

Semi-hermetic Screw Water Chiller

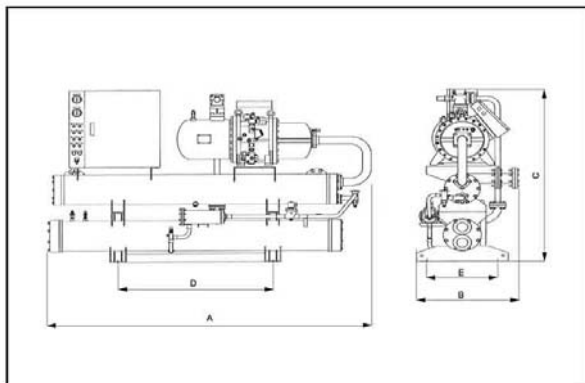
Capacity : 30RT ~ 500RT

R-22



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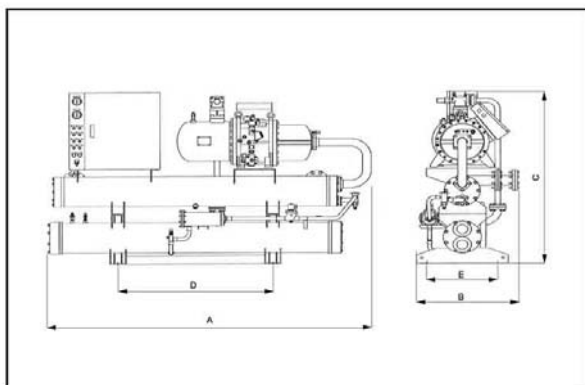


Specifications

Model		PQA-K106CSS	PQA-K141CSS	PQA-K177CSS	PQA-K212CSS	PQA-K279CSS	PQA-K352CSS	PQA-K423CSS	
Item		PQA-K106SSS	PQA-K141SSS	PQA-K177SSS	PQA-K212SSS	PQA-K279SSS	PQA-K352SSS	PQA-K423SSS	
		PQA-K106RSS	PQA-K141RSS	PQA-K177RSS	PQA-K212RSS	PQA-K279RSS	PQA-K352RSS	PQA-K423RSS	
Power supply		3 φ - 220V / 380V / 440V- 60Hz							
Refrigerating capacity	kW	106	141	177	212	279	352	423	
	kcal/hr	91,000	121,000	152,000	182,000	240,000	302,400	364,000	
Power consumption	kW	26	34.4	42.7	50.6	68.6	76.5	104	
220V 【C】 Running Current	A	78	104	131	149	207	235	321	
380V 【S】 Running Current	A	45	60	76	86	120	136	186	
440V 【R】 Running Current	A	39	52	66	74	104	117	161	
220V 【C】 Starting Current	A	466	622	788	891	1244	1409	1928	
380V 【S】 Starting Current	A	270	360	456	516	720	816	1116	
440V 【R】 Starting Current	A	233	311	394	446	622	705	964	
Capacity control		%	100 , 66 , 33 , 0		100 , 75 , 50 , 25 , 0				
Compressor	Type	Semi-hermetic Screw							
	Quantity	1							
	Starting method	Y - $\triangle$							
	Revolution	r.p.m	3550						
	Oil heater	W	150						
Refrigeration Oil	Type	LUNARIA K56							
	Quantity	L	7	7	7	8	14	16	15
Refrigerant	Type	R22							
	Quantity	kg	15	20	25	30	40	50	61
	Control	Thermal Expansion Valve with External Pressure Equalizer							
Chiller	Type	Shell and Tube							
	Quantity	1							
	Water flow rate	m ³ /h	18.2	24.2	30.4	36.4	48	60.5	72.8
	Pressure drop	mAq	4.5	4.5	4.5	6	6	6	6.5
	Pipe size	B	3" Flange				4" Flange		
Condenser	Type	Shell and Tube							
	Quantity	1							
	Water flow rate	m ³ /h	22.8	30.3	38	45.5	60	75.6	91
	Pressure drop	mAq	4.5	4.5	4.5	5	5	5	5.5
	Pipe size	B	3" FPT				4" FPT		
Control devices		Mechanical Control							
Protection devices		High/low pressure switch, safety valve, anti-freeze switch, over load relay, compressor internal thermostat, voltage protection relay.							
Outline Dimensions	A	mm	2250	2250	2550	2550	2650	2780	3000
	B	mm	700	700	700	700	800	900	900
	C	mm	1505	1560	1560	1620	1820	1820	1960
	D	mm	1200	1200	1200	1200	1200	1500	1500
	E	mm	540	540	540	540	640	740	740
Net Weight	kg	950	1000	785	1300	1500	1900	2000	
Operating weight	kg	1050	1100	1200	1420	1660	2100	2240	
Power consumption per ton	kW/USRT	0.86	0.86	0.85	0.84	0.86	0.77	0.86	
COP	kW/kW	4.07	4.09	4.14	4.18	4.07	4.60	4.07	
E.E.R	kcal/hr/W	3.50	3.52	3.56	3.60	3.50	3.95	3.50	
Noise (Measured distance 1 M)	dB(A)	74 +2 ↓	74 +2 ↓	79 +2 ↓	79 +2 ↓	80 +2 ↓	81 +2 ↓	84 +2 ↓	

