

TQSDT

VersatiV

Monobloc TYPE

R290

Product model	-	TH-V06EM1-R	TH-V08EM1-R	TH-V10EM3-R	TH-V12EM3-R	TH-V14EM3-R	TH-V16EM3-R
Series Name	-	Air-to-water Heat Pump	Air-to-water Heat Pump	Air-to-water Heat Pump	Air-to-water Heat Pump	Air-to-water Heat Pump	Air-to-water Heat Pump
Heating capacity (floor heating)	kW	6,20	8,40	10,00	12,00	14,00	15,50
Heating capacity (floor heating)	Btu/h	21.154,40	28.660,80	34.120,00	40.944,00	47.768,00	52.886,00
Cooling capacity (floor cooling)	kW	6,20	8,30	10,00	12,00	14,00	15,50
Cooling capacity (floor cooling)	Btu/h	21.154,40	28.319,60	34.120,00	40.944,00	47.768,00	52.886,00
Heating capacity (fan coil or radiator)	kW	6,10	8,20	10,00	12,00	14,00	15,50
Heating capacity (fan coil or radiator)	Btu/h	20.813,20	27.978,40	34.120,00	40.944,00	47.768,00	52.886,00
Cooling capacity (fan coil)	kW	6,10	7,50	8,90	11,60	12,80	14,00
Cooling capacity (fan coil)	Btu/h	20.813,20	25.590,00	30.366,80	39.579,20	43.673,60	47.768,00
Heating Capacity (A-7,W35)	kW	5,50	7,00	8,00	10,00	11,50	12,00
Heating Capacity (A-7,W35)	Btu/h	18.766,00	23.884,00	27.296,00	34.120,00	39.238,00	40.944,00
Heating Capacity (A-7,W45)	kW	5,75	7,00	8,00	10,00	11,50	12,00
Heating Capacity (A-7,W45)	Btu/h	19.619,00	23.884,00	27.296,00	34.120,00	39.238,00	40.944,00
Heating Capacity (A-7,W55)	kW	5,18	6,00	7,00	9,00	10,50	12,00
Heating Capacity (A-7,W55)	Btu/h	17.674,16	20.472,00	23.884,00	30.708,00	35.826,00	40.944,00
Cooling power input (floor cooling)	kW	1,19	1,60	2,09	2,61	3,26	3,52
Heating power input (fan coil or radiator)	kW	1,56	2,10	2,70	3,16	3,78	4,13
Cooling power input (fan coil)	kW	1,91	2,34	2,92	3,68	4,34	4,91
Heating Power Input (A-7,W35)	kW	1,79	2,33	2,86	3,57	4,26	4,25
Heating Power Input (A-7,W45)	kW	2,41	2,80	3,48	4,35	5,48	5,32
Heating Power Input (A-7,W55)	kW	2,42	2,73	3,33	4,29	5,25	6,67
Heating Rated Power Input	kW	2,40	4,30	4,00	3,96	4,62	4,80
Cooling Rated Power Input	kW	2,80	3,00	3,50	4,75	5,90	5,90
Heating Rated Current	A	10,44	18,70	5,77	5,72	6,67	6,93
Cooling Rated Current	A	12,17	13,04	5,05	6,86	8,52	8,52
COP (floor heating)	W/W	5,00	5,00	4,75	4,95	4,70	4,70
COP (floor heating)	(Btu/h)/W	17,06	17,06	16,21	16,89	16,04	16,04

