VWL 55/3 A 230; VVWL 85/3 A 230 V

English		I.Stamm 15.12.2016		
Technical dates				
Art.-No.		VWL 55/3 A 230V (0010019758) Genia Air 5/2 (0010019790) Genia Air 5/2 (0010019782) Genia Air 4/2 (0010019786) Genia Air 5/2 (0010019770) Genia Air 5/2 (0010019774)	Genia Air 8/2 (0010019783) Genia Air 8/2 (0010019771) Genia Air 6/2 (0010019787) Genia Air 8/2 (0010019775) VWL 85/3 A 230V (0010019759) VWL 85/3 A 230V (0010019765)	
Type		**VWL 55/3 A 230V**	**VWL 85/3 A 230V**	
Kind of heat pump		Luft / Wasser Wärmepumpe | Air / Water heat pump		
Application of heat pump		Die Wärmepumpen sind ausschließlich im häuslichen Gebrauch als Wärmeerzeuger für geschlossene Warmwasser-Zentralheizungsanlagen und für die Warmwasserbereitung bestimmt. | The pumps are intended for domestic use as a heat source for closed hot water central heating systems and hot water.		
Country of destination		AT – BE – CH – DE – DK – ES – FR – GB – GR – HU – IE – CZ – TR – IT – LU – NL – NO – PT – SE – SI – PL – SK- HR – UA - FI		

		VWL 55/3 A 230V	**VWL 85/3 A 230V**	
Dimensions				
Height		834	975	mm
Width		970	1103	mm
Depth		408	463	mm
Weight - without packaging		86	102	kg
Electrical data				
Nominal voltage / rated voltage		1/NP/PE 230V~ 50 Hz		
Optional building earth leakage circuit breaker		Always use a residual current operated circuit breaker compatible with smoothed DC residual currents and high harmonics, as this unit is equipped with a frequency converter. It would be recommended to install the RCD separately		
Inrush currents		16	16	A
Nominal current		**16**	**16**	A
Nominal power		**3,68**	**3,68**	kW
Protection class		IP 25		
Hydraulic connection				
Heating flow/ return		1 1/4"		
heat source flow/ return		---	---	
Cold / hot water		---	---	
central heating waterexpansion vessel		---	---	
Heat source circuit				
min. input temperature heating / DHW		-15	-20	°C
max. input temperature heating		28		°C
max. input temperature DHW		46		°C
min. input temperature cooling		10		°C
max. input temperature cooling		46		°C
Nominal flow rate at A7W35		2000	2700	m³ / h
Electrical power / Rated power fan		15…42		W
Kind of fan		axial		
		550	550	rpm
Heating / Cooling / environment circut				
Volume of the heating circuit in the heat pump		1,1	1,6	l
Materials of the heating circuit		Cu, CuZn-Alloy, Stainless Steel, EPDM, painted FE		
Acceptable water quality		Heizungswasser nicht mit Frost- oder Korrosionsschutzmitteln anreichern! Enthärten Sie das Heizwasser bei Wasserhärten ab 3,0 mmol/l (16,8° dH) gemäß Richtlinie VDI2035 Blatt 1! | Heating water can not accumulate with frost and corrosion protection products! They soften the hot water at water hardness of 3.0 mmol / l (16.8 ° dH) according to directive VDI 2035 Part 1!		
min. pressure		0,1 (1)		MPa (bar)
max. pressure		0,3 (3)		MPa (bar)
min. outgoing temperature		22		°C
max. outgoing temperature		60	63	°C
min. Nominal flow		0,38	0,38	m³ / h
Nominal flow rate dT 5K		0.86	1.4	m³ / h
max. rest pressure head dT 5K		640	450	mbar
Nominal flow rate dT 8K		0.61	0,78	m³ / h
max. rest pressure head dT 8K		750	690	mbar
Electrical power / Rated power heating circuit pump		15…70		W
Type of pump		Hocheffizienz Pumpe | High efficiency pump		
EER of pump		<0,23		
Water content of the heating circuit min.		17	21	l
Refrigerant circuit				
Refrigerant type		R410A		
Amount		1,8	1,95	kg
No. of turns EX-Valve		---	---	U
Calculation pressure		4,15 (41.5)		MPa (bar)
Compressor Type		Rollkolben | rolling piston		
Oil		spezifisches Polyvinylester (PVE) | specific polyvinyl (PVE)		
Control refrigeration circuit		elektronisch | electronic		

