

NXP

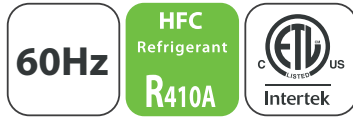
Multipurpose

Water/Water for indoor installation

Scroll compressors, Plate exchangers

Cooling capacity from 30.9 to 129.3 ton

Heating capacity from 398026 to 1684093 BTU/h



- **MULTIPURPOSE UNITS**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **DESIGNED FOR 2 AND 4-PIPE SYSTEMS**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

FEATURES

NXP is the range of Multipurpose external units operating on refrigerant R410A, designed for 2 or 4-pipe systems. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

System type:

- 2-pipe system (cooling + DHW heating)
- 4-pipe system (cooling + heating)

All models are available in low noise version.

- Maximum leaving water temperature 131°F in heating mode.
- 2refrigerant circuits.
- High efficiency scroll compressors with low power input.
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- High and low pressure transducers as standard
- The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and recovery side.

Advanced controls

- Microprocessor controls
- Control from the leaving water temperature
- Automatic rotation of compressors and pumps based on operating hours
- Programmable time-clock
- Load limiting safety control
- Electrical panel with wires numbered all the main components of security and control
- Externally mounted user interface with display of all operating parameters in 4 languages

Construction details:

- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002).
- High efficiency plate heat exchangers.
 - Compressors with high performance and low electrical input.

ACCESSORIES

- **AER485P1**
RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300**
The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
AERWEB300-6: Web server to monitor and remote control maximum 6 units on RS485 network;
AERWEB300-18: Web server to monitor and remote control maximum 18 units on RS485 network;

AERWEB300-6G: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
AERWEB300-18G: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.

- **MULTICHILLER_NXP**
Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.

- **PGD1**
Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **AVX**
Anti-vibration mounts to be installed under the base of the unit.
- **CRATE**
Special wood cover for transport.

NXP	Vers.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
AER485P1	All	*	*	*	*	*	*	*	*	*	*	*	*	*
AERWEB300	All	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_NXP	All	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	All	*	*	*	*	*	*	*	*	*	*	*	*	*
AVX														
NXP without pump	-	351	351	356	356	356	365	365	366	367	367	367	367	367
NXP with max 2 pump	-	368	368	368	369	369	363	363	370	371	371	372	372	372
NXP with max 4 pump	-	368	368	368	369	363	373	373	370	371	374	374	374	372
CRATE	All	*	*	*	*	*	*	*	*	*	*	*	*	*

UNIT CONFIGURATOR

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Name	NXP
Size	0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650
Thermostatic valve	
°	Mechanical, standard operations on system and geothermal side (produced water down to 39,2°F)
Y	Mechanical, low temperature operations on geothermal side (produced water range from 39,2 to 17,6°F)
System type	
2	2-pipe system (cooling + DHW heating)
4	4-pipe system (cooling + heating)
Version	
L	Low noise
Power supply	
6	230V/3/60Hz with circuit breakers
7	460V/3/60Hz with circuit breakers
8	575V/3/60Hz with circuit breakers
9	208V/3/60Hz with circuit breakers
System integrated hydronic module	
°	without pumps or buffer tank
M	n°1 low head pump
N	n°2 low head pumps
O	n°1 high head pump
P	n°2 high head pumps
Heat recovery integrated hydronic module	
°	without pumps or buffer tank
U	n°1 low head pump
V	n°2 low head pumps
W	n°1 high head pump
Z	n°2 high head pumps

NXP	PUMPS MODEL							
	M	N	O	P	U	V	W	Z
0500	*	*	*	*	*	*	*	*
0550	*	*	*	*	*	*	*	*
0600	*	*	*	*	*	*	*	*
0650	*	*	*	*	*	*	*	*
0700	*	*	*	*	*	*	*	*
0750	*	*	*	*	*	*	*	*
0800	*	*	*	*	*	*	*	*
0900	*	*	*	*	*	*	*	*
1000	*	*	*	*	*	*	*	*
1250	*	*	*	*	*	*	*	n.a.
1400	*	*	*	*	*	*	*	n.a.
1500	*	*	*	*	*	*	*	n.a.
1650	*	*	*	*	*	*	*	n.a.

