

# 1 Features

- Inverter technology resulting in: continuous match of requested load; excellent part load efficiency (ESEER up to 4.57); significant reduction of starting currents; precise temperature control (evaporator leaving water)
- Low operating sound levels
- Daikin swing (sizes 005-006-007) or scroll compressor (sizes 009-010-011)
- Wide operating range
- Integrated hydronics
- Single phase power supply and main switch included
- Easy 'plug and play' installation
- Available options: evaporator heater tape (OP10); high ESP pump up to 90kPa (OPHP)



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## 2 Specifications

2-1 TECHNICAL SPECIFICATIONS				EWYQ005ACV3	EWYQ006ACV3	EWYQ007ACV3
Capacity (Eurovent)	Cooling	Minimum	kW	4.01	4.01	4.01
		Nominal	kW	5.2	6.0	7.1
		Maximum	kW	5.2	6.0	7.1
	Heating	Minimum	kW	4.09	4.09	4.09
		Nominal	kW	5.65	6.35	7.75
		Maximum	kW	6.83	8.13	8.73
Capacity	Heating	Minimum	kW	4.5	4.5	4.5
		Nominal	kW	6.1	6.8	8.2
		Maximum	kW	7.27	8.58	9.18
Nominal input (Eurovent)	Cooling	kW		1.89	2.35	2.95
	Heating	kW		1.97	2.24	2.83
Nominal input	Heating	kW		1.60	1.84	2.36
EER (Eurovent)				2.75	2.55	2.41
COP (Eurovent)				2.87	2.83	2.74
COP				3.81	3.70	3.47
Casing	Colour			Ivory white		
	Material			Polyester painted steel plate		
Dimensions	Unit	Height	mm	805	805	805
		Width	mm	1,190		
		Depth	mm	360	360	360
	Unit with packing	Height	mm	915	915	915
		Width	mm	1,265		
		Depth	mm	442	442	442
Weight	Unit		kg	100	100	100
	Operating Weight		kg	104	104	104
	Gross weight		kg	108	108	108
Water Heat Exchanger	Type			Brazed plate		
	Filter	Type		Brass Y-strainer		
		Diameter perforations	mm	1	1	1
	Minimum water volume in the system		l	10	10	10
	Water flow rate	Min	l/min	12	12	12
	Nominal Water Flow	Cooling	l/min	14.9	17.2	20.4
		Heating	l/min	17.5	19.5	23.5
	Insulation material			Polyethylene foam		
	Model	Quantity		1	1	1
		Model		ACH30-48		
Air heat exchanger	Type			Tube type		
	Rows			2	2	2
	Stages			32	32	32
	Fin Pitch		mm	1.8	1.8	1.8
Pump	Type			Water cooled		
	Quantity			1	1	1
	Model			RS 25/7 3 PL 130 3		
	Nominal ESP unit	Cooling	kPa	49.4	45.1	38.3
		Heating	kPa	44.5	40.3	30.7
Hydraulic components	Antifreeze heater		W	75	75	75
	Expansion vessel	Volume	l	6	6	6
		Pre-pressure	bar	1	1	1
	Water filter		inch	1"		
	Safety valve		bar	3	3	3
Fan	Type			Propeller		
	Model	Quantity		1	1	1
		Motor Output	W	53	53	53
		Discharge direction		Horizontal		

## 2 Specifications

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2-1 TECHNICAL SPECIFICATIONS				EWYQ005ACV3	EWYQ006ACV3	EWYQ007ACV3
Compressor	Type			Hermetically sealed swing compressor		
	Refrigerant oil type			FVC50K		
	Refrigerant oil charge		l	0.75	0.75	0.75
	Model	Quantity		1	1	1
Model		2YC63BXD#C				
Sound level	Sound Power	Cooling	dBA	62	62	63
	Sound Pressure	Cooling	dBA	48	48	50
		Heating	dBA	48	48	49
Refrigerant circuit	Refrigerant type			R-410A		
	Refrigerant charge		kg	1.7	1.7	1.7
	No of circuits			1	1	1
	Refrigerant control			Inverter		
Piping connections	Water heat exchanger inlet / outlet			1" MBSP		
	Water heat exchanger drain			hose nipple 1/2" FBSP		
Notes				Nominal cooling capacity, cooling power input and EER at Eurovent conditions: ambient 35°C; evaporator 7°C (Dt = 5°C)		
				Nominal heating capacity, heating power input and COP at Eurovent conditions: ambient 7°CDB/6°CWB; condenser 45°C (Dt = 5°C)		
				Nominal heating capacity, heating power input and COP at non-Eurovent conditions: ambient 7°CDB/6°CWB; condenser 35°C (Dt = 5°C)		
				The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment.		

2-1 TECHNICAL SPECIFICATIONS				EWYQ009ACV3	EWYQ010ACV3	EWYQ011ACV3
Capacity (Eurovent)	Cooling	Nominal	kW	8.5	9.5	11.0
	Heating	Nominal	kW	10.0	11.5	13.0
Capacity control	Type			Inverter controlled		
Capacity	Cooling	Nominal	kW	12.1	13.5	15.5
	Heating	Nominal	kW	10.3	11.9	13.9
Nominal input (Eurovent)	Cooling		kW	2.74	3.19	3.82
	Heating		kW	2.91	3.38	3.86
Nominal input	Cooling		kW	2.76	3.32	4.05
	Heating		kW	2.34	2.72	3.12
EER (Eurovent)				3.11	2.98	2.88
EER				4.37	4.07	3.84
COP (Eurovent)				3.44	3.40	3.37
COP				4.40	4.35	4.45
ESEER				4.57	4.52	4.46
Casing	Colour			Ivory white		
	Material			Galvanized and painted steel sheet		
Dimensions	Unit	Height	mm	1,435		
		Width	mm	1,418		
		Depth	mm	382	382	382
	Unit with packing	Height	mm	1,574		
		Width	mm	1,500		
		Depth	mm	430	430	430
Weight	Unit		kg	180	180	180
	Gross weight		kg	200	200	200
Packing	Material			EPS		
				Wood		
				Carton		
				PP (Straps)		
	Weight		kg	20	20	20

## 2 Specifications

2-1 TECHNICAL SPECIFICATIONS				EWYQ009ACV3	EWYQ010ACV3	EWYQ011ACV3
Water Heat Exchanger	Type			Brazed plate		
	Quantity			1	1	1
	Water volume		l	1.01	1.01	1.01
	Water flow rate	Min	l/min	16	16	16
		Max	l/min	58	58	58
	Nominal Water Flow	Cooling	l/min	24.4	27.2	31.5
		Heating	l/min	28.7	33.0	37.3
Insulation material			Foamed synthetic elastomer			
Air heat exchanger	Length		mm	857	857	857
	Type			Hi-XSS(8)		
	Rows			2	2	2
	Stages			60	60	60
	Fin Pitch		mm	1.4	1.4	1.4
	Passes	Quantity		5	5	5
	Face Area		m <sup>2</sup>	1,131		
	Fin	Type		WF fin		
		Treatment		Anti-corrosion treatment (PE)		
Pump	Type			Water cooled		
	Quantity			2	2	2
	Nominal ESP unit	Cooling	kPa	58.0	54.6	49.1
		Heating	kPa	52.8	47.1	40.9
Power input		kW	210	210	210	
Hydraulic components	Expansion vessel	Volume	l	1	10	10
		Max. water pressure	bar	3	3	3
		Pre-pressure	bar	1.0	1.0	1.0
	Water filter	Diameter perforations	mm	1	1	1
		Material		brass		
Fan	Type			Propeller		
	Drive			Direct drive		
	Model	Motor		Brushless DC motor		
		Quantity		2	2	2
		Speed	steps	8	8	8
		Speed	rpm	780	780	780
		Speed	rpm	760	760	760
		Motor Output	W	70	70	70
		Discharge direction		Horizontal		
Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	96	100	97
	Heating	Nom.	m <sup>3</sup> /min	90	90	90
Compressor	Type			Hermetically sealed scroll compressor		
	Refrigerant oil type			Daphne FVC68D		
	Refrigerant oil charge		l	1.0	1.0	1.0
	Model	Quantity		1	1	1
		Model		JT100G-VD		
		Motor Output	W	2,200		
		Starting Method		Inverter driven		
		Crankcase Heater	W	33	33	33
Sound level	Sound Power	Cooling	dBA	64	64	64
		Heating	dBA	64	64	64
	Sound Pressure	Cooling	dBA	51	51	51
		Heating	dBA	51	51	51

## 2 Specifications

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2-1 TECHNICAL SPECIFICATIONS				EWYQ009ACV3	EWYQ010ACV3	EWYQ011ACV3
Sound Level (Night quiet)	Sound Pressure	Cooling	dBA	45	45	45
		Heating	dBA	42	42	42
Operation Range (Cooling)	Water side	Min	°CDB	5	5	5
		Max	°CDB	22	22	22
	Air side	Min	°CDB	10	10	10
		Max	°CDB	46	46	46
Operation Range (Heating)	Water side	Min	°CDB	25	25	25
		Max	°CDB	50	50	50
	Air side	Min	°CDB	-15	-15	-15
		Max	°CDB	35	35	35
Refrigerant circuit	Refrigerant type			R-410A		
	Refrigerant charge		kg	2.95	2.95	2.95
	No of circuits			1	1	1
	Refrigerant control			Electronic expansion valve		
Water circuit	Piping connections		inch	G5/4 (FEMALE)		
	Piping		inch	5/4		
	Safety valve		bar	3	3	3
	Manometer			Yes		
	Drain valve / Fill valve			yes		
	Shut off valve			yes		
	Air purge valve			yes		
	Total water volume		l	4	4	4
	Minimum water volume in the system		l	20	20	20
	Safety Devices				High pressure switch	
Fan thermal protector						
Fuse						
Notes				Nominal cooling capacity, cooling power input and EER at Eurovent conditions: ambient 35°C; evaporator 7°C (Dt = 5°C)		
				Nominal cooling capacity, cooling power input and EER at non-Eurovent conditions: ambient 35°C; evaporator 18°C (Dt = 5°C)		
				Nominal heating capacity, heating power input and COP at Eurovent conditions: ambient 7°CDB/6°CWB; condenser 45°C (Dt = 5°C)		
				Nominal heating capacity, heating power input and COP at non-Eurovent conditions: ambient 7°CDB/6°CWB; condenser 35°C (Dt = 5°C)		
				The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.		
				Water circuit total water volume: including piping + PHE/excluding expansion vessel		
				Water circuit minimum water volume system: excluding water volume in the unit. In most applications this minimum water volume will have a satisfying result. In critical processes or in rooms with a high heat load though, extra water volume might be required. Refer to operation range for more info.		
Defrost Method				Pressure equalising		
Defrost Control				Sensor for outdoor heat exchanger temperature		

2-2 ELECTRICAL SPECIFICATIONS				EWYQ005ACV3	EWYQ006ACV3	EWYQ007ACV3
Power Supply	Name			V3		
	Phase			1~		
	Frequency		Hz	50		
	Voltage		V	230		
	Voltage Tolerance	Minimum	%	-10%		
		Maximum	%	+10%		
Unit	Maximum Running Current		A	19		
	Minimum Ssc value			Equipment complying with EN/IEC 61000-3-12		
	Recommended fuses according to IEC standard 269-2			20		
Fan	Quantity			1		
	Phase			1~		
	Voltage		V	230		

## 2 Specifications

2-2 ELECTRICAL SPECIFICATIONS			EWYQ005ACV3	EWYQ006ACV3	EWYQ007ACV3
Pump	Phase		1~		
	Power input	kW	0.13		
	Voltage		V		
	Maximum Running Current		A		
	Speed	Minimum	rpm	1,050	
Nominal		rpm	2,250		
Maximum		rpm	2,450		
Evaporator Heater Tape	Supply Voltage		V		
	Capacity		W		
	Voltage Tolerance	Minimum	%		
		Maximum	%		
	Recommended fuses		25A		
Notes			Fuse value valid for complete unit		
			EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low voltage systems with input current > 16A and <= 75A per phase		

2-2 ELECTRICAL SPECIFICATIONS			EWYQ009ACV3	EWYQ010ACV3	EWYQ011ACV3
Power Supply	Name		V3		
	Phase		1~		
	Frequency	Hz	50		
	Voltage		V		
	Voltage Tolerance	Minimum	%		
		Maximum	%		
Unit	Minimum Ssc value		Equipment complying with EN/IEC 61000-3-12		
	Recommended fuses	A	32		
Wiring connections			cf. installation manual		
Notes			EN/IEC 61000-3-12: European/international technical standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated currents <= 75A		

