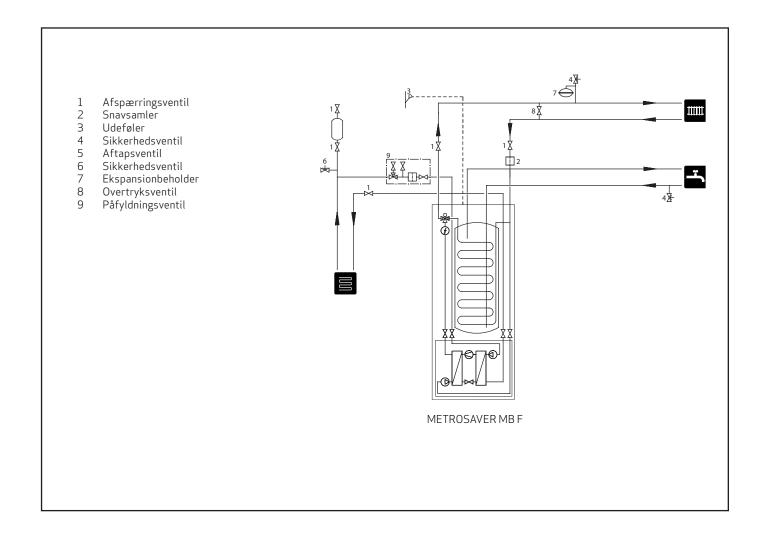
METROSAVER MB F

Datablad





Supplier's name:	METRO TH	IERM A/S	
Model:	Metrosavo	er MB F6	
Temperature application	35	55	℃
Declared load profile for water heating	XI	L	
Seasonal space heating energy efficiency class, average climate:	A+++	A+++	
Water heating energy efficiency class, average climate:	Α	ı	
Rated heat output, average climate:	5,5	5,5	kW
Annual energy consumption for space heating, average climate	2188	2875	kWh
Annual electricity consumption for water heating, average climate	164	42	kWh
Seasonal space heating energy efficiency, average climate:	200	150	%
Water heating energy efficiency, average climate:	10	2	%
Sound power level LWA indoors	42	2	dB
Rated heat output, cold climate:	5,5	5,5	kW
Rated heat output, warm climate:	5,5	5,5	kW
Annual energy consumption for space heating, cold climate	2481	3287	kWh
Annual electricity consumption for water heating, cold climate	164	12	kWh
Annual energy consumption for space heating, warm climate	1408	1852	kWh
Annual electricity consumption for water heating, warm climate	164	12	kWh
Seasonal space heating energy efficiency, cold climate:	211	157	%
Water heating energy efficiency, cold climate:	10	2	%
Seasonal space heating energy efficiency, warm climate:	201	151	%
Water heating energy efficiency, warm climate:	10	2	%
Sound power level LWA outdoors	-		dB

Data for package fiche

Controller class	V	/ II	
Controler contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	204	154	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	215	161	%
Seasonal space heating energy efficiency of package, warm climate:	205	155	%

Model(s):	Metrosaver MB F6
Type of heat source/sink:	Brine-to-water
Low-temperature heat pump:	No
Equipped with supplementary heater:	Yes
Heat pump combination heater:	Yes
Climate condition:	Average
Temperature application:	Medium temperature (55 °C)
Applied standards: EN14825 and EN16147	



