Testing Agend Date Issued: Manufacturer:	March 19 Airmax To	echnologies		Serial	o Designation: Number: ns Installed:	N/A N/A Outdoor Temp	erature Sensor	- - -
	71 Innova Vaughn,	ation Dr., Units ON	<u> </u>		plate Information nal Burner Input Type	34.0 kW x Nat.	Gas 116,000 Btu/hr	Amps
			PERF	ORMAN	CE RATING	Prop	ane	
	Thermal Performa				0.89 1,704 kWh/y	_		
			Function-Ba	ased Per	formance Ratings			
	Space Heating Water Heating Recovery Efficiency Thermal standby loa	WI ss - Circ fan of	HPF see comm		Space Heating Capacity One-Hour DHW Delivery OHR OHR (concurrent call for heat)		14.1 kW 749 L 757 L	
•	9 PLF 1 9 PLF 0.4 9 PLF 0.15 e & DHW Test Resu		y y	84 (%) 90 (%) 91 (%)	Average Electricity Use Average Electricity Use Average Electricity Use Standby Power (P(circ)) Standby Power (P(cont) * Measured when blowe) 9 W	Circulating Blowe 425 W 136 W 110 W	er*
Flow Time to (I/min) with 3 0.2 15* 1.5	49 ±3°C with & without reach temperature (minutes) without heating call 0.3 1.3	with Indefinite Indefinite	nin ±3°C tolerance (minutes) without heating ca Indefinite Indefinite		Daily Electricity use for v (E _{24h-SUT}) Annual electricity use fo (AE _{DHW})	0.32 kWh		
	eating active during um Flow (V _{max}) was	13 l/min						
Heat Generator: Blower/Motor: Other:	Airmax Technologie Flowmax Technolog 1/2 H.P. High Efficie Water heater incorp Thermostatic Mixing	es; Model Max gies; Model Fl ency EC Motor porates an inte	cair 70eLV; Serial owmax 120; Seria gral pump	#0000001, al #EG3411	Hydronic Furnace 440514, Tankless Water H	leater		
Water heater spa	mments: W temperature set to temperature or set to 'high speed'	e set to 140°F	(60℃) for all tests		Filter Rating Segregated DHW Syste	no <u>t inst</u>	alled MERV	_No
Fan coil controls demand for space All controls set to	factory default unle	cise' for 0.5 m	ins. every 24 hrs. i		Water Circulation DHW Priority		Yes Yes	No No
Tankless water he Conversions: 249 Pascals = 1"	eater - thermal stan	dby test not ap N = 3413 Btu/				Refe	rence Report: 12-06-M0043-2	

Figure 12 – Combo Performance Specification Summary

	СО	MBO PERF	ORMAN	ICE SPECIFIC	CATIO	ON S	SUMMARY (Ref	f. CSA St	andard P.9	 9-11)
	ing Agen	cy: Exova	6, 2014		Со		Pesignation:	N/A N/A		
	ufacturer		Technologie:	<u> </u>			nstalled:	N/A		
iviaii	uiactuici		ation Dr., Uni		Ор	puons i	nstalicu.			
		Concor	d, ON		Na	amepla	te Information		I/A Volts	N/A Amps
							Burner Input	25.0 kW	85,583	
					Fu	uel Type	е			Oil
				PERF	ORMA	ANCE	RATING	Prop	oane	
		Thermal Perform	nance Facto				0.86			
		Annual Electrica				_	1,040 kWh/y	_		
				Function-Ba	ased P	Perfor	mance Ratings	_		
		Space Heating		CSHE	86 (%				10.2 kW	
		Space Heating Water Heating			0.82	-	Space Heating Capacity One-Hour DHW Delivery	Rating (OHR)	IU.Z KVV	
		Recovery Efficien			84 (%		OHR	rading (Orne)	515 L	
		Thermal standby	,	n off see comm	•	,	OHR (concurrent call for heat)		504 L	
		Thermal standby	oss - Circ far	n on see comm	ents W					
Salacta	d Test Re	aculte							Circulating	a Blower*
	leating (Net Efficie	encv	95 (%	6)	Average Electricity Use	375 W	288	-
		7) PLF 0.4	Net Efficie		89 (%	•	Average Electricity Use	192 W	287	
•		D PLF 0.15	Net Efficie	•	79 (%	•	Average Electricity Use	75 W	289	
				·	•	, (Standby Power (P(circ))	97 W		
						9	Standby Power (P(cont))	6 W		
		ce & DHW Test Re				,	Measured when blower	running		
		49 ±3°C with & with	-			_				
Flow	Time to	reach temperatur	e Time	within ±3°C tolerance	;		Daily Electricity use for v	vater heating 0.22 kWh		
(l/min)	with	(minutes) without heating ca	ll with	(minutes) without heating ca	JI .	((E _{24h-SUT})	U.ZZ KVVI	1	
3	0.6	0.6	Indefinite	Indefinite	-		Annual electricity use for	water heating		
8*	0.75	0.75	Indefinite	Indefinite			(AE _{DHW})	80 kWh	1	
Note:	Circ. blo	wer active during		ncurrent call-for-heat	t					
		um Flow (V _{max}) wa								
				Description of	f Majoı	r Con	nbo Components			
Fancoil:		-		Maxair 50e; Serial #0		-				
			•		#EG341	130700	075, Tankless Water Hea	ater		
Blower/I	Motor:	1/2 H.P. High Effic	ciency EC Mo	otor						
Other:		Water heater inco	•	ntegral pump						
		Thermostatic Mixi	ng Valve							
Test Ag	ency Co	mments:								
Water h	eater DF	IW temperature se	t to 140F (60	°C) for all tests		F	Filter Rating	no <u>t ins</u>	talled MERV	
Water h	eater sp	ace heat temperati	re set to 140	0°F (60°C) for all tests	3					
Circulat	ing blowe	er set to 'heating sp	eed' unless	otherwise specified		\$	Segregated DHW Syster	m	x Yes	No
Fan coil	controls	activate pump 'exe	ercise' cycle	every 24 hrs. Exercis	se cycle	١	Water Circulation		x Yes	No
initiated	water he	eater burner operat	ion.			[DHW Priority		x Yes	No No
All contr	rols set to	o factory default un	less otherwis	se specified						
Tankles	s water h	neater - thermal sta	ndby test no	t applicable						
C								lo (names David	
Convers 249 Pas		of Water 1	kW = 3413 E	tu/h				Refe	erence Report: 13-06-M02	26-1a