Note : 1.Nominal cooling capacity conditions : chilled water in 12℃ , out 7℃ ,Fouling factor : 0.000018m²℃/W, where cooling water in 30℃ , out 35℃ ,
Fouling factor : 0.000044m²℃/W.

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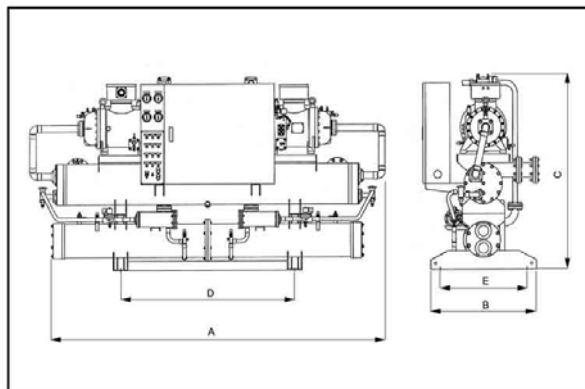


Specifications

Model		—	—	—	—	—	—	—	
Item		PQA-K523SSS PQA-K523RSS	PQA-K558SSS PQA-K558RSS	PQA-K628SSS PQA-K628RSS	PQA-K698SSS PQA-K698RSS	PQA-K767SSS PQA-K767RSS	PQA-K785SSS PQA-K785RSS	PQA-K879SSS PQA-K879RSS	
Power supply		3 φ - 380V / 440V- 60Hz							
Refrigerating capacity	kW	523	558	628	698	767	785	879	
	kcal/hr	450,000	480,000	540,000	600,000	660,000	675,000	756,000	
Power consumption		kW	128.6	136.8	154.3	171.4	188.6	192.9	214.3
220V 【C】 Running Current		A	—	—	—	—	—	—	
380V 【S】 Running Current		A	230	245	276	306	337	345	383
440V 【R】 Running Current		A	199	212	238	264	291	298	331
220V 【C】 Starting Current		A	—	—	—	—	—	—	
380V 【S】 Starting Current		A	1380	1470	1656	1836	2022	2070	2298
440V 【R】 Starting Current		A	1192	1270	1430	1586	1746	1788	1985
Capacity control		%	100 , 75 , 50 , 25 , 0						
Compressor	Type	Semi-hermetic Screw							
	Quantity	1							
	Starting method	Y - △							
	Revolution	r.p.m	3550						
	Oil heater	W	150						
Refrigeration Oil	Type	LUNARIA K56							
	Quantity	L	18	18	23	23	23	28	
Refrigerant	Type	R22							
	Quantity	kg	75	80	90	100	110	113	126
	Control	Thermal Expansion Valve with External Pressure Equalizer							
