




<b>Prüfbericht-Nr.:</b> <i>Test Report No.:</i>	<b>16072292 002</b>	<b>Auftrags-Nr.:</b> <i>Order No.:</i>	<b>174042328</b>	Seite 1 von 10 <i>Page 1 of 10</i>	
<b>Kunden-Referenz-Nr.:</b> <i>Client Reference No.:</i>	N/A	<b>Auftragsdatum:</b> <i>Order date:</i>	2015.12.11		
<b>Auftraggeber:</b> <i>Client:</i>	Palm Air conditioning & Equipment Co., Ltd. #2 Chuangye Road SongXia Industrial Zone, SongGang, Nanhai District Foshan, Guangdong Province 528234 P.R.China				
<b>Prüfgegenstand:</b> <i>Test item:</i>	<b>Air to water heat pump</b>				
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type No.:</i>	Intel-16i and AH-16DC/R-XXX				
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	ERP test				
<b>Prüfgrundlage:</b> <i>Test specification:</i>	<b>EN 14825:2013</b>				
<b>Wareneingangsdatum:</b> <i>Date of receipt:</i>	2015.12.11	<p><b>Detaillierte Fotodokumentation siehe Anlage zu diesem Bericht</b></p> <p><i>Detailed photo documentation see appendix to this report</i></p>			
<b>Prüfmuster-Nr.:</b> <i>Test sample No.:</i>	HU2016011610030				
<b>Prüfzeitraum:</b> <i>Testing period:</i>	2015.12.11 to 2016.02.18				
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	Palm Air conditioning & Equipment Co., Ltd.				
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong) Ltd.				
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass				
<b>geprüft von / tested by:</b>	<b>kontrolliert von / reviewed by:</b>				
<i>2016.02.24</i> Datum Date	Felix Tong Name / Stellung Name / Position	 Unterschrift Signature	<i>2016.02.24</i> Datum Date	Brenda Fan Name / Stellung Name / Position	 Unterschrift Signature
<b>Sonstiges / Other:</b>					
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet	5 = mangelhaft
Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested	5 = poor
<p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b></p> <p><i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>					

**Rating labels and marking:**

	
Air to water heat pump and chiller	
Manufacturer: Palm AC & Equipment Co.Ltd	
Address: 2# Chuangye Road,SongXia Industrial Area,SongGang Town, Nanhai area, Foshan city, GuangDong,China	
Model:	AH-16DC/R-XXX
Rated Heating Capacity	15.50 kW
Rated cooling Capacity	15.7 kW
Rated Heating Input	3.44 kW
Rated cooling Input	4.4 kW
Rated Heating Input Current	15.6A
Rated cooling Input Current	20.0 A
COP ( STC AIR 7°C、 WATER 35°C)	4.50 W/W
Rated voltage / frequency	230V/50Hz
Maximum input power	5.75 KW
Maximum input current	25.0A
Maximum system pressure of running	4.20 MPa
Refrigerant	R410A (3.90 Kg)
Waterproof grade	IPX4
Noise	52 dB(A)
Max water outlet temperature	60 °C
Water connection	DN 25
Water Flow	2.80m³/h
Net Dimensions (mm)	1115/425/1270
Net Weight	150 kg
Serial No.	
 	

**Measurements and calculations**

Model	Intel-16i								
Test method	Air enthalpy method								
Outlet temperature type	<input type="checkbox"/> Fixed outlet <input checked="" type="checkbox"/> Variable outlet								
Test result	Test condition								
	A	B	C	D	E	F			
Inlet dry bulb temperature for outdoor air °C	-6.96	2.07	7.09	12.04	-9.90	-6.96			
Inlet wet bulb temperature for outdoor air °C	-8.07	1.01	6.00	11.00	-11.20	-8.07			
Inlet temperatures for indoor °C	30.69	26.13	24.45	21.40	31.81	30.69			
Outlet temperatures for indoor °C	34.07	30.00	26.92	24.05	35.24	34.07			
Measured capacity W	10650	11210	7430	8310	10850	10650			
Measured power input W	3688	3594	1303	1007	4034	3688			
Static pressure difference kPa	37.95	37.96	37.54	37.88	37.93	37.95			
Water volume flow rate m <sup>3</sup> /h	2.71	2.71	2.70	2.70	2.72	2.71			
Measured power input of compressor off state W	5	5	5	5	5	5			
Corrections of the power input of liquid pump if applicable									
P <sub>hydrau</sub> W	29	29	28	28	29	29			
Efficiency of the pump	0.21	0.21	0.21	0.21	0.21	0.21			
Fraction power for calculation W	136	136	135	136	137	136			
Effective capacity W	10514	12074	7645	8174	10713	10514			
Effective power input W	3552	2983	1244	872	3898	3552			
Calculated COP	2.96	3.85	5.70	9.38	2.75	2.96			
Electric power consumption during thermostat-off mode, standby mode, crankcase heater mode and off mode									
Off mode kW	0.00463								
Thermostat-off mode kW	0								
Standby mode kW	0.00463								
Crankcase heater mode kW	0								
Calculations for seasonal space heating energy efficiency									
Test condition	Outdoor heat exchanger	Indoor heat exchanger	Part Load Ratio %	Part Load kW	Tested Capacity kW	Tested COP	Cc	CR	COP at A, B, C, D, E, F condition
	Outdoor air °C	Outlet water temperature °C							
A	-7	34	88%	10.5	10.514	2.96	1.00	1.00	2.96
B	2	30	54%	6.4	11.21	3.85	1.00	0.60	3.85
C	7	27	35%	4.1	7.43	5.7	1.00	0.58	5.7

D	12	24	15%	1.8	8.174	9.38	0.99	0.22	9.21
E	-10	35.3	100%	11.9	10.713	2.75	1.00	1.00	2.75
F	-7	34	88%	10.5	10.514	2.96	1.00	1.00	2.96
SCOPon	4.23				SCOPnet	4.26			
SCOP	4.23								