Figure 9 – Combo Performance Specification Summary

	СО	MBO PE	RFC	RMAN	CE SF	PECIFIC	ATI	ON S	SUMMARY (Re	f. CSA	Stanc	dard P.9-11)
Test	ing Agend		ova						Designation:	N/A			-
	: Issued:	_	arch 7,	2014					umber:	N/A			
	ufacturer:			echnologies	;				Installed:		Reset Se	nsor	
				on Dr., Unit				, p.1.0.1.0	o.aoa.	- Guideoi	. 10001 00		
			oncord,				Ν	Namepla	ate Information		N/A	Volts N/A	Amps
								-	Burner Input	24.6	kW	83,939 Btu/hi	_ '
							F	uel Typ	oe	Х	Nat. Gas		
						DEDEC	\D\/	ANCE	RATING		Propane		
		-			(TDE)	PERFU) KIVI	ANCE					
		Thermal Pe			• •				0.79 1,791 kWh/y	-			
					Fu	nction-Bas	sed	Perfo	rmance Ratings				
		Space Heati	na		CSHE		79 (°	%)	Space Heating Capacity	/	12 (6 kW	
		Water Heatin			WHPF		.82	,0,	One-Hour DHW Deliver			•	
		Recovery Ef					82 (%)	OHR	,	,	0 L	
		Thermal star	-		off	see comme			OHR (concurrent call for heat)		517	7 L	
		Thermal star	ndby los	ss - Circ fan	on	see comme	nts V	٧					
Selecte	d Test Re	eulte										Circulating Blow	er*
	Heating @			Net Efficie	ncv		81 (%)	Average Electricity Use	569	W	478 W	Ci
-) PLF 0.4		Net Efficie	-		81 (Average Electricity Use	344		476 W	
-) PLF 0.15		Net Efficie	•		75 (-	Average Electricity Use	137		482 W	
орасс .		g. <u>L</u> . 00			,		(,-,	Standby Power (P(circ))		W	.02	
									Standby Power (P(cont)		W		
Concurr	rent Spac	e & DHW Tes	t Resul	<u>ts</u>					* Measured when blowe	r running			
		19 ±3°C with 8											
Flow	Time to	reach tempe	rature	Time \		C tolerance			Daily Electricity use for		-		
(l/min)		(minutes)			(minute	<u> </u>			(E _{24h-SUT})	0.24	kWh		
_	with	without heati	ng call	with		ut heating call							
3	0.6	0.6		Indefinite		ndefinite			Annual electricity use fo		-		
9*	1.3	1.3	rina dro	Indefinite		ndefinite			(AE _{DHW})	87	kWh		
Note:		wer active dur um Flow (V _{max}			icurrent c	all-lor-lleat							
					Desc	ription of I	Majo	or Coi	mbo Components				
Fancoil:		Airmax Tech	nologie	s; Model M	lax 50e;	Serial #00007	794, 1	Hydron	ic Furnace				
		Test results	are also	o applicable	to Airma	x Technologi	es M	odels N	Max 50e EP2 and Max 50	e EP3			
Heat Ge	enerator:	Flowmax Te	chnolog	jies; Model	Flowmax	k 90; Serial #	EG3	413275	6668, Tankless Water He	ater			
Blower/	Motor:	1/2 H.P. Higl	h Efficie	ency EC Mo	tor								
Other:		Water heate	r incorp	orates an i	ntegral pu	ımp							
		Thermostation	Mixing	Valve		•							
Test Ag	ency Co	mments:											
Water h	eater DH	W temperatur	e set to	140F (60°	C) for all	tests			Filter Rating	ne	ot installed	d MERV	
Water h	eater spa	ace heat temp	erature	set to 140°	F (60°C)	for all tests							
ESP set	t to 1.2" w	v.c. with circula	ating bl	ower at 'coo	oling spee	ed'			Segregated DHW Syste	em	х	Yes	No
Circulat	ing blowe	er set to 'heatir	ng spee	ed' unless o	therwise	specified			Water Circulation		_	Yes x	 No
All conti	rols set to	factory defau	ılt unles	s otherwise	specifie	d			DHW Priority		×	Yes	No
		eater - therma			•				,		•		
Convers		of Water	1 1/14	/ = 3/12 D+	u/h						Reference	ce Report:	
243 FdS	ocais - I	of Water	i KV\	/ = 3413 Bt	u/II						<u> </u>	13-06-M426-2a	

	СО	MBO PERFO	ORMAN	CE SPECIFICA	TION	SUMMARY (Ref	f. CSA Stan	dard P.9-11)
Date	ing Agen	January 6			Serial N		N/A N/A	
Man	ufacturer		echnologies ion Dr., Units	5 8 6	Options	Installed:		
		Concord,	,	3300	Namep	ate Information	N/A	Volts N/A Amps
					-	l Burner Input	44.5 kW	152,000 Btu/hr
					Fuel Ty	ре	x Nat. Ga Propane	
				PERFOI	RMANC	E RATING		
		Thermal Performa Annual Electrical				0.80 835 kWh/y	- -	
				Function-Base	ed Perfo	ormance Ratings		
		Space Heating Water Heating	V	VHPF 0.9		Space Heating Capacity One-Hour DHW Delivery	• ,	9 kW
		Recovery Efficiency			3 (%)	OHR	1,09	
		Thermal standby los				OHR (concurrent call for heat)	1,07	9 L
Selecte	d Test Re	esults						Circulating Blower*
Space H	Heating @	D) PLF 1	Net Efficier	ncy 8	6 (%)	Average Electricity Use	362 W	239 W
		D PLF 0.4	Net Efficier	•	9 (%)	Average Electricity Use	156 W	207 W
Space H	Heating @	D PLF 0.15	Net Efficier	ncy 7	3 (%)	Average Electricity Use	61 W	210 W
						Standby Power (P(circ)) Standby Power (P(cont))	96 W 4 W	
Concurr	ent Spac	ce & DHW Test Resu	ılts			* Measured when blower		
		49 ±3°C with & withou		nt call for heat	_		J	
Flow	Time to	reach temperature	Time w	ithin ±3°C tolerance		Daily Electricity use for w	•	
(l/min)		(minutes)		(minutes)	_	(E _{24h-SUT})	0.12 kWh	
3	with 0.3	without heating call 0.3	with Indefinite	without heating call Indefinite	-	Annual algotrigity use for	water heating	
15	0.3	0.3	Indefinite	Indefinite		Annual electricity use for (AE_{DHW})	43.6 kWh	
Note:			L L	ncurrent call-for-heat	_	(- DHW)	10.0 KW	
				Description of M	laior Co	mbo Components		
Fancoil:		Airmax Technologie	s: Model M	axair 50e; Serial #0000		•		
		•		gies Model(s) Maxair 5				
Heat Ge	enerator:	Rinnai Corporation;	Model RU8	0i (REU-KB2530FFUD	-US); Ser	ial #EL. BA-25109, Tankle	ess Water Heater	
Blower/	Motor:	1/2 H.P. High Efficie	ency EC Mot	or	•			
Other:		External water pum	-					
		Thermostatic Mixing	y Valve					
Test Ag	ency Co	mments:						
Water h	eater DF	IW temperature set t	to 140F (60°	C) for all tests		Filter Rating	not installe	ed MERV
Circulat	ing blowe	er set to 'heating spe	ed' unless o	therwise specified				
ESP se	t to 1.2" v	v.c. with circulating b	olower set op	erating at 'cooling spee	ed'	Segregated DHW Syster	m	Yes x No
Fan coil	controls	activate pump 'exer	cise' cycle e	very 24 hrs.		Water Circulation	Х	Yes No
Exercise	e cycle in	itiates water heater	burner opera	ition.		DHW Priority		Yes x No
All conti	rols set to	o factory default unle	ss otherwise	specified				
Tankles	s water h	neater - thermal stan	dby test not	applicable				
Convers	sions:						Referen	ice Report:
249 Pas	scals = 1'	of Water 1 k	N = 3413 Bt	u/h				13-06-M0426-3

Figure 9 – Combo Performance Specification Summary

	СОМЕ	BO PERFOR	RMANC	E SPECIF	ICATION	SUMMARY (Re	ef. CS	A Stan	dard P.	9-11)
Date	ing Ager Issued: ufacture	May 22, 3	echnologie		Serial	oo Designation: Number: ns Installed:	N/A N/A			
		209 Cita Concord	tion Dr., Uni , ON	its 5 & 6		eplate Information nal Burner Input Type	44.5 x		Volts N 152,000 Btu	/A Amps /hr
				PEF	RFORMANO	CE RATING		'		
		Thermal Perform		. ,		0.83 1,988 kWh/y	_			
				Function-	Based Per	formance Ratings	_			
		Space Heating Water Heating Recovery Efficienc Thermal standbyl Thermal standbyl	v oss - Circ fa	CSHE WHPF an off see com	82 (%) 0.90 93 (%) ments W	Space Heating Capacit One-Hour DHW Deliver OHR OHR (concurrent call for heat)	•	13.4 OHR) 1,092 1,079	L	
Space Space Space	Heating Heating	Results @ PLF 1 @ PLF 0.4 @ PLF 0.15 ace & DHW Test Re	Net Efficie Net Efficie Net Efficie	ncy	93 (%) 83 (%) 77 (%)	Average Electricity Use Average Electricity Use Average Electricity Use Standby Power (P(circ) Standby Power (P(cont * Measured when blow	379 154 1) 448 1) 3	W W W W	Circulating Bi 777 W 782 W 782 W	ower*
		:49 ±3°C with & wit		rent call for hea	t	Measured when blow	rer running	J		
	Time to	reach temperature	Time wi	ithin ±3°C tolera	nce	Daily Electricity use for		-		
(l/min)	with	(minutes)	with	(minutes)	ı aall	(E _{24h-SUT})	0.12	kWh		
3	0.3	w ithout heating call 0.3	Indefinite	w ithout heating Indefinite	Call	Annual electricity use for	or water he	eating		
15 Note:	0.25 Circ. ble	0.25 ower active during	Indefinite draws with o	Indefinite concurrent call-fo	or-heat	(AE _{DHW})	43.6	_		
				Description	of Major C	ombo Components				
Fancoil Heat G Blower Other:	enerator	Also applies to Air	max Technon; Model Rliency EC Monny installed	Maxair 70e; Ser blogies Model(s J80i (REU-KB29 btor	ial #0000336,) Maxair 70e E	Hydronic Furnace		Water Hea	ter	
Test A	gency Co	omments:								
		HW temperature se	,	,		Filter Rating	not	installed	MERV	
	•	ver set to 'heating s	•	•		Sographed DHW Synta		 ,	Voo.	, No
		w.c. with circulating s activate pump 'ex			aung speed	Segregated DHW Syste Water Circulation	- -		Yes Yes	No No
		nitiates water heate	•	•		DHW Priority				No
All cont	rols set	to factory default ur heater - thermal st	less otherw	ise specified		,	•			
Conver 249 Pa		1" of Water 1	«W = 3413 E	Stu/h				Reference	e Report: 13-06-M0426	-4