Chiller	Type	Shell and Tube							
	Quantity	1							
	Water flow rate	m ³ /h	90	96	108	120	132	135	151.2
	Pressure drop	mAq	6.5	6.5	6.5	6.5	6.5	6.5	6.5
	Pipe size	B	5" Flange				6" Flange		
Condenser	Type	Shell and Tube							
	Quantity	1							
	Water flow rate	m ³ /h	112.5	120	135	150	165	168.8	189
	Pressure drop	mAq	5.5	5.5	5.5	5.5	6	6	6
	Pipe size	B	5" Flange				6" Flange		
Control devices		Mechanical Control							
Protection devices		High/low pressure switch, safety valve, anti-freeze switch, over load relay, compressor internal thermostat, voltage protection relay.							
Outline Dimensions	A	mm	3100	3350	3400	3400	3700	3700	3900
	B	mm	900	900	1000	1000	1000	1000	1000
	C	mm	1960	2050	2200	2200	2250	2250	2350
	D	mm	1500	1500	1500	1500	2000	2000	2000
	E	mm	740	740	840	840	840	840	840
Net Weight		kg	3050	3070	3200	3420	3530	3530	3720
Operating weight		kg	3350	3370	3560	3820	3870	3980	4220
Power consumption per ton		kW/USRT	0.86	0.86	0.86	0.86	0.86	0.86	0.86
COP		kW/kW	4.07	4.08	4.07	4.07	4.07	4.07	4.10
E.E.R		kcal/hr/W	3.50	3.51	3.50	3.50	3.50	3.50	3.53
Noise (Measured distance 1 M)		dB(A)	85 +2 ↓	86 +2 ↓	87 +2 ↓	87 +2 ↓	88 +2 ↓	88 +2 ↓	88 +2 ↓

Note : 1.Nominal cooling capacity conditions : chilled water in 12℃ , out 7℃ ,Fouling factor : 0.000018m²℃/W, where cooling water in 30℃ , out 35℃ ,
Fouling factor : 0.000044m²℃/W.

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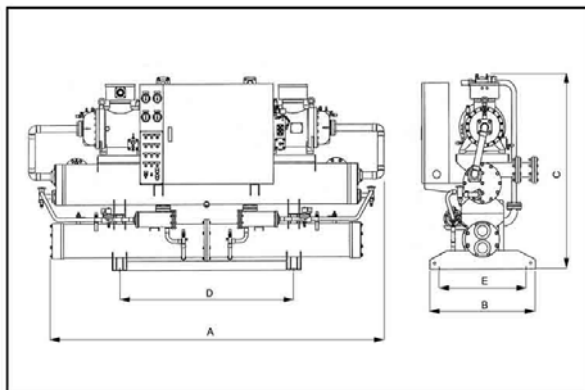


