Information for heat pump space heaters and heat pump combination heaters Warm climate and Medium temperature

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 41	LO + CTC EcoLo	ogic			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	141	%	
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate	er:	No					
Parameters shall be declared f	or medium-temp	erature applicat	tion, except for	r low-temperature heat pumps. For	low- tempera	iture heat pu	mps,
parameters shall be declared f	for low-temperatu	ire application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η _s	137	%
Declared capacity for heating to outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	3,10	
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,47	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	4,15	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	3,21	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	-	Supplementary heater			•
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	Р _{то}	0,003	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3701	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB, Box	309, SE-341 26	liunghy Tel +4	16 372 88000 www.ctc.se		-	

Information for heat pump space heaters and heat pump combination heaters Warm climate and Low temperature

Enertech AB 341 26 Ljungby



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Model(s):		CTC EcoPart 41	0 + CTC EcoLo	gic				
Air-to-water heat pump:		No		Energy efficiency class:		-		
Water-to-water heat pump:		No		Controller class:	VII	-		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%		
Low-temperature heat pump:		No		Package efficiency:	183	%		
Equipped with a supplementar	ry heater:	No		Package efficiency class:		-		
Heat pump combination heate	er:	No						
Parameters shall be declared f	or medium-tempe	erature applicat	ion, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pur	nps,	
parameters shall be declared f	or low-temperatu	re application.						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	n _s	179	%	
Declared capacity for heating f outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T				
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-	
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,60	-	
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,82	-	
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,10	-	
T j = bivalent temperature	Pdh	10	kW	T j = bivalent temperature	COPd	4,67	-	
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-	
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-	
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C	
Power consumption in modes	other than active	mode	-	Supplementary heater				
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW	
Thermostat-off mode	P _{TO}	0,014	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	P _{CK}	0.000	kW					
Other items								
				4			1	
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	3079	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h	
For heat pump combination he	eater:							
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%	
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ	
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se				

Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature

Enertech AB 341 26 Ljungby



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Model(s):		CTC EcoPart 41	LO + CTC EcoLo	gic			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	14 2	%	
Equipped with a supplementar	ry heater:	No		Package efficiency class:	A++	-	
Heat pump combination heate	er:	No					
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	or low-temperation	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	138	%
Declared capacity for heating f outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T
T j = – 7 °C	Pdh	9,4	kW	T j = – 7 °C	COPd	3,28] -
T j = + 2 °C	Pdh	9,5	kW	T j = +2 °C	COPd	3,66	- [
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	4,03	-
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,41	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,28	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	-	Supplementary heater			5
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	Р _{то}	0,003	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Рск	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5999	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:			-			
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB Boy	200 SE-3/1 26	Liunghy Tel +/	16 372 88000 www.ctc.se		-	

Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature

Enertech AB 341 26 Ljungby



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Model(s):		CTC EcoPart 41	LO + CTC EcoLo	gic				
Air-to-water heat pump:		No		Energy efficiency class:	A++	-		
Water-to-water heat pump:		No		Controller class:	VII	-		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%		
Low-temperature heat pump:		No		Package efficiency:	185	%		
Equipped with a supplementa	ry heater:	No		Package efficiency class:	A+++	-		
Heat pump combination heate	er:	No						
Parameters shall be declared i	for medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	ature heat pu	mps,	
parameters shall be declared i	for low-temperatu	re application.	11		C h. a l	Malua		
Item	Symbol	value	Unit	Item	Symbol	value		
Rated heat output (*)	Prated	11	kW	efficiency	η _s	181	%	
Declared capacity for heating outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature				
T j = – 7 °C	Pdh	10,0	kW	Т ј = — 7 °С	COPd	4,69	-	
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,88	-	
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,05	-	
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	5,22	-	
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,69	-	
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-	
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-	
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C	
Power consumption in modes	other than active	mode	-	Supplementary heater			1	
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW	
Thermostat-off mode	Р _{то}	0,014	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	Р _{СК}	0,000	kW					
Other items							_	
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	4944	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h	
For heat pump combination h	eater:							
Declared load profile		na		Water heating energy efficiency	η _{wh}	na	%	
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ	
Contact details	Enertech AB. Box	309. SE-341 26	liungby Tel +4	6 372 88000 www.ctc.se				