Figure 9 – Combo Performance Specification Summary

C	ОМЕ	30 PERFOR	MANC	E SF	PECIFICAT	ΓΙΟΝ	SUMMARY (Re	ef. CSAS	tandard P.9-11)
Date	ng Ager Issued: ufacturer	June 6, 2 Airmax T	echnologie		-	Serial N	Designation: Number: s Installed:	N/A N/A	
		Concord	tion Dr., Un , ON	nits 5 & 6	<u>-</u> - -	Nomina	olate Information al Burner Input	44.5 kW	152,000 Btu/hr
					-	Fuel Ty	pe	x Nat. Prop	
					PERFORI	MANC	E RATING		
		Thermal Perform Annual Electrical					0.80 1,211 kWh/y	-	
				Fu	nction-Based	l Perfo	ormance Ratings		
		Space Heating Water Heating Recovery Efficienc Thermal standby le	y oss - Circ f		0.90 93 see comments		Space Heating Capacit One-Hour DHW Deliver OHR OHR (concurrent call for heat)	y Rating (OHR 1,	10.4 kW) 092 L 079 L
Space I Space I Space I	Heating Heating	esuits @ PLF 1 @ PLF 0.4 @ PLF 0.15	Net Efficie Net Efficie Net Efficie sults	ency	79	(%) (%) (%)	Average Electricity Use Average Electricity Use Average Electricity Use Standby Power (P(circ)) Standby Power (P(cont) * Measured when blow	5 W	Circulating Blower* 462 W 461 W 462 W
		49 ±3°C with & with reach temperature			II for heat °C tolerance	Ī	Daily Flastriaity year for	water beating	
(l/min)	with	(minutes) without heating call	with	(minu			Daily Electricity use for (E _{24h-SUT})	0.12 kWh	
3	0.3	0.3	Indefinite		ndefinite		Annual electricity use fo	r water heating	3
15 Note:	0.25 Circ. blo	0.25 ower active during o	Indefinite Iraws with		ndefinite ent call-for-heat		(AE _{DHW})	44.6 kWh	
				Desc	ription of Ma	ior Co	ombo Components		
Fancoil		Airmax Technologi	es; Model		•	-	•		
		Rinnai Corporation 1/2 H.P. High Effici External water pun Thermostatic Mixir	ency EC M	lotor	EU-KB2530FFU	D-US);	Serial #EL. BA-25109, T	ankless Water	· Heater
_	-	omments:							
		HW temperature se ver set to 'heating s		-			Filter Rating	not insta	Illed MERV
	_	w.c. with circulating	•		· ·	peed'	Segregated DHW Syste	 em	Yes x No
		s activate pump 'ex		-			Water Circulation	x	
Exercise	e cycle i	nitiates water heate	r burner o	peration	l.		DHW Priority		Yes x No
		to factory default un heater - thermal st							
Convers		1" of Water 1 k	:W = 3413	Rtu/h			<u> </u>		rence Report(s): 6-M0426-3 13-06-M0426-5

Figure 9 – Combo Performance Specification Summary

(СОМЕ	BO PERFOR	MANC	E SPE	CIFICA	TION	SUMMARY (Ref.	. CSA	Stand	dard P	.9-11)
Test	ting Agen	cy: Exova				Comb	o Designation:	N/A			
	e Issued:	June 22	, 2014				Number:	N/A			
Man	ufacturer	Airmax	Technologie	es		Option	ns Installed:				
		209 Cita	ition Dr., Un	its 5 & 6							
		Concord	I, ON				plate Information		N/A	Volts	N/A Amps
							nal Burner Input	34.0	_	116,013	
						Fuel T	уре	Х	Nat. Gas		Oil
					PERFO	RMANO	CE RATING		Propane		
		Thermal Perforn	nance Facto	or (TPF)			0.82				
		Annual Electrica)		2,117				
				Fun	ction-Bas	ed Per	formance Ratings				
		Space Heating		CSHE	8	33 (%)	Space Heating Capacity		15	kW	
		Water Heating		WHPF	0.8		One-Hour DHW Delivery				
		Recovery Efficience	су		8	33 (%)	OHR		631	L	
		Thermal standby I	oss - Circ fa	n off	see comment	s W	OHR (concurrent call for		629	L	
		Thermal standby I	oss - Circ fa	n on s	see comment	s W					
Selecte	d Test R	esults								Circulatin	g Blower*
	Heating (Net Efficie	ency	(93 (%)	Average Electricity Use	922	W	807	-
Space	Heating (D PLF 0.4	Net Efficie	ency	8	34 (%)	Average Electricity Use	400	W	804	W
Space	Heating (D PLF 0.15	Net Efficie	ency	7	77 (%)	Average Electricity Use	156	W	808	W
							Standby Power (P(circ))	80	W		
							Standby Power (P(cont))) 7	W		
		ce & DHW Test Res					* Measured when blower	r running			
Flow		49 ±3°C with & with			r heat C tolerance	_	Daile Flackship fan.		41		
(l/min)	Time to	reach temperature (minutes)	Tille v	(minute			Daily Electricity use for v		kWh		
(1/111111)	with	ì	with	•	·		(E _{24h-SUT})	0.27	KVVII		
3	0.4	without heating ca	Indefinite		ut heating call definite	+	Annual electricity use for	water he	eating		
11	1.1	1.2	Indefinite		definite		(AE _{DHW})		kWh		
Note:	Circ. blo	uwer active during d		oncurrent	call-for-heat		(DIW)				
		um Flow (V _{max}) was									
					iption of I						
Fancoil	:	Airmax Technolog Also applies to Air									
Heat G	enerator	• • •		Ü	` '		3070075, Tankless Water	Heater			
Blower		3/4 H.P. High Effic	•				our coro, rammoco rrator	· ··outo·			
Other:	WOTO!	Water heater inco	,		umn						
Ou ioi.		Thermostatic Mixi	•	micyrai p	amp						
Test A	gency Co	omments:	ig vaive								
		HW temperature set	to 126F (51	2°C) for al	l tests		Filter Rating	no	t installed	MERV	
		ace heat temperatu	•				T iter reading	110	motanea	- 1012100	
		ace near temperatu er set to 'heating sp		, ,			Segregated DHW Syste	m	x	Yes	No
	-	w.c. with circulating			-	eed'	Water Circulation			Yes	No
		activate pump 'exe		-		-c-cu	DHW Priority		x	Yes	No
		nitiates water heater	-	-			Drive i nonty			-	
	•	o factory default unl			ed						
		neater - thermal sta		-							
Conver		icater - tricilliai Sta	naby test IIC	v abbiicar	,ic		1		Referenc	e Report:	
		of Water 1 H	W = 3413 I	3tu/h						13-06-M0)426-6

