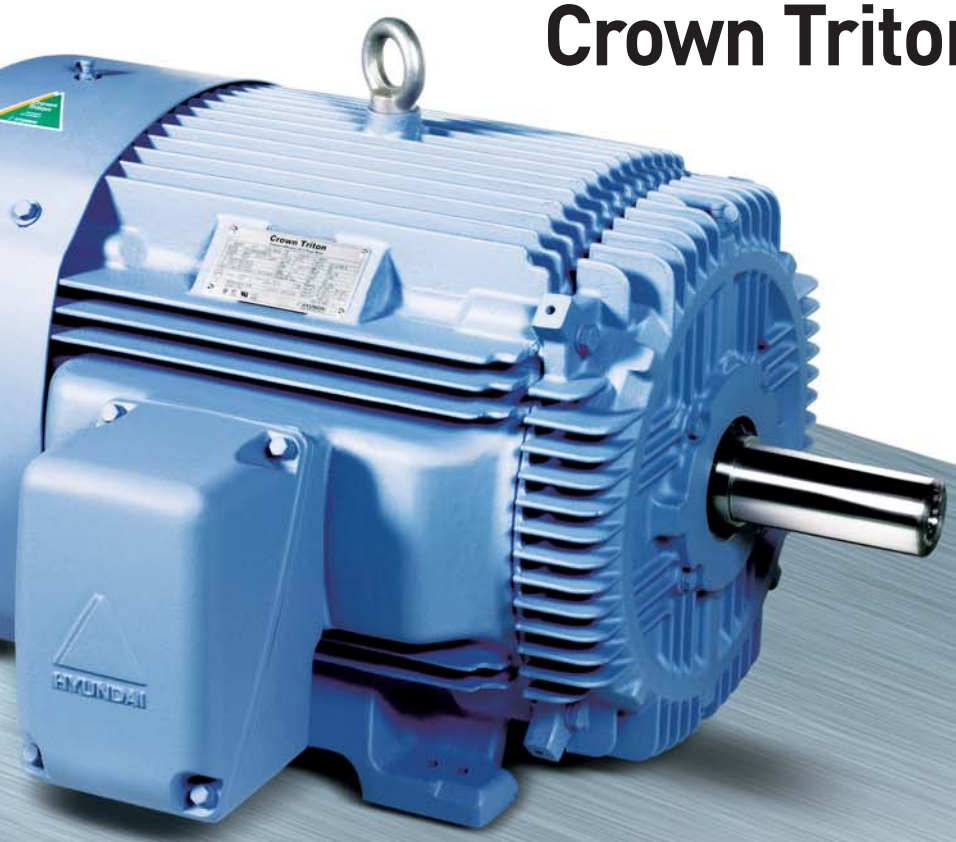
Building a better future
Global Leader

CC 038A
EEV 109973

Crown Triton™ Series Motors

TEFC : Cast Iron Frame



- Premium Efficiency
- Meets or Exceeds EISA 2007 Requirements Defined in NEMA MG1 Table 12-12 as NEMA Premium™
- 3 Year Warranty

HYUNDAI
HEAVY INDUSTRIES CO.,LTD.

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.

EEV 109973 CC 038A

Approvals : CSA C US, EEV mark, CE, Class I Division 2 (CSA only), C-UL

ee CC 038A

Crown Triton™ Series - Premium Efficiency Motors

Product 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 & Construction

- AC 3 phase, squirrel cage induction motor
- Totally Enclosed Fan Cooled
- Premium efficiency meets or exceeds EISA 2007 requirements, as defined in NEMA MG1 table 12-12, NEMA premium™
- NEMA design B 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
- Dual rated service factors 1.15 at 40˚C ambient and 1.0 at 65˚C ambient
- Continuous duty
- Supply voltage ±10%, frequency ±5%
- Wye-delta start capability from 15 HP (254T) to 250 HP (449T)
- Star internal connection for 575 V motors
- Part winding start capability at low voltage from 1 HP to 125 HP
- Inverter ready for 10:1 CT and 20:1 VT (NEMA MGI. Part 30)
- Bidirectional rotation
- Quiet running : Minimizing noise and vibration
- Low temperature bearing grease (Mobil polyrex EM grease) allows ambient temperature from -35˚C to +50˚C
- Altitude below 3,300 feet (1,000 meters)
- Rigid cast iron construction
- F-1 mounting (F-2 field modifiable)
- Oversized gasketed conduit box
- Oversized vacuum degassed bearings
- Corrosion resistant zinc plated hardware
- Corrosion resistant polyurethane paint
- Drive end shaft slinger or V-ring
- 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 and CSA C390
- EEV mark and CC No. on nameplate
- CSA for Class Ⅰ, Division 2, Group A, B, C, D, temperature code T3 available
- C-face and D-flange kits available