* Available

n.a. Not available

TECHNICAL DATA

NXP MULTIPURPOSE FOR 2-PIPE SYSTEM		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Cooling system side														
Cooling capacity	ton	30.9	33.8	36.5	41.5	46.7	52.0	60.0	71.2	80.8	89.9	101.5	115.5	129.3
Total input power	kW	23.7	25.6	27.2	31.0	35.7	39.9	47.6	54.4	62.1	70.5	78.3	90.8	103.3
EER	BTU/Wat	15.66	15.88	16.12	16.07	15.70	15.64	15.12	15.69	15.61	15.30	15.55	15.27	15.02
IPLV	BTU/Wat	21.08	22.53	22.93	22.51	22.25	21.90	21.17	21.16	21.87	21.68	21.77	20.59	21.03
Water flow rate system side	gpm	74.0	80.9	87.3	99.2	11.8	124.3	143.4	170.3	193.3	215.1	242.8	276.4	309.3
Total pressure drop without pump	ft H2O	5.14	5.68	5.68	6.76	7.31	7.85	5.41	6.76	5.14	6.22	7.04	8.66	9.20
Water flow rate geothermal side	gpm	100.1	109.2	117.6	133.7	151.2	168.3	195.2	230.3	261.7	292.2	328.8	375.6	421.6
Total pressure drop without pump	ft H2O	7.69	12.38	13.72	16.39	19.74	23.08	9.37	11.37	8.70	10.71	12.04	15.05	16.39
Heating system side														
Heating capacity	BTU/h	398,030	433,564	465,965	529,315	599,892	671,513	782,537	909,035	1,024,970	1,149,660	1,291,813	1,474,543	1,654,820
Total input power	kW	28.4	31.4	33.3	38.7	44.0	48.9	57.8	65.4	74.1	84.6	94.4	109.3	124.6
COP	kW/kW	4.11	4.04	4.10	4.01	4.00	4.03	3.97	4.08	4.05	3.98	4.01	3.95	3.89
Water flow rate system side	gpm	89.3	97.2	104.5	118.7	134.5	150.6	175.5	203.9	229.9	257.8	289.7	330.7	371.1
Total pressure drop without pump	ft H2O	7.48	8.21	8.14	9.68	10.57	11.51	8.10	9.70	7.27	8.94	10.02	12.39	13.24
Water flow rate geothermal side	gpm	67.8	73.5	79.3	89.5	101.3	113.7	131.9	154.5	173.9	193.9	218.4	248.2	277.2
Total pressure drop without pump	ft H2O	3.53	5.60	6.24	7.35	8.86	10.54	4.28	5.12	3.84	4.72	5.32	6.57	7.09
Heating DHW side														
Heating capacity	BTU/h	398,030	433,564	465,965	529,315	599,892	671,513	782,537	909,035	1,024,970	1,149,660	1,291,813	1,474,543	1,654,820
Total input power	kW	28.4	31.4	33.3	38.7	44.0	48.9	57.8	65.4	74.1	84.6	94.4	109.3	124.6
COP	kW/kW	4.11	4.04	4.10	4.01	4.00	4.03	3.97	4.08	4.05	3.98	4.01	3.95	3.89
Water flow rate DHW side	gpm	89.3	97.2	104.5	118.7	134.5	150.6	175.5	203.9	229.9	257.8	289.7	330.7	371.1
Total pressure drop without pump	ft H2O	7.48	8.21	8.14	9.68	10.57	11.51	8.10	9.70	7.27	8.94	10.02	12.39	13.24
Water flow rate geothermal side	gpm	67.8	73.5	79.3	89.5	101.3	113.7	131.9	154.5	173.9	193.9	218.4	248.2	277.2
Total pressure drop without pump	ft H2O	3.53	5.60	6.24	7.35	8.86	10.54	4.28	5.12	3.84	4.72	5.32	6.57	7.09
Cooling mode with recovery														
Cooling capacity	ton	25.5	27.6	29.8	33.7	38.1	42.8	49.6	58.1	65.4	72.9	82.2	93.4	104.3
Recovered power	BTU/h	398,030	433,564	465,965	529,315	599,892	671,513	782,537	909,035	1,024,970	1,149,660	1,291,813	1,474,543	1,654,820
Total input power	kW	28.4	31.4	33.3	38.7	44.0	48.9	57.8	65.4	74.1	84.6	94.4	109.3	124.6
Water flow rate system side	gpm	74	80.9	87.3	99.2	11.8	124.3	143.4	170.3	193.3	215.1	242.8	276.4	309.3
Total pressure drop without pump	ft H2O	5.14	5.68	5.68	6.76	7.31	7.85	5.41	6.76	5.14	6.22	7.04	8.66	9.20
Water flow rate DHW side	gpm	89.3	97.2	104.5	118.7	134.5	150.6	175.5	203.9	229.9	257.8	289.7	330.7	371.1
Total pressure drop without pump	ft H2O	7.48	8.21	8.14	9.68	10.57	11.51	8.10	9.70	7.27	8.94	10.02	12.39	13.24

