

Electrical & Cooling System critical spare-parts for SATS Coolport							Page 1 of 4
Ref	Description	Supplier	Article / Type	'Qty	UOM	Unit Cost S\$	
		or					
		Brand					
	ELECTRIC						
1	Relais 3-400 volt LC1-D09 P7	Schneider	2732000009	1	set	\$ -	
2	Relais 3-400 volt LC1-D18 P7	Schneider	2732000018	1	set	\$ -	
3	Relais 3-400 volt LC1-D25 P7	Schneider	2732000025	1	set	\$ -	
4	solidstates OV-24 DC/280 AC/2 400 vac 5 amp	-	2732980200	1	set	\$ -	
5	my2 relais 24vdc	omron	2732992124	1	set	\$ -	
6	trafo 24 vdc 120 watt IDEC	TU	2792202450	1	set	\$ -	
7	trafo 24 vac 40 va 4,16 amp EREA	TU	11300004024	1	set	\$ -	
8	Relais 3-400 volt LC1-D12 P7	Schneider	2732000012	1	set	\$ -	
9	Relais 3-400 volt LC1-D32 P7	Schneider	2732000032	1	set	\$ -	
10	Relais 3-400 volt LC1-D50 P7	Schneider	2732000050	1	set	\$ -	
11	Relais 3-400 volt LC1-D65 P7	Schneider	2732000065	1	set	\$ -	
12	Thermal switch LRD07 (1.6-2.5 amp)	Schneider	2722016025	1	set	\$ -	
13	Thermal switch LRD08 (2.5-4.0 amp)	Schneider	2722025040	1	set	\$ -	
14	Thermal switch LRD12 (5.5-8 amp)	Schneider	2722055080	1	set	\$ -	
15	Thermal switch LRD3357 (37-50 amp)	Schneider	2722370500	1	set	\$ -	
16	Thermal switch LRD3361 (55-70 amp)	Schneider	2722630800	1	set	\$ -	
17	Interface moduul UMK-4-OM-R-MF-MKDS-P	Phoenix	2732980204	1	set	\$ -	
18	my2 relais 240 vac	omron	2732992220	1	set	\$ -	
19	Glas fuses 4 amp (per 100)	-	2720110400	1	pce	\$ -	
20	Glas fuses 6 amp (per 100)	-	2720110600	1	pce	\$ -	
21	80 amp mess fuse 500 vac C60269-2-1 (3pcs)	hager	2718114080	1	pce	\$ -	
22	125 amp mess fuse 500 vac C60269-2 (3pcs)	hager	2718114125	1	pce	\$ -	
23	160 amp mess fuse 500 vac C60269-2 (3pcs)	hager	2718114160	1	pce	\$ -	
24	INT 389R (Freezers and chillers)	Uniechemie	10722301502	1	set	\$ -	
25	pressure transimmter 0-34 bar	-	2307510034	1	set	\$ -	
26	PT100 sensor (small)	-	10765100008	1	set	\$ -	
27	PT1000 sensor (normal)	-	10765100009	1	set	\$ -	
28	Printpl3voudigMV-Print/-40/+100	VDH	2705901001	1	set	\$ -	
29	Printpl3voudigMV-Print/ 0/+100	VDH	2705901002	1	set	\$ -	
30	Saia Expansion module, PCD3.C100	Saia Burgess	2707000067	1	set	\$ -	
31	Saia 16.digital output PCD3.A465	Saia Burgess	2707000066	1	set	\$ -	
32	Saia 16.digital input PCD3.E165	Saia Burgess	2707000070	1	set	\$ -	
33	Saia 8.analog input PCD3.W200	Saia Burgess	2707000079	1	set	\$ -	
34	Saia 8.analog input PCD3.W400	Saia Burgess	2707000091	1	set	\$ -	
35	Saia 8.digital output PCD3.A465	Saia Burgess	2707000066	1	set	\$ -	
36	Saia comminication PT100 boxes PCD3.F281	Saia Burgess	2707000073	1	set	\$ -	
37	Saia comminication Belimo valve PCD3.F180	Saia Burgess	2707000084	1	set	\$ -	
