

## NEW GENERATION CHILLER BOOSTING ADIABATIC PRE-COOLING SYSTEM SMART COOLING<sup>™</sup>

HIGHER CHILLER EFFICIENCY WITH LOWER ELECTRICITY CONSUMPTION

ACESSORIES CATALOG (ENG) 2021



www.smartcooling.us



## Smart Cooling<sup>TM</sup>

## **TABLE OF CONTENTS**

| PUMP MODULES, WATER SYSTEMS AND PURIFICATION | 04 |
|--|----|
|  |    |
| MEMBRANES AND CONTROL PANEL                  | 10 |
| NOZZLES AND PIPES                            | 12 |
|  |    |
| FITTINGS AND FASTENERS                       | 15 |
| MAINTENANCE KIT                              | 21 |
| MAINTENANCE TOOLS LIST                       | 24 |

SIET SWISS INTEGRATED ENERGY TECHNOLOGIES AG

# PUMP MODULES, WATER SYSTEMS AND PURIFICATION



### Chiller booster PRO 10 unit



**Component Description** 

The high-pressure chiller booster PRO 10-UV unit generates 70-140 bar of pressure within the Smart Cooling™ system. The pump station houses a uniquely developed high-pressure pump, valves and electronics for the automated operation of the system.

### 1. HP Premium pump 3l / min



2. HP Premium pump 4l / min

|                      | Code: # EC307022       |                      | Code: # EC307023 |
|----------------------|------------------------|----------------------|------------------|
|                      | 3l / min               |                      | 4l / min         |
|                      | 30kg                   |                      | 30kg             |
|                      |                        |                      |                  |
| 3. HP premium pump   | 6l / min               | 4. HP professional p | ump 8,5l / min   |
|                      | Code: # EC307024       |                      | Code: # EC307133 |
|                      | 6l / min               |                      | 8l / min         |
|                      | 30kg                   |                      | 30kg             |
| NOUT @               |                        |                      |                  |
| 5.HP professional pu | ımp 10l / min          | 6. HP professional p | oump 12l / min   |
|                      | Code: # EC307134       |                      | Code: # EC307135 |
|                      | 10l / min              |                      | 12l / min        |
|                      | 30kg                   |                      | 30kg             |
|                      |                        |                      |                  |
| 7. Axial Fan         |                        | 8. Fan capacitator   |                  |
|                      | Code: <b>#</b> 8500026 |                      | Code: #6790012   |
|                      | 230V-50/60Hz           |                      | 0,68mF/450V      |
|                      | 230V                   |                      | motor 22x40mm    |
|                      |                        |                      |                  |

SMART COOLING



#### Dropson



#### **Component Description**

The connective elements and fastenings are made from high-quality alloys, stainlesssteel and aluminum. These durable materials ensure strength and reliability for all components. The innovative design of the adiabatic Smart Cooling™ system was developed for easy and quick assembly and disassembly whenever necessary; for instance, during winter months.

#### 17. Dropson 2500 16. Dropson 4000 Code: # EMI2500 Code: # EMI4000 2,5m3/h DN20 4.5m 3/h DN25 The E.M.I. technology offers an extraordinary performance Each treatment cell is factory calibrated with great thanks to it's innovative concept and the hight quality of precision in order to guarantee its efficiency according to it's materials. a flow chart and hardness level specific for each model. 19. Water filter BB 20" 18. Float brass valve for HP pump Code: # TC508014 Code: # 59162K High pressure 10 micron connection 1 inch M1/2" 4200gr 20. UV water sterilizer 6 l 21. UV water sterilizer 19 l Code: # TC509101 Code: # TC509102 6 l/min 16W acciaio inox 19 l/min 25W 1100gr 1200gr 22. H.P. Slenoid valve F1/4" 23. Selenoid valve NO 20mm Code: # EC309007 Code: # S103104200N 3/4", 0.5-12BAR 230V 50 / 60Hz 80 bar - 1160 psi coil 230 VAC-15VA

