

Model: YS15E3G-100

Power supply	1Ph/208-230V/60Hz	Total Dimension: Length(L)(mm)	240
Refrigerant	R448A	Total Dimension: Width(W)(mm)	240
Nominal Horse Power(HP)	2	Total Dimension: Height(H)(mm)	392
Rated Cooling Capacity(W)	4453.6	Grommet Hole (Diameter)	190.5*190.5(11)
Rated Input Power(W)	2080	Oil Type	POE
Rated COP(W)	2.14	Initial filling amount of lubricating oil(L)	0.85
RLA(A)	9.12	Refilling amount of lubricating oil(L)	0.7
LRA(A)	66	Maximum working pressure: discharge side(MPa)	3.2
MOC(A)	12.3	Maximum working pressure: suction side(MPa)	2
Crankcase Heater Power(W)	45	Weight(Kg)	25.5
Discharge connection pipe size OD	1/2	Displacement(m³/h)	7.14
Suction connection pipe size OD	3/4	Displacement(cc/rev)	34

Working conditions

Refrigerant:	R448A		
Evaporating dew point temperature:	5.0 °C	Condensing dew point temperature:	50.0 °C
Evaporating Pressure:	0.609 MPa	Condensing Pressure:	2.145 MPa
Useful superheat:	10.0 K	Subcooling:	0.0 K
Additional superheat:	0.0 K	Additional Subcooling:	0.0 K
Return Gas Temperature:	15.0 °C	Total Subcooling:	0.0 K
		Liquid temperature:	50.0 °C
Rating Conditions:	Custom		
Required cooling capacity:	20.00 kW		

Calculation

Setting Conditions	5.0 / 50.0 °C
Compressor model	YS15E3G-100
Cooling Capacity(kW)	6.781
Cooling EER(W/W)	3.038
Heating capacity(kW)	9.013
Heating COP(W/W)	4.038
Power(kW)	2.232
Current(A)	9.946
Mass flow(kg/h)	171.274

Cooling Capacity(kW)

Tc\Te dew	-30	-25	-20	-15	-10	-5	0	5
60	-	-	-	-	3.054	3.815	4.704	5.736
55	-	-	-	2.685	3.384	4.206	5.164	6.273
50	-	-	2.314	2.949	3.699	4.577	5.600	6.781
45	-	1.954	2.524	3.200	3.997	4.930	6.013	7.262
40	1.614	2.121	2.725	3.440	4.281	5.264	6.404	7.718
35	1.747	2.281	2.916	3.667	4.549	5.580	6.774	8.150
30	1.875	2.434	3.098	3.882	4.804	5.879	7.124	8.558
25	2.000	2.582	3.272	4.088	5.045	6.162	7.455	8.943
20	2.123	2.725	3.440	4.283	5.274	6.429	7.767	-
15	2.246	2.866	3.601	4.471	5.492	6.683	-	-
10	2.370	3.005	3.760	4.652	5.701	6.924	-	-
5	2.498	3.145	3.916	4.829	5.902	-	-	-

Heating capacity(kW)

Tc\Te dew	-30	-25	-20	-15	-10	-5	0	5
60	-	-	-	-	5.498	6.351	7.331	8.451
55	-	-	-	4.815	5.600	6.506	7.545	8.731
50	-	-	4.173	4.889	5.717	6.672	7.766	9.013
45	-	3.579	4.226	4.978	5.846	6.845	7.990	9.294
40	3.032	3.615	4.292	5.076	5.981	7.022	8.213	9.570
35	3.056	3.663	4.366	5.180	6.119	7.197	8.432	9.838
30	3.089	3.717	4.444	5.284	6.253	7.367	8.641	10.092
25	3.127	3.773	4.521	5.385	6.382	7.527	8.837	10.329
20	3.166	3.828	4.593	5.479	6.499	7.673	9.016	-
15	3.203	3.878	4.658	5.561	6.603	7.801	-	-
10	3.234	3.919	4.711	5.629	6.688	7.908	-	-
5	3.257	3.949	4.750	5.679	6.753	-	-	-

Input power(kW)

Tc\Te dew	-30	-25	-20	-15	-10	-5	0	5
60	-	-	-	-	2.444	2.536	2.627	2.715
55	-	-	-	2.130	2.216	2.300	2.381	2.458
50	-	-	1.859	1.940	2.019	2.094	2.166	2.232
45	-	1.624	1.702	1.777	1.849	1.916	1.977	2.032
40	1.418	1.494	1.567	1.637	1.701	1.759	1.809	1.852
35	1.310	1.382	1.450	1.513	1.569	1.618	1.658	1.688
30	1.214	1.283	1.346	1.402	1.450	1.488	1.517	1.534
25	1.127	1.192	1.249	1.297	1.337	1.365	1.382	1.387
20	1.043	1.103	1.154	1.195	1.225	1.243	1.249	-
15	0.957	1.012	1.057	1.090	1.111	1.118	-	-
10	0.864	0.914	0.952	0.977	0.988	0.984	-	-
5	0.760	0.803	0.834	0.850	0.851	-	-	-