COOLING MODE: AHRI CONDITION std 550/551

Evaporator water temperature (in/out): 12.26°C. 54.07°F / 6.67°C. 44.01°F - Evaporator water flow: 155.0 l/(h kW)
 Condenser water temperature (in/out): 29.40°C. 84.92°F / 34.61°C. 94.30°F - Condenser water flow: 193.75 l/(h kW)

HEATING MODE

Evaporator water temperature (in/out): 10.0°C. 50.0°F / 5.0°C. 41.0°F
 Condenser water temperature (in/out): 40.0°C. 104.0°F / 45.0°C. 113.0°F

HEATING DHW SIDE

Evaporator water temperature (in/out): 10.0°C. 50.0°F / 5.0°C. 41.0°F
 Recovery water temperature (in/out): 40.0°C. 104.0°F / 45.0°C. 113.0°F

COOLING MODE WITH RECOVERY

Evaporator water temperature (in/out): 12.26°C. 54.07°F / 6.70°C. 44.06°F - Evaporator water flow: 155.0 l/(h kW)
 Recovery water temperature (in/out): 40.0°C. 104.0°F / 45.0°C. 113.0°F

(The data indicated can be modified at any time by Aermec if deemed necessary).

TECHNICAL DATA

NXP MULTIPURPOSE FOR 4-PIPE SYSTEM		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Cooling system side														
Cooling capacity	ton	30.9	33.8	36.5	41.5	46.7	52.0	60.0	71.2	80.8	89.9	101.5	115.5	129.3
Total input power	kW	23.7	25.6	27.2	31.0	35.7	39.9	47.6	54.4	62.1	70.5	78.3	90.8	103.3
EER	BTU/Wat	15.66	15.88	16.12	16.07	15.70	15.64	15.12	15.69	15.61	15.30	15.55	15.27	15.02
IPLV	BTU/Wat	21.08	22.53	22.93	22.51	22.25	21.90	21.17	21.16	21.87	21.68	21.77	20.59	21.03
Water flow rate system side	gpm	74.0	80.9	87.3	99.2	11.8	124.3	143.4	170.3	193.3	215.1	242.8	276.4	309.3
Total pressure drop without pump	ft H2O	5.14	5.68	5.68	6.76	7.31	7.85	5.41	6.76	5.14	6.22	7.04	8.66	9.20
Water flow rate geothermal side	gpm	100.1	109.2	117.6	133.7	151.2	168.3	195.2	230.3	261.7	292.2	328.8	375.6	421.6
Total pressure drop without pump	ft H2O	7.69	12.38	13.72	16.39	19.74	23.08	9.37	11.37	8.70	10.71	12.04	15.05	16.39
Heating system side														
Heating capacity	BTU/h	398,030	433,564	465,965	529,315	599,892	671,513	782,537	909,035	1,024,970	1,149,660	1,291,813	1,474,543	1,654,820
Total input power	kW	28.4	31.4	33.3	38.7	44.0	48.9	57.8	65.4	74.1	84.6	94.4	109.3	124.6
COP	gpm	4.11	4.04	4.10	4.01	4.00	4.03	3.97	4.08	4.05	3.98	4.01	3.95	3.89
Water flow rate system side	ft H2O	89.3	97.2	104.5	118.7	134.5	150.6	175.5	203.9	229.9	257.8	289.7	330.7	371.1
Total pressure drop without pump	gpm	7.48	8.21	8.14	9.68	10.57	11.51	8.10	9.70	7.27	8.94	10.02	12.39	13.24
Water flow rate geothermal side	ft H2O	67.8	73.5	79.3	89.5	101.3	113.7	131.9	154.5	173.9	193.9	218.4	248.2	277.2
Total pressure drop without pump	p.s.i.	3.53	5.60	6.24	7.35	8.86	10.54	4.28	5.12	3.84	4.72	5.32	6.57	7.09
Cooling mode with recovery														
Cooling capacity	ton	25.5	27.6	29.8	33.7	38.1	42.8	49.6	58.1	65.4	72.9	82.2	93.4	104.3
Recovered power	BTU/h	398,030	433,564	465,965	529,315	599,892	671,513	782,537	909,035	1,024,970	1,149,660	1,291,813	1,474,543	1,654,820
Total input power	kW	28.4	31.4	33.3	38.7	44.0	48.9	57.8	65.4	74.1	84.6	94.4	109.3	124.6
Water flow rate system side	gpm	74	80.9	87.3	99.2	11.8	124.3	143.4	170.3	193.3	215.1	242.8	276.4	309.3
Total pressure drop without pump	ft H2O	5.14	5.68	5.68	6.76	7.31	7.85	5.41	6.76	5.14	6.22	7.04	8.66	9.20
Water flow rate DHW side	gpm	89.3	97.2	104.5	118.7	134.5	150.6	175.5	203.9	229.9	257.8	289.7	330.7	371.1
Total pressure drop without pump	ft H2O	7.48	8.21	8.14	9.68	10.57	11.51	8.10	9.70	7.27	8.94	10.02	12.39	13.24