38	Saia connector PCD3.K010	Saia Burgess	2707000074	1	set	\$ -	
39	Saia Compact PLC, PCD3.M2130V6	Saia Burgess	2707000077	1	set	\$ -	
40	Saia regular PLC, PCD3.M5340 sb 10 and 11	Saia Burgess	2707000078	1	set	\$ -	
41	Trafo 24 vac 250 VA (heating)	T.U.	2790220027	1	set	\$ -	
42	Optimal GV2-Le16 14.0 Amp	-	-	1	set	\$ -	
43	Optimal GV2-Le20 18.0 Amp	-	-	1	set	\$ -	
44	Optimal GV2-Le22 25.0 Amp	-	-	1	set	\$ -	
45	PKZ MBS GV2-ME08 2.5-4.0 Amp	-	-	1	set	\$ -	
46	PKZ MBS GV2-ME16 9.0-14.0 Amp	-	-	1	set	\$ -	
47	Zek.autom.1P+N 10Amp s251L10Na	-	-	1	set	\$ -	
48	SE AUTOM 6KA C60N 10A-C 2P	-	-	1	set	\$ -	
49	Optimal GV2-Le07 2.5amp	-	-	1	set	\$ -	
50	Optimal GV2-Le08 4.0amp	-	-	1	set	\$ -	
51	GV2-G05	-	-	1	set	\$ -	
52	SE AUTOM 6KA C60N 2A-C 1P	-	-	1	set	\$ -	
53	Relaisvoet pyf-08A-E t,B,V,My2	-	-	1	set	\$ -	
54	SE AUTOM 6KA C60N 2A-C 1P	-	-	1	set	\$ -	
55	Interface module UMK-4-OM-R-MF-MKDS-P	-	-	1	set	\$ -	
56	My2 relais 240VAC	-	-	1	set	\$ -	
57	Relaisvoet pyf-08A-E t,B,V,My2	-	-	1	set	\$ -	
58	Trafo 24VAC 100va 4,16amp EREA	-	-	1	set	\$ -	
59	PT100 Temperature sensor (normal)	-	-	1	set	\$ -	
60	Drain pipe heating 3meter	-	-	1	set	\$ -	
61	Drain pipe heating 6meter	-	-	1	set	\$ -	
62	Autotrace 5BTV-2 p/meter	-	-	1	set	\$ -	
63	EP MC785-VK-RS tbv PT100 tempbox	-	-	1	set	\$ -	
64	Printpl3voudigMV-Print/-30/+50	-	-	1	set	\$ -	

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65	Saia 8 Digital Output PCD3.A400	-	-	1	set	\$ -	
66	Saia Expansion module, PCD3.C200 (doors)	-	-	1	set	\$ -	
67	4" Digital Temperature Display	-	-	1	set	\$ -	
68	Ecofit F26-A1 blower fans for Air-curtain	-	-	1	set	\$ -	
69	90A 3P Contactor (PW1&2)	-	-	1	set	\$ -	
70	90A 3P Thermal Overload Protection (PW1&2)	-	-	1	set	\$ -	
71	FE050 Evaporator fan	-	-	1	set	\$ -	
72	Thermister Safety Module SE-E1	-	-	1	set	\$ -	
	Cooling System						
73	solenoid valves (spoel) Danfoss 12 Watt 220	Coolmark	10247993001	1	set	\$ -	
74	Danfoss evr-20 sollonoidvalve complete	Coolmark	10247500022	1	set	\$ -	
75	Hotgas sensor (INT389)	E.C.R.	2205710009	1	set	\$ -	
76	High/low pressure switch Type	Johnson	2307310500	1	set	\$ -	
77	Dry filters	-	2237900000	1	set	\$ -	
78	Olie filter Ecr Nederland N012-3402	-	10248362204	1	set	\$ -	
79	fanmotor 790 watt incl.blade FC38SP-62507	goedhart	-	1	set	\$ -	
80	OilCheck package (acidity check)	-	-	1	set	\$ -	
81	Gasket 10"	-	-	1	set	\$ -	
82	Discharge valve gasket ring (piston comp)	-	-	1	set	\$ -	
83	Reconditioned CSH7571 screw compressor (Chiller 10)	-	-	1	set	\$ -	
84	Thermal Expansion Valve TXV B7B (2018)	-	-	1	set	\$ -	
85	¼" x 2m high pressure tube (piston comp)	-	-	1	set	\$ -	
86	Electronic Expansion Valve control card	-	-	1	set	\$ -	
