

COVER PAGE

Dwg No: 473 TXDL KTXT 00JS

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Rev No	Symbol	Date	Contents	Signature
1		2009-03-24		Lhq
Builder: 友联船厂 YOULIAN SHIPYARD			Project Title: BIBBY RENAISSANCE	
Hull No:			Drawing Title: 空调系统负荷计算 Calculation of HVAC System Load	
Approved by	Lhq	2009-03		
Checked by				
Designed by				



JOSUN AIR CONDITIONER CO., LTD

No.18-28, Tongjiang Road, Jiangsu Taixing. P.R.C.

Tel: +86-523-87598753 Fax: +86-523-87592288

E-mail: chinajosun888@126.com

必兴船空调负荷计算

LOAD CALCULATION FOR AIR CONDITION SYSTEM

1. Design basis 设计条件

	Outside tem. °C	outside relative humidity %	Inside tem. °C	Inside relative humidity %
Summer	35	85	22	55
Winter	-20	70	25	20

Flesh heat

	Sensible heat, W	Latent heat, W
rest	50	70
work	85	150

2. AIR FLOW CALCULATION 风量计算

编号 No	房间 Room	计算人数 No of person	面积 Area m ²	高 high m	换气次数 Air change AC/h	每人新风量 Fresh air/p m ³ /h/p	夏季热负荷 Heat load in summer w	冬季热负荷 Heat load in winter w	夏季风量 Air flow in Summer m ³ /h	冬季风量 Air flow in Winter m ³ /h	换气风量 flow for change m ³ /h	卫生新风量 Fresh air m ³ /h	最终风量 Final air m ³ /h	最终换气次 数 Final air change AC/h
5001	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5005	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5007	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5009	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5011	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5015	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5017	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5019	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5021	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5023	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5025	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5027	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
5029	office	2	16.0	2.1	6	25.0	1134	1920	339	337	202	167	340	10
5035	linen store	2	16.0	2.1	6	25.0	1024	1920	306	310	202	167	250	7
4001	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4005	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4007	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4009	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4011	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4013	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4015	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4017	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4019	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10



4021	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4023	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4027	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4029	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4031	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4033	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4035	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4037	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4039	office	2	16.0	2.1	6	25.0	1134	1920	339	337	202	167	340	10
4041	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
4045	Linen store	2	16.0	2.1	6	25.0	1024	1920	306	310	202	167	250	7
3001	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3005	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3007	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3009	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3011	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3013	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3015	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3017	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3019	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3021	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3023	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3027	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3029	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3031	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3033	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10

3035	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3037	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3039	office	2	16.0	2.1	6	25.0	1134	1920	339	337	202	167	340	10
3041	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
3045	Linen store	2	16.0	2.1	6	25.0	1024	1920	306	310	202	167	250	7
2001	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2005	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2007	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2009	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2011	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2013	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2015	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2017	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2019	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2021	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2023	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2027	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2029	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2031	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2033	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2035	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2037	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2039	office	2	16.0	2.1	6	25.0	1134	1920	339	337	202	167	340	10
2041	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
2045	Linen store	2	16.0	2.1	6	25.0	1024	1920	306	310	202	167	250	7
1001	DAY ROOM	8	17.4	2.1	7	25.0	1553.6	2088	464	367	256	667	670	18



1005	LAUNDRY	1	9.5	2.1	7	25.0	663	1140	198	200	140	83	200	10
1007	BARGE STAFF	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1009	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1013	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1015	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1017	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1019	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1021	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1023	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1027	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1029	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1031	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1033	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1035	multi purpose	4	29.0	2.1	7	25.0	2076	3480	620	611	426	333	620	10
1037	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1041	rooms (cabins)	2	12.7	2.1	7	25.0	922.8	1524	276	268	187	167	280	10
1045	linen store	2	12.0	2.1	6	25.0	768	1440	229	253	151	167	250	10
AHU-1		453	1793				132755	215148	39677	37811	26090	28778	32000	
5000	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5004	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5006	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5010	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5012	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5016	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5018	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

5020	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5022	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5024	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5026	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5028	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5030	rooms (cabins)	2	12.7	2.1	6	25.0	910.1	1524	272	268	160	167	270	10
5034	linen store	2	16.0	2.1	6	25.0	1008	1920	301	310	202	167	250	7
4000	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4004	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4006	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4008	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4010	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4012	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4014	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4016	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4018	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4022	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4024	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4028	linen store	2	6.5	2.1	6	25.0	409.5	780	122	137	82	167	250	18
4030	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4032	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4034	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4036	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4038	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4040	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4042	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