COOLING MODE: AHRI CONDITION std 550/551

Evaporator water temperature (in/out): 12.26°C. 54.07°F / 6.67°C. 44.01°F - Evaporator water flow: 155.0 l/(h kW)

Condenser water temperature (in/out): 29.40°C. 84.92°F / 34.61°C. 94.30°F - Condenser water flow: 193.75 l/(h kW)

HEATING MODE

Evaporator water temperature (in/out): 10.0°C. 50.0°F / 5.0°C. 41.0°F

Condenser water temperature (in/out): 40.0°C. 104.0°F / 45.0°C. 113.0°F

COOLING MODE WITH RECOVERY

Evaporator water temperature (in/out): 12.26°C. 54.07°F / 6.70°C. 44.06°F - Evaporator water flow: 155.0 l/(h kW)

Recovery water temperature (in/out): 40.0°C. 104.0°F / 45.0°C. 113.0°F

(The data indicated can be modified at any time by Aermec if deemed necessary).

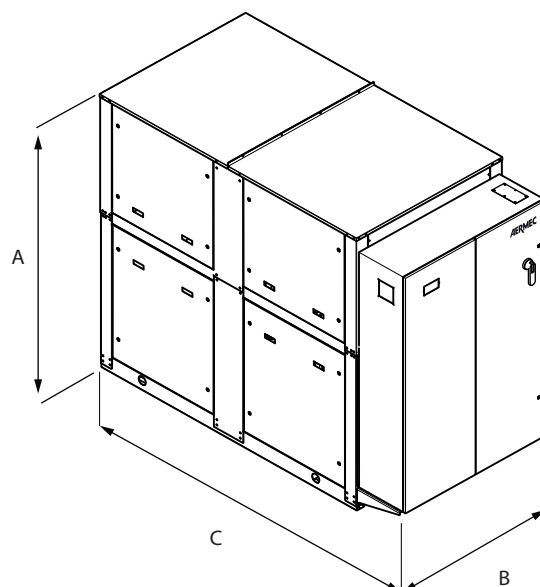
ELECTRICAL DATA

ELECTRICAL DATA NXP		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650	
Power supply 230V/3~/60Hz															
Total input current in cooling mode	A	93	91	102	112	127	140	186	196	209	238	264	303	341	
Total input current in heating mode	A	104	106	117	131	148	163	211	226	243	276	307	353	400	
Total input current in recovery mode	A	105	106	118	132	148	162	210	224	242	274	304	349	395	
Total input current cooling + recovery mode	A	105	107	118	132	149	162	211	225	243	275	306	352	398	
LRA	A	404	381	421	361	433	456	532	709	734	853	892	917	979	
MCA	A	125	131	136	142	182	218	237	278	314	340	362	417	466	
MOP	A	181	182	192	175	233	269	293	352	388	425	448	527	575	
Recommended fuse	A	175	175	175	175	225	250	250	350	350	400	400	500	500	
Power supply 460V/3~/60Hz															
Total input current in cooling mode	A	42	41	46	51	57	63	84	89	95	108	120	137	154	
Total input current in heating mode	A	47	48	53	59	67	74	96	102	110	125	139	160	181	
Total input current in recovery mode	A	47	48	53	60	67	73	95	102	109	124	138	158	179	
Total input current cooling + recovery mode	A	48	48	53	60	67	74	95	102	110	124	138	159	180	
LRA	A	208	187	216	180	210	220	266	318	328	384	402	454	482	
MCA	A	62	67	72	79	89	98	115	124	132	158	181	209	234	
MOP	A	88	89	98	97	112	121	141	154	163	200	223	264	289	
Recommended fuse	A	80	80	90	90	110	110	125	150	150	200	200	250	250	
Power supply 575V/3~/60Hz															
Total input current in cooling mode	A	32	32	36	39	44	49	65	68	73	83	92	105	119	
Total input current in heating mode	A	36	37	41	46	51	57	74	79	85	96	107	123	139	
Total input current in recovery mode	A	36	37	41	46	52	56	73	78	84	95	106	122	138	
Total input current cooling + recovery mode	A	37	37	41	46	52	57	73	79	85	96	107	123	139	
LRA	A	154	137	160	122	155	163	199	251	260	324	338	350	371	
MCA	A	56	53	58	57	73	87	103	105	107	130	150	183	212	
MOP	A	79	73	81	70	92	107	127	130	131	164	185	232	261	
Recommended fuse	A	75	70	80	70	90	100	125	125	125	150	175	225	250	
Power supply 208V/3~/60Hz															
Total input current in cooling mode	A	102	101	113	124	140	155	205	217	232	263	292	335	378	
Total input current in heating mode	A	115	117	130	145	163	180	234	250	269	305	339	390	442	
Total input current in recovery mode	A	116	117	130	145	164	179	232	248	267	303	336	386	437	
Total input current cooling + recovery mode	A	116	118	130	146	164	180	233	249	268	304	338	389	440	
LRA	A	411	390	430	374	447	472	553	731	758	879	922	950	1019	
MCA	A	132	137	143	148	188	224	243	284	320	346	369	423	472	
MOP	A	188	188	198	181	240	275	299	358	394	431	454	533	582	
Recommended fuse	A	175	175	175	175	225	250	250	350	350	400	450	500	500	