Figure 9 – Combo Performance Specification Summary

Testing Date Iss Manufac	sued:		echnologie tion Dr., Un	es		Serial	o Designation:	N/A N/A			
Manufac	cturer:	Airmax T 209 Cita	echnologie tion Dr., Un	es			Nullibel.	1 1// 1			
						Option	is Installed:				
		Concord	ON	its 5 & 6	5	•					
			, ON		•	Name	plate Information		N/A	Volts N/	Amps
	_				•	Nomir	nal Burner Input	34.0	kW	116,013 Btu/	hr_
						Fuel T	уре	Х	Nat. Gas	Oil	
									Propane		
					PERFO	RMANC	E RATING				
	Therm	al Perform	ance Facto	or (TPF)			0.84	_			
	Annua	l Electrical	Consumpt	ion (<i>AE</i>	")		1,444	_			
				Fun	ction-Base	ed Perf	ormance Ratings				
	Snace	Heating	,	CSHE	g	35 (%)	Space Heating Capacit	v	11.5	k\M	
		Heating		WHPF	0.8		One-Hour DHW Deliver	-		KVV	
		ry Efficienc		******		33 (%)	OHR	yrtaung	631	1	
		-	-	an off	see commen		OHR (concurrent call for heat)		629		
		•			see commen		OTTIC (concurrent can for fical)		023	_	
		·									
Selected T	est Results									Circulating BI	ower*
Space Hea	ating @ PLF 1		Net Efficie	ency	9	92 (%)	Average Electricity Use	581	W	473 W	
Space Hea	ating @ PLF 0	.4	Net Efficie	-		37 (%)	Average Electricity Use	270		475 W	
Space Hea	ating @ PLF 0	.15	Net Efficie	ency	8	30 (%)	Average Electricity Use	102		479 W	
							Standby Power (P(circ)				
_							Standby Power (P(cont		W		
	t Space & DH				f		* Measured when blow	er runnin	g		
	ws at 49 ±3°C ne to reach te				°C tolerance	\neg	Daily Electricity use for	water hea	ating		
(l/min)	(minute		111110 11	(minut			(E _{24h-SUT})		kWh		
` '	<u> </u>	heating call	with	-	ut heating call		(-241-301)	0.2.			
3	0.4	0.3	Indefinite		ndefinite		Annual electricity use fo	r water h	eating		
11	1.1	1.2	Indefinite	Ir	ndefinite		(AE_{DHW})	97.1	kWh		
Note: Cir	rc. blower acti	ve during d	raws with c	concurre	nt call-for-hea	nt					
* N	/laximum Flov	(V _{max}) was	11 l/min								
						•	ombo Components				
Fancoil:							Hydronic Furnace				
	-	-		_			P2 and 50e EP3				
			•		max 120; Seri	ial #EG34	113070075, Tankless Wa	ter Heate	r		
Blower/Mot		J	iency EC M								
Other:			rporates an	ıntegra	Ipump						
		ostatic Mixir	ng Valve				1				
•	cy Comments										
	ter DHW temp		•	-			Filter Rating	not	installed	_ MERV	
	•	•		,	C) for all tests					_	
•					wise specified		Segregated DHW Syste	em	Х	Yes	No
				•	ng at 'cooling s	speed'	Water Circulation		Х	Yes	No
Fan coil co	ntrols activate	e pump 'exe	ercise' cycle	every 2	4 hrs.		DHW Priority		Х	Yes	No
Exercise cy	ycle initiates v	vater heate	r burner op	eration.							
All controls	set to factory	default unl	ess otherw	ise spe	cified						
Tankless v	vater heater -	thermal sta	andby test n	not appli	cable						
Conversion	ns: lls = 1" of Wat	<u>-</u>	W = 3413 E						Reference	ce Report: 13-06-M0426	

Figure 9 – Combo Performance Specification Summary

	Testing Agency:			_		oo Designation:	N/A	
				_		Number: ns Installed:	N/A	
	Manufacturer.		echnologies Inc. merica Inc.	_	Орио	ns mstalleu.	Navien 'Comfor Outdoor Reset	
				<u>-</u>	Name	plate Information	120 Volts	N/A Amps
				_		nal Burner Input	58.5 kW	199,900 Btu/hr
		-		_	Fuel	Гуре	x Nat. C	
				PERFO	RMAN	CE RATING		
			Performance Fac			0.90	_	
		Annual E	Electrical Consun		l D	2,888 kWh/y		
			-	unction-Base	ea Per	formance Ratings		
	Space H		CSHE		90 (%)	Space Heating Capacity		17.1 kW
	Water He		WHPF			One-Hour DHW Delivery	, ,	407 L (Cas Danam)
		y Efficiency standby los	ss - Circ fan off	see commen	96 (%) ts W	OHR OHR (concurrent call for heat)		437 L (See Report) 433 L (See Report)
		,	ss - Circ fan on	see commen		OTTI (concurrent can for heat)		100 E (000 Hoport)
alaata	d Toot Dooulto							Circulating Player*
	d Test Results leating @ PLF 1		Net Efficiency	c	93 (%)	Average Electricity Use	558 W	Circulating Blower* 421 W
•	leating @ PLF 0.4		Net Efficiency		39 (%)	Average Electricity Use	556 W	416 W
	leating @ PLF 0.15		Net Efficiency		91 (%)	Average Electricity Use	243 W	417 W
	5 -		·			Standby Power (P(circ))	111 W	
						Standby Power (P(cont)	•	
	ent Space & DHW					* Measured when blowe	r running	
	raws at 49 ±3 ℃ wi			or heat :3℃ tolerance	_	Daily Floatriaity you far	votor booting	
Flow /min)	Time to reach ten (minutes			utes)	- 	Daily Electricity use for $(E_{24h-SUT})$	0.32 kWh	
,,,,,,,		neating call		nout heating call	┪	(=24n-SU1)	0.02 ((***))	
3	Not Achieva			hievable	1			
4 ¹	1.0	0.8	Indefinite	Indefinite		Annual electricity use fo	r water heating	
15			Indefinite	Indefinite		(AE_{DHW})	116 kWh	
Water	draw performed at	V _{min} (See F	Report)					
			Des	cription of N	lajor C	ombo Components		
ancoil:		•	s Inc.; Model MAX					
_	• • •		ax Technologies N	` '				
	nerator: Navien;		*	414X14725Z119	8 Tankle	ess Water Heater		
lower/N		J	ency EC Motor					
ther:		-	Valve: Honeywell					
		ComfortAir ⁺	' kit. Outdoor Res	set Control				
-	ency Comments:							
	eater temperature s		, ,			Filter Rating	no <u>t insta</u>	_ ,,
	eater temperature s			heating tests		Segregated DHW Syste	•	Yes x N
	eating configured a	•	• .			Water Circulation	X	
	to 1.2" w.c. with ci	-			ed'	DHW Priority		See Report
	ng blower set to 'hi			•				
	activate pump 'exe		,					
	ols set to factory de							
	s water heater - the	rmal stand	by test not applica	ıble				
onvers	ions:						Refer	ence Report:

Testing Agency:			oo Designation:	N/A	_
Date Issued:	December 10, 2014		Number:	N/A	
Manufacturer:	Airmax Technologies Inc. Navien America Inc.	Option	ns Installed:	Navien 'Comforta	
	Navieri America inc.	Name	eplate Information	120 Volts	N/A Amps
			nal Burner Input	58.5 kW	199,900 Btu/hr
		Fuel	Гуре	x Nat. Ga	
				Propan	e
	PI	ERFORMAN	CE RATING		
	Thermal Performance Factor (TPF	•	0.92	_	
	Annual Electrical Consumption (A		1,625 kWh/y		
	Function	n-Based Per	formance Ratings		
Space He	eating CSHE	92 (%)	Space Heating Capacity	17	7.1 kW
Water He	_	0.94	One-Hour DHW Delivery	• ,	
•	r Efficiency	96 (%)	OHR		37 L (See Report)
	•	omments W	OHR (concurrent call for heat)	14	33 L (See Report)
meman	standby loss - Circ fan on see c	omments W			
Selected Test Results					Circulating Blower*
pace Heating @ PLF 1	Net Efficiency	93 (%)	Average Electricity Use	558 W	421 W
pace Heating @ PLF 0.4	Net Efficiency	95 (%)	Average Electricity Use	290 W	166 W
pace Heating @ PLF 0.15	Net Efficiency	84 (%)	Average Electricity Use	127 W	166 W
			Standby Power (P(circ))	111 W	
oncurrent Space & DHW	Toet Poculte		Standby Power (P(cont)) * Measured when blower		
	th & without concurrent call for heat		Measured when blowe	running	
Flow Time to reach ten		ance	Daily Electricity use for v	vater heating	
l/min) (minutes) (minutes)		(E _{24h-SUT})	0.32 kWh	
with without h	eating call with without heating	ng call			
3 Not Achieva	i i				
	1.8 Indefinite Indefinit		Annual electricity use for	-	
	1.5 Indefinite Indefinit	ie	(AE _{DHW})	116 kWh	
Water draw performed at	v _{min} (See Report)				
	Descriptio	n of Major C	ombo Components		
	echnologies Inc.; Model MAX 50e; S				
• • • • • • • • • • • • • • • • • • • •	lies to Airmax Technologies Model(s)				
*	Model NPE 240A; Serial # 7414X147	25Z1198 Tankie	ess Water Heater		
	High Efficiency EC Motor				
	tatic Mixing Valve: Honeywell AM101-				
	ComfortAir ⁺ ' kit. Outdoor Reset Contro	ol	1		
est Agency Comments:	201 to 1000F (400C) for all to the		Filter Detir -		ad MEDV
·	set to 120°F (49°C) for all tests		Filter Rating	no <u>t install</u>	
·	set to 180°F (82°C) for space heating	iesis	Segregated DHW Syste	•	Yes x No
pace heating configured a	- ·		Water Circulation	X	YesNo
	culating blower set operating at 'cooling'	ng speed'	DHW Priority		See Report
-	gh speed' unless otherwise specified				
	ercise' for 30 sec. every 24 hours.				
•	efault unless otherwise specified				
	rmal standby test not applicable			In ,	
onversions: 49 Pascals = 1" of Water	1 kW = 3413 Btu/h			Retere	nce Report: 14-06-M0387-1h

Testing Agency: Date Issued:			oo Designation: I Number:	N/A N/A	
	December 11, 2014 Airmax Technologies Inc.		ns Installed:	Navien 'Comfort/	∆ir⁺' kit
Manadataror.	Navien America Inc.	Optio	no motanoa.	Outdoor Reset C	
		Name	eplate Information	120 Volts	N/A Amps
			nal Burner Input	<u>58.5</u> kW	199,900 Btu/hr
		Fuel	Туре	x Nat. Ga	
		PERFORMAN	CE RATING	Propan	<u>e</u>
	Thermal Performance Factor	or (TPF)	0.89		
	Annual Electrical Consump	tion (AE)	1,355 kWh/y	- -	
	Fu	nction-Based Per	formance Ratings		
Space H	eating CSHE	88 (%)	Space Heating Capacity	12	2.4 kW
Water He		0.94	One-Hour DHW Delivery	,	
-	Efficiency	96 (%)	OHR		37 L (See Report)
	standby loss - Circ fan off standby loss - Circ fan on	see comments W see comments W	OHR (concurrent call for heat)	14	33 L (See Report)
mema	standby 1055 - OIIC Idii UII	See Comments M			
elected Test Results					Circulating Blower*
pace Heating @ PLF 1	Net Efficiency	94 (%)	Average Electricity Use	562 W	418 W
pace Heating @ PLF 0.4	Net Efficiency	91 (%)	Average Electricity Use	229 W	164 W
pace Heating @ PLF 0.15	Net Efficiency	79 (%)	Average Electricity Use	105 W	164 W
			Standby Power (P(circ))		
oncurrent Space & DHW	Taet Reculte		Standby Power (P(cont)) * Measured when blowe		
	th & without concurrent call for	heat	MOGGATOR WHEN BIOWE	i ranning	
Flow Time to reach ten	nperature Time within ±3°	C tolerance	Daily Electricity use for v	vater heating	
/min) (minutes) (minut	es)	(E _{24h-SUT})	0.32 kWh	
		ut heating call			
3 Not Achieva	1				
		ndefinite	Annual electricity use for	-	
15 0.5 0 Water draw performed at		ndefinite	(AE _{DHW})	116 kWh	
Tracer draw periorinod at					
ancoil: Airmax T			Combo Components		
- 7 mmax i	echnologies Inc.; Model MAX : lies to Airmax Technologies Mo				
	Model NPE 240A; Serial # 741				
•	High Efficiency EC Motor				
	tatic Mixing Valve: Honeywell A	M101-US-1			
	ComfortAir ⁺ ' kit. Outdoor Rese				
est Agency Comments:	23,000,1000				
	set to 120°F (49°C) for all tests		Filter Rating	not install	ed MERV
·	set to 150°F (66°C) for space h	eating tests	Segregated DHW Syste		 Yes x N
pace heating configured a		-	Water Circulation	x	Yes N
	rculating blower set operating a	t 'cooling speed'	DHW Priority	-	See Report
	gh speed' unless otherwise spe			-	<u> </u>
-	ercise' for 30 sec. every 24 hou				
	efault unless otherwise specifie				
-	rmal standby test not applicable				
onversions:	standay toot not approach	-		Refere	nce Report:
49 Pascals = 1" of Water	1 kW = 3413 Btu/h				14-06-M0387-1c

Figure 9 – Combo Performance Specification Summary

	Testing Agency						o Designation:	N/A	
	Date Issued:		er 11, 2014				Number:	N/A	
	Manufacturer	-	echnologies	Inc.		Optio	ns Installed:	Navien 'Comfo	
		Navien A	merica Inc.					Outdoor Rese	
							plate Information	120 Volts	
							nal Burner Input	58.5 kW	199,900 Btu/hr
						Fuel 1	ype	xNat. Prop	
					PERFOR	RMAN	CE RATING		
			l Performan		. ,		0.88	_	
		Annual	Electrical C				1,203 kWh/y	_	
				Fund	ction-Base	ed Per	formance Ratings		
	Space I	leating	C	CSHE	8	37 (%)	Space Heating Capacity	,	10.6 kW
	Water F			VHPF	0.9		One-Hour DHW Delivery	, ,	
		y Efficiency				6 (%)	OHR		1437 L (See Report)
		,	ss - Circ fan ss - Circ fan		see comment		OHR (concurrent call for heat)		1433 L (See Report)
									O: 1.: BI +
	I Test Results eating @ PLF 1		Not Efficie	201	_	C (0/)	Averes Flashish II-	EEO 144	Circulating Blower*
			Net Efficier Net Efficier	-		16 (%)	Average Electricity Use Average Electricity Use	553 W 203 W	417 W 165 W
	eating @ PLF 0.4 eating @ PLF 0.1		Net Efficier	•		10 (%) '8 (%)	Average Electricity Use	203 W 87 W	165 W
ласе п	ealing @ FLF 0.1	5	Net Elliciei	icy	,	0 (%)	Standby Power (P(circ))		100 VV
							Standby Power (P(cont)		
oncurre	ent Space & DHW	Test Resu	lte				* Measured when blowe	,	
	raws at 49 ±3 ℃ v			t call for he	eat		modedied mien biene	ug	
Flow	Time to reach te			rithin ±3℃		7	Daily Electricity use for v	water heating	
/min)	(minute	s)		(minutes	;)		(E _{24h-SUT})	0.32 kWh	l
	with without	heating call	with	without I	heating call				
3	Not Achiev	able	N	Not Achieva	able				
4 ¹		8.0	Indefinite	Ind	efinite		Annual electricity use fo	r water heating	
15		0.5	Indefinite	Ind	efinite		(AE _{DHW})	116 kWh	l
Water	draw performed a	t V _{min} (See	Report)						
				Descri	ption of M	lajor C	ombo Components		
ancoil:	Airmax	Technologie	es Inc.; Mod	el MAX 50	e; Serial # 0	001183			
	Also ap	olies to Airn	nax Technolo	ogies Mode	el(s) Maxair 5	0e EP2	and 50e EP3		
eat Ge	nerator: Navien;	Model NPI	E 240A; Ser	ial # 7414)	X14725Z119	8 Tankle	ss Water Heater		
lower/N	Motor: 1/2 H.P.	High Effici	ency EC Mot	tor					
ther:	Thermo	static Mixin	g Valve: Hon	eywell AM	101-US-1				
	Navien '	ComfortAir	⁺' kit. Outdo	or Reset C	Control				
est Ag	ency Comments								
	eater temperature		°F (49°C) for	all tests			Filter Rating	not inst	alled MERV
	eater temperature				iting tests		Segregated DHW Syste		Yes x No
	eating configured			•	J		Water Circulation		x Yes No
	to 1.2" w.c. with o				cooling spee	d'	DHW Priority		See Report
	ng blower set to 'h					~			
	_			•					
	activate pump 'ex		-		•				
	ols set to factory o			•			1		
	water heater - th	ermai stand	aby test not a	applicable				In /	waraa Danasii
onvers	IUIIS.			ı/h				Here	erence Report:

Figure 9 – Combo Performance Specification Summary

Testing Agen		Agency:	Exova				Comb	o Designation:	N/A		
Date Issued Manufacturer				er 12, 2014			Serial	Number:	N/A		
	Manufa	acturer:			Inc.		Option	ns Installed:	Navien 'Comfor		
		Navien Ar	merica Inc.			Name	mlata lufawaatiaw	Outdoor Reset (
			•					plate Information nal Burner Input	120 Volt	s N/A Amps 150,000 Btu/hr	
							Fuel	•	x Nat. G		
			-				i dei i	урс	Propa		
						PERFO	RMANG	CE RATING	,		
				Performan				0.91	<u>-</u> .		
			Annual E	Electrical C				1,487 kWh/y			
					Func	tion-Bas	ed Per	formance Ratings			
	<u>S</u>	Space He	<u>ating</u>	(CSHE		90 (%)	Space Heating Capacity	1	0.6 kW	
	<u>V</u>	Vater He	ating	,	WHPF	0.	94	One-Hour DHW Delivery			
			/ Efficiency				97 (%)	OHR		140 L (See Report)	
			•	ss - Circ fan		ee commer		OHR (concurrent call for heat)	1.	131 L (See Report)	
		nemais	starioby ios	ss - Circ fan	OH S	ee commer	ils vv				
elected	Test Resu	<u>ults</u>								Circulating Blower*	
	eating @ F			Net Efficie	ncy		96 (%)	Average Electricity Use	561 W	417 W	
ace He	eating @ F	PLF 0.4		Net Efficie	ncy		93 (%)	Average Electricity Use	258 W	164 W	
ace He	eating @ F	PLF 0.15	i	Net Efficie	ncy		82 (%)	Average Electricity Use	116 W	165 W	
								Standby Power (P(circ))	111 W		
								Standby Power (P(cont))			
			Test Resul	<u>lts</u> ut concurrer	t call for bo	ot		* Measured when blower	r running		
Flow	Time to re				vithin ±3°C 1		\neg	Daily Electricity use for v	vater heating		
/min)		minutes		_	(minutes)			(E _{24h-SUT})	0.32 kWh		
	with \	without h	eating call	with	without h	eating call	7	, ,			
3	1.8	2	2.3	Indefinite	Inde	efinite		Annual electricity use for	water heating		
15	0.4	0).3	Indefinite	Inde	efinite		(AE _{DHW})	117 kWh		
							_	ombo Components			
ancoil:			ū	es Inc.; Mod		-		and 50a 500			
1 0					•	` '		and 50e EP3			
				-		14/14/106	o i Tankie	ss Water Heater			
ower/M				ency EC Mo		 .					
ther:			•	g Valve: Hor	•						
			comfortAir	†' kit. Outdo	oor Reset C	ontrol					
	ncy Com										
ater he	ater tempe	erature s	set to 120°l	F (49°C) for	all tests			Filter Rating	no <u>t insta</u>	lled MERV	
ater he	ater tempe	erature s	et to 140°l	F (60°C) for	space heat	ing tests		Segregated DHW Syste	m	Yes x No	
pace he	ating conf	figured a	s 'two stag	ge' operatior	1			Water Circulation	x	Yes No	
SP set t	to 1.2" w.c	. with cir	culating bl	lower set op	erating at 'c	ooling spe	ed'	DHW Priority		See Report	
rculatin	g blower s	set to 'hiç	gh speed' ι	unless other	wise specif	ied			· ·		
ontrols	activate pu	ump 'exe	ercise' for 3	30 sec. ever	y 24 hours.						
II contro	ls set to fa	actory de	efault unles	ss otherwise	specified						
ankless	water hea	ater - the	rmal stand	by test not	applicable						
onversi								-	Refere	ence Report:	
9 Pasc	als = 1" of	t Water	1 kW	V = 3413 Bti	u/h					14-06-M0387-2a	

		Agency: Exova					_	JOIIIDO L	Designation:	N/A		
Date Issued: Manufacturer:			· · · · · · · · · · · · · · · · · · ·							N/A		
				echnologies	Inc.		0	Options I	nstalled:	Navien 'Comi		
		Navien A	merica Inc.						Outdoor Rese			
									te Information		/olts N/A Amps	
								uel Typ	Burner Input	44.0 kW	150,000 Btu/hr :. Gas Oil	
								uei iyp	5		pane	
						PERF	ORM	ANCE	RATING		pano	
			Thermal	Performan	ce Facto	or (TPF)			0.93	_		
			Annual I	Electrical C		. ,			1,631 kWh/y	_		
					Fui	nction-Ba	sed I	Perfor	mance Ratings			
		Space He	eating_	(SHE		92 (%	%)	Space Heating Capacity		12.2 kW	
		Water He			VHPF	(0.94		One-Hour DHW Delivery	Rating (OHR))	
			Efficiency				97 (%	,	OHR		1140 L (See Report)	
			•	ss - Circ fan		see comme			OHR (concurrent call for heat)		1131 L (See Report)	
		inermal	standby los	ss - Circ fan	on	see comm	ents W	V				
elected	I Test Res	sults									Circulating Blower*	
	eating @			Net Efficier	ncv		95 (%	%)	Average Electricity Use	567 W	417 W	
	eating @			Net Efficier	-		96 (%	,	Average Electricity Use	286 W	166 W	
	eating @		i	Net Efficier	•		84 (%	,	Average Electricity Use	131 W	167 W	
									Standby Power (P(circ))	111 W		
									Standby Power (P(cont))) 13 W		
	•		Test Resul						* Measured when blowe	r running		
				ut concurren			 -		Doily Floatricity was fam.	uatar be attar		
low min)	111110 10	reach ten (minutes		rime w	minute)	C tolerance	-		Daily Electricity use for v (E _{24h-SUT})	vater neating 0.32 kW	h	
/111111)	with	•	eating call	with	•	it heating cal	_		(⊏24h-SUT <i>)</i>	0.32 KW	II	
3	1.8		2.3	Indefinite		ndefinite			Annual electricity use for	r water heating	l	
15	0.4		.3	Indefinite	Ir	ndefinite			(AE _{DHW})	117 kW		
					Desci	ription of	Majo	or Con	nbo Components			
ancoil:		Airmax T	echnologie	es Inc.; Mod		•			•			
		Also appl	ies to Airm	nax Technolo	ogies Mo	del(s) Maxa	ir 50e l	EP2 an	d 50e EP3			
eat Ge	nerator:	Navien;	Model NPE	E 180A; Ser	ial # 741	0Y14714710	061 Ta	ankless	Water Heater			
lower/N	Notor:	1/2 H.P. I	High Efficie	ency EC Mot	tor							
ther:		Thermos	tatic Mixing	g Valve: Hon	eywell A	M101-US-1						
		Navien 'C	ComfortAir	⁺ ' kit. Outdo	or Reset	Control						
est Ag	ency Con	nments:										
ater he	eater tem	perature s	set to 120°	F (49°C) for	all tests				Filter Rating	not ins	stalled MERV	
ater he	eater temi	perature s	set to 150°	F (66°C) for	space he	eating tests			Segregated DHW Syste	m	Yes x	
				ge' operation	•	J 70			Water Circulation		x Yes	
	-	-	-	lower set op		t 'coolina sn	eed'		DHW Priority		See Report	
			•	unless other	Ū	• .			· · · · · · · · · · · · · · · · · · ·			
	•		•	30 sec. ever								
	uctivate p	•										
	ale set to	factory do	afault unloc	es otherwice	enecifica	4						
ll contro				ss otherwise lby test not a								