4046	linen store	2	16.0	2.1	6	25.0	1008	1920	301	310	202	167	250	7
3000	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3004	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3006	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3008	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3010	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3012	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3014	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3016	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3018	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3022	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3024	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3028	linen store	2	6.5	2.1	6	25.0	409.5	780	122	137	82	167	150	10
3030	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3032	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3034	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3036	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3038	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3040	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3042	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3046	linen store	2	16.0	2.1	6	25.0	1008	1920	301	310	202	167	250	7
2000	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2004	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2006	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2008	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2010	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10



2012	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2014	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2016	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2018	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2022	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2024	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2028	linen store	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2030	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2032	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2034	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2036	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2038	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2040	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2042	rooms (cabins)	2	16.0	2.1	6	25.0	1118	1920	334	337	202	167	340	10
2046	linen store	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1000	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1004	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1006	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1008	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1010	MAIN LAUNDRY	5	96	2.1	10	25	15626	9600	3332	2866	2419	125	3330	17
1014	linen store	2	24.0	2.1	6	25.0	1512	2880	451	506	302	167	250	6
1016	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1020	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1024	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1028	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1034	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10



1036	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1042	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1044	multi purpose	2	16.0	2.1	7	25.0	1118	1920	334	337	235	167	340	10
1046	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1050	office	2	16.0	2.1	6	25.0	1118	1920	334	337	235	167	340	10
0016	ship's office	2	14.0	2.1	6	15.0	838	1680	250	295	206	100	300	10
0020	galley office	2	14.0	2.1	6	15.0	838	1680	250	295	206	100	300	10
AHU-2		177	1276.5				89847	153180	26847	26929	18343	14645	27200	
5039	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5043	JANITOR'S	2	8.6	2.1	7	25.0	651.8	1032	195	181	126	167	200	11
5045	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5047	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5049	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5051	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5053	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5055	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5057	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5061	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5063	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5065	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5067	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5071	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4051	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4055	JANITOR'S	2	8.6	2.1	7	25.0	651.8	1032	195	181	126	167	200	11
4057	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4059	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

4061	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4063	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4065	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4067	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4069	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4073	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4075	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4077	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4079	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4081	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4083	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4085	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4087	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4089	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4091	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4095	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3051	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3055	JANITOR'S	2	8.6	2.1	7	25.0	651.8	1032	195	181	126	167	200	11
3057	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3059	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3061	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3063	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3065	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3067	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3069	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3073	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

3075	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3077	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3079	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3081	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3083	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3085	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3087	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3089	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3091	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3095	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2051	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2055	JANITOR'S	2	8.6	2.1	7	25.0	651.8	1032	195	181	126	167	200	11
2057	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2059	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2061	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2063	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2065	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2067	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2069	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2073	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2075	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2077	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2079	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2081	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2083	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2085	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

2087	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2089	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2091	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2095	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1057	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1061	JANITOR'S	2	8.6	2.1	7	25.0	651.8	1032	195	181	126	167	200	11
1063	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1065	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1067	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1069	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1071	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1073	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1075	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1079	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1081	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1083	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1085	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1087	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1089	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1091	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1093	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1095	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1097	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1101	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
0013	GYM	20	90.0	2.1	12	15.0	5780	10800	1726	1897	2268	1000	2500	13
0015	BAR	50	148.0	2.1	12	25.0	12074	17760	3605	3119	3730	4167	4170	13



0027	LOUNGE	20	78.0	2.1	12	25.0	6014	9360	1796	1644	1966	1667	2050	13
0008	PROVISION	3	49.6	2.1	12	25.0	3125	5952	931	1045	1250	250	1400	13
0011	OFFICE	2	9.0	2.1	6	25.0	677	1080	202	190	132	167	200	11
0054	OFFICE	1	4.6	2.1	6	25.0	344.8	552	103	97	68	83	150	17
0009	OFFICE	3	19.0	2.1	6	25.0	1197	2280	357	400	279	250	250	7
0012	JANITOR'S	1	6.4	2.1	7	25.0	458.2	768	137	135	94	83	140	10
0025	BUSINESS	2	28.0	2.1	7	25.0	1874	3360	559	590	412	167	590	10
AHU-3		287	1570.3				113724	188436	33981	33124	23110	23282	34240	
5038	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5044	JANITOR'S	1	6.4	2.1	7	25.0	458.2	768	137	135	94	83	140	10
5046	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5048	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5050	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5052	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5054	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5056	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5058	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5062	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5064	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
5066	rooms (cabins)	2	12.7	2.1	6	25.0	910.1	1524	272	268	160	167	270	10
5068	rooms (cabins)	2	12.7	2.1	6	25.0	910.1	1524	272	268	160	167	270	10
5072	rooms (cabins)	2	12.7	2.1	6	25.0	910.1	1524	272	268	160	167	270	10
4050	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4056	JANITOR'S	1	6.4	2.1	7	25.0	458.2	768	137	135	94	83	140	10
4058	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4060	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