Specifications

Specifications		Model	PQA-K212CSD PQA-K212SSD PQA-K212RSD	PQA-K247CSD PQA-K247SSD PQA-K247RSD	PQA-K281CSD PQA-K281SSD PQA-K281RSD	PQA-K316CSD PQA-K316SSD PQA-K316RSD	PQA-K353CSD PQA-K353SSD PQA-K353RSD	PQA-K423CSD PQA-K423SSD PQA-K423RSD	PQA-K456CSD PQA-K456SSD PQA-K456RSD
Item									
Power supply			3 φ - 220V / 380V / 440V- 60Hz						
Refrigerating capacity		kW	212	247	281	316	353	423	456
		Kcal/hr	182,000	212,000	242,000	272,000	304,000	364,000	392,000
Power consumption		kW	52	60.6	64.9	77.7	81.6	102	112
220V 【C】 Running Current		A	161	187	199	240	252	297	345
380V 【S】 Running Current		A	93	108	115	139	146	172	200
440V 【R】 Running Current		A	80	93	99	120	126	149	173
220V 【C】 Starting Current		A	562	653	695	840	883	1040	1209
380V 【S】 Starting Current		A	326	378	403	487	511	602	700
440V 【R】 Starting Current		A	281	326	348	420	441	520	605
Capacity control		%	100 , 66 , 33 , 0			100 , 75 , 50 , 25 , 0			
Compressor	Type		Semi-hermetic Screw						
	Quantity		2						
	Starting method		Y - △						
	Revolution	r.p.m	3550						
	Oil heater	W	150 * 2						
Refrigeration Oil	Type		LUNARIA K56						
	Quantity	L	7 * 2	7 * 2	7 * 2	7 * 2	7 * 2	8 * 2	11 * 2
Refrigerant	Type		R22						
	Quantity	kg	15 * 2	18 * 2	20 * 2	23 * 2	25 * 2	30 * 2	30 * 35
	Control		Thermal Expansion Valve with External Pressure Equalizer						
Chiller	Type		Shell and Tube						
	Quantity		1						
	Water flow rate	m ³ /h	36.4	42.4	48.4	54.4	60.8	72.8	78.4
	Pressure drop	mAq	5	5	5	5	5.5	5.5	5.5
	Pipe size	B	3" Flange	4" Flange					
Condenser	Type		Shell and Tube						
	Quantity		1						
	Water flow rate	m ³ /h	45.5	53	60.5	68	76	91	98
	Pressure drop	mAq	5	5	5	5	5	5	5
	Pipe size	B	3" FPT	4" FPT					
Control devices			Mechanical Control						
Protection devices			High/low pressure switch, safety valve, anti-freeze switch, over load relay, compressor internal thermostat, voltage protection relay.						
Outline Dimensions	A	mm	2700	2700	3100	3100	3100	3500	3500
	B	mm	800	900	900	900	900	900	900
	C	mm	1560	1560	1560	1720	1720	1720	1750
	D	mm	1200	1500	1500	1500	1500	1500	1500
	E	mm	640	740	740	740	740	740	740
Net Weight		kg	1300	1330	1850	1920	2260	2475	2660
Operating weight		kg	1420	1470	2010	2100	2460	2715	2920
Power consumption per ton		kW/USRT	0.86	0.86	0.81	0.86	0.81	0.85	0.86
COP		kW/kW	4.07	4.07	4.34	4.07	4.33	4.15	4.07
E.E.R		kcal/hr/W	3.50	3.50	3.73	3.50	3.73	3.57	3.50
Noise (Measured distance 1 M)		dB(A)	77 +2 ↓	77 +2 ↓	77 +2 ↓	80 +2 ↓	82 +2 ↓	82 +2 ↓	82 +2 ↓

Note : 1.Nominal cooling capacity conditions : chilled water in 12℃ , out 7℃ ,Fouling factor : 0.000018m²℃/W, where cooling water in 30℃ , out 35℃ ,
Fouling factor : 0.000044m²℃/W.

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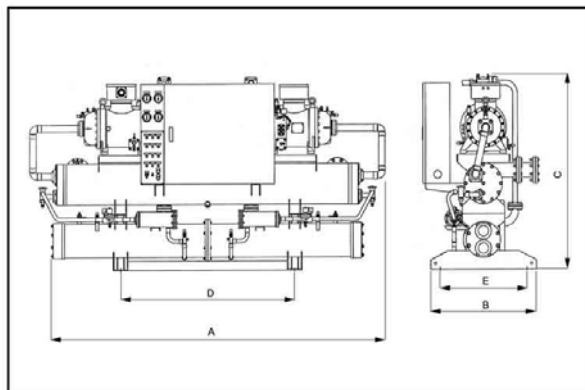