87	Teflon gasket ring for liquid tank (small size)	-	-	1	set	\$ -	
88	Recondition bearing housing & shaft at workshop	-	-	1	set	\$ -	
89	Fabricate bottom bearing cover with seal	-	-	1	set	\$ -	
90	Fabricate installation kit, special tools	-	-	1	set	\$ -	
91	Epoxy hardening paint & undercoat	-	-	1	set	\$ -	
92	B-78 V-belt	-	-	1	set	\$ -	
93	Bearing kit, seals & accessories	-	-	1	set	\$ -	
94	New fan blades assembly	-	-	1	set	\$ -	
95	Sprinkler Head 6"	-	-	1	set	\$ -	
96	Recond bearing housing	-	-	1	set	\$ -	
97	Fabricate Cooling Tower fan shaft	-	-	1	set	\$ -	
98	Bearing kit, seals & accessories	-	-	1	set	\$ -	
99	Fan blade & mounting assembly	-	-	1	set	\$ -	
100	New motor shaft for fan assembly.	-	-	1	set	\$ -	
	Equipment & Compressor Components						
101	fanmotor 880 watt incl. blade VCI-835010	goedhart	-	1	set	\$ -	
102	Alco expansionvalve (economiser) TCLE750-NW	E.C.R.	-	1	set	\$ -	
103	Alco expansionvalve (economiser)	E.C.R.	TCLE600-SW	1	set	\$ -	
104	Oillevel switch csh 6551	E.C.R.	-	1	set	\$ -	
105	Oillevel switch csh 7571	E.C.R.	-	1	set	\$ -	
106	siemens valves MVL661.15-1.0	E.C.R.	-	1	set	\$ -	
107	screw compressor (Warm Chiller)	Bitzer	CSH 6551-50Y	1	set	\$ -	
108	condensing unit pump (for LT/HT Chiller)	wilo	IPL80/150-1,1/4	1	set	\$ -	
109	condensing unit pump (for LT/HT Chiller)	wilo	IPL80/130-0,75/4	1	set	\$ -	
110	condensing unit 3 way valve	belimo	2"" R349G SR24A-SR	1	set	\$ -	
111	condensing unit 3 way valve	belimo	DN80 H779N NVY-24MFT	1	set	\$ -	
112	condensing unit 3 way valve	belimo	DN65 H764 NVY-24 MFT	1	set	\$ -	
113	evaporator unit pump (for Freezer)	wilo	IPL65/140-0,55/4	1	set	\$ -	
114	evaporator unit pump (for Freezer)	wilo	IL65/150-0,75/4	1	set	\$ -	
115	oil pump	wilo	Wilostar RS25/4	1	set	\$ -	
116	oil pump	wilo	Wilostar RS25/2	1	set	\$ -	
117	oil 3 way valve	belimo	3/4"" R317 LR24A-SR	1	set	\$ -	
118	oil 3 way valve	belimo	1/2"" R312 TR24-SR	1	set	\$ -	
119	master glycol pump Low Temp. area	wilo	DL100/150-15/2	1	set	\$ -	
120	master glycol pump High temp. area	wilo	DPL 65/165-5,5/2	1	set	\$ -	
121	Cooling Tower Circulating Pump.	Wilo	DL150/220-11/4	1	set	\$ -	
122	Cooling Tower Fan Blade & mounting.	Kyodo	Ø2360mm LSF-240	1	set	\$ -	
123	Cooling Tower bearing kit, seal & shaft.	-	Customised shaft Ø70x605	1	set	\$ -	
124	Cooling Tower Fan Motor	-	7.5HP x 4P (3ph 415V 50Hz)	1	set	\$ -	
125	Cooling Tower Fan Belt	LKH	VRCL B078 MB	1	set	\$ -	
126	Cooling Tower Sprinkle head	Kyodo	6" LSH-150	1	set	\$ -	
127	Cooling Tower float valve & ball	-	2"	1	set	\$ -	

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128	Compressor oil (20 litre)	-	Emkarate	1	Lt	\$ -	
129	Glycol Propelyne (antifrozen) 55gal	-	-	1	drum	\$ -	