4062	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4064	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4066	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4068	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4070	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4074	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4076	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4078	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4080	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4082	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4084	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4086	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4088	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4090	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4092	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
4096	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3050	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3056	JANITOR'S	1	6.4	2.1	7	25.0	458.2	768	137	135	94	83	140	10
3058	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3060	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3062	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3064	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3066	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3068	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3070	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3074	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

3076	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3078	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3080	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3082	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3084	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3086	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3088	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3090	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3092	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
3096	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2050	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2056	JANITOR'S	1	6.4	2.1	7	25.0	458.2	768	137	135	94	83	140	10
2058	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2060	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2062	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2064	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2066	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2068	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2070	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2074	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2076	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2078	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2080	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2082	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2084	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2086	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10

2088	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2090	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2092	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
2096	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1054	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1060	JANITOR'S	1	6.4	2.1	6	25.0	458.2	768	137	135	81	83	140	10
1062	rooms (cabins)	2	12.7	2.1	6	25.0	910.1	1524	272	268	160	167	270	10
1064	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1066	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1068	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1070	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1072	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1074	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1078	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1080	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1082	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1084	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1086	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1088	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1090	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1092	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1094	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1096	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
1100	rooms (cabins)	2	12.7	2.1	7	25.0	910.1	1524	272	268	187	167	270	10
0014	SECURITY	1	8.7	2.1	7	25.0	603.1	1044	180	183	128	83	180	10
0015	LOBBY	2	8.5	2.1	7	25.0	645.5	1020	193	179	125	167	190	11

0074	locker room	120	106.0	2.1	7	25.0	13278	12720	3964	2234	1558	0	2500	10
0070	locker room	30	25.0	2.1	7	25.0	3225	3000	963	527	368	0	750	14
0076	multi-function	2	71.0	2.1	7	25.0	4583	8520	1368	1496	1044	167	1500	10
0019	bar store	2	23.0	2.1	7	25.0	1559	2760	465	485	338	167	500	10
0080	multi-function	2	40.0	2.1	7	25.0	2630	4800	785	843	588	167	840	6
9.6.1		10	87	2.1	6	25.0	5481	10440	1125	1140	1096	1098	1150	6
9.5.1		10	87	2.1	6	25.0	5481	10440	1125	1140	1096	1098	1150	6
9.4.1		10	87	2.1	6	25.0	5481	10440	1125	1140	1096	1098	1150	6
9.3.1		10	87	2.1	6	25.0	5481	10440	1125	1140	1096	1098	1150	6
9.2.1		10	87	2.1	6	25.0	5481	10440	1125	1140	1096	1098	1150	6
9.1.1		10	42.0	2.1	6	25.0	2646	5040	588	585	529	530	590	6
AHU-4		402	2302.5				167168	276300	49933	48556	33756	21027	39850	
	Galley	5	165.0	2.2	25	25	43995	16500	9382	8210	8663	125	9380	26
AHU-5		5	165.0				43995	16500	9382	8210	8663	125	9380	
	RESTAURANT	396	575	2.1	12	25	52000	51750	15525	15450	14490	9900	15530	13
AHU-6		396	575				52000	51750	15525	15450	14490	9900	15530	

3. 负荷计算及选型 Load Calculation and select equipment

AHU-1 负荷计算 Load Calculation

No.1

制冷 cooling

夏季 Summer	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	35.0	85.0	114.4	30.8
室内温度 inside temp	22.0	55.0	45.2	9.1
冷却器出口温度 cooler outlet temp	10.0	95.0	28.4	7.2
回风温度 return air temp	22.0	55.0	45.2	9.1
混合温度 mix air temp	26.0	73.6	66.0	15.6
送风温度 supply air temp	12.0	83.2	30.4	7.2
新风比, % fresh air ratio	30.0	制冷量 cooling capacity, kw		402