Figure 9 – Combo Performance Specification Summary

	СОМ	BO PERFO)RMAN(E SPECIFIC	OITAC	N SUMMARY (Re	ef. CSA Sta	 andard P.9-11)
	Testing Ag					nbo Designation:	N/A	•
	Date Is		12, 2015			al Number:	N/A	
	Manufac	cturer: Airmax T		Inc.	Opti	ions Installed:	Navien 'Comf	ortAir⁺' kit.
		Navien A	merica Inc.				Outdoor Rese	
						neplate Information		olts N/A Amps
						ninal Burner Input	44.0 kW	150,000 Btu/hr
					Fue	I Type		GasOil pane
				PERF	ORMAN	NCE RATING		Jane
				ce Factor (TPF)		0.93 1,358 kWh/y		
		Alliluai	Electrical	onsumption (AE)				
				Function-Ba	ised Pe	erformance Ratings		
		pace Heating		SHE	93 (%)	Space Heating Capacit	ty	14.9 kW
		ater Heating		VHPF (0.94	Space Heating Airflow		922 SCFM @ PLF 1
		ecovery Efficiency	•	- " 200 00mm	97 (%)	Space Heating ESP		1.0 " w.c. (see report)
		nermal standby los nermal standby los				One Hour DHW Delive	n, Dating (OHD)	
	111	effilal stations to	SS - CIIC Iaii	on see comme	ents vv	One-Hour DHW Delive OHR		1140 L (See Report)
						OHR (concurrent call for heat)		1131 L (See Report)
S <u>electe</u>	d Test Result	ts						Circulating Blower*
Space F	Heating @ PL	_ _F 1	Net Efficien	ісу	96 (%)	Average Electricity Use	780 W	633 W
•	Heating @ PL		Net Efficien	icy	96 (%)	• .		82 W
Space F	Heating @ PL	_F 0.15	Net Efficien	ісу	86 (%)	Average Electricity Use		82 W
						Standby Power (P(circ)		
Canalin	at Canana P	DUM/ Toot Book	.14.5			Standby Power (P(cont		
	•	DHW Test Results 3°C with & withou		t call for heat		* Measured when blow	er running	
Flow		ach temperature		rithin ±3°C tolerance	\neg	Daily Electricity use for	water heating	
(l/min)	1	ninutes)	†	(minutes)	\neg	(E _{24h-SUT})	0.32 kWh	1
	<u> </u>	ithout heating call	with	without heating call		. 2		
3	1.8	2.3	Indefinite	Indefinite		Annual electricity use for	or water heating	
15	0.4	0.3	Indefinite	Indefinite		(AE_{DHW})	117 kWh	1
	_	_	_	_				
				Description of	Major	Combo Components		
Fancoil:	Air	rmax Technologie	es Inc.; Mode	el MAX 70e; Serial #	# 000002	9		
	Als	so applies to Airm	nax Technolc	ogies Model(s) Maxai	ir 70e EP	2 and 70e EP3		
Heat Ge	enerator: Na	avien; Model NPI	<i>≣</i> 180A; Seri	ial # 7410Y14714710	061 Tank	less Water Heater		
Blower/I	Motor: 3/4	4 H.P. High Efficie	ency EC Mot	or				
Other:	Th	ermostatic Mixin	g Valve: Hon	eywell AM101-US-1				
		avien ' <i>ComfortAir'</i>						
Test Ag	ency Comm			<u></u>				
_	-	rature set to 120°	F (49°C) for	all DHW tests		Filter Rating	not ins	talled MERV
	•		, ,	space heating tests		Segregated DHW Syst		Yes x No
	-	gured as 'two stag		· -		Water Circulation		x Yes No
		-	-	erating at 'cooling spo	eed'	DHW Priority		x Yes No
		et to 'high speed'			ecu	Dilw i nong		<u> </u>
	•	• .		·				
	•	mp 'exercise' for 3	-					
		ctory default unles		•				
		er - thermal stand	iby test not a	pplicable			Dof	Danarti
Convers	Sions: scale = 1" of \		N - 3/13 Rtu	п.				erence Report:

Figure 9 – Combo Performance Specification Summary

	сомв	O PE	RFOR	MANC	E SP	ECIFIC	TAC	ION	SUMMARY (Re	ef. CS	A Sta	ındard P.9-11)
	Testing A	Agency:	Exova					Combo	Designation:	N/A		
	_		January	25, 2015		-			Number:	N/A		
	Manufa	acturer:	Airmax T	echnologie	es Inc.	-		Options	s Installed:	Outdoor	Reset	Control
						-						
						_		Name	olate Information	120	_	
						_			al Burner Input	34.0	_	116,013 Btu/hr
						_		Fuel Ty	ре	X	Nat. Ga	
						PERF	ORI	MANC	E RATING		Propan	ne
			Therma	l Performa	nce Fac	etor (TPF)			0.88			
						ption (AE)			1,884 kWh/y	_		
						,		l Perfo	ormance Ratings	_		
	_	Space H			CSHE			(%)	Space Heating Capaci	ty		.5 kW
	_	<u>Water He</u>			WHPF		0.80		Space Heating Airflow		,	39 SCFM@PLF1
			y Efficienc	-	ion off			(%)	Space Heating ESP		1	.0 "w.c. (see report)
			-	oss - Circ i		see comm			One Hour DIIW Delive	m. Dotina	(OLID)	
		mermai	Standby	oss - Circ	an on	see comm	enis	VV	One-Hour DHW Delive OHR	ryRaung		0 L (See Report)
									OHR (concurrent call for heat)			9 L (See Report)
Selecte	ed Test Re	sults							Of ITT (concurrent can for near)		, ,	Circulating Blower*
	Heating @			Net Efficie	encv		90	(%)	Average Electricity Use	958	W	812 W
	Heating @		ı	Net Efficie	-			(%)	Average Electricity Use			228 W
	Heating @			Net Efficie	•			(%)	Average Electricity Use			229 W
		,			,			` ,	Standby Power (P(circ)		W	
									Standby Power (P(conf	t) 14	W	
Concur	rent Space	e & DHV	/ Test Res	<u>sults</u>					* Measured when blow	er runnin	g	
	Draws at 4	9 ±3°C ν	vith & with	out concu				•				
Flow	Time to re	each ten	perature	Time v	vithin ±3	°C toleranc	e		Daily Electricity use for		-	
(l/min)	 	minutes)		(minu	tes)			(E _{24h-SUT})	0.34	kWh	
			eating call			out heating ca	all					
3	0.7		.7	Indefinite		ndefinite			Annual electricity use for		_	
13 ¹	1.7		.7	Indefinite	II.	ndefinite			(AE _{DHW})	123	kWh	
' Water	r draw perf	formed a	it V _{max} (See	e Report)								
					Desci	ription of	Ма	jor Co	mbo Components			
Fancoil	l: ,	Airmax T	echnolog	ies Inc.; M	odel MA	X 100e; Se	rial#	n/a				
	,	Also app	lies to Air	max Techr	ologies	Model(s) N	1axaiı	r 100e E	P2 and 100e EP3			
Heat G	enerator: F	Flowma	c, Model 1	20 (95); S	erial # E	G3414095	292	Tankles	s Water Heater			
Blower	/Motor:	1 H.P. H	igh Efficie	ncy EC Mo	tor							
Other:	-	Thermos	static Mixir	na Valve: H	onewel	II AM101-US	S-1					
			Reset Co	•	,							
Test A	gency Com			11401								
1	-			0°F (49°C)	for all D	LIM too to			Filter Deting	no	t inatalla	ed MERV
				, ,					Filter Rating		t installe	
				, ,	•	ce heating to		Segregated DHW Syst	em	Х	YesNo	
	_	-		tage' opera					Water Circulation		Х	Yes No
ESP se	et to 1.2" w.	.c. with c	irculating	blower set	operati	ng at 'coolin	ıg sp	eed'	DHW Priority		Х	Yes No
Circula	ting blowe	rset to '	high spee	d'unless d	otherwis	e specified						
Control	ls activate	pump 'e	xercise' fo	r 8 mins. e	very 24	hours.						
All cont	trols set to	factory	lefault unl	ess otherv	vise spe	cified						
Tankles	ss water h	eater - th	nermal sta	andby test i	not appli	icable						
Conver											Refere	nce Report:
	scals = 1"	of Wate	r 1 k'	W = 3413 E	3tu/h							M0016-2