		VWL 55/3 A 230V	VWL 85/3 A 230V	
Sound power level				
when heating				
A7W35 --> EN 12102 --> EN 14511 Lw i		58,39	59,27	dB(A)
A7W45 --> EN 12102 --> EN 14511 Lw i		58,47	59,01	dB(A)
A7W55 --> EN 12102 --> EN 14511 Lw i		58,12	59,87	dB(A)
A20W35 --> EN 12102 --> EN 14511 Lw i		Not measured	Not measured	dB(A)
A20W45 --> EN 12102 --> EN 14511 Lw i		Not measured	Not measured	dB(A)
A20W55 --> EN 12102 --> EN 14511 Lw i		Not measured	Not measured	dB(A)
when cooling				
A35W18 --> EN12102 --> 14511 Lw o		56,18	60,13	dB(A)
Place of installation				
Place of installation		Außen / outside		
Ambient temperature at the place of installation		- 15 / 46	- 20 / 46	°C
Heating **TA Lärm general residential**				
Minimum distances daytime				
- Sound propagation hemisphere		0,8	0,8	m
- Sound propagation quarter sphere		1,1	1,1	m
- Sound propagation eighth sphere		1,6	1,6	m
Minimum clearances night operation				
- Sound propagation hemisphere		4,5	4,5	m
- Sound propagation quarter sphere		6,3	6,3	m
- Sound propagation eighth sphere		9,0	9,0	m
Cooling **TA Lärm general residential**				
Minimum distances daytime				
- Sound propagation hemisphere		0,6	0,9	m
- Sound propagation quarter sphere		0,8	1,3	m
- Sound propagation eighth sphere		1,1	1,8	m
Minimum clearances night operation				
- Sound propagation hemisphere		3,2	5,0	m
- Sound propagation quarter sphere		4,5	7,1	m
- Sound propagation eighth sphere		6,3	10,0	m

Performance data

		VWL 55/3 A 230V	VWL 85/3 A 230V	
Performance data EN 14511 heat pump				
Note		Die nachfolgenden Leistungsdaten gelten für neue Geräte mit sauberen Wärmeübertragern. The following performance data apply to new equipment with clean heat exchangers.		
Heating EN 14511				
A-15W35 -> EN 14511				
Heating power		3,80	5,70	kW
Power consumption		1,60	2,40	kW
COP		2,40	2,40	
A-15W45 -> EN 14511				
Heating power		4,20	5,00	kW
Power consumption		2,10	2,40	kW
COP		2,00	2,10	
A-15W55 -> EN 14511				
Heating power		outside envelope	outside envelope	kW
Power consumption		outside envelope	outside envelope	kW
COP		outside envelope	outside envelope	
A-7W35 -> EN 14511				
Heating power		4,90	6,60	kW
Power consumption		1,90	2,50	kW
COP		2,50	2,70	
A-7W45 -> EN 14511				
Heating power		4,60	5,70	kW
Power consumption		2,30	2,50	kW
COP		2,00	2,30	
A-7W55 -> EN 14511				
Heating power		3,90	4,80	kW
Power consumption		2,20	2,50	kW
COP		1,70	1,90	
A2W35 Δt5 -> EN 14511				
Heating power		2,80	4,50	kW
Power consumption		0,80	1,20	kW
COP		3,50	3,90	
A2W45 Δt5 -> EN 14511				
Heating power		2,60	4,20	kW
Power consumption		1,00	1,40	kW
COP		2,70	3,10	
A2W55 Δt8 -> EN 14511				
Heating power		3,30	3,60	kW
Power consumption		1,30	1,60	kW
COP		2,50	2,30	
A7W35 Δt5 -> EN 14511				
Heating power		4,40	7,70	kW
Power consumption		0,90	1,70	kW
COP		4,70	4,60	
A7W45 -> EN 14511				
Heating power		4,20	7,00	kW
Power consumption		1,60	2,00	kW
COP		3,60	3,50	
A7W55 -> EN 14511				
Heating power		4,10	6,50	kW
Power consumption		1,40	2,30	kW
COP		2,90	2,80	
A10W35 -> EN 14511				
Heating power		4,90	6,20	kW
Power consumption		0,90	1,10	kW
COP		5,50	5,50	
A10W45 -> EN 14511				
Heating power		4,70	5,50	kW
Power consumption		1,10	1,40	kW
COP		4,20	4,00	
A10W55 -> EN 14511				
Heating power		4,70	4,80	kW
Power consumption		1,40	1,70	kW
COP		3,40	2,90	
A12W35 -> EN 14511				
Heating power		5,20	6,30	kW
Power consumption		0,90	1,10	kW
COP		5,80	5,70	
A12W45 -> EN 14511				
Heating power		5,00	5,60	kW
Power consumption		1,10	1,40	kW
COP		4,40	4,00	
A12W55 -> EN 14511				
Heating power		4,20	4,90	kW
Power consumption		1,20	1,70	kW
COP		3,40	2,90	
A-3W45 -> EN 14511				
Heating power		4,80	5,80	kW
Power consumption		2,20	2,40	kW
COP		2,20	2,40	