				res			_
Climate condition:				Average	METRO 1	THERM	Л
Temperature application:			Medium te	emperature (55 °C)			
Applied standards: EN14825 and EN1614	.7						1
				Seasonal space heating energy	<i>'</i>		
Rated heat output	Prated	5,5	kW	efficiency	η_{s}	150	%
Declared capacity for part load at outdoor ter	nperature Tj			Declared coefficient of performance f	or part load at outdo	or temperatu	re Tj
Tj = -7 ℃	Pdh	5,0	kW	Tj = -7 ℃	COPd	3,06	-
Tj = +2 ℃	Pdh	3,0	kW	Tj = +2 ℃	COPd	3,97	-
Tj = +7 ℃	Pdh	2,0	kW	Tj = +7 ℃	COPd	4,63	-
Tj = +12 ℃	Pdh	1,2	kW	Tj = +12 ℃	COPd	4,86	-
Tj = biv	Pdh	5,4	kW	Tj = biv	COPd	2,84	-
Tj = TOL	Pdh	5,4	kW	Tj = TOL	COPd	2,84	-
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-
Bivalent temperature	T _{biv}	-10	°C	Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcych	10	kW	Cycling interval efficiency	COPcvc	10	
Degradation co-efficient	Cdh	0,99	-	temperature	WTOL	65	°C
Degradation to efficient	cun	0,33		temperature	WIOL	03	·
Power consumption in modes other than activ	ve mode			Supplementary heater			
Off mode	P _{OFF}	0,002	kW	Rated heat output	Psup	0,1	kW
Thermostat-off mode	P _{TO}	0,007	kW				
Standby mode	P_{SB}	0,007	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,009	kW		•		
Other items							
Capacity control		fixed		Rated air flow rate, outdoors			m³/ł
Sound power level, indoors/outdoors	L _{WA}	42/-	dB				
, , , , , , , , , , , , , , , , , , , ,	-WA	,		Rated brine or water flow rate,	,		
Annual energy consumption	Q_{HE}	2875	kWh	outdoor heat exchanger		0,68	m³/l
			<u> </u>				•
For heat pump combination heater:	$\overline{}$	VI	<u> </u>	Water heating analysis officials	n, n	103	0/
Declared load profile		XL		Water heating energy efficient	cy η _{wh}	102	%
·							kWł
Daily electricity consumption	Q _{elec}	7,48	kWh	Daily fuel consumption	Q_{fuel}		

Supplier's name:	METRO TH	IERM A/S	
Model:	Metrosaver	MB F6 PC	
Temperature application	35	55	℃
Declared load profile for water heating	XI	_	
Seasonal space heating energy efficiency class, average climate:	A+++	A+++	
Water heating energy efficiency class, average climate:	A	1	
Rated heat output, average climate:	5,5	5,5	kW
Annual energy consumption for space heating, average climate	2188	2875	kWh
Annual electricity consumption for water heating, average climate	164	12	kWh
Seasonal space heating energy efficiency, average climate:	200	150	%
Water heating energy efficiency, average climate:	10	2	%
Sound power level LWA indoors	42	2	dB
Rated heat output, cold climate:	5,5	5,5	kW
Rated heat output, warm climate:	5,5	5,5	kW
Annual energy consumption for space heating, cold climate	2481	3287	kWh
Annual electricity consumption for water heating, cold climate	164	12	kWh
Annual energy consumption for space heating, warm climate	1408	1852	kWh
Annual electricity consumption for water heating, warm climate	164	12	kWh
Seasonal space heating energy efficiency, cold climate:	211	157	%
Water heating energy efficiency, cold climate:	10	2	%
Seasonal space heating energy efficiency, warm climate:	201	151	%
Water heating energy efficiency, warm climate:	10	2	%
Sound power level LWA outdoors	-		dB

Data for package fiche

0 . " .		/11	
Controller class	V	<u> </u>	
Controler contribution to efficiency	3,5		%
Seasonal space heating energy efficiency of package, average climate:	204	154	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	215	161	%
Seasonal space heating energy efficiency of package, warm climate:	205	155	%

Model(s):	Metrosaver MB F6 PC
Type of heat source/sink:	Brine-to-water
Low-temperature heat pump:	No
Equipped with supplementary heater:	Yes
Heat pump combination heater:	Yes
Climate condition:	Average
Temperature application:	Medium temperature (55 °C)
Applied standards: EN14825 and EN16147	