Specifications

Model		PQA-K528CSD	PQA-K558CSD	PQA-K633CSD	PQA-K703CSD	PQA-K847CSD	PQA-K872CSD	—	
Item		PQA-K528SSD	PQA-K558SSD	PQA-K633SSD	PQA-K703SSD	PQA-K847SSD	PQA-K872SSD	PQA-K1055SSD	
		PQA-K528RSD	PQA-K558RSD	PQA-K633RSD	PQA-K703RSD	PQA-K847RSD	PQA-K872RSD	PQA-K1055RSD	
Power supply		3 φ - 220V / 380V / 440V- 60Hz							380V / 440V
Refrigerating capacity	kW	528	558	633	703	847	872	1055	
	Kcal/hr	454,000	480,000	544,320	604,800	728,000	750,000	907,200	
Power consumption		kW	128.6	133.3	151.6	158.7	197	200.8	228.2
220V 【C】 Running Current		A	385	389	440	470	575	582	—
380V 【S】 Running Current		A	223	225	255	272	333	337	378
440V 【R】 Running Current		A	193	194	220	235	288	291	326
220V 【C】 Starting Current		A	1348	1360	1542	1644	2013	2037	—
380V 【S】 Starting Current		A	781	788	893	952	1166	1180	1323
440V 【R】 Starting Current		A	674	680	771	822	1007	1019	1143
Capacity control		%	100 , 75 , 50 , 25 , 0						
Compressor	Type	Semi-hermetic Screw							
	Quantity	2							
	Starting method	Y - △							
	Revolution	r.p.m	3550						
	Oil heater	W	150 * 2						
Refrigeration Oil	Type	LUNARIA K56							
	Quantity	L	14 * 2	14 * 2	16 * 2	16 * 2	15 * 2	15 * 2	18 * 2
Refrigerant	Type	R22							
	Quantity	kg	38 * 2	40 * 2	45 * 2	50 * 2	61 * 2	63 * 2	76 * 2
	Control	Thermal Expansion Valve with External Pressure Equalizer							
Chiller	Type	Shell and Tube							
	Quantity	1							
	Water flow rate	m ³ /h	90.8	96	108.9	121	145.6	150	181.4
	Pressure drop	mAq	5.5	5.5	6.5	6.5	6.5	6.5	6.5
	Pipe size	B	5" Flange				6" Flange		8" Flange
Condenser	Type	Shell and Tube							
	Quantity	1							
	Water flow rate	m ³ /h	113.5	120	136.1	151.2	182	187.5	226.8
	Pressure drop	mAq	5	6	6	6	6	6	6
	Pipe size	B	5" Flange				6" Flange		8" Flange
Control devices		Mechanical Control							
Protection devices		High/low pressure switch, safety valve, anti-freeze switch, over load relay, compressor internal thermostat, voltage protection relay.							
Outline Dimensions	A	mm	3500	3500	3700	4000	4150	4150	4350
	B	mm	900	900	1000	1000	1200	1200	1200
	C	mm	1880	1880	1950	1950	2150	2150	2265
	D	mm	1500	1500	2000	2000	2000	2000	2000
	E	mm	740	740	840	840	1000	1000	1000
Net Weight		kg	2750	2900	3550	3550	4350	4400	5750
Operating weight		kg	3050	3220	3910	3950	4850	4900	6350
Power consumption per ton		kW/USRT	0.86	0.84	0.84	0.79	0.82	0.81	0.76
COP		kW/kW	4.11	4.19	4.18	4.43	4.30	4.34	4.62
E.E.R		kcal/hr/W	3.53	3.60	3.59	3.81	3.70	3.74	3.98
Noise (Measured distance 1 M)		dB(A)	83 +2 ↓	83 +2 ↓	83 +2 ↓	84 +2 ↓	87 +2 ↓	87 +2 ↓	88 +2 ↓

Note : 1.Nominal cooling capacity conditions : chilled water in 12℃ , out 7℃ ,Fouling factor : 0.000018m²℃/W, where cooling water in 30℃ , out 35℃ ,
Fouling factor : 0.000044m²℃/W.