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Medium temperature**

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC EcoLog	ic			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	145	%	
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate	er:	No					
Parameters shall be declared f	for medium-tempe	erature applicat	ion, except for l	ow-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η _s	141	%
Declared capacity for heating outdoor temperature T j	for part load at ind	loor temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	9,5	kW	T j = − 7 °C	COPd	3,58] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,96	-
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	4,29	-
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,54	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,27	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater			1
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,2	kW
Thermostat-off mode	Р _{то}	0,003	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6939	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:					-	
Declared load profile		na		Water heating energy efficiency	η _{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
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Information for heat pump space heaters and heat pump combination heaters Cold climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC EcoLogi	C			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	188	%	
Equipped with a supplementar	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate	er:	No					
Parameters shall be declared f	or medium-tempe	erature applicati	on, except for lo	ow-temperature heat pumps. For	low- tempera	ture heat pur	nps,
parameters shall be declared f	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	n _s	184	%
Declared capacity for heating foutdoor temperature T j	for part load at ind	loor temperatur	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rati tdoor temper	o for ature T j
T j = – 7 °C	Pdh	10,1	kW	T j = – 7 °C	COPd	4,89	-
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	5,05	-
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,16	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,19	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,66	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-20	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	1	Supplementary heater			1
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,6	kW
Thermostat-off mode	P _{TO}	0,014	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5414	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:						
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB. Box	309. SE-341 26	Liungby Tel +46	372 88000 www.ctc.se			

Information for heat pump space heaters and heat pump combination heaters Warm climate and Medium temperature

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 41	0 + CTC EcoZeni	th i350/ i350F			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	141	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-tempe	erature applicat	ion, except for lo	ow-temperature heat pumps. For	low- tempera	ature heat pui	nps,
parameters shall be declared	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	n _s	137	%
Declared capacity for heating outdoor temperature T j	for part load at inc	loor temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ry energy rati tdoor temper	o for ature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	3,10	-
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,47	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	4,15	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	3,21	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	Р _{то}	0,003	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3701	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:			=			
Declared load profile/		XL / A		Water heating energy	n	102	%
Energy efficiency class				efficiency	· Iwn		,0
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB Box	309 SE-341 26	liunghy Tel +46	372 88000 www.ctc.se	170710		

Information for heat pump space heaters and heat pump combination heaters Warm climate and Low temperature

Enertech AB 341 26 Liungby



warm climate and LOW ter	iperature				<u></u>	יאפי	
Model(s):		CTC EcoPart 41	.0 + CTC EcoZeni	th i350/ i350F			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	183	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-tempe	erature applicat	ion, except for lo	ow-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	179	%
Declared capacity for heating outdoor temperature T j	for part load at inc	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,60	-
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,82	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,10	-
T j = bivalent temperature	Pdh	10	kW	T j = bivalent temperature	COPd	4,67	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	.	Supplementary heater		r	7
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	P _{TO}	0,014	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3079	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	η_{wh}	102	%
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB Box	309 SE-341 26	liunghy Tel +46	372 88000 www.ctc.se	170710	•	

Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature

Enertech AB 341 26 Ljungby



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Model(s):		CTC EcoPart 41	10 + CTC EcoZeni	ith i350/ i350F			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	142	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:	A++	-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	tion, except for lo	ow-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	138	%
Declared capacity for heating outdoor temperature T j	for part load at ind	door temperatu	ire 20 °C and	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rati tdoor temper	io for rature T j
T j = – 7 °C	Pdh	9,4	kW	T j = – 7 °C	COPd	3,28] -
T j = + 2 °C	Pdh	9,5	kW	T j = +2 °C	COPd	3,66	-
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	4,03	-
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,41	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,28	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	- I	Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,003	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items		•					
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5999	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL/A		Water heating energy	n _{wb}	102	%
Energy efficiency class		,		efficiency	IWII		
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB, Box	309, SE-341 26	Liungby Tel +46	372 88000 www.ctc.se	170710	-	

Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature

Enertech AB 341 26 Liungby



Average climate and LOW t	emperature				541 20 Ljui	ignà 🔽	
Model(s):		CTC EcoPart 41	LO + CTC EcoZe	nith i350/ i350F			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	185	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	nture heat pu	mps,
parameters shall be declared	for low-temperate	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	181	%
Declared capacity for heating outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	10,0	kW	T j = – 7 °C	COPd	4,69] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,88	-
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,05	-
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	5,22	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,69	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na] -
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	-	Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	Р _{то}	0,014	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4944	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL/A		Water heating energy	n _{wb}	102	%
Energy efficiency class			1	efficiency	- IWII		
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB. Box	309. SE-341 26	Liungby Tel +4	6 372 88000 www.ctc.se	170710		

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Medium temperature**

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 41	0 + CTC EcoZen	ith i350/ i350F			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	145	%	
Equipped with a supplementa	iry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	ion, except for	ow-temperature heat pumps. For	low- tempera	iture heat pu	mps,
parameters shall be declared	for low-temperatu	ire application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	seasonal space heating energy efficiency	η _s	141	%
Declared capacity for heating outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	9,5	kW	T j = – 7 °C	COPd	3,58] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,96	
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	4,29	-
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,54	- 1
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,27	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater		-	7
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,2	kW
Thermostat-off mode	Р _{то}	0,003	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6939	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL/A		Water heating energy	n _{wh}	102	%
Energy efficiency class		•		efficiency			-
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB. Box	309. SE-341 26	Liungby Tel +46	372 88000 www.ctc.se	170710		

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 41	0 + CTC EcoZeni	th i350/ i350F			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	188	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	ion, except for lo	ow-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared	for low-temperatu	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	184	%
Declared capacity for heating outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	10,1	kW	T j = – 7 °C	COPd	4,89] -
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	5,05	- 1
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,16	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,19	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,66	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-20	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na] -
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,6	kW
Thermostat-off mode	Р _{то}	0,014	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{ск}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5414	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL / A		Water heating energy	n _{wb}	102	%
Energy efficiency class		, - •		efficiency	- 19/1		
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB. Box	309. SE-341 26	Liungby Tel +46	372 88000 www.ctc.se	170710	-	-

Information for heat pump space heaters and heat pump combination heaters Warm climate and Medium temperature

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC EcoZei	nith 250			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	128	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:		-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared f	for medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η _s	124	%
Declared capacity for heating to outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	nry energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	2,86	- [
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,20	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	3,78	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	•	Supplementary heater		r	1
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	P _{TO}	0,026	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4090	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	η_{wh}	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Eportoch AP Pov	200 SE 241 26	Liunghy Tol. (4	6 272 98000 www.etc.co			

Information for heat pump space heaters and heat pump combination heaters Warm climate and I ow temperature

Enertech AB 341 26 Liungby



warm climate and Low ter	nperature				341 26 Ljur	igby	
Model(s):		CTC EcoPart 41	0 + CTC EcoZen	ith 250			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	156	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-tempe	erature applicat	ion, except for l	ow-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared	for low-temperatu	ire application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	efficiency	n _s	152	%
Declared capacity for heating outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performation part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,16	
I J = + 7 °C	Pdh	10,1	kW	J = +7 °C	COPd	4,35	- I
$I_{J} = +12 C$	Pdh	10,2	kW	1 J = +12 C	COPd	4,58	
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,22	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,96	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater		r	-
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	P _{TO}	0,082	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{ск}	0,000	kW		ļ		
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			1
Annual energy consumption	Q _{HE}	3592	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	η_{wh}	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB. Box	309. SE-341 26	Liungby Tel +46	372 88000 www.ctc.se		-	

Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature

Enertech AB 341 26 Ljungby



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Model(s):		CTC EcoPart 41	LO + CTC EcoZe	enith 250			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	129	%	
Equipped with a supplementar	ry heater:	yes		Package efficiency class:	A++	-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	or low-temperatu	ire application.					
Item	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	125	%
Declared capacity for heating f outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	9,4	kW	T j = – 7 °C	COPd	3,02] -
T j = + 2 °C	Pdh	9,6	kW	T j = +2 °C	COPd	3,39	- 1
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	3,69	-
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,00	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,08	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	-	Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,8	kW
Thermostat-off mode	P _{TO}	0,026	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6900	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
Declared load profile/		L/A		Water heating energy	n	x	%
Energy efficiency class		-,	1	efficiency	IWII	~	
Daily electricity consumption	Qelec	×	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	x	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB Box	309 SE-341 26	Liunghy Tel +4	16 372 88000 www.ctc.se			

Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature

Enertech AB 341 26 Liungby



					,			
Model(s):		CTC EcoPart 41	0 + CTC EcoZe	enith 250				
Air-to-water heat pump:		No		Energy efficiency class:	A++	-		
Water-to-water heat pump:		No		Controller class:	VII	-		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%		
Low-temperature heat pump:		No		Package efficiency:	161	%		
Equipped with a supplementa	ry heater:	yes		Package efficiency class:	A++	-		
Heat pump combination heate	er:	Yes						
Parameters shall be declared f	or medium-temp	erature applicati	ion, except for	r low-temperature heat pumps. For	ow- tempera	ture heat pur	nps,	
parameters shall be declared f	for low-temperatu	re application.						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η _s	157	%	
Declared capacity for heating to outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T				
T j = – 7 °C	Pdh	10,0	kW	T j = − 7 °C	COPd	4,24	-	
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,40	-	
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,54	-	
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	4,68	-	
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,27	-	
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-	
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-	
Bivalent temperature	T _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient (**)	Cdh	0,96	-	Heating water operating limit temperature	WTOL	65	°C	
Power consumption in modes	other than active	mode		Supplementary heater				
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,9	kW	
Thermostat-off mode	P _{TO}	0,082	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	Р _{ск}	0,000	kW					
Other items		-					ı	
				4			1	
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	5938	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h	
For heat pump combination he	eater:							
Declared load profile/		L/A		Water heating energy	n	87	%	
Energy efficiency class		-17		efficiency	' Iwh		70	
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ	
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	46 372 88000 www.ctc.se	161107			

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Medium temperature**

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	l0 + CTC EcoZe	nith 250			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	131	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:		-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared f	for medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	n _s	127	%
Declared capacity for heating outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ry energy rat tdoor tempe	io for ature T j
T j = – 7 °C	Pdh	9,5	kW	⊤ j = − 7 °C	COPd	3,30	-
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,62	-
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	3,90	-
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,11	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,02	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	-	Supplementary heater			1
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,2	kW
Thermostat-off mode	P _{TO}	0,026	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7647	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:						
Declared load profile/		L/A		Water heating energy	η_{wh}	87	%
Energy efficiency class			1	etticiency			
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB Box	309 SE-341 26	Liunghy Tel +4	6 372 88000 www.ctc.se			

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC EcoZen	ith 250			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	162	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:		-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared	for medium-tempe	erature applicati	on, except for l	ow-temperature heat pumps. For I	low- tempera	iture heat pur	nps,
parameters shall be declared	for low-temperatu	re application.	11		C	Malara	1114
Item	Symbol	value	Unit	Item	Symbol	value	Unit
Rated heat output (*)	Prated	11	kW	efficiency	η _s	158	%
Declared capacity for heating outdoor temperature T j	for part load at inc	loor temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ry energy rati Itdoor temper	o for ature T j
T j = – 7 °C	Pdh	10,1	kW	T j = – 7 °C	COPd	4,42	-
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	4,54	-
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,64	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,66	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,26	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,96	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	,	Supplementary heater			1
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,2	kW
Thermostat-off mode	Р _{то}	0,082	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6656	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile/		L/A		Water heating energy	η_{wh}	x	%
Energy efficiency class		-		etticiency			
Daily electricity consumption	Qelec	x	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	x	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB, Box	309, SE-341 26	liunghy Tel +46	372 88000 www.ctc.se			

Information for heat pump space heaters and heat pump combination heaters Warm climate and Medium temperature

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 4	10 + CTC EcoZe	enith 550			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	128	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:		-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared	for medium-temp	erature applica	tion, except for	r low-temperature heat pumps. For	low- tempera	nture heat pu	ımps,
parameters shall be declared	for low-temperate	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	n _s	124	%
Declared capacity for heating outdoor temperature T j	for part load at in	door temperatu	ire 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	tio for erature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] - [
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	2,86	-
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,20	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	3,78	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na] -
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	-	Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	Р _{то}	0,019	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4070	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL / A		Water heating energy	n _{wb}	101	%
Energy efficiency class			1	efficiency	- IWII		-
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB, Box	x 309. SE-341 26	Liungby Tel +4	46 372 88000 www.ctc.se			

