

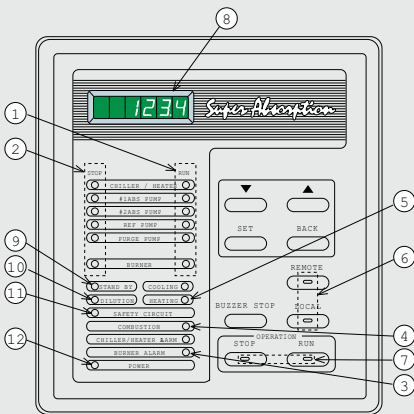
# DIRECT-FIRED DOUBLE-EFFECT ABSORPTION CHILLERS/HEATERS



## Industrial 16DJ

### SUPER ABSORPTION

#### Display and control board



- 1 Operation indication
- 2 Stop indication
- 3 Alarm indication
- 4 Combustion indication
- 5 Cooling/heating indication
- 6 Remote/local select button
- 7 Operation mode selection
- 8 Data display
- 9 Stand-by indication
- 10 Dilution indication
- 11 Safety circuit indication
- 12 Power indication

#### Features

- Twenty-three sizes with nominal cooling capacities from 352 to 5274 kW and heating capacities from 268 to 4026 kW.
- The 16DJ absorption chillers/heaters offer building owners a better solution for many new and retrofit applications. Installation of a direct-fired chiller/heater eliminates the need for a boiler, reducing the initial cost of the system.
- Excellent for peak shaving during high electrical demand periods.
- Allows diversification of critical cooling requirements. Critical loads are met with minimal electrical power input.
- Allows use of smaller emergency generators since the electrical load associated with an absorption chiller is minimal.
- Ozone-friendly and CFC-free.
- Minimises global warming effect by greatly reducing power consumption.
- Reduced noise and vibration levels. The absorption chiller does not use a large motor-compressor, leading to quiet, vibration-free operation.
- Small footprint. The high efficiency associated with double-effect chillers results in reducing the required installation space.
- Auto-diagnosis system monitors operating conditions, predicts chiller information and maintains stable operation.
- Advanced high-precision control system.
- Absorption pump with inverter control for efficient, energy-saving operation.
- High-performance purge system minimises maintenance requirements.
- State-of-the-art protection devices guarantee enhanced operating safety.

## Physical data

16DJ		11	12	13	14	21	22	23	24	31	32	41	42
<b>Cooling capacity</b>	kW	352	422	527	633	738	844	985	1125	1266	1407	1582	1758
<b>Heating capacity</b>	kW	268	322	403	483	564	644	751	859	966	1074	1208	1342
<b>Chilled/hot-water system*</b>													
Flow rate	l/s	15.1	18.2	22.7	27.3	31.8	36.3	42.4	48.4	54.5	60.6	68.1	75.7
Pressure drop	kPa	70	71	90	94	85	89	61	65	69	72	62	65
Connection (ANSI)	in	4	4	4	4	5	5	6	6	6	6	8	8
Retention volume	m <sup>3</sup>	0.12	0.13	0.15	0.17	0.22	0.24	0.28	0.30	0.34	0.36	0.46	0.48
<b>Cooling water system*</b>													
Flow rate	l/s	25.2	30.3	37.9	45.4	53.0	60.6	70.7	80.7	90.8	100.9	113.6	126.2
Pressure drop	kPa	33	36	50	56	43	46	88	94	76	80	85	89
Connection (ANSI)	in	5	5	5	5	6	6	8	8	8	8	10	10
Retention volume	m <sup>3</sup>	0.31	0.34	0.38	0.42	0.53	0.58	0.63	0.69	0.89	0.95	1.11	1.19
<b>Fuel type</b>		Natural gas											
Consumption (cooling/heating)**	kW	320	384	479	575	671	767	895	1023	1151	1279	1438	1598
<b>Dimensions</b>													
Length A	mm	3080	3080	3810	3810	3980	3980	4980	4980	5000	5000	5040	5040
Height B		1960	1960	1960	1960	2160	2160	2160	2160	2390	2390	2600	2600
Width C		1810	1810	1910	1910	2090	2090	2130	2130	2290	2290	2490	2490
<b>Operating weight</b>	kg	5200	5500	6600	7100	8300	8800	10100	10700	13200	13900	16300	17100
<b>Power supply</b>	V-ph-Hz	400-3-50											
Total current drawn	A	10.8	10.8	10.8	16.3	16.3	16.3	19.2	19.2	19.2	19.2	26.0	32.9

16DJ		51	52	53	61	62	63	71	72	73	81	82
<b>Cooling capacity</b>	kW	1969	2215	2461	2813	3165	3516	3868	4220	4571	4923	5274
<b>Heating capacity</b>	kW	1503	1691	1879	2147	2415	2684	2952	3221	3489	3757	4026
<b>Chilled/hot-water system*</b>												
Flow rate	l/s	84.8	95.4	106.0	121.2	136.3	151.4	166.5	181.7	196.8	212.0	227.1
Pressure drop	kPa	56	75	98	69	91	120	74	94	116	94	115
Connection (ANSI)	in	8	8	8	10	10	10	12	12	12	14	14
Retention volume	m <sup>3</sup>	0.65	0.71	0.77	0.99	1.06	1.13	1.41	1.51	1.61	1.83	1.94
<b>Cooling water system*</b>												
Flow rate	l/s	141.3	159.0	176.6	201.9	227.1	252.3	277.6	302.8	328.0	353.3	378.5
Pressure drop	kPa	68	92	121	83	112	146	90	115	142	117	142
Connection (ANSI)	in	12	12	12	14	14	14	16	16	16	16	16
Retention volume	m <sup>3</sup>	1.87	2.01	2.14	2.79	2.97	3.15	3.67	3.90	4.11	4.51	4.76
<b>Fuel type</b>		Natural gas										
Consumption (cooling/heating)**	kW	1790	2014	2237	2557	2877	3196	3516	3836	4155	4475	4795
<b>Dimensions</b>												
Length A	mm	5310	5850	6350	6110	6600	7130	6490	7020	7520	7010	7510
Height B		2900	2900	2900	3330	3330	3330	3450	3450	3450	3650	3650
Width C		2990	2990	2990	3250	3250	3250	4100	4100	4100	4450	4450
<b>Operating weight</b>	kg	22800	24600	26300	32700	35200	37900	46100	49500	52500	57200	60200
<b>Power supply</b>	V-ph-Hz	400-3-50										
Total current drawn	A	34.9	34.9	34.9	41.4	48.7	56.7	58.7	58.7	66.8	68.8	68.8

\* Cooling per ARI 560 2000:  
 12.2 → 6.7°C (fouling factor = 0.0176 m<sup>2</sup> K/kW)  
 29.4 → 35.3°C (fouling factor = 0.044 m<sup>2</sup> K/kW)  
 Heating:  
 55.8 → 60°C (fouling factor = 0.0176 m<sup>2</sup> K/kW)

\*\* Consumption in Nm<sup>3</sup>/h of gas =  $\frac{\text{Consumption}}{\text{High gas calorific value (kW/h/Nm}^3\text{)}}$

