

Templifier™ Water Heaters—600 to 19,200 MBh

- Designed to economically turn waste heat into useful heat for loads such as space heating and domestic hot water
- Heats water more economically than fossil fuel or electric resistance heaters
- Can reduce the burden on overloaded boilers and/or cooling towers, thereby delaying or eliminating the capital expenditure required to increase their capacity
- Model TSC Templifier units are equipped with centrifugal compressors. Capacities range from 3000 to 19,200 MBh with hot water temperatures up to 140°F (60°C)
- Model TGZ Templifier units are equipped with scroll compressors using R-134a. Capacities range from 600 to 3100 MBh with hot water temperatures up to 160°F (71°C)
- Controls flexibility—MicroTech® II controls with our Open Choices™ feature for easy integration with the BAS of your choice

For more detail, refer to Catalog Templifier. For the most current information, refer to www.mcquay.com.



Model TSC Templifier Water Heater
3000 to 19,200 MBh (880 to 5,630 kW)
R-134a



Model TGZ Templifier Water Heater
600 to 3100 MBh (176 to 911 kW)
R-134a



Available LONMARK certified



Modbus®

TSC Centrifugal Compressor Templifier Water Heater—Physical Data

TSC 063 through 126, R-134a

TSC unit size	TSC 063	TSC 079	TSC 087	TSC 100	TSC 126
Compressor					
Model	CE 063	CE 079	CE 087	CE 100	CE 126
Number	1	1	1	1	1
Motor speed 60/50 Hz	3550/2960	3550/2960	3550/2960	3550/2960	3550/2960
Condenser					
Diameter/length, in/ft	22/12	26/12	36/12	36/12	36/12
Diameter/length, (mm/mm)	(559/3658)	(660/3658)	(914/3658)	(914/3658)	(914/3658)
Water volume, gal (L)	76 (290)	111 (419)	234 (884)	234 (884)	234 (884)
Two pass connection size, in (mm)	8 (203)	8 (203)	12 (305)	12 (305)	12 (305)
Working press., water, psi (kPa)	150 (1034)	150 (1034)	150 (1034)	150 (1034)	150 (1034)
Working press., refig, psi (kPa)	300 (2070)	300 (2070)	300 (2070)	300 (2070)	300 (2070)
Evaporator					
Diameter/length, in/ft	26/12	30/12	42/12	42/12	48/12
Diameter/length, (mm/mm)	(660/3658)	(762/3658)	(1067/3658)	(1067/3658)	(1219/3658)
Water volume, gal (L)	72 (273)	101 (381)	222 (841)	222 (841)	327 (1237)
Two pass connection size, in (mm)	8 (203)	10 (254)	14 (356)	14 (356)	18 (457)
Working press., water, psi (kPa)	150 (1034)	150 (1034)	150 (1034)	150 (1034)	150 (1034)
Working press., refig, psi (kPa)	200 (1380)	200 (1380)	200 (1380)	200 (1380)	200 (1380)
Dimensions					
Length, in (mm)	169 (4293)	175 (4445)	175 (4445)	175 (4445)	175 (4445)
Width w/o starter, in (mm)	48 (1219)	56 (1422)	86 (2184)	86 (2184)	104 (2642)
Height, in (mm)	80 (2032)	88 (2235)	111 (2819)	99 (2515)	99 (2515)
Weights, (w/starter)					
Shipping, lb (kg)	12,777 (5796)	15,835 (7183)	24,657 (11,170)	27,657 (13,545)	33,224 (15,070)
Operating, lb (kg)	14,017 (6358)	17,501 (7938)	28,460 (12,892)	31,460 (14,270)	38,823 (17,610)
Weights, (w/o starter)					
Shipping, lb (kg)	11,577 (5251)	14,635 (6638)	23,457 (10,626)	26,457 (12,001)	32,024 (14,526)
Operating, lb (kg)	12,517 (5678)	16,301 (7394)	27,260 (12,349)	30,260 (13,726)	37,623 (17,066)