Code: # RK100

### 24. Recirculation module

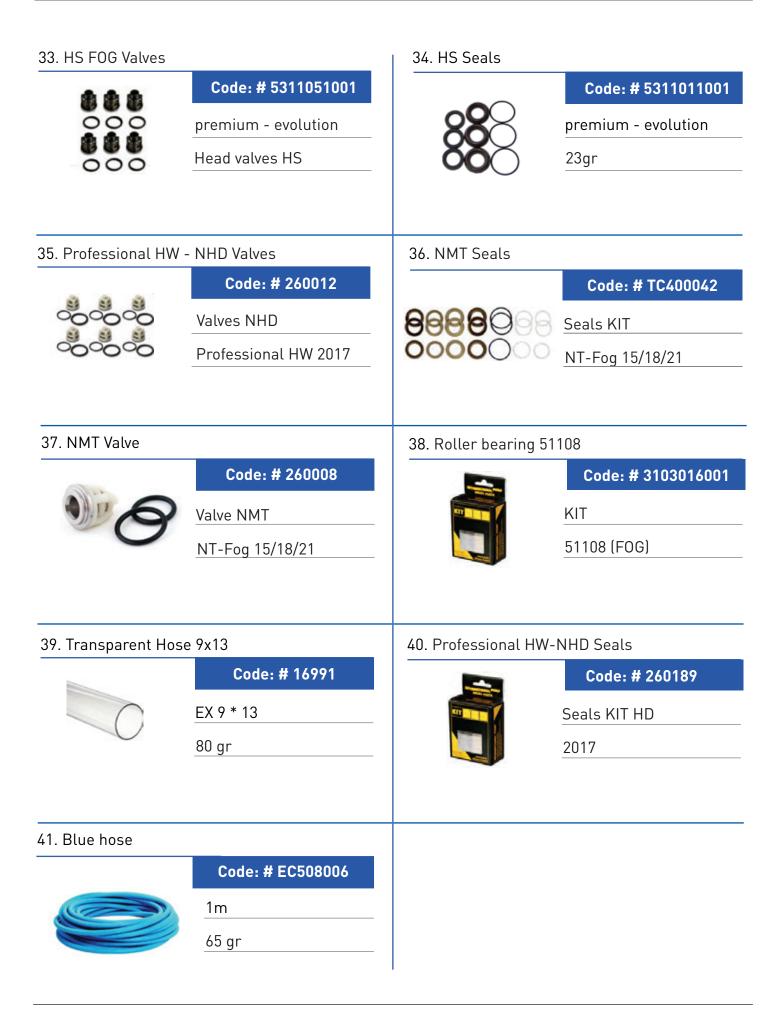


#### **Component Description**

The Water Recirculation Module ensures total water usage and recirculation. Designed for purity and efficacy, the module collects nonevaporated water, which is re-filtered and reintroduced into the adiabatic system.

| 25. 24V float switch |   | 26. CompactON pur    | mp   |
|----------------------|---|----------------------|--|
| $\mathcal{O}$        | <b>Code: # TC309014</b><br>Extended water tank<br>feeding KIT                     |                      | Code: # CP1<br>Hose Ø suction side<br>25.00 mm<br>Hose Ø pressure side<br>19.00 mm |
| 27. Peripheral Pum   | p CT 61   | 28. 3/4 4-2 Way mar  | nifold   |
|                      | Code: <b>#</b> SMCT361<br>Close-coupled<br>peripheral pump<br>(regenerative pump) | <b>O</b>             | Code: # ID-A5B<br>metal<br>300gr   |
| 29. Solenoid coil    |   | 30. Water pressure   | gauge 0-250 bar  |
|                      | Code: # EC309006<br>plug C4<br>23gr   |                      | <b>Code: # 1913081001</b><br>premium / evolution<br>1/4''                          |
| 31. Push-in connect  | ion   | 32. Push-in connecti | ion  |
|                      | <b>Code: # EC307022</b><br>3/8"M x 10 mm<br>21gr                                  |                      | <b>Code: # EC508002</b><br>1/2"M x 10 mm<br>48gr                                   |





# MEMBRANES AND CONTROL PANEL



Code: # MSM100

Code: # CP100

#### 42. BY70M – Reflective Membrane with aluminum casing



#### **Component Description**

The reflective BY70M membrane is made from a polyurethane alloy cell material mounted into an anodized aluminum casing. The structure of the cell membrane ensures its presence over the condenser does not generate resistance to the cooling fans and does not hamper the efficiency of the air-cooling unit in any way.

44. Evaporative panel

#### 43. Air filter material



#### 45. Control panel



#### **Component Description**

The PRO 1 Control Panel, which fully regulates the operational processes of the **Smart cooling™** system, starts-up the system automatically when a certain temperature is reached. Manufactured from high quality PE components, the PRO 1 Control Panel intelligently initiates and shuts down the system and can also be connected to the HVAC BMS management system for ease of operation.

| 46. Current switch   |                        | 47. Humidity and temperature sensor PRO |                   |
|--|------------------------|---|-------------------|
|  | Code: # RIBXGA         |   | Code: # LP        |
| C?   | RIB                    |   | rod-shaped Ø 12mm |
| I  | 130gr                  |   |                   |
| u u  |                        | With permanently att                    | ached cable.      |
|  |                        |   |                   |
| 48. PRO 1 – Control  | Panel                  | 49. Contactor                           |                   |
|  | Code: # 12/24RCE       |   | Code: # CTSE791   |
|  | 71.5 (4 MW) x 90x60 mm | 00000                                   | 9A 3P 1N0         |
| The second secon | on 35 mm DIN rail      | 00000                                   | 24VAC             |
|  |                        |   |                   |