EER (floor cooling)	W/W	5,20	5,20	4,80	4,60	4,30	4,40
EER (floor cooling)	(Btu/h)/W	17,74	17,74	16,38	15,70	14,67	15,01
COP (fan coil or radiator)	W/W	3,90	3,90	3,70	3,80	3,70	3,75
COP (fan coil or radiator)	(Btu/h)/W	13,31	13,31	12,62	12,97	12,62	12,80
EER (fan coil)	W/W	3,20	3,20	3,05	3,15	2,95	2,85
EER (fan coil)	(Btu/h)/W	10,92	10,92	10,41	10,75	10,07	9,72
COP (A-7,W35)	W/W	3,07	3,00	2,80	2,80	2,70	2,82
COP (A-7,W35)	(Btu/h)/W	10,48	10,24	9,55	9,55	9,21	9,63
COP (A-7,W45)	W/W	2,39	2,50	2,30	2,30	2,10	2,26
COP (A-7,W45)	(Btu/h)/W	8,17	8,53	7,85	7,85	7,17	7,70
Pdh (Low-temperature,Average)	kW	6,00	8,00	9,00	12,00	13,00	14,00
Pdh (Low-temperature,Warmer)	kW	6,00	8,00	8,00	12,00	13,00	14,00
Pdh (Low-temperature,Colder)	kW	5,00	7,00	8,00	11,00	13,00	13,00
SCOP (Low-temperature,Average)	%	204,00	202,00	189,00	187,00	187,00	185,00
SCOP (Low-temperature,Warmer)	%	251,00	278,00	276,00	246,00	233,00	262,00
SCOP (Low-temperature,Colder)	%	172,00	178,00	181,00	155,00	156,00	149,00
Pdh (Medium-temperature,Average)	kW	6,00	7,00	8,00	12,00	13,00	14,00
Pdh (Medium-temperature,Warmer)	kW	6,00	8,00	8,00	12,00	14,00	14,00
Pdh (Medium-temperature,Colder)	kW	5,00	7,00	8,00	11,00	13,00	12,00
SCOP(Medium-temperature,Average)	%	152,00	152,00	147,00	140,00	140,00	134,00
SCOP (Medium-temperature,Warmer)	%	183,00	198,00	198,00	180,00	168,00	179,00
SCOP (Medium-temperature,Colder)	%	137,00	132,00	131,00	121,00	121,00	118,00
declared load profile	—	XL	XL	XL	XL	XL	XL
Daily electricity consumption	kWh	6,25	6,80	6,79	7,14	7,14	7,14
Annual electricity consumption	kWh	1.374,00	1.495,00	1.494,00	1.570,00	1.570,00	1.570,00
Water heating energy efficiency	%	124,70	121,10	121,10	112,00	112,00	112,00
Temperature range of sanitary water	°C	40~80	40~80	40~80	40~80	40~80	40~80
Temperature range of sanitary water	°F	104~176	104~176	104~176	104~176	104~176	104~176
Heating Rated Water Outlet	°C	80,00	80,00	80,00	80,00	80,00	80,00
Heating Rated Water Outlet	°F	176,00	176,00	176,00	176,00	176,00	176,00
Test Condition Standard Number	—	EN14511,EN14825,EN16147	EN14511,EN14825,EN16147	EN14511,EN14825,EN16147	EN14511,EN14825,EN16147	EN14511,EN14825,EN16147	EN14511,EN14825,EN16147
Rated voltage	V	230,00	230,00	400,00	400,00	400,00	400,00
Rated Frequency	Hz	50,00	50,00	50,00	50,00	50,00	50,00
Phases	—	1,00	1,00	3,00	3,00	3,00	3,00
Ling Quantity	—	3,00	3,00	5,00	5,00	5,00	5,00

