

Subtype Monobloc Air-to Water Heat Pump System- R32- W142+ W162		
Certificate Holder	Qingdao Haier Air Conditioner Electric Co., Ltd.	
Address	Haier Development Zone Industrial Park, Economic Development Zone, Qingdao City,	
ZIP		
City	Shandong Province	
Country	CN	
Certification Body	BRE Global Limited	
Subtype title	Monobloc Air-to Water Heat Pump System- R32- W142+ W162	
Registration number	041-K073-10	
Heat Pump Type	Outdoor Air/Water	
Refrigerant	R32	
Mass of Refrigerant	2.5 kg	
Certification Date	06.11.2023	
Testing basis	Heat Pump Keymark Scheme Rules Rev 12	



Model AW142MXCHA		
Model name	AW142MXCHA	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
General data		
Power supply	1x230V 50Hz	
Off-peak product	n/a	
Outdoor Air/Water		
EN 14511-4   Heating		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	
Starting and operating test	passea	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	69 dB(A)
EN 14935   Average Climate		
EN 14825   Average Climate		
EN 14625   Average Climate	Low temperature	Medium temperature
	Low temperature 175 %	Medium temperature
ηs Prated	· ·	· · · · · · · · · · · · · · · · · · ·
ης	175 %	134 %
ηs Prated	175 % 14.09 kW	134 % 13.13 kW
ηs Prated SCOP	175 % 14.09 kW 4.45	134 % 13.13 kW 3.44
ηs Prated SCOP Tbiv	175 % 14.09 kW 4.45 -7 °C	134 % 13.13 kW 3.44 -7 °C
ηs Prated SCOP Tbiv TOL	175 % 14.09 kW 4.45 -7 °C -25 °C	134 % 13.13 kW 3.44 -7 °C -25 °C
ηs Prated SCOP Tbiv TOL Pdh Tj = -7°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW
ηs Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7 °C Pdh Tj = +2°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18
$\eta$ s Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7 °C Pdh Tj = +2°C COP Tj = +2°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33
ηs Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7 °C Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900
ηs Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7 °C Pdh Tj = +2°C COP Tj = +2°C COP Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900 5.96 kW	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900 5.74 kW
ηs Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7 °C Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900 5.96 kW 6.64	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900 5.74 kW 5.16
$\eta$ s Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7 °C Pdh Tj = +2°C COP Tj = +2°C COP Tj = +2°C Cdh Tj = +2 °C Cdh Tj = +7°C Cdh Tj = +7°C COP Tj = +7°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900 5.96 kW 6.64 0.900	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900 5.74 kW 5.16 0.900
ης Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7 °C Pdh Tj = +2°C COP Tj = +2°C COP Tj = +2°C COP Tj = +2°C Cdh Tj = +2 °C Cdh Tj = +7°C Cdh Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Pdh Tj = 12°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900 5.96 kW 6.64 0.900 7.66 kW	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900 5.74 kW 5.16 0.900 7.67 kW
ηs Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7°C Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = 12°C COP Tj = 12°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900 5.96 kW 6.64 0.900 7.66 kW 8.63	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900 5.74 kW 5.16 0.900 7.67 kW 7.66
ns Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7°C Cdh Tj = +2°C COP Tj = +2°C COP Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C Cdh Tj = +7°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900 5.96 kW 6.64 0.900 7.66 kW 8.63 0.900	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900 5.74 kW 5.16 0.900 7.67 kW 7.66 0.900
ns Prated SCOP Tbiv TOL Pdh Tj = -7°C COP Tj = -7°C Cdh Tj = -7°C Pdh Tj = +2°C COP Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C Cdh Tj = +2°C Pdh Tj = +7°C COP Tj = +7°C COP Tj = +7°C COP Tj = 12°C COP Tj = 12°C	175 % 14.09 kW 4.45 -7 °C -25 °C 12.47 kW 2.87 0.900 7.50 kW 4.15 0.900 5.96 kW 6.64 0.900 7.66 kW 8.63	134 % 13.13 kW 3.44 -7 °C -25 °C 11.61 kW 2.18 0.900 6.71 kW 3.33 0.900 5.74 kW 5.16 0.900 7.67 kW 7.66