Medium temperature (55 °C) Applied standards: EN14825 and EN16147 Seasonal space heating energy Fractage Seasonal space heating energy Fractag	Climate condition:		Average		Average	METRO	LUEDK	_
Applied standards: EN14825 and EN16147 Prated 5,5 kW Seasonal space heating energy efficiency \$\eta_6\$ 150 5 5 5 5 5 5 5 5 5			Medium t			MEIRO	HENN	78
Rated heat output	' ''	,		iviculum to	emperature (33°C)			
### Rated heat output	rippiiod otalidates. Erri iozo and Errio i ii				Seasonal space heating energ	v		
Tj = -7 °C	Rated heat output	Prated	5,5	kW		-	150	%
Tj = -7 °C	,					l		
Tj = +2 °C							or temperatui	re Тj
Tj = +7 °C	·	Pdh				COPd	3,06	-
Tj = +12 °C	,	Pdh		kW	,	COPd		-
Tj = biv	,	Pdh		kW		COPd	4,63	-
Tj = TOL Tj = 15 °C (if TOL < -20 °C) Pdh NW Tj = 15 °C (if TOL < -20 °C) Pdh NW Tj = 15 °C (if TOL < -20 °C) Pdh NW Tj = 15 °C (if TOL < -20 °C) Pdh NW Tj = 15 °C (if TOL < -20 °C) Pdh NW Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPd Tj = 15 °C (if TOL < -20 °C) COPC Toll (if Toll (i	Tj = +12 ℃	Pdh		kW	Tj = +12 ℃	COPd		-
Tj = -15 °C (if TOL < -20 °C) Pdh kW Bivalent temperature T _{biv} -10 °C Cycling interval capacity for heating Pcych Cycling interval efficiency COPcyc Experience Toll O.99 - Experien	Tj = biv	Pdh	5,4	kW	Tj = biv	COPd	2,84	-
Bivalent temperature	,	Pdh	5,4	kW	,	COPd	2,84	-
Cycling interval capacity for heating Pcych kW Cycling interval efficiency COPcyc temperature WTOL 65 5 5 5 5 5 5 5 5	Tj = -15 ℃ (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-
Cycling interval capacity for heating Pcych kW Cycling interval efficiency COPcyc temperature WTOL 65 5 5 Power consumption in modes other than active mode Poff 0,002 kW Thermostat-off mode Poff 0,007 kW Standby mode Poff 0,009 kW Type of energy input Electric Capacity control Fixed Rated air flow rate, outdoors Manual energy consumption QHE 2875 kWh Daily electricity consumption Qelec 7,48 kWh Annual fuel consumption AFC 1642 KWh Ann	Bivalent temperature	This	-10	°C.	Operation limit temperature	TOI	-10	°C
Degradation co-efficient Cdh 0,99 - temperature WTOL 65 supplementary heater Power consumption in modes other than active mode Off mode Poff 0,002 kW Thermostat-off mode Pro 0,007 kW Standby mode Pro 0,007 kW Crankcase heater mode Pro 0,009 kW Other items Capacity control fixed Rated air flow rate, outdoors make a supplementary heater Sound power level, indoors/outdoors LwA 42/- dB Annual energy consumption Qelec 7,48 kWh Annual electricity consumption Qelec 7,48 kWh Annual electricity consumption AEC 1642 kWh Approved by:	·			+				_
Off mode			0,99	-			65	°C
Off mode								
Thermostat-off mode	·			T .		ı		Τ.
Standby mode P _{SB} Q,007 kW Crankcase heater mode P _{CK} Q,009 kW Other items Capacity control Sound power level, indoors/outdoors Annual energy consumption Q _{HE} Q	Off mode	P _{OFF}	0,002	kW	Rated heat output	Psup	0,1	kW
Crankcase heater mode P _{CK} O,009 kW Other items Capacity control Sound power level, indoors/outdoors L _{WA} Annual energy consumption Q _{HE} 2875 kWh Rated air flow rate, outdoors Rated brine or water flow rate, outdoor heat exchanger O,68 m Water heating energy efficiency Daily electricity consumption Q _{elec} 7,48 kWh Annual electricity consumption AEC Approved by:	Thermostat-off mode	P _{TO}	0,007	kW				
Other items Capacity control fixed Rated air flow rate, outdoors m Sound power level, indoors/outdoors L _{WA} 42/- dB Annual energy consumption Q _{HE} 2875 kWh outdoor heat exchanger 0,68 m For heat pump combination heater: Declared load profile XL Water heating energy efficiency η_{wh} 102 Standard For heat pump consumption Q _{elec} 7,48 kWh Annual electricity consumption AEC 1642 kWh Annual fuel consumption AFC Approved by:	Standby mode	P_{SB}	0,007	kW	Type of energy input		Electric	
Capacity control Sound power level, indoors/outdoors L _{WA} Annual energy consumption Q _{HE} 2875 kWh Capacity control Rated air flow rate, outdoors Rated brine or water flow rate, outdoor heat exchanger O,68 m Capacity consumption Q _{HE} 2875 kWh Capacity consumption Rated air flow rate, outdoors Mater flow rate, outdoors Mater flow rate, outdoors Mater flow rate, outdoors Daily electricity consumption Q _{HE} Daily fuel consumption Q _{fuel} Approved by:	Crankcase heater mode	P _{CK}	0,009	kW				
Sound power level, indoors/outdoors L _{WA} 42/- dB Rated brine or water flow rate, outdoor heat exchanger O,68 m For heat pump combination heater: Declared load profile XL Daily electricity consumption Q _{elec} 7,48 kWh Annual electricity consumption AEC Approved by:	Other items							
Annual energy consumption Q _{HE} 2875 kWh Rated brine or water flow rate, outdoor heat exchanger 0,68 m For heat pump combination heater: Declared load profile XL Daily electricity consumption Approved by: Rated brine or water flow rate, outdoor heat exchanger 0,68 m Water heating energy efficiency 102 9 Daily fuel consumption AFC Approved by:	Capacity control		fixed		Rated air flow rate, outdoors			m³/ł
Annual energy consumption Q _{HE} 2875 kWh Rated brine or water flow rate, outdoor heat exchanger 0,68 m For heat pump combination heater: Declared load profile XL Daily electricity consumption Approved by: Rated brine or water flow rate, outdoor heat exchanger 0,68 m Water heating energy efficiency 102 9 Daily fuel consumption AFC Approved by:	Sound power level, indoors/outdoors	Lun	42/-	dB				
Annual energy consumption QHE 2875 kWh outdoor heat exchanger 0,68 m For heat pump combination heater: Declared load profile XL Water heating energy efficiency η_{wh} 102 State of the pump consumption η_{wh} 102 State of the pump combination heater: Daily electricity consumption Qelec 7,48 kWh Annual fuel consumption Qfuel kWh Annual fuel consumption AFC CApproved by:		-vvA	,		Rated brine or water flow rate			
Daily electricity consumption Approved by: Water heating energy efficiency Daily fuel consumption AEC The proved by: Water heating energy efficiency Daily fuel consumption AFC Approved by: Water heating energy efficiency The proved services and the provided services are already as a service of the provided services and the provided services are already as a service of the provided s	Annual energy consumption	Q_{HE}	2875	kWh		,	0,68	m³/l
Daily electricity consumption Approved by: Water heating energy efficiency Daily fuel consumption AEC The proved by: Water heating energy efficiency The proved by: Water heating energy efficiency The proved by: Daily fuel consumption AFC Annual fuel consumption AFC APPROVED APPROV								
Daily electricity consumption Q _{elec} 7,48 kWh Annual electricity consumption AEC 1642 kWh Annual fuel consumption AFC CAPPROVED BY:			VI		Water heating energy officien	n.	102	%
Annual electricity consumption AEC 1642 kWh Annual fuel consumption AFC C Approved by:	Declared load profile		AL .		water neating energy emicien	I lwh	102	70
Annual electricity consumption AEC 1642 kWh Annual fuel consumption AFC C Approved by:	Daily electricity consumption	Q_{elec}	7,48	kWh	Daily fuel consumption	Q_{fuel}		kWł
	Annual electricity consumption		1642	kWh	Annual fuel consumption	AFC		GJ
· · · · · · · · · · · · · · · · · · ·	Approved by:							
Contact details METRO THERM A/S Rundinsvej 55 DK-3200 Helsinge www.metrotherm.dk	Contact details	METRO TI	HFRM A/S	Rundinsve	ei 55 DK-3200 Helsinge www.metr	otherm.dk		