#### 50. BY 70 SS – Nozzle Panel.

#### **Component Description**

Code: #SSNP100



The BY70SS nozzle panel is manufactured from high-quality stainless-steel and aluminum alloy. The stainless-steel nozzle routing is embedded in a robust anodized aluminium casing that ensures longevity and endurance of the Smart Release fine water-spraying components. The BY70SS nozzle panel casing was uniquely developed to facilitate quick installation and easy maintenance. The nozzle is attached to the casing unit by crafted fasteners to ensure safe and reliable fixing to any air-cooling equipment.

| 51. Nozzles 20 mic w  | vith ceramic disc                                  | 52. Nozzles 30 mic w  | vith ceramic disc                                  |
|-----------------------|--|-----------------------|--|
|                       | Code: # ID-N11<br>SS 20<br>8gr                     |                       | Code: # ID-N12<br>SS 30<br>8gr                     |
| 53. Ceramic nozzle d  | liscs 40 mic 10/24MFDEL                            | 54. Ceramic nozzle d  | iscs 30 mic 10/24MFDEL                             |
|                       | Code: <b># B-N0 0.2</b><br>SS 20 mic<br>10/24MFDEL |                       | Code: <b># B-N0 0.3</b><br>SS 30 mic<br>10/24MFDEL |
| 55. SS pipe 1000 / G3 | 304  | 56. SS pipe 1000 / G3 | 16   |
|                       | Code: #FBSS100A-304<br>SS-1000/F<br>304            |                       | Code: #FBSS100A-316<br>SS-1000/F<br>316            |
| 57. SS nozzle plug    |  | 58. E-profile         |  |
| 4832e                 | Code: #ID-FGD13<br>FGD<br>3gr                      |                       | Code: # F. 30348<br>E<br>aluminium                 |

| 59. Drain panel - end | l cap                            | 60. High pressure fle  | exible hose                                      |
|-----------------------|----------------------------------|--|--|
|                       | Code: # PL3<br>PL3<br>4gr        | in the second seco | <b>Code: # HLV250162</b><br>1/4"(300mm)<br>200gr |
| 61. U+E profile       |                                  | 62. W-profile  |  |
|                       | Code: # 6473<br>U+E<br>aluminium |  | Code: # 6481<br>W<br>aluminium                   |
| 63. Hexagonal key     |                                  |  |  |
|                       | Code: # ID-F32<br>3mm, AT<br>5gr |  |  |

# FASTENERS AND FITTINGS



| 64. SS Pipe connec    | tor                                      | 65. SS Nippel  |  |
|-----------------------|--|--|--|
|                       | <b>Code: # 3024-03PS</b><br>SN<br>44gr   |  | Code: # ID-F25<br>1/2, tube 1/4, NPSS<br>5gr |
| 66.SS pipe fitting    |  | 67. SS pipe fitting  |  |
| A CON                 | <b>Code: # 3026-03PS</b><br>T/F<br>80gr  | Contraction of the second seco | <b>Code: # 3036-03PS</b><br>L/F<br>64gr      |
| 68. SS Pipeend fitt   | ting without nozzle                      | 69. SS Pipe fitting  | end with one nozzle                          |
| 3 Cl                  | <b>Code: # 3040-03PS</b><br>SG/F<br>40gr |  | <b>Code: # 3041-03PS</b><br>SGS/F<br>40gr    |
| 70. SS Pipe X fitting | g  | 71. SS Pipe fitting  | 1 nozzle                                     |
|                       | <b>Code: # 3039-03PS</b><br>X/F<br>103gr | 2.00   | <b>Code: # 3022-03PS</b><br>S/F<br>50gr      |
| 72. Screw for fitting | J SS                                     | 73. Plug for SS fitti  | ng   |
| S Lamon               | <b>Code: # 4H10</b><br>M4x10<br>1gr      |  | Code: # 3032-03PS<br>G/F<br>13gr             |