### 3 Options

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Capacity: 5 - 7.1 kW

**Modelnumber**

EWAQ005A\*V3P      EWYQ005A\*V3P  
 EWAQ006A\*V3P      EWYQ006A\*V3P  
 EWAQ007A\*V3P      EWYQ007A\*V3P

Option number	Option description	(On)	Unit size						Availability
			EWAQ005A*V3P	EWAQ006A*V3P	EWAQ007A*V3P	EWYQ005A*V3P	EWYQ006A*V3P	EWYQ007A*V3P	
	Standard unit								
	<b>Available options</b>								
OP10	Evaporator heatertape	-H-	○	○	○	○	○	○	Factory mounted

3TW57539-5

**Notes**

○ Available

#### Optional equipment for EWA(Y)Q009-013AC

**Modelnumber**

EWAQ009ACV3      EWYQ009ACV3  
 EWAQ010ACV3      EWYQ010ACV3  
 EWAQ011ACV3      EWYQ011ACV3  
  
 EWAQ009ACW1      EWYQ009ACW1  
 EWAQ011ACW1      EWYQ011ACW1  
 EWAQ013ACW1      EWYQ013ACW1

Option number	Option description	(on)	Unit size						Availability
	Standard unit		EWAQ009A*W1(on)	EWAG010A*V3(on)	EWAQ011A*V3(on)	EWYQ009A*V3(on)	EWYQ010A*V3(on)	EWYQ011A*V3(on)	
	<b>Available options</b>								
OPSP	Standard pump	P	0	0	0	0	0	0	std
OPHP	high ESP pump	H	0	0	0	0	0	0	Factory mounted
OP10	Evaporator +waterpiping heatertape	*-H-	0	0	0	0	0	0	Factory mounted
EKRP1HB	Digital I/O PCB (1)		0	0	0	0	0	0	Option kit
	Standard unit		EWAQ009*W1(on)	EWAQ011A*W1(on)	EWAQ013A*W1(on)	EWYQ009A*W1(on)	EWYQ011A*W1(on)	EWYQ013*W1(on)	
	<b>Available options</b>								
OPSP	Standard pump	P	0	0	0	0	0	0	std
OPHP	high ESP pump	H	0	0	0	0	0	0	Factory mounted
OP10	Evaporator heatertape	*-H-	0	0	0	0	0	0	Factory mounted
EKRP1HB	Digital I/O PCB (1)		0	0	0	0	0	0	Option kit

	Digit			
	12	13	14	15
OPSP	P			
OPSP + OP10	P	-	H	-
OPHP	H			
OPHP + OP10	H	-	H	-

(1) Input/Output PCB that provides two additional output connections (remote alarm and remote ON/OFF signalisation).

3TW58259-1

## 4 Capacity tables

### 4 - 1 Cooling capacity tables

EWAQ005-007ACV3

EWYQ005-007ACV3

#### COOLING

Model	Tamb (°C)	20		25		30		35		40		43	
	LWE (°C)	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
005	7	6.15	1.37	5.85	1.53	5.53	1.70	5.20	1.89	4.52	2.02	3.93	2.22
	11	6.97	1.38	6.63	1.55	6.28	1.74	5.92	1.94	4.99	1.99	4.26	2.13
	13	7.40	1.38	7.04	1.56	6.68	1.75	6.30	1.96	5.23	1.97	4.43	2.08
	16	8.06	1.38	7.69	1.57	7.30	1.77	6.90	1.99	5.60	1.93	4.67	2.00
	20	9.00	1.38	8.60	1.58	8.18	1.80	7.75	2.02	6.10	1.88	4.97	1.87
006	7	7.06	1.74	6.73	1.93	6.37	2.14	6.00	2.35	4.93	2.30	4.11	2.36
	11	7.96	1.78	7.59	1.99	7.20	2.20	6.78	2.43	5.43	2.29	4.45	2.29
	13	8.44	1.80	8.05	2.01	7.64	2.24	7.20	2.47	5.69	2.28	4.62	2.24
	16	9.18	1.82	8.76	2.05	8.32	2.28	7.86	2.53	6.09	2.26	4.88	2.17
	20	10.2	1.85	9.8	2.09	9.29	2.34	8.79	2.60	6.64	2.22	5.21	2.05
007	7	8.31	2.23	7.94	2.46	7.54	2.70	7.10	2.95	5.49	2.65	4.36	2.55
	11	9.31	2.31	8.89	2.55	8.44	2.81	7.49	2.94	5.79	2.59	4.60	2.45
	13	9.82	2.35	9.39	2.60	8.91	2.86	7.78	2.91	5.99	2.53	4.75	2.38
	16	10.6	2.41	10.15	2.67	9.65	2.94	8.23	2.85	6.28	2.45	4.95	2.26
	20	11.7	2.49	11.2	2.76	10.67	3.05	8.82	2.76	6.65	2.31	5.21	2.09

3TW57532-1

#### SYMBOLS

CC	: Cooling capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)	1
HC	: Heating capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)	2
PI	: Power input (kW)	3
LWE	: Leaving evaporator water temperature (°C)	
LWC	: Leaving Water Condensor temperature (°C)	
Tamb	: Ambient temperature (°C) RH=85%	

#### Conditions

<b>Cooling capacity</b>	Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3-8°C
<b>Heating capacity</b>	Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3-8°C
<b>Power input</b>	Power input is total input according to Eurovent rating standard 6/C/003-2006

#### Note:

The heating capacity and power input in the table has to be multiplied by the correction factor CF as listed in the table below to obtain the integrated heating capacity and power input. The integrated heating capacity and power input, is the average heating capacity and power input during 1 cycle. (from end of defrost till end of the next defrost).

Tamb	-15	-10	-7	-2	2	7
CF for HC	0.89	0.89	0.88	0.87	0.86	1.00
CF for PI	0.95	0.95	0.94	0.93	0.92	1.00



# 4 Capacity tables

## 4 - 1 Cooling capacity tables

EWAQ009-011ACV3

EWYQ009-011ACV3

### Maximum Cooling Capacity

	Tamb	20		25		30		35		40		45	
	LWE	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI	CC	PI
EWA/YQ009 (V3)	7	10,31	1,86	9,70	2,15	9,10	2,45	8,50	2,74	7,58	3,00	6,67	3,26
	10	11,43	1,84	10,72	2,14	10,02	2,43	9,31	2,73	8,50	3,04	7,68	3,34
	13	12,59	1,81	11,80	2,12	11,01	2,42	10,22	2,73	9,43	3,07	8,65	3,41
	15	13,41	1,77	12,60	2,09	11,78	2,42	10,96	2,74	10,09	3,09	9,23	3,43
	18	14,65	1,71	13,79	2,06	12,93	2,41	12,06	2,76	11,08	3,11	10,10	3,46
22	16,29	1,62	15,38	2,01	14,46	2,40	13,54	2,79	12,40	3,15	11,26	3,51	
EWA/YQ010 (V3)	7	11,64	2,21	10,92	2,54	10,21	2,86	9,50	3,19	8,63	3,50	7,75	3,80
	10	12,92	2,22	12,10	2,55	11,28	2,88	10,46	3,21	9,69	3,55	8,91	3,89
	13	14,24	2,22	13,33	2,56	12,41	2,91	11,50	3,25	10,74	3,61	9,99	3,97
	15	15,15	2,23	14,20	2,58	13,26	2,93	12,31	3,28	11,45	3,64	10,59	4,01
	18	16,53	2,23	15,52	2,59	14,52	2,96	13,52	3,32	12,51	3,69	11,49	4,06
22	18,36	2,24	17,28	2,62	16,21	3,00	15,13	3,38	13,91	3,76	12,70	4,14	
EWA/YQ011 (V3)	7	13,45	2,72	12,63	3,09	11,82	3,45	11,00	3,82	9,93	4,18	8,85	4,54
	10	14,97	2,75	14,07	3,13	13,17	3,50	12,27	3,88	11,24	4,26	10,22	4,65
	13	16,46	2,77	15,48	3,16	14,50	3,55	13,52	3,94	12,48	4,34	11,44	4,75
	15	17,41	2,79	16,38	3,19	15,36	3,58	14,33	3,98	13,20	4,39	12,07	4,80
	18	18,85	2,82	17,74	3,23	16,64	3,64	15,54	4,05	14,28	4,47	13,02	4,88
22	20,76	2,85	19,55	3,28	18,35	3,71	17,15	4,13	15,71	4,56	14,28	4,99	

3TW58252-1

### SYMBOLS

- CC : Cooling capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)
- HC : Heating capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)
- PI : Power input (kW), measured acc. Eurovent 6/C/003-2006 (kW)
- LWE : Leaving Water Evaporator temperature (°C)
- LWC : Leaving Water Condensor temperature (°C)
- Tamb : Ambient temperature (°C) RH=85%

### NOTES

- 1 **Cooling capacity**  
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3–8°C  
Capacity values may not be extrapolated below 7°C leaving water temperature
- 2 **Heating capacity**  
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3–8°C
- 3 **Power input**  
Power input is total of indoor and outdoor unit, except the circulation pump; according to Eurovent rating standard 6/C/003-2006.  
Pump power input to be added = 90 W (according EN14511).

## 4 Capacity tables

### 4 - 2 Heating capacity tables

EWYQ005-007ACV3

#### HEATING

Model	LWC	30		35		40		45		50	
	Tamb	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI
005	-15	3.74	1.54	3.67	1.66	3.59	1.79	3.51	1.93	3.42	2.09
	-10	4.40	1.63	4.30	1.76	4.19	1.91	4.07	2.07	3.94	2.25
	-7	4.86	1.67	4.73	1.82	4.60	1.98	4.45	2.15	4.31	2.34
	-2	5.69	1.74	5.54	1.91	5.37	2.09	5.20	2.28	5.02	2.48
	2	6.44	1.79	6.26	1.97	6.07	2.16	5.88	2.37	5.67	2.59
	7	7.48	1.85	7.27	2.04	7.05	2.25	6.83	2.47	6.60	2.71
006	-15	4.63	1.94	4.60	2.08	4.56	2.23	4.50	2.40	4.42	2.58
	-10	5.37	2.06	5.30	2.22	5.22	2.39	5.11	2.59	4.98	2.80
	-7	5.88	2.13	5.78	2.30	5.67	2.49	5.54	2.70	5.38	2.92
	-2	6.81	2.23	6.68	2.43	6.52	2.64	6.35	2.87	6.15	3.12
	2	7.64	2.31	7.48	2.53	7.29	2.76	7.09	3.01	6.87	3.27
	7	8.78	2.41	8.58	2.65	8.36	2.90	8.13	3.17	7.87	3.45
007	-15	5.02	2.15	5.02	2.30	4.99	2.46	4.94	2.65	4.87	2.85
	-10	5.82	2.29	5.76	2.46	5.68	2.65	5.58	2.86	5.46	3.10
	-7	6.35	2.37	6.26	2.56	6.16	2.76	6.03	2.99	5.88	3.24
	-2	7.33	2.50	7.20	2.71	7.05	2.95	6.88	3.20	6.69	3.47
	2	8.19	2.60	8.03	2.83	7.86	3.09	7.65	3.36	7.43	3.65
	7	9.37	2.72	9.18	2.98	8.97	3.25	8.73	3.55	8.47	3.86

3TW57532-1

#### SYMBOLS

CC	: Cooling capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)	1
HC	: Heating capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)	2
PI	: Power input (kW)	3
LWE	: Leaving evaporator water temperature (°C)	
LWC	: Leaving Water Condensor temperature (°C)	
Tamb	: Ambient temperature (°C) RH=85%	

#### Conditions

<b>Cooling capacity</b>	Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3-8°C
<b>Heating capacity</b>	Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3-8°C
<b>Power input</b>	Power input is total input according to Eurovent rating standard 6/C/003-2006