Current(A)

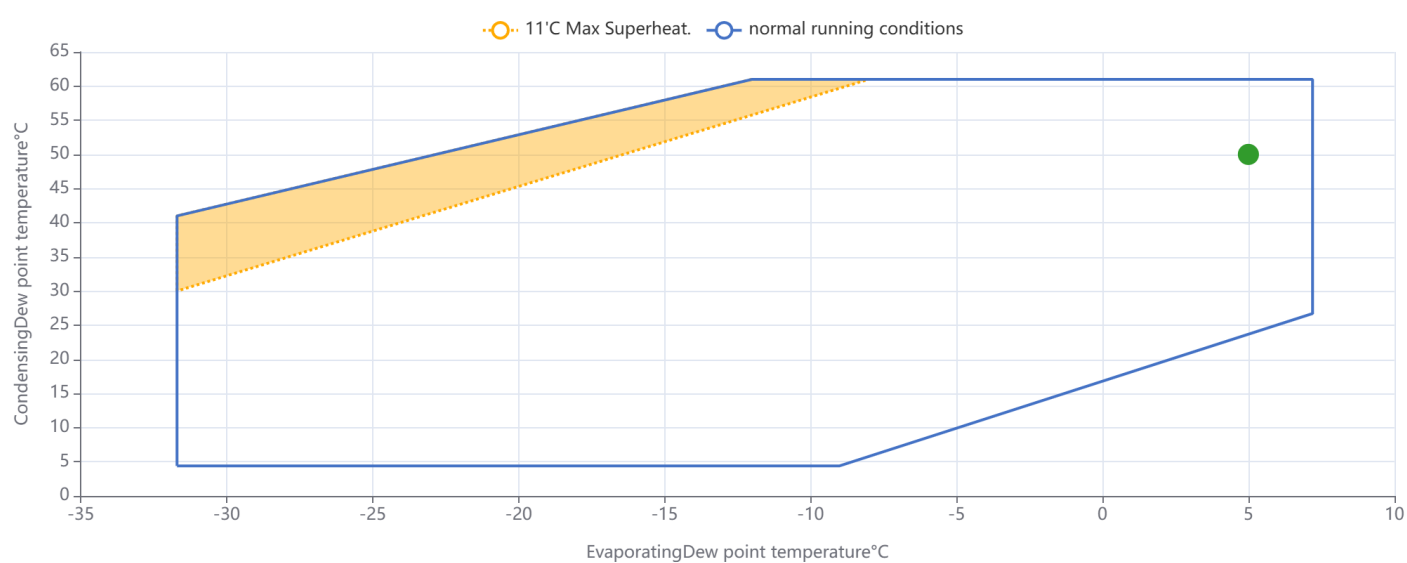
Tc\Te dew	-30	-25	-20	-15	-10	-5	0	5
60	-	-	-	-	10.842	11.288	11.720	12.129
55	-	-	-	9.453	9.860	10.254	10.628	10.973
50	-	-	8.268	8.641	9.003	9.347	9.664	9.946
45	-	7.252	7.598	7.934	8.253	8.547	8.808	9.029
40	6.373	6.695	7.011	7.311	7.588	7.834	8.041	8.201
35	5.901	6.201	6.488	6.754	6.990	7.189	7.343	7.444
30	5.471	5.750	6.010	6.242	6.439	6.592	6.694	6.736
25	5.063	5.322	5.556	5.756	5.914	6.023	6.074	6.059
20	4.657	4.898	5.107	5.275	5.396	5.462	5.463	-
15	4.234	4.457	4.642	4.781	4.866	4.889	-	-
10	3.773	3.980	4.142	4.252	4.303	4.284	-	-
5	3.254	3.446	3.587	3.670	3.687	-	-	-

Mass flow(kg/h)

Tc\Te dew	-30	-25	-20	-15	-10	-5	0	5
60	-	-	-	-	95.141	116.042	139.880	166.912
55	-	-	-	79.009	97.314	118.300	142.222	169.335
50	-	-	64.789	80.728	99.092	120.133	144.109	171.274
45	-	52.344	66.146	82.116	100.509	121.578	145.578	172.767
40	41.538	53.432	67.238	83.210	101.603	122.670	146.667	173.850
35	42.449	54.320	68.101	84.046	102.410	123.446	147.411	174.559
30	43.225	55.044	68.772	84.661	102.967	123.944	147.847	174.932
25	43.904	55.642	69.287	85.092	103.311	124.200	148.012	175.005
20	44.521	56.150	69.683	85.375	103.479	124.250	147.943	-
15	45.114	56.604	69.997	85.547	103.507	124.131	-	-
10	45.718	57.042	70.266	85.644	103.431	123.881	-	-
5	46.372	57.499	70.525	85.704	103.289	-	-	-

The above performance parameters are obtained through limited compressor tests and data fitting, for reference of compress or selection only. The performance data of the user's unit shall be subject to the test results of the standard laboratory.

Operating Envelope



Website: <https://www.invotechselector.cn>

SoftwareVersion: v2.0.0