COP Tj = TOL or COP Tj = Tdesignh if TOL 2.59 1.92  < Tdesignh  Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL 0.900 0.900  < Tdesignh  WTOL 60 °C 60 °C  Poff 18 W 18 W  PTO 18 W 18 W  PSB 18 W 18 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input  Supplementary Heater: PSUP 0.02 kW  Annual energy consumption Qhe 6537 kWh  Tought 1.92  1.	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.07 kW	12.43 kW
VTOL 60 °C 60 °C Poff 18 W PTO 18 W 18 W PSB 18 W 18 W 18 W PCK 0 W Supplementary Heater: Type of energy input Supplementary Heater: PSUP 0.02 kW 0.70 kW	, ,	2.59	1.92
Poff 18 W 18 W PTO 18 W 18 W PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Supplementary Heater: PSUP 0.02 kW 0.70 kW	· · · · · · · · · · · · · · · · · · ·	0.900	0.900
PTO 18 W 18 W PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Supplementary Heater: PSUP 0.02 kW 0.70 kW	WTOL	60 °C	60 °C
PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Supplementary Heater: PSUP 0.02 kW 0.70 kW	Poff	18 W	18 W
PCK 0 W 0 W  Supplementary Heater: Type of energy input  Supplementary Heater: PSUP 0.02 kW 0.70 kW	PTO	18 W	18 W
Supplementary Heater: Type of energy input  Supplementary Heater: PSUP  0.02 kW  Electricity  0.70 kW	PSB	18 W	18 W
input Supplementary Heater: PSUP 0.02 kW 0.70 kW	PCK	0 W	0 W
		Electricity	Electricity
Annual energy consumption Qhe 6537 kWh 7892 kWh	Supplementary Heater: PSUP	0.02 kW	0.70 kW
	Annual energy consumption Qhe	6537 kWh	7892 kWh