Information for heat pump space heaters and heat pump combination heaters Warm climate and I ow temperature

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 41	0 + CTC EcoZeni	th 550			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	160	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-tempe	erature applicat	ion, except for lo	ow-temperature heat pumps. For	low- tempera	ture heat pui	nps,
parameters shall be declared	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	n _s	156	%
Declared capacity for heating outdoor temperature T j	for part load at inc	loor temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rati tdoor temper	o for ature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,16	-
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,35	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,58	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,22	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,97	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	.	Supplementary heater		r	1
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	Р _{то}	0,051	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3506	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	η_{wh}	101	%
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB Box	309 SE-341 26	liunghy Tel +46	372 88000 www.ctc.se			

Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature

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Model(s):		CTC EcoPart 41	.0 + CTC EcoZei	nith 550			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	141	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:	A++	-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared f	for medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	for low-temperatu	ire application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	η _s	137	%
Declared capacity for heating outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	iry energy rat itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	9,4	kW	T j = – 7 °C	COPd	3,02] -
T j = + 2 °C	Pdh	9,6	kW	T j = +2 °C	COPd	3,39	- 1
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	3,69	- I
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,00	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,08	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	1	Supplementary heater		r	3
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,8	kW
Thermostat-off mode	P _{TO}	0,019	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{ск}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6880	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	η_{wh}	101	%
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB Box	309 SE-3/1 26	liunghy Tel +4	6 372 88000 www.ctc.se			-

Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 41	0 + CTC EcoZen	ith 550			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	164	%	
Equipped with a supplementar	ry heater:	yes		Package efficiency class:	A++	-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared f	or medium-tempe	erature applicat	ion, except for I	ow-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	160	%
Declared capacity for heating f outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T
T j = – 7 °C	Pdh	10,0	kW	T j = – 7 °C	COPd	4,24] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,39] -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,53	-
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	4,68	- 1
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,24	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,97	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	Р _{то}	0,051	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/I
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5582	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	η_{wh}	101	%
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kW
Annual electricity	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Eportoch AP Poy	200 SE 241 26	Liungby Tol ±46	272.88000	161107	ļ	·

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Medium temperature**

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC EcoZe	nith 550				
Air-to-water heat pump:		No		Energy efficiency class:		-		
Water-to-water heat pump:		No		Controller class:	VII	-		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%		
Low-temperature heat pump:		No		Package efficiency:	132	%		
Equipped with a supplemental	ry heater:	yes		Package efficiency class:		-		
Heat pump combination heate	er:	Yes						
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	iture heat pur	nps,	
parameters shall be declared f	or low-temperatu	re application.	11	lt	Cumhal	Value	11	
Item	Symbol	value	Unit	Item	Symbol	value	Unit	
Rated heat output (*)	Prated	10	kW	efficiency	η _s	128	%	
Declared capacity for heating foutdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T				
T j = – 7 °C	Pdh	9,5	kW	T j = – 7 °C	COPd	3,30	-	
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,62	-	
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	3,90	-	
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,11	-	
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,02	-	
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-	
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-	
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C	
Power consumption in modes	other than active	mode	1	Supplementary heater			i	
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,2	kW	
Thermostat-off mode	Р _{то}	0,019	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	Р _{СК}	0,000	kW					
Other items								
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	7618	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h	
For heat pump combination he	eater:							
Declared load profile/		XL/A		Water heating energy	η_{wh}	101	%	
Energy efficiency class		•		efficiency		-		
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh	
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ	
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	6 372 88000 www.ctc.se				

Information for heat pump space heaters and heat pump combination heaters Cold climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC EcoZe	nith 550			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	165	%	
Equipped with a supplementa	ry heater:	yes		Package efficiency class:		-	
Heat pump combination heate Parameters shall be declared f	er: for medium-temp	Yes erature applicati	ion, except for	low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η _s	161	%
Declared capacity for heating outdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	10,1	kW	⊤ j = − 7 °C	COPd	4,42] -
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	4,54	-
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,64	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,66	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,26	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,97	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,2	kW
Thermostat-off mode	Р _{то}	0,051	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6528	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL / A		Water heating energy	n _{wb}	101	%
Energy efficiency class]	,	1	efficiency	- 10/11		
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB, Box	309, SF-341 26	liungby Tel +4	6 372 88000 www.ctc.se		-	