Cross-sectional Area of Power Cable Conductor	mm2	2,50	4,00	2,50	2,50	2,50	2,50
Cross-sectional Area of Power Cable Conductor	sq in	0,00	0,01	0,00	0,00	0,00	0,00
Recommended Power Cable(Core)	N	3,00	3,00	5,00	5,00	5,00	5,00
Fuse Current	A	-	/	-	-	-	-
Circuit Breaker	A	25,00	32,00	25,00	25,00	25,00	25,00
Starting Current	A	-	/	-	-	-	-
Max. Over Current Protection	A	-	/	-	-	-	-
Compressor Trademark	—	-	/	-	-	-	-
Compressor Manufacturer	—	HIGHLY	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
Compressor Model	—	WHP07600PSKQA6LT8	MPB42FJDMC-L	MPB42FJDMC-L	LPB65FHCMC	LPB65FHCMC	LPB65FHCMC
Compressor Type	—	Inverter Rotary	Inverter Rotary	Inverter Rotary	Inverter Rotary	Inverter Rotary	Inverter Rotary
Compressor Quantity	—	1,00	1,00	1,00	1,00	1,00	1,00
Compressor Power Input	W	1.453,00	3.000,00	3.000,00	3.415,00	3.415,00	3.415,00
Compressor Refrigerant Oil Type	—	Synthetic oil	PZ46M	PZ46M	PZ46M	PZ46M	PZ46M
Compressor Refrigerant Oil Charge Volume	L	0,50	0,75	0,75	0,90	0,90	0,90
Compressor Exhaust Volume	m3/h	28,00	42,10	42,10	65,20	65,20	65,20
Fan Type	—	Axial-flow	Axial-flow	Axial-flow	Axial-flow	Axial-flow	Axial-flow
Fan Quantity	—	1,00	1,00	1,00	1,00	1,00	2,00
Fan Diameter-height	mm	550-203	550-203	550-203	550-203	550-203	550-203
Fan Diameter-height	inch	21 2/3-8	21 2/3-8	21 2/3-8	21 2/3-8	21 2/3-8	21 2/3-8
Motor Model	—	B-SWZ150A	B-SWZ150A	B-SWZ150A	B-SWZ150A	B-SWZ150A	B-SWZ150A
Motor Insulation Class	—	F	E	F	F	F	E
Motor Safe Class	—	IP44	IP44	IP44	IP44	IP44	IP44
Motor Overload Protector	—	internal	internal	internal	internal	internal	internal
Motor Full Load Amp(FLA)	A	0,75	0,75	0,75	0,75	0,75	0,75
Fan Motor Quantity	—	1,00	1,00	1,00	1,00	1,00	2,00
Fan Motor Drive Type	—	internal drive	internal drive	internal drive	internal drive	internal drive	internal drive
Fan Motor Speed	rpm	100~900	100~1000	100~900	100~900	100~900	100~900
Fan Motor Power Output	W	150,00	150,00	150,00	150,00	150,00	150,00
Fan Motor Power Input	W	-	/	-	-	-	-

Fan Motor Running Current	A	0,75	0,75	0,75	0,75	0,75	0,75
Fan Motor Capacitor	µF	-	/	-	-	-	-
Fan Motor Cassette Method	—	side	side	side	side	side	side
Air Flow Volume	m3/h	3.780,00	5.000,00	5.000,00	5.592,00	5.592,00	9.700,00
Air Flow Volume	CFM	2.224,50	2.942,50	2.942,50	3.290,90	3.290,90	5.708,50
Sound pressure level (heating)	dB(A)	47,00	51,00	52,00	55,00	55,00	53,00
Sound pressure level (cooling)	dB(A)	47,00	52,00	53,00	56,00	56,00	53,00
Permissible Excessive Operating Pressure for the Discharge Side	MPa	3,40	3,40	3,40	3,40	3,40	3,40
Permissible Excessive Operating Pressure for the Suction Side	MPa	1,20	1,20	1,20	1,20	1,20	1,20
Maximum Allowable Pressure	MPa	3,50	3,50	3,50	3,50	3,50	3,50
Safety Protection	—	High-low pressure protection, discharge temp. protection, motor overload protection, anti-freeze, water flow protection , compressor overload protection	High-low pressure protection, discharge temp. protection, motor overload protection, anti-freeze, water flow protection , compressor overload protection	High-low pressure protection, discharge temp. protection, motor overload protection, anti-freeze, water flow protection , compressor overload protection	High-low pressure protection, discharge temp. protection, motor overload protection, anti-freeze, water flow protection , compressor overload protection	High-low pressure protection, discharge temp. protection, motor overload protection, anti-freeze, water flow protection , compressor overload protection	High-low pressure protection, discharge temp. protection, motor overload protection, anti-freeze, water flow protection , compressor overload protection
System Operation Control	-	string control	string control	string control	string control	string control	string control
Defrosting Method	--	automatic	automatic	automatic	automatic	automatic	automatic
Isolation	—	I	I	I	I	I	I
Moisture Protection	--	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Overload Protector	—	breaker	breaker	breaker	breaker	breaker	breaker
Climate Type	—	T1	T1	T1	T1	T1	T1
Refrigerant	—	R290	R290	R290	R290	R290	R290
Refrigerant charge volume	kg	0,80	1,00	1,00	1,20	1,20	1,50
Refrigerant charge volume	oz	28,22	35,28	35,28	42,34	42,34	52,92
Throttling Method	—	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Heat Exchanger Type	—	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
Heat Exchanger Quantity	—	1,00	1,00	1,00	1,00	1,00	1,00
Heat Exchanger Material	—	copper、aluminium	copper、aluminium	copper、aluminium	copper、aluminium	copper、aluminium	copper、aluminium
Heat Exchanger Face Area	m2	0,81	0,81	0,81	0,81	0,81	1,62
Heat Exchanger Face Area	sq.ft	8,72	8,72	8,72	8,72	8,72	17,43
Heat Exchanger Pipe Diameter	mm	φ7	φ7	φ7	φ7	φ7	φ7