Supplier's name:	METRO T		
Model:	Metrosav	er MB F12	
Temperature application	35	55	$^{\circ}$
Declared load profile for water heating)	(L	
Seasonal space heating energy efficiency class, average climate:	A+++	A+++	
Water heating energy efficiency class, average climate:	1	A	
Rated heat output, average climate:	12	12	kW
Annual energy consumption for space heating, average climate	4582	6213	kWh
Annual electricity consumption for water heating, average climate	17	709	kWh
Seasonal space heating energy efficiency, average climate:	201	157	%
Water heating energy efficiency, average climate:	98		%
Sound power level LWA indoors	4	14	dB
Rated heat output, cold climate:	12	12	kW
Rated heat output, warm climate:	12	12	kW
Annual energy consumption for space heating, cold climate	5292	7173	kWh
Annual electricity consumption for water heating, cold climate	17	709	kWh
Annual energy consumption for space heating, warm climate	2928	3999	kWh
Annual electricity consumption for water heating, warm climate	17	709	kWh
Seasonal space heating energy efficiency, cold climate:	208	162	%
Water heating energy efficiency, cold climate:	98		%
Seasonal space heating energy efficiency, warm climate:	204	158	%
Water heating energy efficiency, warm climate:	ę	98	%
Sound power level LWA outdoors		-	dB

Data for package fiche

Controller class	V	/ II	
Controler contribution to efficiency	4	4	%
Seasonal space heating energy efficiency of package, average climate:	205	161	%
Seasonal space heating energy efficiency class for package, average climate:	A+++	A+++	%
Seasonal space heating energy efficiency of package, cold climate:	212	166	%
Seasonal space heating energy efficiency of package, warm climate:	208	162	%