Information for heat pump space heaters and heat pump combination heaters Warm climate and Medium temperature

Enertech AB 341 26 Ljungby



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Model(s):		CTC EcoPart 41	0 + CTC Basics	tyrning			
Air-to-water heat pump:		No		Energy efficiency class:			
Water-to-water heat pump:		No		Controller class:	1	-	
Brine-to-water heat pump:		Yes		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	138	%	
Equipped with a supplementar	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate	er:	No					
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared f	or low-temperatu	ire application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η _s	137	%
Declared capacity for heating f outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and οι	ary energy rat Itdoor tempe	io for rature T
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	3,10	- [
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,47	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	4,15	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	3,21	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	,	Supplementary heater			5
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	P _{TO}	0,003	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3701	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB Box	309 SE-341 26	Liunghy Tel +4	6 372 88000 www.ctc.se	170410	-	

Information for heat pump space heaters and heat pump combination heaters **Warm climate and Low temperature**

Enertech AB 341 26 Liungby



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Model(s):		CTC EcoPart 41	0 + CTC Basicsty	/rning			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	I	-	
Brine-to-water heat pump:		Yes		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	180	%	
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate	er:	No					
Parameters shall be declared	for medium-tempe	erature applicat	ion, except for lo	ow-temperature heat pumps. For	low- tempera	iture heat pu	mps,
parameters shall be declared	for low-temperatu	re application.					
Item	Symbol	value	Unit	Item	Symbol	value	
Rated heat output (*)	Prated	11	kW	efficiency	η _s	179	%
Declared capacity for heating outdoor temperature T j	for part load at ind	re 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j				
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,60	- 1
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,82	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,10	-
T j = bivalent temperature	Pdh	10	kW	T j = bivalent temperature	COPd	4,67	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	Р _{то}	0,014	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{ск}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3079	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination h	eater:						
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB Box	200 SE-3/1 26	Liungby Tol +46	272 88000 www.ctc.co	170/10		

Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC Basicsty	yrning				
Air-to-water heat pump:		No		Energy efficiency class:	A++	-		
Water-to-water heat pump:		No		Controller class:	I	-		
Brine-to-water heat pump:		Yes		Controller contribution:	1	%		
Low-temperature heat pump:		No		Package efficiency:	139	%		
Equipped with a supplementa	ry heater:	No		Package efficiency class:	A++	-		
Heat pump combination heate	er:	No						
Parameters shall be declared f	for medium-tempe	erature applicati	on, except for l	ow-temperature heat pumps. For	low- tempera	ature heat pur	nps,	
Itom	Symbol	Value	Unit	ltom	Symbol	Value	Linit	
item	Symbol	value		Seasonal snace heating energy	Symbol	Value	Unit	
Rated heat output (*)	Prated	11	kW	efficiency	η _s	138	%	
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\mathrm{C}$ and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j				
T j = – 7 °C	Pdh	9,4	kW	T j = – 7 °C	COPd	3,28	-	
T j = + 2 °C	Pdh	9,5	kW	T j = +2 °C	COPd	3,66	-	
j = + / C	Pdh	9,7	KW	J = +/ C $T_{i} = +12 °C$	COPd	4,03	-	
1 j = + 12 C	Pan	9,9	KVV	1 J = +12 C	сора	4,41	-	
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,28	-	
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-	
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-	
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C	
Power consumption in modes	other than active	mode		Supplementary heater	_	r	i .	
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW	
Thermostat-off mode	Р _{то}	0,003	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	Р _{СК}	0,000	kW					
Other items							1	
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	5999	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h	
For heat pump combination h	eater:					-		
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%	
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ	
Contact details	Enertech AB, Box	309 SE-341 26	liunghy Tel +46	372.88000 www.ctc.se	170410	ļ	L	

Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoPart 41	0 + CTC Basicst	yrning					
Air-to-water heat pump:		No		Energy efficiency class:	A++				
Water-to-water heat pump:		No		Controller class:	1	-			
Brine-to-water heat pump:		Yes		Controller contribution:	1	%			
Low-temperature heat pump:		No		Package efficiency:	182	%			
Equipped with a supplementa	ry heater:	No		Package efficiency class:	A+++	-			
Heat pump combination heate	er:	No							
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	ature heat pu	mps,		
parameters shall be declared f	for low-temperatu	ire application.	1114		C h. a. l.	Malua	1114		
Item	Symbol	value	Unit	Item	Symbol	value			
Rated heat output (*)	Prated	11	kW	efficiency	η _s	181	%		
Declared capacity for heating for part load at indoor temperature 20 $^\circ C$ and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j					
T j = – 7 °C	Pdh	10,0	kW	⊤ j = − 7 °C	COPd	4,69	-		
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,88	-		
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,05	-		
i j = + 12 °C	Pdh	10,3	kW	j = +12 °C	COPd	5,22	-		
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,69	-		
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-		
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-		
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C		
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-		
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C		
Power consumption in modes	other than active	mode		Supplementary heater			1		
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW		
Thermostat-off mode	Р _{то}	0,014	kW						
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric			
Crankcase heater mode	Р _{СК}	0,000	kW						
Other items							_		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h		
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water					
Annual energy consumption	Q _{HE}	4944	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h		
For heat pump combination he	eater:								
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%		
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh		
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ		
Contact details	Enertech AB. Box	309, SE-341 26	l jungby Tel +46	372 88000 www.ctc.se	170410	-			

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Medium temperature**

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoPart 410 + CTC Basics		0 + CTC Basicsty	/rning				
Air-to-water heat pump:		No		Energy efficiency class:		-		
Water-to-water heat pump:		No		Controller class:	I.	-		
Brine-to-water heat pump:		Yes		Controller contribution:	1	%		
Low-temperature heat pump:		No		Package efficiency:	142	%		
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-		
Heat pump combination heate	er:	No						
Parameters shall be declared i	for medium-tempe	erature applicati	ion, except for lo	ow-temperature heat pumps. For	low- tempera	ature heat pui	nps,	
parameters shall be declared i	for low-temperatu	re application.	11		C h. al	Malua	11	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	10	kW	efficiency	η _s	141	%	
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\text{C}$ and outdoor temperature T j			re 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j				
T j = – 7 °C	Pdh	9,5	kW	T j = – 7 °C	COPd	3,58	-	
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,96	-	
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	4,29	-	
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,54	-	
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,27	-	
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-	
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-	
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C	
Power consumption in modes	other than active	mode		Supplementary heater			i	
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,2	kW	
Thermostat-off mode	Р _{то}	0,003	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	Р _{СК}	0,000	kW					
Other items								
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	6939	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h	
For heat pump combination h	eater:							
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%	
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ	
Contact details	Enertech AB. Box	309. SE-341 26	Liungby Tel +46	372 88000 www.ctc.se	170410			

Information for heat pump space heaters and heat pump combination heaters Cold climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoPart 410 + CTC Basics		0 + CTC Basicsty	rning				
Air-to-water heat pump:		No		Energy efficiency class:		-		
Water-to-water heat pump:		No		Controller class:	1	-		
Brine-to-water heat pump:		Yes		Controller contribution:	1	%		
Low-temperature heat pump:		No		Package efficiency:	185	%		
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-		
Heat pump combination heate	er:	No						
Parameters shall be declared t	for medium-tempe	erature applicati	ion, except for lo	ow-temperature heat pumps. For	low- tempera	iture heat pur	nps,	
Item	Symbol		Unit	Item	Symbol	Value	Unit	
item	Symbol	Value		Seasonal space heating energy	Symbol	Value		
Rated heat output (*)	Prated	11	kW	efficiency	η _s	184	%	
Declared capacity for heating outdoor temperature T j	for part load at inc	loor temperatu	re 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j				
T j = – 7 °C	Pdh	10,1	kW	T j = – 7 °C	COPd	4,89	-	
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	5,05	-	
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,16	-	
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,19	-	
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,66	-	
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-	
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-	
Bivalent temperature	T _{biv}	-20	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C	
Power consumption in modes	other than active	mode	, I	Supplementary heater		r	1	
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,6	kW	
Thermostat-off mode	Р _{то}	0,014	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	Р _{СК}	0,000	kW					
Other items							_	
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	5414	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h	
For heat pump combination h	eater:							
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%	
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ	
Contact details	Enertech AB, Box	309. SE-341 26	Liungby Tel +46	372 88000 www.ctc.se	170410			