Frames 143T-286T

Frames 324T-326T

Frames 364T-449TZ

Use of Improved and Optimized Materials to Achieve Better Features & Performance

- 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.
- Drive end shaft slinger or V-ring protects bearing system against contaminants.
- Oversized gasketed conduit box exceeding CSA, NEMA & NEC minimum volumes is diagonally split and fully rotatable at 90° increments.
- 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

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TEFC, Crown Triton™ Series - Premium Efficiency Motors

- Cast iron construction
- Meets or exceeds EISA2007 requirements
- Class F insulation with Class B temp. rise, 1.15 S.F.
- Diagonally split, gasketed conduit box, fully rotatable at 90° increments
- C-face and D-flange kits available

(Unit : inch)

Frame Size	Overall					Shaft					Mounting			Conduit Box		Fig.
	BA	C	D	O	P	U	N-W	Keyway R	Keyway ES	Keyway S	2E	2F1	2F2	AA	AB	
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	
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	23.13	6.25	12.75	12.76	1.625	4.00	1.416	2.91	0.375	10.00	8.25	-	1.25	11.88	
256T	4.25	24.86	6.25	12.75	12.76	1.625	4.00	1.416	2.91	0.375	10.00	10.00	-	1.25	11.88	
284TS	4.75	24.76	7.00	14.28	14.19	1.625	3.25	1.416	1.91	0.375	11.00	9.50	-	1.50	12.43	A
284T	4.75	26.13	7.00	14.28	14.19	1.875	4.62	1.591	3.28	0.500	11.00	9.50	-	1.50	12.43	
286TS	4.75	26.34	7.00	14.28	14.19	1.625	3.25	1.416	1.91	0.375	11.00	11.00	-	1.50	12.43	
286T	4.75	27.71	7.00	14.28	14.19	1.875	4.62	1.591	3.28	0.500	11.00	11.00	-	1.50	12.43	
324TS	5.25	29.59	8.00	16.06	15.98	1.875	3.75	1.591	2.03	0.500	12.50	(12.00)	10.50	2.00	15.31	
324T	5.25	31.09	8.00	16.06	15.98	2.125	5.25	1.845	3.91	0.500	12.50	(12.00)	10.50	2.00	15.31	
326TS	5.25	29.59	8.00	16.06	15.98	1.875	3.75	1.591	2.03	0.500	12.50	12.00	(10.50)	2.00	15.31	
326T	5.25	31.09	8.00	16.06	15.98	2.125	5.25	1.845	3.91	0.500	12.50	12.00	(10.50)	2.00	15.31	
326T(L)	5.25	33.04	8.00	16.06	15.98	2.125	5.25	1.845	3.91	0.500	12.50	12.00	(10.50)	2.00	15.31	
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	3.00	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	3.00	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)	3.00	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)	3.00	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	B
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

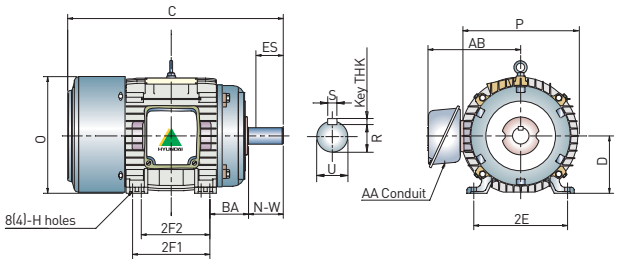
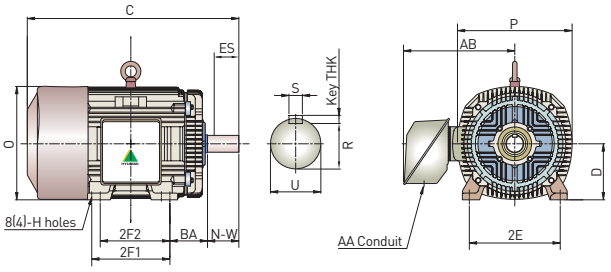


FIG. B



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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, Class F, 40˚C amb.