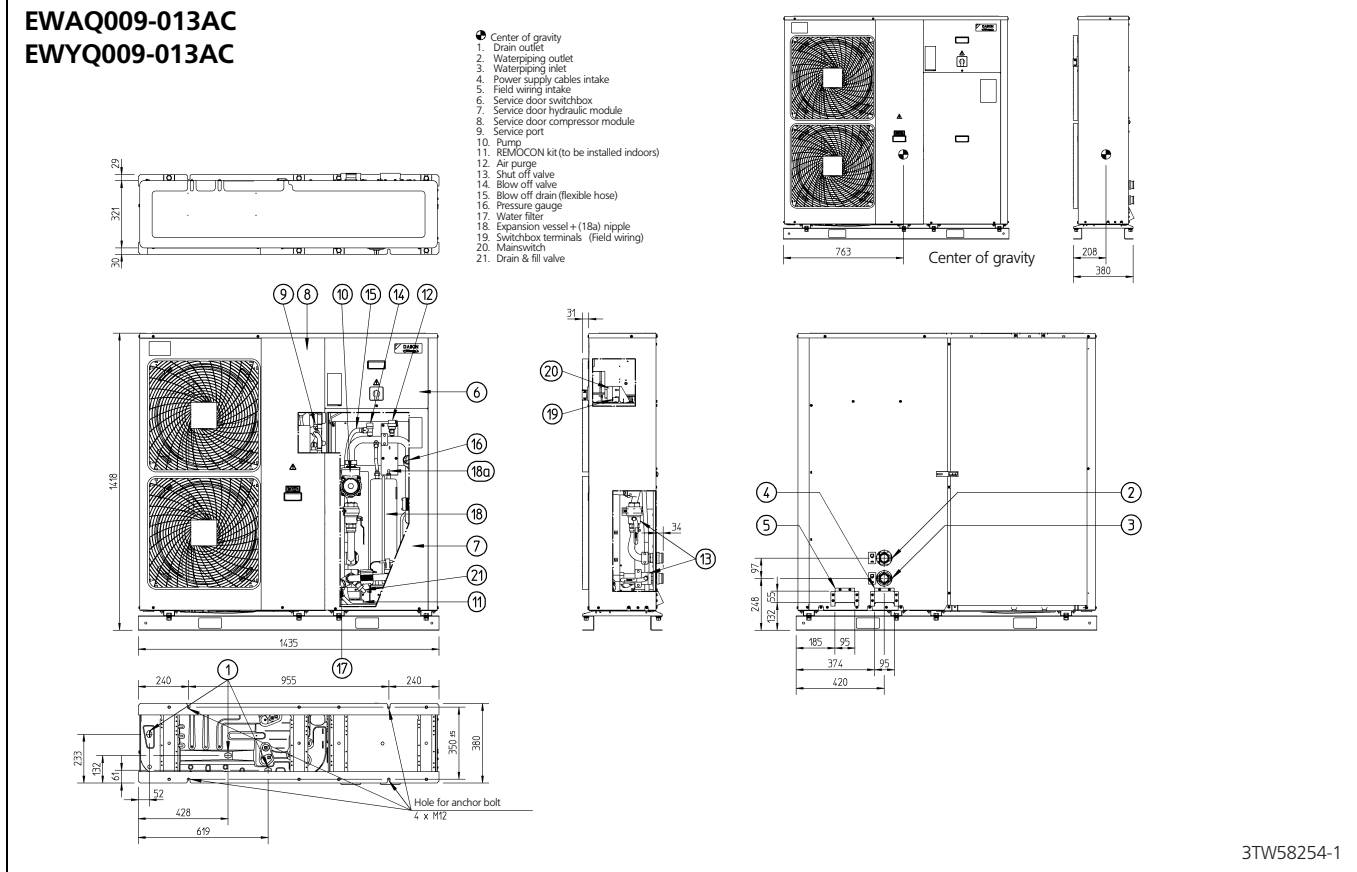
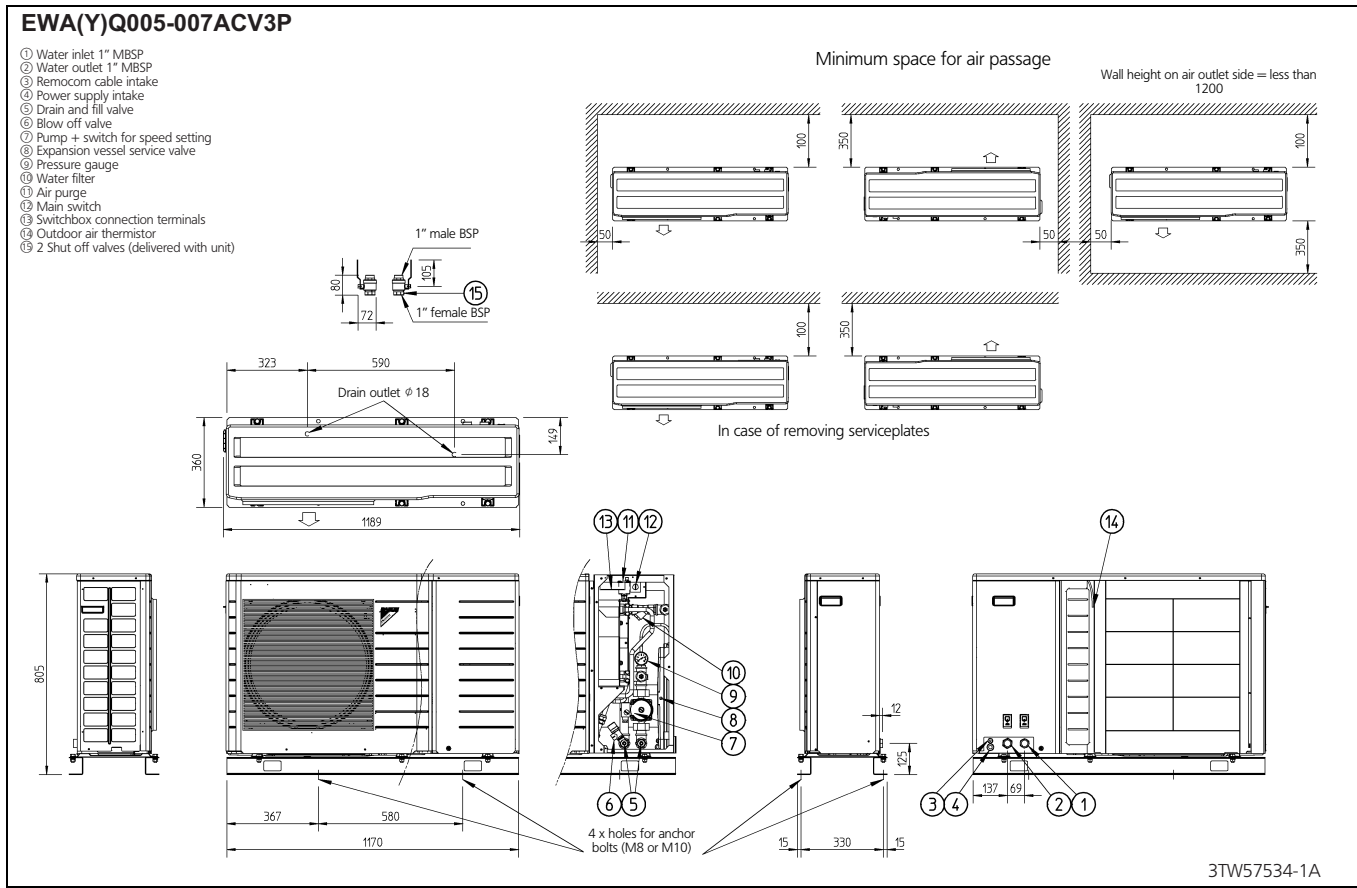
**Note:**  
The heating capacity and power input in the table has to be multiplied by the correctionfactor CF as listed in the table below to obtain the integrated heating capacity and power input. The integrated heating capacity and power input, is the average heating capacity and power input during 1 cycle. (from end of defrost till end of the next defrost).

Tamb	-15	-10	-7	-2	2	7
CF for HC	0.89	0.89	0.88	0.87	0.86	1.00
CF for PI	0.95	0.95	0.94	0.93	0.92	1.00