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Cooling EN 14511				
A35W7 --> EN14511				
Cooling power		3,60	5,50	kW
Power consumption		1,30	1,90	kW
EER		2,70	2,90	
A35W18 --> EN14512				
Cooling power		5,00	7,30	kW
Power consumption		1,40	2,10	kW
EER		3,70	3,50	
Performance data (EN 14825)				
Water flow (fixed/variable)		fixed	fixed	
Outlet temperature (fixed/variable)		variable	variable	
Type of backup heater		NA	NA	
Colder Climate (W35)				
Power consumption in the off mode (Psb)		5,70	4,30	W
Power consumption in the standby mode (Psb)		5,10	4,50	W
thermostat-off mode power consumption (Pto)		5,60	4,40	W
Power consumption in the crankcase heater mode (Pck)		5,20	5,80	W
heat load at design temperature (Pdesigen@Tdesign)		6,51	9,50	kW
Bivalent temperature (Tbiv)		-12,00	-12,00	°C
Operation temperature limit (TOL)		-15,00	-20,00	°C
active mode seasonal coefficient of performance (SCOPon)		3,54	3,70	
seasonal coefficient of performance (SCOP)		3,19	3,13	
Colder Climate (W55)				
Power consumption in the off mode (Psb)		5,70	4,30	W
Power consumption in the standby mode (Psb)		5,10	4,50	W
thermostat-off mode power consumption (Pto)		5,60	4,40	W
Power consumption in the crankcase heater mode (Pck)		5,20	5,80	W
heat load at design temperature (Pdesigen@Tdesign)		6,11	6,11	kW
Bivalent temperature (Tbiv)		-12,00	-12,00	°C
Operation temperature limit (TOL)		-15,00	-20,00	°C
active mode seasonal coefficient of performance (SCOPon)		3,01	2,76	
seasonal coefficient of performance (SCOP)		2,74	2,68	
Average Climate Low Temperature (W35)				
Power consumption in the off mode (Psb)		5,70	4,30	W
Power consumption in the standby mode (Psb)		5,10	4,50	W
thermostat-off mode power consumption (Pto)		5,60	4,40	W
Power consumption in the crankcase heater mode (Pck)		5,20	5,80	W
heat load at design temperature (Pdesigen@Tdesign)		4,87 (@-10)	7,49 (@-10)	kW
Bivalent temperature (Tbiv)		-7,00	-7,00	°C
Operation temperature limit (TOL)		-15,00	-20,00	°C
active mode seasonal coefficient of performance (SCOPon)		3,96	4,74	
seasonal coefficient of performance (SCOP)		3,88	4,66	
Average Climate High Temperature (W55)				
Power consumption in the off mode (Psb)		5,70	4,30	W
Power consumption in the standby mode (Psb)		5,10	4,50	W
thermostat-off mode power consumption (Pto)		5,60	4,40	W
Power consumption in the crankcase heater mode (Pck)		5,20	5,80	W
heat load at design temperature (Pdesigen@Tdesign)		3,59 (@-10)	5,44 (@-10)	kW
Bivalent temperature (Tbiv)		-7,00	-7,00	°C
Operation temperature limit (TOL)		-15,00	-20,00	°C
active mode seasonal coefficient of performance (SCOPon)		3,14	3,35	
seasonal coefficient of performance (SCOP)		3,08	3,29	
Warmer Climate (W35)				
Power consumption in the off mode (Psb)		5,70	4,30	W
Power consumption in the standby mode (Psb)		5,10	4,50	W
thermostat-off mode power consumption (Pto)		5,60	4,40	W
Power consumption in the crankcase heater mode (Pck)		5,20	5,80	W
heat load at design temperature (Pdesigen@Tdesign)		5,80	8,27	kW
Bivalent temperature (Tbiv)		2,00	2,00	°C
Operation temperature limit (TOL)		-15,00	-20,00	°C
active mode seasonal coefficient of performance (SCOPon)		5,98	6,20	
seasonal coefficient of performance (SCOP)		5,94	6,18	
Warmer Climate (W55)				
Power consumption in the off mode (Psb)		5,70	4,30	W
Power consumption in the standby mode (Psb)		5,10	4,50	W
thermostat-off mode power consumption (Pto)		5,60	4,40	W
Power consumption in the crankcase heater mode (Pck)		5,20	5,80	W
heat load at design temperature (Pdesigen@Tdesign)		5,80	5,74	kW
Bivalent temperature (Tbiv)		2,00	2,00	°C
Operation temperature limit (TOL)		-15,00	-20,00	°C
active mode seasonal coefficient of performance (SCOPon)		4,60	4,73	
seasonal coefficient of performance (SCOP)		4,58	4,70	