Model AW162MXCHA		
Model name	AW162MXCHA	
Application	Heating (medium temp)	
Units	Outdoor	
Climate zone (for heating)	n/a	
Reversibility	Yes	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
General data		
Power supply	1x230V 50Hz	
Off-peak product	n/a	
Outdoor Air/Water		
EN 14511-4   Heating		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	
EN 12102-1   Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	69 dB(A)
EN 14825   Average Climate		
	Low temperature	Medium temperature
ης	176 %	134 %
Prated	14.09 kW	13.12 kW
SCOP	4.47	3.42
Tbiv		
	-7 °C	-7 °C
TOL	-7 °C -25 °C	-7 °C -25 °C
TOL Pdh Tj = $-7$ °C COP Tj = $-7$ °C	-25 °C 12.46 kW 2.87	-25 °C 11.61 kW 2.18
TOL Pdh Tj = $-7^{\circ}$ C COP Tj = $-7^{\circ}$ C Cdh Tj = $-7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900	-25 °C 11.61 kW 2.18 0.900
TOL  Pdh Tj = $-7^{\circ}$ C  COP Tj = $-7^{\circ}$ C  Cdh Tj = $-7^{\circ}$ C  Pdh Tj = $+2^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW	-25 °C 11.61 kW 2.18 0.900 6.70 kW
TOL  Pdh Tj = $-7^{\circ}$ C  COP Tj = $-7^{\circ}$ C  Cdh Tj = $-7^{\circ}$ C  Pdh Tj = $+2^{\circ}$ C  COP Tj = $+2^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31
TOL Pdh Tj = $-7^{\circ}$ C COP Tj = $-7^{\circ}$ C Cdh Tj = $-7^{\circ}$ C Pdh Tj = $+2^{\circ}$ C COP Tj = $+2^{\circ}$ C Cdh Tj = $+2^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900
TOL  Pdh Tj = $-7^{\circ}$ C  COP Tj = $-7^{\circ}$ C  Cdh Tj = $-7^{\circ}$ C  Pdh Tj = $+2^{\circ}$ C  COP Tj = $+2^{\circ}$ C  Cdh Tj = $+2^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900 5.95 kW	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900 5.73 kW
TOL  Pdh Tj = $-7^{\circ}$ C  COP Tj = $-7^{\circ}$ C  Cdh Tj = $-7^{\circ}$ C  Pdh Tj = $+2^{\circ}$ C  COP Tj = $+2^{\circ}$ C  Cdh Tj = $+2^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900 5.95 kW 6.69	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900 5.73 kW 5.17
TOL Pdh Tj = $-7^{\circ}$ C COP Tj = $-7^{\circ}$ C Cdh Tj = $-7^{\circ}$ C Pdh Tj = $+2^{\circ}$ C COP Tj = $+2^{\circ}$ C Cdh Tj = $+2^{\circ}$ C Pdh Tj = $+2^{\circ}$ C Cdh Tj = $+7^{\circ}$ C COP Tj = $+7^{\circ}$ C COP Tj = $+7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900 5.95 kW 6.69 0.900	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900 5.73 kW 5.17 0.900
TOL  Pdh Tj = $-7^{\circ}$ C  COP Tj = $-7^{\circ}$ C  Cdh Tj = $-7^{\circ}$ C  Pdh Tj = $+2^{\circ}$ C  COP Tj = $+2^{\circ}$ C  Cdh Tj = $+2^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C  Cdh Tj = $+7^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900 5.95 kW 6.69 0.900 7.65 kW	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900 5.73 kW 5.17 0.900 7.66 kW
TOL  Pdh Tj = $-7^{\circ}$ C  COP Tj = $-7^{\circ}$ C  Cdh Tj = $-7^{\circ}$ C  Pdh Tj = $+2^{\circ}$ C  COP Tj = $+2^{\circ}$ C  Cdh Tj = $+2^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C  Cdh Tj = $+7^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900 5.95 kW 6.69 0.900 7.65 kW 8.70	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900 5.73 kW 5.17 0.900 7.66 kW 7.67
TOL Pdh Tj = $-7^{\circ}$ C COP Tj = $-7^{\circ}$ C Cdh Tj = $-7^{\circ}$ C Pdh Tj = $+2^{\circ}$ C COP Tj = $+2^{\circ}$ C CoP Tj = $+2^{\circ}$ C Cdh Tj = $+2^{\circ}$ C Pdh Tj = $+7^{\circ}$ C COP Tj = $+7^{\circ}$ C CoP Tj = $+7^{\circ}$ C Pdh Tj = $+7^{\circ}$ C Cdh Tj = $+7^{\circ}$ C Cdh Tj = $+7^{\circ}$ C COP Tj = $+7^{\circ}$ C COP Tj = $+7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900 5.95 kW 6.69 0.900 7.65 kW 8.70 0.900	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900 5.73 kW 5.17 0.900 7.66 kW 7.67
TOL  Pdh Tj = $-7^{\circ}$ C  COP Tj = $-7^{\circ}$ C  Cdh Tj = $-7^{\circ}$ C  Pdh Tj = $+2^{\circ}$ C  COP Tj = $+2^{\circ}$ C  Cdh Tj = $+2^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C  Cdh Tj = $+7^{\circ}$ C  Pdh Tj = $+7^{\circ}$ C  COP Tj = $+7^{\circ}$ C	-25 °C 12.46 kW 2.87 0.900 7.50 kW 4.17 0.900 5.95 kW 6.69 0.900 7.65 kW 8.70	-25 °C 11.61 kW 2.18 0.900 6.70 kW 3.31 0.900 5.73 kW 5.17 0.900 7.66 kW 7.67



Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.07 kW	12.43 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	18 W	18 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.02 kW	0.70 kW
Annual energy consumption Qhe	6508 kWh	7922 kWh