# 5 Dimensional drawing & centre of gravity

## 5 - 1 Dimensional drawing

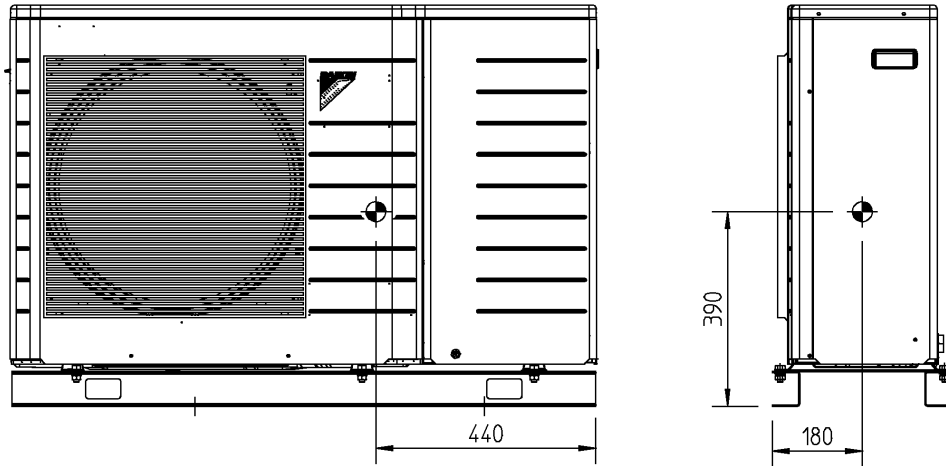


## 5 Dimensional drawing & centre of gravity

### 5 - 2 Centre of gravity

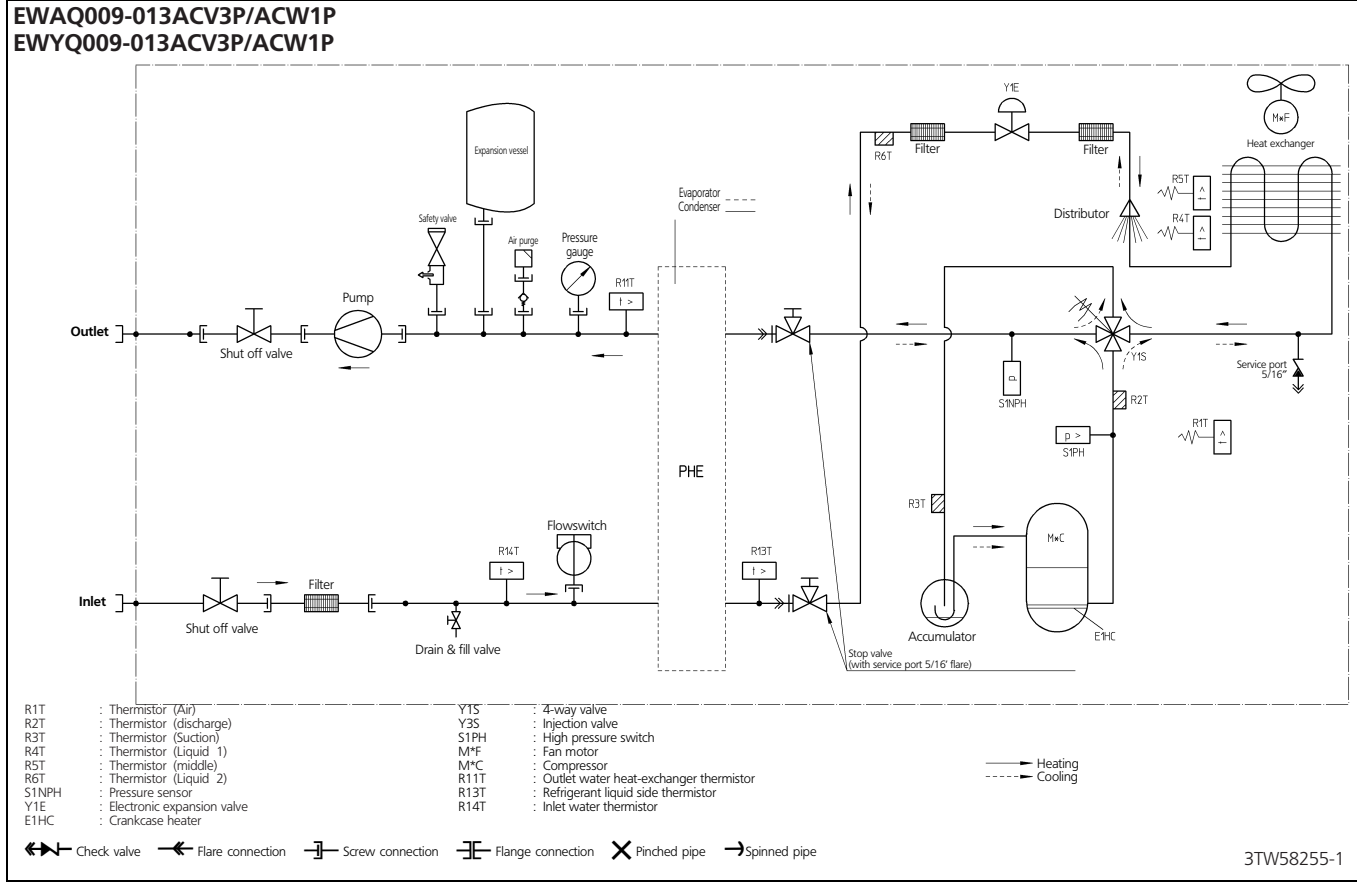
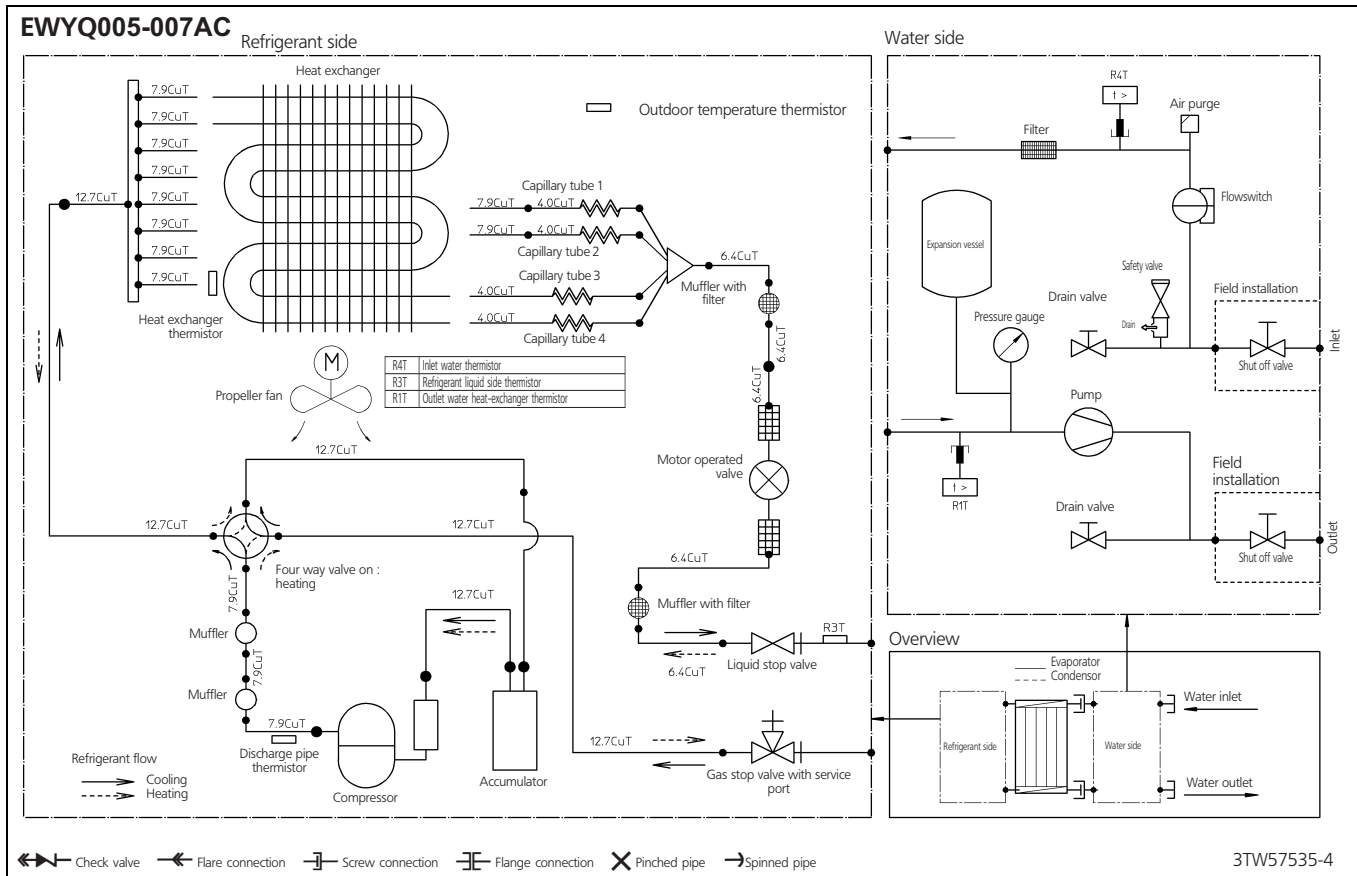
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5



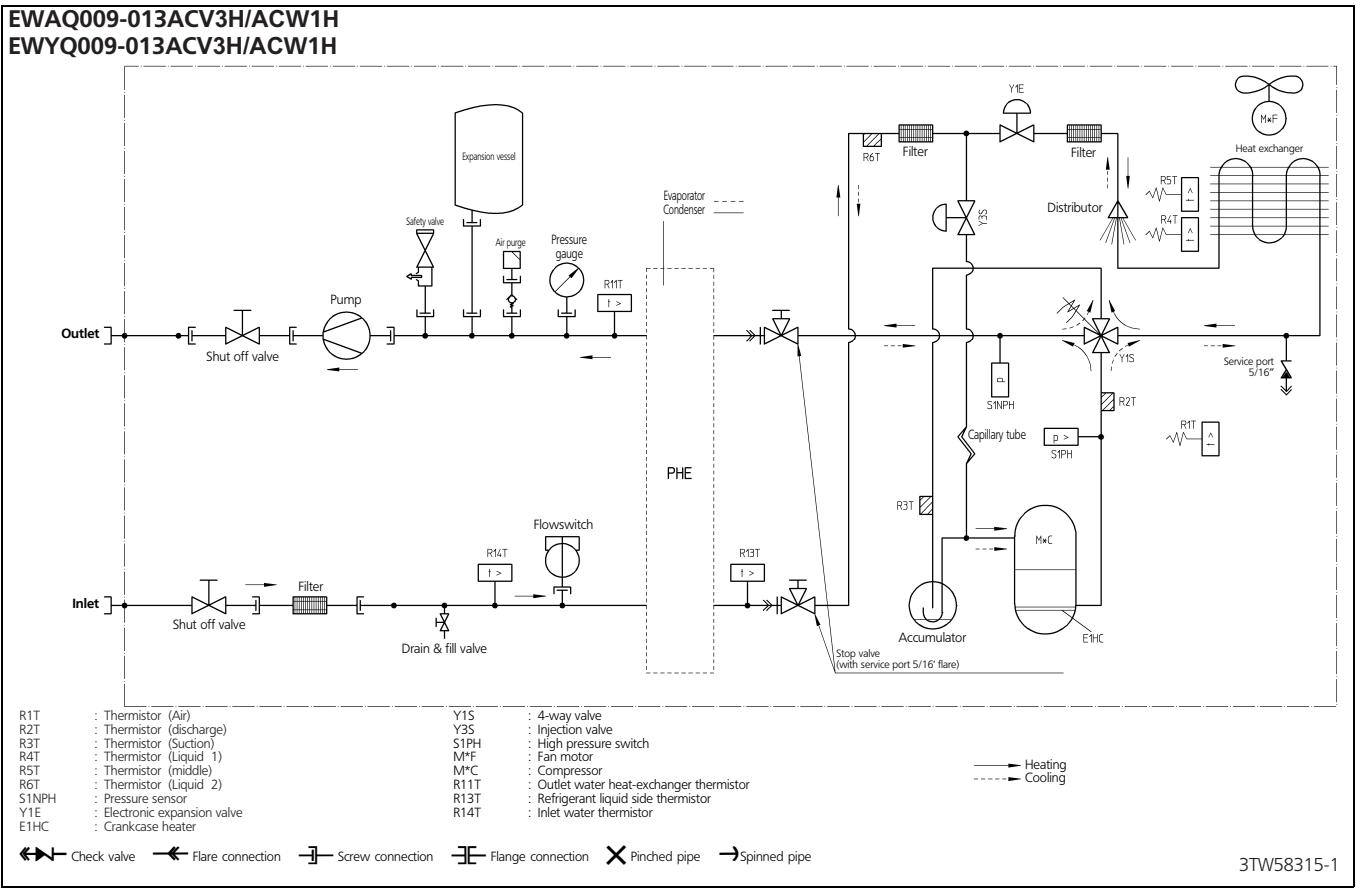
4TW56749-1

# 6 Piping diagram



# 6 Piping diagram

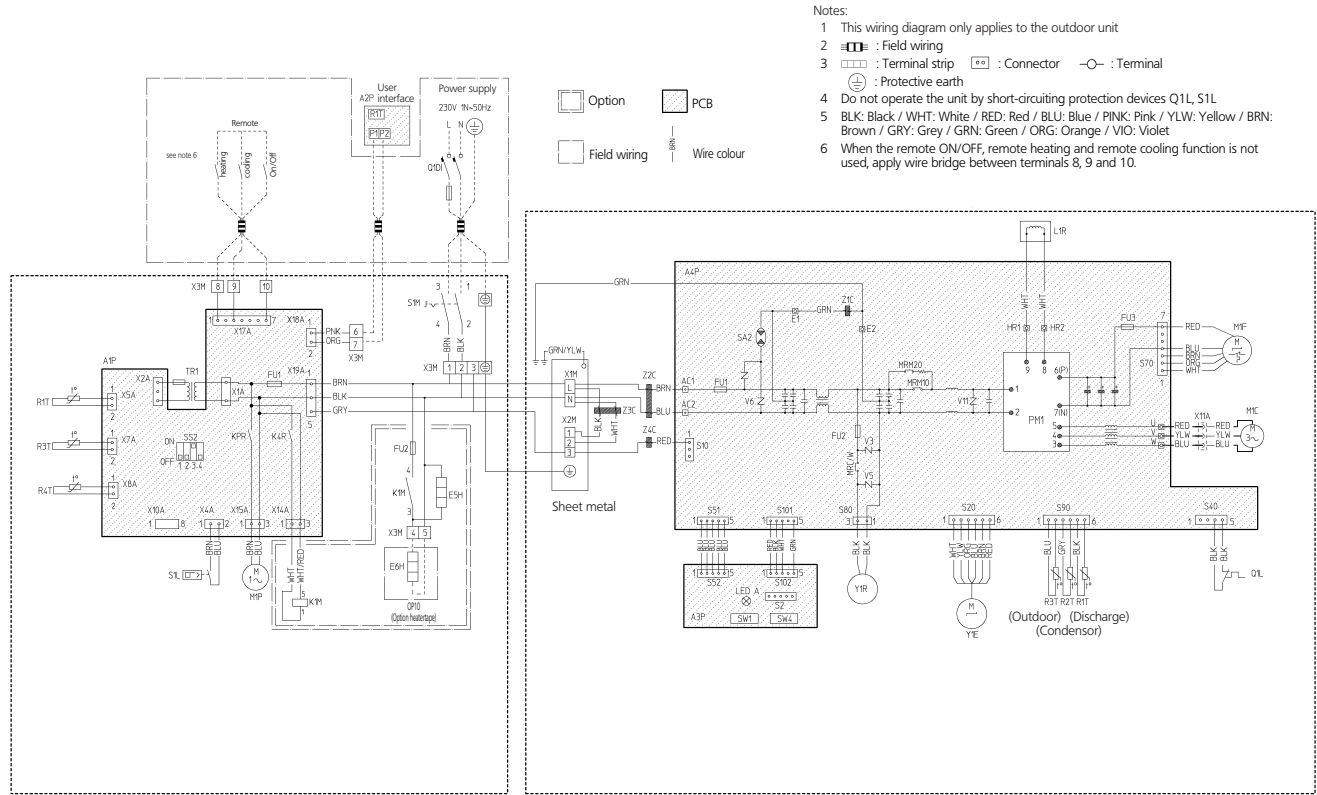
1  
6



# 7 Wiring diagram

## 7 - 1 Wiring diagram

EWAQ005-007ACV3P  
EWYQ005-007ACV3P



Q1DI Earth leakage protector  
TR1 Transformer 24V for PCB  
R4T Inlet water thermistor  
R3T Refrigerant liquid side thermistor  
R1T Outlet water heat exchanger  
S1L Flowswitch  
M1P Pump  
A2P Remocom PCB (indoor)  
A1P Main PCB  
S1M Mainswitch  
FU1 Fuse 3.15A T 250V  
FU2 Fuse 5A 250V  
X1A,X2A Connector  
X4A,X5A Connector  
X7A,X8A Connector  
X10A,X15A Connector  
X17A,X18A Connector  
X19A,X20A Connector  
E5H Heatertape  
E6H Heatertape (Field supply)  
SS2 Dipswitch  
K1M Relay  
X3M Terminal strip