Heat Exchanger Pipe Diameter	inch	φ4/16"	φ4/16"	φ4/16"	φ4/16"	φ4/16"	φ4/16"
Heat Exchanger Number of Rows	—	1,50	2,00	2,00	3,00	3,00	1,50
Heat Exchanger Tube Pitch(a)×Row Pitch(b)	mm	22×19.05	22×19.05	22×19.05	22×19.05	22×19.05	22×19.05
Heat Exchanger Tube Pitch(a)×Row Pitch(b)	inch	6/7 × 3/4	6/7 × 3/4	6/7 × 3/4	6/7 × 3/4	6/7 × 3/4	6/7 × 3/4
Heat Exchanger Fin Pitch	mm	1,40	1,40	1,40	1,40	1,40	1,40
Heat Exchanger Fin Pitch	inch	0,06	0,06	0,06	0,06	0,06	0,06
Heat Exchanger Fins per Inch(FPI)	—	16,00	16,00	16,00	16,00	16,00	16,00
Heat Exchanger Fin Type	—	wavy fin	wavy fin	wavy fin	wavy fin	wavy fin	wavy fin
Heat Exchanger Fin Colour	—	golden	golden	golden	golden	golden	golden
Heat Exchanger Number of Circuits	—	7,00	9,00	9,00	13,00	13,00	14,00
Heat Exchanger (LxHxW)	mm	764×792×366	764×792×366	764×792×366	764×792×366	764×792×366	765× 1584×338
Heat Exchanger (LxHxW)	inch	30 1/16×31 3/16×14 2/5	30 1/16×31 3/16×14 2/5	30 1/16×31 3/16×14 2/5	30 1/16×31 3/16×14 2/5	30 1/16×31 3/16×14 2/5	30 1/9×62 3/8×13 2/7
Heat Exchanger Max. Allowable Pressure	MPa	12,70	12,70	12,70	12,70	12,70	12,70
Heat Exchanger Type	—	Brazed Plate HEX	Brazed Plate HEX	Brazed Plate HEX	Brazed Plate HEX	Brazed Plate HEX	Brazed Plate HEX
Water Flow Volume	m3/h	1,03	1,40	1,73	2,06	2,41	2,67
Water Flow Volume	GPM	4,53	6,17	7,64	9,10	10,62	11,77
Design Pressure(Water Side)	kPa	150,00	150,00	150,00	150,00	150,00	150,00
Design Pressure(Refrigerant Side)	kPa	3.500,00	3.500,00	3.500,00	3.500,00	3.500,00	3.500,00
Inlet/Outlet Water Pipe Coupling Type	-	Female BSP	Female BSP	Female BSP	Female BSP	Female BSP	Female BSP
Inlet/Outlet Water Pipe Diameter	mm	28,00	28,00	28,00	28,00	28,00	28,00
Inlet/Outlet Water Pipe Diameter	inch	1 1/10	1,10	1 1/10	1 1/10	1 1/10	1 1/10
Cooling Nominal Operating Condition Outdoor Temperature(DB)	°C	35,00	35,00	35,00	35,00	35,00	35,00
Cooling Nominal Operating Condition Outdoor Temperature(DB)	°F	95,00	95,00	95,00	95,00	95,00	95,00
Cooling Nominal Operating Condition Outdoor Temperature(WB)	°C	24,00	24,00	24,00	24,00	24,00	24,00
Cooling Nominal Operating Condition Outdoor Temperature(WB)	°F	75,20	75,20	75,20	75,20	75,20	75,20
Heating Nominal Operating Condition Outdoor Temperature(DB)	°C	7,00	7,00	7,00	7,00	7,00	7,00