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Specifications

Model			—	—	—	—	—	—
Item			PQA-K1230SSD PQA-K1230RSD	PQA-K1256SSD PQA-K1256RSD	PQA-K1326SSD PQA-K1326RSD	PQA-K1395SSD PQA-K1395RSD	PQA-K1582SSD PQA-K1582RSD	PQA-K1744SSD PQA-K1744RSD
Power supply			3 φ - 380V / 440V- 60Hz					
Refrigerating capacity		kW	1230	1256	1326	1395	1582	1744
		Kcal/hr	1,058,000	1,080,000	1,140,000	1,200,000	1,360,800	1,500,000
Power consumption		kW	302.3	308.6	324.8	342.9	384.6	428.6
220V 【C】 Running Current		A	—	—	—	—	—	—
380V 【S】 Running Current		A	540	552	581	613	688	766
440V 【R】 Running Current		A	466	477	502	529	594	662
220V 【C】 Starting Current		A	—	—	—	—	—	—
380V 【S】 Starting Current		A	1890	1932	2034	2146	2408	2681
440V 【R】 Starting Current		A	1632	1669	1756	1853	2080	2315
Capacity control		%	100 , 75 , 50 , 25 , 0					
Compressor	Type		Semi-hermetic Screw					
	Quantity		2					
	Starting method		Y - △					
	Revolution	r.p.m	3550					
	Oil heater	W	150 * 2					
Refrigeration Oil	Type		LUNARIA K56					
	Quantity	L	23 * 2	23 * 2	23 * 2	23 * 2	23 * 2	28 * 2
Refrigerant	Type		R22					
	Quantity	kg	88 * 2	90 * 2	95 * 2	100 * 2	113 * 2	125 * 2
	Control		Thermal Expansion Valve with External Pressure Equalizer					
Chiller	Type		Shell and Tube					
	Quantity		1					
	Water flow rate	m ³ /h	211.6	216	228	240	272.2	300
	Pressure drop	mAq	6.5	6.5	6.5	6.5	6.5	6.5
	Pipe size	B	8" Flange					
Condenser	Type		Shell and Tube					
	Quantity		1					
	Water flow rate	m ³ /h	264.5	270	285	300	340	375
	Pressure drop	mAq	6	6	6	6	6	6
	Pipe size	B	8" Flange					
Control devices			Mechanical Control					
Protection devices			High/low pressure switch, safety valve, anti-freeze switch, over load relay, compressor internal thermostat, voltage protection relay.					
Outline Dimensions	A	mm	4600	4600	4800	5000	5250	5250
	B	mm	1200	1200	1400	1400	1400	1400
	C	mm	2265	2265	2400	2450	2450	2450
	D	mm	2000	2000	2400	2400	2400	2400
	E	mm	1000	1000	1200	1200	1200	1200
Net Weight		kg	6100	6280	6550	7370	7850	8470
Operating weight		kg	6810	7000	7310	8170	8760	9470
Power consumption per ton		kW/USRT	0.86	0.86	0.86	0.86	0.85	0.86
COP		kW/kW	4.07	4.07	4.08	4.07	4.11	4.07
E.E.R		kcal/hr/W	3.5	3.5	3.51	3.50	3.54	3.50
Noise (Measured distance 1 M)		dB(A)	90 +2 ↓	90 +2 ↓	90 +2 ↓	90 +2 ↓	91 +2 ↓	91 +2 ↓

Note : 1.Nominal cooling capacity conditions : chilled water in 12℃ , out 7℃ ,Fouling factor : 0.000018m²℃/W, where cooling water in 30℃ , out 35℃ ,
Fouling factor : 0.000044m²℃/W.

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TECO Electric & Machinery Co., Ltd.

Commercial Air Conditioning System Business Division

Address : 10F, No.3-1,Yuan Cyu St.,Nan-Kang,Taipei 115, Taiwan

TEL : 886-2-6615-9111

FAX : 886-2-6615-9018

E-mail : aircon@teco.com.tw

Distributor :