Z1C~Z4C Ferrite core  
X1M,X2M Terminal strip  
Y1E Electronic expansion valve coil  
V2,V3,V5,V6,V11 Varistor  
SA2 Surge arrester  
FU1 Fuse 30A 250V  
FU2 Fuse 3.15A 250V  
FU3 Fuse 3.15A 250V  
AC1,AC2 Connector  
U,V,W,X11A Connector  
E1,E2 Connector  
HR1,HR2 Connector  
MRM10,MRM20 Magnetic relay  
MRC/W Magnetic relay  
R1T~R3T Thermistor  
S2~S102 Connector  
LED A Pilot lamp

L Live  
N Neutral  
SW1 Forced operation on/off SW (SW1)  
SW4 Local setting SW (SW4)  
M1C Compressor motors  
M1F Fan motor  
L1R Reactor  
Q1L Overload protector  
PM1 Power module  
PCB1,2 Printed circuit board  
Y1R Reversing solenoid valve coil  
Sheet metal Terminal strip fixed plate

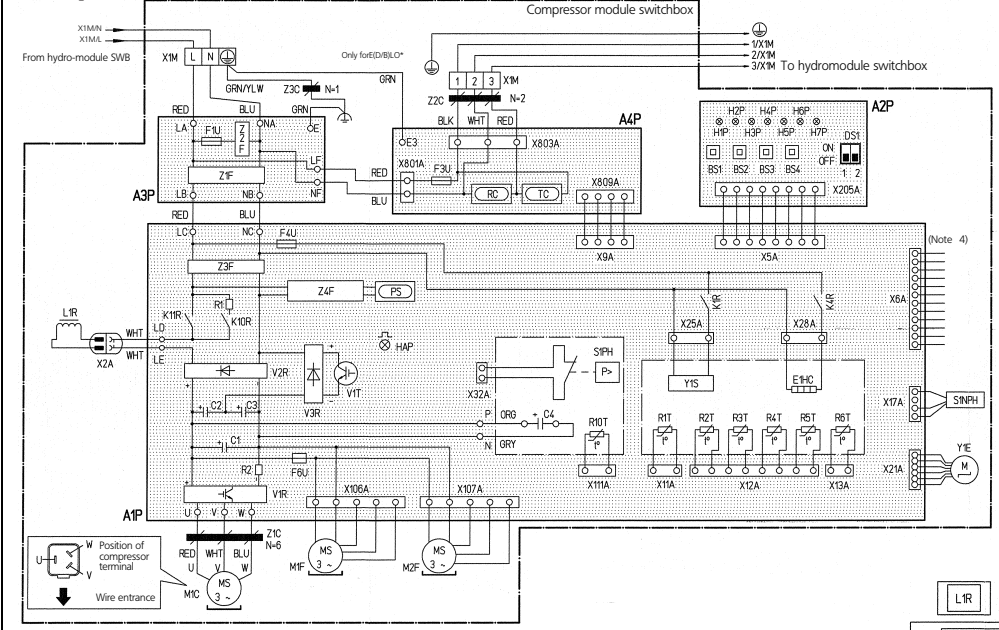
3TW57536-1A



# 7 Wiring diagram

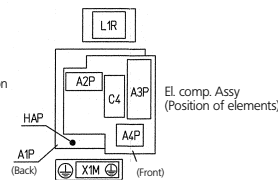
## 7 - 1 Wiring diagram

### EWAQ009-011ACV3 EWYQ009-011ACV3



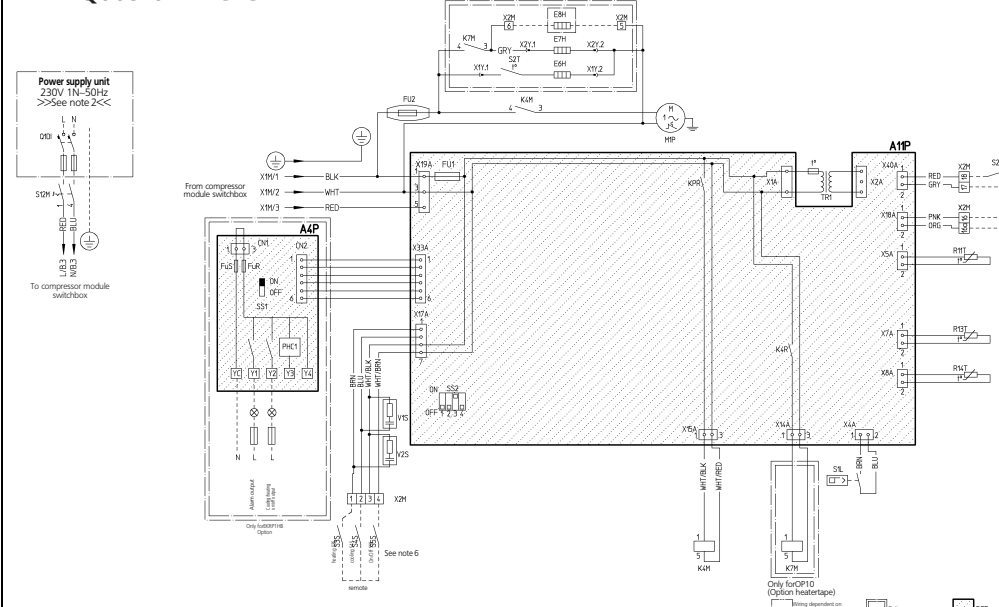
- A1P Printed circuit board (Main)
- A2P Printed circuit board (INV)
- A3P Printed circuit board (Noise filter)
- A4P Printed circuit board
- B1-B54 Push button switch
- C1-C4 Capacitor
- DS1 DIP switch
- E1HC Crankcase heater
- F1, F2, F3, F4, F5 Fuse (T 6.3A/250V)
- F6J Fuse (T 5.0A/250V)
- H1P-7P (A2P) Light Emit. Diode (Serv. Monitor-Orange)
- HAP (A1P) Prepare, Test
- K1R Flickering
- K1L Malfunction Detection - Light up
- K4R Light emitting diode (service monitor green)
- K10R Magnetic relay (Y13)
- K11R Magnetic relay
- K11R Magnetic relay
- L1R Reactor
- M1C Motor (Compressor)
- M1F Motor (Fan) (upper)
- M2F Motor (Fan) (lower)
- P5 Switching power supply
- Q1DI Field earth leakage breaker (300mA)
- R1 Resistor
- R2 Resistor
- R1T Thermistor (Air)
- R2T Thermistor (Discharge)
- R3T Thermistor (Suction)
- R4T Thermistor (Heat exchanger)
- R5T Thermistor (heat exchanger middle)
- R6T Thermistor (Liquid)
- RC Signal receiver circuit
- R10T Thermistor (Pin)
- S1NPH Pressure sensor
- S1PH Pressure switch (High)
- TC Signal transmission circuit
- V1R Motor module
- V2R, V3R Diode module
- V1M IGBT
- X1M Terminal strip (Power supply)
- Y1E Electronic expansion valve
- Y1S Solenoid valve (4 way valve)
- Z1C-Z3C Noise filter (ferro core)
- Z1F-Z4F Noise filter

- Notes
- 1 This wiring diagram only applies to the compressor module switchbox
  - 2 L: Live, N: Neutral, ---: Field wiring
  - 3 [ ]: Terminal strip, [ ]: Connector, [ ]: Connection, [ ]: Protective earth (screw)
  - 4 [ ]: Connector, [ ]: Noiseless earth, [ ]: Terminal
  - 5 -
  - 6 Do not operate the unit by short-circuiting protection device S1PH
  - 7 Colors: BLK: black, RED: red, BLU: blue, WHT: white, YLW: yellow, ORG: orange, BRN: brown, GRN: green
  - 8 Confirm the method of setting the selector switches (DS1) by service manual. Factory setting of all switches: "OFF".