Heating Nominal Operating Condition Outdoor Temperature(DB)	°F	44,60	44,60	44,60	44,60	44,60	44,60
Heating Nominal Operating Condition Outdoor Temperature(WB)	°C	6,00	6,00	6,00	6,00	6,00	6,00
Heating Nominal Operating Condition Outdoor Temperature(WB)	°F	42,80	42,80	42,80	42,80	42,80	42,80
Water Heating Nominal Operating Condition Outdoor Temperature(DB)	°C	7,00	7,00	7,00	7,00	7,00	7,00
Water Heating Nominal Operating Condition Outdoor Temperature(DB)	°F	44,60	44,60	44,60	44,60	44,60	44,60
Water Heating Nominal Operating Condition Outdoor Temperature(WB)	°C	6,00	6,00	6,00	6,00	6,00	6,00
Water Heating Nominal Operating Condition Outdoor Temperature(WB)	°F	42,80	42,80	42,80	42,80	42,80	42,80
Cooling Operating Range Outdoor Temperature(DB)	°C	-15~48	-15~48	-15~48	-15~48	-15~48	-15~48
Cooling Operating Range Outdoor Temperature(DB)	°F	5~118.4	5~118.4	5~118.4	5~118.4	5~118.4	5~118.4
Heating Operating Range Outdoor Temperature(DB)	°C	-25~35	-25~35	-25~35	-25~35	-25~35	-25~35
Heating Operating Range Outdoor Temperature(DB)	°F	-13~95	-13~95	-13~95	-13~95	-13~95	-13~95
Water Heating Operating Range Outdoor Temperature(DB)	°C	-25~45	-25~45	-25~45	-25~45	-25~45	-25~45
Heating Operating Range Outdoor Temperature(DB)	°F	-13~113	-13~113	-13~113	-13~113	-13~113	-13~113
Leaving water temperature (fan coil cooling)	°C	7,00	7,00	7,00	7,00	7,00	7,00
Outflow Water Temperature(Cooling to Fan Coil)	°F	44,60	44,60	44,60	44,60	44,60	44,60
Leaving water temperature (floor cooling)	°C	18,00	18,00	18,00	18,00	18,00	18,00
Outflow Water Temperature(Cooling to Floor)	°F	64,40	64,40	64,40	64,40	64,40	64,40
Leaving water temperature (fan coil heating)	°C	45,00	45,00	45,00	45,00	45,00	45,00
Outflow Water Temperature(Heating to Fan Coil)	°F	113,00	113,00	113,00	113,00	113,00	113,00
Leaving water temperature (floor heating)	°C	35,00	35,00	35,00	35,00	35,00	35,00
Outflow Water Temperature(Heating to Floor)	°F	95,00	95,00	95,00	95,00	95,00	95,00
Expansion Vessel Volume	L	5,00	5,00	5,00	5,00	5,00	5,00
Expansion Vessel Water Pressure(Max)	Bar	8,00	8,00	8,00	8,00	8,00	8,00

