	G	520	6313ZC3	6211ZC3		
250	4	326T	1770	94.5	93.6	93.8	84.5	58.6	46.9	353.3	282.6	148.4	200	250	13.288	G	525	6313ZC3	6211ZC3		
	6	365T	1180	94.1	93.1	94.1	85.0	58.5	46.4	362.5	290.0	222.5	200	250	35.120	G	860	6314C3	6213C3		
300	2	364TS	3540	94.1	93.0	94.0	91.0	65.6	52.8	435.0	348.0	89.0	120	200	13.910	G	750	6213C3	6213C3		
	4	364T	1775	95.0	94.1	95.2	86.0	68.8	55.3	435.0	348.0	177.5	200	250	21.000	G	820	6314C3	6213C3		
400	6	404T	1180	94.1	93.1	94.3	86.0	69.4	55.8	435.0	348.0	267.1	200	250	56.410	G	1190	6316C3	6313C3		
	2	365TS	3540	94.1	93.6	94.0	92.0	81.1	63.8	542.5	434.0	111.3	120	200	15.660	G	800	6213C3	6213C3		
500	4	365T	1775	95.0	94.5	95.2	86.0	85.9	67.6	542.5	434.0	221.9	200	250	24.170	G	860	6314C3	6213C3		
	6	405T	1180	94.1	93.6	94.3	86.0	86.8	68.2	542.5	434.0	333.8	200	250	60.030	G	1190	6316C3	6313C3		
600	2	405TS	3550	95.0	94.1	95.0	90.0	109.5	88.1	725.0	580.0	147.9	110	200	27.140	G	1150	6313C3	6313C3		
	4	405T	1775	95.0	94.5	95.1	86.5	113.9	91.6	725.0	580.0	295.9	200	250	43.470	G	1190	6316C3	6313C3		
800	6	444T	1180	95.0	94.1	95.2	86.0	114.6	92.2	725.0	580.0	445.1	200	250	84.430	G	1570	NU318M	6316C3		
	2	444TS	3555	95.0	94.3	95.0	90.0	136.9	109.2	910.0	728.0	184.7	100	200	43.600	G	1550	6314C3	6314C3		
1000	4	444T	1778	95.4	94.5	95.1	87.5	140.2	111.9	910.0	728.0	369.2	200	250	64.090	G	1570	NU318M	6316C3		
	6	445T	1180	95.0	94.1	95.2	86.5	142.4	113.6	910.0	728.0	556.4	200	250	98.140	G	1750	NU318M	6316C3		
1200	2	445TS	3565	95.0	94.3	95.0	90.0	164.3	129.2	1085.0	868.0	221.0	100	200	49.840	G	1590	6314C3	6314C3		
	4	445T	1780	95.4	94.5	95.5	88.0	167.3	131.6	1085.0	868.0	442.6	200	250	80.700	G	1750	NU318M	6316C3		
1600	6	447TZ	1180	95.0	94.1	95.0	86.5	170.9	134.4	1085.0	868.0	667.6	200	250	117.330	G	1940	NU318M	6316C3		
	2	447TS	3565	95.4	94.5	95.2	91.0	215.7	173.5	1450.0	1160.0	294.6	100	200	56.970	G	1880	6314C3	6314C3		
2000	4	447TZ	1780	95.8	95.0	95.4	88.0	222.1	178.7	1450.0	1160.0	590.1	200	250	86.670	G	1940	NU318M	6316C3		
	6	449TZ	1180	95.4	94.1	95.5	87.0	225.6	181.5	1450.0	1160.0	890.2	200	220	178.450	G	2500	NU318M	6316C3		
2500	2	449TS	3565	95.4	94.5	95.5	91.5	268.2	215.1	1825.0	1460.0	368.3	100	200	81.990	G	2430	6314C3	6314C3		
	4	449TZ	1780	95.8	95.0	96.0	88.5	276.1	221.5	1825.0	1460.0	737.7	200	220	130.270	G					