2TW58256-1

### EWAQ009-011ACV3 EWYQ009-011ACV3



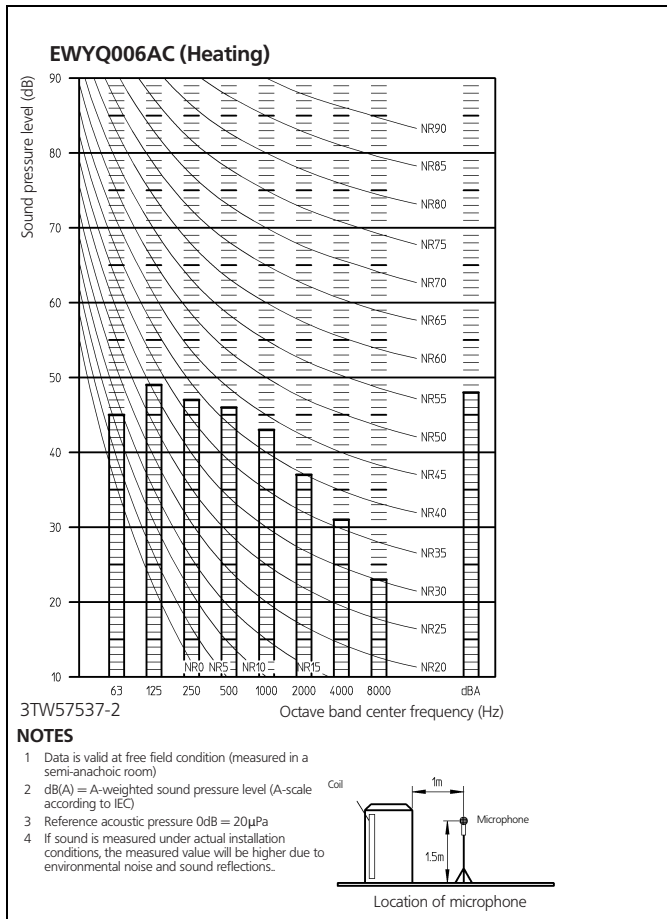
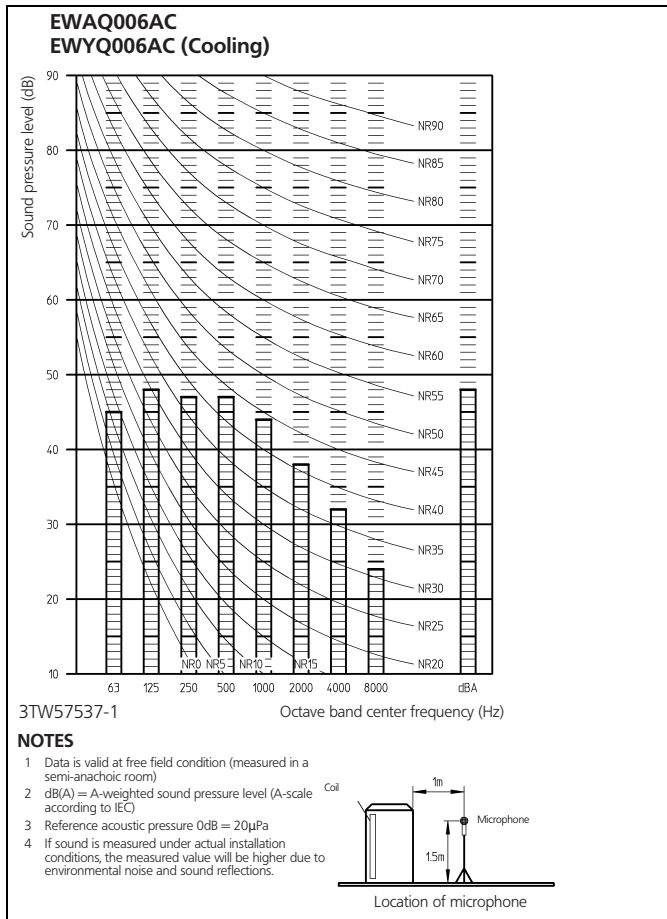
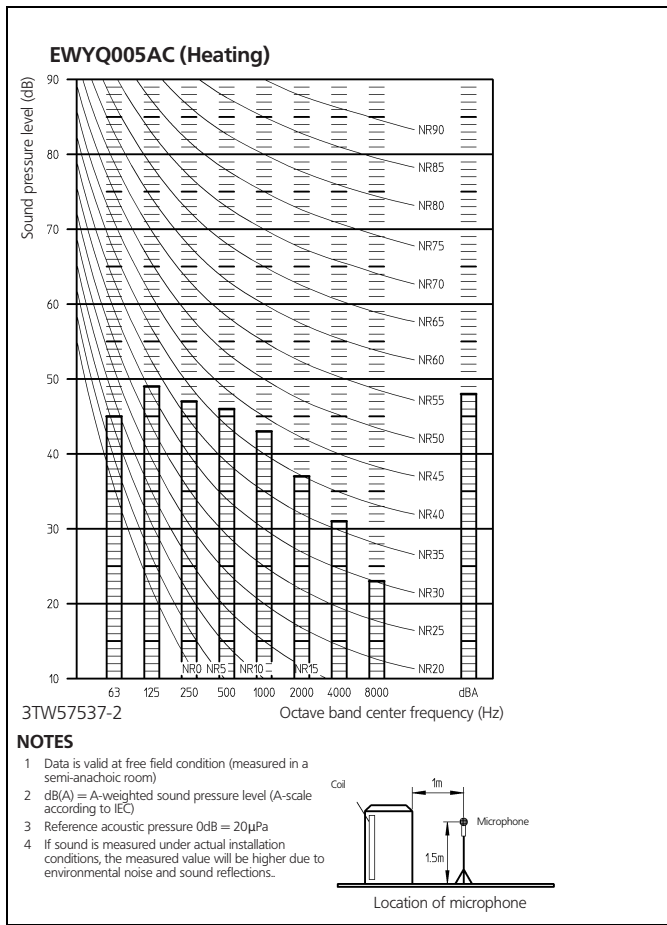
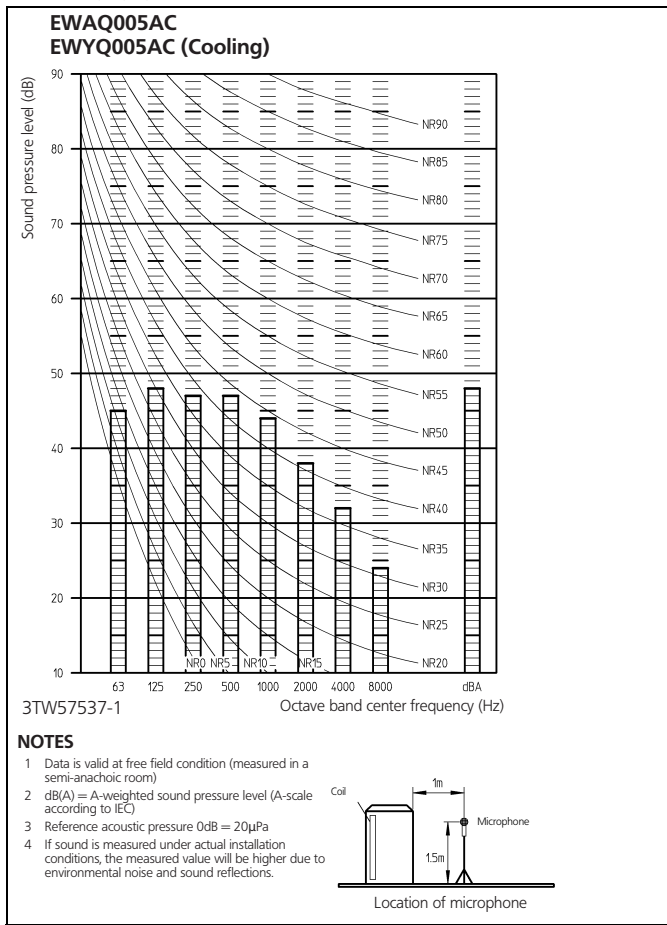
- A11P Main PCB
- A12P User interface PCB
- A4P (EKRP1HB) Remote alarm PCB
- E4H Expansion vessel heater
- E7H water piping heater
- E8H Heater tape (Field supply Max. 200W)
- FU1 Fuse 3 15A T 250V for PCB
- FU2 Fuse 5A T 250V
- FUS, FUR Fuse 5A 250V Remote alarm PCB
- K4M pump relay
- K5M Heater relay
- M1P Pump
- PHC1 Optocoupler input circuit
- Q1DI Earth leakage protector
- R11T Outlet water heat-exchanger thermistor
- R13T Refrigerant liquid side thermistor
- R14T Inlet water thermistor
- S1L Flowswitch
- S12M Main switch
- S2S benefit kWh rate signal
- S3S remote heating signal
- S4S remote cooling signal
- S5S remote ON/OFF signal
- S2T thermostat expansion vessel heater
- SS1, SS2 DIP switch
- TR1 Transformer 24V for PCB
- V1S, V2S Spark suppression 1, 2
- X2M Terminal strips
- X1-ZY Connector

- Notes
- 1 This wiring diagram only applies to the hydromodule switchbox
  - 2 [ ]: Field wiring, [ ]: Normal open/Normal closed
  - 3 [ ]: Terminal strip, [ ]: Connector, [ ]: Terminal, [ ]: Protective earth
  - 4 Do not operate the unit by short-circuiting any protection device
  - 5 BLK: Black / WHT: White / RED: Red / BLU: Blue / PINK: Pink / YLW: Yellow / BRN: Brown / GRN: Grey / GRN: Green / ORG: Orange / VIO: Violet
  - 6 When the remote ON/OFF, remote heating and remote cooling function is not used, apply wire bridge between terminals 1, 2 and 4.

2TW58256-2B

# 8 Sound data

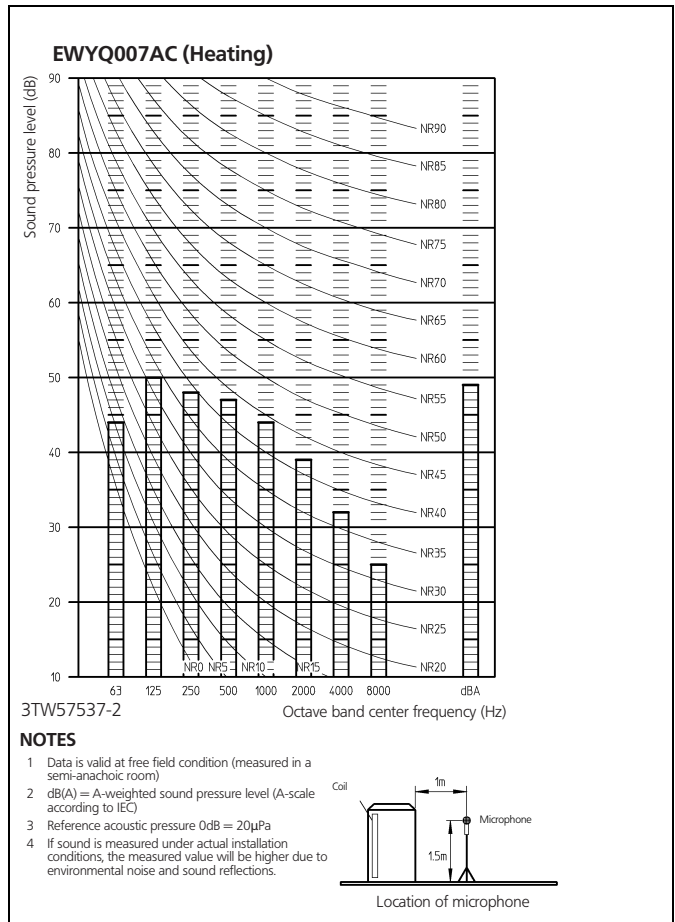
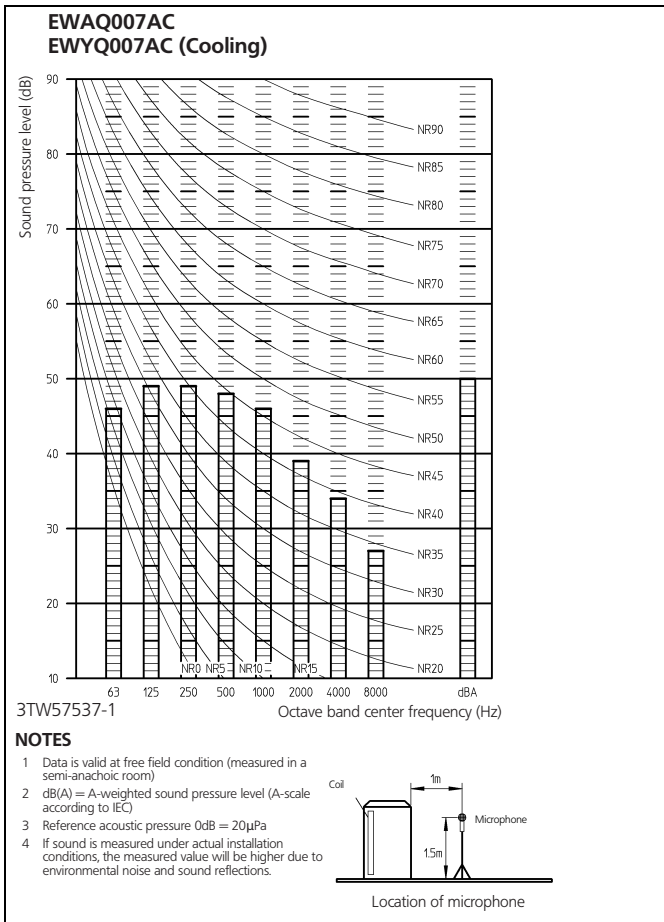
## 8 - 1 Sound pressure spectrum