Envelope

	VWL 55/3 A 230V	VWL 85/3 A 230V
Envelope heat pump EN 14511		
Note	bei Nennvolumenströmen | at nominal flow rates	
Note	Der Betrieb der Wärmepumpe außerhalb der Einsatzgrenzen führt zum Abschalten der Wärmepumpe durch die internen Regel-und Sicherheitseinrichtungen. The operation of the heat pump will use outside the boundaries of the heat pump to turn off the internal control and safety devices.	
Heating	A-15W22	A-20W22
	A-15W43	A-20W43
	A-10W55	A-10W55
	A2W60	A2W63
	A28W60	A28W63
	A28W22	A28W22
Cooling	A10W7	
	A10W25	
	A46W25	
	A46W7	

Equivalent to safety regulations

Meets safety regulations	
	CE -Zeichen | CE-Sign
	Niederspannungsrichtline | Low Voltage Directive 2014/35/EU
	EMV-Richtline | EMC Directive 2014/30/EU
	ISO 5149
Note	
	Contains fluorinated greenhouse gases covered by the Kyoto Protocol
	Hermetically sealed system
	Dieses Gerät enthält das Kältemittel R 410A. Das Kältemittel darf nicht in die Atmosphäre gelangen. R 410Aist ein vom Kyoto-Protokoll erfasstes fluoriertes Treibhausgas mit GWP 1730 (GWP = Global Warming Potential). | This unit contains the refrigerant R 410A. The refrigerant shall not be discharged into the atmosphere. R 410A is captured by the Kyoto Protocol, GWP fluorinated greenhouse gas with 1730 (GWP = Global Warming Potential).