Templifier Water Heaters

TGZ Scroll Compressor Templifier Water Heaters—Physical Data

TGZ 040A through 100A, R-134a

TGZ unit size	TGZ 040A	TGZ 050A	TGZ 060A	TGZ 080A	TGZ 100A
Compressors					
Nominal horsepower	10	13	15	20	25
Number per circuit	2	2	2	2	2
Unloading steps, %	25/50/75/100	25/50/75/100	25/50/75/100	25/50/75/100	25/50/75/100
Oil charge, per compressor, oz (L)	110 (3.3)	110 (3.3)	110 (3.3)	159 (4.7)	200 (5.9)
Condenser					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Diameter, in (mm)	10.75 (273)	10.75 (273)	10.75 (273)	14 (356)	14 (356)
Tube length, in (mm)	122 (3099)	122 (3099)	122 (3099)	122 (3099)	122 (3099)
Design W.P. psig, (kPa): refrigerant side	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
Design W.P. psig, (kPa): water side	232 (1599)	232 (1599)	232 (1599)	232 (1599)	232 (1599)
Relief valve setting, psig (kPa)	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
No. of water passes - standard	4	4	4	4	4
No. of water passes - optional	2	2	2	2	2
Water volume, gal (L)	13.6 (51.5)	13.6 (51.5)	16.3 (61.8)	27.5 (104)	27.5 (104)
Pump down capacity, lb (kg)	121.7 (55.2)	121.7 (55.2)	107.3 (48.7)	186 (84)	186 (84)
Two pass connection size, in (mm)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
Four pass connection size, in (mm)	3 (76)	3 (76)	3 (76)	4 (102)	4 (102)
Relief valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Purge valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Vent and drain, in (mm) FPT	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
Liquid subcooling	Intregal	Intregal	Intregal	Intregal	Intregal
Evaporator—brazed plate-to-plate					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Water volume, gal (L)	3.7 (14.0)	5.0 (18.9)	5.0 (18.9)	8.7 (32.9)	8.7 (32.9)
Design W.P. psig, (kPa): refrigerant side	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Relief valve setting, psig (kPa)	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Design W.P. psig, (kPa): water side	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
In & out victaulic water connections, in (mm)	3 (76)	3 (76)	3 (76)	3 (76)	3 (76)
Drain and vent	Field supplied	Field supplied	Field supplied	Field supplied	Field supplied
Dimensions					
Length, in (mm)	139 (3530)	139 (3530)	139 (3530)	153 (3886)	153 (3886)
Width, in (mm)	33 (838)	33 (838)	33 (838)	32.5 (826)	32.5 (826)
Height, in (mm)	63.2 (1605)	63.2 (1605)	63.2 (1605)	65.5 (1664)	65.5 (1664)
Weights, (w/o starter)					
Shipping, lb (kg)	2434 (1104)	2464 (1117)	2496 (1132)	4116 (1867)	4418 (2004)
Operating, lb (kg)	2604 (1181)	2644 (1199)	2699 (1224)	4422 (2005)	4749 (2154)

Templifier Water Heaters

TGZ 110A through 190A, R-134a

TGZ unit size	TGZ 110A	TGZ 120A	TGZ 150A	TGZ 170A	TGZ 190A
Compressors					
Nominal horsepower	25/30	30	25/25	25/30	30/30
Number per circuit	2/2	2/2	3/3	3/3	3/3
Staging, 4 stages, circuit #1 in lead	23/50/73/100	25/50/75/100	17/33/50/67/83/100	15/33/48/67/81/100	17/33/50/67/83/100
Staging, 4 stages, circuit #2 in lead	27/50/77/100	25/50/75/100	17/33/50/67/83/100	19/33/52/67/85/100	17/33/50/67/83/100
Oil charge, per compressor, oz (L)	200 (5.9)/213 (6.3)	213 (6.3)	200 (5.9)	200 (5.9)/213 (6.3)	213 (6.3)
Condenser					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Diameter, in (mm)	16.0 (406.4)	16.0 (406.4)	16.0 (406.4)	16.0 (406.4)	16.0 (406.4)
Tube length, in (mm)	120 (3048)	120 (3048)	144 (3658)	144 (3658)	144 (3658)
Design W.P. psig, (kPa): refrigerant side	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
Design W.P. psig, (kPa): water side	232 (1599)	232 (1599)	232 (1599)	232 (1599)	232 (1599)
Relief valve setting, psig (kPa)	500 (3447)	500 (3447)	500 (3447)	500 (3447)	500 (3447)
No. of water passes - standard	4	4	4	4	4
No. of water passes - optional	2	2	2	2	2
Water volume, gal (L)	35.4 (134)	35.4 (134)	42.5 (160.9)	47.1 (178.4)	47.1 (178.4)
Pump down capacity, lb (kg)	252 (114)	252 (114)	302 (137)	277 (126)	277 (126)
Two pass connection size, in (mm)	5 (127)	5 (127)	5 (127)	5 (127)	5 (127)
Four pass connection size, in (mm)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
Relief valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Purge valve, flare, in (mm)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
Vent and drain, in (mm) FPT	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
Liquid subcooling	Intregal	Intregal	Intregal	Intregal	Intregal
Evaporator—brazed plate-to-plate					
Number	1	1	1	1	1
Number of refrigerant circuits	2	2	2	2	2
Water volume, gal (L)	9.7 (36.7)	9.7 (36.7)	57.6 (218)	56.9 (215.4)	56.9 (215.4)
Design W.P. psig, (kPa): refrigerant side	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Relief valve setting, psig (kPa)	450 (3102)	450 (3102)	450 (3102)	450 (3102)	450 (3102)
Design W.P. psig, (kPa): water side	450 (3102)	450 (3102)	150 (1034)	150 (1034)	150 (1034)
In & out victaulic water connections, in (mm)	3 (76)	3 (76)	8 (203)	8 (203)	8 (203)
Drain and vent	Field supplied	Field supplied	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
Dimensions					
Length, in (mm)	153 (3886)	153 (3886)	139 (3530)	153 (3886)	153 (3886)
Width, in (mm)	34.5 (876)	34.5 (876)	33 (838)	32.5 (826)	32.5 (826)
Height, in (mm)	67 (1702)	67 (1702)	63.2 (1605)	65.5 (1664)	65.5 (1664)
Weights, (w/o starter)					
Shipping, lb (kg)	4967 (2253)	4913 (2228)	7019 (3183)	7101 (3220)	7082 (3212)
Operating, lb (kg)	5373 (2437)	5319 (2412)	7877 (3572)	7991 (3624)	7972 (3616)