# 8 Sound data

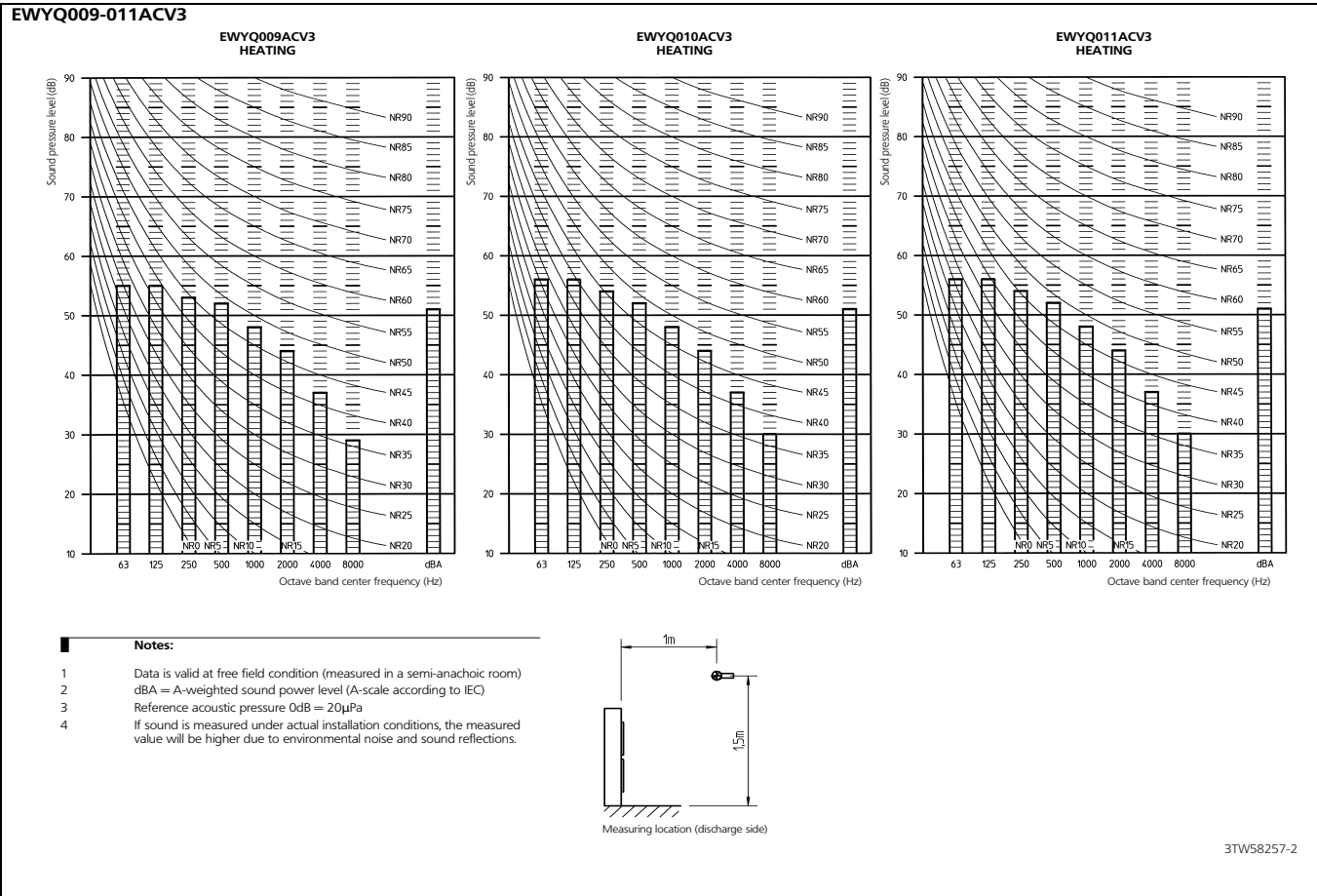
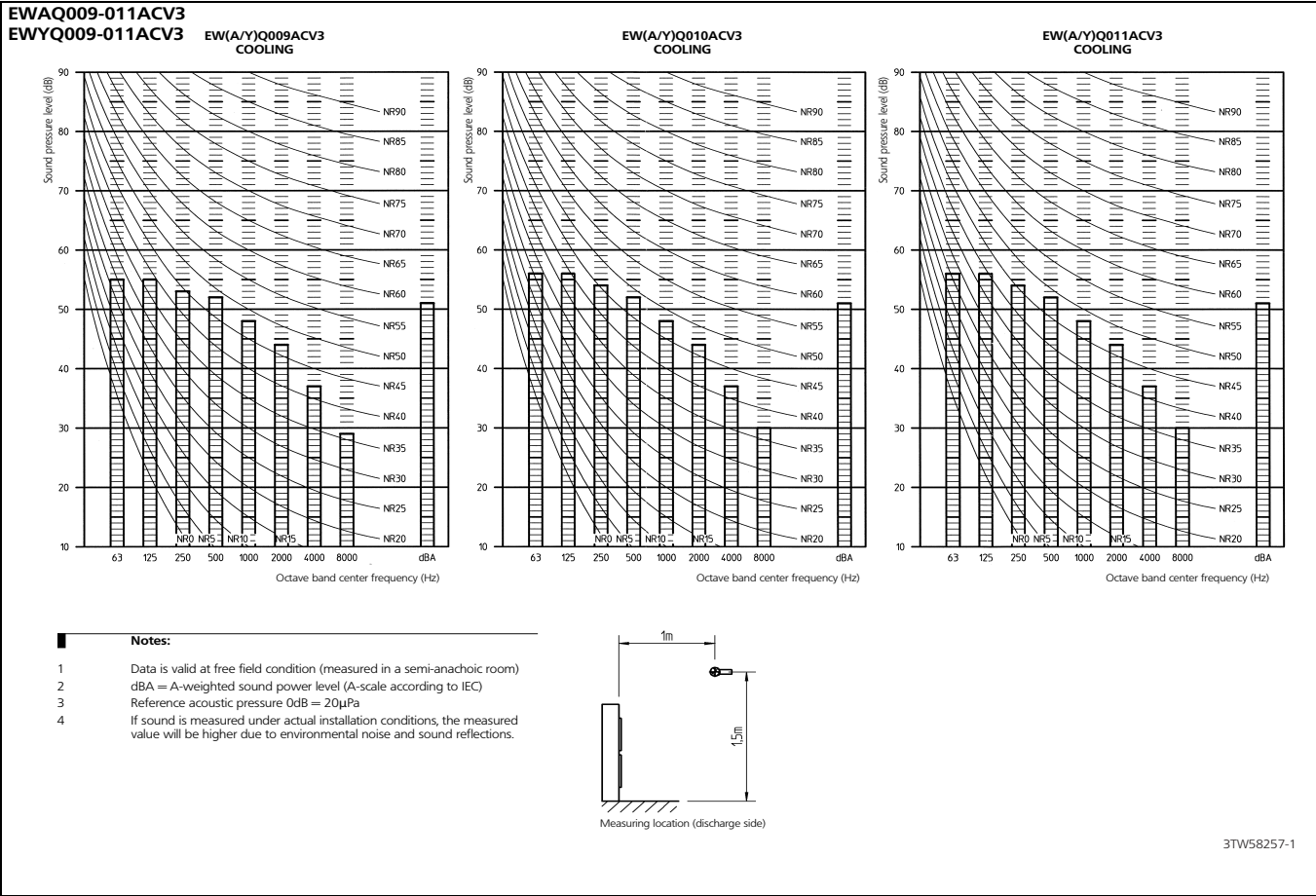
## 8 - 1 Sound pressure spectrum

1  
8



# 8 Sound data

## 8 - 1 Sound pressure spectrum

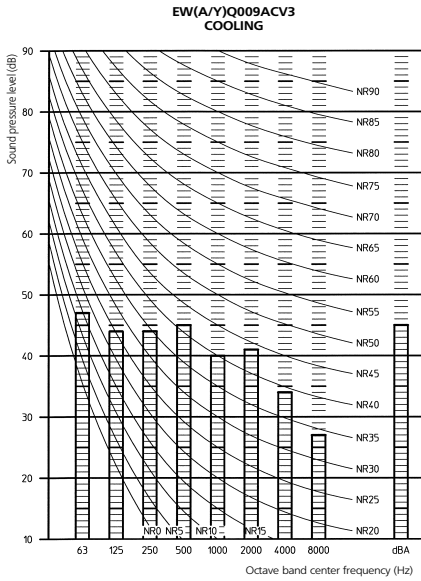


# 8 Sound data

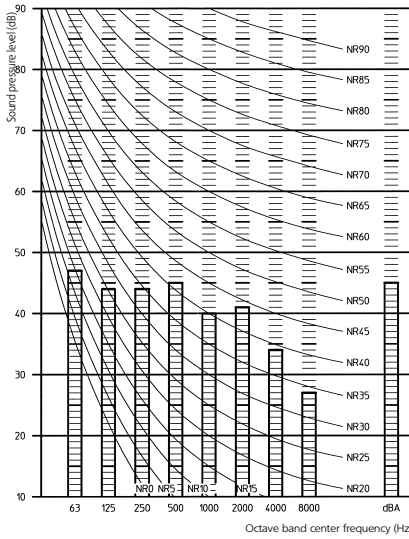
## 8 - 1 Sound pressure spectrum

1  
8

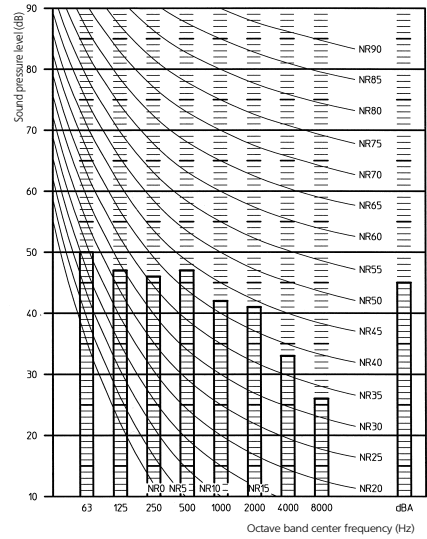
EW(A/Y)Q009-011ACV3 - night quiet mode



EW(A/Y)Q010ACV3 COOLING

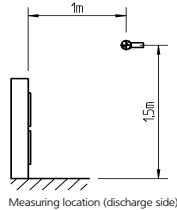


EW(A/Y)Q011ACV3 COOLING



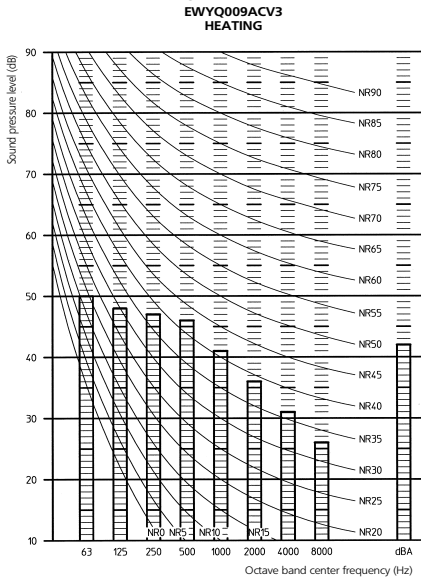
**Notes:**

- 1 Data is valid at free field condition (measured in a semi-anechoic room)
- 2 dBA = A-weighted sound power level (A-scale according to IEC)
- 3 Reference acoustic pressure 0dB = 20µPa
- 4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

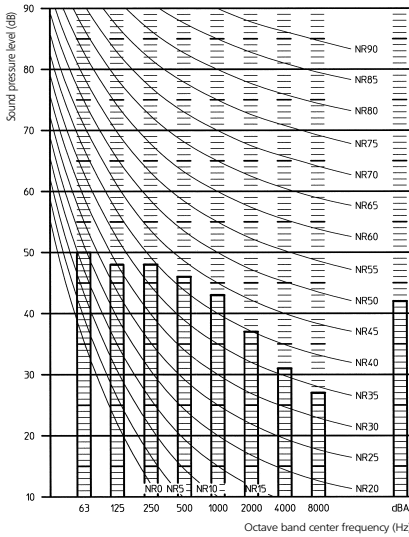


3TW58257-3

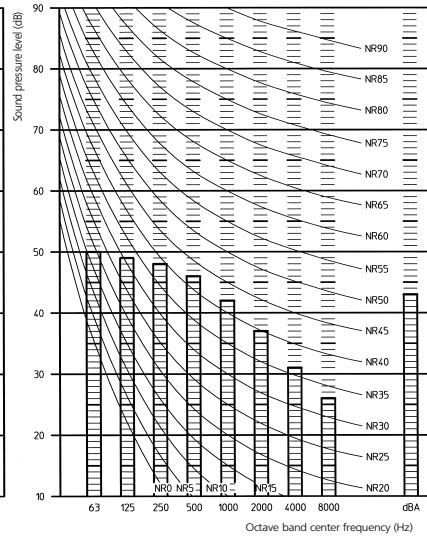
EWYQ009-011ACV3 - night quiet mode



EWYQ010ACV3 HEATING

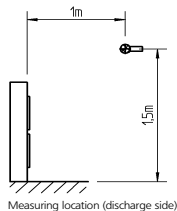


EWYQ011ACV3 HEATING



**Notes:**

- 1 Data is valid at free field condition (measured in a semi-anechoic room)
- 2 dBA = A-weighted sound power level (A-scale according to IEC)
- 3 Reference acoustic pressure 0dB = 20µPa
- 4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



3TW58257-4A

## 8 Sound data

### 8 - 2 Sound power spectrum

	Sound power total (dBA)	
	LwA - Cooling mode	LwA - Heating mode
EWAQ005ACV3P***	62	N/A
EWAQ006ACV3P***	62	N/A
EWAQ007ACV3P***	63	N/A
EWYQ005ACV3P***	62	60
EWYQ006ACV3P***	62	60
EWYQ007ACV3P***	63	61

Notes:

- Data valid at nominal operation condition
- Measured according ISO3744

4TW57537-3A

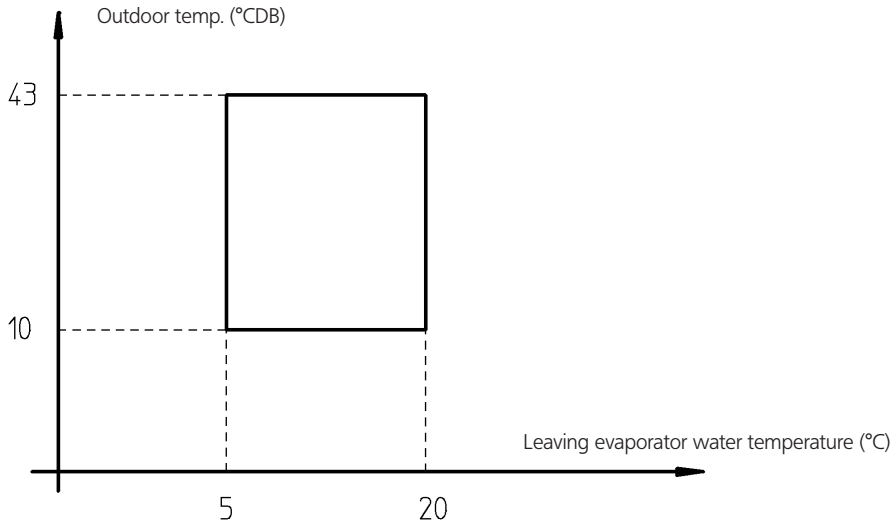
1  
8

# 9 Operation range

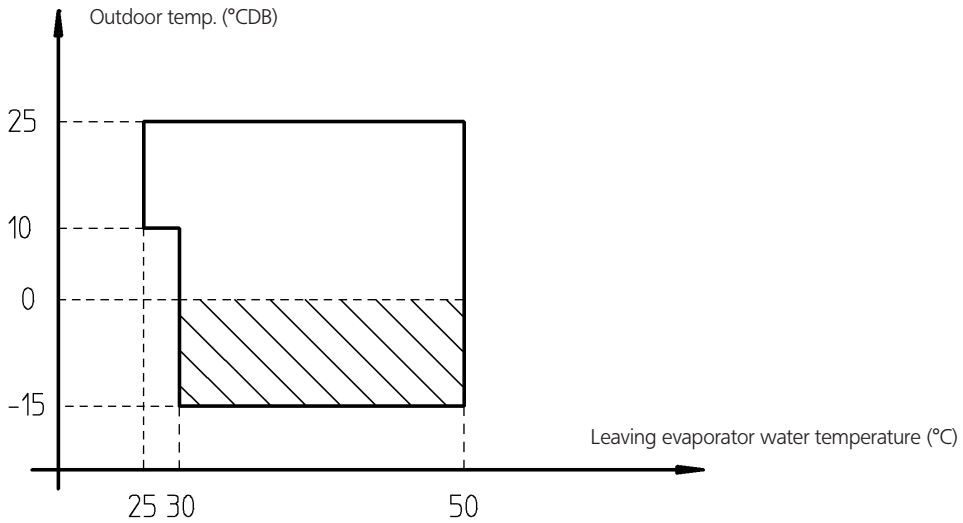
1  
9


EWAQ005-007ACV3P  
EWYQ005-007ACV3P

## Cooling mode



## Heating mode

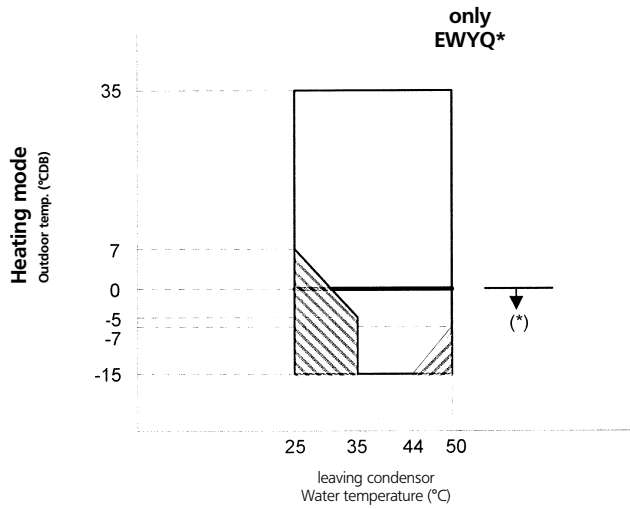
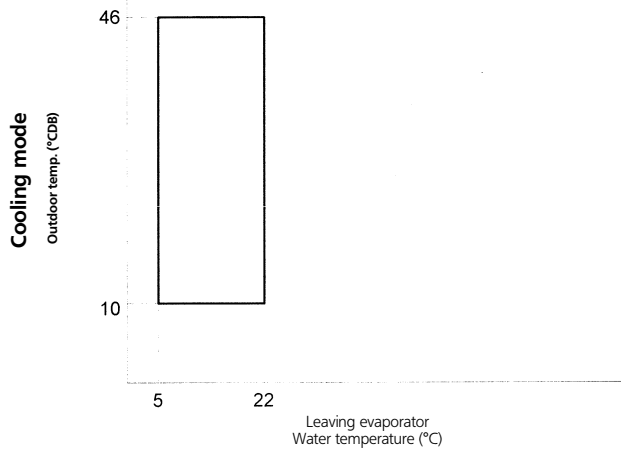


 : Protect the water circuit against freezing

4TW57533-1A

# 9 Operation range

EWAQ009-011ACV3  
EWYQ009-011ACV3



- No heatpump operation.
- In this area the minimum watervolume must be increased to 40l
- (\*) In case ambient temperatures below 0°C are likely to happen, we recommend to use
  - \* Glycol (for more information, see installation manual),
  - or
  - \* OP10 (Insulation+ heatertape around the waterpiping).

4TW58253-1A

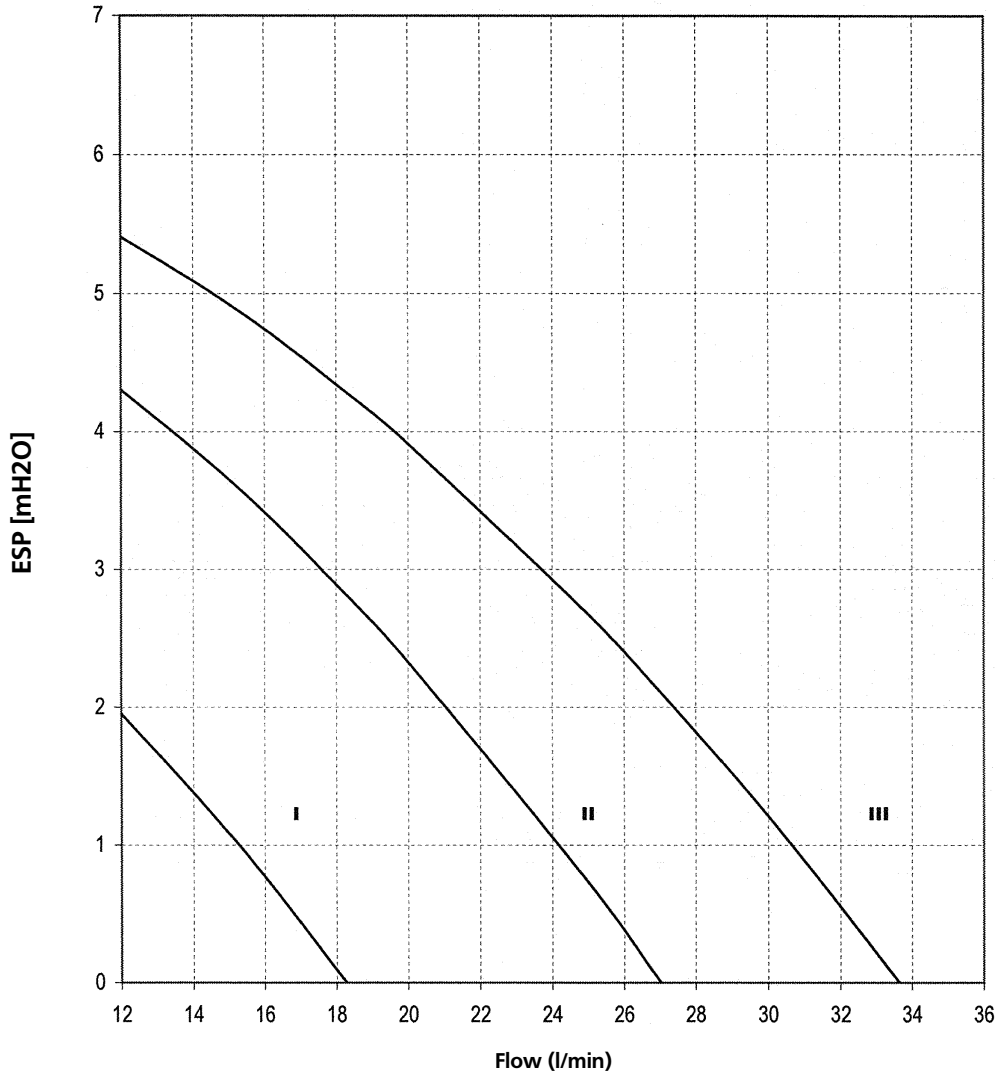


# 10 Hydraulic performance

## 10 - 1 Static pressure drop unit

EWAQ005-007ACV3P  
EWYQ005-007ACV3P

ESP = f (Flow)



- I: low speed setting pump
- II: medium speed setting pump
- III: high speed setting pump

ESP: External static pressure  
Flow: waterflow trough the unit

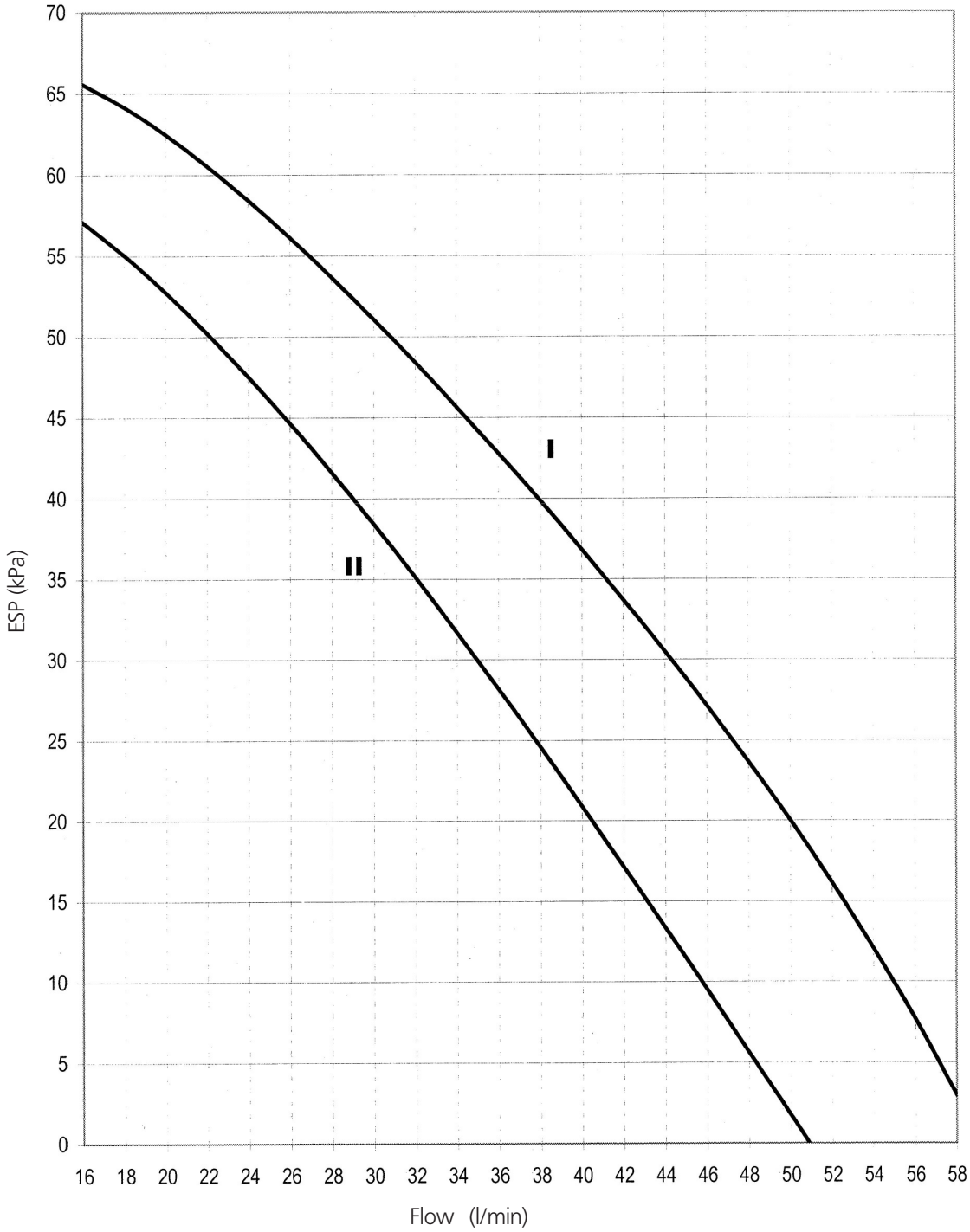
**Warning:** Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrate in the technical specifications.

4TW56749-2

# 10 Hydraulic performance

## 10 - 1 Static pressure drop unit

EWAQ009-013AC  
EWYQ009-013AC



I High speed  
II medium speed  
ESP: External static pressure  
Flow: waterflow through the unit

**WARNING**

1. Selecting a flow outside the curves can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.
2. Water quality must be according to EN directive EC 98/83 EC.

4TW58259-2A

## 10 Hydraulic performance

### 10 - 1 Static pressure drop unit

1

10