制热 heating

冬季 winter	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	-20.0	70.0	-18.9	0.5
室内温度 inside temp	25.0	20.0	35.2	3.9
回风温度 return air temp	23.0	22.6	33.2	3.9
混合温度 mix air temp	10.2	37.9	17.6	2.9
加热器出口温度 heater outlet temp	42.0	5.7	49.9	2.9
送风温度 supply air temp	42.0	5.7	49.9	2.9
新风比, % fresh air ratio	30.0			
加热量 heating capa. kw	312	Humidity cap. 加湿量, kg/h		39

风量 air flow	32000.0	m3/h
制冷量 cooling capacity	402	kw
制热量 heating capacity	312	kw
加湿量 humidity capacity	39	kg/h

选用 2 台 TMU(W)-250 型空调器

Select two TMU(W)-250 AHU

AHU-2 负荷计算 Load Calculation

No.2

制冷 cooling

夏季 Summer	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	35.0	85.0	114.4	30.8
室内温度 inside temp	22.0	55.0	45.2	9.1
冷却器出口温度 cooler outlet temp	10.0	95.0	28.4	7.2
回风温度 return air temp	24.0	48.7	47.3	9.1
混合温度 mix air temp	27.4	67.9	67.4	15.6
送风温度 supply air temp	12.0	83.2	30.4	7.2
新风比, % fresh air ratio	30.0	Cooling cap. 制冷量, kw		330

制热 heating

冬季 winter	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	-20.0	70.0	-18.9	0.5
室内温度 inside temp	25.0	20.0	35.2	3.9
回风温度 return air temp	23.0	22.6	33.2	3.9
混合温度 mix air temp	10.2	37.9	17.6	2.9
加热器出口温度 heater outlet temp	42.0	5.7	49.9	2.9
送风温度 supply air temp	42.0	5.7	49.9	2.9
新风比, % fresh air ratio	30.0			
加热量 heating capa. kw	270.3	Humidity cap. 加湿量., kg/h		33

风量 air flow	27200.0	m ³ /h
制冷量 cooling capacity	330	kw
制热量 heating capacity	270.3	kw
加湿量 humidity capacity	33	kg/h

选用 1 台 TMU(W)-330 型空调器

Select one TMU(W)-330 AHU

AHU-3 负荷计算 Load Calculation

No.3

制冷 cooling

夏季 Summer	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	35.0	85.0	114.4	30.8
室内温度 inside temp	22.0	55.0	45.2	9.1
冷却器出口温度 cooler outlet temp	10.0	95.0	28.4	7.2
回风温度 return air temp	24.0	48.7	47.3	9.1
混合温度 mix air temp	27.4	67.9	67.4	15.6
送风温度 supply air temp	12.0	83.2	30.4	7.2
新风比, % fresh air ratio	30.0	Cooling cap. 制冷量, kw		446.0

制热 heating

冬季 winter	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	-20.0	70.0	-18.9	0.5
室内温度 inside temp	25.0	20.0	35.2	3.9
回风温度 return air temp	24.0	21.2	34.2	3.9
混合温度 mix air temp	10.9	36.2	18.3	2.9
加热器出口温度 heater outlet temp	42.0	5.7	49.9	2.9
送风温度 supply air temp	42.0	5.7	49.9	2.9
新风比, % fresh air ratio	30.0			
加热量 heating capa. kw	360.9	Humidity cap. 加湿量., kg/h		41.6

风量 air flow	34240.0	m ³ /h
制冷量 cooling capacity	446.0	kw
制热量 heating capacity	360.9	kw
加湿量 humidity capacity	42.0	kg/h

选用 2 台 TMU(W)-220 型空调器

Select two TMU(W)-220 AHU

AHU-4 负荷计算 Load Calculation

No.4

制冷 cooling

夏季 Summer	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	35.0	85.0	114.4	30.8
室内温度 inside temp	22.0	55.0	45.2	9.1
冷却器出口温度 cooler outlet temp	10.0	90.0	27.4	6.9
回风温度 return air temp	22.0	55.0	45.2	9.1
混合温度 mix air temp	26.0	73.6	66.0	15.6
送风温度 supply air temp	12.0	78.8	29.4	6.9
新风比, % fresh air ratio	30.0	Cooling cap. 制冷量, kw		568.0