| 74. "W" profile brac  | ket 106                | 75. "W" profile brac | ket 151              |
|-----------------------|------------------------|----------------------|----------------------|
|                       | Code: #PL106           |                      | Code: #PL151         |
|                       | 106 x 60 (mm)          |                      | 152x 60 (mm)         |
| -                     | AISI304                | 6                    | AISI304              |
|                       |                        |                      |                      |
| 76. "W" profile bracl | ket 50                 | 77. Nozzle panel bra | cket                 |
|                       | Code: #PL50            |                      | Code: <b>#</b> NPB90 |
|                       | 50 x 60 (mm)           |                      | AR27, 90 AR          |
|                       | AISI304                |                      | AISI304              |
|                       |                        |                      |                      |
| 78. Nozzle panel bra  | acket                  | 79. Membrane brac    | ket top side         |
|                       | Code: # MHIE           |                      | Code: # NPBAR1       |
|                       | 45 IE , IE36           | 2                    | AR1, ( L )90 AR      |
|                       | AISI304                |                      | AISI304              |
|                       |                        |                      |                      |
| 80. Nozzle panel br   | acket                  | 81. Membrane top h   | olders               |
|                       | Code: <b>#</b> NPBIE36 |                      | Code: # MHFZ         |
|                       | IE36                   |                      | FZ                   |
|                       | AISI304                |                      | AISI304              |
|                       |                        |                      |                      |
| 82. Connecting part   | E for profile L drive  | 83. Nozzle panel bra | icket                |
|                       | Code: # CPELJL1R       |                      | Code: # MHKIT        |
|                       | JL1R                   |                      | KIT                  |
|                       | AISI304                |                      | AISI304              |
|                       |                        |                      |                      |



| 94. Drainage panel b                  | racket                  | 95. Various bracket                   |                         |
|---------------------------------------|-------------------------|---------------------------------------|-------------------------|
|                                       | Code: #DRU_2-1_SS3      |                                       | Code: #VBL1_SS3         |
|                                       | 20 x 33 x 243 (mm)      | 000000                                | 20 x 117 (mm)           |
|                                       | AISI304                 |                                       | AISI304                 |
|                                       |                         |                                       |                         |
| 96. Drainage panel I                  | pracket                 | 97. Drainage panel b                  | racket                  |
|                                       | Code: #DRE_4_SS2        |                                       | Code: #DRU_1_SS3        |
| -                                     | 20 x 17 x 37 (mm)       |                                       | 50 x 73 x 155 (mm)      |
| -                                     | AISI304                 |                                       | AISI304                 |
|                                       |                         |                                       |                         |
| 98. Protective memb                   | rane bracket            | 99. Protective mem                    | brane bracket           |
|                                       | Code: #PMB1_SS2         |                                       | Code: # PMB2_SS2        |
|                                       | 20 x 22 x 98 (mm)       | 10                                    | 20 x 47 x 102 (mm)      |
|                                       | AISI304                 |                                       | AISI304                 |
|                                       |                         |                                       |                         |
| 100. Protective mem                   | brane bracket           | 101. Protective mem                   | ibrane bracket          |
|                                       | Code: <b>#</b> PMB3_SS2 |                                       | Code: <b>#PMB4_</b> SS2 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 20 x 100 (mm)           |                                       | 21,5 x 98,3 mm          |
|                                       | AISI304                 |                                       | AISI304                 |
|                                       |                         |                                       |                         |
| 102. Nozzle panel br                  | acket                   | 103. Nozzle panel bra                 | acket                   |
|                                       | Code: #NPB2_SS3         | · · · · · · · · · · · · · · · · · · · | Code: #NPB3-1_SS3       |
|                                       | 30 x 103 x 133 (mm)     |                                       | 30 x 83 x 83 (mm)       |
|                                       | AISI304                 | ~~                                    | AISI304                 |
|                                       |                         |                                       |                         |

| 104. Various bracke | et                | 105. Various bracket |                   |
|---------------------|-------------------|----------------------|-------------------|
| AND ST 1            | Code: #VBL4_SS2   |                      | Code: #VBL2_6_SS3 |
| •••                 | 50 x 52 x 52 (mm) | · · · · · ·          | 20 x 70 x 70 (mm) |
|                     | AISI304           |                      | AISI304           |
| 106. Various bracke | t                 | 107. Nozzle panel br | acket             |
|                     | Code: #VBL3_SS3   |                      | Code: #NPB4_SS3   |
| 2                   | 40 x 40 x 40 (mm) |                      | 30 x 71 x 99 (mm) |
|                     | AISI304           |                      | AISI304           |
|                     |                   |                      |                   |





SMART COOLING



118. Protective membrane fastener nail



Code: # PMFN1.1/1.2 kit plastic 119. High Pressure Thread Sealant 50ml

|        | Code: # HPT100  |
|--------|-----------------|
| LOKEAL | 50 ml           |
|        | -55°C to +150°C |

## MAINTENANCE TOOLS LIST



#### 120. Maintenance water pump



Code: # SMWP100 XL-battery 200 gr

#### 122. Pump station lock for rem kit



#### 121. Torque Screwdriver XH3



#### **SMART** COOLING™' **OPERATE** IN 45 **COUNTRIES**



#### R T C 0 0 L I Ν G.US S Α Μ

Contact our technical support: E-mail - support@smartcooling.us We are here to help you!

Phone - +371 2681 1452

SWISS INTEGRATED ENERGY TECHNOLOGIES AG Address: Einsiedlerstrasse 23, 8834 Schindellegi, Switzerland Phone: +41 225 087 551 Email: office@swiss-technologies.com