Rated Output (HP)	Pole	Frame Size	Characteristics at Rated Output						Locked Rotor Current		Torque			Moment of Inertia WK² (lb.ft²)	NEMA Code Letter	Approx. Weight (lbs)
			Full Load Speed (RPM)	Efficiency		Power Factor	Full Load Current				Full Load (lb.ft)	Locked Rotor (% FLT)	Break-down (% FLT)			
				Full Load Nom.(%)	3/4 Load (%)	Full Load (p.u.)	@ 460 V (A)	@ 575 V (A)	@ 460 V (A)	@ 575 V (A)						
1	2	143T	3500	77.00	77.20	0.820	1.5	1.2	14.9	11.9	1.5	200	270	0.031	N	53
	4	143T	1740	85.50	85.60	0.700	1.6	1.3	14.6	11.7	3.0	280	310	0.059	N	53
	6	145T	1140	82.50	82.70	0.650	1.8	1.4	14.0	11.2	4.6	180	275	0.083	N	55
1.5	2	143T	3500	84.00	84.20	0.840	2.0	1.6	19.6	15.7	2.2	185	260	0.033	M	53
	4	145T	1735	86.50	86.70	0.720	2.2	1.8	20.0	16.0	4.5	260	290	0.076	M	55
	6	182T	1160	87.50	87.70	0.680	2.3	1.9	19.7	15.8	6.7	190	270	0.593	L	90
2	2	145T	3500	85.50	85.70	0.850	2.6	2.1	24.6	19.7	3.0	180	250	0.042	L	55
	4	145T	1735	86.50	86.70	0.730	3.0	2.4	24.7	19.8	6.1	245	280	0.078	L	55
	6	184T	1155	88.50	88.70	0.700	3.0	2.4	24.0	19.2	9.1	180	260	0.712	L	105
3	2	182T	3515	86.50	86.70	0.850	3.8	3.0	28.5	22.8	4.4	190	260	0.071	J	90
	4	182T	1760	89.50	89.60	0.790	3.9	3.1	30.1	24.1	8.8	220	280	0.190	J	90
	6	213T	1175	89.50	89.50	0.680	4.5	3.6	32.7	26.1	13.2	180	250	0.949	K	150
5	2	184T	3515	88.50	88.70	0.860	6.1	4.9	45.8	36.6	7.4	190	260	0.166	J	105
	4	184T	1760	89.50	89.70	0.800	6.5	5.2	49.3	39.4	14.8	210	260	0.309	J	105
	6	215T	1170	89.50	89.50	0.700	7.4	5.9	50.4	40.3	22.3	170	220	1.234	K	165
7.5	2	213T	3520	89.50	89.70	0.860	9.0	7.2	62.8	50.2	11.0	160	260	0.332	H	150
	4	213T	1760	91.70	91.70	0.790	9.5	7.6	73.4	58.7	22.0	190	250	0.570	J	150
	6	254T	1175	91.00	91.10	0.740	10.3	8.2	69.7	55.8	33.0	170	250	2.136	J	260
10	2	215T	3525	90.20	90.30	0.870	12.0	9.6	81.6	65.3	15.0	160	260	0.451	H	165
	4	215T	1760	91.70	91.70	0.805	12.8	10.2	95.6	76.5	30.0	180	240	0.712	J	165
	6	256T	1175	91.00	91.10	0.750	13.8	11.0	93.8	75.0	45.0	170	250	3.086	J	300
15	2	254T	3535	91.70	91.70	0.890	16.9	13.5	113.3	90.7	21.9	180	250	0.926	G	260
	4	254T	1775	92.40	92.40	0.815	18.3	14.7	124.7	99.7	43.7	200	240	2.136	H	260
	6	284T	1175	91.70	91.80	0.760	19.8	15.8	132.7	106.2	66.0	160	240	4.984	H	360
20	2	256T	3535	91.70	91.70	0.890	23.1	18.5	149.9	120.0	29.9	180	250	1.163	G	300
	4	256T	1775	93.00	93.00	0.815	24.8	19.9	168.9	135.1	59.5	200	240	2.635	H	300
	6	286T	1175	91.70	91.80	0.770	26.7	21.3	176.0	140.8	89.9	150	230	6.100	H	390
25	2	284TS	3560	91.70	91.70	0.890	28.5	22.8	199.2	159.3	36.6	160	230	1.899	H	380