130	glycol 3 way valve diverse coldrooms	belimo	LR24A-MP	1	set	\$ -	
131	glycol 3 way valve diverse coldrooms	belimo	SR24A-MP	1	set	\$ -	
	SLIDING DOOR						
132	Side & above Rubber	-	-	1.0	m	\$ -	
133	Side & above Rubber Fixation Plastic	-	-	1.0	m	\$ -	
134	Under Rubber Gasp.roll 40meter	-	-	1.0	m	\$ -	
135	Under fixation plastic corner Gaspack	-	-	1.0	set	\$ -	
136	Rubber fixation plastic corner (above)Gaspack	-	-	1.0	set	\$ -	
137	Under door Guided cam - Closing side	-	-	1.0	set	\$ -	
138	Under door Guided cam - Opening side	-	-	1.0	set	\$ -	
139	Footplate (fixation) for guided cams	-	-	1.0	set	\$ -	
140	Rubber shock buffer	-	-	1.0	set	\$ -	
141	Steel Indoor Opener Gaspack	-	-	1.0	set	\$ -	
142	Steel Outdoor Opener Gaspack	-	-	1.0	set	\$ -	
143	Outdoor Opener handle complete 300kg	-	-	1.0	set	\$ -	
144	Pully reversing wheel Mi40 44T dg	-	-	1.0	set	\$ -	
145	SEP Safety List 1450mm + Alu	-	-	1.0	set	\$ -	
146	Door Belt	-	-	1.0	m	\$ -	
147	Proximity Switch	-	-	1.0	set	\$ -	
148	Detection Plate (for pipe rail)	-	-	1.0	set	\$ -	
149	Spiral cord safety list	-	-	1.0	set	\$ -	
150	Spiral cord (TD Door)	-	-	1.0	set	\$ -	
151	Glass Fuse 1.6A	-	-	1.0	pcs	\$ -	
152	Glass Fuse 0.25A	-	-	1.0	pcs	\$ -	
153	PLC 40 IO 230V programmed	-	-	1.0	set	\$ -	
154	Power supply 24VDC 1.0Amp	-	-	1.0	set	\$ -	
155	Net Filter 1.1kW	-	-	1.0	set	\$ -	
156	Pull cord with switch complete	-	-	1.0	set	\$ -	
157	Pull core inside	-	-	1.0	set	\$ -	
158	Fotocel strip device	-	-	1.0	set	\$ -	
159	IR Reflector	-	-	1.0	set	\$ -	
160	Safety end switch by Gaspack	-	-	1.0	pcs	\$ -	
161	Heating wire 18w/m (Chiller)	-	-	1.0	m	\$ -	
162	Heating wire 50w/m (Freezer)	-	-	1.0	m	\$ -	
163	Fotocel Safety 852A/1 (IR emitter)	-	-	1.0	set	\$ -	
164	Channel 298 (Bottom of door)	-	-	1.0	set	\$ -	
165	Channel 13 (Top of door)	-	-	1.0	set	\$ -	
166	Bottom Roller 4SJ	-	-	1.0	set	\$ -	
167	Door Motor	-	-	1.0	set	\$ -	
168	Motor encoder	-	-	1.0	set	\$ -	
169	Door frame Aluminium Jacketing	-	-	1.0	m	\$ -	
170	Door Control	-	-	1.0	set	\$ -	
171	External Control Switch	-	-	1.0	set	\$ -	
172	Door Bottom Guide Plate	-	-	1.0	set	\$ -	
	TD ROLL-UP DOORS						
173	Bottom profile 80mm (Thickness)	-	-	1.0	set	\$ -	
174	Door panel side cassette 80mm	-	-	1.0	set	\$ -	
175	Vertical door track with Jamb rack	-	-	1.0	set	\$ -	
176	Intermediate Door Panel RD8-61 W3640/H3100	-	-	1.0	pcs	\$ -	
177	Bottom profile 40mm (Thickness)	-	-	1.0	set	\$ -	
178	Door panel side cassette 40mm	-	-	1.0	set	\$ -	
179	Solid shaft for springs & motor	-	-	1.0	pcs	\$ -	
180	Door Nylon Roller (short shaft) 2"	-	-	1.0	set	\$ -	
181	Door pulley	-	-	1.0	set	\$ -	