制热 heating

冬季 winter	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	-20.0	70.0	-18.9	0.5
室内温度 inside temp	25.0	20.0	35.2	3.9
回风温度 return air temp	24.0	21.2	34.2	3.9
混合温度 mix air temp	10.9	36.2	18.3	2.9
加热器出口温度 heater outlet temp	42.0	5.7	49.9	2.9
送风温度 supply air temp	42.0	5.7	49.9	2.9
新风比, % fresh air ratio	30.0			
加热量 heating capa. kw	474	Humidity cap. 加湿量., kg/h		60.9

风量 air flow	39850	m ³ /h
制冷量 cooling capacity	568	kw
制热量 heating capacity	474	kw
加湿量 humidity capacity	61.0	kg/h

选用 2 台 TMU(W)-325 型空调器

Select two TMU(W)-325 AHU

AHU-5 负荷计算 Load Calculation (GALLEY)

No.5

制冷 cooling

夏季 Summer	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	35.0	85.0	114.4	30.8
室内温度 inside temp	29.0	55.0	64.6	13.8
冷却器出口温度 cooler outlet temp	18.0	95.0	49.3	12.3
回风温度 return air temp	29.0	55.0	64.6	13.8
混合温度 mix air temp	35.0	85.0	114.4	30.8
送风温度 supply air temp	18.0	95.0	49.3	12.3
新风比, % fresh air ratio	100.0	Cooling cap. 制冷量, kw		194.6

制热 heating

冬季 winter	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	-20.0	70.0	-18.9	0.5
室内温度 inside temp	25.0	20.0	35.2	3.9
回风温度 return air temp	24.0	21.2	34.2	3.9
混合温度 mix air temp	-20.0	70.0	-18.9	0.5
加热器出口温度 heater outlet temp	37.0	1.4	38.8	0.5
送风温度 supply air temp	37.0	1.4	38.8	0.5
新风比, % fresh air ratio	100.0			
加热量 heating capa. kw	178.5	Humidity cap. 加湿量., kg/h		38

风量 air flow	9380.0	m ³ /h
制冷量 cooling capacity	194.6	kw
制热量 heating capacity	178.5	kw
加湿量 humidity capacity	38.0	kg/h

选用 1 台 TMU(W)-195 型空调器

Select one TMU(W)-195 AHU

AHU-6 负荷计算 Load Calculation (RESTAURANT)

No.6

制冷 cooling

夏季 Summer	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	35.0	85.0	114.4	30.8
室内温度 inside temp	22.0	55.0	45.2	9.1
冷却器出口温度 cooler outlet temp	13.0	95.0	35.5	8.9
回风温度 return air temp	22.0	55.0	45.2	9.1
混合温度 mix air temp	35.0	85.0	114.4	30.8
送风温度 supply air temp	14.0	89.0	36.5	8.9
新风比, % fresh air ratio	100.0	制冷量 cooling capacity, kw		408.5

制热 heating

冬季 winter	T, °C	R.H.%	i, KJ/kg	d, g/kg
室外温度 outside temp	-20.0	70.0	-18.9	0.5
室内温度 inside temp	25.0	20.0	35.2	3.9
回风温度 return air temp	23.0	22.6	33.2	3.9
混合温度 mix air temp	-20.0	70.0	-18.9	0.5
加热器出口温度 heater outlet temp	35.0	1.6	36.7	0.5
送风温度 supply air temp	35.0	1.6	36.7	0.5
新风比, % fresh air ratio	100			
加热量 heating capa. kw	287.8	Humidity cap. 加湿 量., kg/h		62.9

风量 air flow	15530.0	m ³ /h
制冷量 cooling capacity	408.5	kw
制热量 heating capacity	287.8	kw
加湿量 humidity capacity	63.0	kg/h

选用 2 台 TMU(W)-250 型空调器

Select two TMU(W)-250 AHU

Load calculation sum total(excluding restaurant) 负荷计算汇总(餐厅除外)

	No. 1	No. 2	No. 3	No. 4	No. 5	total
风量 air flow m ³ /h	32000.0	27200.0	34240.0	39850.0	9380.0	142670.0
制冷量 cooling capacity kw	402	330	446.0	568.0	194.6	1940.6
制热量 heating capa kw	312	270.3	360.9	474.0	178.5	1595.7
加湿量 humidity capa kg/h	39	33	42.0	61.0	38.0	213
面积 area m ²	1792.9	1276.5	1570.3	2302.5	165.0	7107.2