Figure 9 – Combo Performance Specification Summary

С	омво	PERFOR	MANC	SPECIF	ICAT	ION	SUMMARY (Re	f. CSA S	Standard P.9-11)
		rer: February	echnologies ion Dr., Un			Serial Option	o Designation: Number: s Installed: plate Information	N/A N/A Outdoor Res	set Control /olts N/A Amps
						Nomin Fuel Ty	al Burner Input _/ pe		t. Gas Oil
				PER	FORM	MANC	E RATING		
				nce Factor (TPF onsumption (<i>Al</i>			0.90 2,927 kWh/y	<u>-</u>	
				Function-E	Based	l Perfo	ormance Ratings		
	Wat Red The		V / oss - Circ fa	SHE VHPF In off see com	0.80 83 ments		Space Heating Capacit Space Heating Airflow Space Heating ESP One-Hour DHW Deliver OHR OHR (concurrent call for heat)	-	11.1 kW 760 SCFM @ PLF 1 0.5 "w.c. (see report) R) 710 L (See Report) 709 L (See Report)
Space H Space H Space H	Test Result eating @ PL eating @ PL eating @ PL	F 1 F 0.4 F 0.15	Net Efficier Net Efficier Net Efficier	псу	95	(%) (%) (%)	Average Electricity Use Average Electricity Use Average Electricity Use Standby Power (P(circ) Standby Power (P(cont	574 W 238 W) 89 W) 9 W	Circulating Blower* 471 W 469 W 188 W
		DHW Test Res 3°C with & with		ent call for heat			* Measured when blow	er running	
	Time to reac (mir	h temperature nutes)	Time wi	thin ±3°C tolera (minutes)	nce		Daily Electricity use for (E _{24h-SUT})	water heating 0.34 kW	
3 13 ¹	with with 0.7 1.7		with Indefinite Indefinite	w ithout heating Indefinite Indefinite	call		Annual electricity use for (AE _{DHW})	or water heati 123 kW	=
1 Water o	draw perform	ned at V _{max} (See	Report)			•			
				Description	of Ma	jor Co	ombo Components		
Fancoil:	Airn	nax Technologi		del MAX 50eLV;			·		
Heat Ger Blower/N Other:	Motor: 1/2 The	H.P. High Effici	ency EC Mo g Valve: Ho	·		port)); \$	Serial # EG3414095292	Tankless Wa	ter Heater
Ŭ	ency Comme								
	•			or all DHW tests or space heating			Filter Rating	not ins	
	•	jured as 'single	` '	•	y ICSIS		Segregated DHW Syste Water Circulation		x YesNoNoNo
		_		operating at 'coo	ling sp	eed'	DHW Priority		x Yes No
	-			herwise specifie	ed				
	•	'continuous' m							
		np 'exercise' fo tory default unle							
		er - thermal sta		•					
Convers 249 Pas	ions: cals = 1" of\	Vater 1 k\	V = 3413 Bt	tu/h					ference Report: -06-M0016-3 Rv1

Figure 9 – Combo Performance Specification Summary

Testing Agency: Exova Date Issued: March 3		0.2015				o Designation:	N/A				
Manufacturer: Airmax				Inc.			Number: ns Installed:	N/A Outdoor Reset Control			
			tion Dr., Uni	t 5 & 6		•					
		Vaughar	n, ON				plate Information	120 Vol			
		-				Fuel T	nal Burner Input	25.0 kW x Nat.	85,304 Btu/hr Gas Oil		
						i uci i	уре	Prop			
				PE	RFORI	VIANC	E RATING				
				ce Factor (TP onsumption (A	•		0.88 2,657 kWh/y	-			
				Function	-Basec	l Perf	ormance Ratings				
	Space	Heating	С	SHE	95	(%)	Space Heating Capacit	y 1	10.9 kW		
		Heating	V	/HPF	0.65	. ,	Space Heating Airflow	-	712 SCFM @ PLF 1		
	Recov	ery Efficienc	у		76	(%)	Space Heating ESP		1.1 "w.c. (see report)		
				n off see co							
	Therm	al standby l	oss - Circ fa	n on see co	mments	W	One-Hour DHW Deliver	,	•		
							OHR		551 L (See Report)		
olooto	d Test Results						OHR (concurrent call for heat)		525 L (See Report) Circulating Blower*		
	d rest Results Heating @ PLF		Net Efficier	ICV	qn	(%)	Average Electricity Use	532 W	432 W		
	leating @ PLF		Net Efficier	•		(%)	Average Electricity Use	482 W	386 W		
	leating @ PLF		Net Efficier	•		(%)	Average Electricity Use		191 W		
	30			,		` ,	Standby Power (P(circ))				
							Standby Power (P(cont)				
	rent Space & DI						* Measured when blow	er running			
	raws at 49 ±3°0					7					
low	Time to reach t		Time wit	hin ±3°C toler	ance	1	Daily Electricity use for	_			
min)	(minut			(minutes)		4	(E _{24h-SUT})	0.38 kWh			
3		heating call	with Indefinite	w ithout heatin	-	1	Annual alastriaituus a fa	rwater beating			
3 11	0.5 0.2	0.5	Indefinite	Indefinit			Annual electricity use fo (AE _{DHW})	ıı water neating 140 kWh	}		
15	0.2	0.2	!	ot Achievable	C		(AL DHW)	140 KVVII			
				Description	of Ma	ior C	ombo Components				
ancoil	Airma	Technolog		•		•	Hydronic Furnace				
		-					2 and 50e EP3				
eat Ge	enerator: Flown	ax Technol	ogies; Mode	l Flowmax 90;	Serial #	#EG34	13275668, Tankless Wate	er Heater			
			-	2ETE 9G7M;							
•			eiency EC Mo								
ther:		•	•	neywell AM101	1-US-1						
			-	=		F-1 (52)	°C Set Point, 1°C Differen	tial)			
							undfos UPS 15-58RU	/			
		or Reset Co	•	c talik DI IW It	Jonouldl	on. Git	andios Of G 10-00NO				
oet A~	ency Commen		711d OI								
_	•		1°E (60°C) €	or all tecto			Filter Pating	not incto	lled MERV		
	eater temperatu		, ,				Filter Rating	not insta			
	neating configur	_			15		Segregated DHW Syste	em x			
	t to 1.2" w.c. with	_		-		eed'	Water Circulation		Yes x N		
	ing blower set t			-	fied		DHW Priority	X	YesN		
rculat	ing blower in 'co	ntinuous' n	node for sap	ce heat tests							
I contr	ols set to factor	default un	less otherwi	se specified							
ankles	s water heater	thermal sta	andby test no	t applicable							
								- I			
	sions:							Refe	rence Report:		

Figure 11 – Combo Performance Specification Summary