GENERAL DATA

GENERAL DATA NXP		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650	
COMPRESSOR															
Compressor	Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	
N° compressor / circuit	n°	2 / 2	3 / 2	3 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	
Refrigerant gas	Type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	
EXCHANGER															
Plate exchanger	Type	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	
Min. water flow	gpm	43.1	43.1	52.0	52.0	58.6	74.0	74.0	111.4	122.4	122.4	148.4	148.4	148.4	
Max. water flow	gpm	189.3	189.3	189.3	189.3	189.3	462.3	462.3	462.3	462.3	462.3	462.3	462.3	462.3	
Water content	gal	4.4	4.4	5.3	5.3	5.9	8.0	8.0	12.0	13.2	13.2	16.0	16.0	16.0	
Plate exchanger (system side, recovery side, geo side)	Type	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Plate	
Tot. exchanger quantity	n°	3	3	3	3	3	3	3	3	3	3	3	3	3	
Hydronic connection type	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	
Water connection (in/out) System side	ø	2" ½	2" ½	2" ½	2" ½	2" ½	3"	3"	3"	4"	4"	4"	4"	4"	
Water connection (in/out) Recovery side	ø	2" ½	2" ½	2" ½	2" ½	2" ½	3"	3"	3"	4"	4"	4"	4"	4"	
Water connection (in/out) Geothermal side	ø	2" ½	2" ½	2" ½	2" ½	2" ½	3"	3"	3"	4"	4"	4"	4"	4"	
SOUND DATA															
Sound power	dB(A)	79.0	78.1	79.0	79.0	79.5	80.0	82.0	85.2	87.0	88.8	90.0	91.8	93.6	
Sound pressure (10m)	dB(A)	47.1	46.3	47.1	47.1	47.7	48.1	50.1	53.3	55.1	56.8	58.1	59.9	61.7	

DIMENSIONS AND WEIGHT



NXP DIMENSIONS AND WEIGHT WITHOUT PUMP		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Height	A in	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
Width	B in	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
Depth	C in	102.4	102.4	102.4	102.4	102.4	102.4	102.4	102.4	102.4	102.4	102.4	102.4	102.4
Empty weight	lbs	2645.5	2821.9	2932.1	3064.4	3174.7	3306.9	3505.3	4232.9	4717.9	4828.1	5202.9	5225.0	5401.3
Running mode weight	lbs	2755.3	2931.6	3064.1	3196.4	3323.3	3506.3	3704.8	4533.5	5048.3	5158.5	5604.7	5626.7	5803.1

NXP DIMENSIONS AND WEIGHT WITH PUMP		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Height	A in	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
Width	B in	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
Depth	C in	135.9	135.9	135.9	135.9	135.9	135.9	135.9	135.9	147.8	147.8	147.8	147.8	147.8
Empty weight	lbs	3064.4	3196.7	3218.7	3430.4	3540.6	3805.2	3829.7	4556.4	5164.4	5270.1	5643.1	5741.2	5840.5
Running mode weight	lbs	3174.1	3306.4	3350.7	3562.3	3689.2	4004.6	4029.1	4857.0	5494.8	5600.5	6044.9	6143.0	6242.3

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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