Expansion Vessel Water Pressure(Pre)	Bar	1.5±0.3	1.5±0.3	1.5±0.3	1.5±0.3	1.5±0.3	1.5±0.3
Pump type	—	Water-cooled	Water-cooled	Water-cooled	Water-cooled	Water-cooled	Water-cooled
Pump speed	—	variable-speed	variable-speed	variable-speed	variable-speed	variable-speed	variable-speed
Pump power input	W	3~87	3~87	3~87	3~87	3~87	3~87
Pump water flow limit	LPM	12,00	12,00	12,00	12,00	12,00	20,33
Safety valve	inch	2.5bar	1/2 (3bar)	2.5bar	2.5bar	2.5bar	2.5bar
Outline dimension (W)	mm	1.206,00	1.210,00	1.206,00	1.206,00	1.206,00	943,00
Outline dimension (W)	inch	47,50	47,64	47,50	47,50	47,50	37,13
Outline dimension (H)	mm	880,00	880,00	880,00	880,00	880,00	1.615,00
Outline dimension (H)	inch	34,67	34,65	34,67	34,67	34,67	63,57
Outline dimension (D)	mm	445,00	450,00	445,00	445,00	445,00	464,00
Outline dimension (D)	inch	17,50	17,72	17,50	17,50	17,50	18,25
Package dimension (L)	mm	1.320,00	1.320,00	1.320,00	1.320,00	1.320,00	1.050,00
Package dimension (L)	inch	52,00	51,97	52,00	52,00	52,00	41,33
Package dimension (W)	mm	525,00	525,00	525,00	525,00	525,00	580,00
Package dimension (W)	inch	20,67	20,67	20,67	20,67	20,67	22,83
Package dimension (H)	mm	885,00	885,00	885,00	885,00	885,00	1.625,00
Package dimension (H)	inch	34,83	34,84	34,83	34,83	34,83	64,00
Dimension of Package(L)	mm	1.338,00	1.323,00	1.338,00	1.338,00	1.338,00	1.073,00
Dimension of Package(L)	inch	52,67	52,68	52,67	52,67	52,67	42,25
Dimension of Package(W)	mm	553,00	528,00	553,00	553,00	553,00	598,00
Dimension of Package(W)	inch	21,78	21,77	21,78	21,78	21,78	23,56
Dimension of Package(H)	mm	1.025,00	900,00	1.025,00	1.025,00	1.025,00	1.755,00
Dimension of Package(H)	inch	40,33	40,16	40,33	40,33	40,33	69,11
Net weight	kg	110,00	118,00	132,00	144,00	144,00	179,00
Net weight	lb	242,55	260,19	291,06	317,52	317,52	394,70
Gross weight	kg	128,00	135,00	150,00	163,00	163,00	197,00
Gross weight	lb	282,24	297,68	330,75	359,42	359,42	434,39
Cooling	—	YES	YES	YES	YES	YES	YES
Heating	—	YES	YES	YES	YES	YES	YES
Water Heating	—	YES	YES	YES	YES	YES	YES
Cooling + Water Heating	—	YES	YES	YES	YES	YES	YES
Heating + Water Heating	—	YES	YES	YES	YES	YES	YES
Emergency Mode	—	YES	YES	YES	YES	YES	YES
Water Quick Heating	—	YES	YES	YES	YES	YES	YES
Holiday Mode	—	YES	YES	YES	YES	YES	YES

Quiet Mode	—	YES	YES	YES	YES	YES	YES
Forced Mode	—	YES	YES	YES	YES	YES	YES
Ambient Reliant Mode	—	YES	YES	YES	YES	YES	YES
Sterilizing Mode	—	YES	YES	YES	YES	YES	YES
Gate Control	—	YES	YES	YES	YES	YES	YES
Extremity Control Function	—	YES	YES	YES	YES	YES	YES
Compressor High Pressure Protection	—	YES	YES	YES	YES	YES	YES
Compressor Low Pressure Protection	—	YES	YES	YES	YES	YES	YES
Overload Protector	-	YES	YES	YES	YES	YES	YES
Flow Switch Error Protection	—	YES	YES	YES	YES	YES	YES
Superheating Protection	—	YES	YES	YES	YES	YES	YES
High Temperature Protection	—	YES	YES	YES	YES	YES	YES
Phase Loss or Reverse Protection	—	YES	YES	YES	YES	YES	YES
High Pressure Sensor Error	—	YES	YES	YES	YES	YES	YES
Communication Error Protection	—	YES	YES	YES	YES	YES	YES
Automatic Anti-freezing Inwinter	—	YES	YES	YES	YES	YES	YES
Memory	—	YES	YES	YES	YES	YES	YES
Temperature Sensor Protection	—	YES	YES	YES	YES	YES	YES
Refrigerant loss protection	—	YES	YES	YES	YES	YES	YES
SG	-	YES	YES	YES	YES	YES	YES
Water pump antistall	-	YES	YES	YES	YES	YES	YES
HWPS Limit Function	-	YES	YES	YES	YES	YES	YES
Cool control mode	-	YES	YES	YES	YES	YES	YES
Heat control mode	-	YES	YES	YES	YES	YES	YES
HFS-hot water Limit	-	YES	YES	YES	YES	YES	YES
HFS-Heat Limit	-	YES	YES	YES	YES	YES	YES
HFS-Cool Limit	-	YES	YES	YES	YES	YES	YES
Limit A/P	-	YES	YES	YES	YES	YES	YES