Model(s):	Metrosaver MB F12
Type of heat source/sink:	Brine-to-water
Low-temperature heat pump:	No
Equipped with supplementary heater:	Yes
Heat pump combination heater:	Yes
Climate condition:	Average
Temperature application:	Medium temperature (55 °C)
Applied standards: EN14825 and EN16147	



Declared capacity for part load at outdoor tempt $Tj = -7 ^{\circ}\mathbb{C}$ $Tj = +2 ^{\circ}\mathbb{C}$ $Tj = +7 ^{\circ}\mathbb{C}$ $Tj = +12 ^{\circ}\mathbb{C}$ $Tj = +12 ^{\circ}\mathbb{C}$ $Tj = biv$	Prated	12,4 11,1 6,8	kW	Seasonal space heating energy efficiency Declared coefficient of performance for	η _s	157	%
Rated heat output Declared capacity for part load at outdoor tem $Tj = -7 ^{\circ}C$ $Tj = +2 ^{\circ}C$ $Tj = +7 ^{\circ}C$ $Tj = +12 ^{\circ}C$ $Tj = +12 ^{\circ}C$ $Tj = biv$	Prated perature Tj Pdh Pdh Pdh Pdh Pdh	11,1 6,8		efficiency Declared coefficient of performance for		157	%
Declared capacity for part load at outdoor tempt $Tj = -7 ^{\circ}\mathbb{C}$ $Tj = +2 ^{\circ}\mathbb{C}$ $Tj = +7 ^{\circ}\mathbb{C}$ $Tj = +12 ^{\circ}\mathbb{C}$ $Tj = +12 ^{\circ}\mathbb{C}$ $Tj = biv$	perature Tj Pdh Pdh Pdh Pdh	11,1 6,8		efficiency Declared coefficient of performance for		157	%
Tj = -7 °C Tj = +2 °C Tj = +7 °C Tj = +12 °C Tj = biv	perature Tj Pdh Pdh Pdh Pdh	11,1 6,8		Declared coefficient of performance fo		157	%
Tj = -7 °C Tj = +2 °C Tj = +7 °C Tj = +12 °C Tj = biv	Pdh Pdh Pdh Pdh	6,8	kW		or nart load at outdo		
Tj = -7 °C Tj = +2 °C Tj = +7 °C Tj = +12 °C Tj = biv	Pdh Pdh Pdh Pdh	6,8	kW		n pant iouu ut outuol	or temperatu	re Tj
Tj = +7 ℃ Tj = +12 ℃ Tj = biv	Pdh Pdh			Tj = -7 ℃	COPd	3,18	-
Tj = +12 ℃ Tj = biv	Pdh	4 4	kW	Tj = +2 ℃	COPd	4,12	-
Tj = biv		4,4	kW	Tj = +7 ℃	COPd	4,67	-
	Pdh	2,6	kW	Tj = +12 ℃	COPd	5,06	-
		12,3	kW	Tj = biv	COPd	2,91	-
Tj = TOL	Pdh	12,3	kW	Tj = TOL	COPd	2,91	-
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-
Bivalent temperature	T _{biv}	-10	°C	Operation limit temperature	TOL	-10	°c
Cycling interval capacity for heating	Pcych		kW	Cycling interval efficiency	COPcyc		-
Degradation co-efficient	Cdh	0,99	-	temperature	WTOL	65	°C
Downs consumption in modes other than active	mada			Supplementary booter			
Power consumption in modes other than active Off mode	P _{OFF}	0,005	kW	Supplementary heater Rated heat output	Psup	0,1	kW
Thermostat-off mode	P _{TO}	0,015	kW	·	<u> </u>	•	1
Standby mode	P _{SB}	0,007	kW	Type of energy input	Electric		
Crankcase heater mode	P _{CK}	0	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors			m³/h
Sound power level, indoors/outdoors	L _{WA}	44/-	dB				
	WA	,		Rated brine or water flow rate,			
Annual energy consumption	Q_{HE}	6213	kWh	outdoor heat exchanger		1,46	m³/h
For heat pump combination heater:							
Declared load profile		XL		Water heating energy efficience	y η _{wh}	98	%
					· · · · · · · · · · · · · · · · · · ·		
Daily electricity consumption	Q_{elec}	7,78	kWh	Daily fuel consumption	Q_{fuel}		kWh
Annual electricity consumption	AEC	1709	kWh	Annual fuel consumption	AFC		GJ
Approved by:							·
Contact details	METRO TI	HERM A/S	D				