	4	284T	1775	93.60	93.80	0.820	30.3	24.2	205.7	164.6	73.4	170	220	3.940	H	380
	6	324T	1175	93.00	93.20	0.800	31.2	25.0	212.2	169.8	110.9	160	220	8.094	H	550
30	2	286TS	3560	91.70	91.70	0.890	33.8	27.1	236.8	189.5	43.5	160	230	2.089	G	410
	4	286T	1775	93.60	93.80	0.820	36.0	28.8	244.6	195.7	87.3	170	220	5.578	H	410
	6	326T	1175	93.00	93.20	0.800	37.1	29.7	252.4	201.9	131.9	160	220	10.443	H	560
40	2	324TS	3560	92.40	92.60	0.895	45.5	36.4	296.0	236.8	59.4	160	230	3.987	G	550
	4	324T	1780	94.10	94.10	0.820	48.8	39.0	341.6	273.3	118.7	160	220	7.121	H	550
	6	364T	1185	94.10	94.30	0.820	48.8	39.0	331.8	265.5	178.4	150	220	26.650	H	780
50	2	326TS	3560	93.00	93.20	0.895	55.8	44.6	368.2	294.6	73.2	160	230	4.272	G	560
	4	326T	1780	94.50	94.50	0.820	59.9	47.9	419.5	335.6	146.4	160	220	8.307	H	560
	6	365T	1185	94.10	94.30	0.820	60.2	48.1	409.3	327.4	220.0	150	220	32.000	H	840
60	2	364TS	3570	94.10	94.10	0.915	65.6	52.5	446.1	356.8	88.8	140	220	9.280	G	780
	4	364T	1780	95.00	95.10	0.850	69.9	56.0	468.6	374.9	178.1	150	220	17.640	G	780
	6	404T	1185	94.50	94.70	0.840	71.2	56.9	476.7	381.4	267.5	140	220	46.280	G	1120
75	2	365TS	3570	94.50	94.50	0.915	79.8	63.9	542.9	434.3	108.5	140	220	11.040	G	820
	4	365T	1780	95.40	95.50	0.850	85.1	68.1	587.4	469.9	217.7	150	220	20.900	G	820
	6	405T	1185	94.50	94.70	0.840	87.0	69.6	591.3	473.1	327.0	140	220	55.310	G	1220
100	2	405TS	3570	94.50	94.50	0.905	110.1	88.1	770.5	616.4	148.0	120	220	18.450	G	1110
	4	405T	1780	95.40	95.40	0.865	114.1	91.3	741.5	593.2	296.8	140	220	35.910	G	1110
	6	444T	1185	95.00	95.20	0.850	116.6	93.3	792.7	634.2	445.9	140	220	73.410	G	1530
125	2	444TS	3570	95.00	95.00	0.900	139.5	111.6	976.2	781.0	187.5	120	220	27.420	G	1610
	4	444T	1785	95.40	95.50	0.880	142.0	113.6	994.2	795.4	375.0	140	220	52.510	G	1530
	6	445T	1185	95.00	95.20	0.850	147.7	118.1	996.7	797.4	564.8	140	220	89.860	G	1700
150	2	445TS	3570	95.00	95.00	0.900	161.5	129.2	1130.3	904.3	217.1	120	220	33.660	G	1770
	4	445T	1785	95.80	95.90	0.880	163.8	131.0	1146.4	917.1	434.2	140	220	67.430	G	1640
	6	447T	1185	95.80	96.00	0.850	169.5	135.6	1152.9	922.3	654.0	140	220	106.310	G	1970
200	2	447TS	3570	95.40	95.40	0.900	219.3	175.4	1534.9	1227.9	296.0	120	220	44.130	G	1900
	4	447T	1785	96.20	96.30	0.880	222.4	177.9	1556.7	1245.4	592.0	140	220	73.030	G	1860
	6	449T	1185	95.80	96.00	0.850	231.2	185.0	1572.2	1257.7	891.8	140	220	153.550	G	2430
250	2	449TS	3570	95.80	95.80	0.900	276.6	221.3	1936.1	1548.9	375.0	120	220	58.330	G	2430
	4	449T	1785	96.20	96.30	0.880	281.7	225.4	1971.9	1577.5	749.9	140	220	105.370	G	2430