182	Front box with limit switch (3 buttons)	-	-	1.0	set	\$ -	
183	Door control box with clips	-	-	1.0	set	\$ -	
184	Door motor mig120 (encoder magnet)	-	-	1.0	set	\$ -	
185	Motor encoder (roll-up door)	-	-	1.0	set	\$ -	
186	Lifting Cable (GV steel) Ø4mm (TD Door)	-	-	1.0	m	\$ -	
187	Top Side hinge	-	-	1.0	set	\$ -	
188	Side hinge	-	-	1.0	set	\$ -	
189	Center hinge	-	-	1.0	set	\$ -	
190	Motor mounting bracket	-	-	1.0	set	\$ -	

Ref	Description	Supplier	Article / Type	Qty	UOM	Unit Cost S\$
		or				
		Brand				
191	Control box w/o motor	-	-	1.0	set	\$ -
192	Cable tension safety switch (Roll-up door)	-	-	1.0	set	\$ -
193	Optical safety sensor (bottom panel)	-	-	1.0	set	\$ -
194	Vertical track rubber seal	-	-	1.0	m	\$ -
195	Vertical track mounting L-bracket	-	-	1.0	m	\$ -
	ETV ROLL-UP DOORS					
196	Lifting Cable (S/S) Ø5mm (ETV Door)	-	-	1.0	m	\$ -
197	Motor excl. Control box	-	-	1.0	set	\$ -
198	Vertical Door Track single	-	-	1.0	set	\$ -
199	Vertical Door jamb double	-	-	1.0	set	\$ -
200	Horizontal door track	-	-	1.0	set	\$ -
201	Stainless roller	-	-	1.0	set	\$ -
202	Slack cable switch (ETV door)	-	-	1.0	set	\$ -
203	Cable wheel on top of vertical track	-	-	1.0	set	\$ -
204	Cable wheel spring system	-	-	1.0	set	\$ -
205	Actuator	-	-	1.0	set	\$ -
206	Pulley with bracket for lifting cable	-	-	1.0	set	\$ -
207	Door Lifting Cable drum (pair)	-	-	1.0	pcs	\$ -
208	S/S Door Bottom Jacketing (frame)	-	-	1.0	set	\$ -
209	Machining Work on Reinforce Bracket	-	-	1.0	set	\$ -
210	Roller Track mounting plate (3m)	-	-	1.0	set	\$ -
211	Curve Roller Track	-	-	1.0	set	\$ -
212	alu door frame 30cm x 10cm	-	-	1.0	pcs	\$ -
	OTHERS					
213	MOM approved scissor lift, insurance & license	-	-	1.0	hour	\$ -
214	Forklift / Boomlift / Electrical Hoisting	-	-	1.0	hour	\$ -
215	Crane Lifting + Licensed operator	-	-	1.0	day	\$ -
216	Alu chequered plate 3mm x 76cm x 1.7m	-	-	1.0	m²	\$ -
217	Alu angle bar 4cm x 70cm	-	-	1.0	m	\$ -
218	Welding filler & material (ETV pulley bracket)	-	-	1.0	job	\$ -
219	Anti-mold silicone sealant	-	-	1.0	tube	\$ -
220	Waterproof PU foam	-	-	1.0	tube	\$ -
221	Water Resistant A/B part Chemical Foam	-	-	1.0	Lt	\$ -
222	White paint with hardener	-	-	1.0	Lt	\$ -
223	Thermal Insulated Door Panel Tk5"	-	-	1.0	m²	\$ -
224	Thermal insulated wall panel Tk4"	-	-	1.0	m²	\$ -
225	Bottom door channel 198 (jacket)	-	-	1.0	set	\$ -
226	Left wall jacketing	-	-	1.0	m²	\$ -
227	(Normal day) 8.30am to 5.30pm	-	-	1.0	hour	\$ -
228	(Normal day) 5.30pm to 8.30am (next day)	-	-	1.0	hour	\$ -
229	(Sat) 8.30am to 12.30pm	-	-	1.0	hour	\$ -
230	(Sat) 12.30pm to 8.30am (next day)	-	-	1.0	hour	\$ -
231	(Sun/P-Holiday) 8.30am to 8.30am (next day)	-	-	1.0	hour	\$ -