Note: 1. The above data are average expected values.
2. Actual minimum efficiencies can be certified by direct measurement based on ANSI/IEEE-112 test method B and CSA C 390.
3. Technical data are subject to change without notice.

United States Motor Representative
WorldWide Electric Corporation

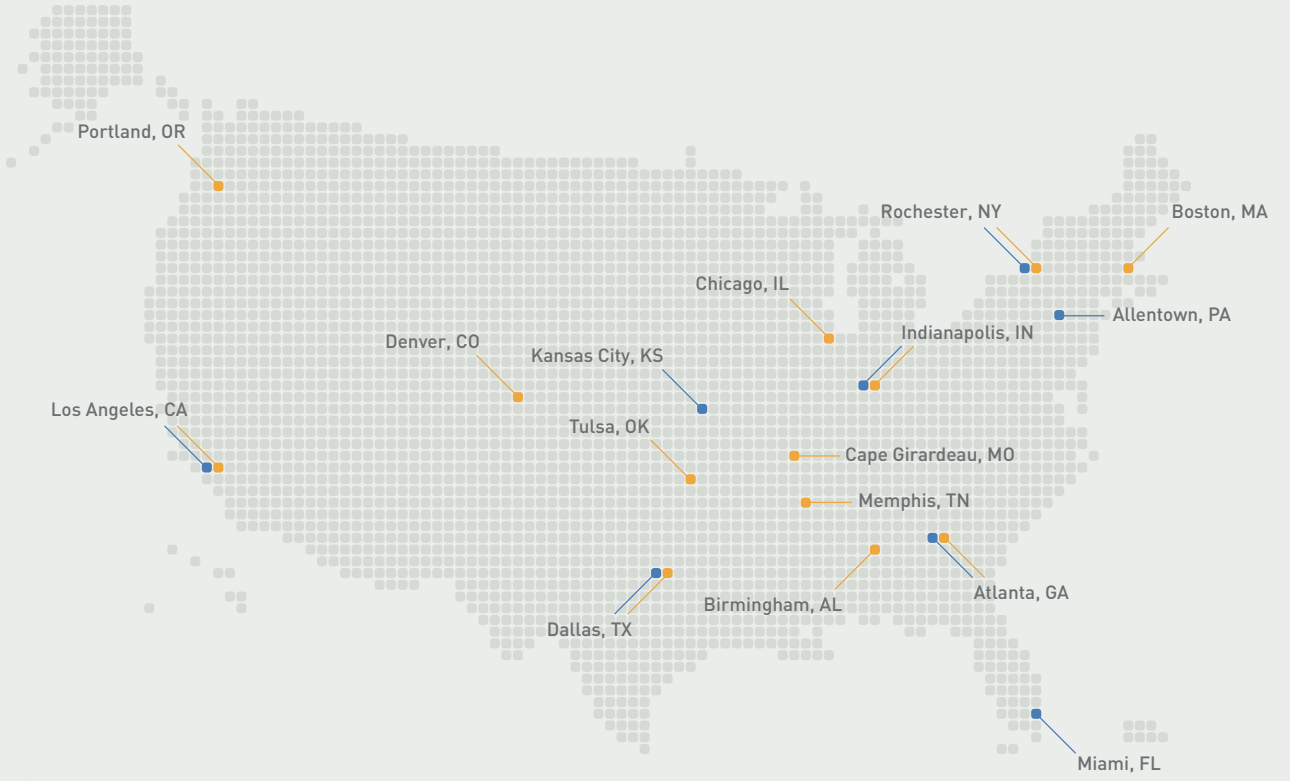
Warehouse Locations

Allentown, PA / Atlanta, GA / Dallas, TX / Indianapolis, IN / Kansas City, KS
Los Angeles, CA / Miami, FL / Rochester, NY

* Available For Pick-Up Or Delivery 24 Hours A Day - 7 Days A Week

Sales Offices

Rochester, NY / Atlanta, GA / Birmingham, AL / Boston, MA / Cape Girardeau, MO / Chicago, IL
Dallas, TX / Denver, CO / Indianapolis, IN / Los Angeles, CA / Memphis, TN / Portland, OR / Tulsa, OK



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www.worldwideelectric.net

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